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# ELECTRON DENSITIES

## and SCALE HEIGHTS in the

## TOPSIDE IONOSPHERE:

## ALOUETTE I OBSERVATIONS OVER

## THE AMERICAN CONTINENTS

Volume II

CHAN, COLIN, and THOMAS

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**ELECTRON DENSITIES and SCALE HEIGHTS  
in the TOPSIDE IONOSPHERE: Alouette I  
Observations Over The American Continents**

**Volume II**

**March and May 1963**

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*Scientific and Technical Information Division*  
OFFICE OF TECHNOLOGY UTILIZATION  
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1966  
*Washington, D.C.*

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## Introduction

This is one of a series of NASA Special Publications (refs. 1 and 2) presenting data on electron density (N) and plasma scale height (H) at various heights (h) and times (t) in the topside ionosphere. The data presented were computed in the Computation and Analysis Branch of Ames Research Center from Alouette I topside sounder ionograms, made available by the World Data Center. The Alouette satellite is in an almost circular orbit at an altitude of 1000 km with an inclination of  $80.5^\circ$  and an orbital period of 105.4 minutes (ref. 3). The ionograms selected for analysis were chosen primarily for nearly complete latitudinal coverage over the American continents (i. e., approximately from  $80^\circ$  N to  $80^\circ$  S geographic latitude or from  $90^\circ$  N to  $70^\circ$  S dip latitude near the  $80^\circ$  W meridian) during winter, summer, and equinox months at a sunspot minimum epoch of the solar cycle. The location and coverage of each Alouette I telemetry receiving station is shown in figure 1. Ionogram data recorded at Antofagasta, College, Ft. Myers, East Grand Forks, Ottawa, Prince Albert, Quito, Resolute Bay, South Atlantic Station, and St. Johns were chosen for analysis.

This pole-to-pole ionospheric study is being presented in four volumes. The first three volumes contain tabulations of  $N(h, t)$  and  $H(h, t)$  for winter, summer, and equinox periods. The fourth volume of this series presents graphs summarizing the results of the first three books.

The number of Alouette I ionograms analyzed and presented in this volume are summarized in table I. An index for the tabulation is presented in table II. The universal time, local time, geographic latitude, geographic longitude, and magnetic dip angle for the first and last ionograms of each Alouette I pass reduced are indexed. The number of ionograms in each pass is also indicated. A graphical form of index of data analyzed in volume II is shown in figures 2 and 3. The pass number, date, and period of data analyzed in universal time (fig. 2) and local time (fig. 3) are presented.

The authors wish to acknowledge gratefully the continuing courtesy and cooperation of scientists of the Canadian Defence Research Telecommunications Establishment, Ottawa, Canada,

Table I.—Ionograms in Volume II

Month	Days	Passes	Ionograms
March 1963	31	75	2243
May 1963	26	44	1555
Total	57	119	3798



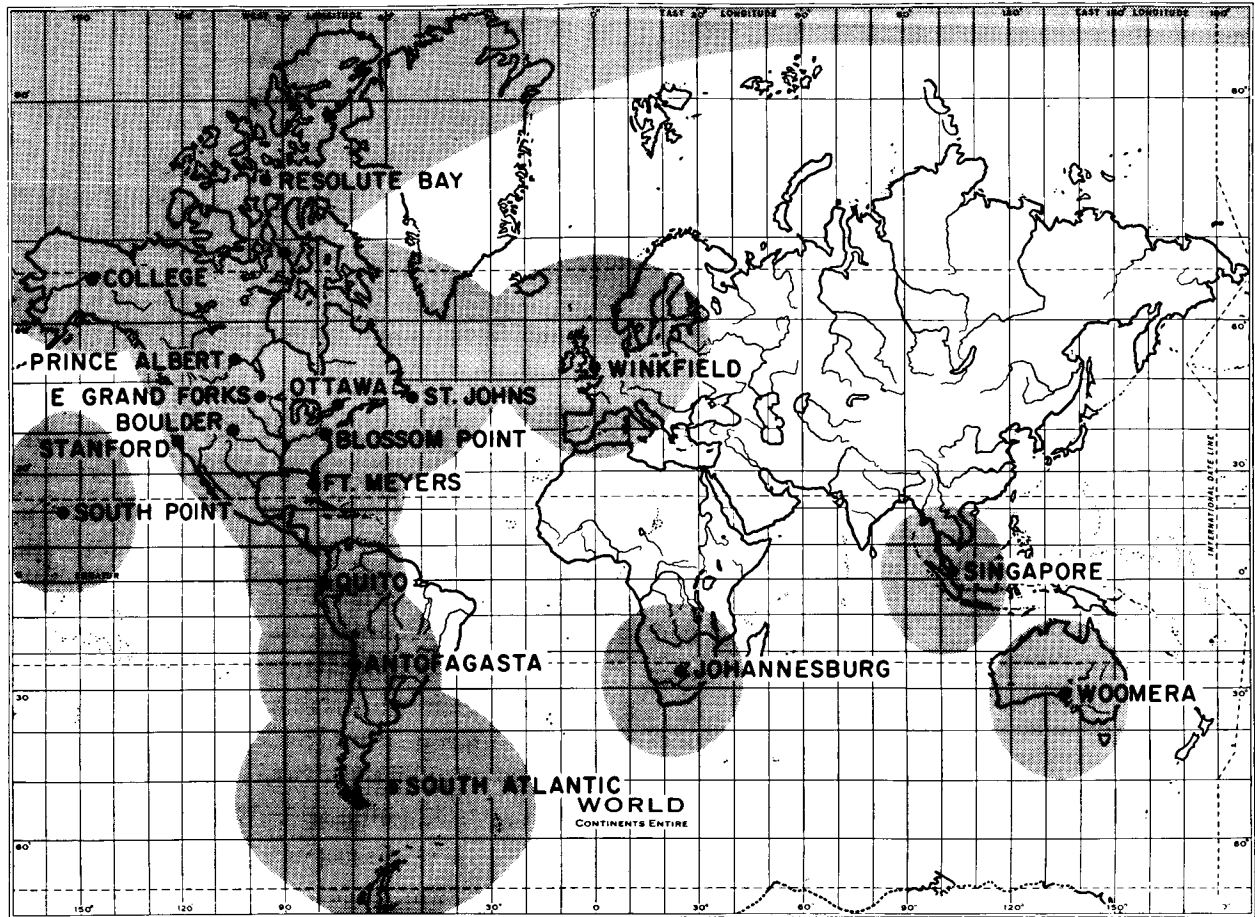


Figure 1. —Location and coverage of Alouette I telemetry receiving station.

particularly J. H. Chapman, E. S. Warren, and G. L. Nelms. We wish also to thank the World Data Center, Boulder, Colorado, particularly Patricia Smith, for providing the Alouette I ionograms. The ionograms were read and digitized by members of the staff of the Stanford Research Institute, with T. Dayharsh and J. Hice supervising this operation.

## Use of the Tabulations

The tabulated  $N(h, t)$  and  $H(h, t)$  data in table III were computed by the method of overlapping polynomials (refs. 4 and 5) using digitized  $h'(f)$  data measured along the leading edge of the extraordinary trace on the ionograms. The quantity  $H$  is defined as  $H = -N/(dN/dh)$ . The required satellite position data are obtained by linear interpolation of the corresponding orbital information listed at 1-minute intervals in Alouette Refined World Maps supplied by Goddard Space Flight Center. The required Earth's magnetic field parameters were evaluated by means of a spherical

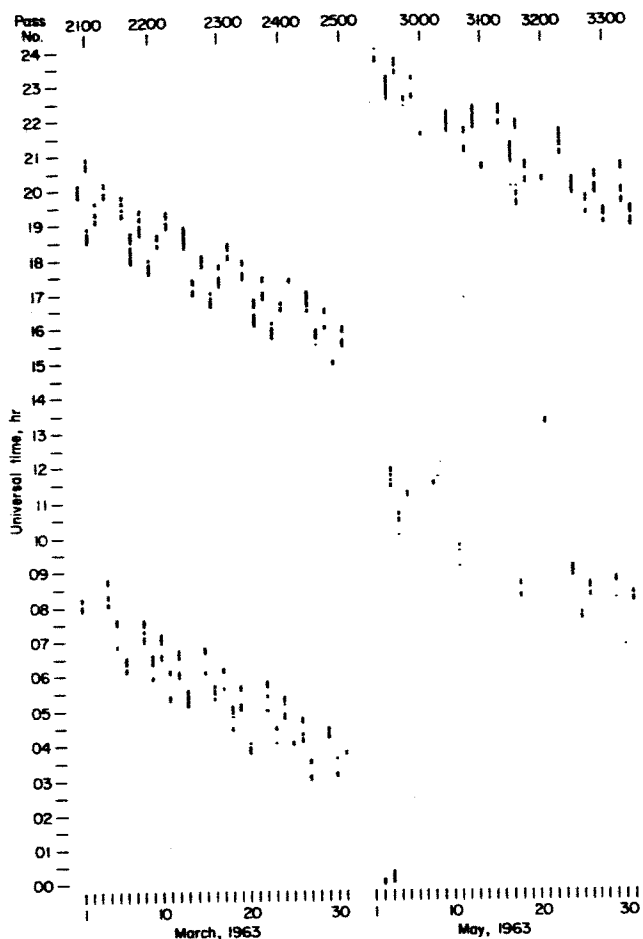


Figure 2.—Data analyzed in volume II (universal time coverage).

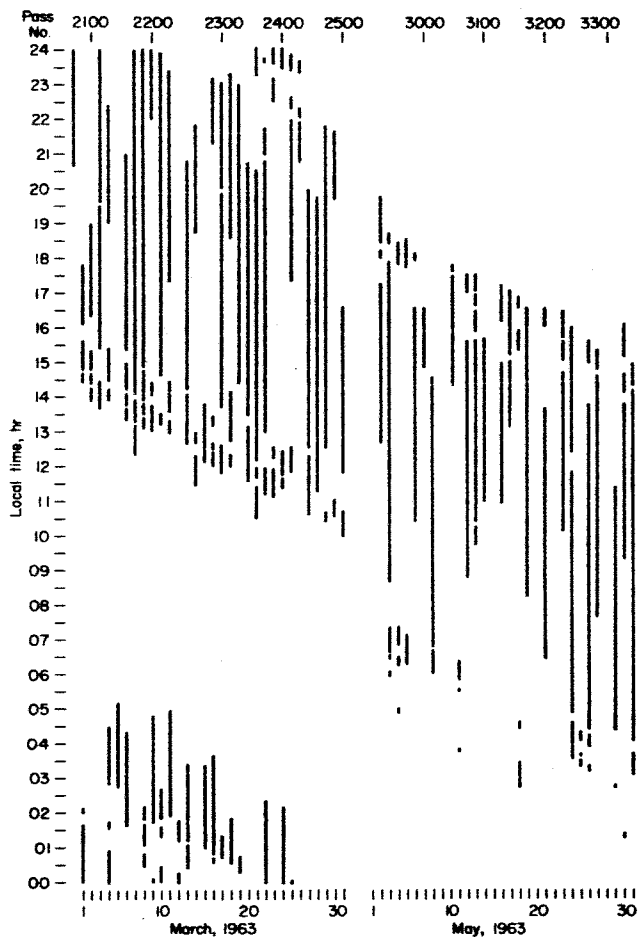


Figure 3.—Data analyzed in volume II (local time coverage).

harmonic expansion representation of the field with coefficients as computed by Jensen and Cain (ref. 6).

In table III, the electron densities (in units of  $10^5$  electrons per cc) and plasma scale heights (in units of km) are tabulated in groups of eight profiles per page with values given in altitude increments of 50 kilometers. The electron density table and corresponding plasma scale height table are listed one above the other. The profiles are listed sequentially in time from the beginning to the end of the pass. The times at the head of each column are the universal time (UT) in hours, minutes, and seconds (to the nearest second) of occurrence of  $f_{XS}$ , the frequency at which the extraordinary trace has zero range for that particular ionogram. The corresponding subsatellite geographic latitude and longitude, to the nearest  $0.01^\circ$ , for that time are listed below each column. The satellite typically travels some 80 kilometers during the production of a complete ionogram so that the positions listed are only strictly applicable to the electron density near 1000 kilometers. Consecutive profiles in a pass are separated in time by an integral multiple of  $18 \pm 1$  seconds, the nominal frame time for Alouette I. During this period of 18 seconds, the spacecraft moves about 120 kilometers in distance along its orbit.

Each horizontal row of figures in the upper table gives the variation of electron density with time at a fixed height ( $N(t)$  data). Each vertical column of figures gives the variation of electron

density with height at a fixed time ( $N(h)$  data). Similarly, in the scale height tables below, each horizontal row of figures gives the variation of scale height with time at a fixed height ( $H(t)$  data); each vertical column of figures gives the variation of scale height with height at a fixed time ( $H(h)$  data).

The quality factor given at the bottom of each column is a subjective estimation of the quality and readability of the ionogram by the scaler at the time of scaling. The quality factor is described by the two-digit numbers 11, 21, 31, 12, 22, 32, 13, 23, and 33. The first digit indicates the quality of the ionogram, and the second digit the readability of the value of  $f_x F_2$ . (A more detailed description is given in the section entitled "Symbols, Abbreviations, and Units in Tabulations.")

The errors which can arise in reading and analyzing the records and the accuracy of the computed  $N(h, t)$  and  $H(h, t)$  data have been discussed in references 4 and 5. For a good-quality ionogram (i. e., the first digit of the quality factor is 1 or 2) it is estimated that the height at which a given electron density is found is probably correct to  $\pm 10$  kilometers, the accuracy increasing with increasing height. The scale height is probably correct to  $\pm 10$  percent at heights less than 800 kilometers above which the accuracy decreases with increasing height.

In many cases, the ionogram trace does not extend to the critical frequency of the  $F_2$  layer. In these circumstances, only the upper portion of the electron density profile is presented. It should be noted that the scale height at 1000 kilometers is omitted from the tabulations because of difficulties associated with ionogram scaling inaccuracies at frequencies just greater than  $f_{xs}$ . A blank column or space indicates that the missing profile or point was not considered accurate enough, upon final editing, to warrant inclusion in the data book.

## References

1. Thomas, J. O.; Rycroft, M. J.; and Colin, L.: Electron Densities and Scale Heights in the Topside Ionosphere, Alouette I Observations in Midlatitudes. NASA SP 3026, 1966.
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6. Jensen, D. C.; and Cain, J. C.: An Interim Geomagnetic Field. J. Geophys. Res., vol. 67, no. 9, Aug. 1962, p. 3568.

**Index of Tabulation  
and  
Tabulation of Electron Density  
and Scale Height**

## Symbols, Abbreviations, and Units in Tabulations

N	electron density, $10^5$ per $\text{cm}^3$
h	real height above the ground, km
Pass	pass number of Alouette I
UT	universal time
Date	given as $\begin{matrix} \text{XX} & \text{XX} & \text{XX} \\ \text{year, month, day} \end{matrix}$ ; all zeroes are suppressed
Time	given as $\begin{matrix} \text{XX} & \text{XX} & \text{XX} \\ \text{hour, minute, second} \end{matrix}$ ; all zero digits on extreme left are suppressed
LONG	geographic longitude, deg; positive sign indicates longitude east of Greenwich; negative sign, west of Greenwich
LAT	geographic latitude, deg; positive sign indicates northern latitude; negative sign, southern latitude
QUAL	quality factor for the ionogram, coded in two-digit numbers (11, 21, 31, 12, 22, 32, 13, 23, and 33) and defined as follows:

### *First Digit*

- 1 Excellent quality ionogram. Extraordinary trace is narrow, of high contrast, easily identifiable, possesses only small gaps and cannot be confused with ordinary trace, spreading or resonances anywhere along its extent. No spurious responses.
- 2 Good quality ionogram. Extraordinary trace is not too spread, of good contrast, fairly easily identifiable along most of its extent, any large gaps are easily interpolated and no major confusion exists with the ordinary trace, spreading or resonances, or spurious responses.
- 3 Poor quality ionogram, but readable. Considerable spreading, lack of contrast, overlapping traces and resonances, spurious traces, etc. Cause somewhat questionable scaling accuracies.

### *Second Digit*

- 1  $f_x F_2$  clearly visible and read.
- 2  $f_x F_2$  not quite visible but highest visible frequency close to  $f_x F_2$  or presence of ground reflections would allow an estimate of  $f_x F_2$ .
- 3  $f_x F_2$  not visible.

ALOUETTE I Telemetry Receiving Sites:

AGASTA	Antofagasta, Chile
COLEGE	College, Alaska, U. S. A.
FTMYRS	Ft. Myers, Florida, U. S. A.
GFORKS	East Grand Forks, Minnesota, U. S. A.
OTTAWA	Ottawa, Canada
PRINCE	Prince Albert, Canada
QUITOE	Quito, Ecuador
RESLUT	Resolute Bay, N. W. T.
SOLANT	South Atlantic Station
STJOHN	St. Johns, Newfoundland

Table II. — Index of Tabulations

STATION	PASS	MO	DD	YR	BEG UT	END UT	BEG LT	END LT	BEG DIP	END DIP	BEG LAT	END LAT	BEG LONG	END LONG	NO. ION
COLEGE	2089	03	01	63	0753	0804	2039	0139	84	77	80N	51N	168W	096W	19
FTMYRS	2089	03	01	63	0809	0813	0202	0209	64	56	34N	25N	091W	090W	06
RESLUT	2096	03	01	63	2006	2009	1604	1748	83	83	68N	77N	060W	035W	10
OTTAWA	2096	03	01	63	1954	2004	1446	1537	62	81	30N	62N	076W	066W	17
QUITOE	2096	03	01	63	1945	1953	1423	1444	25	60	01N	28N	080W	077W	15
AGASTA	2108	03	02	63	1828	1837	1354	1416	-28	23	30S	00	068W	065W	16
OTTAWA	2109	03	02	63	1852	1854	1504	1520	74	77	51N	58N	056W	053W	05
FTMYRS	2109	03	02	63	1842	1847	1428	1441	47	63	16N	33N	163W	061W	10
QUITOE	2109	03	02	63	1838	1843	1415	1430	30	52	03S	20N	069W	063W	07
OTTAWA	2110	03	02	63	2033	2040	1444	1523	67	82	36N	60N	087W	079W	14
RESLUT	2110	03	02	63	2044	2048	1620	1857	84	83	72N	79N	065W	027W	10
AGASTA	2122	03	03	63	1903	1912	1339	1403	-39	10	37S	07S	081W	077W	16
QUITOE	2122	03	03	63	1913	1922	1405	1426	15	57	04S	25N	076W	073W	15
RESLUT	2123	03	03	63	1933	1940	1525	1930	81	83	62N	80N	062W	002W	24
COLEGE	2130	03	04	63	0759	0808	1928	0056	84	81	80N	60N	172W	107W	12
FTMYRS	2130	03	04	63	0815	0820	0135	0150	66	47	37N	19N	099W	097W	05
SOLANT	2130	03	04	63	0841	0849	0251	0454	-54	-68	50S	75S	087W	058W	15
QUITOE	2136	03	04	63	1949	1957	1354	1414	02	50	09S	19N	088W	085W	14
OTTAWA	2137	03	04	63	2002	2011	1427	1525	66	83	35N	65N	083W	071W	17
RESLUT	2143	03	05	63	0650	0654	1901	2245	84	86	80N	77N	177W	122W	10
SOLANT	2143	03	05	63	0733	0741	0245	0510	-52	-68	51S	77S	071W	037W	15
QUITOE	2156	03	06	63	0606	0615	0141	0201	42	-08	11N	17S	066W	063W	16
AGASTA	2156	03	06	63	0616	0624	0205	0232	-16	-48	22S	58S	062W	057W	10
SOLANT	2156	03	06	63	0617	0633	0207	0422	-21	-67	25S	74S	062W	032W	18
AGASTA	2163	03	06	63	1912	1920	1322	1342	-32	15	30S	03S	087W	084W	15
QUITOE	2164	03	06	63	1922	1929	1347	1404	28	59	03N	27N	083W	081W	13
OTTAWA	2164	03	06	63	1932	1939	1413	1459	67	82	36N	62N	079W	070W	15
RESLUT	2164	03	06	63	1941	1948	1521	2103	83	82	67N	79N	065W	018E	24
SOLANT	2176	03	07	63	1754	1803	1221	1312	-62	-33	62S	33S	083W	072W	13
AGASTA	2176	03	07	63	1804	1813	1316	1341	-27	27	28S	01N	072W	068W	17
QUITOE	2176	03	07	63	1814	1819	1340	1353	31	55	04N	22N	068W	066W	10
STJOHN	2177	03	07	63	1823	1833	1404	1520	65	81	34N	68N	064W	048W	15
RESLUT	2177	03	07	63	1833	1841	1520	2144	81	82	68N	78N	048W	045E	25

Table II. --Continued

STATION	PASS	MO	DD	YR	BEG UT	END UT	BEG LT	END LT	BEG DIP	END DIP	BEG LAT	END LAT	BEG LONG	END LONG	END ION	NO. ION
COLEGE	2184	03	08	63	0658	0707	1944	0029	84	81	80N	58N	168W	099W	16	
GFORKS	2184	03	08	63	0702	0710	2322	0052	85	74	72N	46N	115W	094W	14	
FTMYRS	2184	03	08	63	0714	0719	0106	0130	65	48	35N	18N	092W	089W	10	
QUITOE	2184	03	08	63	0724	0731	0130	0140	23	-21	01N	22N	088W	085W	05	
AGASTA	2184	03	08	63	0731	0738	0149	0213	-21	-49	22S	46S	085W	081W	10	
AGASTA	2190	03	08	63	1841	1849	1306	1326	-33	14	31S	04S	083W	080W	14	
QUITOE	2190	03	08	63	1850	1858	1329	1349	22	60	00	28N	080W	077W	15	
OTTAWA	2191	03	08	63	1900	1909	1354	1453	65	82	33N	64N	076W	064W	12	
RESLUT	2191	03	08	63	1910	1919	1456	2202	82	82	65N	77N	063W	040E	30	
RESLUT	2197	03	09	63	0552	0559	2229	0006	87	84	76N	58N	110W	083W	18	
SOLANT	2197	03	09	63	0624	0640	0146	0448	-26	-69	28S	77S	069W	028W	24	
AGASTA	2203	03	09	63	1733	1742	1302	1322	-27	25	29S	00	068W	065W	16	
QUITOE	2204	03	09	63	1743	1748	1324	1336	30	53	03N	21N	064W	062W	10	
FTMYRS	2204	03	09	63	1747	1752	1333	1347	47	64	16N	34N	063W	061W	11	
OTTAWA	2204	03	09	63	1756	1759	1404	1425	73	77	47N	58N	058W	053W	07	
RESLUT	2211	03	10	63	0629	0638	2157	0029	86	77	77N	51N	127W	092W	27	
QUITOE	2211	03	10	63	0655	0700	0121	0132	10	-17	06S	21S	083W	081W	05	
AGASTA	2211	03	10	63	0659	0709	0151	0208	-12	-53	20S	52S	078W	075W	02	
SOLANT	2211	03	10	63	0706	0713	0151	0243	-44	-61	41S	65S	078W	067W	12	
QUITOE	2218	03	10	63	1819	1827	1312	1332	21	59	01S	26N	076W	073W	14	
RESLUT	2218	03	10	63	1839	1847	1437	2049	81	82	64N	79N	060W	030E	26	
RESLUT	2224	03	11	63	0518	0526	1844	2351	85	84	80N	63N	158W	083W	22	
SOLANT	2224	03	11	63	0601	0610	0159	0458	-51	-69	52S	78S	060W	017W	15	
QUITOE	2231	03	11	63	1853	1902	1257	1318	-03	49	12S	18N	089W	086W	17	
OTTAWA	2232	03	11	63	1908	1916	1333	1424	68	83	37N	63N	083W	072W	15	
RESLUT	2232	03	11	63	1915	1917	1413	1428	81	83	60N	64N	075W	072W	06	
RESLUT	2238	03	12	63	0555	0604	1721	2322	83	85	79N	62N	171E	093W	29	
OTTAWA	2238	03	12	63	0605	0608	2359	0016	81	76	58N	49N	091W	087W	05	
AGASTA	2238	03	12	63	0628	0637	0114	0144	-11	-49	18S	48S	078W	073W	15	
SOLANT	2238	03	12	63	0634	0647	0134	0436	-41	-69	40S	78S	075W	032W	20	
OTTAWA	2251	03	13	63	0504	0506	0026	0106	66	61	35N	29N	069W	069W	03	
QUITOE	2251	03	13	63	0514	0520	0054	0106	25	-07	00	17S	065W	063W	08	
AGASTA	2251	03	13	63	0521	0528	0109	0136	-15	-47	21S	47S	062W	058W	14	



Table II. --Continued

STATION	PASS	MO	DD	YR	BEG UT	END UT	BEG LT	END LT	BEG DIP	END DIP	BEG LAT	END LAT	BEG LONG	END LONG	NO. ION
SOLANT	2251	03	13	63	0522	0537	0112	0327	-20	-67	24S	74S	062W	032W	30
QUITOE	2258	03	13	63	1821	1834	1239	1310	-07	60	15S	28N	085W	080W	23
OTTAWA	2259	03	13	63	1834	1845	1310	1406	59	82	27N	63N	081W	069W	20
RESLUT	2259	03	13	63	1845	1854	1413	2048	82	82	64N	79N	068W	028E	22
SOLANT	2271	03	14	63	1659	1708	1126	1217	-62	-32	62S	32S	083W	072W	15
QUITOE	2271	03	14	63	1717	1725	1240	1259	19	56	02S	23S	069W	066W	13
COLLEGE	2279	03	15	63	0603	0606	1850	2150	84	86	80N	75N	168W	123W	06
AGASTA	2279	03	15	63	0638	0642	0100	0116	-31	-47	29S	44S	084W	081W	03
SOLANT	2279	03	15	63	0641	0652	0109	0322	-42	-67	38S	75S	082W	052W	17
AGASTA	2285	03	15	63	1745	1753	1209	1230	-35	12	33S	05S	084W	080W	14
QUITOE	2285	03	15	63	1752	1803	1227	1255	03	61	10S	28N	081W	077W	20
OTTAWA	2286	03	15	63	1803	1814	1255	1349	61	81	28N	62N	077W	066W	18
QUITOE	2292	03	16	63	0524	0526	0038	0042	02	54	12S	16S	071W	071W	04
AGASTA	2292	03	16	63	0529	0535	0051	0112	-25	-47	27S	47S	069W	065W	07
SOLANT	2292	03	16	63	0529	0545	0050	0340	-23	-68	26S	77S	069W	031W	22
AGASTA	2298	03	16	63	1637	1646	1201	1224	-32	18	33S	03S	068W	065W	16
QUITOE	2299	03	16	63	1647	1653	1228	1242	27	54	22N	22N	062W	062W	11
OTTAWA	2299	03	16	63	1701	1704	1310	1328	73	77	48N	57N	057W	053W	06
RESLUT	2306	03	17	63	0535	0540	2122	2314	86	82	76N	60N	123W	096W	16
AGASTA	2306	03	17	63	0607	0612	0044	0104	-30	-49	29S	47S	080W	077W	06
SOLANT	2306	03	17	63	0607	0615	0044	0121	-30	-56	29S	56S	080W	073W	09
AGASTA	2312	03	17	63	1713	1725	1149	1220	-39	28	37S	02N	080W	076W	18
QUITOE	2312	03	17	63	1723	1732	1216	1238	16	59	04S	26N	076W	073W	17
RESLUT	2313	03	17	63	1743	1752	1337	1952	81	82	63N	79N	061W	030E	28
RESLUT	2319	03	18	63	0425	0432	2006	2305	87	82	79N	60N	124W	081W	22
AGASTA	2319	03	18	63	0500	0504	0039	0057	-31	-47	32S	47N	065W	061W	06
SOLANT	2319	03	18	63	0458	0511	0034	0152	-23	-62	26S	67S	065W	049W	18
QUITOE	2326	03	18	63	1757	1806	1200	1220	-08	43	14S	13N	089W	086W	16
OTTAWA	2327	03	18	63	1814	1820	1245	1325	72	82	42N	62N	082W	073W	12
RESLUT	2327	03	18	63	1820	1823	1322	1410	82	84	61N	71N	074W	063W	12
RESLUT	2333	03	19	63	0501	0510	1835	2301	85	82	80N	59N	156W	092W	26
OTTAWA	2333	03	19	63	0511	0512	2308	2318	80	78	56N	51N	090W	088W	04
AGASTA	2333	03	19	63	0535	0541	0025	0046	-22	-47	25S	45S	077W	073W	08

Table II. --Continued

STATION	PASS	MO	DD	YR	BEG UT	END UT	BEG LT	END LT	BEG DIP	END DIP	BEG LAT	END LAT	BEG LONG	END LONG	END LAT	END LONG	NO. ION
SOLANT	2333	03	19	63	0537	0538	0030	0035	-30	-38	30S	36S	076W	075W	36S	075W	02
RESLUT	2346	03	20	63	0349	0358	1427	2202	80	87	74N	71N	159E	088W	71N	088W	27
OTTAWA	2346	03	20	63	0402	0403	2258	2301	80	79	58N	55N	076W	075W	55N	075W	03
AGASTA	2353	03	20	63	1722	1730	1135	1152	-29	14	27S	03S	086W	084W	03S	084W	13
QUITOE	2353	03	20	63	1726	1739	1143	1216	-10	61	16S	28N	085W	080W	28N	080W	24
OTTAWA	2354	03	20	63	1739	1750	1215	1311	60	82	27N	62N	081W	069W	62N	069W	20
RESLUT	2354	03	20	63	1751	1800	1330	2041	83	82	67N	77N	065W	040E	77N	040E	30
SOLANT	2366	03	21	63	1604	1614	1031	1126	-62	-27	62S	29S	083W	071W	29S	071W	17
AGASTA	2366	03	21	63	1611	1625	1145	1145	18	18	38S	03N	073W	068W	03N	068W	21
QUITOE	2366	03	21	63	1621	1629	1143	1158	13	47	06S	21N	069W	066W	21N	066W	15
STJOHN	2367	03	21	63	1632	1646	1210	1436	62	82	30N	75N	065W	032W	75N	032W	25
RESLUT	2367	03	21	63	1644	1651	1338	2034	81	82	70N	77N	046W	055E	77N	055E	27
F TMYRS	2374	03	22	63	0524	0527	2317	2326	64	54	33N	24N	091W	090W	24N	090W	04
AGASTA	2374	03	22	63	0539	0545	2354	0011	-09	-39	16S	35S	086W	083W	35S	083W	04
SOLANT	2374	03	22	63	0544	0557	0008	0221	-35	-67	32S	75S	083W	053W	75S	053W	15
AGASTA	2380	03	22	63	1650	1659	1114	1137	-36	16	33S	03S	083W	080W	03S	080W	15
QUITOE	2380	03	22	63	1657	1707	1133	1157	06	58	08S	25N	080W	077W	25N	077W	13
RESLUT	2381	03	22	63	1720	1729	1312	2042	82	76	66N	65N	062W	048E	65N	048E	32
RESLUT	2387	03	23	63	0403	0405	2101	2146	87	86	74N	69N	105W	094W	69N	094W	07
QUITOE	2387	03	23	63	0428	0431	2341	2345	09	00	08S	16S	071W	071W	16S	071W	04
AGASTA	2393	03	23	63	1542	1551	1107	1130	-31	19	32S	02S	068W	065W	02S	065W	17
QUITOE	2394	03	23	63	1552	1558	1132	1146	25	51	00	20N	064W	062W	20N	062W	11
F TMYRS	2394	03	23	63	1559	1601	1127	1155	57	61	26N	31N	062W	061W	31N	061W	04
OTTAWA	2394	03	23	63	1606	1609	1215	1233	73	77	48N	57N	057W	054W	57N	054W	07
OTTAWA	2401	03	24	63	0447	0457	2232	2314	79	51	55N	19N	093W	085W	19N	085W	19
QUITOE	2401	03	24	63	0510	0510	2343	2343	-18	-18	22S	22S	081W	081W	22S	081W	01
SOLANT	2401	03	24	63	0513	0526	2351	0212	-33	-67	32S	75S	080W	048W	75S	048W	16
QUITOE	2407	03	24	63	1629	1636	1124	1140	24	56	00	23N	076W	073W	23N	073W	11
OTTAWA	2408	03	24	63	1638	1647	1145	1229	61	79	28N	59N	073W	064W	59N	064W	17
AGASTA	2414	03	25	63	0400	0410	2331	0005	-04	-49	15S	49S	067W	061W	49S	061W	17
OTTAWA	2422	03	25	63	1719	1726	1151	1234	72	83	42N	63N	082W	072W	63N	072W	12
RESLUT	2428	03	26	63	0406	0414	1723	2159	85	83	80N	61N	160W	093W	61N	093W	23
OTTAWA	2428	03	26	63	0416	0420	2219	2239	79	70	54N	40N	089W	085W	40N	085W	09

Table II. --Continued

STATION	PASS	MO	DD	YR	BEG UT	END UT	BEG LT	END LT	BEG DIP	END DIP	BEG LAT	END LAT	BEG LONG	END LONG	END LAT	END LONG	NO. ION
AGASTA	2428	03	26	63	0438	0447	2324	2354	-11	-48	18S	47S	078W	073W	47S	073W	09
RESLUT	2441	03	27	63	0302	0306	2047	2157	88	82	73N	60N	093W	077W	60N	077W	15
OTTAWA	2441	03	27	63	0307	0310	2202	2220	81	76	57N	49N	076W	072W	49N	072W	04
AGASTA	2441	03	27	63	0331	0337	2320	2341	-15	-44	22S	43S	062W	058W	43S	058W	07
QUITOE	2448	03	27	63	1635	1644	1058	1123	16	59	03S	27N	084W	080W	27N	080W	14
AGASTA	2448	03	27	63	1627	1634	1038	1057	-32	14	29S	04S	087W	084W	04S	084W	14
OTTAWA	2449	03	27	63	1645	1655	1123	1220	63	82	31N	63N	080W	068W	63N	068W	17
RESLUT	2449	03	27	63	1656	1705	1232	2002	83	81	66N	76N	065W	044E	76N	044E	32
STJOHN	2462	03	28	63	1538	1550	1118	1305	64	82	33N	72N	064W	041W	72N	041W	23
RESLUT	2462	03	28	63	1549	1557	1247	1947	81	82	70N	76N	045W	057E	76N	057E	26
COLLEGE	2469	03	29	63	0413	0424	1657	2201	84	77	80N	50N	168W	095W	50N	095W	18
GFORKS	2469	03	29	63	0418	0432	2102	2233	85	52	69N	22N	108W	089W	22N	089W	13
AGASTA	2475	03	29	63	1557	1604	1025	1042	-27	16	27S	03S	083W	080W	03S	080W	13
RESLUT	2476	03	29	63	1625	1634	1232	1951	83	81	67N	76N	060W	049E	76N	049E	29
RESLUT	2482	03	30	63	0307	0314	1937	2152	87	81	76N	57N	112W	083W	57N	083W	28
AGASTA	2482	03	30	63	0337	0337	2256	2256	-16	-16	22S	22S	070W	070W	22S	070W	01
QUITOE	2488	03	30	63	1456	1503	1035	1052	19	53	03S	21N	065W	062W	21N	062W	11
FTMYRS	2489	03	30	63	1502	1507	1048	1104	48	65	16N	35N	063W	060W	35N	060W	11
RESLUT	2496	03	31	63	0345	0352	1944	2137	86	80	75N	56N	120W	093W	56N	093W	23
AGASTA	2502	03	31	63	1523	1532	0959	1023	-40	08	38S	08S	080W	077W	08S	077W	16
QUITOE	2502	03	31	63	1533	1542	1026	1048	15	59	04S	26N	076W	073W	26N	073W	14
RESLUT	2503	03	31	63	1553	1601	1148	1638	81	83	63N	80N	061W	009E	80N	009E	22
SOLANT	2944	05	03	63	0015	0024	1845	1948	-42	-63	38S	67S	082W	069W	67S	069W	03
AGASTA	2944	05	03	63	0009	0016	1826	1847	-11	-44	17S	40S	085W	082W	40S	082W	13
COLLEGE	2944	05	03	63	2338	2347	1243	1716	85	80	80N	56N	163W	097W	56N	097W	16
FTMYRS	2944	05	03	63	2358	0001	1800	1814	50	20	20N	10N	089W	088W	10N	088W	06
QUITOE	2944	05	03	63	0002	0012	1810	1834	31	-27	06N	27S	087W	084W	27S	084W	15
AGASTA	2950	05	03	63	1125	1128	0558	0607	-11	13	18S	05S	081W	080W	05S	080W	10
QUITOE	2950	05	03	63	1136	1138	0625	0631	52	61	20N	28N	077W	076W	28N	076W	04
OTTAWA	2951	05	03	63	1141	1148	0639	0721	68	81	36N	61N	075W	066W	61N	066W	14
RESLUT	2951	05	03	63	1153	1158	0907	1444	83	82	76N	77N	041W	041E	77N	041E	18
RESLUT	2957	05	03	63	2232	2239	1452	1709	87	80	77N	56N	115W	082W	56N	082W	21
OTTAWA	2957	05	03	63	2241	2251	1707	1756	77	48	50N	16N	080W	073W	16N	073W	14

Table II. --Continued

STATION	PASS	MO	DD	YR	BEG UT	END UT	BEG LT	END LT	BEG DIP	END DIP	BEG LAT	END LAT	BEG LONG	END LONG	NO. ION
QUITOE	2957	05	03	63	2252	2304	1758	1828	43	-26	12N	28S	073W	069W	22
AGASTA	2957	05	03	63	2303	2309	1823	1844	-18	-44	23S	44S	069W	066W	08
SOLANT	2957	05	03	63	2304	2315	1830	1841	63	70	29S	64S	068W	056W	04
SOLANT	2963	05	04	63	1004	1004	0457	0502	-58	-57	59S	57S	076W	075W	02
QUITOE	2963	05	04	63	1027	1028	0615	0618	49	53	17N	21N	062W	062W	03
FTMYRS	2964	05	04	63	1028	1032	0617	0630	52	65	20N	35N	062W	060W	06
OTTAWA	2964	05	04	63	1037	1041	0652	0724	74	79	51N	64N	056W	049W	07
OTTAWA	2971	05	04	63	2317	2327	1706	1745	79	51	53N	20N	092W	085W	17
QUITOE	2971	05	04	63	2329	2342	1749	1820	43	-30	14N	29S	084W	080W	20
AGASTA	2971	05	04	63	2339	2344	1812	1828	-14	-40	19S	37S	081W	078W	09
OTTAWA	2978	05	05	63	1109	1118	0619	0708	64	80	32N	61N	072W	062W	16
QUITOE	2984	05	05	63	2222	2222	1744	1744	40	40	10N	10N	069W	069W	01
AGASTA	2984	05	05	63	2230	2239	1806	1833	53	73	17S	47S	066W	061W	08
RESLUT	2998	05	06	63	2235	2244	1025	1634	84	82	79N	60N	177E	092W	31
AGASTA	2998	05	06	63	2308	2312	1756	1807	-12	-32	19S	32S	077W	076W	07
RESLUT	3011	05	07	63	2131	2137	1452	1635	88	80	75N	57N	099W	075W	21
OTTAWA	3019	05	08	63	1117	1124	0600	0642	68	82	37N	62N	079W	069W	13
RESLUT	3019	05	08	63	1127	1135	1733	1759	83	81	70N	76N	059W	044E	23
RESLUT	3052	05	10	63	2137	2146	1420	1652	88	76	76N	48N	109W	079W	30
OTTAWA	3052	05	10	63	2147	2155	1632	1659	74	50	45N	17N	078W	073W	12
QUITOE	3052	05	10	63	2157	2206	1704	1724	43	-08	12N	17S	073W	073W	16
AGASTA	3052	05	10	63	2206	2210	1725	1733	-09	-27	18S	31S	070W	068W	06
SOLANT	3052	05	10	63	2210	2213	1737	1747	-32	-42	33S	42S	068W	066W	06
SOLANT	3058	05	11	63	0908	0908	0351	0351	-61	-61	63S	63S	079W	079W	01
FTMYRS	3059	05	11	63	0936	0937	0532	0534	62	64	31N	33N	061W	060W	02
OTTAWA	3059	05	11	63	0941	0945	0551	0623	73	79	48N	62N	057W	050W	08
RESLUT	3079	05	12	63	2102	2111	0846	1536	83	84	78N	64N	176E	083W	30
QUITOE	3079	05	12	63	2132	2136	1700	1711	13	-08	06S	18S	067W	066W	06
AGASTA	3079	05	12	63	2135	2142	1710	1728	51	68	17S	39S	066W	063W	11
SOLANT	3079	05	12	63	2137	2142	1715	1732	-21	-43	25S	42S	065W	062W	09
RESLUT	3093	05	13	63	2140	2149	0415	0443	84	83	79N	63N	178W	092E	31
OTTAWA	3093	05	13	63	2150	2159	1548	1627	81	60	57N	28N	090W	082W	16
QUITOE	3093	05	13	63	2203	2212	1638	1659	45	-07	14N	16S	081W	078W	17

Table II. --Continued

STATION	PASS	MO	DD	YR	BEG UT	END UT	BEG LT	END LT	BEG DIP	END DIP	BEG LAT	END LAT	BEG LONG	END LONG	NO. ION
AGASTA	3093	05	13	63	2213	2222	1702	1733	-12	-49	19S	48S	077W	072W	14
RESLUT	3106	05	14	63	2033	2042	1050	1541	86	80	80N	57N	145W	075W	32
COLLEGE	3134	05	16	63	2148	2157	1058	1527	85	80	80N	56N	162W	097W	17
FTMYRS	3134	05	16	63	2208	2214	1611	1626	50	16	19N	02S	089W	087W	12
QUITOE	3134	05	16	63	2211	2223	1619	1647	33	-32	07N	30S	088W	083W	17
AGASTA	3134	05	16	63	2219	2225	1637	1707	-12	-42	17S	37S	085W	082W	12
SOLANT	3134	05	16	63	2223	2229	1647	1715	-32	-54	30S	52S	083W	078W	10
RESLUT	3147	05	17	63	2042	2050	1308	1527	87	78	77N	52N	113W	080W	27
OTTAWA	3147	05	17	63	2052	2100	1536	1604	75	51	46N	19N	078W	074W	15
QUITOE	3147	05	17	63	2101	2114	1606	1637	48	-24	16S	27S	073W	069W	22
AGASTA	3147	05	17	63	2112	2120	1632	1701	-14	-48	21S	48S	069W	064W	13
SOLANT	3147	05	17	63	2114	2121	1637	1704	-24	-50	27S	50S	069W	064W	12
SOLANT	3153	05	18	63	0812	0817	0245	0328	-64	-50	65S	49S	081W	072W	08
QUITOE	3153	05	18	63	0837	0838	0426	0427	49	51	17N	19N	062W	062W	02
FTMYRS	3154	05	18	63	0837	0842	0426	0439	49	64	17N	33N	062W	060W	09
RESLUT	3160	05	18	63	1929	1938	0802	1442	83	84	78N	65N	171W	073W	24
OTTAWA	3160	05	18	63	1942	1951	1521	1555	76	51	51N	20N	065W	059W	15
SOLANT	3160	05	18	63	2008	2008	1636	1638	-35	-37	35S	36S	052W	052W	02
QUITOE	3161	05	18	63	2139	2151	1600	1629	43	-28	13N	28S	084W	080W	21
AGASTA	3161	05	18	63	2145	2158	1613	1654	09	-50	06S	49S	082W	075W	12
RESLUT	3174	05	19	63	2007	2016	0817	1445	84	83	79N	62N	177W	082W	27
QUITOE	3174	05	19	63	2032	2041	1555	1616	38	-13	08N	20S	069W	066W	17
AGASTA	3174	05	19	63	2040	2047	1613	1635	-06	-41	16S	40S	066W	063W	11
SOLANT	3174	05	19	63	2042	2047	1619	1635	-20	-41	25S	40S	065W	063W	09
AGASTA	3201	05	21	63	2011	2019	1602	1633	-17	-50	23N	50S	062W	056W	16
RESLUT	3211	05	21	63	1310	1318	1608	1639	88	78	75N	71N	100W	005E	24
COLLEGE	3229	05	23	63	2053	2103	1007	1442	85	77	80N	51N	161W	095W	18
FTMYRS	3229	05	23	63	2109	2119	1504	1531	64	16	33N	02S	091W	087W	18
QUITOE	3229	05	23	63	2119	2122	1531	1537	18	00	01S	11S	087W	086W	05
AGASTA	3229	05	23	63	2124	2130	1542	1600	-12	-41	17S	38S	085W	082W	09
SOLANT	3229	05	23	63	2128	2136	1553	1629	-33	-56	31S	56S	083W	076W	07
QUITOE	3235	05	24	63	0847	0853	0331	0346	36	59	08N	27N	078W	076W	11
OTTAWA	3236	05	24	63	0853	0903	0346	0437	59	81	27N	61N	076W	066W	17
RESLUT	3236	05	24	63	0904	0913	0450	1151	82	82	64N	77N	063W	040E	31
RESLUT	3242	05	24	63	1947	1954	1226	1429	87	79	77N	54N	113W	081W	22
OTTAWA	3242	05	24	63	1954	2005	1426	1509	80	52	55N	19N	082W	074W	19
QUITOE	3242	05	24	63	2008	2019	1518	1543	38	-26	08N	28S	072W	068W	20
AGASTA	3242	05	24	63	2016	2021	1536	1550	-12	-35	20S	35S	070W	067W	07

Table II. --Concluded

STATION	PASS	MO	DD	YR	BEG UT	END UT	BEG LT	END LT	BEG DIP	END DIP	BEG LAT	END LAT	BEG LONG	END LONG	NO. ION
SOLANT	3242	05	24	63	2018	2024	1542	1601	59	72	26S	45S	069W	065W	09
QUITOE	3248	05	25	63	0739	0742	0323	0332	35	51	06N	19N	063W	062W	07
FTMYRS	3249	05	25	63	0744	0746	0338	0341	58	61	26N	30N	061W	061W	03
OTTAWA	3249	05	25	63	0752	0754	0409	0422	75	77	52N	58N	055W	053W	04
QUITOE	3262	05	26	63	0815	0818	0312	0321	27	46	02N	15N	075W	074W	06
OTTAWA	3263	05	26	63	0829	0832	0356	0416	75	79	49N	59N	068W	064W	04
RESLUT	3263	05	26	63	0833	0842	0427	1111	81	82	62N	78N	061W	037E	31
RESLUT	3269	05	26	63	1912	1921	0737	1347	83	84	78N	63N	173W	083W	29
QUITOE	3269	05	26	63	1937	1948	1500	1526	39	-23	09N	27S	069W	065W	18
SOLANT	3269	05	26	63	1947	1951	1524	1537	-19	-37	24S	37S	065W	063W	07
RESLUT	3283	05	27	63	1950	1959	0741	1349	84	83	79N	60N	177E	092W	32
OTTAWA	3283	05	27	63	2000	2009	1357	1438	81	60	57N	28N	090W	082W	15
QUITOE	3283	05	27	63	2013	2026	1449	1521	44	-30	14N	30S	080W	076W	21
SOLANT	3283	05	27	63	2026	2029	1520	1530	-28	-40	29S	39S	076W	074W	06
OTTAWA	3296	05	28	63	1856	1901	1415	1431	72	59	43N	27N	070W	067W	08
QUITOE	3296	05	28	63	1906	1915	1444	1505	40	-12	10N	20S	065W	062W	17
AGASTA	3296	05	28	63	1913	1918	1500	1515	01	-30	12S	32S	063W	060W	06
SOLANT	3296	05	28	63	1918	1920	1516	1520	63	66	30S	36S	061W	060W	04
QUITOE	3303	05	29	63	0820	0822	0245	0249	16	24	02S	01N	083W	083W	03
OTTAWA	3304	05	29	63	0841	0842	0432	0451	83	83	69N	72N	062W	057W	02
RESLUT	3304	05	29	63	0841	0849	0423	1122	83	82	67N	77N	064W	038E	28
SOLANT	3316	05	30	63	0653	0654	0118	0125	-63	-61	64S	62S	083W	082W	02
COLLEGE	3324	05	30	63	1958	2008	0922	1346	85	77	80N	51N	158W	095W	18
FTMYRS	3324	05	30	63	2014	2024	1410	1436	64	16	33N	02S	091W	086W	14
QUITOE	3324	05	30	63	2022	2027	1431	1442	30	00	05N	11S	087W	086W	10
SOLANT	3324	05	30	63	2036	2044	1508	1605	-44	-62	40S	66S	081W	069W	06
OTTAWA	3331	05	31	63	0804	0808	0315	0343	75	81	48N	61N	072W	066W	08
RESLUT	3331	05	31	63	0810	0819	0404	1126	82	82	66N	76N	061W	046E	29
RESLUT	3337	05	31	63	1852	1900	1121	1338	87	78	76N	51N	112W	080W	24
OTTAWA	3337	05	31	63	1859	1909	1330	1412	80	55	55N	22N	082W	074W	18
QUITOE	3337	05	31	63	1912	1923	1419	1447	42	-23	12N	26S	073W	069W	17
AGASTA	3337	05	31	63	1922	1927	1443	1457	-15	-37	21S	37S	069W	067W	06
SOLANT	3337	05	31	63	1923	1926	1445	1456	-20	-36	24S	36S	069W	067W	06

TABLE III. - TABULATION OF ELECTRON DENSITY AND SCALE HEIGHT

PASS 2089 AT COLEGE, 63 3 1								
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)								
HEIGHT	TIME (UT)							
	75318	75353	75428	75503	75539	75614	75649	75724
1000	0.026	0.037	0.037	0.045	0.045	0.006	0.011	0.006
950	0.031	0.043	0.044	0.052	0.052	0.008	0.012	0.008
900	0.037	0.051	0.052	0.060	0.061	0.010	0.014	0.010
850	0.044	0.060	0.064	0.071	0.072	0.012	0.018	0.011
800	0.053	0.072	0.079	0.084	0.086	0.014	0.022	0.013
750	0.066	0.087	0.098	0.100	0.105	0.016	0.028	0.016
700	0.085	0.108	0.126	0.126	0.142	0.019	0.036	0.021
650	0.109	0.139	0.162	0.161	0.193	0.027	0.050	0.028
600	0.157	0.179	0.205	0.218	0.258	0.042	0.069	0.038
550	0.237	0.258	0.274	0.318	0.369	0.068	0.100	0.050
500	0.325	0.372	0.478	0.466	0.528	0.102	0.149	0.081
450	0.571	0.599	0.765	0.740	0.755	0.173	0.247	0.124
400	0.890	0.956	1.160	1.179	1.202	0.339	0.407	0.202
350	1.372	1.439	1.753	1.809	1.818	0.652	0.582	0.318
300	2.046	2.068		2.531	2.691	1.225		0.473
HEIGHT	SCALE HEIGHT, KM							
		296.3	268.7	335.4	338.7		358.5	
950								
900	284.2	295.5	258.7	323.5	315.1	282.7	279.9	449.7
850	273.7	285.2	245.2	307.1	289.1	291.8	240.5	363.0
800	243.7	267.3	231.6	279.8	251.0	273.1	216.8	309.0
750	219.3	244.6	218.0	249.3	215.8	254.4	199.1	256.0
700	198.2	221.7	204.5	220.2	199.9	235.7	182.3	203.0
650	177.2	198.7	191.1	191.2	184.1	174.4	167.8	184.2
600	156.4	175.7	177.6	165.7	168.3	106.9	153.3	167.0
550	135.9	152.0	160.2	144.6	154.7	106.2	136.5	149.6
500	119.6	128.3	123.9	124.9	142.1	105.0	117.9	130.1
450	115.9	114.3	111.3	109.2	129.6	100.0	115.8	112.0
400	114.6	115.8	121.7	113.5	117.2	85.2	123.6	111.4
350	123.7	137.7	98.4	137.6	111.9	79.3	158.0	145.1
300	176.4	196.8		179.8	899.8	93.7		230.1
LONG	-168.39	-156.83	-146.84	-137.47	-130.28	-124.13	-119.21	-115.28
LAT	80.38	80.14	79.41	78.53	77.24	75.89	74.39	72.79
QUAL	32	23	22	23	22	33	23	33

PASS 2089 AT COLEGE, 63 3 1

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	75759	75817	75945	80020	80055	80131	80206	80223
1000	0.009	0.019	0.034	0.095	0.066	0.062	0.067	0.048
950	0.011	0.022	0.042	0.109	0.072	0.067	0.077	0.058
900	0.012	0.023	0.049	0.125	0.078	0.073	0.090	0.069
850	0.013	0.024	0.056	0.142	0.086	0.079	0.107	0.083
800	0.015	0.027	0.065	0.161	0.096	0.087	0.126	0.100
750	0.018	0.032	0.075	0.181	0.107	0.098	0.148	0.121
700	0.023	0.040	0.086	0.205	0.122	0.118	0.175	0.145
650	0.031	0.054	0.099	0.234	0.146	0.153	0.207	0.176
600	0.044	0.075	0.119	0.275	0.177	0.196	0.244	0.213
550	0.062	0.103	0.148	0.339	0.214	0.247	0.285	0.254
500	0.092	0.152	0.205	0.420	0.297	0.332	0.336	0.301
450	0.142	0.215	0.298	0.571	0.410	0.446	0.436	0.398
400	0.229	0.298	0.451	0.791	0.551	0.576	0.559	0.530
350	0.343	0.421	0.754	1.076	0.878	0.730	0.707	0.696
300	0.483	0.536	1.328		1.420	0.925	0.976	1.017
HEIGHT	SCALE HEIGHT, KM							
950					592.8	594.1	331.8	
900	539.2	916.2		386.7	545.8	614.6	309.7	263.3
850	468.5	713.6	338.2	398.8	490.6	568.9	307.7	267.6
800	341.2	418.2	348.0	399.9	441.3	460.6	305.8	268.3
750	237.2	250.9	357.8	398.9	393.8	367.8	303.8	268.9
700	200.5	198.3	337.4	367.6	347.4	277.8	298.1	269.4
650	168.6	168.6	303.7	330.3	305.3	197.9	290.2	262.0
600	154.5	158.4	254.8	291.6	263.2	195.0	282.3	254.0
550	140.3	148.8	207.2	251.2	221.1	192.0	274.4	246.0
500	124.9	150.5	162.9	210.9	195.1	184.8	264.3	238.0
450	117.6	152.3	131.9	189.6	171.3	164.8	238.8	215.1
400	121.1	157.9	116.1	174.9	147.5	202.2	213.4	189.1
350	149.8	174.5	98.9	167.2	122.0	207.2	187.5	163.7
300	187.1	442.4	93.9		95.8	201.0	153.7	146.6
LONG	-111.79	-110.45	-104.84	-103.17	-101.67	-100.41	-99.27	-98.80
LAT	71.14	70.24	65.79	63.97	62.13	60.22	58.35	57.43
QUAL	33	32	33	23	23	23	33	23



PASS 2089 AT COLEGE, 63 3 1  
 ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)		
	80301	80337	80413
1000	0.043	0.067	0.117
950	0.050	0.075	0.132
900	0.058	0.084	0.148
850	0.068	0.097	0.168
800	0.080	0.114	0.191
750	0.093	0.135	0.218
700	0.109	0.161	0.253
650	0.127	0.192	0.296
600	0.162	0.226	0.346
550	0.206	0.265	0.402
500	0.260	0.309	0.471
450	0.334	0.436	0.626
400	0.480	0.591	0.817
350	0.664	0.806	1.102
300	0.911		1.525
HEIGHT	SCALE HEIGHT, KM		
950	332.6	421.1	410.7
900	323.2	376.5	403.1
850	315.4	338.3	390.4
800	305.4	303.7	370.7
750	292.9	295.8	350.9
700	280.5	287.9	333.5
650	268.0	280.0	317.6
600	247.8	272.1	301.6
550	227.0	264.2	285.6
500	206.2	256.3	267.9
450	187.2	219.4	227.9
400	175.3	182.2	187.8
350	163.5	151.4	165.9
300	162.8		134.2
LONG	-97.77	-96.95	-96.19
LAT	55.39	53.43	51.47
QUAL	32	23	23

PASS 2089 AT FTMYRS, 63 3 1

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)					
	80929	81005	81022	81057	81132	81208
1000	0.117	0.152	0.155	0.133	0.154	0.149
950	0.124	0.160	0.164	0.141	0.159	0.158
900	0.131	0.167	0.171	0.147	0.165	0.164
850	0.138	0.175	0.176	0.153	0.171	0.171
800	0.146	0.183	0.183	0.159	0.178	0.178
750	0.156	0.193	0.192	0.167	0.187	0.186
700	0.170	0.208	0.206	0.176	0.197	0.196
650	0.188	0.230	0.225	0.190	0.210	0.211
600	0.220	0.270	0.254	0.213	0.226	0.237
550	0.273	0.336	0.303	0.252	0.254	0.294
500	0.373	0.467	0.435	0.311	0.320	0.415
450	0.748	0.765	0.709	0.426	0.494	0.608
400	1.148	1.162	1.163	0.786	0.761	0.973
350	1.632		1.749	1.173	1.189	1.291
300						
HEIGHT	SCALE HEIGHT, KM					
900	914.0	1126.4	1484.3	1157.6	1376.8	1224.1
850	893.1	1102.4	1364.1	1162.6	1226.0	1188.5
800	795.7	952.2	1171.8	1098.4	1124.9	1210.2
750	681.5	796.9	979.5	960.5	1007.8	1083.4
700	572.6	617.8	743.2	821.1	890.7	838.6
650	389.7	395.6	492.7	583.5	728.5	551.2
600	290.6	298.9	344.4	381.2	554.0	344.0
550	206.3	206.9	213.1	269.3	363.8	176.2
500	121.0	131.1	135.7	209.3	152.9	134.6
450	96.0	111.6	108.7	150.6	113.6	133.6
400	122.3	129.3	116.0	104.7	117.0	150.2
350	185.6		153.9	128.7	121.0	208.3
300						
LONG	-91.86	-91.53	-91.38	-91.09	-90.81	-90.54
LAT	34.03	32.02	31.07	29.12	27.16	25.14
QUAL	23	23	23	33	33	33

PASS 2096 AT RESLUT, 63 3 1  
 ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	200606	200623	200641	200658	200809	200826	200844	200901
1000	0.130	0.114	0.087	0.090	0.057	0.061	0.059	0.055
950	0.151	0.131	0.104	0.110	0.071	0.073	0.075	0.067
900	0.169	0.146	0.123	0.125	0.083	0.086	0.089	0.078
850	0.191	0.166	0.145	0.147	0.101	0.104	0.108	0.095
800	0.216	0.191	0.169	0.173	0.123	0.126	0.133	0.117
750	0.247	0.220	0.205	0.204	0.149	0.152	0.164	0.142
700	0.283	0.255	0.247	0.240	0.179	0.186	0.200	0.176
650	0.324	0.294	0.295	0.289	0.219	0.226	0.247	0.217
600	0.377	0.364	0.357	0.346	0.268	0.272	0.303	0.265
550	0.479	0.477	0.440	0.411	0.324	0.332	0.369	0.320
500	0.608	0.614	0.537	0.502	0.401	0.443	0.471	0.423
450	0.763	0.798	0.648	0.669	0.531	0.579	0.623	0.579
400	0.967	1.034	0.856	0.875	0.694	0.762	0.841	0.779
350	1.241	1.317	1.135	1.152	0.923	1.010	1.143	1.046
300		1.645	1.503	1.511		1.319	1.474	1.350
HEIGHT	SCALE HEIGHT, KM							
900	388.3	407.9	283.6	299.1	254.8	265.5	236.7	254.3
850	385.0	362.0	287.4	300.3	259.1	264.4	245.3	252.1
800	381.6	343.9	290.0	298.6	260.5	263.3	247.1	249.9
750	363.1	326.2	282.6	297.0	261.9	261.3	248.8	247.6
700	338.6	308.6	275.2	292.9	263.3	253.9	250.6	241.5
650	314.2	291.0	267.8	279.4	255.4	246.5	244.2	234.5
600	290.6	267.1	258.9	265.8	245.2	239.1	234.9	227.4
550	271.3	237.6	248.3	252.3	234.9	229.8	225.7	220.4
500	252.0	208.1	237.7	236.2	222.3	212.2	207.6	204.9
450	232.7	201.3	227.0	213.3	204.0	194.7	183.0	184.6
400	210.6	206.1	203.2	190.3	186.0	183.2	170.7	172.8
350	214.5	217.7	181.6	186.8	176.1	183.7	177.8	180.1
300		255.6	230.5	187.2		273.0	342.2	278.4
LONG	-60.39	-59.15	-57.83	-56.59	-49.15	-46.76	-44.22	-41.77
LAT	68.47	69.31	70.21	71.05	74.35	75.08	75.85	76.57
QUAL	33	33	32	32	32	32	32	32

PASS 2096 AT RESLUT, 63 3 1

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)	
	200919	200934
1000	0.038	0.038
950	0.052	0.051
900	0.064	0.064
850	0.076	0.076
800	0.093	0.096
750	0.111	0.123
700	0.137	0.155
650	0.168	0.192
600	0.206	0.241
550	0.249	0.301
500	0.336	0.369
450	0.454	0.449
400	0.603	0.650
350	0.800	0.925
300	1.051	1.235

HEIGHT	SCALE HEIGHT, KM	
900		
850	243.3	215.5
800	245.8	221.5
750	248.3	224.2
700	243.4	226.9
650	235.3	229.6
600	227.2	224.3
550	219.2	217.4
500	204.8	210.5
450	189.2	202.3
400	178.6	161.4
350	182.1	158.7
300	206.2	211.9

LONG	-38.16	-35.15
LAT	77.21	77.74
QUAL	33	33

PASS 2096 AT OTTAWA, 63 3 1  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	195426	195533	195608	195643	195718	195753	195829	195904
1000	0.127	0.135	0.135	0.135	0.146	0.133	0.131	0.135
950	0.149	0.154	0.153	0.153	0.163	0.151	0.147	0.151
900	0.170	0.175	0.174	0.174	0.184	0.172	0.167	0.170
850	0.195	0.200	0.198	0.197	0.208	0.195	0.190	0.192
800	0.224	0.229	0.230	0.224	0.236	0.223	0.218	0.219
750	0.264	0.267	0.270	0.261	0.276	0.262	0.256	0.255
700	0.313	0.315	0.317	0.306	0.324	0.308	0.301	0.297
650	0.383	0.380	0.379	0.359	0.385	0.363	0.354	0.353
600	0.478	0.472	0.461	0.446	0.472	0.445	0.441	0.429
550	0.618	0.606	0.592	0.565	0.584	0.564	0.557	0.539
500	0.825	0.790	0.772	0.744	0.769	0.728	0.707	0.701
450	1.154	1.091	1.051	1.014	1.041	0.980	0.957	0.936
400	1.678	1.557	1.476	1.416	1.417	1.357	1.322	1.282
350	2.571	2.334	2.155	2.050	2.010	1.914	1.877	1.805
300	4.218	3.692	3.326	3.122	3.006	2.848	2.808	2.652
HEIGHT	SCALE HEIGHT, KM							
	950	900	850	800	750	700	650	600
345.2	368.3	387.9	391.1	424.7	383.8	399.8	415.6	
364.3	374.9	376.8	387.8	402.3	377.9	381.7	400.5	
347.2	363.4	341.6	366.6	360.2	358.4	356.5	381.2	
327.6	346.1	330.2	349.0	357.6	338.9	334.9	360.2	
302.5	314.2	318.9	328.3	331.0	319.6	316.0	336.6	
277.0	282.4	303.8	307.6	304.5	300.3	297.1	313.0	
242.5	250.6	266.4	286.9	277.1	280.9	278.2	282.7	
212.7	223.9	232.8	237.6	247.6	252.9	252.0	246.3	
191.5	203.2	207.7	198.7	215.9	218.2	223.5	211.6	
166.8	179.0	181.5	175.5	174.4	186.9	194.2	182.8	
143.3	149.4	155.7	156.2	163.1	162.2	161.5	167.4	
126.6	134.2	144.5	147.2	156.4	155.2	152.0	156.7	
109.8	117.6	124.7	127.9	134.6	135.6	134.7	138.1	
96.4	113.1	114.4	114.6	121.5	120.9	117.9	125.8	
LONG	-76.95	-76.35	-76.00	-75.63	-75.23	-74.81	-74.32	-73.82
LAT	30.40	34.14	36.10	38.04	39.99	41.94	43.93	45.87
QUAL	23	23	23	23	23	23	23	23

PASS 2096 AT OTTAWA, 63 3 1

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	195939	200014	200049	200124	200200	200235	200310	200345
1000	0.151	0.150	0.139	0.132	0.135	0.169	0.125	0.107
950	0.167	0.168	0.154	0.153	0.156	0.186	0.142	0.125
900	0.185	0.191	0.173	0.176	0.177	0.205	0.161	0.144
850	0.206	0.216	0.195	0.204	0.200	0.228	0.184	0.166
800	0.235	0.247	0.225	0.235	0.229	0.261	0.216	0.192
750	0.270	0.287	0.262	0.274	0.266	0.301	0.256	0.224
700	0.312	0.334	0.306	0.328	0.310	0.350	0.305	0.260
650	0.368	0.391	0.364	0.391	0.360	0.409	0.365	0.310
600	0.438	0.475	0.448	0.481	0.446	0.493	0.437	0.371
550	0.548	0.575	0.548	0.594	0.555	0.592	0.540	0.454
500	0.691	0.743	0.734	0.755	0.711	0.742	0.673	0.565
450	0.924	0.983	0.991	0.976	0.928	0.959	0.867	0.716
400	1.260	1.394	1.366	1.317	1.262	1.286	1.180	0.957
350	1.770	1.916	1.868	1.801	1.713	1.734	1.609	1.336
300	2.477	2.624	2.607	2.498	2.337	2.357	2.132	1.833
HEIGHT	SCALE HEIGHT, KM							
950	479.2	409.1	436.2	339.7	373.1	504.1	383.5	328.6
900	443.7	390.0	405.7	337.6	382.8	455.2	364.9	339.2
850	405.1	371.4	372.2	330.6	365.4	407.4	338.3	338.8
800	384.6	353.5	349.9	323.6	347.6	383.9	320.3	332.5
750	364.2	336.3	329.3	311.0	329.6	360.7	305.7	320.8
700	343.8	319.1	308.7	288.7	311.6	337.6	291.1	309.0
650	299.2	299.9	283.6	266.5	293.6	313.4	273.6	287.7
600	254.7	265.5	248.3	246.6	260.0	282.8	256.1	265.0
550	228.7	231.2	213.0	227.1	225.2	252.2	238.2	243.5
500	202.7	197.7	186.5	205.6	200.2	219.5	220.3	222.7
450	165.6	168.3	165.8	184.0	180.5	185.4	181.9	198.1
400	157.6	153.4	162.7	167.9	168.9	175.2	165.7	163.9
350	151.6	156.8	154.7	155.9	161.7	163.4	171.8	156.9
300	150.2	160.0	156.9	160.9	167.6	162.8	185.7	165.5
LONG	-73.25	-72.64	-71.98	-71.23	-70.41	-69.44	-68.41	-67.22
LAT	47.79	49.72	51.64	53.54	55.50	57.39	59.27	61.14
QUAL	23	33	31	33	33	33	33	33

PASS 2096 AT OTTAWA, 63 3 1

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)
	200403
1000	0.144
950	0.163
900	0.166
850	0.210
800	0.239
750	0.273
700	0.316
650	0.373
600	0.448
550	0.556
500	0.694
450	0.865
400	1.139
350	1.470
300	1.914

HEIGHT	SCALE HEIGHT, KM
950	399.5
900	390.9
850	385.3
800	369.5
750	353.7
700	328.2
650	291.1
600	260.3
550	240.6
500	221.7
450	206.1
400	199.3
350	195.3
300	197.6

LONG	-66.58
LAT	62.10
QUAL	33

PASS 2096 AT QUITOE, 63 3 1  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	194520	194556	194629	194705	194739	194815	194852	194927
1000	0.284	0.275	0.266	0.266	0.247	0.220	0.206	0.177
950	0.337	0.315	0.308	0.308	0.288	0.260	0.239	0.211
900	0.394	0.372	0.363	0.358	0.338	0.302	0.285	0.242
850	0.471	0.446	0.430	0.421	0.396	0.359	0.342	0.285
800	0.589	0.536	0.532	0.519	0.489	0.435	0.414	0.348
750	0.737	0.703	0.679	0.643	0.612	0.530	0.533	0.426
700	0.948	0.930	0.860	0.803	0.762	0.664	0.681	0.534
650	1.219	1.228	1.128	1.021	0.989	0.826	0.876	0.675
600	1.658	1.681	1.480	1.283	1.269	1.018	1.159	0.843
550	2.822	2.246	2.011	1.832	1.644	1.549	1.505	1.126
500	4.971	3.769	3.296	2.798	2.573	2.371	2.301	1.813
450	8.509	6.682	5.455	4.584	4.189	3.783	3.681	2.857
400	13.816	11.111	8.949	7.490	6.954	6.410	5.928	4.929
350						10.142	9.563	8.349
300								
HEIGHT	SCALE HEIGHT, KM							
950	286.0	327.9	311.9	327.2	307.8	305.5	298.3	299.9
900	275.0	294.5	288.1	301.3	291.1	293.5	280.6	298.1
850	259.7	266.7	264.3	277.3	274.5	277.6	262.9	283.6
800	239.6	238.9	243.4	259.0	254.9	260.4	245.1	262.9
750	219.5	216.0	224.5	240.6	234.7	243.1	227.0	242.3
700	197.5	194.1	205.6	222.0	214.6	224.5	208.8	224.3
650	175.1	173.3	187.2	203.0	198.8	205.9	191.5	207.3
600	144.8	156.6	169.1	184.0	183.0	187.3	175.5	190.2
550	93.9	139.9	143.1	145.7	163.3	146.0	159.5	164.5
500	87.9	93.5	101.6	111.5	110.8	114.8	124.9	113.4
450	94.9	89.3	98.1	99.0	100.4	96.7	107.2	103.4
400	122.6	120.6	111.8	102.5	99.6	102.0	105.6	91.2
350						126.3	116.3	101.0
300								
LONG	-80.35	-80.16	-79.99	-79.79	-79.61	-79.41	-79.21	-79.01
LAT	1.62	1.88	3.55	5.58	7.50	9.53	11.62	13.59
QUAL	23	23	23	23	23	23	23	23



## PASS 2096 AT QUITOE, 63 3 1

## ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	195000	195037	195112	195146	195221	195256	195333	195351
1000	0.188	0.144	0.137	0.160	0.156	0.121	0.120	0.117
950	0.216	0.173	0.163	0.186	0.182	0.145	0.142	0.142
900	0.248	0.208	0.194	0.213	0.204	0.170	0.164	0.165
850	0.292	0.250	0.230	0.241	0.230	0.198	0.190	0.187
800	0.352	0.299	0.272	0.284	0.272	0.234	0.230	0.225
750	0.426	0.363	0.329	0.343	0.325	0.286	0.281	0.277
700	0.522	0.491	0.443	0.416	0.389	0.349	0.342	0.339
650	0.658	0.653	0.586	0.521	0.483	0.430	0.419	0.418
600	0.821	0.849	0.759	0.658	0.596	0.547	0.529	0.533
550	1.012	1.171	1.029	0.821	0.728	0.689	0.660	0.671
500	1.482	1.578	1.370	1.011	1.004	0.855	0.835	0.833
450	2.575	2.276	1.865	1.714	1.572	1.300	1.265	1.248
400	4.464	3.823	3.064	2.814	2.446	1.968	1.876	1.823
350	7.968	6.769	5.387	5.070	4.355	3.183	2.959	2.643
300			9.565	8.941	7.843	5.813	5.287	4.768
HEIGHT	SCALE HEIGHT, KM							
950	338.7	273.9	284.1	346.3	351.1	296.9	305.5	290.6
900	315.9	262.3	273.3	337.3	356.2	293.0	297.8	292.2
850	295.5	251.3	262.7	328.4	345.9	288.3	289.6	293.7
800	277.0	240.3	252.1	305.6	318.9	278.0	278.2	280.8
750	258.6	228.5	239.8	276.5	291.9	263.0	266.9	265.2
700	240.4	211.7	221.5	247.3	265.4	248.0	255.5	249.5
650	222.6	194.9	203.2	227.9	244.7	232.6	241.6	233.7
600	204.9	178.1	184.8	211.3	223.9	216.0	222.1	217.1
550	187.2	165.1	171.8	194.6	203.1	199.4	202.6	200.6
500	145.5	152.3	159.4	178.0	168.8	182.8	181.0	183.9
450	91.8	124.3	140.9	121.1	115.5	142.2	144.7	151.7
400	86.4	91.9	97.5	94.1	103.4	114.7	120.2	128.1
350	85.5	90.7	86.0	86.0	82.7	91.3	97.9	114.1
300			98.9	90.1	95.8	85.2	88.0	91.3
LONG	-78.82	-78.59	-78.37	-78.15	-77.91	-77.66	-77.38	-77.24
LAT	15.45	17.54	19.51	21.42	23.39	25.36	27.43	28.44
QUAL	23	23	23	23	23	23	22	22

PASS 2108 AT AGASTA, 63 3 2  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	182818	182853	182928	183003	183039	183114	183149	183224
1000	0.201	0.222	0.230	0.239	0.263	0.247	0.260	0.272
950	0.216	0.237	0.247	0.263	0.283	0.272	0.283	0.298
900	0.233	0.256	0.267	0.285	0.307	0.301	0.315	0.329
850	0.254	0.278	0.292	0.312	0.336	0.336	0.353	0.366
800	0.281	0.305	0.327	0.363	0.371	0.378	0.396	0.409
750	0.323	0.380	0.410	0.449	0.425	0.458	0.464	0.492
700	0.384	0.486	0.520	0.561	0.546	0.568	0.571	0.602
650	0.465	0.625	0.669	0.722	0.712	0.742	0.747	0.806
600	0.600	0.806	0.873	0.941	0.946	1.050	1.067	1.179
550	0.845	1.119	1.224	1.439	1.460	1.705	1.829	2.052
500	1.294	1.789	1.959	2.319	2.505	2.958	3.272	3.754
450	2.135	2.967	3.302	3.951	4.418	5.342	5.952	6.736
400		5.022	5.493	6.472	7.587	9.301	9.972	10.421
350		8.138		10.351	11.795			
300								

HEIGHT	SCALE HEIGHT, KM							
	655.8	640.7	628.2	591.2	605.2	495.5	516.6	514.8
950	655.8	640.7	628.2	591.2	605.2	495.5	516.6	514.8
900	603.4	564.0	546.3	526.0	546.1	447.2	448.5	461.9
850	527.9	487.4	464.4	432.7	486.9	398.4	408.9	415.4
800	419.4	410.7	385.4	358.1	427.7	349.5	369.4	368.8
750	352.0	336.3	318.0	295.1	355.5	289.4	309.9	292.8
700	300.6	262.2	250.5	232.1	236.5	228.0	229.1	215.3
650	244.8	201.7	200.1	196.1	179.4	176.7	173.5	168.8
600	170.5	177.0	175.1	160.3	151.6	127.1	122.0	109.3
550	139.7	135.1	121.2	112.5	104.6	97.4	85.8	85.9
500	106.6	104.7	100.7	99.5	91.6	85.6	81.9	82.3
450	98.6	93.0	94.6	95.6	88.6	86.0	87.6	90.1
400		97.6	104.8	103.8	96.9	102.1	136.7	206.4
350		117.1		125.3	163.0			
300								

LONG	-68.52	-68.23	-67.96	-67.70	-67.45	-67.21	-66.98	-66.77
LAT	-30.38	-28.41	-26.44	-24.47	-22.44	-20.47	-18.49	-16.52
QUAL	23	23	23	23	23	23	23	23

PASS 2108 AT AGASTA, 63 3 2

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	183259	183335	183410	183445	183520	183555	183631	183706
1000	0.274	0.274	0.271	0.273	0.264	0.264	0.250	0.229
950	0.300	0.296	0.294	0.298	0.292	0.290	0.271	0.252
900	0.328	0.324	0.322	0.328	0.324	0.319	0.301	0.284
850	0.362	0.357	0.355	0.363	0.363	0.355	0.336	0.320
800	0.403	0.395	0.394	0.404	0.407	0.398	0.377	0.362
750	0.479	0.477	0.449	0.477	0.467	0.447	0.424	0.428
700	0.592	0.585	0.559	0.574	0.558	0.540	0.503	0.512
650	0.783	0.774	0.739	0.755	0.711	0.682	0.629	0.630
600	1.129	1.124	1.059	1.048	0.960	0.910	0.828	0.805
550	1.988	2.008	1.832	1.703	1.451	1.329	1.149	1.104
500	3.693	3.575	3.238	2.980	2.564	2.228	1.818	1.689
450	6.671	6.460	5.880	5.283	4.501	3.827	3.217	2.776
400	10.301	10.405	9.898	9.183	7.778	6.549	5.552	4.818
350						10.835	9.299	8.214
300								12.924
HEIGHT	SCALE HEIGHT, KM							
950	542.5	565.0	549.6	524.7	479.1	502.6	521.3	472.9
900	496.7	501.6	503.2	479.3	446.7	467.0	456.6	420.4
850	445.6	446.3	458.3	435.2	417.3	435.7	427.9	383.5
800	394.4	391.0	413.5	391.0	387.8	404.5	399.3	346.6
750	306.8	307.9	351.2	316.5	337.4	373.2	370.7	309.1
700	210.2	224.2	231.9	238.0	255.2	263.3	289.4	271.6
650	170.6	172.0	168.2	186.2	199.3	198.6	204.1	233.0
600	114.0	108.5	120.6	134.6	151.5	158.8	172.3	193.2
550	82.9	87.3	85.9	92.1	104.6	117.3	138.1	141.8
500	79.7	82.4	84.4	87.1	88.0	93.1	93.6	107.5
450	94.9	89.7	88.5	91.0	90.1	92.3	89.4	98.0
400	249.7	184.3	125.7	98.7	94.6	94.5	97.5	88.6
350						111.0	97.9	99.0
300								128.2
LONG	-66.56	-66.35	-66.15	-65.96	-65.77	-65.58	-65.39	-65.21
LAT	-14.55	-12.51	-10.53	-8.56	-6.58	-4.60	-2.57	-0.59
QUAL	23	23	23	23	23	23	23	23

PASS 2109 AT QUITOE, 63 3 2

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)						
	183818	183911	183946	184022	184057	184132	184207
1000	0.251	0.234	0.224	0.226	0.247	0.266	0.245
950	0.284	0.263	0.254	0.248	0.269	0.290	0.268
900	0.304	0.292	0.283	0.269	0.289	0.309	0.287
850	0.344	0.326	0.310	0.305	0.324	0.342	0.315
800	0.400	0.384	0.366	0.354	0.370	0.384	0.352
750	0.471	0.459	0.440	0.416	0.426	0.436	0.397
700	0.566	0.550	0.532	0.497	0.501	0.507	0.459
650	0.682	0.683	0.658	0.597	0.590	0.593	0.535
600	0.818	0.846	0.819	0.714	0.694	0.694	0.625
550	0.975	1.039	1.011	0.848	0.811	0.809	0.729
500	1.559	1.485	1.493	1.334	1.291	1.277	1.019
450	2.537	2.445	2.416	2.063	1.988	2.181	1.784
400	4.080	3.813	3.786	3.253	2.959	3.200	2.660
350	6.722	6.137	6.264	5.504	4.821	5.470	4.832
300	10.820	9.564	9.937	9.345	8.258	8.857	8.291
HEIGHT	SCALE HEIGHT, KM						
950	516.1	432.5	428.4	549.3	583.6	606.0	572.6
900	496.6	402.2	404.0	496.5	547.2	581.0	565.1
850	437.9	371.1	379.6	441.7	483.9	517.1	510.5
800	379.3	336.6	343.2	386.9	420.6	453.3	451.8
750	320.6	302.2	306.8	332.1	358.3	389.4	393.1
700	286.9	267.8	270.5	297.3	326.5	350.2	354.3
650	261.1	243.1	241.2	269.4	294.6	313.2	319.5
600	235.3	219.5	215.4	241.5	262.7	276.2	284.8
550	209.6	195.8	189.7	213.7	230.8	239.2	250.1
500	131.4	147.6	145.4	138.3	159.1	163.9	187.6
450	105.0	107.2	109.4	113.0	120.2	107.2	101.2
400	101.1	109.7	104.7	101.7	114.6	109.1	105.3
350	95.8	104.5	100.0	94.2	99.1	98.3	89.2
300	141.3	151.1	148.4	118.8	97.2	116.1	102.5
LONG	-64.83	-64.55	-64.36	-64.16	-63.96	-63.75	-63.55
LAT	3.47	6.46	8.43	10.46	12.44	14.41	16.38
QUAL	23	23	23	23	23	23	23

PASS 2109 AT FTMYRS, 63 3 2								
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)								
HEIGHT	TIME (UT)							
	184209	184226	184244	184319	184412	184447	184522	184540
1000	0.248	0.240	0.236	0.228	0.197	0.187	0.203	0.180
950	0.264	0.259	0.253	0.244	0.217	0.203	0.218	0.203
900	0.261	0.277	0.272	0.261	0.237	0.222	0.236	0.226
850	0.303	0.305	0.299	0.285	0.261	0.244	0.259	0.251
800	0.330	0.342	0.333	0.314	0.291	0.276	0.288	0.283
750	0.379	0.384	0.373	0.352	0.331	0.314	0.322	0.321
700	0.482	0.434	0.440	0.397	0.380	0.367	0.366	0.366
650	0.625	0.536	0.538	0.471	0.439	0.435	0.460	0.435
600	0.790	0.697	0.668	0.669	0.506	0.517	0.585	0.551
550	0.981	0.931	0.900	0.934	0.741	0.611	0.790	0.709
500	1.397	1.308	1.200	1.248	1.085	0.948	1.058	1.010
450	2.226	1.968	1.877	1.729	1.532	1.488	1.547	1.475
400	3.623	3.300	3.134	2.912	2.646	2.336	2.341	2.244
350	6.200	5.823	5.636	5.247	4.555	4.082	3.891	3.615
300	10.033	9.867	9.845	9.677	7.345	7.693	6.737	6.131
HEIGHT	SCALE HEIGHT, KM							
950	806.4	692.5	675.3	712.5	531.7	587.3	656.7	436.5
900	729.1	614.3	589.6	639.1	530.2	525.6	583.4	439.1
850	597.6	536.9	533.4	553.0	464.7	464.2	513.7	435.9
800	463.5	459.6	477.1	470.5	405.5	407.3	448.9	417.4
750	356.2	390.5	352.0	405.7	371.5	350.4	386.8	395.0
700	290.5	322.3	303.0	340.9	337.6	314.5	324.4	325.2
650	224.8	265.8	260.7	276.6	303.7	284.6	260.1	269.0
600	202.0	213.1	218.7	214.4	269.8	254.8	195.7	226.2
550	183.6	169.2	184.0	161.5	191.7	224.9	175.4	183.7
500	143.4	144.1	149.2	151.8	131.3	150.2	156.7	150.4
450	107.6	116.2	108.5	132.1	122.5	111.5	132.7	128.2
400	95.6	92.6	92.2	93.3	92.7	100.9	112.3	114.1
350	95.8	89.2	86.5	81.1	95.8	82.7	92.1	98.1
300	180.1	117.6	109.6	104.2	102.5	89.9	103.7	105.8
LONG	-63.53	-63.43	-63.32	-63.10	-62.74	-62.49	-62.22	-62.09
LAT	16.50	17.45	18.47	20.44	23.41	25.38	27.34	28.35
QUAL	22	22	23	22	33	33	33	33

PASS 2109 AT FTMYS, 63 J 2

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)	
	184632	184708
1000	0.146	0.130
950	0.166	0.149
900	0.186	0.169
850	0.212	0.195
800	0.248	0.227
750	0.292	0.266
700	0.348	0.311
650	0.415	0.372
600	0.492	0.487
550	0.675	0.638
500	0.916	0.842
450	1.319	1.177
400	1.985	1.704
350	3.173	2.722
300	5.213	4.440

HEIGHT	SCALE HEIGHT, KM	
	184632	184708
950	413.2	363.6
900	382.8	357.2
850	354.4	344.2
800	327.6	331.3
750	300.9	305.4
700	277.9	275.1
650	254.9	246.0
600	231.9	221.9
550	194.4	197.8
500	156.8	173.9
450	136.1	151.1
400	116.0	125.6
350	103.9	104.8
300	99.5	113.0

LONG	-61.65	-61.33
LAT	31.26	33.28
QUAL	22	22

PASS 2109 AT OTTAWA, 63 3 2

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)				
	185230	185305	185341	185416	185451
1000	0.155	0.147	0.139	0.159	0.132
950	0.171	0.164	0.158	0.176	0.148
900	0.191	0.186	0.179	0.196	0.168
850	0.214	0.211	0.204	0.219	0.190
800	0.245	0.240	0.233	0.249	0.220
750	0.287	0.281	0.271	0.287	0.258
700	0.338	0.330	0.317	0.331	0.304
650	0.406	0.387	0.380	0.401	0.364
600	0.492	0.479	0.458	0.510	0.440
550	0.606	0.591	0.580	0.643	0.560
500	0.808	0.760	0.761	0.843	0.729
450	1.088	1.028	1.053	1.118	1.015
400	1.464	1.416	1.443	1.501	1.392
350	2.049	1.952	1.969	2.060	1.905
300	2.847	2.709	2.752	2.859	2.663
HEIGHT	SCALE HEIGHT, KM				
950	460.9	419.0	375.4	473.3	410.7
900	425.2	391.6	374.9	434.9	383.7
850	391.8	370.8	364.5	397.6	358.4
800	359.3	349.8	352.2	368.4	338.7
750	328.2	327.4	327.3	339.2	320.4
700	297.2	305.1	302.4	310.0	300.9
650	271.2	282.6	273.0	278.5	268.6
600	246.8	254.2	242.8	244.7	237.0
550	218.4	225.7	207.1	210.8	207.6
500	174.8	193.4	175.2	188.3	178.7
450	164.6	162.9	157.9	174.7	155.7
400	159.4	158.3	163.5	166.8	162.3
350	154.1	154.3	155.3	155.8	154.4
300	152.4	151.9	156.2	169.6	166.0
LONG	-56.99	-56.29	-55.45	-54.55	-53.55
LAT	51.11	53.02	54.98	56.87	58.76
QUAL	23	23	31	23	23

PASS 2110 AT OTTAWA, 63 3 2  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)													
	203329	203404	203439	203514	203549	203624	203642	203717						
1000	0.132	0.127	0.133	0.145	0.147	0.150	0.142	0.141						
950	0.148	0.145	0.152	0.161	0.164	0.167	0.159	0.159						
900	0.169	0.165	0.173	0.185	0.186	0.188	0.178	0.181						
850	0.192	0.188	0.197	0.210	0.210	0.212	0.201	0.204						
800	0.219	0.216	0.225	0.240	0.240	0.241	0.229	0.234						
750	0.258	0.252	0.265	0.279	0.280	0.282	0.266	0.272						
700	0.304	0.296	0.314	0.326	0.329	0.332	0.310	0.316						
650	0.359	0.357	0.373	0.388	0.391	0.390	0.370	0.373						
600	0.453	0.441	0.465	0.474	0.479	0.486	0.447	0.449						
550	0.571	0.562	0.588	0.606	0.599	0.606	0.570	0.562						
500	0.747	0.731	0.764	0.794	0.786	0.778	0.738	0.724						
450	1.040	0.993	1.040	1.082	1.065	1.059	0.998	0.983						
400	1.493	1.394	1.462	1.507	1.472	1.476	1.396	1.384						
350	2.213	2.056	2.145	2.181	2.102	2.132	1.995	1.947						
300	3.449	3.209	3.330	3.335	3.142	3.191	2.951	2.883						
HEIGHT	SCALE HEIGHT, KM													
	950	900	850	800	750	700	650	600	550	500	450	400	350	300
411.6	378.2	376.1	433.4	430.6	434.4	426.9	412.3							
380.3	373.7	372.6	382.7	397.4	405.9	406.5	388.4							
358.7	358.4	355.0	366.6	372.8	379.6	385.4	370.5							
336.8	340.7	337.3	349.9	349.5	353.8	362.8	353.6							
314.2	319.7	313.9	332.3	328.1	328.8	338.2	337.7							
291.6	297.1	290.0	314.8	306.7	303.7	313.6	321.8							
269.1	254.5	266.2	273.3	281.3	278.7	277.7	294.2							
240.3	224.7	239.8	226.0	244.2	250.9	236.8	248.9							
211.2	205.8	212.9	204.1	209.6	223.0	212.0	215.8							
177.5	183.9	183.3	179.5	179.4	189.5	189.8	185.2							
146.4	156.9	155.9	157.7	159.2	157.5	156.0	156.6							
135.8	143.2	141.4	145.3	149.8	147.0	147.0	150.1							
120.8	122.1	124.2	127.7	133.0	130.5	135.1	138.1							
112.0	106.9	109.9	119.0	125.3	124.7	124.8	122.3							
LONG	-87.37	-87.00	-86.60	-86.18	-85.71	-85.20	-84.93	-84.35						
LAT	36.03	37.98	39.93	41.87	43.81	45.74	46.74	48.66						
QUAL	23	22	23	23	23	23	23	23						



PASS 2110 AT OTTAWA, 63 3 2  
 ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)					
	203752	203828	203903	203938	204013	204048
1000	0.154	0.146	0.147	0.134	0.139	0.147
950	0.172	0.163	0.165	0.151	0.159	0.165
900	0.192	0.186	0.188	0.175	0.182	0.187
850	0.217	0.210	0.214	0.200	0.208	0.211
800	0.249	0.241	0.242	0.231	0.239	0.243
750	0.294	0.283	0.282	0.272	0.282	0.288
700	0.348	0.333	0.330	0.321	0.332	0.343
650	0.416	0.393	0.391	0.382	0.392	0.408
600	0.506	0.494	0.479	0.476	0.491	0.500
550	0.617	0.618	0.599	0.590	0.615	0.623
500	0.819	0.805	0.788	0.782	0.808	0.813
450	1.107	1.093	1.059	1.064	1.094	1.116
400	1.537	1.528	1.475	1.494	1.517	1.569
350	2.199	2.163	2.087	2.122	2.119	2.181
300	3.146	3.060	2.958	3.000	2.952	3.007
HEIGHT	SCALE HEIGHT, KM					
950	437.2	414.3	415.4	378.6	360.7	409.6
900	411.4	386.3	385.3	354.8	359.9	383.1
850	374.5	363.8	372.9	340.7	344.3	355.9
800	345.3	341.2	360.6	325.2	327.7	332.1
750	323.3	318.2	334.4	307.1	309.4	314.5
700	301.3	295.2	307.8	289.0	291.0	296.9
650	277.1	272.0	278.2	268.8	272.7	279.3
600	248.4	243.9	241.7	239.9	241.8	250.9
550	219.5	215.9	209.6	211.1	210.9	215.1
500	187.1	185.0	186.6	181.9	182.1	178.8
450	163.2	158.6	166.0	158.5	162.1	155.6
400	147.5	147.1	149.5	146.8	152.7	149.9
350	140.1	145.6	145.4	144.8	151.8	155.1
300	141.5	143.0	147.2	144.4	156.0	163.9
LONG	-83.72	-82.98	-82.22	-81.32	-80.35	-79.26
LAT	50.59	52.56	54.46	56.36	58.25	60.12
QUAL	32	22	32	11	13	23

PASS 2110 AT RESLUT, 63 3 2  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	204441	204458	204516	204534	204551	204609	204626	204644
1000	0.212	0.253	0.214	0.166	0.172	0.142	0.145	0.098
950	0.246	0.277	0.246	0.195	0.199	0.164	0.161	0.108
900	0.270	0.302	0.276	0.218	0.220	0.185	0.178	0.120
850	0.307	0.336	0.307	0.247	0.247	0.215	0.200	0.134
800	0.351	0.377	0.343	0.281	0.279	0.249	0.226	0.151
750	0.404	0.427	0.392	0.322	0.314	0.290	0.256	0.177
700	0.471	0.489	0.450	0.369	0.361	0.337	0.292	0.209
650	0.550	0.561	0.516	0.429	0.420	0.391	0.334	0.247
600	0.641	0.643	0.591	0.537	0.488	0.485	0.382	0.298
550	0.747	0.779	0.736	0.670	0.567	0.608	0.461	0.368
500	0.959	0.998	0.926	0.848	0.700	0.758	0.571	0.451
450	1.219	1.265	1.164	1.125	0.894	0.987	0.705	0.548
400	1.532	1.580	1.453	1.482	1.166	1.284	0.883	0.696
350	1.844	1.924	1.801	1.862	1.498	1.642		0.892
300					1.864			
HEIGHT	SCALE HEIGHT, KM							
900	405.9	491.4	414.6	375.6	403.3	352.2	433.4	450.3
850	384.8	458.6	408.8	376.0	397.5	343.8	422.1	405.9
800	363.6	425.9	395.6	361.3	386.5	335.4	410.8	358.5
750	343.6	395.7	375.4	340.7	375.5	318.1	396.5	336.2
700	327.7	368.0	355.3	320.1	357.4	300.7	370.9	313.8
650	311.9	340.3	335.1	297.4	336.4	283.4	345.4	291.5
600	296.0	312.7	315.0	265.8	315.4	262.2	319.8	273.4
550	279.4	281.1	276.9	234.2	294.4	240.5	292.1	262.7
500	249.4	245.6	235.5	206.3	247.8	218.8	263.8	251.9
450	219.4	222.9	225.8	186.8	198.0	200.3	235.0	241.1
400	241.5	242.3	230.6	195.6	204.4	198.9	203.6	214.4
350	361.5	298.1	238.6	297.9	216.9	216.4		204.4
300					313.7			
LONG	-65.94	-64.43	-62.27	-60.04	-57.93	-55.24	-52.24	-49.08
LAT	72.03	72.84	73.65	74.46	75.22	75.97	76.63	77.32
QUAL	33	33	33	33	32	33	33	33

PASS 2110 AT RESLUT, 63 3 2

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)	
	204719	204812
1000	0.030	0.050
950	0.039	0.057
900	0.048	0.066
850	0.060	0.080
800	0.073	0.096
750	0.091	0.116
700	0.114	0.142
650	0.141	0.177
600	0.173	0.219
550	0.209	0.266
500	0.285	0.319
450	0.378	0.454
400	0.514	0.630
350	0.697	0.849
300	0.935	1.106
HEIGHT	SCALE HEIGHT, KM	
950		306.2
900	219.3	301.3
850	223.6	289.9
800	227.9	278.6
750	228.0	267.3
700	226.6	256.4
650	225.1	245.9
600	223.7	235.5
550	221.7	225.1
500	197.0	214.7
450	172.3	188.1
400	168.2	162.1
350	169.1	178.9
300	203.9	239.5
LONG	-41.57	-27.65
LAT	78.49	79.83
QUAL	32	32

PASS 2122 AT AGASTA, 63 3 3

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	190339	190414	190450	190525	190600	190635	190710	190746
1000	0.155	0.148	0.156	0.162	0.188	0.206	0.231	0.262
950	0.165	0.161	0.169	0.179	0.205	0.226	0.260	0.294
900	0.175	0.175	0.184	0.201	0.227	0.253	0.291	0.336
850	0.189	0.190	0.203	0.227	0.254	0.285	0.333	0.390
800	0.209	0.209	0.225	0.257	0.287	0.325	0.384	0.459
750	0.237	0.243	0.250	0.291	0.325	0.383	0.444	0.542
700	0.272	0.289	0.348	0.355	0.421	0.493	0.567	0.688
650	0.316	0.358	0.483	0.450	0.550	0.642	0.764	0.947
600	0.372	0.454	0.649	0.577	0.738	0.858	1.087	1.399
550	0.518	0.598	0.843	0.812	1.052	1.319	1.691	2.535
500	0.742	0.868	1.254	1.267	1.688	2.135	2.894	4.745
450	1.136	1.400	2.038	2.169	2.948		5.460	8.390
400	1.869	2.389	3.458	3.893	5.330		10.189	
350	3.264	4.320	6.131	6.950	9.266			
300	6.174	7.952		11.775				
HEIGHT	SCALE HEIGHT, KM							
950	834.5	597.9	567.1	458.2	517.8	496.1	417.6	387.9
900	714.5	600.0	508.6	411.9	443.2	422.8	385.7	349.1
850	591.0	528.7	453.4	383.2	401.7	379.2	354.6	317.1
800	459.7	416.0	398.2	354.5	360.1	335.6	323.6	288.8
750	384.3	352.8	342.9	325.8	318.5	287.3	292.5	260.4
700	344.0	289.7	277.3	282.3	254.0	229.1	199.1	211.1
650	303.6	242.0	211.0	231.5	188.4	181.1	160.3	147.3
600	258.1	205.8	171.2	182.2	160.7	148.9	130.2	109.1
550	155.7	168.0	160.3	140.9	126.2	111.7	104.8	78.8
500	130.1	126.6	109.8	99.5	97.4	96.4	84.9	77.9
450	110.5	99.7	101.4	88.1	86.1		78.4	101.1
400	96.3	89.5	88.4	84.7	87.1		92.6	
350	82.4	82.6	93.4	91.2	97.0			
300	77.9	83.0		108.3				
LONG	-81.03	-80.67	-80.32	-80.01	-79.71	-79.44	-79.17	-78.91
LAT	-37.15	-35.20	-33.18	-31.22	-29.25	-27.28	-25.31	-23.28
QUAL	23	33	33	33	33	23	23	23

PASS 2122 AT AGASTA, 63 3 3

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	190821	190856	190931	191006	191042	191117	191152	191227
1000	0.276	0.284	0.309	0.310	0.320	0.319	0.321	0.303
950	0.310	0.321	0.352	0.352	0.364	0.366	0.362	0.342
900	0.356	0.374	0.407	0.411	0.431	0.427	0.424	0.398
850	0.418	0.439	0.480	0.485	0.523	0.505	0.500	0.468
800	0.494	0.522	0.571	0.599	0.649	0.628	0.621	0.554
750	0.585	0.677	0.761	0.812	0.807	0.849	0.829	0.732
700	0.777	0.919	1.092	1.212	1.249	1.301	1.273	1.045
650	1.132	1.412	1.809	1.997	2.094	2.208	2.128	1.711
600	1.926	2.436	2.967	3.212	3.355	3.526	3.418	2.910
550	3.436	4.237	4.698	4.597	4.593	4.815	5.103	4.847
500	6.194	6.699	6.133	5.398	5.239		6.412	7.114
450	9.361	8.090		6.143	5.987			
400					6.692			
350								
300								

HEIGHT	SCALE HEIGHT, KM							
	190821	190856	190931	191006	191042	191117	191152	191227
950	383.1	359.7	357.7	362.5	334.1	341.9	366.9	368.1
900	326.3	318.6	321.7	309.6	289.9	311.2	312.1	322.0
850	301.5	282.6	280.1	263.5	250.0	260.4	264.1	282.7
800	276.7	245.4	237.6	214.5	217.8	207.2	211.9	243.6
750	251.9	197.7	179.0	160.6	185.5	152.9	155.4	182.3
700	165.9	149.9	122.3	109.9	98.0	104.6	105.1	126.8
650	117.3	104.4	97.1	103.5	101.6	100.0	104.1	94.7
600	90.4	91.7	103.9	113.0	120.5	127.2	110.6	94.4
550	83.2	94.5	137.4	223.3	284.1	255.8	166.9	103.5
500	94.9	183.9	301.6	372.3	379.7		403.5	224.3
450	187.8	328.0		399.2	440.9			
400					638.0			
350								
300								

LONG	-78.67	-78.44	-78.22	-78.00	-77.79	-77.60	-77.40	-77.21
LAT	-21.31	-19.34	-17.36	-15.39	-13.36	-11.38	-9.40	-7.42
QUAL	23	23	23	23	23	23	23	23

PASS 2122 AT QUITOE, 63 3 3

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	191317	191335	191427	191503	191538	191603	191648	191741
1000	0.311	0.305	0.292	0.293	0.275	0.268	0.245	0.248
950	0.356	0.347	0.330	0.326	0.309	0.300	0.275	0.275
900	0.415	0.407	0.381	0.377	0.358	0.346	0.317	0.313
850	0.488	0.485	0.445	0.445	0.423	0.405	0.370	0.362
800	0.605	0.598	0.560	0.540	0.511	0.479	0.438	0.425
750	0.761	0.763	0.714	0.693	0.643	0.611	0.560	0.540
700	0.996	0.988	0.909	0.887	0.807	0.782	0.717	0.688
650	1.297	1.313	1.189	1.151	1.022	0.995	0.911	0.869
600	2.204	1.958	1.575	1.511	1.318	1.304	1.197	1.125
550	3.838	3.465	2.439	2.115	1.804	1.681	1.552	1.444
500	6.673	6.138	4.122	3.353	2.797	2.557	2.316	2.084
450	10.860	10.542	7.239	5.705	4.616	4.168	3.667	3.201
400			12.347	9.249	7.394	6.620	5.829	5.134
350					11.467	10.113	9.018	7.824
300								11.401
HEIGHT	SCALE HEIGHT, KM							
950	354.3	354.6	375.0	400.7	376.1	399.6	395.3	432.6
900	312.4	308.2	322.2	349.9	335.8	347.9	344.8	374.1
850	270.7	268.8	269.6	299.1	295.6	305.7	301.8	323.9
800	238.3	236.6	247.9	255.1	262.0	263.6	261.5	276.3
750	206.3	210.9	227.7	232.9	244.4	243.0	243.2	256.2
700	178.1	184.7	207.3	210.8	226.8	222.5	224.9	236.0
650	150.0	157.7	182.3	189.6	206.2	202.0	206.6	215.9
600	91.2	108.7	152.5	169.5	181.6	182.7	185.3	194.3
550	91.1	86.4	107.3	135.0	144.1	163.4	163.7	172.6
500	92.3	89.6	89.2	100.7	107.8	112.5	119.0	131.0
450	146.2	107.1	89.5	98.8	101.0	102.3	108.2	112.1
400			114.0	107.8	110.7	116.1	111.4	110.0
350					127.9	127.9	123.1	129.0
300								155.0
LONG	-76.94	-76.84	-76.57	-76.38	-76.20	-76.06	-75.82	-75.53
LAT	-4.60	-3.58	-0.65	1.38	3.35	4.76	7.30	10.30
QUAL	13	13	13	13	13	23	23	23

PASS 2122 AT QUITOE, 63 3 3

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)						
	191851	191926	192002	192037	192112	192147	192205
1000	0.225	0.217	0.210	0.208	0.198	0.204	0.201
950	0.251	0.241	0.231	0.230	0.221	0.224	0.226
900	0.286	0.273	0.262	0.257	0.249	0.251	0.255
850	0.330	0.313	0.304	0.290	0.282	0.283	0.291
800	0.383	0.361	0.357	0.342	0.321	0.323	0.332
750	0.473	0.437	0.440	0.418	0.388	0.384	0.390
700	0.609	0.544	0.566	0.513	0.473	0.463	0.471
650	0.779	0.675	0.721	0.631	0.581	0.565	0.567
600	1.002	0.865	0.919	0.799	0.735	0.706	0.713
550	1.300	1.107	1.194	1.000	0.923	0.877	0.895
500	1.792	1.501	1.587	1.369	1.199	1.179	1.137
450	2.705	2.313	2.337	2.071	1.818	1.746	1.709
400	4.392	3.768	3.613	3.330	2.952	2.687	2.614
350	7.133	6.364	5.786	5.629	4.947	4.575	4.381
300	11.033	10.126	9.480	9.089	8.147	7.657	7.359
HEIGHT	SCALE HEIGHT, KM						
	950	900	850	800	750	700	650
950	428.5	440.9	458.9	463.5	430.6	488.0	422.7
900	375.8	391.6	397.9	407.5	396.2	439.3	392.8
850	332.6	351.4	347.9	351.5	362.9	395.3	366.4
800	289.4	311.2	297.9	316.5	329.6	351.2	340.0
750	260.2	280.3	263.3	291.0	297.4	311.8	310.6
700	239.6	253.4	243.1	265.5	265.2	273.3	278.9
650	218.9	226.6	223.0	240.3	235.5	241.5	247.3
600	197.9	204.5	202.9	217.0	216.7	221.4	225.3
550	176.3	183.6	183.2	193.8	197.8	201.3	203.7
500	147.1	151.8	158.4	154.3	170.3	167.3	178.2
450	115.2	111.5	124.7	115.2	117.7	123.6	121.5
400	99.0	97.1	112.0	99.5	86.4	107.0	110.2
350	106.6	97.7	101.0	97.6	96.1	92.2	94.0
300	164.9	149.5	120.6	152.5	111.1	102.6	112.4
LONG	-75.13	-74.92	-74.71	-74.48	-74.25	-74.01	-73.88
LAT	14.24	16.21	18.24	20.21	22.17	24.14	25.15
QUAL	23	23	23	22	23	23	23

PASS 2123 AT RESLUT, 63 3 3

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	193332	193349	193407	193425	193442	193500	193517	193535
1000	0.176	0.175	0.159	0.135	0.170	0.185	0.176	0.223
950	0.205	0.204	0.192	0.167	0.207	0.218	0.207	0.256
900	0.233	0.229	0.217	0.197	0.241	0.243	0.236	0.280
850	0.268	0.261	0.247	0.228	0.277	0.278	0.271	0.318
800	0.309	0.301	0.285	0.268	0.314	0.321	0.312	0.362
750	0.355	0.347	0.328	0.313	0.358	0.369	0.357	0.412
700	0.413	0.405	0.382	0.364	0.417	0.430	0.413	0.478
650	0.486	0.479	0.452	0.436	0.486	0.508	0.491	0.558
600	0.569	0.565	0.534	0.522	0.564	0.598	0.582	0.650
550	0.665	0.664	0.632	0.620	0.665	0.701	0.687	0.770
500	0.824	0.812	0.822	0.779	0.855	0.865	0.805	0.992
450	1.049	1.083	1.064	1.022	1.087	1.129	1.053	1.268
400	1.333	1.424	1.367	1.337	1.398	1.470	1.391	1.613
350	1.708	1.856	1.752	1.735	1.806	1.906	1.827	2.059
300	2.225	2.418	2.271	2.251	2.321	2.464	2.408	2.684
HEIGHT	SCALE HEIGHT, KM							
	900	349.0	358.8	337.3	282.3	334.7	356.5	341.6
850	346.8	356.4	345.4	304.5	341.5	351.5	341.5	393.2
800	341.9	344.2	338.2	303.4	348.1	342.9	336.1	377.4
750	337.1	332.1	331.0	302.4	342.6	334.3	330.7	361.6
700	326.4	317.8	317.5	300.2	327.2	321.6	321.4	339.8
650	310.4	300.9	296.9	284.3	311.9	305.1	306.2	316.6
600	294.5	284.0	276.2	268.5	296.5	288.6	291.1	293.3
550	278.5	267.1	255.0	252.6	277.9	272.1	275.9	268.6
500	254.9	244.9	225.4	230.0	244.8	246.2	260.8	237.9
450	227.8	211.3	199.6	202.0	211.8	209.4	221.3	209.4
400	207.6	187.8	201.4	191.5	200.4	193.8	183.1	206.8
350	200.2	192.1	198.6	194.5	197.6	194.9	183.4	198.0
300	190.4	183.0	195.4	200.3	211.6	200.2	189.0	211.8
LONG	-62.08	-61.39	-60.57	-59.64	-58.75	-57.81	-56.64	-55.41
LAT	62.95	63.84	64.78	65.71	66.59	67.52	68.37	69.27
QUAL	33	33	33	33	33	33	33	33



PASS 2123 AT RESLUT, 63 3 3  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	193552	193610	193628	193645	193703	193717	193738	193755
1000	0.210	0.181	0.190	0.177	0.171	0.104	0.110	0.092
950	0.246	0.208	0.218	0.207	0.200	0.128	0.132	0.114
900	0.276	0.233	0.240	0.235	0.227	0.146	0.154	0.134
850	0.317	0.268	0.275	0.270	0.260	0.177	0.185	0.165
800	0.366	0.312	0.322	0.311	0.304	0.217	0.223	0.208
750	0.421	0.367	0.379	0.357	0.357	0.264	0.267	0.260
700	0.496	0.433	0.449	0.421	0.422	0.322	0.322	0.322
650	0.587	0.511	0.538	0.495	0.507	0.398	0.395	0.399
600	0.693	0.599	0.643	0.580	0.607	0.487	0.481	0.497
550	0.813	0.754	0.762	0.676	0.721	0.594	0.579	0.611
500	1.036	0.969	0.977	0.877	0.918	0.790	0.758	0.768
450	1.340	1.240	1.297	1.137	1.224	1.038	1.017	1.008
400	1.713	1.585	1.719	1.483	1.633	1.371	1.362	1.335
350	2.206	2.065	2.224	1.925	2.149	1.802	1.809	1.775
300	2.881	2.676	2.780	2.512	2.702	2.333	2.380	
HEIGHT	SCALE HEIGHT, KM							
	900	359.2	388.4	379.6	349.1	341.2	268.9	275.4
850	349.1	362.3	362.1	343.3	336.2	265.2	274.9	239.7
800	338.9	336.3	340.3	337.5	322.1	261.5	271.4	240.1
750	328.7	316.8	318.5	331.6	308.0	257.9	267.9	240.4
700	313.9	300.9	298.2	315.7	293.5	251.8	261.6	240.8
650	298.0	285.0	281.5	299.9	278.1	241.6	250.3	237.6
600	282.1	269.1	264.8	284.1	262.8	231.4	239.1	230.6
550	266.2	246.5	248.1	268.2	247.4	220.4	227.9	223.6
500	236.6	221.3	221.8	232.7	221.4	201.0	207.1	211.0
450	203.5	204.1	190.4	195.3	187.2	183.9	182.4	190.5
400	201.4	198.5	191.9	192.7	181.2	184.4	176.6	181.1
350	193.1	193.0	210.9	191.4	195.8	191.0	180.4	186.1
300	227.4	219.4	365.3	213.2	297.2	226.9	234.8	
LONG	-54.24	-52.75	-51.07	-49.48	-47.69	-45.86	-43.11	-40.89
LAT	70.12	71.00	71.85	72.66	73.51	74.13	75.05	75.79
QUAL	33	33	32	33	33	33	33	33

PASS 2123 AT RESLUT, 63 3 3  
 ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	193813	193831	193848	193906	193923	193941	194000	194034
1000	0.093	0.077	0.077	0.076	0.068	0.050	0.031	0.021
950	0.111	0.098	0.097	0.095	0.083	0.063	0.040	0.029
900	0.131	0.118	0.120	0.109	0.094	0.074	0.049	0.037
850	0.162	0.137	0.147	0.134	0.118	0.096	0.064	0.049
800	0.202	0.178	0.177	0.169	0.151	0.125	0.082	0.064
750	0.252	0.230	0.213	0.213	0.192	0.160	0.104	0.082
700	0.309	0.292	0.274	0.264	0.241	0.201	0.134	0.110
650	0.386	0.365	0.348	0.328	0.307	0.257	0.173	0.146
600	0.480	0.466	0.438	0.418	0.387	0.323	0.220	0.188
550	0.589	0.590	0.564	0.525	0.480	0.399	0.273	0.239
500	0.722	0.733	0.716	0.646	0.615	0.542	0.388	0.362
450	0.994	1.004	0.953	0.876	0.855	0.739	0.560	0.530
400	1.344	1.297	1.299	1.250	1.164	1.046	0.803	0.777
350	1.777		1.716	1.714	1.536		1.164	1.153
300								

HEIGHT	SCALE HEIGHT, KM							
	900	252.6	216.1	223.3	246.8	253.7	216.2	198.9
850	249.9	228.2	230.5	246.2	247.3	217.3	201.8	178.0
800	247.4	226.7	237.7	243.1	240.8	218.3	204.7	184.1
750	244.8	225.3	243.4	239.9	234.3	219.4	207.6	190.3
700	242.2	223.8	231.1	236.7	227.9	220.4	205.5	187.1
650	235.8	222.3	218.9	231.8	220.4	213.6	198.9	182.1
600	227.7	214.7	207.9	220.9	212.7	206.4	192.4	177.2
550	219.7	205.6	200.8	210.1	205.0	199.2	185.9	171.3
500	210.1	196.5	193.7	199.2	194.0	180.2	170.1	147.1
450	186.3	209.7	178.2	179.1	176.3	158.6	150.6	130.7
400	178.0	292.6	171.8	152.2	177.7	133.9	138.8	131.5
350	234.7		227.1	235.5	226.2		142.4	157.8
300								

LONG	-37.82	-34.47	-31.30	-27.51	-23.11	-18.44	-13.52	-2.55
LAT	76.50	77.17	77.81	78.42	78.88	79.36	79.87	80.23
QUAL	33	33	33	33	33	33	33	33

PASS 2130 AT COLEGE, 63 3 4  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	75917	75953	80028	80103	80120	80156	80231	80306
1000	0.062	0.067	0.024	0.018	0.017	0.007	0.003	0.006
950	0.073	0.075	0.029	0.021	0.019	0.009	0.005	0.008
900	0.084	0.085	0.035	0.025	0.022	0.012	0.007	0.011
850	0.099	0.102	0.044	0.030	0.025	0.015	0.010	0.014
800	0.117	0.123	0.055	0.037	0.030	0.020	0.015	0.019
750	0.138	0.149	0.068	0.049	0.038	0.027	0.021	0.027
700	0.167	0.185	0.091	0.072	0.054	0.040	0.034	0.042
650	0.203	0.229	0.125	0.104	0.077	0.056	0.053	0.062
600	0.245	0.279	0.164	0.150	0.110	0.094	0.078	0.090
550	0.293	0.338	0.265	0.208	0.155	0.151	0.106	0.153
500	0.353	0.478	0.369	0.579	0.237	0.241	0.197	0.237
450	0.491	0.658	0.586	0.979	0.381	0.387	0.314	0.339
400	0.660	0.850	0.864	1.145	0.631	0.605	0.521	0.577
350	0.843	1.046	1.265	1.304	0.995	0.969	0.839	0.939
300			1.557		1.370	1.379	1.326	1.396
HEIGHT	SCALE HEIGHT, KM							
950	304.1	377.0	273.5	298.2	472.6	195.9		178.0
900	310.1	335.3	243.3	275.3	319.4	188.6	123.8	173.6
850	300.3	311.5	219.5	239.3	288.4	178.0	128.7	163.9
800	290.6	287.6	210.2	215.8	257.3	169.6	125.8	154.3
750	280.9	263.8	201.0	139.6	197.3	159.7	123.0	145.5
700	271.2	249.2	176.4	141.6	146.2	142.2	122.9	137.7
650	261.4	236.5	147.1	143.7	146.0	124.7	123.1	130.0
600	251.7	223.7	140.7	143.3	142.2	117.0	123.3	123.1
550	242.0	211.0	138.1	142.1	132.3	111.9	123.4	121.4
500	231.7	198.7	135.4	108.1	119.3	109.6	114.7	119.8
450	216.4	186.5	128.4	151.4	105.1	110.9	106.0	118.1
400	201.1	222.5	141.7	194.2	107.4	112.6	104.4	108.7
350	225.6	389.1	202.9	194.8	134.7	129.9	120.9	146.7
300			321.2		229.1	277.3	218.5	377.5
LONG	172.25	-175.78	-164.70	-153.97	-149.84	-141.10	-134.78	-129.05
LAT	80.27	80.44	80.26	79.50	79.00	77.94	76.60	75.19
QUAL	33	22	22	22	32	22	33	32

PASS 2130 AT COLEGE, 63 3 4  
 ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)					
	80341	80509	80544	80602	80729	80805
1000	0.038	0.009	0.008	0.006	0.013	0.010
950	0.042	0.011	0.009	0.007	0.017	0.011
900	0.046	0.013	0.011	0.008	0.022	0.012
850	0.049	0.014	0.014	0.010	0.027	0.013
800	0.054	0.017	0.018	0.013	0.033	0.014
750	0.063	0.021	0.023	0.017	0.040	0.018
700	0.080	0.030	0.033	0.024	0.048	0.024
650	0.108	0.042	0.045	0.034	0.057	0.030
600	0.153	0.062	0.063	0.049	0.069	0.037
550	0.223	0.095	0.101	0.071	0.084	0.046
500	0.358	0.139	0.150	0.127	0.109	0.062
450	0.547	0.195	0.239	0.207	0.154	0.084
400	0.837	0.361	0.369	0.334	0.224	0.117
350	1.199	0.585	0.540	0.517	0.360	0.172
300	1.624	1.048	0.758	0.746	0.631	0.316
HEIGHT	SCALE HEIGHT, KM					
950	597.0	303.0	274.9	507.1	201.1	708.4
900	730.2	408.6	247.4	283.2	217.2	652.2
850	644.4	355.3	228.1	203.4	233.1	538.1
800	428.2	277.1	208.8	174.7	248.8	428.5
750	269.3	180.5	189.8	167.3	261.1	328.5
700	207.8	150.6	172.3	159.9	272.2	228.4
650	166.8	140.4	154.8	148.2	279.5	212.4
600	146.3	132.3	139.4	132.6	260.5	208.3
550	129.8	128.4	130.0	117.9	223.6	204.1
500	123.9	124.6	120.6	113.8	165.6	186.2
450	121.7	120.6	123.4	109.6	137.6	165.0
400	134.3	109.2	130.6	116.2	125.6	139.7
350	153.0	97.7	143.5	128.2	106.9	109.5
300	176.0	167.1	164.8	147.6	81.7	77.1
LONG	-124.81	-116.69	-114.42	-113.29	-109.32	-107.97
LAT	73.61	69.41	67.64	66.73	62.19	60.28
QUAL	33	32	33	33	23	23

PASS 2130 AT FTMYS, 63 3 4  
 ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)				
	81509	81655	81822	81934	82026
1000	0.029	0.079	0.093	0.100	0.099
950	0.033	0.089	0.099	0.110	0.106
900	0.036	0.097	0.104	0.116	0.112
850	0.039	0.103	0.110	0.123	0.117
800	0.043	0.109	0.116	0.129	0.122
750	0.047	0.116	0.122	0.137	0.127
700	0.053	0.124	0.130	0.145	0.134
650	0.060	0.132	0.138	0.154	0.143
600	0.069	0.143	0.149	0.164	0.154
550	0.081	0.158	0.164	0.180	0.173
500	0.102	0.189	0.186	0.209	0.204
450	0.135	0.272	0.230	0.259	0.261
400	0.221	0.492	0.368	0.404	0.362
350	0.446		0.703	0.698	0.614
300			1.171	1.316	0.989
HEIGHT	SCALE HEIGHT, KM				
950	508.9	510.3	834.9	691.6	858.5
900	559.4	678.7	903.1	879.5	1056.6
850	546.1	822.0	914.4	907.1	1146.9
800	511.8	827.6	901.1	893.0	1133.3
750	476.9	798.4	886.5	878.4	1038.0
700	429.1	756.0	807.4	836.6	881.6
650	381.4	702.9	716.6	766.6	700.4
600	327.6	588.1	597.1	682.3	548.6
550	268.6	396.2	473.6	425.9	406.3
500	209.6	222.3	340.1	298.2	276.5
450	150.1	110.7	180.5	188.6	195.2
400	88.3	84.0	86.4	92.2	134.6
350	64.8		93.9	88.2	100.9
300			114.7	61.9	108.3
LONG	-99.97	-98.95	-98.26	-97.75	-97.41
LAT	37.10	31.19	26.32	22.29	19.37
QUAL	23	33	33	33	33

PASS 2130 AT SULANT, 63 3 4  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	84118	84153	84228	84304	84338	84413	84448	84523
1000	0.201	0.180	0.189	0.184	0.157	0.128	0.107	0.095
950	0.224	0.197	0.207	0.204	0.173	0.135	0.114	0.101
900	0.241	0.212	0.219	0.216	0.183	0.144	0.122	0.108
850	0.235	0.225	0.234	0.233	0.199	0.156	0.134	0.118
800	0.274	0.242	0.252	0.256	0.219	0.171	0.148	0.132
750	0.293	0.261	0.270	0.284	0.245	0.191	0.168	0.150
700	0.314	0.281	0.297	0.318	0.279	0.217	0.195	0.178
650	0.346	0.312	0.331	0.364	0.320	0.247	0.229	0.214
600	0.385	0.351	0.388	0.418	0.367	0.320	0.282	0.258
550	0.495	0.396	0.510	0.568	0.537	0.461	0.414	0.397
500	0.665	0.495	0.694	0.860	0.827	0.663	0.620	0.607
450	0.882	0.777	1.059	1.213	1.158	1.064	0.930	0.913
400	1.502	1.272	1.758	1.814	1.848	1.600	1.385	1.345
350	2.358	2.160	2.526	2.714	2.680	2.249	2.000	1.936
300	3.129	3.116						
HEIGHT	SCALE HEIGHT, KM							
950	574.6	630.0	678.0	607.3	602.6	805.0	705.9	745.1
900	663.8	665.7	760.9	643.5	623.5	667.4	590.4	631.2
850	724.1	701.5	736.0	600.3	558.0	589.8	522.5	524.9
800	738.9	653.5	681.9	543.9	492.4	512.3	454.5	428.2
750	682.6	605.2	590.2	487.6	432.3	440.9	391.5	346.6
700	586.7	556.9	497.7	425.9	379.4	374.0	336.5	302.1
650	476.2	487.2	405.2	354.6	326.6	307.1	281.5	257.6
600	365.7	415.1	299.8	283.4	273.7	232.0	222.5	212.5
550	225.7	342.9	172.7	200.8	188.6	149.7	148.5	144.7
500	159.3	191.1	145.0	131.0	124.9	125.6	127.1	122.1
450	140.4	107.0	123.6	132.9	127.6	108.0	124.6	126.2
400	105.3	97.3	120.5	121.6	119.9	135.4	128.9	132.7
350	134.9	111.0	149.4	135.2	154.8	169.6	169.3	175.6
300	332.3	233.0						
LONG	-87.43	-86.72	-85.91	-85.02	-84.03	-82.91	-81.63	-80.13
LAT	-50.81	-52.73	-54.65	-56.61	-58.45	-60.33	-62.20	-64.05
QUAL	33	33	33	33	33	23	21	23

PASS 2130 AT SOLANT, 63 3 4  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)						
	84559	84634	84709	84744	84819	84854	84929
1000	0.064	0.072	0.064	0.099	0.128	0.154	0.156
950	0.091	0.083	0.077	0.114	0.143	0.171	0.172
900	0.100	0.096	0.092	0.133	0.163	0.190	0.190
850	0.113	0.111	0.109	0.153	0.185	0.213	0.212
800	0.132	0.130	0.129	0.176	0.210	0.241	0.238
750	0.157	0.157	0.155	0.204	0.241	0.276	0.273
700	0.189	0.190	0.189	0.237	0.281	0.320	0.315
650	0.231	0.230	0.230	0.280	0.330	0.373	0.364
600	0.298	0.293	0.285	0.338	0.388	0.433	0.427
550	0.418	0.378	0.361	0.408	0.470	0.522	0.502
500	0.600	0.497	0.457	0.502	0.584	0.639	0.613
450	0.862	0.689	0.609	0.633	0.721	0.782	0.764
400	1.239	0.986	0.814	0.797	0.919	0.986	0.970
350	1.746	1.401	1.122	1.047	1.196	1.239	1.236
300	2.310	1.868	1.531	1.338	1.511	1.524	1.531
HEIGHT	SCALE HEIGHT, KM						
950	558.8	337.2	282.7	348.2	409.8	464.5	482.8
900	463.2	327.1	282.5	343.8	395.1	442.9	454.1
850	394.2	310.0	279.0	344.6	387.9	411.1	428.5
800	350.9	293.1	275.6	342.8	365.9	379.2	402.9
750	307.5	276.7	267.9	325.8	340.9	353.8	381.9
700	266.4	260.4	256.7	308.8	321.2	338.1	361.1
650	227.2	244.0	245.5	291.8	303.0	322.3	340.3
600	189.3	221.8	231.3	274.8	284.8	306.5	311.3
550	152.9	197.0	214.0	257.8	266.8	285.2	280.9
500	142.4	173.7	196.9	240.7	248.9	261.1	251.5
450	139.2	153.3	181.5	223.7	231.0	238.3	223.2
400	142.6	140.4	167.9	207.0	202.9	221.5	210.6
350	157.8	158.3	160.0	194.8	209.4	236.2	226.6
300	315.3	244.2	200.4	223.5	291.9	291.4	268.1
LONG	-78.47	-76.37	-74.07	-71.24	-67.83	-63.92	-58.66
LAT	-65.95	-67.74	-69.51	-71.24	-72.91	-74.52	-75.99
QUAL	21	21	22	21	21	21	23

PASS 2136 AT QUITOE, 63 3 4  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	194918	194954	195029	195104	195139	195214	195250	195325
1000	0.332	0.311	0.322	0.322	0.315	0.321	0.325	0.328
950	0.376	0.351	0.363	0.360	0.352	0.358	0.363	0.366
900	0.441	0.405	0.417	0.412	0.404	0.408	0.415	0.421
850	0.527	0.479	0.496	0.481	0.472	0.470	0.480	0.492
800	0.684	0.583	0.650	0.609	0.564	0.557	0.564	0.581
750	0.921	0.737	0.864	0.794	0.687	0.671	0.707	0.694
700	1.270	0.936	1.163	1.041	0.867	0.831	0.889	0.886
650	1.798	1.305	1.581	1.406	1.104	1.033	1.133	1.127
600	2.928	2.240	2.485	1.970	1.506	1.350	1.457	1.473
550	4.289	3.765	4.059	3.364	2.545	2.099	2.052	1.965
500	5.410	5.458	6.267	5.707	4.558	3.544	3.197	3.024
450	6.427	6.602	7.986	8.858	7.928	6.265	5.447	4.939
400	7.286		9.471			10.595	9.133	7.873
350								12.064
300								

HEIGHT	SCALE HEIGHT, KM							
	194918	194954	195029	195104	195139	195214	195250	195325
950	370.8	383.6	390.6	410.0	408.6	424.9	415.9	411.3
900	304.9	330.3	315.9	340.6	358.6	379.5	364.5	359.7
850	243.9	278.7	251.9	273.5	316.7	325.4	320.1	325.9
800	206.4	229.5	224.4	239.3	274.8	287.5	278.6	292.1
750	176.3	205.3	196.9	210.4	232.9	253.3	253.3	259.3
700	150.9	181.3	169.9	182.8	207.0	228.1	227.9	232.0
650	127.1	139.6	143.7	160.4	183.3	204.1	202.9	204.6
600	116.6	94.2	99.4	124.9	144.9	166.7	178.0	179.4
550	175.3	111.5	107.0	93.0	90.3	106.5	131.0	150.8
500	254.7	199.3	159.0	102.2	86.9	91.0	104.3	110.9
450	356.7	318.0	250.5	142.6	96.3	89.9	95.0	101.3
400	571.8		327.8			104.7	100.3	113.5
350								131.0
300								

LONG	-88.74	-88.54	-88.36	-88.17	-87.98	-87.80	-87.61	-87.43
LAT	-9.18	-7.15	-5.17	-3.19	-1.22	0.76	2.79	4.76
QUAL	23	23	23	23	23	23	23	23



PASS 2136 AT QUITOE, 63 3 4  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)					
	195400	195435	195510	195545	195713	195749
1000	0.328	0.292	0.276	0.244	0.195	0.192
950	0.366	0.329	0.312	0.275	0.220	0.210
900	0.419	0.381	0.361	0.315	0.249	0.234
850	0.486	0.446	0.422	0.363	0.284	0.271
800	0.568	0.525	0.499	0.428	0.327	0.318
750	0.703	0.648	0.620	0.512	0.387	0.372
700	0.874	0.809	0.772	0.617	0.474	0.446
650	1.097	1.014	0.965	0.782	0.586	0.562
600	1.403	1.299	1.221	1.022	0.754	0.726
550	1.830	1.674	1.649	1.410	1.000	0.959
500	2.755	2.479	2.408	2.068	1.425	1.350
450	4.463	3.933	3.744	3.278	2.176	2.001
400	7.103	6.288	6.075	5.624	3.725	3.152
350	11.067	9.871	9.526	9.572	6.802	5.674
300					11.080	10.151
HEIGHT	SCALE HEIGHT, KM					
950	415.5	384.0	375.0	376.7	402.4	491.4
900	366.1	342.0	337.6	354.6	381.6	404.3
850	327.3	311.3	306.1	329.9	351.8	354.5
800	288.5	280.7	276.0	297.9	320.7	312.7
750	263.2	257.6	257.9	268.6	288.6	285.4
700	238.2	236.1	239.8	241.0	255.4	254.9
650	214.5	214.8	218.5	209.4	222.9	220.2
600	192.6	193.7	192.5	172.0	193.3	190.8
550	163.9	169.3	157.5	144.2	164.8	167.5
500	115.1	121.1	125.8	123.5	138.1	142.2
450	101.1	106.6	106.9	99.2	106.1	122.0
400	112.4	112.1	107.0	91.8	87.0	98.8
350	127.8	118.9	128.3	116.5	91.5	80.2
300					138.8	113.0
LONG	-87.24	-87.05	-86.85	-86.65	-86.14	-85.91
LAT	6.74	8.71	10.68	12.65	17.61	19.64
QUAL	23	23	23	23	33	23

PASS 2137 AT OTTAWA, 63 3 4

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)												
	200232	200307	200342	200417	200452	200527	200602	200638					
1000	0.106	0.157	0.161	0.148	0.146	0.151	0.151	0.152					
950	0.183	0.175	0.179	0.164	0.161	0.167	0.167	0.168					
900	0.205	0.197	0.200	0.187	0.180	0.187	0.187	0.187					
850	0.230	0.221	0.224	0.212	0.203	0.210	0.210	0.209					
800	0.262	0.252	0.255	0.242	0.230	0.240	0.238	0.238					
750	0.303	0.292	0.294	0.282	0.268	0.279	0.274	0.275					
700	0.352	0.340	0.340	0.329	0.314	0.325	0.317	0.317					
650	0.421	0.409	0.410	0.394	0.375	0.388	0.374	0.377					
600	0.511	0.492	0.497	0.478	0.455	0.466	0.450	0.461					
550	0.635	0.620	0.622	0.599	0.571	0.595	0.579	0.561					
500	0.834	0.799	0.811	0.775	0.745	0.772	0.754	0.693					
450	1.135	1.093	1.101	1.059	1.017	1.036	1.003	0.950					
400	1.579	1.525	1.529	1.477	1.420	1.416	1.370	1.380					
350	2.299	2.202	2.191	2.095	2.041	1.983	1.925	1.970					
300	3.469	3.322	3.279	3.090	3.058	2.867	2.805	2.803					
HEIGHT	SCALE HEIGHT, KM												
	950	900	850	800	750	700	650	600	550	500	450	400	350
950	461.2	437.7	446.7	424.5	448.1	448.6	449.1	478.0					
900	424.4	415.6	426.0	392.4	418.7	422.5	424.4	435.7					
850	396.0	390.2	399.5	371.8	393.7	392.9	401.7	402.8					
800	367.9	365.4	371.3	350.4	367.8	365.1	378.4	374.3					
750	340.2	335.6	342.6	328.4	337.9	339.1	354.7	346.7					
700	312.6	307.7	314.0	306.3	308.1	313.1	331.0	319.0					
650	283.2	277.9	281.7	277.7	277.0	277.3	288.2	292.7					
600	253.0	248.0	249.1	247.0	245.0	240.4	233.5	267.6					
550	215.6	216.9	216.8	214.4	211.2	212.8	210.7	242.5					
500	174.0	184.7	184.7	181.4	178.0	186.4	188.2	211.5					
450	158.1	155.2	156.1	156.4	155.9	165.7	167.6	149.6					
400	143.3	145.6	149.2	150.0	147.0	157.3	158.7	140.7					
350	128.4	128.8	132.3	136.7	132.2	142.7	140.0	141.8					
300	122.5	121.1	121.9	128.1	118.8	130.2	132.9	138.1					
LONG	-83.06	-83.30	-82.91	-82.49	-82.04	-81.54	-81.02	-80.39					
LAT	35.50	37.45	39.40	41.34	43.28	45.21	47.15	49.12					
QUAL	13	13	13	13	13	13	13	13					

PASS 2137 AT OTTAWA, 63 3 4

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	200713	200748	200823	200858	200933	201009	201044	201119
1000	0.157	0.142	0.151	0.130	0.234	0.205	0.195	0.170
950	0.175	0.161	0.168	0.147	0.259	0.232	0.217	0.189
900	0.197	0.189	0.189	0.170	0.286	0.263	0.242	0.210
850	0.221	0.215	0.214	0.194	0.318	0.296	0.269	0.233
800	0.251	0.245	0.244	0.225	0.357	0.335	0.304	0.266
750	0.269	0.283	0.285	0.267	0.408	0.385	0.345	0.306
700	0.333	0.327	0.335	0.318	0.473	0.444	0.393	0.353
650	0.393	0.377	0.393	0.381	0.558	0.517	0.469	0.416
600	0.479	0.470	0.486	0.475	0.662	0.626	0.572	0.515
550	0.582	0.587	0.600	0.590	0.815	0.762	0.699	0.631
500	0.749	0.758	0.768	0.752	1.033	0.959	0.875	0.787
450	1.009	1.022	1.050	0.983	1.328	1.241	1.111	0.983
400	1.433	1.418	1.441	1.330	1.727	1.626	1.445	1.272
350	1.963	1.971	1.966	1.802	2.319	2.137	1.870	1.647
300	2.774	2.773	2.708	2.461	3.141	2.804	2.424	2.141
HEIGHT	SCALE HEIGHT, KM							
950	435.1	388.0	433.1	382.9	489.7	402.4	476.5	475.5
900	413.7	361.5	401.4	354.9	473.7	399.8	448.8	442.2
850	396.4	360.1	376.5	336.0	443.9	389.2	425.0	405.9
800	374.7	353.7	352.3	317.5	406.8	374.5	396.1	379.8
750	348.7	333.8	329.5	299.3	361.7	353.5	367.2	353.7
700	322.7	313.8	306.7	281.1	324.5	332.4	338.3	327.5
650	295.0	293.9	283.8	262.9	300.2	308.0	306.4	300.7
600	265.3	259.3	255.1	244.4	276.0	274.6	273.4	272.9
550	235.7	224.6	226.2	225.9	238.1	241.5	242.5	245.0
500	198.4	190.1	193.6	202.1	206.3	209.8	221.6	227.1
450	158.8	162.4	160.8	178.1	198.5	193.3	205.1	211.5
400	150.5	154.6	161.1	169.4	179.7	184.4	195.0	200.7
350	151.8	149.7	159.0	161.8	170.3	185.0	193.2	192.0
300	146.8	143.9	160.9	163.5	166.1	193.0	199.2	196.7
LONG	-79.74	-79.03	-78.22	-77.36	-76.32	-75.17	-73.87	-72.37
LAT	51.04	52.95	54.86	56.75	58.63	60.56	62.41	64.25
QUAL	23	23	23	23	33	33	33	33

PASS 2137 AT OTTAWA, 63 3 4  
 ELECTRON DENSITY IN ELECTRONS PER CC. (X10-5)

HEIGHT	TIME (UT)
	201136
1000	0.188
950	0.209
900	0.232
850	0.260
800	0.295
750	0.342
700	0.398
650	0.474
600	0.565
550	0.673
500	0.841
450	1.057
400	1.346
350	1.731
300	2.241

HEIGHT	SCALE HEIGHT, KM
950	460.2
900	436.4
850	407.2
800	376.6
750	344.4
700	312.3
650	295.8
600	280.1
550	263.9
500	235.4
450	214.8
400	206.5
350	195.7
300	195.1

LONG -71.57  
 LAT 65.13  
 QUAL 33

PASS 2143 AT RESLUT, 63 3 5  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	65053	65110	65128	65145	65203	65221	65238	65256
1000	0.042	0.013	0.037	0.032	0.026	0.022	0.015	0.026
950	0.048	0.016	0.042	0.039	0.031	0.029	0.019	0.031
900	0.055	0.018	0.048	0.047	0.038	0.035	0.025	0.038
850	0.063	0.021	0.056	0.056	0.047	0.043	0.030	0.047
800	0.074	0.023	0.065	0.067	0.060	0.051	0.039	0.059
750	0.086	0.026	0.078	0.081	0.074	0.061	0.054	0.074
700	0.100	0.031	0.096	0.096	0.096	0.081	0.073	0.090
650	0.116	0.038	0.118	0.120	0.131	0.108	0.095	0.110
600	0.139	0.046	0.144	0.153	0.175	0.146	0.127	0.157
550	0.171	0.055	0.202	0.193	0.227	0.203	0.196	0.246
500	0.209	0.066	0.296	0.298	0.351	0.273	0.283	0.377
450	0.254	0.096	0.437	0.449	0.511	0.485	0.481	0.602
400	0.322	0.142	0.633	0.673	0.758	0.819	0.769	0.942
350	0.534	0.228	1.014	0.966	1.081	1.117	1.235	1.457
300	0.793	0.437	1.510	1.312	1.362	1.385	1.612	2.204
HEIGHT	SCALE HEIGHT, KM							
950	364.9		377.0	261.9	253.2		187.6	241.0
900	347.7	390.5	361.4	264.1	234.7	233.0	189.7	225.7
850	342.5	388.4	334.6	265.0	226.2	232.1	191.8	221.8
800	341.3	360.6	276.4	260.6	217.7	231.2	190.2	218.0
750	340.1	333.1	255.9	256.1	209.2	230.3	183.3	214.1
700	318.0	311.7	241.3	251.6	198.6	207.3	176.5	210.3
650	284.5	290.3	226.6	231.7	185.2	181.7	169.6	206.5
600	264.8	268.8	212.0	201.3	171.9	160.7	160.2	184.4
550	248.2	247.4	178.6	171.0	158.6	146.7	138.8	141.1
500	231.7	226.0	134.7	149.7	146.5	132.6	117.4	113.1
450	215.1	186.9	127.1	129.1	134.3	124.5	112.0	113.4
400	192.4	140.2	123.9	139.3	148.2	129.2	109.8	114.9
350	127.4	99.2	128.5	154.4	181.7	163.5	151.8	119.4
300	156.5	78.4	157.6	231.9	423.1	533.0	249.6	148.7
LONG	-177.35	-171.94	-165.92	-160.23	-154.30	-148.82	-143.65	-138.18
LAT	80.17	80.33	80.36	80.38	80.36	80.05	79.75	79.44
QUAL	33	33	33	33	33	33	33	33

PASS 2143 AT RESLUT, 63 3 5		
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)		
HEIGHT	TIME (UT)	
	65313	65406
1000	0.015	0.017
950	0.018	0.023
900	0.021	0.028
850	0.026	0.034
800	0.032	0.042
750	0.045	0.051
700	0.063	0.062
650	0.088	0.075
600	0.121	0.096
550	0.161	0.122
500	0.262	0.167
450	0.466	0.233
400	0.765	0.344
350	1.123	0.545
300		0.990
HEIGHT	SCALE HEIGHT, KM	
	286.5	207.3
950	286.5	207.3
900	262.8	230.5
850	239.2	247.5
800	215.6	249.8
750	183.3	248.0
700	150.8	243.4
650	145.9	235.5
600	142.1	209.7
550	126.5	184.9
500	108.2	164.4
450	99.0	143.7
400	116.9	121.9
350	258.9	95.7
300		96.3
LONG	-133.96	-122.13
LAT	78.96	77.24
QUAL	33	33

PASS 2143 AT SOLANT, 63 3 5								
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)								
HEIGHT	TIME (UT)							
	73324	73359	73434	73509	73544	73619	73712	73747
1000	0.217	0.178	0.150	0.155	0.170	0.136	0.101	0.074
950	0.226	0.188	0.154	0.164	0.176	0.145	0.108	0.081
900	0.233	0.200	0.164	0.174	0.182	0.155	0.116	0.090
850	0.251	0.215	0.179	0.185	0.193	0.168	0.126	0.100
800	0.274	0.234	0.198	0.198	0.207	0.183	0.139	0.113
750	0.294	0.256	0.215	0.213	0.226	0.201	0.152	0.129
700	0.329	0.287	0.237	0.241	0.255	0.221	0.170	0.154
650	0.389	0.328	0.272	0.282	0.307	0.250	0.207	0.187
600	0.499	0.377	0.324	0.337	0.465	0.284	0.257	0.227
550	0.724	0.481	0.506	0.465	0.652	0.349	0.351	0.298
500	1.032	0.722	0.752	0.698	0.885	0.558	0.485	0.453
450	1.429	1.131	1.143	1.081	1.325	0.880	0.834	0.700
400	1.982	1.652	1.822	1.660	1.968	1.365	1.356	1.132
350	2.709	2.328	2.694	2.439	2.706	1.942	2.046	1.766
300		3.028						2.441
HEIGHT	SCALE HEIGHT, KM							
	950	1683.4	785.8	1199.5	853.7	1389.5	710.3	723.4
900	1286.8	724.6	995.2	796.3	1052.5	665.4	635.4	471.5
850	867.0	663.3	790.9	716.2	872.3	620.4	576.9	425.3
800	634.8	578.2	609.8	631.3	701.5	569.9	513.7	382.3
750	566.2	488.1	529.8	546.5	536.2	514.7	444.4	339.3
700	386.4	419.2	440.7	447.7	387.2	457.8	373.3	301.5
650	242.2	360.8	336.9	341.8	250.7	388.1	290.3	264.9
600	173.4	302.5	232.2	238.2	158.9	318.3	207.4	228.4
550	147.2	189.7	119.8	154.9	146.7	228.0	168.1	184.4
500	149.0	118.5	123.8	123.5	143.8	109.5	130.8	124.6
450	153.5	120.9	107.2	115.0	126.8	111.3	97.7	110.8
400	156.4	138.5	115.2	121.6	134.2	129.9	113.1	107.7
350	164.6	169.0	161.9	164.3	216.6	147.5	132.8	127.1
300		225.6						248.7
LONG	-71.94	-71.22	-70.36	-69.44	-68.37	-67.16	-65.02	-63.33
LAT	-51.72	-53.64	-55.55	-57.46	-59.35	-61.22	-64.04	-65.87
QUAL	33	33	23	23	33	23	23	13

PASS 2143 AT SOLANT, 63 3 5

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)						
	73822	73857	73932	74008	74043	74118	74153
1000	0.067	0.057	0.062	0.084	0.095	0.153	0.210
950	0.071	0.066	0.078	0.104	0.117	0.181	0.239
900	0.076	0.076	0.097	0.125	0.141	0.203	0.272
850	0.085	0.087	0.118	0.149	0.166	0.233	0.307
800	0.094	0.102	0.143	0.182	0.194	0.268	0.352
750	0.106	0.122	0.177	0.222	0.238	0.309	0.405
700	0.127	0.146	0.222	0.270	0.290	0.359	0.468
650	0.158	0.175	0.274	0.325	0.350	0.416	0.548
600	0.203	0.225	0.333	0.397	0.419	0.494	0.641
550	0.295	0.292	0.412	0.489	0.517	0.611	0.758
500	0.435	0.398	0.517	0.595	0.631	0.757	0.968
450	0.677	0.588	0.640	0.779	0.761	1.002	1.236
400	1.069	0.894	0.816	1.051	1.024	1.359	1.607
350	1.623	1.290	1.188	1.408	1.365	1.866	2.102
300	2.197	1.783	1.615	1.782	1.825	2.371	2.740

HEIGHT	SCALE HEIGHT, KM						
950	734.8	347.0					379.9
900	578.7	337.2		250.7		360.7	379.1
850	464.1	320.6		256.6	266.5	357.6	378.3
800	414.0	303.3	240.2	258.9	273.1	354.4	364.3
750	363.1	285.2	242.3	259.7	271.1	345.8	348.2
700	281.6	267.0	242.2	260.5	269.2	324.6	330.8
650	214.2	248.9	242.0	261.3	267.2	303.4	309.7
600	167.6	219.6	241.9	252.1	265.2	277.2	288.5
550	147.1	187.1	234.7	235.6	249.9	244.7	265.5
500	130.1	149.2	220.2	219.2	234.7	212.3	232.8
450	116.5	126.1	205.7	198.8	219.4	183.0	202.4
400	111.3	129.5	187.6	176.6	199.5	168.3	193.9
350	136.7	146.1	156.8	184.8	179.6	187.9	188.3
300	379.4	158.7	230.0	272.9	190.8	240.3	280.4

LONG	-61.31	-59.09	-56.17	-52.84	-48.70	-43.67	-37.79
LAT	-67.67	-69.45	-71.16	-72.89	-74.49	-75.98	-77.37
QUAL	21	33	23	23	33	33	32



PASS 2156 AT QUITOE, 63 3 6  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	60624	60717	60734	60809	60844	60919	61012	61047
1000	0.111	0.107	0.104	0.098	0.104	0.104	0.113	0.118
950	0.118	0.112	0.110	0.104	0.110	0.110	0.119	0.126
900	0.123	0.115	0.113	0.110	0.115	0.116	0.127	0.135
850	0.128	0.119	0.117	0.116	0.121	0.124	0.137	0.149
800	0.134	0.123	0.121	0.123	0.127	0.133	0.149	0.166
750	0.140	0.129	0.126	0.131	0.136	0.141	0.164	0.190
700	0.148	0.136	0.132	0.139	0.147	0.148	0.184	0.231
650	0.158	0.145	0.141	0.148	0.159	0.163	0.216	0.301
600	0.169	0.159	0.153	0.159	0.174	0.183	0.268	0.411
550	0.185	0.180	0.171	0.173	0.199	0.213	0.375	0.558
500	0.216	0.224	0.203	0.219	0.248	0.281	0.603	0.833
450	0.329	0.314	0.288	0.365	0.411	0.493	1.181	1.500
400	0.629	0.521	0.565	0.646	0.855	1.123	2.146	2.635
350	0.971	0.995	1.103	1.117	1.706	2.437	3.620	4.193
300	1.442				3.530	4.561	5.831	5.814
HEIGHT	SCALE HEIGHT, KM							
950		1465.0	1704.0			906.3	834.4	807.1
900	1268.9	1778.6	1629.9	948.5	1139.6	814.1	702.7	619.4
850	1210.6	1683.5	1557.4	892.1	997.0	769.7	636.0	503.0
800	1090.5	1444.0	1297.2	843.3	838.8	777.2	569.0	420.2
750	964.1	1019.4	1114.8	814.3	737.7	812.4	467.8	317.4
700	866.8	856.3	953.4	788.7	656.0	723.2	367.4	218.9
650	793.6	773.7	737.8	740.8	583.2	465.6	285.5	178.4
600	684.9	490.4	530.1	655.2	468.5	374.5	198.5	162.1
550	458.4	329.9	382.8	516.1	300.3	279.0	131.5	148.7
500	180.9	184.6	215.0	114.2	185.1	133.5	89.4	105.0
450	106.7	128.7	103.9	101.2	73.4	70.8	74.8	86.3
400	90.7	86.5	71.2	80.1	70.7	55.7	91.7	95.8
350	111.3	79.0	85.1	88.6	70.6	74.1	99.9	129.1
300	165.9				69.2	87.5	125.0	187.8
LONG	-66.26	-65.97	-65.88	-65.69	-65.51	-65.32	-65.05	-64.86
LAT	11.64	8.65	7.69	5.72	3.75	1.78	-1.20	-3.17
QUAL	23	23	23	23	23	23	23	23

PASS 2156 AT QUITOE, 63 3 6  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	61122	61157	61232	61308	61343	61418	61453	61510
1000	0.133	0.140	0.150	0.170	0.175	0.174	0.173	0.165
950	0.144	0.156	0.169	0.192	0.204	0.202	0.200	0.191
900	0.159	0.175	0.198	0.234	0.257	0.253	0.243	0.231
850	0.179	0.207	0.242	0.293	0.315	0.320	0.308	0.290
800	0.209	0.256	0.310	0.372	0.371	0.399	0.393	0.374
750	0.260	0.331	0.395	0.454	0.421	0.478	0.479	0.465
700	0.343	0.425	0.478	0.521	0.489	0.538	0.553	0.550
650	0.447	0.523	0.553	0.588	0.577	0.606	0.624	0.633
600	0.561	0.615	0.644	0.698	0.705	0.702	0.726	0.738
550	0.759	0.769	0.842	0.876	0.915	0.852	0.908	0.908
500	1.212	1.123	1.146	1.197	1.256	1.141	1.185	1.193
450	1.939	1.777	1.725	1.733	1.822	1.686	1.686	1.680
400	2.938	2.666	2.505	2.469		2.418	2.482	2.486
350	4.155	3.839	3.567	3.519		3.286	3.615	3.639
300		5.046						
HEIGHT	SCALE HEIGHT, KM							
950	576.6	466.1	361.2	332.6	262.1	278.6	296.0	300.9
900	466.2	359.2	291.7	228.0	235.6	210.2	237.1	242.0
850	378.0	275.2	226.4	216.4	272.5	219.6	210.3	208.6
800	270.3	218.8	200.2	229.5	369.1	253.1	231.2	213.5
750	203.0	195.4	232.2	297.3	359.6	349.8	310.0	265.4
700	184.4	217.1	302.5	432.3	317.8	443.8	380.2	325.0
650	208.0	277.1	373.1	346.1	280.2	370.2	382.1	351.5
600	202.3	289.9	247.6	258.9	224.8	314.9	278.5	287.1
550	134.5	166.7	169.7	188.5	171.2	213.3	207.0	211.0
500	103.9	112.2	143.0	149.6	146.2	147.1	168.8	163.1
450	114.4	119.8	130.1	138.1	141.7	131.1	136.2	138.7
400	130.2	126.3	136.7	140.3		152.1	129.1	125.9
350	162.2	155.2	159.9	179.7		171.7	146.2	158.5
300		294.9						
LONG	-64.67	-64.49	-64.30	-64.10	-63.91	-63.70	-63.49	-63.39
LAT	-5.14	-7.11	-9.09	-11.12	-13.09	-15.05	-17.03	-17.98
QUAL	23	23	23	23	23	23	23	23

PASS 2156 AT AGASTA, 63 3 6  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	61637	61654	61732	61748	61840	61915	61932	62025
1000	0.156	0.152	0.161	0.130	0.126	0.110	0.116	0.121
950	0.171	0.165	0.170	0.141	0.134	0.122	0.125	0.129
900	0.191	0.181	0.190	0.156	0.141	0.130	0.136	0.134
850	0.221	0.204	0.219	0.174	0.150	0.138	0.149	0.139
800	0.286	0.264	0.256	0.200	0.160	0.155	0.165	0.164
750	0.378	0.351	0.301	0.236	0.220	0.173	0.183	0.180
700	0.493	0.461	0.379	0.291	0.283	0.193	0.219	0.189
650	0.638	0.626	0.598	0.375	0.333	0.237	0.271	0.221
600	0.839	0.837	0.840	0.563	0.491	0.322	0.405	0.325
550	1.134	1.160	1.224	0.945	0.760	0.482	0.604	0.483
500	1.607	1.690	1.861	1.599	1.200	0.817	0.946	0.760
450	2.387	2.561	2.884	2.646	2.168	1.436	1.581	1.221
400	3.628	3.935	4.521	4.313	4.096	2.540	2.629	1.937
350	5.460	6.134	6.898	6.879		4.618	4.226	
300								

HEIGHT	SCALE HEIGHT, KM							
	61637	61654	61732	61748	61840	61915	61932	62025
950	484.9	567.1	735.4	520.9	838.0	661.9	619.2	1113.3
900	388.8	453.8	584.8	462.9	762.6	626.8	562.7	1071.7
850	296.0	345.5	434.3	411.2	634.0	645.9	505.0	867.4
800	239.1	265.9	336.9	350.2	505.1	474.7	447.0	512.0
750	193.6	191.0	270.3	284.8	283.9	414.1	389.0	534.4
700	192.1	174.5	199.6	227.3	209.0	354.0	289.5	536.8
650	188.2	165.5	128.0	176.7	200.2	205.8	190.2	198.1
600	177.1	162.7	137.6	116.8	143.1	144.6	156.9	130.4
550	157.3	146.4	120.7	95.8	115.2	112.3	124.8	118.2
500	136.8	128.2	117.7	97.7	92.3	91.0	105.9	110.3
450	121.9	120.0	113.0	101.4	79.0	89.7	99.3	105.1
400	122.9	112.1	111.5	103.7	83.3	85.3	99.5	114.2
350	120.5	133.9	140.4	128.5		89.6	113.6	
300								

LONG	-62.82	-62.70	-62.42	-62.30	-61.88	-61.58	-61.43	-60.93
LAT	-22.88	-23.83	-25.97	-26.87	-29.78	-31.74	-32.70	-35.67
QUAL	23	23	23	23	23	23	23	23

PASS 2156 AT AGASTA, 63 3 6

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)	
	62338	62413
1000	0.175	0.149
950	0.187	0.159
900	0.199	0.172
850	0.212	0.187
800	0.225	0.206
750	0.251	0.229
700	0.289	0.262
650	0.339	0.302
600	0.426	0.369
550	0.539	0.524
500	0.850	0.794
450	1.291	1.295
400	1.803	1.897
350		
300		

HEIGHT	SCALE HEIGHT, KM	
	950	766.7
900	807.2	608.3
850	721.8	543.7
800	599.2	487.6
750	491.4	431.5
700	386.9	368.0
650	287.7	303.5
600	231.3	230.6
550	174.8	136.0
500	112.2	113.2
450	135.5	115.8
400	162.7	146.5
350		
300		

LONG	-58.50	-57.93
LAT	-46.41	-48.35
QUAL	23	23

PASS 2156 AT SOLANT, 63 3 6  
 ELECTRON DENSITY IN ELECTRONS PER CC (X10<sup>-5</sup>)

HEIGHT	TIME (UT)					
	61729	61747	61840	61932	62025	62135
1000	0.135	0.126	0.122	0.116	0.115	0.127
950	0.150	0.139	0.129	0.125	0.122	0.133
900	0.166	0.154	0.138	0.137	0.129	0.141
850	0.165	0.173	0.150	0.151	0.136	0.151
800	0.220	0.200	0.166	0.168	0.146	0.164
750	0.260	0.235	0.193	0.190	0.159	0.180
700	0.345	0.287	0.236	0.221	0.175	0.202
650	0.497	0.406	0.307	0.282	0.197	0.235
600	0.783	0.656	0.441	0.389	0.271	0.299
550	1.264	1.128	0.700	0.590	0.386	0.424
500	2.016	1.859	1.305	0.994	0.634	0.670
450	3.217	3.042	2.544	1.753	1.034	1.063
400	5.310	5.170	4.742	2.811	1.693	1.585
350	8.555	7.746		4.572	2.576	
300					3.323	

HEIGHT	SCALE HEIGHT, KM					
950	489.6	509.3	851.9	603.0	902.7	915.4
900	455.6	438.5	674.2	544.5	932.4	799.9
850	384.4	382.0	558.7	490.0	818.6	695.1
800	312.2	337.8	435.5	431.1	667.2	566.2
750	243.4	291.3	266.7	368.9	534.0	488.6
700	157.2	208.4	224.9	275.1	473.4	380.9
650	128.5	127.4	170.7	172.6	341.0	269.8
600	103.4	101.9	126.4	140.5	112.0	172.8
550	106.5	92.8	94.2	108.4	122.7	131.7
500	105.9	100.9	71.8	92.6	91.7	106.9
450	108.6	100.0	78.2	96.6	100.3	117.4
400	98.3	91.3	72.5	102.2	110.0	144.4
350	115.4	236.7		115.2	146.5	
300					266.2	

LONG	-62.44	-62.31	-61.88	-61.43	-60.93	-60.16
LAT	-25.80	-26.81	-29.78	-32.70	-35.67	-39.57
QUAL	13	32	32	32	32	32

PASS 2156 AT SOLANT, 63 3 6				
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)				
HEIGHT	TIME (UT)			
	62338	62557	62632	62742
1000	0.153	0.163	0.180	0.112
950	0.169	0.174	0.188	0.121
900	0.181	0.184	0.198	0.129
850	0.191	0.194	0.211	0.136
800	0.203	0.209	0.225	0.143
750	0.217	0.227	0.243	0.153
700	0.234	0.249	0.265	0.167
650	0.259	0.278	0.297	0.192
600	0.301	0.324	0.350	0.232
550	0.403	0.420	0.427	0.298
500	0.633	0.604	0.643	0.392
450	1.031	0.942	1.086	0.664
400	1.605	1.611	1.810	1.191
350		2.311	2.568	2.183
300				
HEIGHT	SCALE HEIGHT, KM			
950	624.0	821.9	1073.9	758.0
900	815.3	901.9	907.5	886.7
850	877.1	777.0	788.8	966.5
800	792.6	673.1	719.2	830.3
750	692.6	568.4	612.5	667.6
700	583.3	491.9	504.0	457.8
650	434.2	404.7	370.4	317.6
600	262.4	241.3	273.1	233.9
550	128.1	164.1	199.3	185.8
500	107.2	127.2	103.8	150.2
450	106.9	101.2	90.2	89.6
400	141.7	111.1	124.3	83.5
350		184.2	192.2	123.0
300				
LONG	-58.50	-55.87	-54.99	-52.95
LAT	-46.41	-54.07	-55.97	-59.76
QUAL	32	32	22	21

PASS 2156 AT SOLANT, 63 3 6  
 ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	62853	62928	63003	63038	63113	63148	63223	63241
1000	0.122	0.084	0.063	0.058	0.058	0.072	0.123	0.196
950	0.129	0.091	0.069	0.068	0.069	0.086	0.141	0.217
900	0.135	0.096	0.076	0.079	0.082	0.100	0.160	0.244
850	0.144	0.104	0.085	0.092	0.097	0.116	0.183	0.272
800	0.156	0.114	0.096	0.109	0.115	0.136	0.206	0.303
750	0.180	0.128	0.112	0.132	0.138	0.160	0.237	0.338
700	0.208	0.148	0.133	0.159	0.167	0.187	0.273	0.383
650	0.240	0.176	0.160	0.203	0.204	0.220	0.321	0.441
600	0.312	0.213	0.205	0.260	0.258	0.265	0.381	0.518
550	0.433	0.269	0.265	0.341	0.347	0.341	0.458	0.617
500	0.661	0.349	0.350	0.445	0.496	0.461	0.557	0.752
450	1.023	0.480	0.468	0.597	0.692	0.635	0.691	0.919
400	1.454	0.669	0.651	0.799	0.933	0.792	0.871	1.158
350	2.011	0.920	0.935	1.052	1.186	0.945	1.103	1.449
300		1.257	1.283	1.353			1.329	1.694
HEIGHT	SCALE HEIGHT, KM							
950	1153.0	754.9	529.0	321.1	287.5	302.8	402.7	439.5
900	870.8	785.6	489.1	322.6	289.1	327.6	391.9	446.3
850	686.1	585.5	423.8	303.7	290.7	325.3	395.4	467.0
800	533.8	492.0	361.3	276.9	282.7	320.0	373.9	456.3
750	352.2	400.5	309.4	256.8	270.9	315.9	352.6	416.9
700	312.2	311.9	276.9	236.7	254.2	308.0	331.3	376.4
650	272.2	277.7	244.6	216.7	234.4	290.3	310.4	336.8
600	196.1	247.7	215.1	197.6	194.5	232.2	289.5	303.3
550	140.0	213.9	189.5	189.8	162.6	190.8	266.5	271.3
500	114.1	178.3	177.6	182.0	149.2	160.2	244.3	255.2
450	129.9	157.4	164.5	174.3	161.1	189.9	228.8	239.6
400	146.7	154.9	149.8	179.9	191.2	251.7	219.5	228.3
350	188.9	158.2	151.5	176.5	234.5	349.1	241.1	263.0
300		184.3	177.6	441.9			347.9	500.4
LONG	-50.30	-48.61	-46.79	-44.48	-41.85	-38.72	-34.76	-32.51
LAT	-63.55	-65.38	-67.20	-68.97	-70.71	-72.40	-74.01	-74.82
QUAL	32	11	21	21	22	22	31	21

PASS 2163 AT AGASTA, 63 3 6  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	191219	191254	191329	191404	191440	191515	191548	191625
1000	0.163	0.204	0.214	0.241	0.266	0.287	0.299	0.305
950	0.179	0.217	0.236	0.262	0.291	0.314	0.327	0.337
900	0.196	0.234	0.263	0.290	0.323	0.356	0.363	0.377
850	0.218	0.255	0.293	0.322	0.360	0.412	0.407	0.427
800	0.247	0.288	0.331	0.364	0.412	0.480	0.474	0.487
750	0.282	0.342	0.381	0.424	0.481	0.559	0.578	0.642
700	0.332	0.411	0.456	0.506	0.578	0.704	0.746	0.863
650	0.415	0.493	0.558	0.644	0.762	0.949	1.011	1.220
600	0.520	0.635	0.754	0.878	1.070	1.389	1.614	1.966
550	0.720	0.917	1.081	1.324	1.702	2.338	2.711	3.126
500	1.071	1.414	1.781	2.262	2.958	4.009	4.458	4.530
450	1.771	2.325	3.025	3.928	5.370		6.390	5.845
400	2.979	4.047	5.382	7.097	8.651		7.711	7.342
350	5.207	6.915	8.863					8.609
300	8.685	10.979						
HEIGHT	SCALE HEIGHT, KM							
950	538.6	684.1	480.0	528.8	511.9	497.7	502.9	460.7
900	487.9	594.8	457.3	475.3	463.8	443.7	440.8	400.5
850	427.7	505.5	424.4	430.5	415.2	389.7	382.2	346.8
800	384.2	416.4	376.6	380.2	355.0	333.6	309.8	293.1
750	340.8	327.5	320.9	325.1	292.9	276.5	225.7	230.2
700	296.2	266.5	267.4	252.4	229.2	214.3	190.1	166.7
650	248.9	232.4	214.4	188.2	177.8	156.1	143.6	128.0
600	201.6	186.6	167.1	148.8	134.2	116.3	98.2	105.8
550	156.0	131.7	123.9	108.0	95.2	91.7	97.0	115.2
500	109.8	108.2	94.1	94.2	86.2	92.5	116.2	173.7
450	100.8	96.6	90.2	81.4	87.7		202.8	204.0
400	90.2	90.4	90.2	98.6	124.3		273.1	260.7
350	91.6	104.6	101.3					465.4
300	114.7	110.5						
LONG	-87.40	-87.11	-86.84	-86.58	-86.34	-86.10	-85.90	-85.67
LAT	-30.08	-28.12	-26.15	-24.18	-22.16	-20.18	-18.33	-16.24
QUAL	23	23	23	23	23	23	23	23



PASS 2163 AT AGASTA, 63 3 6

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)						
	191700	191735	191753	191828	191903	191939	192014
1000	0.307	0.316	0.312	0.316	0.320	0.317	0.327
950	0.336	0.349	0.347	0.347	0.352	0.345	0.360
900	0.375	0.394	0.392	0.389	0.393	0.387	0.403
850	0.423	0.449	0.447	0.442	0.445	0.437	0.454
800	0.482	0.537	0.526	0.506	0.507	0.496	0.514
750	0.649	0.703	0.682	0.646	0.627	0.574	0.612
700	0.891	0.940	0.916	0.871	0.828	0.755	0.772
650	1.235	1.329	1.313	1.258	1.149	1.024	1.000
600	1.969	2.051	2.056	1.965	1.816	1.529	1.416
550	2.979	3.000	2.974	2.947	2.906	2.579	2.326
500	4.056	3.952	3.969	3.952	4.269	4.295	3.913
450	5.376	5.320	5.369	5.251	5.627	6.339	6.415
400	6.931	6.996	7.024	6.925	7.102	8.166	9.406
350		8.602		8.454		9.908	
300							
HEIGHT	SCALE HEIGHT, KM						
950	461.2	443.0	429.6	455.3	462.8	500.3	467.3
900	407.5	374.9	374.2	394.0	409.5	419.5	418.5
850	354.6	322.0	327.2	348.5	364.6	379.5	378.9
800	301.6	268.4	276.5	303.0	319.7	339.4	339.4
750	224.5	214.0	214.0	235.4	254.8	294.4	291.7
700	156.4	165.4	160.9	158.2	175.9	212.7	235.4
650	132.5	131.9	127.3	124.3	137.1	149.8	178.6
600	112.9	119.8	120.1	118.1	104.3	110.2	124.7
550	138.9	159.0	156.4	143.7	113.2	95.1	95.5
500	180.6	179.7	169.8	182.5	160.2	110.3	95.5
450	170.4	165.1	167.5	169.7	194.3	159.5	114.6
400	283.6	217.8	242.2	218.6	261.3	228.1	172.4
350		370.0		292.3		345.6	
300							
LONG	-85.46	-85.26	-85.15	-84.96	-84.76	-84.57	-84.39
LAT	-14.27	-12.30	-11.28	-9.31	-7.33	-5.30	-3.33
QUAL	23	22	23	23	23	23	23

PASS 2164 AT QUITOE, 63 3 6  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	192217	192252	192327	192402	192438	192513	192548	192623
1000	0.279	0.302	0.262	0.241	0.221	0.224	0.198	0.183
950	0.314	0.331	0.297	0.276	0.250	0.250	0.220	0.206
900	0.356	0.368	0.340	0.315	0.286	0.282	0.247	0.231
850	0.409	0.421	0.392	0.362	0.329	0.324	0.285	0.266
800	0.481	0.501	0.466	0.427	0.389	0.384	0.336	0.309
750	0.572	0.599	0.564	0.513	0.467	0.461	0.398	0.368
700	0.689	0.720	0.686	0.626	0.570	0.557	0.483	0.447
650	0.861	0.918	0.865	0.784	0.702	0.700	0.599	0.555
600	1.130	1.224	1.093	1.017	0.914	0.921	0.786	0.711
550	1.558	1.686	1.499	1.405	1.240	1.266	1.065	0.949
500	2.361	2.576	2.227	2.066	1.781	1.806	1.535	1.335
450	3.891	4.243	3.608	3.327	2.827	2.901	2.446	2.021
400	6.428	6.842	6.408	5.837	4.934	5.025	4.305	3.368
350	10.562		10.242	9.439	8.194	8.336	7.537	5.827
300				13.480	12.437	12.165	11.477	9.861
HEIGHT	SCALE HEIGHT, KM							
950	402.1	491.6	368.1	366.5	379.1	427.4	428.1	422.6
900	374.1	425.5	341.3	353.3	354.7	382.8	381.9	383.1
850	339.5	354.0	315.8	335.5	331.5	339.7	342.0	349.1
800	295.8	281.5	291.6	289.7	295.0	299.8	305.3	314.9
750	274.0	263.4	267.6	259.5	260.4	265.9	274.1	277.5
700	247.9	242.2	243.4	241.0	240.9	238.9	243.4	244.9
650	210.7	197.9	218.0	210.8	219.5	209.8	212.9	219.3
600	176.7	166.3	190.8	173.4	185.9	178.6	182.8	193.9
550	143.4	141.2	145.5	149.7	155.1	153.0	152.9	168.8
500	110.3	114.3	118.3	124.4	127.0	127.8	123.6	137.5
450	100.4	100.8	95.7	94.9	100.5	99.6	102.6	112.8
400	97.7	108.3	92.3	96.0	92.1	94.3	87.1	90.6
350	116.5		119.8	117.9	103.9	106.0	90.8	87.6
300				165.6	179.8	213.1	183.2	134.0
LONG	-83.74	-83.56	-83.37	-83.18	-82.98	-82.78	-82.58	-82.36
LAT	3.60	5.58	7.55	9.52	11.55	13.52	15.49	17.46
QUAL	23	23	23	23	23	23	22	22

## PASS 2164 AT QUITOE, 63 3 6

## ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)				
	192658	192733	192809	192844	192919
1000	0.183	0.170	0.169	0.169	0.174
950	0.203	0.192	0.185	0.186	0.192
900	0.227	0.215	0.209	0.209	0.215
850	0.260	0.242	0.236	0.235	0.243
800	0.301	0.280	0.269	0.272	0.275
750	0.352	0.334	0.319	0.320	0.323
700	0.413	0.400	0.381	0.382	0.389
650	0.509	0.497	0.469	0.463	0.472
600	0.642	0.630	0.590	0.574	0.590
550	0.840	0.821	0.753	0.750	0.735
500	1.177	1.180	1.056	1.028	1.013
450	1.732	1.761	1.551	1.480	1.416
400	2.729	2.783	2.392	2.201	2.021
350	4.968	4.764	4.016	3.457	3.036
300	8.813	8.455	7.149	5.759	4.777
HEIGHT	SCALE HEIGHT, KM				
950	460.5	431.2	472.5	465.5	441.7
900	404.7	411.7	412.7	418.9	411.1
850	368.9	363.0	376.4	374.7	382.5
800	334.7	325.7	340.7	339.1	353.9
750	307.1	295.6	306.4	304.9	318.7
700	278.2	265.4	272.1	275.1	279.9
650	238.2	236.1	242.2	248.2	245.3
600	202.4	207.1	215.2	217.9	222.3
550	173.3	172.6	184.8	181.6	199.3
500	146.7	133.2	141.1	145.7	154.7
450	122.6	118.3	126.4	134.8	149.3
400	101.3	102.2	108.3	119.6	132.7
350	80.3	85.8	89.8	103.4	113.7
300	92.6	96.6	96.8	103.4	120.4
LONG	-82.14	-81.92	-81.68	-81.42	-81.16
LAT	19.43	21.40	23.42	25.38	27.35
QUAL	22	22	23	23	23

PASS 2164 AT OTTAWA, 63 3 6

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	193201	193236	193311	193346	193421	193456	193531	193606
1000	0.160	0.162	0.150	0.149	0.153	0.146	0.134	0.130
950	0.161	0.186	0.168	0.170	0.173	0.166	0.152	0.150
900	0.206	0.212	0.194	0.194	0.198	0.191	0.176	0.174
850	0.236	0.241	0.222	0.223	0.226	0.220	0.203	0.201
800	0.271	0.279	0.257	0.257	0.260	0.253	0.234	0.232
750	0.320	0.328	0.306	0.304	0.308	0.300	0.279	0.275
700	0.386	0.389	0.366	0.362	0.367	0.358	0.332	0.328
650	0.469	0.471	0.441	0.438	0.437	0.427	0.395	0.399
600	0.583	0.588	0.546	0.537	0.544	0.529	0.492	0.495
550	0.748	0.759	0.703	0.701	0.688	0.676	0.617	0.642
500	0.998	1.013	0.938	0.920	0.921	0.903	0.826	0.851
450	1.383	1.411	1.292	1.260	1.279	1.240	1.129	1.163
400	1.964	2.014	1.841	1.769	1.826	1.757	1.593	1.651
350	2.842	2.954	2.735	2.583	2.661	2.577	2.344	2.438
300	4.219	4.325	4.140	3.925	3.993	3.803	3.531	3.708
HEIGHT	SCALE HEIGHT, KM							
950	384.1	372.4	394.7	361.3	387.2	374.2	370.5	335.1
900	366.2	371.2	358.0	359.9	366.4	351.2	346.9	334.4
850	346.5	348.0	334.5	342.0	344.0	335.2	330.6	326.3
800	326.8	326.0	313.8	323.8	322.8	319.2	314.4	317.7
750	301.9	305.3	298.0	304.0	305.4	303.0	298.9	296.1
700	274.4	284.6	282.1	284.1	288.0	286.8	283.3	274.5
650	246.9	256.5	260.7	252.6	270.5	268.7	267.5	246.6
600	219.6	219.8	221.0	213.1	230.9	225.4	232.9	214.7
550	192.1	189.8	192.5	197.0	195.0	194.1	199.8	194.0
500	166.2	165.5	172.0	181.0	170.1	175.0	176.4	177.7
450	153.5	149.2	153.2	159.7	150.1	154.6	156.5	157.7
400	138.7	135.9	132.9	138.6	135.2	135.5	137.6	134.1
350	128.8	129.6	123.1	125.8	128.3	129.6	124.9	124.7
300	138.7	145.8	125.3	125.3	127.9	129.9	130.4	125.9
LONG	-79.72	-79.33	-78.93	-78.50	-78.03	-77.53	-76.95	-76.35
LAT	36.41	38.35	40.30	42.24	44.18	46.11	48.03	49.96
QUAL	13	13	13	13	13	13	13	13

PASS 2164 AT OTTAWA, 63 3 6  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)						
	193624	193659	193734	193809	193845	193937	193955
1000	0.113	0.134	0.158	0.215	0.123	0.189	0.186
950	0.134	0.153	0.180	0.243	0.139	0.206	0.204
900	0.157	0.175	0.207	0.278	0.158	0.225	0.224
850	0.184	0.200	0.239	0.320	0.179	0.247	0.248
800	0.214	0.232	0.276	0.369	0.208	0.273	0.277
750	0.256	0.279	0.330	0.429	0.247	0.305	0.311
700	0.307	0.336	0.395	0.522	0.294	0.347	0.357
650	0.367	0.407	0.488	0.635	0.350	0.397	0.414
600	0.458	0.515	0.604	0.792	0.425	0.455	0.481
550	0.568	0.646	0.772	0.991	0.522	0.543	0.577
500	0.791	0.848	1.007	1.282	0.639	0.660	0.700
450	1.097	1.158	1.350	1.685	0.816	0.821	0.865
400	1.572	1.597	1.826	2.265	1.055	1.027	1.089
350	2.300	2.231	2.498	3.036	1.412	1.301	1.382
300	3.424	3.200	3.440	3.954	1.922	1.679	1.762
HEIGHT	SCALE HEIGHT, KM						
950	305.8	371.1	365.1	374.9	397.6	568.3	521.4
900	307.4	354.2	347.9	356.6	370.1	542.1	492.5
850	302.3	331.2	332.6	340.0	344.3	502.1	462.0
800	296.9	308.8	316.6	323.5	325.8	456.9	429.5
750	285.3	288.4	288.1	304.8	312.1	422.2	397.1
700	273.8	268.0	259.7	276.3	298.4	396.5	369.1
650	261.0	247.7	241.6	247.8	284.7	370.8	342.3
600	219.8	228.3	224.3	229.2	267.6	345.1	315.5
550	188.9	208.9	202.9	211.7	248.7	285.5	283.5
500	170.4	178.1	182.0	192.7	229.5	244.5	250.5
450	152.3	159.6	170.2	175.0	207.8	234.5	226.9
400	134.8	153.3	162.7	171.9	186.7	223.1	217.6
350	130.9	146.7	157.4	179.6	168.7	206.9	210.4
300	127.7	134.5	177.7	208.6	170.1	184.5	200.3
LONG	-75.99	-75.30	-74.48	-73.61	-72.58	-70.84	-70.20
LAT	50.94	52.86	54.75	56.64	58.58	61.36	62.31
QUAL	21	33	33	33	32	33	33

PASS 2164 AT RESLUT, 63 3 6  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	194138	194155	194213	194231	194248	194306	194323	194341
1000	0.083	0.079	0.136	0.101	0.110	0.110	0.120	0.108
950	0.098	0.093	0.154	0.118	0.124	0.124	0.136	0.127
900	0.115	0.108	0.174	0.138	0.140	0.143	0.155	0.148
850	0.135	0.125	0.199	0.160	0.161	0.166	0.180	0.174
800	0.156	0.144	0.229	0.185	0.189	0.192	0.212	0.206
750	0.181	0.168	0.263	0.218	0.223	0.221	0.250	0.247
700	0.215	0.202	0.300	0.256	0.263	0.265	0.295	0.302
650	0.256	0.242	0.352	0.304	0.308	0.323	0.352	0.373
600	0.325	0.291	0.420	0.372	0.380	0.394	0.443	0.477
550	0.489	0.355	0.504	0.471	0.487	0.504	0.560	0.607
500	0.696	0.506	0.633	0.598	0.620	0.672	0.776	0.834
450	0.897	0.694	0.935	0.812	0.888	0.878	1.110	1.149
400	1.112	0.958	1.292	1.130	1.243	1.224	1.503	1.546
350	1.445	1.294	1.661	1.531	1.661	1.702	1.992	2.065
300	1.887	1.974	2.151	2.009	2.149	2.330	2.704	2.733
HEIGHT	SCALE HEIGHT, KM							
950			403.4	323.1	414.0	388.2	384.9	319.9
900	312.7	331.0	383.8	330.9	372.5	353.7	351.5	311.3
850	333.9	338.4	374.6	325.5	343.1	339.5	334.0	298.0
800	323.4	314.4	377.9	317.9	321.6	320.5	322.3	282.5
750	300.7	294.3	375.2	312.7	301.9	301.0	309.4	264.2
700	270.1	277.7	319.9	307.5	284.5	278.9	279.4	243.2
650	239.6	261.1	294.6	264.8	267.1	256.3	249.8	223.2
600	210.9	244.5	269.3	227.3	241.5	233.8	221.3	205.6
550	187.2	226.0	244.1	211.5	210.9	213.1	192.7	188.0
500	171.4	195.3	216.5	195.7	180.4	194.2	172.9	175.6
450	184.2	164.6	180.4	181.2	170.6	175.3	157.0	164.9
400	196.9	142.9	172.4	167.5	164.4	163.0	166.3	170.3
350	202.5	123.1	192.2	177.9	184.7	160.6	170.7	179.3
300	364.0	998.0	147.7	209.2	255.4	205.1	233.8	201.5
LONG	-65.11	-64.12	-62.82	-61.42	-60.10	-58.53	-56.71	-54.78
LAT	67.65	68.51	69.41	70.29	71.13	72.00	72.79	73.63
QUAL	31	31	31	31	31	31	31	33

PASS 2164 AT RESLUT, 63 3 6  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	194358	194416	194433	194451	194509	194526	194544	194601
1000	0.102	0.101	0.085	0.097	0.090	0.081	0.083	0.082
950	0.121	0.118	0.102	0.114	0.105	0.093	0.093	0.093
900	0.140	0.137	0.121	0.133	0.123	0.108	0.107	0.105
850	0.164	0.160	0.140	0.155	0.143	0.125	0.126	0.121
800	0.191	0.189	0.162	0.182	0.168	0.149	0.149	0.141
750	0.229	0.225	0.195	0.215	0.198	0.177	0.175	0.166
700	0.279	0.272	0.237	0.262	0.237	0.217	0.206	0.210
650	0.339	0.332	0.287	0.320	0.294	0.270	0.261	0.265
600	0.434	0.416	0.347	0.390	0.365	0.334	0.330	0.332
550	0.565	0.538	0.506	0.525	0.470	0.432	0.415	0.437
500	0.752	0.701	0.728	0.696	0.631	0.606	0.579	0.585
450	1.047	0.967	0.992	0.944	0.831	0.827	0.793	0.765
400	1.428	1.312	1.301	1.267	1.130	1.130	1.093	1.099
350	1.908	1.765	1.766	1.705	1.522	1.511	1.516	1.518
300	2.563	2.372	2.368	2.240	2.050	2.059	2.071	1.967
HEIGHT	SCALE HEIGHT, KM							
950		328.3		316.7	321.2	351.2	391.6	382.2
900	321.5	315.7	319.4	317.6	321.6	329.5	344.6	357.4
850	306.4	301.7	312.1	311.6	319.1	308.0	314.5	329.1
800	290.2	291.7	288.2	291.5	313.9	287.0	293.9	300.8
750	272.3	281.7	270.7	272.3	279.0	265.9	277.0	274.0
700	254.2	262.6	253.1	255.4	250.1	247.2	259.7	253.4
650	236.0	236.9	235.6	238.5	234.4	229.8	237.3	232.8
600	213.7	214.5	218.0	221.5	218.7	212.4	214.9	212.2
550	189.9	196.0	185.5	199.5	204.2	195.2	192.5	195.3
500	173.4	179.5	150.9	177.5	191.0	178.4	179.4	180.3
450	168.6	173.6	161.5	172.7	177.9	163.1	166.5	165.7
400	167.6	168.9	172.1	172.5	172.7	166.3	159.7	168.2
350	172.2	171.0	173.7	179.7	167.6	171.8	158.7	173.2
300	184.2	183.0	183.3	200.7	193.2	191.1	173.7	186.0
LONG	-52.96	-50.33	-47.76	-45.04	-41.74	-38.08	-34.21	-30.47
LAT	74.42	75.17	75.88	76.63	77.30	77.88	78.49	79.05
QUAL	33	33	33	33	32	33	33	32

PASS 2164 AT RESLUT, 63 3 6  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	194619	194636	194654	194702	194729	194804	194822	194839
1000	0.070	0.061	0.047	0.041	0.035	0.048	0.010	0.010
950	0.079	0.071	0.056	0.049	0.042	0.024	0.015	0.015
900	0.091	0.083	0.067	0.058	0.050	0.030	0.019	0.019
850	0.107	0.100	0.081	0.072	0.061	0.036	0.025	0.025
800	0.131	0.120	0.098	0.089	0.074	0.047	0.033	0.031
750	0.160	0.145	0.122	0.112	0.090	0.061	0.044	0.039
700	0.200	0.183	0.159	0.143	0.120	0.079	0.061	0.049
650	0.252	0.232	0.203	0.182	0.160	0.101	0.083	0.068
600	0.313	0.291	0.258	0.227	0.211	0.143	0.112	0.098
550	0.408	0.379	0.360	0.313	0.291	0.202	0.173	0.136
500	0.611	0.535	0.489	0.460	0.415	0.300	0.254	0.183
450	0.882	0.749	0.729	0.686	0.607	0.459	0.381	0.239
400	1.243	1.160	1.104	1.026	0.898	0.719	0.594	0.464
350	1.725	1.709	1.628	1.497	1.304	1.073	0.900	0.757
300	2.395	2.415	2.395	2.095	1.775	1.520	1.338	0.997
HEIGHT	SCALE HEIGHT, KM							
950	369.0	308.1	258.4	280.2	278.2	221.4	158.1	168.2
900	323.0	287.4	257.8	255.9	265.3	223.3	180.8	198.5
850	291.7	271.8	249.4	241.0	250.2	217.8	175.7	204.8
800	270.0	257.9	240.9	227.6	234.6	201.6	175.5	203.4
750	248.2	243.9	229.5	215.3	219.1	189.6	174.4	195.8
700	229.9	230.0	215.6	206.6	204.5	183.5	166.1	188.2
650	214.1	216.0	201.7	197.9	190.0	176.3	155.8	160.0
600	198.3	202.1	187.4	189.2	175.5	156.7	145.7	141.6
550	180.1	184.4	168.4	169.8	159.9	138.4	138.4	139.6
500	154.9	159.3	149.4	140.5	143.4	126.2	131.0	137.6
450	141.1	137.1	134.8	129.1	135.1	121.8	125.6	135.6
400	148.3	131.0	125.5	130.4	133.3	125.9	122.8	127.8
350	156.3	138.1	130.5	142.4	154.6	137.6	128.5	149.8
300	178.8	186.0	149.7	197.7	207.1	159.4	146.2	217.2
LONG	-25.25	-20.33	-15.11	-12.70	-3.67	7.92	13.44	18.66
LAT	79.43	79.78	80.15	80.28	80.35	80.36	80.07	79.79
QUAL	33	33	23	23	22	23	33	33



PASS 2176 AT SOLANT, 63 3 7  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)													
	175414	175449	175542	175635	175728	175838	175931	180024						
1000	0.064	0.054	0.062	0.069	0.078	0.085	0.084	0.106						
950	0.072	0.060	0.071	0.078	0.090	0.098	0.092	0.114						
900	0.080	0.067	0.080	0.087	0.103	0.108	0.103	0.126						
850	0.090	0.076	0.090	0.098	0.117	0.121	0.118	0.139						
800	0.103	0.087	0.102	0.111	0.133	0.140	0.133	0.153						
750	0.119	0.100	0.117	0.128	0.153	0.159	0.150	0.176						
700	0.138	0.117	0.135	0.150	0.180	0.182	0.175	0.208						
650	0.162	0.142	0.160	0.181	0.216	0.221	0.206	0.249						
600	0.195	0.173	0.194	0.220	0.261	0.272	0.249	0.300						
550	0.244	0.217	0.243	0.281	0.324	0.343	0.308	0.398						
500	0.314	0.272	0.316	0.368	0.423	0.434	0.405	0.540						
450	0.416	0.372	0.435	0.514	0.578	0.593	0.555	0.754						
400	0.564	0.516	0.617	0.736	0.801	0.832	0.798	1.065						
350	0.795	0.737	0.884	1.093	1.212	1.221	1.222	1.571						
300	1.232	1.234	1.389	1.901	1.960	1.959	2.123	2.752						
HEIGHT	SCALE HEIGHT, KM													
	950	900	850	800	750	700	650	600	550	500	450	400	350	300
950	447.1	457.9	399.1	433.5	367.4	437.9	505.5	588.1						
900	444.1	411.0	414.0	430.8	376.3	464.3	434.3	522.0						
850	406.2	373.0	404.1	403.7	377.8	415.3	398.4	475.8						
800	371.2	350.4	382.4	369.9	370.4	373.3	384.1	423.2						
750	339.7	329.1	347.7	324.4	320.6	347.0	364.8	350.3						
700	318.2	303.5	313.4	290.1	285.6	315.4	323.6	295.4						
650	292.5	269.9	279.9	266.1	270.7	273.2	284.8	263.9						
600	250.9	238.2	247.9	242.0	255.9	235.0	251.4	232.3						
550	218.5	216.7	217.5	210.0	225.0	215.1	216.9	189.8						
500	193.7	195.2	179.1	173.6	174.4	193.5	179.9	159.4						
450	173.7	171.3	152.0	151.9	155.5	153.3	149.9	146.1						
400	155.3	146.5	140.7	133.4	137.1	139.5	129.8	135.7						
350	137.9	119.4	126.7	113.0	119.2	122.1	107.5	117.6						
300	100.4	92.1	100.9	84.5	93.2	96.5	81.8	76.3						
LONG	-83.29	-81.94	-80.22	-78.78	-77.56	-76.22	-75.36	-74.61						
LAT	-62.90	-61.04	-58.19	-55.31	-52.41	-48.56	-45.63	-42.68						
QUAL	13	13	23	23	32	33	23	23						

PASS 2176 AT SOLANT, 63 3 7

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)				
	180041	180117	180211	180302	180316
1000	0.110	0.110	0.129	0.135	0.142
950	0.117	0.121	0.138	0.146	0.151
900	0.125	0.134	0.152	0.159	0.166
850	0.139	0.149	0.169	0.175	0.181
800	0.169	0.167	0.186	0.195	0.201
750	0.193	0.190	0.212	0.221	0.227
700	0.215	0.220	0.246	0.256	0.262
650	0.254	0.263	0.291	0.302	0.313
600	0.331	0.317	0.348	0.370	0.383
550	0.421	0.401	0.456	0.480	0.492
500	0.547	0.534	0.614	0.670	0.662
450	0.746	0.742	0.842	0.966	0.929
400	1.035	1.057	1.181	1.421	1.371
350	1.534	1.568	1.722	2.266	2.105
300		2.524	2.792	3.931	3.497
HEIGHT	SCALE HEIGHT, KM				
950	761.1	518.7	604.2	606.8	636.5
900	610.3	475.6	516.1	544.4	551.9
850	466.6	442.2	471.6	496.5	496.1
800	340.7	409.1	437.9	445.0	441.4
750	331.6	364.4	377.5	365.1	387.0
700	322.5	310.5	318.5	319.8	333.4
650	283.9	278.9	280.5	281.9	281.9
600	215.1	249.8	242.5	232.9	231.2
550	197.1	201.9	189.1	175.9	185.1
500	179.5	164.2	165.7	144.7	158.8
450	158.9	148.0	153.8	133.7	141.1
400	140.7	136.2	141.3	123.1	125.8
350	116.8	118.8	121.6	94.6	108.1
300		97.6	94.6	97.3	96.7
LONG	-74.39	-73.94	-73.34	-72.83	-72.71
LAT	-41.74	-39.73	-36.71	-33.86	-33.07
QUAL	13	23	12	22	23

PASS 2176 AT AGASTA, 63 3 7

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	180429	180504	180540	180615	180650	180725	180800	180835
1000	0.176	0.199	0.222	0.217	0.236	0.240	0.254	0.261
950	0.188	0.215	0.242	0.237	0.257	0.265	0.281	0.288
900	0.202	0.237	0.268	0.265	0.289	0.298	0.315	0.327
850	0.220	0.262	0.300	0.297	0.326	0.340	0.359	0.374
800	0.251	0.291	0.337	0.336	0.369	0.389	0.411	0.448
750	0.302	0.325	0.380	0.393	0.448	0.473	0.528	0.569
700	0.364	0.401	0.469	0.500	0.568	0.617	0.713	0.787
650	0.434	0.528	0.601	0.663	0.779	0.866	1.028	1.157
600	0.514	0.712	0.836	0.933	1.169	1.423	1.684	1.911
550	0.668	0.981	1.285	1.573	2.170	2.572	2.908	3.146
500	1.125	1.668	2.264		4.001	4.375		4.515
450	1.975	2.984	4.205		6.463	6.167		5.798
400	3.481	5.454	7.441		8.518	7.701		7.240
350	5.830	8.952						
300								
HEIGHT	SCALE HEIGHT, KM							
950	700.7	550.4	498.9	489.7	494.8	459.3	444.5	445.4
900	601.0	490.9	449.4	429.6	422.2	395.4	396.2	382.3
850	501.4	449.0	415.0	390.5	377.4	356.7	347.1	322.0
800	404.8	407.1	380.6	351.3	332.6	318.1	297.8	257.2
750	310.7	365.2	346.2	300.0	266.9	250.1	209.2	188.8
700	263.3	296.1	270.3	223.8	192.1	169.1	157.0	154.3
650	243.5	209.4	179.2	166.9	153.2	130.6	122.9	114.8
600	223.8	159.5	143.5	129.5	101.0	91.6	93.0	97.2
550	174.5	132.1	99.6	85.6	79.7	84.9	103.5	113.7
500	94.6	90.5	84.4		87.0	115.3		179.1
450	88.1	82.7	80.8		137.1	191.9		210.1
400	89.7	90.4	105.2		242.5	256.1		335.6
350	103.1	116.3						
300								
LONG	-72.07	-71.79	-71.53	-71.28	-71.04	-70.81	-70.59	-70.38
LAT	-28.98	-27.02	-24.99	-23.02	-21.05	-19.08	-17.11	-15.14
QUAL	23	23	23	23	23	23	23	23

PASS 2176 AT AGASTA, 63 3 7  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	180911	180946	181021	181056	181131	181206	181242	181317
1000	0.267	0.266	0.263	0.269	0.262	0.251	0.245	0.238
950	0.296	0.293	0.290	0.298	0.290	0.281	0.269	0.262
900	0.334	0.331	0.329	0.333	0.324	0.317	0.305	0.297
850	0.381	0.376	0.375	0.377	0.367	0.363	0.347	0.337
800	0.451	0.450	0.438	0.431	0.419	0.416	0.398	0.384
750	0.573	0.570	0.546	0.532	0.495	0.493	0.464	0.448
700	0.774	0.779	0.726	0.690	0.626	0.609	0.578	0.550
650	1.160	1.169	1.044	0.940	0.836	0.787	0.748	0.694
600	1.947	1.971	1.761	1.486	1.201	1.080	0.994	0.913
550	3.252	3.320	3.050	2.705	2.051	1.668	1.388	1.278
500	4.690	4.954	5.148	4.815	3.784	3.038	2.325	2.015
450	6.054	6.545	7.391	7.819	6.848	5.537	4.118	3.448
400	7.581	8.108	9.130		10.937	9.449	7.210	5.940
350								9.753
300								
HEIGHT	SCALE HEIGHT, KM							
950	435.4	444.2	459.7	454.6	450.1	409.2	477.6	449.5
900	380.6	384.7	384.8	408.1	410.5	381.6	394.9	399.5
850	332.6	333.2	341.4	365.1	376.2	356.0	364.7	370.1
800	274.2	269.4	289.6	322.1	341.9	330.4	334.5	340.6
750	194.6	195.4	215.2	234.7	276.5	278.2	295.3	302.5
700	153.6	151.8	166.2	179.9	192.9	215.9	226.7	248.8
650	108.5	110.2	121.0	143.4	162.4	185.4	188.0	204.7
600	95.0	94.0	91.1	94.5	119.5	142.9	168.8	175.3
550	111.3	104.7	89.7	84.7	84.5	96.4	131.5	131.4
500	174.4	154.7	112.7	89.5	81.6	83.5	88.9	96.2
450	200.8	205.9	185.2	124.7	91.8	86.1	84.9	90.7
400	300.9	299.0	313.5		155.1	105.4	95.9	96.3
350								116.9
300								
LONG	-70.17	-69.97	-69.78	-69.59	-69.40	-69.15	-68.55	-68.18
LAT	-13.11	-11.14	-9.16	-7.19	-5.21	-3.24	-1.21	0.76
QUAL	23	23	23	23	23	23	23	23

PASS 2176 AT AGASTA, 63 3 7  
 ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)
	181334
1000	0.223
950	0.249
900	0.280
850	0.318
800	0.361
750	0.431
700	0.525
650	0.666
600	0.861
550	1.198
500	1.885
450	3.259
400	5.555
350	9.000
300	

HEIGHT	SCALE HEIGHT, KM
950	420.8
900	395.0
850	365.3
800	335.7
750	291.6
700	243.4
650	209.0
600	180.4
550	133.9
500	98.0
450	90.9
400	100.2
350	109.1
300	

LONG -68.12  
 LAT 1.72  
 QUAL 23

PASS 2176 AT QUITOE, 63 3 7  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	181417	181453	181528	181603	181656	181731	181806	181841
1000	0.196	0.194	0.186	0.178	0.180	0.161	0.149	0.144
950	0.217	0.212	0.203	0.197	0.197	0.180	0.168	0.160
900	0.244	0.236	0.227	0.220	0.220	0.204	0.189	0.179
850	0.276	0.263	0.255	0.245	0.245	0.230	0.213	0.202
800	0.323	0.306	0.286	0.281	0.276	0.261	0.244	0.229
750	0.395	0.360	0.335	0.329	0.320	0.305	0.287	0.269
700	0.487	0.435	0.399	0.387	0.373	0.358	0.339	0.323
650	0.609	0.533	0.492	0.473	0.438	0.424	0.411	0.391
600	0.779	0.700	0.637	0.605	0.556	0.528	0.518	0.494
550	1.047	0.958	0.821	0.768	0.706	0.659	0.648	0.623
500	1.554	1.418	1.177	1.064	0.939	0.878	0.870	0.825
450	2.572	2.266	1.880	1.592	1.301	1.177	1.182	1.158
400	4.497	3.781	3.117	2.508	1.869	1.657	1.662	1.644
350	7.944	6.657	5.535	4.299	2.877	2.455	2.427	2.448
300		10.648	9.181	7.377	4.730	3.618	3.652	3.824
HEIGHT	SCALE HEIGHT, KM							
950	459.6	514.3	482.8	461.9	496.5	422.9	415.1	446.8
900	402.9	445.1	434.3	434.6	446.2	404.8	402.5	411.6
850	346.6	384.0	402.9	390.1	413.2	379.1	369.8	383.1
800	305.5	342.7	371.5	353.6	379.7	353.4	339.8	354.6
750	279.0	301.5	322.9	319.9	345.6	327.9	312.4	318.3
700	252.4	260.1	272.7	286.2	311.4	302.3	285.0	279.7
650	224.6	218.7	233.3	254.0	277.2	275.3	257.6	244.2
600	194.4	183.2	206.5	223.6	241.6	239.3	230.3	223.5
550	152.2	148.6	179.6	193.2	206.1	203.9	202.9	202.7
500	115.8	117.9	122.5	143.4	173.2	184.0	179.8	175.9
450	93.2	102.4	104.3	118.7	147.9	163.4	158.6	147.1
400	87.0	93.0	91.6	103.0	128.0	139.3	141.2	136.8
350	103.7	95.4	88.2	89.0	106.7	121.2	127.8	117.6
300		150.0	132.5	118.9	116.6	121.4	128.7	132.5
LONG	-68.53	-68.34	-68.15	-67.95	-67.66	-67.45	-67.24	-67.03
LAT	4.14	6.17	8.14	10.11	13.10	15.07	17.04	19.01
QUAL	23	23	23	23	23	23	23	23

PASS 2176 AT QUITOE, 63 3 7  
 ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)	
	181916	181951
1000	0.139	0.140
950	0.153	0.154
900	0.173	0.171
850	0.195	0.192
800	0.222	0.217
750	0.262	0.260
700	0.310	0.314
650	0.375	0.382
600	0.474	0.479
550	0.595	0.598
500	0.781	0.737
450	1.087	1.042
400	1.559	1.478
350	2.332	2.176
300	3.702	3.433

HEIGHT	SCALE HEIGHT, KM	
950	490.2	469.9
900	411.6	435.2
850	382.0	393.5
800	351.4	352.5
750	317.3	315.9
700	283.2	279.2
650	253.0	246.6
600	230.6	231.2
550	208.1	215.9
500	180.8	200.6
450	147.8	151.4
400	135.4	141.2
350	116.7	119.8
300	110.9	105.4

LONG	-66.80	-66.56
LAT	20.98	22.94
QUAL	21	21

PASS 2177 AT STJOHN, 63 3 7  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	182323	182416	182451	182527	182601	182636	182729	182822
1000	0.101	0.110	0.112	0.114	0.116	0.107	0.113	0.160
950	0.120	0.128	0.129	0.129	0.131	0.123	0.129	0.177
900	0.138	0.148	0.148	0.147	0.150	0.142	0.148	0.197
850	0.157	0.170	0.169	0.169	0.172	0.164	0.171	0.223
800	0.181	0.196	0.195	0.195	0.199	0.191	0.199	0.255
750	0.211	0.228	0.228	0.228	0.233	0.224	0.232	0.294
700	0.257	0.271	0.274	0.270	0.277	0.266	0.274	0.341
650	0.313	0.324	0.331	0.320	0.329	0.317	0.326	0.396
600	0.389	0.395	0.405	0.398	0.408	0.386	0.392	0.486
550	0.490	0.511	0.521	0.496	0.519	0.499	0.508	0.601
500	0.611	0.656	0.664	0.659	0.654	0.638	0.658	0.770
450	0.857	0.892	0.899	0.883	0.897	0.862	0.883	1.028
400	1.208	1.227	1.236	1.222	1.224	1.164	1.192	1.410
350	1.694	1.744	1.743	1.747	1.727	1.681	1.713	2.099
300	2.659	2.734	2.777	2.777	2.707	2.499	2.569	3.115
HEIGHT	SCALE HEIGHT, KM							
950	329.4	336.1	359.2	380.3	377.4	365.8	365.0	470.5
900	351.6	348.8	356.7	370.5	365.0	347.9	348.0	427.5
850	345.7	347.5	341.6	352.1	349.5	338.5	339.7	395.5
800	321.2	326.0	320.9	328.8	324.3	315.0	326.2	368.3
750	297.2	304.8	300.1	307.1	301.9	294.6	311.6	341.9
700	274.2	283.9	278.9	286.3	281.8	278.1	290.2	316.4
650	251.3	263.0	257.7	265.2	261.7	261.6	264.4	290.9
600	230.3	241.0	236.2	235.8	239.7	242.3	238.8	259.0
550	211.2	215.2	214.1	206.4	216.6	216.9	215.4	226.5
500	192.1	189.5	191.9	187.3	193.5	191.4	191.9	198.4
450	166.5	169.9	171.2	170.5	173.6	172.4	172.5	175.2
400	144.4	152.8	151.1	151.4	153.5	154.8	154.9	148.7
350	132.7	131.4	131.7	128.0	132.2	135.7	135.9	126.9
300	106.9	104.3	98.2	97.8	107.5	112.4	110.3	201.9
LONG	-64.83	-64.29	-63.90	-63.45	-63.02	-62.50	-61.66	-60.68
LAT	34.81	37.77	39.72	41.71	43.60	45.53	48.44	51.35
QUAL	23	23	23	23	23	23	23	33



PASS 2177 AT STJOHN, 63 3 7  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)						
	182915	183025	183100	183135	183210	183245	183355
1000	0.122	0.125	0.116	0.123	0.133	0.108	0.229
950	0.140	0.143	0.134	0.143	0.154	0.125	0.247
900	0.164	0.165	0.156	0.166	0.179	0.147	0.273
850	0.191	0.190	0.182	0.192	0.209	0.173	0.312
800	0.224	0.225	0.215	0.227	0.243	0.206	0.358
750	0.264	0.267	0.255	0.268	0.285	0.244	0.406
700	0.314	0.322	0.305	0.322	0.335	0.289	0.468
650	0.373	0.389	0.365	0.389	0.394	0.348	0.553
600	0.465	0.480	0.460	0.488	0.491	0.427	0.656
550	0.579	0.624	0.593	0.620	0.617	0.529	0.783
500	0.746	0.807	0.773	0.814	0.801	0.687	0.943
450	1.012	1.122	1.066	1.138	1.050	0.887	1.135
400	1.442	1.593	1.534	1.642	1.436	1.197	1.462
350	2.145	2.347	2.271	2.429	2.042	1.619	1.906
300	3.231	3.456	3.323	3.291	2.823	2.211	2.296
HEIGHT	SCALE HEIGHT, KM						
950	335.1	356.6	348.1	340.9	325.9	316.3	545.8
900	319.7	336.9	326.2	326.7	326.3	306.5	452.0
850	314.2	318.0	310.3	312.2	324.4	299.5	406.7
800	306.6	300.8	297.5	301.3	315.6	293.7	372.2
750	297.8	283.5	283.4	290.4	303.0	285.0	350.4
700	276.8	264.3	264.3	268.0	288.8	275.7	332.0
650	255.8	244.7	245.3	241.8	274.5	260.1	316.3
600	235.9	224.0	223.9	220.0	238.8	238.7	300.7
550	216.0	201.2	201.7	199.6	206.7	218.3	282.3
500	192.3	178.3	178.9	177.3	191.7	202.2	260.2
450	162.6	156.8	154.3	151.7	175.8	186.1	237.8
400	138.7	139.2	136.5	134.9	156.9	174.0	209.7
350	125.7	128.4	130.1	139.9	150.0	168.8	254.6
300	166.4	251.6	213.3	382.3	213.2	204.3	545.8
LONG	-59.55	-57.72	-56.68	-55.40	-54.01	-52.37	-48.33
LAT	54.23	58.01	59.89	61.74	63.59	65.42	68.99
QUAL	32	32	32	33	33	33	33

PASS 2177 AT RESLUT, 63 3 7

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	183355	183412	183430	183448	183505	183522	183537	183557
1000	0.228	0.243	0.285	0.337	0.342	0.375	0.254	0.252
950	0.249	0.292	0.327	0.377	0.385	0.411	0.295	0.290
900	0.270	0.337	0.367	0.413	0.419	0.445	0.334	0.315
850	0.306	0.385	0.411	0.464	0.454	0.494	0.378	0.347
800	0.351	0.438	0.456	0.523	0.521	0.551	0.433	0.388
750	0.406	0.493	0.516	0.592	0.602	0.618	0.496	0.437
700	0.475	0.565	0.589	0.674	0.699	0.700	0.569	0.498
650	0.556	0.661	0.674	0.776	0.817	0.798	0.669	0.571
600	0.648	0.773	0.770	0.893	0.968	0.910	0.787	0.653
550	0.762	0.900	0.943	1.025	1.143	1.036	0.922	0.778
500	0.977	1.046	1.199	1.253	1.359	1.176	1.087	1.006
450	1.247	1.388	1.508	1.539	1.705	1.461	1.379	1.282
400	1.595	1.810	1.868	1.915	2.139	1.816	1.741	1.600
350	2.052	2.312	2.364	2.404	2.672	2.297	2.196	2.000
300	2.690	2.929	2.859	3.035		2.867	2.711	2.471
HEIGHT	SCALE HEIGHT, KM							
900	479.1	343.5	420.4	449.5	437.2	511.7	364.4	449.3
850	432.7	353.5	414.8	433.0	435.1	485.3	369.3	444.6
800	386.3	354.5	409.3	416.5	406.1	458.9	359.0	419.3
750	344.7	355.6	389.4	400.0	377.1	432.5	348.7	393.8
700	327.8	346.3	364.6	381.1	348.0	409.7	337.4	368.1
650	310.8	327.7	339.8	358.6	323.4	389.0	322.3	342.4
600	293.9	309.2	315.1	336.1	305.1	368.4	307.2	316.8
550	274.2	290.6	285.8	313.7	286.9	347.7	292.0	284.6
500	235.6	271.6	253.7	274.7	266.7	327.1	274.4	239.9
450	205.6	227.7	228.9	238.7	238.3	274.4	240.7	218.4
400	203.7	197.8	223.5	228.8	224.6	225.5	217.8	224.5
350	192.8	207.5	234.3	220.2	251.2	225.0	224.2	230.5
300	208.2	233.5	532.2	289.5		257.2	300.4	283.1
LONG	-48.33	-47.05	-45.58	-44.11	-42.57	-40.65	-38.96	-36.70
LAT	68.99	69.83	70.71	71.59	72.41	73.18	73.87	74.78
QUAL	33	33	33	32	33	33	32	33

PASS 2177 AT RESULT, 63 3 7  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	183615	183632	183707	183725	183743	183800	183818	183835
1000	0.247	0.264	0.252	0.189	0.188	0.166	0.150	0.134
950	0.271	0.304	0.280	0.225	0.220	0.192	0.175	0.159
900	0.293	0.339	0.306	0.256	0.248	0.216	0.198	0.181
850	0.328	0.379	0.344	0.294	0.282	0.242	0.219	0.208
800	0.372	0.435	0.391	0.336	0.325	0.281	0.260	0.244
750	0.424	0.500	0.448	0.384	0.374	0.328	0.312	0.285
700	0.466	0.574	0.520	0.447	0.434	0.384	0.376	0.337
650	0.557	0.675	0.603	0.520	0.511	0.460	0.459	0.407
600	0.636	0.794	0.698	0.604	0.599	0.550	0.557	0.488
550	0.731	0.932	0.813	0.741	0.700	0.654	0.671	0.581
500	0.888	1.106	1.053	0.945	0.898	0.813	0.860	0.786
450	1.080	1.384	1.349	1.194	1.152	1.061	1.100	1.072
400	1.332	1.727	1.695	1.507	1.444	1.344	1.394	1.455
350	1.639	2.160	2.134	1.904	1.788	1.665		1.967
300	2.023	2.562	2.695	2.432		2.011		2.521
HEIGHT	SCALE HEIGHT, KM							
900	505.6	377.8	463.5	346.2	358.0	370.1	343.1	325.7
850	472.8	380.5	429.7	347.5	358.6	367.9	345.9	324.7
800	439.9	366.9	395.9	348.8	349.2	345.8	321.1	313.9
750	407.1	353.2	367.1	344.3	339.8	323.7	294.9	303.0
700	383.9	339.6	346.2	325.2	325.4	302.7	268.8	288.2
650	363.8	324.3	325.4	306.1	306.4	287.5	259.1	269.7
600	343.8	309.0	304.5	286.9	287.4	272.3	249.6	251.2
550	321.3	293.6	282.1	265.2	268.4	257.1	240.1	232.7
500	284.0	274.3	244.9	241.6	245.1	239.2	220.9	201.0
450	250.1	242.8	212.8	219.6	221.5	218.3	210.3	166.7
400	247.0	226.7	216.8	216.0	229.4	222.0	221.4	167.0
350	244.3	252.3	216.3	210.7	255.6	251.9		180.7
300	247.9	520.7	255.6	234.7		359.9		249.4
LONG	-33.96	-31.23	-25.16	-21.08	-17.00	-13.15	-7.75	-2.64
LAT	75.53	76.22	77.59	78.16	78.74	79.29	79.62	79.93
QUAL	33	32	32	32	33	33	33	33

PASS 2177 AT RESLUT, 63 3 7  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	183855	183910	183928	183945	184003	184021	184037	184056
1000	0.111	0.091	0.072	0.087	0.061	0.041	0.043	0.025
950	0.131	0.108	0.086	0.101	0.080	0.053	0.055	0.035
900	0.153	0.123	0.097	0.114	0.096	0.063	0.065	0.044
850	0.181	0.148	0.119	0.137	0.110	0.080	0.077	0.058
800	0.220	0.182	0.148	0.165	0.135	0.101	0.093	0.076
750	0.269	0.223	0.183	0.198	0.169	0.127	0.112	0.097
700	0.325	0.274	0.229	0.241	0.210	0.166	0.144	0.126
650	0.400	0.347	0.289	0.300	0.264	0.214	0.183	0.167
600	0.490	0.434	0.359	0.369	0.340	0.270	0.231	0.217
550	0.595	0.567	0.480	0.486	0.437	0.359	0.286	0.276
500	0.786	0.782	0.691	0.709	0.647	0.550	0.418	0.411
450	1.062	1.062	0.954	0.993	0.934	0.808	0.681	0.635
400	1.443	1.411	1.318	1.376	1.326	1.157	1.022	0.955
350	1.915	1.922		1.935	1.928		1.540	1.423
300	2.447	2.482		2.621	2.732		2.234	
HEIGHT	SCALE HEIGHT, KM							
900	282.2	281.3	294.4	310.4		228.4	251.8	
850	279.0	273.3	279.2	298.6	249.5	221.8	256.7	181.8
800	272.5	262.5	264.0	286.7	245.5	215.2	242.8	187.2
750	266.0	251.8	248.8	274.8	236.9	208.4	229.0	192.5
700	259.5	239.9	232.7	258.4	228.3	200.0	218.1	192.3
650	247.2	222.2	215.8	233.9	213.7	191.5	207.1	184.3
600	233.0	204.5	198.8	209.4	191.4	183.1	196.2	176.3
550	218.9	186.5	177.6	183.7	169.3	168.3	185.3	168.2
500	197.1	168.2	151.5	156.5	150.3	136.1	161.5	149.4
450	172.6	167.1	155.8	151.3	140.3	135.4	122.2	124.3
400	175.8	171.3	155.2	150.2	138.6	141.0	122.6	125.2
350	192.3	177.6		156.9	139.5		126.6	128.9
300	216.4	239.6		190.0	144.4		185.1	
LONG	3.36	8.21	14.25	19.95	25.87	31.22	35.98	41.62
LAT	80.29	80.37	80.37	80.36	80.29	79.95	79.65	79.29
QUAL	23	23	23	23	23	23	23	23

PASS 2177 AT RESLUT, 63 3 7  
 ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)
	184113
1000	0.049
950	0.061
900	0.071
850	0.086
800	0.112
750	0.145
700	0.186
650	0.234
600	0.297
550	0.372
500	0.481
450	0.634
400	
350	
300	

HEIGHT	SCALE HEIGHT, KM
950	238.5
900	239.9
850	238.9
800	235.8
750	232.7
700	229.5
650	226.4
600	216.6
550	206.7
500	202.0
450	200.3
400	
350	
300	

LONG 45.71  
 LAT 78.79  
 QUAL 23

PASS 2184 AT COLEGE, 63 3 8

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	65818	65853	65928	70003	70039	70046	70131	70207
1000	0.050	0.095	0.061	0.038	0.019	0.014	0.013	0.096
950	0.033	0.108	0.071	0.042	0.020	0.017	0.014	0.111
900	0.038	0.124	0.083	0.047	0.023	0.020	0.017	0.133
850	0.045	0.142	0.099	0.055	0.026	0.024	0.021	0.162
800	0.053	0.165	0.117	0.063	0.031	0.031	0.026	0.203
750	0.063	0.193	0.139	0.073	0.039	0.040	0.032	0.269
700	0.074	0.228	0.170	0.089	0.053	0.051	0.043	0.350
650	0.093	0.270	0.207	0.110	0.070	0.074	0.058	0.449
600	0.115	0.319	0.250	0.137	0.092	0.103	0.082	0.582
550	0.143	0.404	0.299	0.188	0.128	0.139	0.121	0.740
500	0.193	0.526	0.355	0.254	0.180	0.185	0.171	0.951
450	0.274	0.676	0.437	0.357	0.243	0.271	0.243	1.264
400	0.374	0.870	0.592	0.502	0.340	0.378	0.344	1.580
350	0.553	1.112	0.776	0.648	0.464	0.495	0.464	
300	1.065	1.442	0.988		0.569	0.616	0.575	
HEIGHT	SCALE HEIGHT, KM							
950	411.2	367.9	327.0	452.1	588.5	321.3	355.7	348.0
900	353.5	358.4	303.3	407.0	364.0	256.9	282.3	303.8
850	313.2	346.8	291.8	362.1	290.4	224.3	241.3	259.5
800	298.8	330.0	280.4	324.5	252.4	210.0	218.4	228.1
750	284.4	313.2	269.1	288.3	223.6	195.8	197.5	218.8
700	269.5	293.7	265.1	261.0	208.8	182.3	179.7	209.5
650	247.7	273.4	261.2	233.6	194.1	177.1	162.0	201.3
600	225.9	253.1	257.2	207.2	179.4	171.9	152.7	199.8
550	204.0	237.6	253.3	185.8	170.4	166.7	151.0	198.2
500	183.7	224.2	249.3	164.5	165.1	163.7	149.3	206.4
450	164.3	210.7	242.5	175.6	159.7	173.9	155.3	230.4
400	144.9	203.9	228.9	200.3	169.5	184.2	168.5	300.8
350	120.1	200.4	215.4	263.6	210.3	211.4	219.7	
300	86.3	214.9	219.7		597.4	251.6	436.2	
LONG	-168.53	-156.97	-146.96	-137.55	-130.34	-128.93	-121.77	-116.99
LAT	80.38	80.15	79.43	78.55	77.27	77.02	75.19	73.62
QUAL	23	22	33	32	22	22	22	31

PASS 2184 AT COLEGE, 63 3 8

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	70242	70317	70352	70427	70502	70538	70631	70705
1000	0.098	0.095	0.096	0.086	0.084	0.077	0.149	0.087
950	0.115	0.109	0.113	0.101	0.099	0.088	0.171	0.095
900	0.137	0.128	0.131	0.121	0.116	0.101	0.194	0.105
850	0.166	0.154	0.158	0.145	0.137	0.121	0.218	0.118
800	0.205	0.186	0.192	0.179	0.165	0.147	0.242	0.135
750	0.254	0.229	0.237	0.226	0.201	0.181	0.268	0.154
700	0.320	0.280	0.296	0.283	0.251	0.228	0.295	0.177
650	0.408	0.339	0.367	0.359	0.314	0.285	0.326	0.204
600	0.514	0.430	0.450	0.460	0.387	0.352	0.367	0.237
550	0.637	0.597	0.578	0.582	0.510	0.440	0.443	0.275
500	0.884	0.811	0.802	0.746	0.714	0.638	0.557	0.340
450	1.205	1.096	1.080	1.025	0.952	0.879	0.786	0.453
400	1.506	1.412	1.414	1.338	1.212	1.133	1.134	0.597
350	1.836	1.615	1.751		1.496	1.395	1.583	0.831
300					1.801			1.230
HEIGHT	SCALE HEIGHT, KM							
950	312.2	314.3	299.7	302.9	298.3	338.0	383.2	547.7
900	281.8	292.8	292.1	281.9	295.4	311.3	415.8	483.1
850	256.2	272.0	269.9	261.0	281.6	286.0	447.4	421.4
800	241.8	255.4	247.7	245.3	257.6	260.8	478.8	402.9
750	227.4	245.4	236.0	233.4	239.1	240.6	499.3	384.4
700	218.1	235.5	229.7	221.6	229.3	230.6	499.3	366.0
650	211.8	225.5	223.3	212.4	219.6	220.5	453.2	339.7
600	205.6	210.4	217.0	206.1	209.9	210.5	336.1	308.7
550	199.3	184.1	203.1	199.8	197.0	199.6	265.2	277.7
500	179.9	170.4	176.2	194.6	180.7	183.0	200.6	246.2
450	183.6	192.8	181.4	192.4	193.7	182.3	167.3	214.1
400	254.4	327.3	222.1	217.2	223.1	223.2	147.0	182.0
350	804.7	767.9	440.1		254.3	272.4	157.6	139.7
300					286.6			83.7
LONG	-113.49	-110.45	-107.89	-105.82	-103.92	-102.38	-100.39	-99.27
LAT	71.97	70.28	68.54	66.75	64.95	63.06	60.26	58.45
QUAL	22	22	22	22	23	23	21	23

PASS 2184 AT GFORKS, 63 3 8  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)						
	70226	70301	70336	70411	70446	70522	70557
1000	0.150	0.107	0.097	0.097	0.098	0.092	0.068
950	0.181	0.131	0.124	0.123	0.127	0.114	0.087
900	0.211	0.159	0.152	0.150	0.157	0.138	0.107
850	0.241	0.190	0.183	0.177	0.187	0.162	0.129
800	0.301	0.230	0.235	0.221	0.226	0.199	0.153
750	0.375	0.291	0.300	0.284	0.287	0.253	0.193
700	0.464	0.366	0.378	0.359	0.361	0.319	0.261
650	0.568	0.461	0.480	0.452	0.453	0.401	0.344
600	0.714	0.580	0.604	0.574	0.572	0.504	0.443
550	0.890	0.721	0.748	0.718	0.713	0.625	0.579
500	1.103	0.955	0.976	0.924	0.927	0.779	0.739
450	1.466	1.267	1.276	1.224	1.231	1.018	0.991
400		1.672	1.588	1.570	1.547	1.298	1.329
350		2.151		1.889	1.857		
300		2.612					

HEIGHT	SCALE HEIGHT, KM						
850	271.9	246.8	223.8	232.2	232.1	245.7	223.1
800	264.8	245.0	222.1	232.2	237.6	243.2	226.1
750	257.7	236.1	220.3	227.6	231.4	235.4	223.2
700	250.6	227.1	218.6	222.9	225.2	227.6	214.5
650	243.5	219.0	216.0	218.0	219.2	222.5	205.8
600	233.0	211.9	213.2	212.6	213.4	221.1	197.1
550	221.8	204.8	210.5	207.1	207.6	219.7	191.7
500	210.4	193.0	215.1	203.7	204.0	217.2	186.3
450	197.8	181.7	221.6	201.9	201.6	211.8	193.2
400		194.9	284.9	240.3	244.9	223.0	213.6
350		225.3		377.3	319.3		
300		388.9					

LONG	-115.09	-111.62	-109.06	-106.70	-104.78	-103.07	-101.57
LAT	72.72	71.07	69.33	67.58	65.78	63.90	62.07
QUAL	33	32	32	33	33	33	33



PASS 2184 AT GFORKS, 63 3 8  
 ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)						
	70632	70707	70819	70854	70929	71022	71040
1000	0.150	0.084	0.029	0.034	0.067	0.077	0.054
950	0.177	0.095	0.038	0.046	0.079	0.090	0.068
900	0.201	0.103	0.044	0.053	0.086	0.102	0.081
850	0.224	0.114	0.049	0.065	0.100	0.123	0.093
800	0.251	0.128	0.056	0.080	0.116	0.149	0.113
750	0.280	0.146	0.066	0.096	0.137	0.182	0.140
700	0.311	0.166	0.080	0.116	0.160	0.221	0.172
650	0.346	0.189	0.097	0.139	0.185	0.272	0.209
600	0.395	0.215	0.119	0.168	0.214	0.338	0.258
550	0.473	0.265	0.144	0.217	0.258	0.414	0.325
500	0.570	0.347	0.172	0.282	0.310	0.501	0.405
450	0.806	0.447	0.216	0.361		0.608	0.502
400	1.234	0.576	0.346	0.456		0.795	
350	1.698	0.799	0.522	0.669			
300	2.287	1.306		0.970			
HEIGHT	SCALE HEIGHT, KM						
900		500.0	345.7	254.1	401.8	299.0	
850	420.9	445.9	365.1	261.4	384.1	289.9	258.9
800	440.0	404.8	317.0	268.7	366.4	280.8	260.0
750	459.1	382.5	292.5	276.0	348.8	271.7	255.6
700	429.8	360.2	280.6	274.1	333.8	262.5	251.1
650	391.7	337.8	268.6	249.5	319.4	257.7	246.7
600	344.2	315.5	256.7	227.6	302.6	255.7	241.0
550	287.4	286.4	244.8	217.1	271.4	253.7	233.8
500	230.5	251.2	232.9	206.6	240.1	251.7	226.7
450	167.4	215.9	214.5	196.0		230.9	208.6
400	136.2	179.1	158.6	185.5		162.1	
350	161.1	135.6	107.7	161.0			
300	217.1	56.9		137.7			
LONG	-100.36	-99.22	-97.34	-96.55	-95.86	-94.91	-94.62
LAT	60.21	58.34	54.45	52.55	50.64	47.74	46.75
QUAL	33	33	33	33	33	33	33

PASS 2184 AT FTMYS, 63 3 8  
 ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	71410	71428	71503	71536	71613	71648	71706	71819
1000	0.089	0.099	0.106	0.119	0.122	0.128	0.139	0.146
950	0.095	0.106	0.114	0.126	0.130	0.136	0.148	0.155
900	0.102	0.112	0.120	0.131	0.136	0.143	0.157	0.162
850	0.109	0.119	0.126	0.137	0.142	0.150	0.165	0.168
800	0.116	0.126	0.133	0.143	0.149	0.159	0.173	0.174
750	0.124	0.134	0.141	0.151	0.157	0.168	0.182	0.181
700	0.133	0.143	0.149	0.160	0.167	0.178	0.193	0.190
650	0.144	0.153	0.159	0.171	0.179	0.190	0.204	0.201
600	0.159	0.168	0.173	0.186	0.194	0.206	0.221	0.216
550	0.183	0.192	0.196	0.211	0.216	0.228	0.242	0.236
500	0.250	0.246	0.240	0.265	0.265	0.269	0.289	0.276
450	0.368	0.350	0.343	0.384	0.408	0.367	0.413	0.418
400	0.743	0.755	0.560	0.642	0.663	0.656	0.687	0.709
350	1.202	1.193	1.049	1.123	1.075	1.107	1.179	1.180
300			1.619		1.713	1.680	1.739	
HEIGHT	SCALE HEIGHT, KM							
	900	734.4	829.2	938.4	1145.5	1085.1	953.3	945.0
850	778.3	855.7	942.0	1073.4	1043.1	923.7	980.3	1339.9
800	784.1	831.1	926.2	1004.1	972.4	900.4	959.6	1274.5
750	738.3	789.8	898.2	913.6	880.8	863.0	919.4	1130.7
700	670.2	746.5	808.2	790.3	780.3	803.7	835.0	969.4
650	565.4	627.5	691.5	662.1	663.8	687.2	744.4	783.6
600	438.1	472.4	517.8	531.4	531.7	547.9	603.6	625.7
550	256.9	299.1	343.9	326.9	373.0	407.8	445.3	468.3
500	143.4	178.0	201.7	195.4	209.8	267.0	220.2	232.6
450	103.0	105.0	123.1	126.1	111.3	114.0	122.1	106.9
400	89.6	101.2	95.6	100.0	102.4	91.5	99.2	99.4
350	124.1	151.0	107.2	117.5	110.4	108.1	125.3	126.3
300			149.8		158.1	158.7	338.5	
LONG	-92.00	-91.83	-91.50	-91.21	-90.92	-90.65	-90.52	-90.01
LAT	35.11	34.11	32.15	30.19	28.23	26.27	25.26	21.16
QUAL	13	13	23	33	13	13	12	23

PASS 2184 AT FTMYRS, 63 3 8  
 ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)	
	71854	71912
1000	0.135	0.133
950	0.143	0.142
900	0.149	0.150
850	0.157	0.157
800	0.165	0.164
750	0.173	0.171
700	0.182	0.180
650	0.193	0.191
600	0.207	0.204
550	0.227	0.224
500	0.266	0.258
450	0.368	0.340
400	0.687	0.556
350	0.973	0.837
300	1.488	

HEIGHT	SCALE HEIGHT, KM	
	900	1036.4
850	1012.8	1094.5
800	1013.0	1072.8
750	988.1	1005.2
700	903.0	937.6
650	792.7	818.9
600	650.5	653.3
550	415.2	432.8
500	267.5	290.3
450	113.0	140.4
400	102.7	103.2
350	124.0	106.9
300	209.5	

LONG	-89.78	-89.67
LAT	19.19	18.18
QUAL	23	23

PASS 2184 AT QUITOE, 63 3 8

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)				
	72409	72443	72520	72630	73121
1000	0.109	0.096	0.097	0.113	0.098
950	0.114	0.102	0.103	0.120	0.106
900	0.118	0.107	0.107	0.127	0.112
850	0.123	0.112	0.111	0.134	0.120
800	0.128	0.117	0.117	0.144	0.129
750	0.134	0.123	0.124	0.155	0.142
700	0.141	0.131	0.132	0.169	0.159
650	0.150	0.140	0.142	0.190	0.183
600	0.161	0.151	0.155	0.222	0.222
550	0.183	0.169	0.180	0.279	0.287
500	0.220	0.202	0.228	0.372	0.408
450	0.301	0.281	0.322	0.504	0.632
400	0.456	0.450	0.514	0.673	1.002
350	0.722	0.701	0.740	0.929	1.718
300	1.133		1.072	1.432	3.132

HEIGHT	SCALE HEIGHT, KM				
950	1368.1		1089.9	927.5	881.2
900	1473.8	1019.1	1238.8	884.7	794.9
850	1272.7	1185.9	1048.1	818.8	714.4
800	1210.8	1054.3	918.2	703.7	600.9
750	1009.3	920.7	811.1	634.6	501.5
700	877.2	812.9	727.0	489.2	405.6
650	744.6	705.2	651.0	365.8	303.9
600	584.3	545.0	470.7	273.5	234.2
550	320.1	382.6	292.9	196.8	177.1
500	210.1	219.0	164.2	171.7	129.0
450	138.4	127.0	124.5	169.8	111.6
400	114.9	108.0	122.2	164.4	105.1
350	109.4	120.5	143.3	139.6	87.8
300	111.5		108.4	109.3	80.9

LONG	-88.01	-87.83	-87.64	-87.27	-85.53
LAT	1.45	-0.46	-2.54	-6.49	-22.88
QUAL	32	32	32	31	22

PASS 2184 AT AGASTA, 63 3 8  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	73121	73320	73359	73452	73527	73602	73637	73659
1000	0.115	0.123	0.119	0.132	0.122	0.136	0.134	0.132
950	0.122	0.130	0.126	0.138	0.129	0.143	0.141	0.137
900	0.128	0.135	0.134	0.143	0.134	0.148	0.147	0.144
850	0.136	0.143	0.144	0.148	0.140	0.153	0.152	0.151
800	0.147	0.151	0.156	0.157	0.148	0.160	0.158	0.158
750	0.164	0.160	0.173	0.166	0.156	0.167	0.164	0.168
700	0.186	0.174	0.196	0.180	0.167	0.179	0.173	0.182
650	0.216	0.197	0.227	0.205	0.186	0.200	0.191	0.201
600	0.267	0.239	0.264	0.262	0.219	0.229	0.217	0.226
550	0.358	0.332	0.335	0.389	0.284	0.283	0.264	0.295
500	0.519	0.515	0.452	0.623	0.441	0.424	0.384	0.425
450	0.796	0.844	0.676	0.993	0.777	0.687	0.582	0.669
400	1.274	1.444	1.146	1.744	1.441	1.243	0.941	1.133
350	2.152	2.426	2.153	2.887	2.572	2.146	1.505	1.762
300	3.998	3.884	3.723	4.078	4.111	3.461	2.359	2.687

HEIGHT	SCALE HEIGHT, KM							
	917.3	1278.1	815.4	1310.9	1285.7	1439.1		1089.7
950	917.3	1278.1	815.4	1310.9	1285.7	1439.1		1089.7
900	867.6	1143.9	740.1	1310.2	1168.4	1374.6	1351.4	1075.5
850	717.1	887.8	664.4	1108.8	1021.0	1194.6	1324.6	1013.6
800	558.0	789.6	562.3	893.9	876.9	1040.3	1168.4	948.7
750	475.6	691.3	424.8	717.0	776.0	886.0	1012.2	665.1
700	396.5	550.3	377.4	527.6	633.0	712.7	828.2	551.4
650	315.0	362.3	333.7	330.3	438.7	511.9	574.6	455.6
600	214.2	230.6	290.0	164.6	284.6	328.9	347.5	353.8
550	151.7	137.8	224.5	121.9	150.0	187.9	199.6	169.1
500	127.6	106.3	149.7	107.2	101.0	113.1	141.5	132.7
450	113.2	98.5	112.3	101.1	85.7	95.8	115.4	106.4
400	100.8	94.3	88.9	98.5	81.6	87.1	108.5	103.4
350	87.3	98.9	78.9	125.4	92.4	94.6	112.7	116.7
300	81.0	153.0	129.3	195.0	158.4	203.7	111.4	151.8
LONG	-85.53	-84.63	-84.31	-83.81	-83.46	-83.09	-82.67	-82.40
LAT	-22.88	-29.56	-31.75	-34.72	-36.68	-38.63	-40.58	-41.80
QUAL	33	33	33	33	33	33	33	33

PASS 2184 AT AGASTA, 63 3 8

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)	
	73747	73822
1000	0.131	0.135
950	0.138	0.142
900	0.144	0.147
850	0.152	0.153
800	0.160	0.159
750	0.171	0.167
700	0.185	0.180
650	0.202	0.205
600	0.222	0.245
550	0.295	0.329
500	0.471	0.510
450	0.775	0.787
400	1.245	1.292
350	1.867	1.905
300	2.705	

HEIGHT	SCALE HEIGHT, KM	
	73747	73822
950	1147.9	1496.6
900	1049.1	1303.6
850	932.7	1162.6
800	815.3	1021.7
750	698.0	880.7
700	595.7	685.2
650	493.4	409.6
600	391.1	245.5
550	138.9	157.8
500	109.0	115.9
450	104.9	109.8
400	115.5	116.8
350	127.1	130.6
300	148.6	

LONG	-81.75	-81.22
LAT	-44.48	-46.42
QUAL	33	22

PASS 2190 AT AGASTA, 63 3 8								
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)								
HEIGHT	TIME (UT)							
	184111	184146	184204	184234	184314	184350	184422	184442
1000	0.176	0.196	0.202	0.205	0.218	0.232	0.243	0.234
950	0.192	0.212	0.217	0.222	0.236	0.250	0.262	0.258
900	0.211	0.229	0.234	0.243	0.259	0.271	0.286	0.284
850	0.232	0.255	0.256	0.270	0.286	0.302	0.315	0.316
800	0.261	0.296	0.281	0.307	0.324	0.350	0.349	0.352
750	0.298	0.352	0.340	0.353	0.369	0.412	0.388	0.394
700	0.347	0.416	0.417	0.415	0.441	0.487	0.456	0.476
650	0.426	0.491	0.513	0.504	0.541	0.575	0.566	0.588
600	0.524	0.581	0.627	0.626	0.701	0.777	0.753	0.804
550	0.691	0.819	0.776	0.856	0.965	1.101	1.089	1.188
500	0.955	1.138	1.135	1.216	1.447	1.728	1.828	2.113
450	1.393	1.599	1.643	1.829	2.311	2.953	3.370	3.901
400	2.045	2.326	2.496	2.951	4.050		6.293	
350	2.962		3.963		7.110			
300	4.146		5.868		11.219			
HEIGHT	SCALE HEIGHT, KM							
950	544.4	651.3	647.9	575.7	565.4	656.8	557.6	496.1
900	508.3	528.6	572.7	483.9	504.9	519.6	515.6	465.1
850	455.6	431.1	497.6	426.8	444.4	435.2	478.5	434.9
800	404.5	372.5	422.4	389.7	392.6	376.2	441.4	404.6
750	353.5	314.0	346.0	352.7	340.9	319.5	404.3	374.4
700	304.7	285.7	269.6	310.1	288.2	279.2	328.1	288.6
650	264.3	259.8	236.3	256.8	235.2	239.0	217.0	204.8
600	223.9	232.7	217.4	205.7	187.1	178.5	166.2	157.3
550	181.6	177.0	195.2	163.8	144.7	131.7	119.1	108.9
500	146.4	151.1	146.3	133.4	116.6	99.5	88.6	81.5
450	132.5	142.8	132.0	115.0	99.8	90.0	80.2	81.3
400	133.4	127.2	112.9	96.3	88.3		75.5	
350	138.7		113.1		88.8			
300	197.9		159.7		171.8			
LONG	-83.77	-83.47	-83.32	-83.09	-82.80	-82.55	-82.34	-82.21
LAT	-31.22	-29.26	-28.25	-26.56	-24.31	-22.29	-20.49	-19.36
QUAL	32	23	23	23	23	23	23	23

PASS 2190 AT AGASTA, 63 3 8  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)					
	184514	184703	184738	184813	184849	184906
1000	0.250	0.278	0.273	0.281	0.261	0.279
950	0.272	0.302	0.296	0.310	0.288	0.311
900	0.300	0.331	0.324	0.344	0.323	0.347
850	0.332	0.362	0.356	0.385	0.362	0.392
800	0.368	0.410	0.405	0.430	0.421	0.445
750	0.419	0.475	0.485	0.503	0.500	0.518
700	0.510	0.554	0.592	0.606	0.607	0.625
650	0.647	0.773	0.803	0.812	0.771	0.800
600	0.914	1.185	1.187	1.151	1.032	1.074
550	1.483	2.098	2.131	1.942	1.584	1.611
500	2.733	3.835	3.896	3.559	2.945	2.846
450	5.259	7.082	7.231	6.571	5.515	5.183
400		11.376			9.567	8.738
350						
300						
HEIGHT	SCALE HEIGHT, KM					
950	525.7	557.1	565.0	474.8	482.1	452.7
900	481.5	508.7	503.6	445.5	423.3	418.1
850	444.9	450.3	440.0	414.8	369.4	389.9
800	408.3	389.2	370.7	384.0	326.9	361.6
750	357.1	327.7	295.5	308.8	287.0	310.0
700	268.8	266.3	222.2	227.6	246.4	233.9
650	189.2	166.2	167.7	174.1	204.3	197.9
600	130.4	103.4	104.8	125.9	149.8	152.0
550	91.3	85.1	84.5	84.2	100.8	104.6
500	78.6	80.4	80.2	81.7	78.8	84.9
450	77.5	84.4	84.5	80.6	83.0	86.2
400		229.9			106.4	107.5
350						
300						
LONG	-82.00	-81.36	-81.16	-80.97	-80.78	-80.69
LAT	-17.56	-11.42	-9.45	-7.48	-5.44	-4.48
QUAL	23	23	23	23	23	23



PASS 2190 AT QUITOE, 63 3 8  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)													
	185019	185053	185129	185222	185257	185332	185407	185442						
1000	0.288	0.270	0.279	0.260	0.260	0.275	0.274	0.271						
950	0.319	0.305	0.307	0.292	0.292	0.307	0.307	0.305						
900	0.361	0.345	0.349	0.335	0.330	0.346	0.351	0.350						
850	0.410	0.395	0.398	0.389	0.378	0.395	0.406	0.405						
800	0.474	0.456	0.458	0.456	0.434	0.455	0.470	0.469						
750	0.505	0.544	0.553	0.537	0.526	0.539	0.558	0.566						
700	0.701	0.672	0.681	0.660	0.651	0.670	0.687	0.696						
650	0.885	0.841	0.854	0.836	0.825	0.850	0.870	0.890						
600	1.199	1.119	1.132	1.100	1.072	1.095	1.132	1.168						
550	1.723	1.567	1.572	1.511	1.481	1.502	1.554	1.614						
500	2.680	2.442	2.309	2.230	2.145	2.151	2.249	2.351						
450	4.319	3.896	3.557	3.463	3.305	3.249	3.395	3.537						
400	6.791	6.055	5.512	5.337	5.084	5.039	5.157	5.381						
350	9.756	8.522	7.711	7.399	7.320	7.318	7.579	7.870						
300						8.887								
HEIGHT	SCALE HEIGHT, KM													
	950	900	850	800	750	700	650	600	550	500	450	400	350	300
441.5	406.7	454.2	401.0	407.0	424.3	400.3	387.0							
396.8	384.2	387.7	357.1	378.1	384.0	356.5	360.5							
362.0	354.5	354.3	328.5	344.7	353.1	333.6	330.8							
316.9	310.6	319.0	301.5	311.4	322.1	310.7	299.6							
259.2	258.2	270.2	274.8	272.5	284.3	278.6	265.4							
227.7	231.3	230.8	239.9	232.5	236.2	236.0	230.5							
197.1	205.9	203.0	200.9	203.4	204.3	203.8	200.9							
155.5	169.9	170.0	175.4	176.3	182.0	176.6	173.3							
127.8	132.3	142.5	144.4	150.0	151.3	152.5	147.5							
106.0	109.2	124.4	120.9	127.3	132.1	129.0	128.0							
105.4	107.0	110.7	113.1	113.4	116.0	118.9	119.7							
122.4	125.3	125.3	126.1	118.7	118.4	122.2	121.3							
175.4	199.5	208.3	209.6	185.5	176.0	153.5	150.7							
					738.7									
LONG	-80.31	-80.13	-79.94	-79.66	-79.48	-79.28	-79.08	-78.88						
LAT	-0.37	1.54	3.57	6.56	8.53	10.50	12.47	14.45						
QUAL	23	23	23	23	23	21	23	23						

PASS 2190 AT QUITUE, 63 3 8  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)						
	185517	185553	185628	185703	185738	185813	185848
1000	0.259	0.243	0.235	0.213	0.202	0.190	0.178
950	0.292	0.276	0.263	0.241	0.231	0.216	0.203
900	0.338	0.319	0.300	0.276	0.266	0.250	0.234
850	0.393	0.373	0.347	0.320	0.310	0.292	0.273
800	0.457	0.435	0.403	0.371	0.363	0.340	0.319
750	0.550	0.530	0.487	0.444	0.424	0.409	0.374
700	0.676	0.656	0.614	0.549	0.525	0.502	0.464
650	0.863	0.834	0.786	0.692	0.657	0.633	0.582
600	1.125	1.086	1.018	0.891	0.860	0.817	0.753
550	1.531	1.483	1.386	1.214	1.143	1.102	1.009
500	2.201	2.128	1.995	1.710	1.608	1.544	1.421
450	3.305	3.175	3.032	2.567	2.375	2.281	2.093
400	5.165	4.962	4.830	4.158	3.746	3.577	3.265
350	7.766	7.573	7.569	6.745	6.185	6.005	5.484
300		10.268	10.545	10.272	9.946	9.851	9.447
HEIGHT	SCALE HEIGHT, KM						
	185517	185553	185628	185703	185738	185813	185848
950	373.5	371.0	402.7	380.4	357.1	367.5	366.4
900	348.7	348.2	360.4	351.5	337.2	344.7	336.3
850	323.1	319.6	327.7	326.8	318.0	319.3	318.1
800	297.1	281.5	295.4	302.2	299.3	292.5	301.2
750	263.6	256.8	262.1	273.0	280.6	265.6	282.2
700	227.7	232.9	228.1	239.5	244.7	238.6	242.6
650	202.6	204.4	201.0	209.6	207.6	212.8	208.6
600	178.6	176.6	182.4	184.1	188.2	187.9	188.1
550	156.0	157.0	153.7	160.7	166.1	165.3	163.4
500	131.4	130.8	127.8	137.9	139.2	142.4	140.0
450	117.6	121.5	113.0	111.3	120.0	120.7	123.8
400	113.5	110.9	108.7	104.9	103.6	105.5	103.1
350	138.9	129.1	120.9	104.0	99.6	96.1	93.9
300		353.2	294.5	186.0	136.4	134.8	114.4
LONG	-78.68	-78.45	-78.23	-78.00	-77.75	-77.49	-77.22
LAT	16.41	18.44	20.41	22.38	24.34	26.31	28.27
QUAL	23	23	22	23	22	23	33

PASS 2191 AT OTTAWA, 63 3 8  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	190016	190127	190202	190217	190255	190625	190700	190736
1000	0.200	0.174	0.162	0.153	0.155	0.220	0.222	0.175
950	0.223	0.195	0.182	0.171	0.173	0.248	0.255	0.194
900	0.256	0.221	0.205	0.195	0.197	0.283	0.294	0.217
850	0.293	0.251	0.233	0.222	0.222	0.322	0.338	0.244
800	0.336	0.291	0.267	0.254	0.255	0.365	0.388	0.282
750	0.396	0.346	0.316	0.301	0.297	0.420	0.443	0.332
700	0.475	0.414	0.377	0.359	0.349	0.485	0.511	0.392
650	0.563	0.507	0.460	0.430	0.409	0.569	0.597	0.465
600	0.730	0.626	0.562	0.533	0.507	0.672	0.698	0.550
550	0.959	0.801	0.718	0.657	0.631	0.801	0.838	0.648
500	1.300	1.050	0.935	0.848	0.822	0.977	1.029	0.791
450	1.792	1.398	1.231	1.123	1.091	1.215	1.278	0.976
400	2.564	1.887	1.642	1.501	1.466	1.521	1.605	1.236
350	3.774	2.614	2.251	2.031	1.972	1.902	2.018	1.569
300	5.702	3.754	3.073	2.801		2.372	2.486	2.000
HEIGHT	SCALE HEIGHT, KM							
950	406.5	404.4	404.6	421.2	417.0	411.2	361.3	450.5
900	374.4	379.0	387.5	382.1	392.8	386.6	355.4	413.5
850	351.6	349.3	362.7	355.4	367.0	380.3	363.2	375.8
800	328.9	321.5	336.6	329.7	344.8	375.9	366.9	349.3
750	299.8	297.0	304.6	308.5	325.5	352.8	348.7	329.6
700	268.2	272.5	272.7	287.4	306.1	328.6	332.1	310.0
650	238.1	248.8	250.5	266.2	286.8	310.8	317.1	297.9
600	208.9	225.5	228.7	244.5	252.4	294.9	302.1	288.7
550	178.2	201.8	210.7	222.8	216.4	275.2	271.0	279.6
500	162.7	181.7	194.1	195.4	191.2	244.7	237.2	254.6
450	147.3	174.7	181.3	177.4	175.3	232.3	228.7	226.9
400	136.6	160.4	166.7	171.4	169.9	225.9	221.5	218.7
350	123.7	146.5	159.9	160.7	167.9	225.8	233.3	209.0
300	127.6	141.1	171.9	173.0		235.8	264.2	211.3
LONG	-76.47	-75.76	-75.39	-75.21	-74.75	-71.18	-70.39	-69.40
LAT	33.19	37.15	39.10	39.93	42.04	53.57	55.47	57.41
QUAL	23	23	23	22	23	33	33	33

PASS 2191 AT OTTAWA, 63 3 8  
 ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)			
	190811	190846	190903	190958
1000	0.155	0.222	0.237	0.237
950	0.177	0.255	0.264	0.262
900	0.204	0.288	0.295	0.288
850	0.234	0.325	0.329	0.317
800	0.270	0.365	0.366	0.350
750	0.316	0.406	0.405	0.387
700	0.370	0.452	0.450	0.427
650	0.439	0.507	0.501	0.471
600	0.525	0.568	0.558	0.522
550	0.625	0.651	0.630	0.592
500	0.759	0.777	0.718	0.673
450	0.927	0.979	0.852	0.786
400	1.182	1.281	1.067	0.953
350	1.530	1.662	1.417	1.207
300	2.001	2.151	1.970	1.526
HEIGHT	SCALE HEIGHT, KM			
900	354.2			508.5
850	343.2	429.1	466.8	508.7
800	331.6	444.7	469.7	505.7
750	319.7	445.8	469.7	502.4
700	307.8	434.4	462.3	484.0
650	297.0	410.6	451.2	465.6
600	286.8	386.8	440.1	441.4
550	276.7	341.2	395.5	400.3
500	254.9	266.2	337.1	359.1
450	229.4	205.2	267.8	306.8
400	208.4	191.1	211.1	242.5
350	192.2	193.7	167.7	215.4
300	186.7	196.5	154.3	216.8
LONG	-68.37	-67.18	-66.58	-64.24
LAT	59.29	61.15	62.06	64.94
QUAL	33	33	33	33

PASS 2191 AT RESLUT, 63 3 8								
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)								
HEIGHT	TIME (UT)							
	191015	191033	191050	191108	191126	191143	191201	191218
1000	0.241	0.237	0.244	0.231	0.174	0.140	0.129	0.124
950	0.257	0.260	0.275	0.267	0.202	0.164	0.153	0.147
900	0.276	0.278	0.306	0.303	0.232	0.183	0.177	0.167
850	0.299	0.307	0.339	0.341	0.262	0.211	0.203	0.195
800	0.325	0.344	0.380	0.379	0.296	0.246	0.239	0.231
750	0.356	0.388	0.426	0.439	0.345	0.287	0.283	0.274
700	0.391	0.436	0.479	0.523	0.403	0.338	0.333	0.323
650	0.431	0.491	0.542	0.622	0.481	0.400	0.396	0.389
600	0.494	0.552	0.614	0.740	0.574	0.472	0.472	0.466
550	0.569	0.631	0.696	0.880	0.683	0.553	0.558	0.554
500	0.656	0.738	0.804	1.040	0.843	0.669	0.680	0.688
450	0.755	0.857	0.928	1.249	1.088	0.816	0.847	0.889
400	0.867		1.063	1.519	1.377	0.994	1.049	1.139
350	1.000		1.206	1.764	1.641	1.205	1.295	1.441
300	1.180					1.481	1.587	1.786
HEIGHT	SCALE HEIGHT, KM							
	900	661.7	550.1	439.2	359.9	354.6	353.5	309.1
850	610.3	514.0	445.2	360.3	362.8	345.3	318.6	313.1
800	568.7	478.0	436.9	360.6	357.4	334.0	312.9	307.1
750	531.1	442.3	426.7	348.1	327.4	322.7	307.2	301.2
700	493.4	425.7	419.5	329.0	299.2	313.0	301.5	295.1
650	455.9	409.0	406.6	309.9	286.6	305.6	292.5	282.0
600	422.0	392.4	394.0	295.4	274.0	298.3	282.1	269.0
550	388.0	375.3	381.5	289.8	261.4	290.9	271.6	255.9
500	359.4	357.7	370.2	284.2	243.4	278.4	259.1	236.3
450	352.5	362.1	365.3	277.1	219.0	263.7	245.1	211.3
400	345.7		386.8	293.0	245.7	256.0	238.4	212.6
350	332.9		421.9	450.0	443.9	253.5	245.2	225.5
300	305.5					260.3	271.0	242.6
LONG	-63.32	-62.33	-61.40	-60.27	-58.96	-57.72	-56.38	-54.68
LAT	65.82	66.74	67.62	68.53	69.42	70.27	71.16	71.96
QUAL	33	33	33	33	33	33	33	33

PASS 2191 AT RESLUT, 63 3 8

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	191236	191253	191311	191328	191346	191405	191421	191456
1000	0.105	0.156	0.180	0.152	0.132	0.119	0.093	0.101
950	0.129	0.183	0.207	0.179	0.154	0.144	0.115	0.120
900	0.155	0.209	0.231	0.206	0.176	0.171	0.141	0.138
850	0.183	0.234	0.266	0.233	0.206	0.201	0.170	0.163
800	0.218	0.271	0.306	0.272	0.243	0.234	0.201	0.191
750	0.262	0.321	0.358	0.321	0.286	0.269	0.238	0.227
700	0.313	0.381	0.424	0.378	0.340	0.336	0.294	0.271
650	0.372	0.454	0.501	0.450	0.404	0.416	0.361	0.322
600	0.452	0.548	0.589	0.540	0.477	0.508	0.444	0.383
550	0.547	0.656	0.701	0.645	0.572	0.621	0.550	0.495
500	0.655	0.780	0.913	0.782	0.751	0.786	0.674	0.635
450	0.821	0.970	1.172	0.999	0.973	0.983	0.851	0.807
400	1.041	1.217	1.475	1.264	1.239	1.210	1.091	1.014
350	1.325	1.527	1.866	1.574	1.565	1.559	1.405	1.291
300	1.683	1.924	2.293	1.978	1.973	1.955	1.758	1.643
HEIGHT	SCALE HEIGHT, KM							
900	263.7	332.4	379.0	324.5	327.3	270.0	251.9	305.2
850	275.7	340.4	354.5	333.1	320.8	275.1	258.0	300.9
800	279.1	332.1	330.0	324.3	314.2	280.2	264.2	296.7
750	277.9	315.1	312.9	312.2	307.7	285.3	268.6	287.7
700	276.8	298.1	300.8	300.1	293.4	273.1	257.7	275.6
650	274.9	284.3	288.8	287.5	277.9	260.9	246.8	263.4
600	266.6	277.1	276.7	274.4	262.5	248.6	238.7	251.1
550	258.2	269.9	262.6	261.3	248.6	237.9	233.8	236.2
500	249.9	262.7	235.7	247.7	240.7	233.5	228.9	221.2
450	234.3	242.9	211.7	232.9	232.9	229.0	219.0	214.5
400	216.1	221.8	215.0	221.9	225.0	224.6	206.3	214.4
350	211.1	220.0	209.2	223.9	218.0	217.2	217.6	209.2
300	208.8	217.5	805.8	274.8	222.8	239.1	262.9	232.5
LONG	-52.89	-51.19	-48.95	-46.56	-44.03	-41.07	-37.87	-30.86
LAT	72.80	73.60	74.40	75.13	75.91	76.69	77.26	78.52
QUAL	33	33	32	32	33	33	33	33

PASS 2191 AT RESLUT, 63 3 8  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	191515	191531	191549	191607	191625	191642	191659	191717
1000	0.109	0.094	0.084	0.093	0.074	0.078	0.089	0.067
950	0.127	0.116	0.105	0.113	0.088	0.095	0.102	0.074
900	0.143	0.141	0.123	0.133	0.100	0.113	0.119	0.083
850	0.172	0.169	0.145	0.156	0.117	0.137	0.140	0.095
800	0.208	0.199	0.180	0.193	0.138	0.166	0.168	0.115
750	0.252	0.240	0.223	0.239	0.164	0.200	0.204	0.141
700	0.303	0.298	0.273	0.294	0.198	0.242	0.248	0.171
650	0.370	0.367	0.333	0.364	0.238	0.293	0.298	0.206
600	0.451	0.449	0.416	0.452	0.284	0.351	0.356	0.246
550	0.543	0.559	0.514	0.554	0.336	0.440	0.458	0.290
500	0.654	0.689	0.626	0.697	0.425	0.561	0.615	0.340
450	0.831	0.837	0.802	0.903	0.540	0.708	0.827	0.410
400	1.050	1.063	1.056	1.156	0.686	0.885	1.079	0.573
350	1.326	1.353	1.370	1.457	0.866	1.099	1.343	0.773
300	1.640		1.703		1.124	1.374		1.021

HEIGHT	SCALE HEIGHT, KM							
900	299.9	247.6	248.7	265.4	314.0	255.9	308.0	390.6
850	293.3	255.0	257.1	264.8	302.9	260.7	289.5	336.0
800	286.8	262.3	255.1	258.6	291.9	265.4	275.6	304.2
750	280.2	262.1	253.1	252.4	283.3	270.2	267.5	272.5
700	273.6	254.3	251.2	246.3	278.0	263.5	259.4	259.4
650	267.3	246.5	248.7	240.0	272.7	254.9	251.3	257.2
600	261.0	240.2	241.2	233.8	267.5	246.3	243.2	255.0
550	254.7	238.3	233.7	227.5	262.2	236.1	214.7	252.8
500	246.8	236.4	226.2	220.2	241.8	225.5	170.5	250.6
450	229.2	234.5	208.2	211.9	218.0	222.6	186.7	241.6
400	217.9	229.1	189.6	212.6	208.8	226.1	211.5	201.9
350	224.8	223.5	207.9	241.7	205.1	227.9	281.1	171.3
300	260.7		295.6		196.8	218.9		173.6

LONG	-25.94	-21.55	-16.60	-11.27	-5.33	0.28	5.89	11.64
LAT	79.02	79.40	79.83	80.14	80.26	80.38	80.49	80.28
QUAL	33	33	33	32	33	32	32	33

PASS 2191 AT RESLUT, 63 3 8  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)					
	191734	191753	191809	191827	191845	191902
1000	0.081	0.074	0.062	0.118	0.071	0.081
950	0.091	0.084	0.072	0.126	0.079	0.089
900	0.103	0.095	0.083	0.137	0.089	0.098
850	0.116	0.109	0.096	0.151	0.101	0.111
800	0.133	0.128	0.111	0.173	0.115	0.127
750	0.152	0.151	0.130	0.202	0.133	0.148
700	0.177	0.177	0.152	0.237	0.153	0.175
650	0.205	0.206	0.179	0.274	0.183	0.209
600	0.243	0.239	0.208	0.314	0.220	0.250
550	0.294	0.275	0.251	0.357	0.264	0.296
500	0.353	0.338	0.308	0.404	0.313	0.362
450	0.423	0.418	0.375	0.454	0.407	0.477
400	0.532	0.512	0.452	0.598	0.541	0.618
350	0.719	0.622	0.538	0.824	0.701	0.781
300	0.948	0.853	0.710	1.125	0.827	0.922
HEIGHT	SCALE HEIGHT, KM					
950	420.1	390.8	341.2	620.3	428.6	507.7
900	405.2	367.6	333.5	540.8	400.5	441.6
850	389.4	344.5	330.0	461.3	376.0	396.8
800	370.3	333.4	326.5	411.5	356.7	363.0
750	351.3	324.9	318.7	370.6	337.4	329.2
700	327.7	316.4	309.3	337.0	318.1	305.1
650	303.9	307.8	299.9	328.9	300.2	289.9
600	286.2	299.2	290.5	320.9	282.4	274.6
550	272.3	290.6	280.1	312.8	264.5	259.4
500	258.4	272.9	269.2	304.8	246.7	249.8
450	244.5	255.0	258.3	296.7	245.7	253.4
400	227.0	237.1	247.4	249.6	251.4	256.9
350	204.2	219.2	236.6	183.5	257.1	267.5
300	181.3	146.7	211.1	177.4	442.3	332.2
LONG	17.06	23.12	27.61	32.13	36.64	40.77
LAT	80.07	79.83	79.49	78.98	78.47	77.97
QUAL	33	33	33	33	32	33



PASS 2197 AT RESLUT, 63 3 9  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	55253	55310	55328	55403	55421	55438	55456	55514
1000	0.088	0.016	0.012	0.024	0.043	0.044	0.054	0.066
950	0.105	0.019	0.017	0.032	0.049	0.051	0.061	0.074
900	0.122	0.022	0.023	0.041	0.056	0.059	0.067	0.082
850	0.141	0.026	0.031	0.050	0.066	0.067	0.074	0.091
800	0.160	0.032	0.040	0.059	0.077	0.076	0.086	0.103
750	0.178	0.040	0.049	0.070	0.089	0.088	0.100	0.120
700	0.202	0.051	0.058	0.082	0.103	0.102	0.119	0.139
650	0.236	0.066	0.070	0.096	0.120	0.121	0.142	0.163
600	0.269	0.088	0.083	0.116	0.139	0.146	0.170	0.194
550	0.359	0.115	0.104	0.142	0.161	0.179	0.202	0.232
500	0.455	0.154	0.132	0.186	0.192	0.232	0.253	0.290
450	0.591	0.207	0.168	0.245	0.233	0.317	0.325	0.371
400	0.774	0.275	0.212	0.322	0.305	0.433	0.441	0.491
350	1.010	0.359	0.307	0.442	0.432	0.568	0.593	0.676
300		0.452	0.524	0.607	0.625	0.704	0.843	0.960
HEIGHT	SCALE HEIGHT, KM							
950	311.2	341.6	141.5	191.5	362.7	358.6	482.1	459.9
900	351.5	314.3	170.7	231.7	340.3	376.9	452.3	465.3
850	390.7	276.5	200.0	265.7	335.7	373.0	417.2	430.7
800	437.5	239.1	228.4	293.6	332.1	359.1	355.8	387.8
750	415.1	219.1	255.2	304.6	335.9	344.6	311.2	337.4
700	356.2	204.0	268.2	301.9	339.2	314.1	293.6	316.4
650	292.1	192.9	260.6	282.2	338.2	279.4	278.9	298.2
600	257.9	187.7	253.1	254.3	330.6	254.5	268.0	281.0
550	227.6	182.5	233.8	226.5	303.6	225.8	257.0	261.2
500	200.0	179.9	212.7	196.0	267.7	172.9	216.9	222.6
450	188.3	178.6	193.8	179.1	229.0	174.4	182.9	193.4
400	190.5	204.9	175.1	172.4	168.9	179.8	172.5	174.0
350	189.8	250.9	124.6	161.0	150.0	214.6	162.0	148.8
300		316.8	120.0	177.6	140.4	300.8	123.6	142.4
LONG	-110.75	-108.09	-105.70	-101.15	-99.44	-97.83	-96.12	-94.76
LAT	76.40	75.70	74.91	73.37	72.51	71.70	70.85	69.96
QUAL	33	31	33	33	33	31	33	33

PASS 2197 AT RESLUT, 63 3 9							
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)							
HEIGHT	TIME (UT)						
	55531	55549	55606	55624	55641	55659	55717
1000	0.047	0.042	0.040	0.047	0.015	0.009	0.012
950	0.054	0.049	0.046	0.054	0.020	0.012	0.016
900	0.059	0.057	0.051	0.060	0.025	0.014	0.019
850	0.066	0.065	0.058	0.068	0.029	0.017	0.025
800	0.076	0.075	0.068	0.077	0.033	0.022	0.034
750	0.088	0.088	0.080	0.093	0.044	0.028	0.046
700	0.102	0.102	0.098	0.112	0.058	0.036	0.060
650	0.119	0.122	0.123	0.136	0.077	0.050	0.076
600	0.143	0.147	0.153	0.165	0.099	0.077	0.095
550	0.177	0.177	0.194	0.198	0.127	0.110	0.137
500	0.218	0.213	0.278	0.236	0.177	0.160	0.212
450	0.310	0.253	0.385	0.324	0.238	0.239	0.302
400	0.446	0.350	0.515	0.490	0.309	0.341	0.445
350	0.540	0.513	0.669	0.643	0.405	0.482	0.618
300		0.691	0.805	0.784		0.645	0.759
HEIGHT	SCALE HEIGHT, KM						
950	468.6	333.3	345.4	399.6	219.8	240.4	196.1
900	448.5	342.1	381.8	385.8	285.1	254.1	217.6
850	414.8	339.6	357.2	367.8	298.6	237.9	214.1
800	384.5	337.0	327.5	347.1	273.7	227.2	207.2
750	354.1	334.2	287.9	305.3	258.1	216.5	200.3
700	334.6	325.2	252.8	288.5	242.5	187.7	194.7
650	315.5	304.4	233.5	270.4	226.8	125.0	189.6
600	281.7	279.2	206.3	244.4	194.8	127.5	184.5
550	239.8	254.1	156.1	209.9	160.5	128.4	145.1
500	175.4	211.2	160.5	166.3	160.9	131.8	125.8
450	149.9	172.0	164.9	170.9	170.9	139.1	124.5
400	195.4	174.1	161.4	178.4	180.9	147.7	160.3
350	412.7	176.2	235.9	223.1	179.2	163.0	209.0
300		202.0	731.9	437.4	170.4	189.5	325.7
LONG	-93.58	-92.33	-91.24	-90.29	-89.39	-88.44	-87.69
LAT	69.11	68.21	67.35	66.42	65.55	64.62	63.67
QUAL	31	33	31	31	33	33	33

PASS 2197 AT RESLUT, 63 3 9  
 ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)		
	55749	55809	55902
1000	0.008	0.005	0.006
950	0.012	0.009	0.009
900	0.015	0.011	0.012
850	0.019	0.013	0.015
800	0.023	0.015	0.019
750	0.029	0.019	0.024
700	0.036	0.024	0.030
650	0.050	0.035	0.038
600	0.068	0.054	0.051
550	0.097	0.079	0.068
500	0.136	0.112	0.102
450	0.205	0.166	0.157
400	0.301	0.235	0.234
350	0.424	0.327	0.327
300	0.532		0.448

HEIGHT	SCALE HEIGHT, KM		
950	172.6	174.8	145.3
900	242.0	287.1	197.9
850	237.4	261.1	220.5
800	225.7	241.7	215.3
750	212.6	222.4	209.8
700	198.7	182.6	204.7
650	174.0	125.8	199.5
600	152.9	131.0	178.1
550	146.0	136.3	151.8
500	138.6	141.4	130.7
450	129.1	145.2	124.5
400	152.5	148.9	133.5
350	193.2	151.3	140.9
300	320.4		139.1

LONG	-86.38	-85.64	-83.92
LAT	61.99	60.93	58.10
QUAL	33	33	33

PASS 2197 AT SOLANT, 63 3 9

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	62456	62531	62641	62752	62827	62903	62937	63012
1000	0.167	0.184	0.208	0.154	0.187	0.156	0.159	0.150
950	0.179	0.196	0.219	0.166	0.199	0.170	0.174	0.164
900	0.189	0.212	0.233	0.176	0.213	0.184	0.186	0.177
850	0.203	0.227	0.255	0.189	0.230	0.200	0.200	0.192
800	0.224	0.261	0.280	0.214	0.256	0.220	0.218	0.212
750	0.260	0.309	0.320	0.254	0.311	0.249	0.239	0.239
700	0.319	0.403	0.418	0.320	0.391	0.305	0.287	0.288
650	0.408	0.525	0.531	0.445	0.492	0.393	0.385	0.384
600	0.571	0.717	0.752	0.634	0.682	0.533	0.513	0.539
550	0.853	1.000	1.063	0.955	1.011	0.789	0.779	0.794
500	1.307	1.415	1.478	1.400	1.501	1.198	1.193	1.176
450	2.031	2.055	1.949	1.884	2.169	1.740	1.827	1.747
400	3.011	2.808					2.545	2.477
350								
300								
HEIGHT	SCALE HEIGHT, KM							
950	934.1	764.8	901.3	789.3	783.0	664.0	718.1	625.4
900	794.8	628.1	675.4	758.1	676.7	602.1	720.3	616.0
850	584.4	542.6	525.2	535.8	526.6	539.8	603.7	543.7
800	456.6	336.9	435.0	386.4	367.1	457.2	516.8	456.2
750	324.9	241.2	326.3	268.4	276.4	346.2	429.8	360.2
700	229.0	189.0	195.0	190.5	216.7	241.7	280.6	244.3
650	183.3	174.8	178.1	147.0	190.7	183.7	165.4	164.8
600	137.1	156.3	143.8	133.5	138.0	148.2	149.1	139.1
550	122.4	148.6	150.2	126.7	129.8	124.8	119.1	128.4
500	112.9	139.3	167.5	149.2	130.3	125.5	118.7	128.7
450	120.2	146.1	194.2	198.8	162.7	150.2	131.5	134.0
400	144.0	179.2					214.0	179.4
350								
300								
LONG	-69.59	-69.29	-68.65	-67.92	-67.50	-67.06	-66.58	-66.05
LAT	-28.76	-30.72	-34.65	-38.61	-40.56	-42.57	-44.46	-46.40
QUAL	33	33	33	33	33	33	33	33

PASS 2197 AT SOLANT, 63 3 9  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)													
	63047	63122	63200	63235	63328	63403	63438	63548						
1000	0.162	0.167	0.190	0.186	0.183	0.186	0.167	0.087						
950	0.175	0.179	0.202	0.198	0.193	0.196	0.177	0.096						
900	0.188	0.191	0.212	0.207	0.203	0.208	0.187	0.103						
850	0.200	0.203	0.225	0.219	0.216	0.223	0.202	0.112						
800	0.217	0.222	0.242	0.232	0.233	0.242	0.220	0.122						
750	0.241	0.248	0.278	0.255	0.258	0.271	0.246	0.144						
700	0.289	0.315	0.370	0.306	0.312	0.317	0.298	0.176						
650	0.373	0.403	0.445	0.371	0.394	0.400	0.372	0.216						
600	0.519	0.574	0.612	0.525	0.501	0.541	0.502	0.260						
550	0.796	0.861	0.876	0.769	0.683	0.748	0.712	0.316						
500	1.218	1.333	1.268	1.139	1.046	1.066	1.033	0.420						
450	1.805	1.957	1.878	1.717	1.556	1.542	1.524	0.571						
400	2.449	2.698	2.596	2.497	2.257	2.239	2.156	0.774						
350							2.790	1.025						
300								1.279						
HEIGHT	SCALE HEIGHT, KM													
	950	900	850	800	750	700	650	600	550	500	450	400	350	300
732.4	756.8	934.7	954.9	969.9	889.8	937.4	694.6							
743.6	776.3	924.8	1021.0	883.6	762.8	738.3	637.0							
695.9	636.7	729.3	890.3	711.6	650.0	597.8	538.8							
541.6	505.0	539.0	661.6	545.7	558.6	509.8	430.7							
394.2	370.3	345.2	440.3	392.6	369.7	391.4	364.1							
258.3	206.4	209.5	257.4	297.8	276.7	239.5	301.8							
184.0	176.2	204.5	211.0	217.4	190.2	201.3	260.5							
138.9	132.3	138.1	135.3	187.7	167.1	163.9	245.7							
116.7	119.6	136.5	128.8	144.5	149.8	140.3	224.1							
125.8	123.4	133.4	125.4	122.5	142.4	134.2	169.3							
138.4	132.8	137.7	123.1	130.1	132.4	138.5	163.8							
210.2	217.9	200.6	180.4	161.3	171.2	159.2	174.8							
						304.9	199.3							
														311.3
LONG	-65.48	-64.85	-64.12	-63.31	-61.95	-60.95	-59.74	-56.88						
LAT	-48.34	-50.27	-52.36	-54.27	-57.16	-59.06	-60.93	-64.64						
QUAL	33	33	31	21	21	21	21	32						

PASS 2197 AT SOLANT, 63 3 9

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	63623	63658	63733	63808	63844	63919	63954	64027
1000	0.069	0.048	0.033	0.086	0.121	0.134	0.141	0.151
950	0.080	0.053	0.040	0.094	0.138	0.153	0.162	0.171
900	0.091	0.059	0.046	0.108	0.158	0.175	0.184	0.192
850	0.101	0.067	0.054	0.124	0.182	0.200	0.209	0.216
800	0.112	0.074	0.065	0.142	0.211	0.233	0.242	0.244
750	0.129	0.086	0.077	0.166	0.250	0.273	0.284	0.281
700	0.156	0.109	0.092	0.197	0.299	0.327	0.337	0.326
650	0.192	0.139	0.111	0.236	0.360	0.397	0.406	0.393
600	0.243	0.174	0.135	0.285	0.441	0.488	0.491	0.476
550	0.307	0.216	0.166	0.347	0.554	0.610	0.605	0.585
500	0.403	0.274	0.207	0.425	0.705	0.764	0.742	0.728
450	0.543	0.371	0.269	0.528	0.899	0.964	0.924	0.923
400	0.736	0.508	0.346	0.660	1.142	1.208	1.142	1.164
350	0.957	0.703	0.443	0.821	1.405		1.385	1.424
300		0.927		1.015				1.684

HEIGHT	SCALE HEIGHT, KM							
950		533.7	327.9	454.2	377.3	383.9		
900		447.6	314.7	375.5	363.8	366.1	382.6	431.4
850	499.9	394.3	295.2	362.0	340.3	347.2	362.8	410.5
800	399.3	356.6	287.5	338.9	315.5	324.1	329.4	371.5
750	337.4	316.8	283.6	310.7	292.9	299.1	303.2	340.4
700	288.4	273.4	274.5	291.9	275.4	272.3	280.6	309.5
650	243.3	230.0	261.6	276.6	261.6	249.4	265.7	281.7
600	224.7	218.3	247.0	263.9	232.8	231.2	253.2	255.0
550	206.1	211.6	229.9	253.9	214.9	227.3	247.2	237.1
500	185.3	195.6	215.8	241.0	212.9	224.4	241.1	225.7
450	169.1	164.8	213.1	227.7	213.0	228.4	242.1	222.0
400	182.5	156.5	210.3	231.0	227.9	243.2	257.0	234.3
350	217.2	170.8	233.3	239.9	285.0		298.2	274.4
300		216.4		263.4				345.2

LONG	-55.06	-53.09	-50.50	-47.66	-43.96	-39.56	-34.51	-28.08
LAT	-66.45	-68.26	-70.00	-71.72	-73.41	-74.97	-76.45	-77.65
QUAL	32	32	31	33	32	32	32	31

PASS 2203 AT AGASTA, 63 3 9  
 ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	173336	173412	173447	173522	173557	173632	173708	173743
1000	0.224	0.250	0.274	0.310	0.335	0.367	0.356	0.380
950	0.248	0.279	0.312	0.353	0.389	0.429	0.423	0.441
900	0.284	0.320	0.359	0.413	0.468	0.513	0.513	0.522
850	0.329	0.370	0.422	0.491	0.607	0.648	0.640	0.685
800	0.383	0.431	0.502	0.589	0.817	0.842	0.880	0.935
750	0.447	0.552	0.598	0.718	1.091	1.136	1.216	1.288
700	0.574	0.720	0.816	0.965	1.508	1.539	1.673	1.754
650	0.773	1.005	1.163	1.422	2.218	2.308	2.489	2.675
600	1.105	1.457	1.822	2.332	3.602	3.813	4.040	4.178
550	1.723	2.454	3.182	4.146	6.018	6.035	6.366	6.564
500	2.976	4.441	5.837	7.391	9.652	9.582	9.478	9.562
450	5.559			11.580		12.864		
400	10.055							
350								
300								

HEIGHT	SCALE HEIGHT, KM							
950	416.4	406.3	362.2	346.4	298.6	295.2	281.6	315.8
900	357.1	354.0	317.4	303.8	239.8	249.5	239.8	232.7
850	325.7	311.3	291.1	276.7	209.8	216.3	199.4	202.4
800	297.2	268.5	265.2	253.5	191.4	187.0	179.5	176.6
750	268.8	221.6	239.3	222.7	172.9	167.1	160.1	158.1
700	219.7	174.9	167.3	156.9	148.5	150.4	144.5	143.1
650	159.8	151.6	129.8	116.3	120.5	107.0	115.8	119.5
600	134.0	118.2	100.6	93.1	101.1	104.7	106.7	110.3
550	97.9	90.2	82.7	86.6	101.4	106.8	114.5	119.6
500	86.0	80.4	85.9	92.2	125.9	128.8	148.6	155.6
450	80.1			144.3		238.0		
400	106.0							
350								
300								

LONG	-68.31	-68.02	-67.76	-67.51	-67.26	-66.98	-66.73	-66.57
LAT	-29.28	-27.26	-25.29	-23.32	-21.36	-19.39	-17.36	-15.39
QUAL	23	23	23	23	23	23	23	23

PASS 2203 AT AGASTA, 63 3 9  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	173818	173853	173928	174004	174039	174114	174149	174224
1000	0.353	0.362	0.387	0.374	0.353	0.359	0.323	0.304
950	0.414	0.423	0.441	0.428	0.402	0.410	0.372	0.349
900	0.494	0.498	0.523	0.501	0.471	0.482	0.441	0.414
850	0.638	0.639	0.642	0.606	0.567	0.575	0.529	0.501
800	0.859	0.844	0.852	0.791	0.728	0.717	0.663	0.609
750	1.170	1.132	1.132	1.040	0.937	0.927	0.852	0.791
700	1.597	1.530	1.553	1.401	1.239	1.199	1.097	1.030
650	2.385	2.315	2.251	1.953	1.641	1.598	1.455	1.357
600	3.754	3.624	3.572	3.057	2.495	2.268	2.015	1.813
550	6.094	5.734	5.680	4.861	4.110	3.636	3.187	2.763
500	9.214	9.105	8.827	7.919	6.709	5.892	5.150	4.418
450	12.268			12.015	10.422	9.219	8.203	7.006
400							12.538	10.840
350								
300								

HEIGHT	SCALE HEIGHT, KM							
	173818	173853	173928	174004	174039	174114	174149	174224
950	295.6	297.8	345.2	350.3	344.9	341.7	322.7	329.6
900	235.4	245.1	280.2	288.2	294.6	300.9	287.5	295.9
850	205.5	218.5	224.0	236.7	249.6	261.8	253.2	266.6
800	183.0	194.5	199.1	211.7	225.1	233.0	229.8	237.4
750	163.7	171.3	174.2	186.7	200.5	211.4	211.3	216.6
700	147.6	149.0	151.9	163.2	177.4	189.3	192.0	196.8
650	117.6	117.2	125.0	135.5	154.9	163.9	168.3	174.7
600	107.1	112.4	109.5	110.2	111.6	128.6	138.1	150.2
550	109.5	104.0	109.9	107.6	100.3	105.3	107.2	113.9
500	133.4	135.2	119.7	103.1	107.0	106.8	105.4	106.4
450	370.3			152.4	123.9	122.5	111.0	112.7
400							143.7	131.5
350								
300								

LONG	-66.40	-66.20	-66.01	-65.81	-65.62	-65.44	-65.25	-65.07
LAT	-13.42	-11.44	-9.47	-7.44	-5.47	-3.49	-1.52	0.45
QUAL	23	23	23	23	23	23	23	23



PASS 2204 AT QUITOE, 63 3 9

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	174320	174356	174431	174506	174541	174616	174651	174727
1000	0.268	0.256	0.231	0.226	0.224	0.197	0.194	0.178
950	0.305	0.289	0.262	0.255	0.250	0.223	0.220	0.202
900	0.354	0.335	0.305	0.294	0.288	0.258	0.256	0.234
850	0.415	0.393	0.358	0.343	0.335	0.301	0.300	0.271
800	0.489	0.463	0.421	0.401	0.390	0.351	0.351	0.315
750	0.601	0.546	0.515	0.483	0.457	0.417	0.424	0.381
700	0.759	0.700	0.642	0.610	0.569	0.523	0.537	0.468
650	0.989	0.907	0.831	0.779	0.722	0.660	0.679	0.593
600	1.322	1.201	1.098	1.028	0.957	0.877	0.897	0.763
550	1.920	1.717	1.561	1.434	1.310	1.173	1.204	1.041
500	2.979	2.636	2.374	2.132	1.928	1.710	1.739	1.489
450	4.892	4.313	3.849	3.400	3.031	2.672	2.677	2.235
400	7.949	7.099	6.291	5.634	4.959	4.412	4.305	3.645
350	12.127	11.074	10.059	9.084	8.074		7.058	6.047
300				12.849	11.665		10.381	9.263
HEIGHT	SCALE HEIGHT, KM							
950	359.3	371.7	360.5	379.9	398.3	380.9	361.9	381.8
900	327.9	328.1	321.3	348.1	361.3	345.2	334.6	347.5
850	300.3	304.5	299.6	316.8	329.9	318.1	307.1	321.7
800	273.4	283.3	278.9	286.0	304.5	293.7	279.5	296.0
750	241.4	261.4	246.8	255.8	277.2	266.5	254.1	265.9
700	207.6	221.7	211.8	226.4	234.8	233.2	231.1	235.2
650	184.7	187.0	189.5	197.7	198.1	201.0	208.0	209.8
600	158.4	162.5	165.8	171.2	176.9	181.8	183.3	186.5
550	124.8	130.8	137.8	142.4	150.0	158.9	156.9	154.6
500	106.0	108.5	111.2	116.9	118.6	123.3	126.9	134.8
450	100.5	98.2	101.6	99.4	105.6	105.1	111.6	114.2
400	108.8	104.1	102.0	103.8	100.5	99.9	98.6	94.9
350	148.5	137.7	122.4	112.3	109.7		109.4	108.3
300				256.7	219.7		249.8	151.0
LONG	-64.77	-64.58	-64.39	-64.21	-64.01	-63.81	-63.60	-63.38
LAT	3.60	5.63	7.61	9.58	11.55	13.52	15.49	17.52
QUAL	23	23	23	23	23	23	23	23

PASS 2204 AT QUITOE, 63 3 9  
 ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)	
	174802	174837
1000	0.166	0.162
950	0.185	0.181
900	0.212	0.206
850	0.244	0.237
800	0.281	0.273
750	0.332	0.322
700	0.407	0.392
650	0.505	0.487
600	0.655	0.623
550	0.861	0.811
500	1.208	1.129
450	1.792	1.641
400	2.816	2.538
350	4.695	4.180
300		
HEIGHT	SCALE HEIGHT, KM	
950	410.4	400.0
900	369.5	365.1
850	342.5	343.8
800	316.8	322.5
750	286.8	292.4
700	251.5	252.6
650	218.8	221.7
600	196.8	201.7
550	170.3	177.5
500	139.0	144.6
450	120.0	127.0
400	103.6	106.0
350	99.3	96.4
300		
LONG	-63.17	-62.93
LAT	19.48	21.45
QUAL	33	33

PASS 2204 AT FTMYRS, 63 3 9

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	174710	174744	174802	174837	174913	174948	175023	175040
1000	0.170	0.161	0.157	0.150	0.146	0.142	0.140	0.140
950	0.193	0.184	0.180	0.172	0.166	0.161	0.160	0.160
900	0.224	0.214	0.208	0.199	0.191	0.186	0.182	0.183
850	0.266	0.252	0.242	0.232	0.222	0.217	0.211	0.212
800	0.323	0.305	0.288	0.277	0.266	0.259	0.247	0.248
750	0.395	0.374	0.346	0.332	0.319	0.312	0.291	0.292
700	0.489	0.463	0.425	0.409	0.392	0.379	0.343	0.345
650	0.620	0.585	0.522	0.507	0.488	0.475	0.426	0.425
600	0.779	0.733	0.682	0.623	0.602	0.591	0.567	0.561
550	0.992	0.970	0.964	0.763	0.736	0.728	0.749	0.735
500	1.547	1.462	1.400	1.167	1.060	1.003	1.025	1.002
450	2.442	2.235	2.142	1.773	1.595	1.519	1.391	1.362
400	4.130	3.774	3.509	2.868	2.512	2.411	2.115	2.023
350	6.902	6.322	5.870	4.887	4.248	4.183	3.414	3.230
300		9.615	9.090	8.230	7.055	7.010	5.818	5.427
HEIGHT	SCALE HEIGHT, KM							
950	371.2	355.1	361.3	355.1	371.0	367.3	374.0	356.9
900	325.4	322.5	334.8	329.1	338.8	339.1	351.8	349.2
850	283.7	290.5	308.6	304.2	307.3	310.8	333.3	331.4
800	264.4	266.1	283.1	281.1	282.0	285.9	313.4	313.0
750	245.1	245.2	257.8	258.0	256.6	262.2	285.8	286.5
700	227.2	225.8	235.8	242.0	240.7	241.4	258.3	260.0
650	211.2	209.6	213.9	227.2	227.9	227.7	231.6	234.3
600	195.2	193.4	185.7	212.3	215.1	214.1	205.9	209.6
550	174.6	170.3	150.0	196.6	202.4	200.4	180.2	184.9
500	114.4	130.7	129.2	142.2	156.5	163.7	161.7	166.0
450	104.2	108.7	111.2	113.1	117.4	115.3	145.1	149.0
400	94.2	94.7	100.6	97.7	103.7	101.3	119.4	118.2
350	107.9	102.3	99.0	94.4	93.6	92.5	96.9	101.7
300		248.3	151.5	121.5	120.6	102.1	100.1	107.4
LONG	-63.49	-63.28	-63.17	-62.93	-62.69	-62.44	-62.17	-62.04
LAT	16.56	18.47	19.48	21.45	23.47	25.44	27.40	28.35
QUAL	23	23	23	23	22	22	22	23

PASS 2204 AT FTYRS, 63 3 9  
 ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)		
	175116	175151	175226
1000	0.126	0.125	0.124
950	0.145	0.147	0.143
900	0.168	0.168	0.166
850	0.195	0.193	0.192
800	0.231	0.227	0.226
750	0.275	0.268	0.265
700	0.332	0.322	0.316
650	0.407	0.387	0.377
600	0.499	0.463	0.455
550	0.605	0.587	0.609
500	0.806	0.822	0.810
450	1.145	1.137	1.104
400	1.654	1.587	1.489
350	2.530	2.406	2.213
300	4.261	3.943	3.465
HEIGHT	SCALE HEIGHT, KM		
950	347.4		342.8
900	331.5	338.3	333.2
850	315.6	326.0	322.6
800	294.8	304.8	309.6
750	273.9	285.1	296.7
700	257.4	269.4	275.1
650	244.7	253.7	253.2
600	232.1	238.0	230.8
550	219.4	214.6	204.4
500	185.8	178.2	178.0
450	139.0	150.1	162.5
400	129.3	137.0	149.7
350	107.7	113.0	123.9
300	102.8	101.0	112.7
LONG	-61.75	-61.45	-61.12
LAT	30.37	32.33	34.28
QUAL	22	22	22

## PASS 2204 AT OTTAWA, 63 3 9

## ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)						
	175630	175708	175744	175819	175854	175932	175947
1000	0.129	0.127	0.135	0.142	0.124	0.127	0.141
950	0.145	0.143	0.149	0.160	0.143	0.147	0.161
900	0.166	0.164	0.165	0.181	0.165	0.170	0.185
850	0.188	0.185	0.185	0.204	0.190	0.196	0.213
800	0.215	0.213	0.211	0.232	0.218	0.226	0.247
750	0.249	0.245	0.248	0.269	0.256	0.266	0.292
700	0.290	0.286	0.295	0.312	0.301	0.314	0.346
650	0.336	0.345	0.353	0.362	0.356	0.378	0.413
600	0.414	0.416	0.429	0.441	0.445	0.464	0.509
550	0.524	0.530	0.523	0.547	0.554	0.567	0.626
500	0.600	0.673	0.671	0.684	0.711	0.727	0.785
450	0.905	0.885	0.878	0.892	0.922	0.929	1.004
400	1.267	1.193	1.175	1.188	1.221	1.220	1.302
350	1.739	1.629	1.609	1.599	1.653	1.622	1.681
300	2.384	2.312	2.253	2.168	2.301	2.184	2.146
HEIGHT	SCALE HEIGHT, KM						
950	403.1	398.6	480.6	408.3	344.1	341.8	361.1
900	380.8	383.2	440.0	398.2	344.1	340.4	352.1
850	366.2	371.1	399.5	378.2	337.6	333.5	334.9
800	349.3	350.6	363.8	358.9	328.3	325.6	318.0
750	330.1	330.2	334.1	340.1	309.6	305.7	302.2
700	310.8	305.0	304.3	321.4	290.8	285.8	286.3
650	291.6	272.5	277.5	302.6	271.2	266.5	270.5
600	262.4	240.4	255.1	274.6	246.6	247.6	254.5
550	228.4	222.1	231.6	242.5	222.0	228.8	238.5
500	194.6	203.9	200.7	212.3	204.9	214.4	218.4
450	163.9	177.9	181.1	188.7	191.5	200.2	199.7
400	155.8	166.2	166.9	175.3	175.7	185.7	196.8
350	160.2	153.4	154.5	167.2	158.2	173.2	201.7
300	151.0	144.2	149.9	172.2	162.2	189.8	222.3
LONG	-58.04	-57.39	-56.69	-55.94	-55.12	-54.08	-53.66
LAT	47.80	49.89	51.86	53.76	55.65	57.70	58.51
QUAL	31	32	33	33	33	23	21

PASS 2211 AT RESLUT, 63 310

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	62944	63002	63019	63037	63055	63112	63130	63147
1000	0.056	0.027	0.046	0.043	0.020	0.021	0.032	0.019
950	0.064	0.032	0.052	0.049	0.024	0.025	0.039	0.023
900	0.075	0.038	0.059	0.058	0.029	0.030	0.047	0.028
850	0.069	0.049	0.071	0.071	0.036	0.039	0.059	0.037
800	0.107	0.063	0.087	0.087	0.047	0.052	0.074	0.049
750	0.128	0.082	0.113	0.108	0.061	0.068	0.103	0.065
700	0.159	0.105	0.150	0.135	0.078	0.088	0.151	0.086
650	0.202	0.143	0.204	0.177	0.109	0.151	0.215	0.113
600	0.282	0.192	0.281	0.237	0.158	0.239	0.298	0.158
550	0.392	0.260	0.400	0.346	0.232	0.344	0.403	0.228
500	0.534	0.359	0.570	0.496	0.335	0.468	0.536	0.337
450	0.711	0.488	0.795	0.697	0.485	0.611	0.734	0.494
400	0.946	0.788	1.099	0.963	0.678	0.799		0.702
350	1.221	1.189	1.385	1.277	0.922			0.932
300					1.208			1.072
HEIGHT	SCALE HEIGHT, KM							
950	323.6	258.7	374.1	306.3	287.0	266.3	244.4	238.3
900	308.6	245.8	318.7	282.2	248.0	225.4	230.3	215.5
850	292.9	201.9	275.9	260.6	216.0	210.5	210.1	204.0
800	272.9	192.2	233.1	240.4	196.0	195.6	190.2	192.5
750	251.9	189.6	204.4	223.1	191.3	180.7	161.8	182.8
700	221.3	186.7	182.0	205.4	182.8	165.8	137.1	176.1
650	189.3	178.7	164.2	181.0	138.2	144.1	149.3	169.4
600	152.1	169.1	151.7	159.1	132.0	123.9	159.7	151.7
550	154.9	154.5	145.0	146.0	133.5	144.8	165.1	133.7
500	165.7	146.0	146.2	144.6	136.2	165.8	166.2	131.3
450	177.2	137.5	154.2	153.2	147.7	186.7	155.9	145.1
400	193.4	140.6	212.3	167.7	159.3	266.2		163.3
350	216.6	199.7	387.6	187.9	181.8			241.6
300					245.6			840.2
LONG	-127.96	-124.21	-121.63	-118.90	-116.18	-114.14	-112.21	-110.39
LAT	77.55	76.93	76.22	75.47	74.72	73.95	73.12	72.33
QUAL	33	33	33	33	33	32	33	32

PASS 2211 AT RESLUT, 63 310  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	63205	63223	63315	63333	63351	63408	63426	63443
1000	0.041	0.027	0.050	0.051	0.034	0.051	0.028	0.017
950	0.047	0.033	0.056	0.056	0.041	0.059	0.033	0.022
900	0.052	0.039	0.062	0.061	0.047	0.070	0.040	0.027
850	0.060	0.046	0.070	0.066	0.054	0.083	0.050	0.033
800	0.070	0.058	0.080	0.074	0.062	0.099	0.061	0.040
750	0.083	0.072	0.093	0.084	0.072	0.118	0.074	0.048
700	0.117	0.091	0.107	0.099	0.084	0.138	0.089	0.063
650	0.162	0.125	0.122	0.123	0.101	0.161	0.110	0.082
600	0.217	0.172	0.142	0.154	0.123	0.200	0.142	0.106
550	0.304	0.243	0.165	0.195	0.155	0.253	0.182	0.136
500	0.434	0.351	0.197	0.259	0.202	0.327	0.257	0.181
450	0.620	0.509	0.248	0.350	0.276	0.456	0.393	0.274
400	0.861	0.715	0.344	0.469	0.390	0.622	0.568	0.399
350		0.943	0.514	0.591	0.548	0.834	0.760	0.575
300				0.711	0.736	1.031	0.974	0.781
HEIGHT	SCALE HEIGHT, KM							
950	398.3	302.2	439.6	606.4	307.0	319.8	256.0	220.1
900	368.6	289.6	427.7	597.7	353.5	302.9	245.5	223.8
850	331.2	240.0	402.6	480.6	365.1	294.4	249.9	227.5
800	293.9	226.9	375.6	424.9	341.3	296.8	254.4	231.3
750	255.5	213.8	351.2	369.2	316.9	293.8	247.4	231.5
700	208.1	199.3	352.9	311.8	292.5	282.1	239.0	217.3
650	168.9	175.1	351.0	252.1	268.3	270.4	224.7	203.2
600	157.3	153.8	334.3	221.3	244.1	242.2	201.4	189.2
550	144.4	144.1	302.7	188.1	210.6	211.0	178.1	175.3
500	143.4	136.7	252.8	177.0	179.4	186.4	163.9	161.6
450	145.6	141.1	191.1	168.3	157.8	183.1	159.4	148.6
400	148.0	163.2	140.7	198.8	141.1	179.8	158.2	139.7
350		304.2	209.0	246.4	159.4	218.7	189.0	156.8
300				295.3	272.0	745.5	367.2	196.9
LONG	-108.61	-107.21	-103.45	-102.40	-101.35	-100.47	-99.66	-98.89
LAT	71.48	70.60	68.01	67.10	66.18	65.30	64.36	63.47
QUAL	32	33	32	33	33	32	33	33

PASS 2211 AT RESLUT, 63 310								
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)								
HEIGHT	TIME (UT)							
	63501	63519	63536	63554	63611	63629	63646	63722
1000	0.016	0.008	0.012	0.006	0.017	0.023	0.021	0.016
950	0.022	0.011	0.017	0.009	0.023	0.029	0.027	0.021
900	0.029	0.014	0.020	0.012	0.030	0.035	0.033	0.026
850	0.037	0.018	0.024	0.015	0.037	0.041	0.040	0.031
800	0.046	0.024	0.029	0.019	0.045	0.049	0.048	0.036
750	0.057	0.031	0.034	0.024	0.055	0.058	0.061	0.044
700	0.070	0.041	0.041	0.032	0.068	0.069	0.075	0.057
650	0.085	0.052	0.050	0.044	0.087	0.090	0.094	0.075
600	0.103	0.067	0.064	0.066	0.117	0.118	0.124	0.096
550	0.126	0.090	0.083	0.096	0.156	0.151	0.162	0.124
500	0.165	0.123	0.114	0.134	0.218	0.223	0.227	0.171
450	0.227	0.171	0.163	0.188	0.312	0.324	0.338	0.230
400	0.346	0.244	0.235	0.283	0.460	0.454	0.481	0.306
350	0.501	0.349	0.364	0.471	0.620	0.618	0.656	0.433
300	0.673	0.487	0.541	0.694	0.771	0.817	0.865	0.597
HEIGHT	SCALE HEIGHT, KM							
950	164.2	183.7	199.8	161.2	187.2	250.3	219.3	221.7
900	189.9	189.0	267.2	214.4	218.9	276.1	234.6	272.9
850	208.6	193.4	292.4	223.7	252.2	275.4	238.1	262.0
800	226.8	190.4	281.0	214.2	247.9	264.9	237.9	248.8
750	238.2	187.7	266.9	195.3	230.8	254.4	229.3	236.0
700	247.5	189.7	254.9	164.6	212.9	243.8	220.6	224.3
650	255.6	191.8	242.9	138.0	196.3	220.9	210.6	212.6
600	237.8	188.7	216.3	143.8	182.5	195.8	191.1	200.9
550	217.0	170.4	180.0	149.6	168.8	170.6	171.6	189.7
500	179.4	157.9	145.1	153.2	152.6	161.6	155.5	181.0
450	154.0	150.6	134.8	139.0	132.7	155.5	143.0	172.4
400	151.2	143.4	128.5	102.8	150.0	158.4	154.0	164.9
350	154.9	147.8	131.8	129.5	199.9	172.4	172.7	161.6
300	172.6	171.3	138.2	185.5	264.1	185.4	252.5	160.7
LONG	-98.09	-97.46	-96.85	-96.21	-95.68	-95.17	-94.68	-93.76
LAT	62.53	61.57	60.67	59.72	58.81	57.84	56.92	54.98
QUAL	33	33	33	33	31	33	33	33



PASS 2211 AT RESLUT, 63 310			
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)			
HEIGHT	TIME (UT)		
	63739	63757	63832
1000	0.017	0.012	0.009
950	0.022	0.017	0.014
900	0.028	0.021	0.019
850	0.033	0.026	0.024
800	0.039	0.031	0.031
750	0.048	0.038	0.040
700	0.062	0.048	0.051
650	0.064	0.061	0.067
600	0.115	0.078	0.091
550	0.160	0.107	0.122
500	0.233	0.159	0.164
450	0.340	0.239	0.236
400	0.488	0.380	0.345
350	0.676	0.559	0.488
300	0.911	0.751	0.653
HEIGHT	SCALE HEIGHT, KM		
950	192.4	192.9	147.4
900	268.1	237.9	182.3
850	296.3	246.6	191.9
800	262.3	239.6	199.2
750	232.0	232.5	200.3
700	195.7	218.5	187.2
650	160.3	201.7	179.2
600	153.8	184.9	175.4
550	146.0	164.3	171.5
500	135.7	138.6	162.8
450	141.0	124.8	138.5
400	151.4	134.8	139.8
350	163.7	166.3	166.3
300	178.8	249.2	204.3
LONG	-93.36	-92.94	-92.24
LAT	54.06	53.08	51.17
QUAL	33	33	33

PASS 2211 AT QUITOE, 63 310  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)				
	65538	65631	65817	65909	70002
1000	0.106	0.111	0.115	0.117	0.114
950	0.118	0.128	0.131	0.131	0.125
900	0.133	0.149	0.155	0.159	0.139
850	0.153	0.175	0.186	0.191	0.166
800	0.176	0.207	0.237	0.232	0.211
750	0.212	0.263	0.312	0.281	0.268
700	0.297	0.350	0.420	0.410	0.359
650	0.407	0.463	0.563	0.585	0.505
600	0.544	0.601	0.750	0.811	0.728
550	0.719	0.781	1.006	1.141	1.063
500	1.020	1.067	1.380	1.653	1.677
450	1.492	1.560	2.063	2.469	2.669
400	2.176	2.367	3.312	3.864	4.289
350	3.235	3.568	5.303	6.151	6.768
300	4.742	5.222		9.158	
HEIGHT	SCALE HEIGHT, KM				
950	411.9	336.8	336.9	392.8	502.6
900	366.0	319.4	292.0	286.2	382.8
850	331.3	290.3	239.0	257.7	240.3
800	296.6	259.2	205.9	232.7	201.6
750	259.4	190.3	183.4	207.4	186.2
700	213.6	187.2	176.6	178.0	169.5
650	169.3	187.5	173.7	150.5	151.7
600	167.3	187.7	174.6	150.9	135.7
550	161.9	176.2	166.8	139.7	120.4
500	141.4	150.7	139.3	132.4	113.1
450	135.6	125.1	116.9	119.3	105.8
400	130.4	120.4	105.4	108.3	106.8
350	125.6	126.6	115.1	113.3	119.9
300	137.2	148.2		159.3	
LONG	-83.49	-83.20	-82.60	-82.28	-81.94
LAT	-6.24	-9.23	-15.21	-18.14	-21.11
QUAL	33	33	33	32	33

PASS 2211 AT AGASTA, 63 310  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	65944	70624	70700	70735	70810	70845	70917	70933
1000	0.189	0.153	0.141	0.153	0.146	0.156	0.191	0.194
950	0.204	0.161	0.152	0.164	0.159	0.170	0.204	0.207
900	0.226	0.171	0.162	0.172	0.171	0.183	0.214	0.219
850	0.267	0.182	0.175	0.183	0.183	0.195	0.228	0.233
800	0.323	0.196	0.191	0.196	0.198	0.207	0.246	0.250
750	0.403	0.217	0.212	0.212	0.219	0.222	0.270	0.279
700	0.529	0.249	0.249	0.234	0.251	0.243	0.311	0.329
650	0.723	0.297	0.307	0.271	0.307	0.278	0.375	0.396
600	1.023	0.401	0.403	0.340	0.394	0.335	0.472	0.504
550	1.461	0.579	0.570	0.442	0.555	0.427	0.654	0.683
500	2.158	0.900	0.871	0.641	0.845	0.592	1.015	1.007
450	3.262	1.368	1.368	1.182	1.323	0.875	1.472	1.436
400	5.280	2.087	2.088	1.997	1.941	1.281	2.076	
350	8.656		2.816	2.799			2.656	
300								

HEIGHT	SCALE HEIGHT, KM							
	509.5	1032.4	886.9	863.0	592.7	623.9	843.0	798.4
950	509.5	1032.4	886.9	863.0	592.7	623.9	843.0	798.4
900	404.2	827.7	694.5	788.4	824.9	801.9	858.9	843.4
850	272.9	769.8	612.0	823.7	701.4	767.4	708.3	758.3
800	239.5	562.3	540.9	701.4	559.0	774.6	580.6	550.0
750	210.2	428.3	410.0	533.2	443.0	656.3	459.6	432.3
700	171.7	337.0	263.4	431.7	301.6	481.9	343.1	358.4
650	154.4	236.6	215.1	289.0	221.3	310.8	253.0	284.6
600	144.1	144.9	164.8	202.3	181.2	241.0	200.7	209.0
550	138.2	121.3	130.2	166.0	126.1	178.6	155.2	153.2
500	123.2	116.0	111.7	111.5	113.7	138.7	125.8	141.3
450	113.8	120.4	113.7	80.9	120.6	134.2	139.9	146.1
400	104.9	125.4	127.2	112.4	133.1	129.4	165.2	
350	130.0		220.6	266.7			707.1	
300								

LONG	-82.65	-78.41	-77.93	-77.39	-76.83	-76.19	-75.55	-75.21
LAT	-20.10	-42.53	-44.53	-46.47	-48.40	-50.33	-52.09	-52.97
QUAL	23	23	23	23	23	23	22	23

PASS 2211 AT SOLANT, 63 310  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	70544	70624	70700	70810	70955	71030	71105	71233
1000	0.148	0.162	0.157	0.149	0.181	0.180	0.143	0.127
950	0.156	0.170	0.164	0.161	0.192	0.187	0.155	0.133
900	0.163	0.180	0.174	0.170	0.199	0.198	0.167	0.140
850	0.171	0.191	0.187	0.182	0.206	0.211	0.177	0.148
800	0.182	0.204	0.205	0.198	0.218	0.225	0.188	0.159
750	0.197	0.226	0.230	0.221	0.233	0.244	0.203	0.174
700	0.222	0.260	0.273	0.257	0.261	0.277	0.237	0.199
650	0.261	0.318	0.343	0.320	0.309	0.331	0.291	0.234
600	0.329	0.424	0.456	0.419	0.380	0.426	0.377	0.288
550	0.454	0.596	0.683	0.593	0.531	0.588	0.517	0.362
500	0.672	0.856	1.034	0.949	0.809	0.860	0.756	0.477
450	0.995	1.288	1.547	1.461	1.208	1.277	1.107	0.638
400	1.493	1.992	2.277	2.140	1.780	1.866	1.659	0.859
350	2.210	2.752			2.487	2.510	2.398	1.152
300								

HEIGHT	SCALE HEIGHT, KM							
	950	1045.1	894.1	1038.6	782.6	1152.3	1043.9	616.7
900	1189.4	973.0	770.3	799.8	1329.3	862.4	851.7	971.9
850	923.6	776.6	614.0	669.0	1266.0	770.8	865.3	838.0
800	692.3	612.5	497.1	529.2	816.0	704.7	755.1	599.8
750	533.4	441.2	367.6	398.1	620.3	522.2	562.5	484.5
700	371.5	298.0	257.7	282.6	373.4	335.4	207.9	336.8
650	260.5	203.7	199.7	206.6	258.6	239.8	257.6	272.4
600	172.0	157.2	148.5	165.8	208.9	173.8	171.9	233.5
550	141.8	144.7	122.4	127.8	119.7	140.0	140.3	199.7
500	126.0	129.1	128.0	105.8	123.3	133.5	131.7	177.5
450	125.1	117.2	122.1	122.2	125.4	123.4	126.2	171.1
400	126.6	126.7	154.1	141.6	137.7	146.3	127.5	169.0
350	134.0	204.8			175.2	215.3	159.4	185.4
300								

LONG	-78.92	-78.41	-77.93	-76.83	-74.74	-73.84	-72.90	-69.83
LAT	-40.30	-42.53	-44.53	-48.40	-54.18	-56.08	-57.99	-62.69
QUAL	23	23	23	22	22	22	22	22

PASS 2211 AT SOLANT, 63 310

SCALE HEIGHT, KM

HEIGHT	TIME (UT)
	71308
1000	697.9
950	1350.5
900	956.7
850	688.7
800	569.9
750	392.0
700	295.4
650	256.8
600	220.8
550	187.5
500	184.2
450	170.0
400	157.6
350	178.6
300	

HEIGHT	SCALE HEIGHT, KM
950	0.148
900	0.155
850	0.166
800	0.178
750	0.199
700	0.233
650	0.280
600	0.346
550	0.445
500	0.583
450	0.772
400	1.054
350	1.429
300	

LONG	-68.34
LAT	-64.54
QUAL	22

PASS 2218 AT QUITOE, 63 310  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	181913	182041	182116	182151	182226	182302	182337	182412
1000	0.476	0.416	0.395	0.365	0.355	0.331	0.307	0.306
950	0.545	0.481	0.458	0.422	0.407	0.383	0.352	0.343
900	0.640	0.570	0.542	0.496	0.476	0.450	0.414	0.399
850	0.761	0.683	0.648	0.588	0.564	0.535	0.493	0.472
800	0.909	0.827	0.782	0.706	0.674	0.643	0.588	0.560
750	1.158	0.999	0.961	0.856	0.804	0.771	0.701	0.663
700	1.544	1.286	1.242	1.105	1.018	0.967	0.869	0.804
650	2.193	1.720	1.651	1.466	1.344	1.264	1.118	1.043
600	3.362	2.429	2.319	2.038	1.845	1.720	1.512	1.392
550	5.490	3.663	3.434	3.025	2.675	2.509	2.156	1.951
500	9.119	5.694	5.336	4.701	4.149	3.874	3.236	2.888
450		9.034	8.326	7.532	6.729	6.304	5.152	4.502
400			12.865	11.623	10.689	10.115	8.345	7.311
350								11.590
300								

HEIGHT	SCALE HEIGHT, KM							
	181913	182041	182116	182151	182226	182302	182337	182412
950	338.8	316.0	318.5	325.5	335.9	323.1	329.5	380.6
900	304.1	291.4	292.9	302.9	314.0	305.7	311.1	335.9
850	275.6	268.7	270.7	280.8	292.3	288.2	292.7	301.6
800	248.9	252.0	251.9	259.4	271.6	268.8	274.6	284.4
750	199.1	235.3	226.1	235.0	250.9	249.5	256.4	267.3
700	162.1	198.7	187.8	195.2	208.8	214.4	226.9	242.5
650	129.5	161.8	165.2	167.8	171.6	177.5	188.9	197.6
600	109.2	134.4	138.5	138.8	147.6	150.2	157.6	163.7
550	100.8	118.2	120.0	119.7	124.9	123.7	132.5	137.2
500	99.9	108.5	111.4	108.2	106.5	109.0	117.5	120.4
450		110.6	113.2	109.3	104.2	101.2	101.7	107.0
400			113.2	116.1	116.9	113.7	109.7	102.6
350								127.3
300								

LONG	-76.60	-76.14	-75.95	-75.77	-75.58	-75.38	-75.17	-74.97
LAT	-1.41	3.54	5.51	7.49	9.43	11.42	13.43	15.43
QUAL	33	33	33	33	33	33	33	33

PASS 2218 AT QUITOE, 63 310  
 ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)					
	182448	182522	182557	182632	182708	182725
1000	0.274	0.263	0.246	0.235	0.201	0.209
950	0.311	0.296	0.279	0.266	0.227	0.234
900	0.362	0.343	0.320	0.304	0.258	0.268
850	0.426	0.401	0.373	0.352	0.297	0.310
800	0.505	0.469	0.437	0.409	0.344	0.361
750	0.600	0.557	0.512	0.482	0.398	0.420
700	0.719	0.689	0.636	0.628	0.507	0.540
650	0.946	0.866	0.805	0.817	0.666	0.715
600	1.258	1.124	1.049	1.078	0.863	0.934
550	1.740	1.558	1.426	1.454	1.156	1.267
500	2.551	2.249	2.021	2.031	1.534	1.693
450	4.021	3.477	3.013	3.113	2.225	2.553
400	6.562	5.708	4.827	5.008	3.567	4.028
350	10.602	9.298	8.037	8.276	5.937	6.645
300			12.827		9.586	

HEIGHT	SCALE HEIGHT, KM					
950	356.1	380.8	384.1	386.3	402.2	402.4
900	329.3	346.1	347.3	350.1	358.1	356.7
850	303.9	318.3	321.2	320.3	331.0	323.7
800	284.5	295.7	300.1	291.0	304.0	294.8
750	265.1	270.6	278.9	261.6	276.9	266.0
700	243.0	239.7	242.4	232.5	249.1	238.9
650	202.1	208.2	203.8	203.5	221.1	212.3
600	168.4	175.3	178.9	179.2	193.0	185.8
550	143.8	148.9	157.1	161.9	174.9	167.5
500	121.0	127.8	134.5	139.7	159.3	150.4
450	103.6	105.8	116.7	113.3	127.7	120.1
400	104.4	102.4	102.1	102.1	97.2	105.9
350	116.5	101.7	98.3	101.9	105.8	100.8
300			143.2		111.1	

LONG	-74.75	-74.54	-74.31	-74.07	-73.82	-73.69
LAT	17.45	19.37	21.33	23.30	25.32	26.27
QUAL	33	33	33	23	23	23

PASS 2218 AT RESLUT, 63 310

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	183908	183926	183942	184000	184017	184035	184052	184110
1000	0.343	0.267	0.216	0.238	0.217	0.242	0.263	0.235
950	0.371	0.290	0.239	0.268	0.233	0.261	0.296	0.258
900	0.390	0.316	0.265	0.299	0.255	0.284	0.331	0.290
850	0.421	0.355	0.295	0.334	0.284	0.315	0.369	0.331
800	0.470	0.404	0.331	0.378	0.326	0.357	0.411	0.379
750	0.530	0.458	0.376	0.434	0.377	0.410	0.467	0.441
700	0.598	0.529	0.437	0.506	0.441	0.475	0.545	0.526
650	0.678	0.627	0.515	0.605	0.525	0.567	0.645	0.635
600	0.775	0.748	0.618	0.729	0.635	0.684	0.781	0.774
550	0.942	0.907	0.753	0.890	0.776	0.832	0.954	0.965
500	1.159	1.097	0.929	1.096	0.960	1.032	1.194	1.211
450	1.427	1.349	1.136	1.324	1.190	1.282	1.481	1.527
400	1.742	1.684			1.437	1.586	1.794	1.924
350	2.085	2.083						
300								2.379
HEIGHT	SCALE HEIGHT, KM							
	950.6	578.3	482.9	436.0	605.0	613.8	434.3	468.4
900	793.5	498.8	473.6	441.8	511.7	528.3	455.0	419.5
850	608.6	436.3	444.4	424.8	427.2	449.3	454.1	379.6
800	467.8	387.6	406.6	380.8	378.2	394.1	414.0	343.5
750	412.9	357.2	365.0	339.1	333.9	344.7	350.8	300.8
700	390.0	328.9	324.0	304.9	300.2	301.7	321.8	281.3
650	367.1	302.1	290.7	289.2	279.7	286.0	292.8	266.3
600	335.5	277.7	268.1	273.5	265.0	270.2	265.8	249.8
550	259.5	266.9	255.7	253.5	251.4	255.1	239.5	229.1
500	245.8	256.0	249.4	254.9	239.6	240.9	240.2	219.6
450	249.4	244.7	283.3	319.9	253.3	237.3	250.0	218.1
400	262.4	234.7			301.1	263.5	270.8	228.9
350	358.0	280.1						
300								257.4
LONG	-60.52	-59.59	-58.76	-57.82	-56.66	-55.42	-54.26	-52.78
LAT	64.79	65.72	66.55	67.48	68.33	69.24	70.09	70.97
QUAL	33	33	33	33	33	33	33	33



PASS 2218 AT RESLUT, 63 310

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	184143	184203	184221	184238	184255	184313	184349	184406
1000	0.234	0.210	0.203	0.189	0.179	0.157	0.123	0.143
950	0.257	0.223	0.219	0.208	0.196	0.182	0.141	0.164
900	0.285	0.246	0.239	0.228	0.217	0.206	0.160	0.187
850	0.323	0.286	0.267	0.255	0.245	0.235	0.182	0.212
800	0.371	0.325	0.303	0.293	0.282	0.273	0.212	0.243
750	0.433	0.368	0.355	0.342	0.332	0.322	0.251	0.283
700	0.511	0.443	0.422	0.403	0.397	0.385	0.302	0.339
650	0.609	0.539	0.511	0.485	0.479	0.469	0.371	0.412
600	0.746	0.653	0.622	0.596	0.592	0.584	0.459	0.503
550	0.924	0.786	0.772	0.733	0.737	0.734	0.566	0.621
500	1.158	0.995	0.968	0.909	0.930	0.933	0.718	0.780
450	1.450	1.269	1.230	1.143	1.175	1.184	0.907	0.973
400	1.820	1.613	1.562	1.457	1.478		1.165	1.246
350	2.271	2.012	1.900	1.883	1.840		1.498	1.578
300				2.401				

HEIGHT	SCALE HEIGHT. KM							
	507.5	665.3	616.5	530.7	510.6	367.3	384.5	370.7
950	507.5	665.3	616.5	530.7	510.6	367.3	384.5	370.7
900	432.3	480.2	511.1	475.5	440.4	378.5	382.9	386.6
850	384.5	368.9	425.5	406.1	387.1	358.3	348.4	372.8
800	345.5	350.7	359.0	363.1	342.2	317.3	321.4	340.9
750	317.2	331.5	319.1	321.2	304.0	290.9	292.2	309.1
700	291.0	285.0	285.1	284.8	275.4	266.0	254.5	277.6
650	266.0	255.7	264.0	263.6	251.9	241.5	241.1	256.3
600	249.0	248.0	247.4	255.7	237.6	227.9	235.9	242.9
550	233.5	240.2	231.6	247.9	225.4	217.7	230.7	233.0
500	227.9	229.6	217.3	227.2	223.0	213.1	221.9	227.1
450	223.7	218.3	211.3	213.1	224.2	236.6	212.7	221.1
400	225.3	220.9	216.5	204.1	222.8		202.8	211.7
350	261.7	252.0	228.0	202.5	236.8		213.2	216.7
300				209.6				

LONG	-49.70	-47.72	-45.37	-43.16	-40.94	-37.88	-31.19	-27.59
LAT	72.55	73.49	74.28	75.03	75.77	76.48	77.84	78.41
QUAL	33	33	33	33	33	33	33	33

PASS 2218 AT RESLUT, 63 310  
 ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	184423	184441	184458	184516	184533	184609	184626	184644
1000	0.152	0.143	0.105	0.088	0.073	0.045	0.071	0.073
950	0.171	0.166	0.124	0.102	0.083	0.054	0.076	0.078
900	0.190	0.189	0.143	0.119	0.095	0.062	0.085	0.086
850	0.215	0.214	0.163	0.139	0.111	0.071	0.098	0.098
800	0.247	0.243	0.187	0.163	0.130	0.084	0.116	0.117
750	0.289	0.282	0.217	0.194	0.156	0.100	0.139	0.141
700	0.344	0.330	0.256	0.233	0.192	0.119	0.167	0.168
650	0.414	0.388	0.308	0.285	0.238	0.144	0.199	0.199
600	0.501	0.462	0.379	0.357	0.293	0.181	0.245	0.236
550	0.616	0.571	0.476	0.450	0.373	0.227	0.311	0.304
500	0.762	0.704	0.608	0.583	0.484	0.294	0.396	0.390
450	0.946	0.897	0.782	0.748	0.643	0.380	0.507	0.502
400	1.175	1.182	0.998	0.975	0.834	0.507	0.646	0.637
350			1.252	1.253	1.044	0.670	0.807	0.784
300						0.852		
HEIGHT	SCALE HEIGHT. KM							
950	444.6			321.3	387.2	351.0	533.5	550.9
900	429.8	392.2	357.9	320.7	351.3	341.9	411.8	453.4
850	380.6	387.5	357.9	310.2	316.2	322.4	352.9	373.4
800	342.5	362.4	343.4	296.3	282.2	300.5	309.4	326.5
750	310.4	323.5	315.5	279.1	259.1	281.6	283.5	283.8
700	287.6	305.0	288.3	261.7	250.9	264.0	271.5	273.5
650	272.0	287.7	261.4	243.8	242.7	247.5	259.5	263.1
600	256.8	269.5	238.4	225.3	234.4	231.8	242.6	251.5
550	242.7	249.3	218.8	210.0	212.7	216.1	220.7	231.2
500	236.1	229.1	210.0	204.6	185.2	201.0	208.8	210.9
450	233.9	208.8	207.9	199.5	194.6	186.1	208.8	211.2
400	261.7	217.2	213.5	199.2	210.7	188.6	219.3	228.3
350			229.4	226.3	232.5	193.7	243.9	258.4
300						263.7		
LONG	-23.19	-18.52	-14.12	-8.43	-2.95	8.72	14.28	20.17
LAT	78.67	79.36	79.82	80.04	80.22	80.43	80.28	80.13
QUAL	33	33	33	33	33	33	33	33

PASS 2218 AT RESLUT, 63 310  
 ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)	
	184701	184719
1000	0.039	0.046
950	0.046	0.054
900	0.053	0.062
850	0.063	0.071
800	0.075	0.084
750	0.091	0.099
700	0.111	0.120
650	0.135	0.144
600	0.175	0.178
550	0.226	0.236
500	0.291	0.310
450	0.390	0.408
400	0.513	0.518
350	0.643	
300		

HEIGHT	SCALE HEIGHT, KM	
950	334.6	
900	318.1	364.8
850	292.2	330.0
800	266.8	301.9
750	255.1	278.3
700	243.3	261.9
650	231.6	245.4
600	217.8	226.6
550	203.9	202.5
500	191.0	187.8
450	181.0	197.6
400	201.8	232.8
350	250.6	
300		

LONG	25.68	30.49
LAT	79.96	79.51
QUAL	32	32

PASS 2224 AT RESLUT, 63 311  
 ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	51854	51911	52004	52040	52057	52114	52149	52207
1000	0.250	0.179	0.175	0.078	0.071	0.083	0.037	0.008
950	0.266	0.195	0.183	0.088	0.078	0.094	0.046	0.012
900	0.282	0.208	0.190	0.101	0.086	0.106	0.055	0.016
850	0.303	0.222	0.207	0.119	0.099	0.122	0.065	0.021
800	0.328	0.245	0.224	0.142	0.117	0.142	0.077	0.031
750	0.356	0.285	0.249	0.172	0.138	0.169	0.094	0.046
700	0.390	0.333	0.282	0.212	0.161	0.204	0.117	0.064
650	0.430	0.379	0.323	0.261	0.192	0.249	0.147	0.088
600	0.484	0.429	0.379	0.327	0.246	0.311	0.189	0.121
550	0.559	0.500	0.452	0.417	0.313	0.396	0.241	0.159
500	0.649	0.628	0.544	0.542	0.398	0.513	0.314	0.214
450	0.775	0.786	0.660	0.700	0.501	0.673	0.418	0.315
400	0.946	0.960	0.797	0.892	0.648	0.893	0.573	0.462
350	1.178	1.157	1.008	1.113	0.845	1.160	0.773	0.662
300	1.507	1.453	1.277		1.084		1.025	0.904

HEIGHT	SCALE HEIGHT, KM							
	950	877.6	688.3	982.0	380.8	537.4	411.1	
900	779.4	763.9	880.7	333.5	418.0	381.1	287.4	152.5
850	678.4	605.9	616.9	295.2	350.9	340.7	280.9	156.5
800	607.4	486.5	546.0	273.6	305.8	303.3	262.0	158.4
750	556.6	404.1	460.4	254.3	291.9	280.9	244.5	160.3
700	508.9	353.4	388.8	245.0	278.0	266.1	228.3	162.3
650	461.2	339.0	334.0	235.8	262.2	249.0	214.3	163.6
600	414.2	324.6	309.5	219.9	240.7	219.5	207.6	163.9
550	367.9	302.2	287.4	195.9	219.1	199.7	200.9	164.1
500	321.7	263.9	269.9	201.3	210.6	190.1	186.7	154.9
450	283.9	237.6	256.6	207.3	205.8	186.8	167.0	130.7
400	251.2	240.0	243.2	218.3	199.3	182.0	170.4	135.1
350	226.0	242.3	227.3	238.2	198.3	209.1	175.2	152.3
300	210.3	196.2	207.9		221.4		189.3	174.1

LONG	-158.48	-152.94	-135.56	-126.49	-120.78	-117.08	-109.94	-106.69
LAT	80.41	80.43	80.06	79.31	78.83	78.27	77.04	76.35
QUAL	33	33	33	33	33	33	33	33

PASS 2224 AT RESLUT, 63 311

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	52225	52242	52317	52335	52353	52410	52428	52445
1000	0.023	0.011	0.013	0.009	0.006	0.012	0.033	0.024
950	0.031	0.019	0.017	0.014	0.010	0.018	0.042	0.031
900	0.040	0.028	0.021	0.020	0.015	0.022	0.050	0.037
850	0.051	0.039	0.027	0.026	0.021	0.029	0.060	0.043
800	0.065	0.053	0.036	0.034	0.028	0.037	0.072	0.051
750	0.086	0.071	0.048	0.046	0.038	0.048	0.087	0.062
700	0.114	0.096	0.065	0.064	0.051	0.060	0.108	0.078
650	0.149	0.132	0.087	0.087	0.066	0.075	0.136	0.100
600	0.202	0.176	0.115	0.117	0.089	0.092	0.172	0.126
550	0.281	0.243	0.164	0.168	0.125	0.129	0.214	0.158
500	0.413	0.337	0.231	0.231	0.169	0.175	0.270	0.198
450	0.603	0.475	0.334	0.338	0.242	0.229	0.348	0.255
400	0.861	0.679	0.474	0.486	0.346	0.311	0.447	0.326
350	1.145	0.948	0.662	0.691	0.496	0.421	0.579	0.428
300		1.275			0.682	0.563	0.727	0.556
HEIGHT	SCALE HEIGHT, KM							
900	198.4		217.7	168.0		203.6	268.2	322.5
850	198.6		191.7	177.0		191.7	270.5	288.6
800	187.2	161.4	182.0	168.1	163.9	191.3	260.7	264.6
750	182.4	162.7	172.3	163.9	169.1	194.7	240.6	240.7
700	180.1	164.2	169.3	163.4	170.3	198.1	230.7	234.4
650	177.9	165.9	167.4	162.8	171.5	201.5	229.2	232.2
600	165.0	167.7	165.5	161.1	169.2	204.9	227.7	229.9
550	142.2	159.5	154.8	153.6	162.4	195.6	226.3	227.7
500	135.8	148.7	142.4	146.0	155.5	186.3	219.2	221.6
450	142.7	143.6	142.8	142.3	145.4	177.1	205.0	208.4
400	160.1	151.0	148.9	144.4	142.4	172.3	203.3	195.9
350	197.8	169.1	159.8	160.9	150.2	171.7	214.9	189.1
300		216.2			170.2	204.7	242.8	212.1
LONG	-104.11	-101.68	-97.37	-95.54	-93.71	-92.26	-90.92	-89.66
LAT	75.58	74.86	73.29	72.45	71.61	70.78	69.89	69.05
QUAL	33	33	33	33	33	33	33	33

PASS 2224 AT RESLUT, 63 311						
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)						
HEIGHT	TIME (UT)					
	52503	52521	52538	52556	52613	52631
1000	0.027	0.015	0.028	0.024	0.019	0.021
950	0.034	0.021	0.034	0.032	0.026	0.028
900	0.041	0.026	0.040	0.039	0.031	0.033
850	0.048	0.032	0.047	0.046	0.036	0.038
800	0.057	0.039	0.054	0.055	0.043	0.045
750	0.066	0.046	0.065	0.065	0.052	0.053
700	0.079	0.056	0.079	0.078	0.062	0.063
650	0.093	0.072	0.096	0.092	0.077	0.078
600	0.113	0.093	0.116	0.115	0.097	0.097
550	0.143	0.118	0.139	0.144	0.123	0.122
500	0.180	0.147	0.174	0.179	0.160	0.162
450	0.233	0.196	0.225	0.225	0.218	0.220
400	0.307	0.259	0.285	0.307	0.294	0.296
350	0.403	0.345	0.382	0.418	0.404	0.408
300	0.530	0.467	0.513	0.591	0.535	0.540
HEIGHT	SCALE HEIGHT, KM					
900	291.8		323.6	276.9	286.7	317.2
850	305.7	264.8	326.5	281.6	287.0	305.1
800	303.3	263.9	287.7	282.2	280.4	297.8
750	294.2	243.7	274.1	284.6	265.4	290.6
700	279.4	226.7	269.4	269.7	246.8	274.8
650	264.6	222.5	264.6	249.3	232.2	243.0
600	248.9	218.3	259.8	238.6	219.4	217.3
550	231.5	214.1	255.0	228.6	206.6	195.4
500	214.1	209.9	240.9	218.7	192.9	183.4
450	200.8	197.5	218.1	205.9	178.0	175.6
400	191.8	183.9	195.2	178.9	166.4	169.8
350	188.6	171.3	169.3	157.1	168.5	170.9
300	194.6	169.0	187.1	155.7	188.7	190.2
LONG	-88.38	-87.37	-86.42	-85.41	-84.63	-83.85
LAT	68.16	67.23	66.36	65.44	64.55	63.61
QUAL	33	33	33	33	33	33

PASS 2224 AT SOLANT, 63 311  
 ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	60106	60152	60234	60344	60419	60454	60530	
1000	0.190	0.134	0.100	0.124	0.061	0.037	0.037	
950	0.206	0.146	0.112	0.134	0.070	0.042	0.042	
900	0.218	0.153	0.120	0.139	0.075	0.046	0.046	
850	0.229	0.157	0.130	0.145	0.080	0.050	0.051	
800	0.243	0.168	0.136	0.152	0.087	0.055	0.057	
750	0.260	0.173	0.143	0.164	0.095	0.063	0.065	
700	0.306	0.185	0.154	0.180	0.106	0.073	0.083	
650	0.368	0.203	0.168	0.203	0.120	0.085	0.105	
600	0.443	0.226	0.190	0.238	0.138	0.103	0.130	
550	0.544	0.271	0.224	0.293	0.168	0.141	0.159	
500	0.806	0.335	0.276	0.385	0.218	0.194	0.190	
450	1.181	0.416	0.361	0.513	0.287	0.259	0.226	
400	1.675	0.522	0.483	0.690	0.399	0.346	0.291	
350		0.751		0.936	0.550	0.453	0.416	
300				1.251	0.740	0.615	0.543	
HEIGHT	SCALE HEIGHT, KM							
950	810.9	1002.4	720.1	1026.4	538.1	492.7	470.4	
900	957.7	1578.4	665.4	1396.6	766.4	579.8	520.1	
850	839.8	1545.0	1032.4	1171.3	726.4	519.4	457.8	
800	710.8	1074.4	966.0	836.9	583.8	451.4	395.4	
750	577.1	1045.9	801.1	647.9	474.0	378.9	333.8	
700	368.2	771.1	649.6	488.8	434.1	324.9	275.4	
650	259.5	510.6	513.7	382.0	394.1	277.5	224.5	
600	228.1	366.4	383.6	287.8	326.6	234.0	224.5	
550	194.4	291.7	271.6	220.6	227.4	216.1	224.5	
500	132.9	235.9	214.4	196.5	189.1	198.3	224.5	
450	149.1	213.4	188.9	178.0	167.7	180.8	224.5	
400	160.7	182.7	170.1	171.4	162.0	178.4	211.0	
350		77.5		170.6	170.0	182.5	178.3	
300				204.4	205.9	234.2	248.8	
LONG	-60.43	-59.41	-58.32	-56.16	-54.84	-53.39	-51.54	
LAT	-52.02	-54.54	-56.83	-60.60	-62.46	-64.31	-66.18	
QUAL	33	23	33	32	32	32	32	

PASS 2224 AT SOLANT, 63 311

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	60604	60640	60715	60750	60825	60900	60935	61010
1000	0.021	0.016	0.071	0.078	0.069	0.074	0.091	0.104
950	0.025	0.020	0.092	0.099	0.083	0.091	0.106	0.121
900	0.029	0.023	0.111	0.119	0.099	0.109	0.122	0.138
850	0.034	0.028	0.133	0.140	0.116	0.129	0.141	0.156
800	0.040	0.033	0.159	0.164	0.137	0.151	0.164	0.179
750	0.046	0.040	0.189	0.194	0.163	0.178	0.192	0.209
700	0.054	0.048	0.229	0.232	0.195	0.210	0.226	0.244
650	0.065	0.057	0.279	0.281	0.233	0.249	0.265	0.290
600	0.078	0.068	0.341	0.343	0.281	0.300	0.318	0.351
550	0.093	0.080	0.416	0.415	0.344	0.363	0.383	0.427
500	0.117	0.096	0.525	0.520	0.419	0.440	0.463	0.523
450	0.146	0.120	0.662	0.652	0.525	0.551	0.567	0.640
400	0.180	0.150	0.846	0.817	0.653	0.684	0.690	0.775
350	0.219	0.184	1.064	1.014	0.794	0.832	0.831	0.925
300	0.272	0.224				0.996	0.982	1.096
HEIGHT	SCALE HEIGHT, KM							
950	353.9	276.2	250.1	240.5	272.6	250.5	326.1	351.6
900	326.9	281.8	261.6	282.0	294.5	287.1	336.0	380.6
850	308.3	278.7	273.5	297.3	295.7	298.4	332.1	370.6
800	306.6	276.3	276.6	298.1	294.7	304.3	327.0	349.8
750	304.8	274.0	276.0	286.5	289.5	303.6	321.2	324.4
700	300.4	273.2	256.3	270.1	281.7	301.7	304.7	297.3
650	284.0	271.8	246.3	260.2	268.4	273.1	284.6	279.2
600	267.6	272.4	242.1	253.0	257.8	263.0	277.3	269.3
550	252.7	272.0	237.8	245.7	249.6	256.5	270.1	259.4
500	252.9	269.8	226.4	236.3	241.3	250.5	266.1	262.6
450	253.1	261.2	214.2	226.4	246.7	249.7	267.5	269.6
400	253.3	252.7	219.7	233.1	252.1	248.8	269.0	277.2
350	253.4	245.0	263.6	311.7	271.4	268.3	302.0	288.9
300	306.7	322.1				420.7	355.0	391.4
LONG	-49.86	-47.13	-44.28	-40.93	-36.61	-31.91	-25.22	-17.79
LAT	-67.93	-69.74	-71.45	-73.11	-74.68	-76.20	-77.49	-78.67
QUAL	32	32	32	32	32	32	32	32



PASS 2231 AT QUITOE, 63 311  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	185321	185355	185431	185506	185541	185616	185651	185727
1000	0.592	0.560	0.574	0.553	0.506	0.480	0.456	0.415
950	0.754	0.712	0.725	0.699	0.626	0.576	0.537	0.488
900	0.973	0.923	0.925	0.919	0.816	0.742	0.663	0.598
850	1.230	1.170	1.146	1.208	1.103	0.969	0.836	0.743
800	1.437	1.372	1.305	1.532	1.460	1.255	1.066	0.940
750	1.558	1.483	1.464	1.785	1.859	1.702	1.373	1.184
700	1.750	1.691	1.725	1.990	2.227	2.324	2.033	1.660
650		2.074	2.136	2.340	2.611	3.049	3.009	2.498
600		2.656	2.830	2.988	3.228	3.854	4.380	3.929
550		3.493	3.737		4.332	4.970	6.146	6.439
500		4.502	4.851		5.756	6.743	8.378	10.493
450		5.518	6.042		7.494	9.049	11.173	
400		6.395	7.081		9.341			
350		7.068			10.748			
300								
HEIGHT	SCALE HEIGHT, KM							
950	203.5	208.2	211.8	205.9	215.4	237.9	265.4	267.9
900	219.2	217.5	233.3	198.0	192.1	203.5	237.3	248.1
850	281.8	264.4	315.8	207.4	190.2	190.1	212.3	228.2
800	513.5	501.8	455.1	261.4	206.8	181.6	192.9	207.1
750	501.6	558.6	363.0	405.6	246.7	172.2	171.3	185.8
700	285.2	294.5	293.4	376.5	290.8	176.5	132.9	149.9
650		227.8	235.0	267.0	271.8	201.1	131.2	119.0
600		188.6	197.8	147.5	207.1	203.1	141.1	103.7
550		188.4	189.5		175.1	181.6	154.2	103.2
500		223.4	211.4		184.4	169.2	169.5	114.4
450		296.0	274.2		206.7	165.8	181.0	
400		410.7	382.4		271.4			
350		758.8			518.8			
300								
LONG	-89.00	-88.82	-88.62	-88.43	-88.24	-88.06	-87.88	-87.69
LAT	-12.35	-10.01	-8.40	-6.43	-4.46	-2.49	-0.51	1.52
QUAL	23	22	23	23	22	23	23	23

PASS 2231 AT QUITOE, 63 311  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	185802	185837	185859	185947	190023	190058	190133	190208
1000	0.389	0.367	0.333	0.288	0.267	0.237	0.215	0.186
950	0.453	0.426	0.385	0.335	0.303	0.273	0.245	0.212
900	0.542	0.507	0.459	0.398	0.358	0.319	0.287	0.246
850	0.660	0.609	0.549	0.479	0.429	0.376	0.340	0.288
800	0.808	0.733	0.658	0.578	0.515	0.445	0.403	0.339
750	0.984	0.927	0.857	0.716	0.618	0.546	0.481	0.398
700	1.377	1.239	1.116	0.967	0.777	0.711	0.636	0.523
650	1.993	1.729	1.513	1.309	1.063	0.923	0.838	0.685
600	3.154	2.599	2.113	1.829	1.488	1.278	1.134	0.920
550	5.335	4.124	3.345	2.782	2.223	1.802	1.554	1.264
500	9.509	7.012	5.578	4.438	3.649	2.889	2.440	1.877
450		12.096	9.730	7.359	6.190	4.906	4.075	3.181
400				11.925	10.444	8.438	6.913	5.744
350							10.890	9.912
300								
HEIGHT	SCALE HEIGHT, KM							
950	299.6	309.5	325.9	311.2	340.1	344.1	345.2	361.5
900	262.5	280.5	281.4	278.6	301.7	309.1	307.3	325.5
850	243.8	258.1	259.0	258.5	274.5	285.4	283.6	300.4
800	226.9	236.7	236.5	238.8	256.7	262.0	262.0	276.4
750	209.9	209.2	210.8	216.6	238.8	236.3	239.9	252.2
700	166.8	176.1	185.2	187.1	213.1	207.6	213.5	222.2
650	126.1	143.0	161.0	159.5	174.5	179.0	187.1	192.2
600	102.4	116.2	134.1	138.7	140.7	156.1	162.3	167.4
550	93.7	102.2	105.0	114.9	114.9	131.2	138.6	147.9
500	87.0	92.9	93.5	103.3	99.8	102.9	107.9	116.6
450		93.8	92.6	101.1	92.6	90.2	96.1	89.0
400				110.3	103.9	98.6	98.6	84.4
350							133.5	100.6
300								
LONG	-87.50	-87.31	-87.20	-86.94	-86.74	-86.54	-86.34	-86.13
LAT	3.48	5.45	6.69	9.40	11.43	13.40	15.37	17.34
QUAL	23	23	23	23	23	23	23	23

PASS 2231 AT QUITOE, 63 311

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)
	190226
1000	0.184
950	0.208
900	0.241
850	0.283
800	0.335
750	0.396
700	0.477
650	0.648
600	0.869
550	1.193
500	1.643
450	2.626
400	4.365
350	7.213
300	11.523
HEIGHT	SCALE HEIGHT, KM
950	369.5
900	334.1
850	303.6
800	281.4
750	259.3
700	236.0
650	207.4
600	178.7
550	155.6
500	136.0
450	101.5
400	100.9
350	98.7
300	129.9
LONG	-86.02
LAT	18.35
QUAL	23

PASS 2232 AT OTTAWA, 63 311  
 ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)						
	190813	190849	190924	190959	191034	191109	191145
1000	0.132	0.119	0.125	0.136	0.142	0.144	0.153
950	0.153	0.137	0.148	0.156	0.163	0.162	0.170
900	0.176	0.160	0.171	0.176	0.186	0.183	0.194
850	0.203	0.187	0.194	0.201	0.214	0.208	0.223
800	0.236	0.220	0.223	0.232	0.247	0.239	0.256
750	0.277	0.260	0.262	0.269	0.286	0.280	0.294
700	0.327	0.308	0.309	0.316	0.336	0.330	0.354
650	0.391	0.369	0.375	0.382	0.405	0.396	0.435
600	0.485	0.454	0.458	0.473	0.495	0.492	0.532
550	0.608	0.581	0.585	0.600	0.619	0.610	0.663
500	0.793	0.772	0.746	0.777	0.799	0.803	0.876
450	1.055	1.031	1.013	1.010	1.037	1.119	1.138
400	1.463	1.428	1.372	1.386	1.425	1.559	1.579
350	2.074	2.008	1.920	1.935	1.982	2.145	2.248
300	3.104	2.928	2.893	2.798	2.857	3.180	3.108
HEIGHT	SCALE HEIGHT, KM						
950	346.2	331.0		392.6	375.1	407.4	412.0
900	343.7	321.5	359.6	380.7	362.0	388.9	368.2
850	335.1	311.6	350.7	363.9	353.6	364.3	348.3
800	326.1	301.6	334.7	347.3	340.5	339.4	329.2
750	314.9	291.5	311.5	325.6	319.6	314.4	310.1
700	286.9	281.4	287.7	283.2	287.9	289.4	287.8
650	247.3	260.4	256.9	254.1	262.0	264.2	264.6
600	231.2	224.5	228.1	229.5	238.9	238.6	241.4
550	215.2	199.8	208.9	210.0	217.6	212.9	219.0
500	192.2	184.1	189.6	195.3	198.7	187.6	198.7
450	166.2	169.1	174.7	180.1	180.3	162.5	178.3
400	151.1	156.3	159.4	162.3	163.7	150.4	160.6
350	137.4	143.1	137.9	146.0	147.6	145.3	149.0
300	117.9	128.5	133.0	135.8	147.1	126.6	162.5
LONG	-83.19	-82.79	-82.36	-81.91	-81.40	-80.86	-80.24
LAT	37.78	39.78	41.72	43.65	45.59	47.51	49.49
QUAL	23	23	23	23	22	23	23

PASS 2232 AT OTTAWA, 63 311

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	191220	191255	191330	191405	191441	191516	191551	191609
1000	0.174	0.147	0.130	0.119	0.158	0.151	0.159	0.156
950	0.197	0.169	0.152	0.138	0.178	0.172	0.181	0.176
900	0.222	0.196	0.175	0.160	0.201	0.195	0.205	0.200
850	0.250	0.228	0.203	0.185	0.229	0.222	0.232	0.228
800	0.285	0.264	0.238	0.216	0.264	0.254	0.264	0.263
750	0.328	0.311	0.280	0.252	0.307	0.296	0.301	0.303
700	0.380	0.373	0.339	0.304	0.358	0.347	0.353	0.353
650	0.466	0.446	0.413	0.368	0.428	0.417	0.419	0.410
600	0.572	0.551	0.501	0.443	0.525	0.509	0.500	0.498
550	0.700	0.710	0.625	0.568	0.642	0.618	0.610	0.623
500	0.870	0.906	0.823	0.723	0.811	0.789	0.742	0.779
450	1.176	1.193	1.070	0.925	1.063	1.009	0.916	0.992
400	1.576	1.607	1.451	1.248	1.374	1.274	1.164	1.286
350	2.212	2.151	1.957	1.670	1.811	1.582	1.477	1.666
300	3.053	2.834	2.657	2.282	2.296	1.934	1.882	2.165
HEIGHT	SCALE HEIGHT, KM							
950	413.5	331.0	335.1	344.5	415.1	390.0	390.5	405.4
900	402.3	327.3	334.8	337.2	386.9	384.6	394.6	383.1
850	384.9	318.8	321.9	328.5	367.6	364.9	382.5	365.9
800	356.2	310.2	301.3	310.1	348.6	344.5	362.9	354.4
750	326.5	295.9	280.8	291.7	322.4	319.1	343.4	342.4
700	297.6	275.5	266.3	274.4	294.8	293.8	320.2	314.0
650	278.0	255.1	252.8	257.1	272.4	273.1	295.7	285.5
600	258.3	235.9	239.4	239.8	253.8	254.5	272.7	263.8
550	238.7	218.6	223.1	224.0	235.2	235.8	259.5	245.6
500	217.2	201.3	201.8	208.2	218.9	228.9	246.3	227.5
450	188.0	185.6	181.2	193.0	205.5	223.6	233.1	212.7
400	162.8	171.1	173.1	180.2	193.1	228.0	220.0	201.2
350	157.8	179.3	166.8	170.9	209.6	242.2	220.1	196.7
300	196.9	241.6	222.4	174.2	363.9	258.4	242.8	213.0
LONG	-79.57	-78.86	-78.02	-77.14	-76.07	-74.91	-73.60	-72.84
LAT	51.40	53.31	55.20	57.10	59.03	60.90	62.74	63.69
QUAL	22	21	22	23	22	23	23	22

PASS 2232 AT RESLUT, 63 311						
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)						
HEIGHT	TIME (UT)					
	191500	191515	191533	191551	191606	191626
1000	0.194	0.180	0.162	0.144	0.254	0.180
950	0.213	0.195	0.187	0.162	0.270	0.195
900	0.236	0.213	0.208	0.180	0.287	0.211
850	0.265	0.239	0.233	0.205	0.312	0.233
800	0.301	0.276	0.264	0.237	0.358	0.263
750	0.345	0.321	0.300	0.271	0.416	0.301
700	0.400	0.375	0.342	0.313	0.472	0.350
650	0.478	0.450	0.394	0.367	0.531	0.414
600	0.578	0.545	0.458	0.435	0.613	0.490
550	0.711	0.670	0.542	0.520	0.753	0.603
500	0.874	0.824	0.647	0.627	0.927	0.747
450	1.065	1.037	0.783	0.770	1.131	0.938
400	1.348	1.296	0.970	0.952	1.396	1.187
350	1.661	1.584	1.202	1.215	1.761	1.514
300			1.498	1.552	2.231	1.964
HEIGHT	SCALE HEIGHT, KM					
950	506.1	598.6	414.4	451.1	638.9	631.3
900	460.2	499.5	447.5	414.8	688.8	561.0
850	417.8	410.5	425.4	385.5	526.6	469.9
800	377.9	346.4	402.2	361.0	434.5	404.2
750	345.3	320.9	380.4	347.0	371.4	359.7
700	312.6	297.4	362.3	330.0	357.2	322.2
650	279.7	273.3	339.2	310.1	343.1	297.9
600	258.5	254.6	313.2	291.2	321.3	273.5
550	250.5	246.3	292.9	273.8	286.5	253.9
500	242.7	236.9	274.3	256.8	253.5	235.0
450	235.7	221.7	257.7	240.6	242.5	219.8
400	238.0	239.5	245.0	225.3	229.2	208.1
350	258.1	283.9	233.8	214.3	217.0	200.4
300			226.9	199.9	222.0	201.2
LONG	-75.50	-74.94	-74.27	-73.60	-72.89	-72.04
LAT	60.05	60.84	61.79	62.74	63.64	64.58
QUAL	33	33	33	33	33	33

PASS 2238 AT RESLUT, 63 312  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	55515	55553	55611	55628	55646	55703	55721	55756
1000	0.148	0.181	0.199	0.231	0.278	0.196	0.211	0.057
950	0.164	0.194	0.212	0.252	0.302	0.218	0.221	0.067
900	0.178	0.212	0.228	0.277	0.328	0.239	0.228	0.079
850	0.195	0.233	0.249	0.307	0.359	0.269	0.233	0.098
800	0.217	0.258	0.277	0.341	0.395	0.309	0.361	0.122
750	0.246	0.288	0.312	0.380	0.439	0.359	0.317	0.150
700	0.286	0.325	0.354	0.429	0.494	0.428	0.389	0.192
650	0.335	0.374	0.411	0.487	0.567	0.513	0.465	0.249
600	0.402	0.439	0.480	0.576	0.664	0.627	0.578	0.328
550	0.487	0.533	0.577	0.686	0.793	0.765	0.728	0.444
500	0.606	0.650	0.703	0.823	0.966	0.950	0.932	0.626
450	0.767	0.793	0.862	0.994	1.202	1.199	1.202	0.887
400	1.008	1.011	1.090	1.196	1.501	1.514	1.552	1.227
350	1.359	1.276	1.401	1.455	1.869	1.871	1.909	1.665
300	1.871	1.670	1.848					2.189
HEIGHT	SCALE HEIGHT, KM							
950	540.1	642.3	712.6	553.2	607.8	536.8		300.7
900	580.2	560.6	623.9	505.0	579.8	475.0		270.1
850	508.8	499.9	531.6	489.3	544.4	398.7		245.9
800	424.1	463.7	437.9	457.0	498.5	350.8	284.0	229.4
750	363.7	424.3	404.0	416.8	440.9	312.3	352.5	217.0
700	334.2	380.8	370.1	384.2	386.1	288.0	260.5	204.9
650	304.6	331.3	334.3	351.6	342.5	264.9	252.0	192.8
600	274.0	292.0	298.2	322.8	306.0	255.9	231.4	178.0
550	245.4	274.8	274.3	294.0	275.2	247.1	212.0	159.2
500	224.0	257.6	255.7	277.9	252.0	223.0	197.5	151.9
450	202.6	240.4	236.4	273.4	237.9	220.6	196.6	151.2
400	181.1	223.4	213.4	269.5	234.2	229.1	212.1	160.1
350	166.6	206.4	195.2	275.6	242.3	270.1	289.6	173.2
300	158.8	189.0	184.3					214.7
LONG	171.51	-177.33	-171.59	-165.90	-159.88	-154.28	-148.80	-138.16
LAT	79.42	80.17	80.33	80.36	80.39	80.36	80.05	79.44
QUAL	33	33	33	33	33	33	33	33

PASS 2238 AT RESLUT, 63 312  
 ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	55814	55831	55849	55907	55924	55942	55959	60017
1000	0.044	0.021	0.006	0.007	0.006	0.005	0.007	0.008
950	0.053	0.031	0.009	0.012	0.010	0.009	0.010	0.013
900	0.065	0.041	0.014	0.018	0.014	0.013	0.014	0.017
850	0.081	0.054	0.019	0.025	0.019	0.018	0.020	0.022
800	0.101	0.069	0.027	0.034	0.027	0.025	0.028	0.032
750	0.127	0.090	0.036	0.047	0.038	0.034	0.039	0.046
700	0.162	0.116	0.051	0.068	0.053	0.053	0.052	0.065
650	0.212	0.155	0.073	0.096	0.076	0.077	0.078	0.090
600	0.275	0.209	0.101	0.130	0.106	0.107	0.116	0.122
550	0.368	0.280	0.141	0.186	0.156	0.147	0.162	0.165
500	0.497	0.389	0.207	0.270	0.227	0.219	0.234	0.245
450	0.699	0.550	0.291	0.411	0.333	0.319	0.355	0.361
400	0.969	0.781	0.431	0.606	0.507	0.470	0.541	0.531
350	1.317	1.094	0.639	0.860	0.758	0.666	0.775	0.781
300	1.645		0.931	1.204	1.041	0.916	1.049	1.125
HEIGHT	SCALE HEIGHT, KM							
900	237.1	177.9	143.5		141.3		142.5	164.0
850	229.5	186.7	147.2	149.4	149.8	132.8	140.1	160.8
800	220.6	192.4	149.2	148.5	149.8	139.2	144.0	159.8
750	209.1	188.0	151.1	148.4	149.9	145.1	147.8	158.9
700	199.2	183.0	151.5	150.2	148.9	146.1	151.7	157.9
650	193.4	177.9	151.2	152.1	145.9	147.1	150.6	156.5
600	187.6	172.6	150.9	153.9	143.0	148.1	147.9	155.1
550	172.8	165.6	149.0	145.9	139.8	146.7	145.2	151.3
500	157.8	151.5	144.8	130.5	136.5	138.2	131.4	137.7
450	158.1	148.1	139.2	123.2	125.4	133.3	118.5	130.1
400	160.8	150.1	126.3	136.6	126.4	136.9	130.7	130.0
350	178.1	171.8	133.0	146.1	143.7	152.0	152.8	135.5
300	327.4		152.3	159.3	176.6	162.1	185.7	160.2
LONG	-133.71	-129.78	-125.62	-121.94	-119.16	-116.22	-113.44	-111.32
LAT	78.93	78.40	77.83	77.21	76.52	75.80	75.11	74.30
QUAL	33	33	33	33	33	33	33	33



PASS 2238 AT RESLUT, 63 312  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	60035	60052	60110	60127	60145	60203	60221	60238
1000	0.007	0.007	0.061	0.008	0.012	0.006	0.012	0.009
950	0.011	0.011	0.064	0.011	0.016	0.011	0.018	0.016
900	0.015	0.016	0.070	0.014	0.021	0.015	0.025	0.022
850	0.021	0.021	0.076	0.019	0.026	0.020	0.033	0.029
800	0.030	0.029	0.085	0.026	0.034	0.028	0.044	0.040
750	0.041	0.041	0.101	0.036	0.044	0.039	0.060	0.054
700	0.055	0.055	0.123	0.050	0.061	0.052	0.085	0.073
650	0.081	0.080	0.160	0.069	0.083	0.078	0.117	0.102
600	0.113	0.115	0.214	0.100	0.117	0.114	0.155	0.137
550	0.153	0.159	0.290	0.145	0.165	0.175	0.219	0.180
500	0.227	0.225	0.414	0.218	0.235	0.261	0.314	0.261
450	0.334	0.331	0.599	0.337	0.358	0.392	0.468	0.399
400	0.506	0.503	0.879	0.525	0.534	0.590	0.680	0.614
350	0.747	0.746	1.257	0.783	0.777	0.854	0.954	0.898
300	1.057	1.049		1.089	1.090			1.229
HEIGHT	SCALE HEIGHT, KM							
900			617.8	170.7	217.5	158.5	158.7	
850	143.8	151.9	567.4	165.9	200.4	149.8	169.6	160.3
800	148.0	154.3	415.2	160.4	183.6	150.9	159.1	161.3
750	152.2	152.8	291.0	154.4	169.5	152.1	154.4	160.8
700	155.6	151.3	221.5	149.7	164.4	153.3	157.6	161.0
650	153.6	151.0	180.4	145.6	159.4	141.6	160.8	162.3
600	151.5	151.0	169.5	139.7	152.6	127.8	164.1	163.6
550	148.7	151.1	156.8	133.0	144.7	126.1	151.1	164.9
500	136.9	140.9	138.8	121.8	136.0	127.4	132.6	131.8
450	125.5	125.3	135.4	115.3	125.3	123.3	130.2	114.9
400	126.4	124.3	137.2	120.0	131.3	133.1	142.9	127.8
350	138.5	138.3	158.4	139.6	139.7	152.2	163.9	148.0
300	164.1	167.3		171.9	173.8			178.0
LONG	-109.25	-107.30	-105.55	-104.14	-102.64	-101.21	-100.10	-99.05
LAT	73.48	72.70	71.85	71.03	70.15	69.27	68.35	67.49
QUAL	33	33	33	33	33	33	33	33

PASS 2238 AT RESLUT, 63 312  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)				
	60255	60313	60331	60406	60423
1000	0.007	0.008	0.009	0.005	0.005
950	0.011	0.011	0.013	0.007	0.008
900	0.015	0.015	0.017	0.010	0.011
850	0.019	0.019	0.022	0.015	0.015
800	0.025	0.026	0.028	0.022	0.022
750	0.036	0.035	0.037	0.032	0.030
700	0.050	0.046	0.047	0.047	0.041
650	0.067	0.068	0.059	0.065	0.061
600	0.093	0.106	0.092	0.088	0.096
550	0.145	0.153	0.153	0.137	0.139
500	0.225	0.243	0.243	0.225	0.206
450	0.404	0.396	0.378	0.340	0.296
400	0.660	0.647	0.605	0.483	0.412
350	1.016	0.949	0.898	0.655	0.567
300	1.382	1.240		0.857	0.789

HEIGHT	SCALE HEIGHT, KM				
	900	167.5	168.6	184.1	160.9
850	168.2	168.4	184.7	156.1	142.7
800	167.9	164.5	181.1	151.2	144.1
750	163.9	160.6	177.5	146.6	145.6
700	159.8	156.6	173.9	143.9	147.0
650	155.8	148.6	170.3	141.3	144.7
600	147.2	137.4	151.9	138.7	138.8
550	123.9	126.2	121.8	135.0	133.0
500	105.9	110.6	108.0	130.4	136.4
450	105.9	107.3	110.4	132.9	142.6
400	113.9	121.0	132.6	154.5	150.5
350	138.1	166.7	171.7	176.0	163.3
300	385.9	255.8		195.9	182.2

LONG	-98.00	-97.07	-96.22	-94.62	-93.99
LAT	66.62	65.69	64.76	62.93	62.03
QUAL	33	32	32	33	32

PASS 2238 AT OTTAWA, 63 312  
 ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)				
	60538	60631	60706	60759	60816
1000	0.015	0.013	0.012	0.021	0.008
950	0.021	0.019	0.016	0.025	0.011
900	0.026	0.024	0.020	0.030	0.014
850	0.031	0.029	0.024	0.036	0.017
800	0.036	0.037	0.029	0.044	0.021
750	0.042	0.046	0.038	0.053	0.028
700	0.054	0.056	0.048	0.065	0.037
650	0.070	0.068	0.061	0.079	0.048
600	0.091	0.081	0.077	0.096	0.061
550	0.116	0.102	0.094	0.122	0.076
500	0.146	0.135	0.137	0.167	0.099
450	0.208	0.197	0.198	0.222	0.143
400	0.283	0.301	0.275		0.196
350	0.407	0.432	0.384		0.271
300	0.529	0.581	0.517		0.376

HEIGHT	SCALE HEIGHT, KM				
900	254.2		240.1	259.1	226.1
850	285.9		230.2	259.1	214.2
800	271.0	230.5	220.7	259.0	208.0
750	247.1	235.8	216.0	258.8	206.9
700	235.7	235.9	211.4	248.7	205.8
650	225.9	236.1	206.7	236.1	204.7
600	216.2	236.2	202.0	223.6	203.6
550	206.4	211.9	197.3	198.6	202.4
500	196.3	167.5	182.6	158.2	196.9
450	174.3	138.7	164.4	117.8	179.8
400	152.3	132.4	152.3		162.7
350	223.2	157.8	166.2		150.6
300	464.7	188.9	182.6		142.2

LONG	-91.47	-90.05	-89.22	-88.13	-87.84
LAT	58.04	55.18	53.28	50.38	49.45
QUAL	32	33	33	33	33

PASS 2238 AT AGASTA, 63 312

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	62829	62904	63015	63050	63125	63159	63253	63328
1000	0.189	0.189	0.208	0.209	0.275	0.251	0.161	0.179
950	0.218	0.213	0.230	0.227	0.304	0.273	0.179	0.197
900	0.256	0.252	0.252	0.252	0.343	0.304	0.203	0.216
850	0.304	0.306	0.284	0.296	0.410	0.367	0.244	0.256
800	0.368	0.381	0.332	0.366	0.505	0.459	0.309	0.316
750	0.462	0.488	0.409	0.458	0.626	0.579	0.395	0.397
700	0.577	0.619	0.539	0.577	0.776	0.737	0.507	0.502
650	0.725	0.784	0.738	0.735	0.953	0.929	0.654	0.632
600	0.920	1.008	1.033	0.924	1.163	1.205	0.829	0.786
550	1.151	1.274	1.484	1.331	1.606	1.719	1.175	1.109
500	1.568	1.761	2.138	2.035	2.235	2.428	1.689	1.652
450	2.236	2.498	3.033	3.134	3.163	3.369	2.402	2.445
400	3.227	3.558	4.226	4.670	4.624		3.460	3.374
350	4.532	4.842						
300								

HEIGHT	SCALE HEIGHT, KM							
950	322.9	362.5	519.6	526.4	448.4	516.1	422.5	520.0
900	299.1	316.7	466.4	390.6	355.8	354.6	331.1	397.5
850	275.3	271.0	370.4	325.7	323.5	311.9	286.1	349.8
800	255.8	239.3	291.3	290.8	291.3	269.9	257.6	302.2
750	243.4	229.5	217.8	255.8	259.0	228.0	229.1	254.5
700	230.9	219.8	170.4	225.1	242.3	213.2	207.8	227.4
650	218.6	209.5	155.8	203.9	226.2	198.7	194.1	209.6
600	206.6	197.9	143.6	182.7	209.3	177.8	180.5	191.8
550	194.5	186.4	139.3	138.8	169.4	143.9	155.2	149.7
500	162.7	159.6	140.2	117.8	149.1	149.7	141.2	127.3
450	140.4	143.5	147.7	119.2	140.1	168.7	139.6	143.7
400	143.2	151.9	168.9	151.4	124.9		151.8	192.1
350	190.9	266.7						
300								

LONG	-78.42	-78.20	-77.71	-77.45	-77.18	-76.90	-76.42	-76.08
LAT	-18.56	-20.54	-24.53	-26.50	-28.46	-30.37	-33.41	-35.37
QUAL	32	32	33	33	33	33	33	33

PASS 2238 AT AGASTA, 63 312

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)						
	63403	63438	63513	63548	63623	63659	63716
1000	0.187	0.191	0.179	0.162	0.153	0.174	0.184
950	0.202	0.200	0.189	0.170	0.163	0.184	0.197
900	0.223	0.207	0.196	0.181	0.171	0.191	0.205
850	0.264	0.220	0.205	0.195	0.182	0.202	0.216
800	0.323	0.242	0.219	0.212	0.196	0.217	0.230
750	0.398	0.272	0.245	0.239	0.219	0.245	0.251
700	0.495	0.317	0.287	0.281	0.253	0.285	0.284
650	0.612	0.391	0.368	0.342	0.300	0.350	0.358
600	0.749	0.507	0.486	0.422	0.451	0.464	0.509
550	1.007	0.694	0.684	0.629	0.716	0.659	0.702
500	1.444	1.020	0.976	1.058	1.012	0.991	0.949
450	2.039	1.528	1.543	1.544	1.592	1.568	1.555
400		2.261	2.360	2.345	2.422	2.408	2.314
350			3.100	3.238	3.181		3.096
300							

HEIGHT	SCALE HEIGHT, KM						
	950	564.1	1273.6	1220.5	932.1	889.0	1057.7
900	424.9	1044.0	1223.4	762.1	871.4	987.6	1065.5
850	373.0	742.0	925.5	619.6	711.5	803.2	864.1
800	321.2	480.1	609.6	498.2	561.6	607.0	698.4
750	269.3	385.0	401.5	381.6	415.2	378.0	518.8
700	245.5	297.7	273.3	285.3	310.5	293.7	322.5
650	227.7	218.5	221.7	242.6	228.4	217.6	212.7
600	209.8	184.7	179.7	200.0	160.3	165.4	163.7
550	176.1	144.2	151.0	152.5	121.8	132.3	148.9
500	143.6	129.4	128.5	112.8	125.9	115.3	137.3
450	152.1	127.5	114.5	125.2	112.0	114.3	114.3
400		138.0	144.9	128.2	131.5	132.1	160.9
350			694.0	356.0	579.4		427.7
300							

LONG	-75.72	-75.32	-74.90	-74.45	-73.95	-73.41	-73.12
LAT	-37.33	-39.28	-41.23	-43.18	-45.13	-47.12	-48.06
QUAL	33	33	22	22	22	22	22

PASS 2238 AT SOLANT, 63 312								
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)								
HEIGHT	TIME (UT)							
	63456	63531	63606	63641	63716	63812	63847	63922
1000	0.163	0.153	0.150	0.147	0.181	0.187	0.119	0.154
950	0.172	0.163	0.158	0.155	0.190	0.202	0.129	0.161
900	0.181	0.175	0.167	0.164	0.197	0.215	0.140	0.169
850	0.192	0.187	0.178	0.176	0.207	0.230	0.153	0.179
800	0.203	0.198	0.191	0.190	0.218	0.249	0.171	0.195
750	0.221	0.215	0.212	0.210	0.235	0.272	0.193	0.220
700	0.261	0.242	0.240	0.237	0.259	0.317	0.219	0.260
650	0.326	0.296	0.318	0.277	0.321	0.376	0.269	0.314
600	0.405	0.392	0.483	0.458	0.424	0.472	0.502	0.441
550	0.574	0.591	0.661	0.651	0.620	0.634	0.738	0.643
500	0.896	0.896	0.860	0.857	1.021	0.996	0.955	0.946
450	1.464	1.425	1.385	1.520	1.523	1.562	1.613	1.448
400	2.261	2.238	2.323	2.387	2.313	2.319	2.431	2.278
350	3.121	3.201	3.239	3.212	3.131	3.117	3.378	
300								
HEIGHT	SCALE HEIGHT, KM							
	950	1098.5	751.9	916.2	854.6	1236.4	728.0	627.5
900	934.2	764.4	844.1	783.2	1121.2	736.0	558.3	929.2
850	861.1	822.4	713.5	690.1	963.7	661.4	464.9	725.2
800	731.1	741.7	566.2	565.6	810.3	557.6	414.9	519.9
750	480.2	549.5	446.6	453.5	620.0	456.0	364.9	360.1
700	263.2	357.9	331.5	354.1	409.1	374.0	314.9	294.7
650	224.5	214.0	222.2	253.2	226.2	292.0	257.3	229.3
600	191.9	150.6	138.9	129.8	160.2	216.3	146.0	184.1
550	122.9	120.7	138.0	127.2	128.7	149.5	128.5	145.4
500	107.2	113.1	137.1	128.1	112.6	123.1	135.2	126.4
450	111.4	113.5	109.6	97.2	122.4	121.1	113.9	115.1
400	127.8	121.1	118.0	127.3	129.2	151.0	114.2	152.0
350	548.4	435.8	406.6	514.7	419.9	303.1	960.5	
300								
LONG	-75.12	-74.67	-74.21	-73.68	-73.12	-72.10	-71.37	-70.55
LAT	-40.29	-42.24	-44.18	-46.13	-48.06	-51.15	-53.07	-54.98
QUAL	23	22	22	23	23	33	33	33

PASS 2238 AT SOLANT, 63 312  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	63957	64032	64107	64142	64200	64419	64437	64512
1000	0.138	0.115	0.117	0.093	0.070	0.060	0.066	0.056
950	0.141	0.120	0.126	0.098	0.075	0.074	0.081	0.069
900	0.146	0.126	0.132	0.102	0.079	0.092	0.101	0.085
850	0.155	0.136	0.142	0.109	0.085	0.113	0.124	0.105
800	0.171	0.151	0.156	0.120	0.094	0.142	0.151	0.131
750	0.187	0.165	0.173	0.137	0.109	0.183	0.191	0.165
700	0.216	0.189	0.197	0.159	0.129	0.233	0.242	0.204
650	0.296	0.227	0.245	0.193	0.154	0.294	0.303	0.258
600	0.363	0.295	0.318	0.256	0.199	0.377	0.389	0.324
550	0.557	0.420	0.446	0.352	0.277	0.475	0.493	0.401
500	0.810	0.616	0.666	0.537	0.407	0.626	0.627	0.547
450	1.159	1.000	0.968	0.827	0.746	0.849	0.866	0.742
400	1.848	1.512	1.384	1.301	1.258	1.145	1.173	0.990
350						1.533	1.561	1.294
300							2.108	1.612
HEIGHT	SCALE HEIGHT, KM							
950	1798.1	1129.6	936.9	1070.9	807.3	233.8	231.7	238.2
900	1152.0	931.5	886.9	909.3	747.8	227.9	231.8	234.9
850	784.0	736.3	652.8	709.2	599.3	222.0	232.2	231.6
800	557.4	556.5	522.6	422.7	451.7	218.1	232.6	229.3
750	468.6	445.8	440.1	377.0	339.9	216.6	226.6	227.5
700	215.2	341.6	327.2	325.3	282.1	215.1	219.2	225.7
650	180.4	249.0	211.7	215.8	247.2	212.1	211.9	217.7
600	174.2	175.4	187.3	176.4	178.8	203.9	205.1	208.3
550	120.6	144.8	135.6	142.1	142.2	195.7	198.3	199.0
500	124.3	123.4	132.2	118.2	109.8	185.9	190.4	188.8
450	131.9	118.5	136.7	113.2	95.9	175.2	177.1	178.6
400	168.1	170.0	180.6	122.9	130.4	158.3	171.7	189.9
350						135.8	180.5	210.1
300							2217.8	246.2
LONG	-69.67	-68.62	-67.50	-66.17	-65.48	-57.15	-55.62	-52.24
LAT	-56.89	-58.78	-60.66	-62.52	-63.48	-70.57	-71.44	-73.10
QUAL	23	23	33	33	33	22	21	33

PASS 2238 AT SOLANT, 63 312

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)			
	64547	64622	64659	64716
1000	0.104	0.114	0.120	0.164
950	0.122	0.135	0.140	0.188
900	0.143	0.160	0.164	0.216
850	0.169	0.190	0.191	0.251
800	0.205	0.225	0.229	0.292
750	0.249	0.268	0.274	0.346
700	0.300	0.318	0.329	0.408
650	0.366	0.387	0.397	0.483
600	0.444	0.468	0.476	0.581
550	0.540	0.563	0.570	0.696
500	0.705	0.676	0.727	0.827
450	0.913	0.895	0.922	1.005
400	1.193	1.170	1.173	1.290
350	1.564	1.514	1.498	1.802
300	1.751	1.825	1.767	
HEIGHT	SCALE HEIGHT, KM			
950	312.4	295.0	316.2	359.6
900	295.9	293.4	306.5	344.9
850	280.2	292.3	296.8	330.1
800	274.9	287.2	288.7	317.1
750	269.6	278.9	280.7	307.2
700	264.4	270.7	272.6	297.2
650	252.4	263.0	264.0	287.5
600	240.0	255.3	255.4	278.7
550	227.5	247.7	246.4	269.8
500	213.8	238.7	232.9	261.0
450	200.1	209.4	219.3	238.1
400	242.2	204.2	245.9	186.8
350	327.4	250.4	310.9	541.2
300	616.2	328.6	429.9	
LUNG	-48.10	-42.87	-36.67	-32.71
LAT	-74.69	-76.15	-77.62	-78.15
QUAL	22	33	32	32



PASS 2251 AT OTTAWA, 63 313  
 ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)		
	50416	50509	50602
1000	0.045	0.058	0.080
950	0.050	0.064	0.088
900	0.053	0.069	0.095
850	0.055	0.073	0.101
800	0.057	0.077	0.106
750	0.061	0.082	0.112
700	0.068	0.088	0.120
650	0.080	0.097	0.131
600	0.096	0.108	0.154
550	0.119	0.123	0.185
500	0.150	0.156	0.237
450	0.213	0.202	0.363
400	0.314	0.286	0.617
350	0.524	0.479	1.073
300		1.041	

HEIGHT	SCALE HEIGHT, KM		
900	1138.0	756.3	729.0
850	1070.7	879.2	872.0
800	877.3	897.8	901.1
750	684.0	758.4	780.8
700	537.8	641.4	642.9
650	401.8	543.5	508.7
600	277.3	445.5	384.0
550	232.5	347.6	259.2
500	188.1	259.9	173.0
450	146.1	174.3	103.9
400	114.0	130.7	95.0
350	82.7	86.3	104.3
300		66.9	

LONG	-69.32	-68.81	-68.35
LAT	35.64	32.68	29.72
QUAL	33	33	33

PASS 2251 AT QUITOE, 63 313

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	51444	51537	51630	51647	51740	51815	51908	52000
1000	0.115	0.133	0.122	0.128	0.141	0.142	0.162	0.163
950	0.124	0.141	0.132	0.139	0.157	0.162	0.179	0.178
900	0.133	0.150	0.144	0.152	0.177	0.182	0.203	0.199
850	0.142	0.159	0.163	0.169	0.202	0.207	0.232	0.224
800	0.152	0.172	0.190	0.189	0.231	0.241	0.266	0.255
750	0.162	0.192	0.224	0.212	0.278	0.294	0.316	0.303
700	0.174	0.218	0.265	0.268	0.336	0.360	0.402	0.390
650	0.189	0.261	0.332	0.350	0.407	0.440	0.502	0.498
600	0.212	0.332	0.414	0.453	0.504	0.530	0.579	0.612
550	0.275	0.441	0.523	0.582	0.639	0.629	0.688	0.787
500	0.394	0.660	0.824	0.733	0.835	0.774	0.902	1.041
450	0.639	1.234	1.283	1.131	1.189	1.040	1.356	1.505
400	1.333	2.098	1.923	1.736	1.621	1.602	1.964	2.299
350	2.555	3.378	2.754	2.417	2.145	2.129	2.750	3.497
300	4.730	4.946	3.805	3.194	2.729	2.919	3.995	5.355
HEIGHT	SCALE HEIGHT, KM							
950	760.4	818.1	588.0	529.3	423.4	402.8	452.8	479.9
900	732.4	804.3	451.6	476.0	383.6	381.2	380.3	417.3
850	758.9	680.7	399.3	433.6	356.3	345.1	357.2	377.4
800	745.4	569.8	361.3	391.3	328.8	310.7	334.0	337.5
750	700.2	473.1	323.3	349.0	298.1	278.9	242.0	297.3
700	611.3	376.3	285.4	293.1	267.7	258.2	244.6	256.6
650	522.5	292.8	249.2	233.4	242.4	274.9	286.1	222.5
600	359.9	224.2	213.2	192.5	219.9	279.3	313.7	210.9
550	164.8	159.7	176.0	180.0	199.3	252.5	236.5	190.0
500	124.6	106.8	128.0	167.4	179.1	210.2	161.2	166.0
450	93.3	88.3	121.0	134.8	159.9	167.2	141.8	139.8
400	75.7	100.0	132.4	135.3	170.4	144.0	142.0	120.5
350	73.1	115.8	147.3	165.9	196.9	165.5	140.8	118.3
300	88.4	160.8	185.6	202.5	284.3	180.0	137.3	125.2
LONG	-65.13	-64.85	-64.57	-64.48	-64.19	-63.99	-63.69	-63.38
LAT	0.35	-2.64	-5.63	-6.59	-9.58	-11.55	-14.54	-17.48
QUAL	23	23	23	23	23	23	23	23

PASS 2251 AT AGASTA, 63 313

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)					
	52118	52136	52229	52321	52356	52414
1000	0.134	0.134	0.128	0.120	0.128	0.111
950	0.146	0.145	0.139	0.128	0.138	0.121
900	0.160	0.158	0.150	0.138	0.146	0.131
850	0.182	0.175	0.161	0.149	0.156	0.140
800	0.210	0.198	0.175	0.163	0.168	0.151
750	0.243	0.226	0.193	0.178	0.183	0.164
700	0.283	0.260	0.214	0.196	0.203	0.178
650	0.369	0.301	0.273	0.221	0.231	0.199
600	0.500	0.487	0.368	0.269	0.276	0.232
550	0.749	0.748	0.526	0.405	0.370	0.308
500	1.189	1.100	0.737	0.699	0.563	0.536
450	1.876	1.973	1.450	1.135	0.942	0.950
400	2.962	3.135	2.941	2.219	1.750	1.636
350	4.900	5.107	5.630	4.093	3.082	2.840
300	7.861					3.724
HEIGHT	SCALE HEIGHT, KM					
950	542.4	584.3	634.4	737.7	759.3	609.2
900	465.7	528.1	652.9	677.6	780.3	648.2
850	401.8	436.6	634.1	637.6	715.0	659.5
800	346.6	380.0	538.6	594.5	634.1	635.9
750	306.4	337.5	445.4	534.7	549.3	588.6
700	266.3	295.1	352.3	444.4	444.6	516.5
650	210.9	251.9	243.8	344.1	345.6	400.6
600	151.1	152.9	157.2	225.7	247.1	264.2
550	124.2	113.8	139.4	140.7	129.2	149.9
500	111.8	109.6	121.7	95.6	115.6	112.2
450	111.0	98.2	61.9	91.7	82.4	93.9
400	104.5	106.1	73.5	76.9	82.3	91.1
350	100.2	100.1	86.1	90.9	113.0	133.1
300	153.2					391.9
LONG	-62.87	-62.75	-62.37	-61.96	-61.67	-61.51
LAT	-21.86	-22.88	-25.86	-28.79	-30.76	-31.76
QUAL	23	23	23	23	23	23

PASS 2251 AT AGASTA, 63 313  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	52507	52559	52617	52652	52727	52802	52837	52855
1000	0.113	0.119	0.113	0.123	0.141	0.144	0.144	0.151
950	0.121	0.124	0.123	0.133	0.148	0.152	0.152	0.159
900	0.129	0.132	0.131	0.142	0.154	0.159	0.159	0.166
850	0.137	0.141	0.138	0.149	0.159	0.165	0.169	0.173
800	0.146	0.150	0.146	0.157	0.166	0.173	0.181	0.181
750	0.156	0.158	0.153	0.165	0.176	0.184	0.196	0.190
700	0.169	0.168	0.162	0.174	0.189	0.198	0.214	0.204
650	0.196	0.183	0.174	0.187	0.206	0.221	0.244	0.224
600	0.263	0.209	0.193	0.215	0.238	0.262	0.301	0.265
550	0.349	0.256	0.240	0.269	0.308	0.350	0.392	0.376
500	0.606	0.369	0.425	0.402	0.454	0.519	0.593	0.555
450	1.045	0.726	0.613	0.675	0.750	0.812	0.969	0.802
400	1.511	1.299	0.940	1.201	1.231	1.339	1.472	1.350
350	2.404	2.096	1.861	1.932	1.898	2.112	2.080	2.015
300								
HEIGHT	SCALE HEIGHT, KM							
900	790.9	922.4			1473.0	1191.7	928.0	1190.2
850	798.6	868.6	906.4	997.5	1303.2	1134.4	812.5	1148.9
800	779.0	870.9	961.5	982.7	1028.8	946.2	697.1	1010.5
750	654.9	831.0	934.1	922.5	864.4	759.9	592.6	863.9
700	491.8	701.8	781.8	821.3	699.9	574.6	480.7	656.4
650	339.0	492.8	607.1	506.7	476.6	408.6	322.8	439.8
600	209.1	334.4	403.5	288.8	289.6	264.5	239.7	222.8
550	143.0	209.5	174.7	189.4	182.3	159.2	180.0	142.9
500	115.0	118.8	107.7	129.6	121.2	129.3	136.4	126.9
450	109.4	77.2	106.8	97.0	102.3	110.1	113.5	120.5
400	119.2	95.3	93.2	99.9	109.8	106.1	133.4	116.4
350	147.3	159.8	116.9	160.0	162.4	283.8	157.9	160.6
300								
LONG	-61.03	-60.49	-60.28	-59.88	-59.43	-58.96	-58.42	-58.15
LAT	-34.73	-37.64	-38.65	-40.60	-42.55	-44.50	-46.44	-47.43
QUAL	33	33	33	22	22	22	22	22

PASS 2251 AT SOLANT, 63 313  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	52211	52229	52304	52321	52414	52449	52507	52559
1000	0.140	0.137	0.131	0.120	0.119	0.129	0.124	0.120
950	0.149	0.147	0.138	0.127	0.125	0.134	0.130	0.128
900	0.159	0.157	0.148	0.135	0.131	0.142	0.136	0.134
850	0.173	0.169	0.160	0.146	0.140	0.152	0.144	0.140
800	0.191	0.183	0.173	0.160	0.151	0.164	0.153	0.146
750	0.212	0.202	0.187	0.175	0.163	0.178	0.164	0.155
700	0.250	0.230	0.206	0.193	0.178	0.194	0.179	0.167
650	0.309	0.279	0.250	0.221	0.203	0.220	0.205	0.186
600	0.419	0.392	0.322	0.270	0.248	0.268	0.251	0.214
550	0.597	0.596	0.424	0.376	0.328	0.358	0.332	0.269
500	1.067	0.939	0.868	0.607	0.525	0.495	0.513	0.438
450	1.906	1.787	1.508	1.088	1.041	0.918	0.800	0.792
400	3.392	3.254	2.585	2.072	1.640	1.548	1.297	1.342
350	5.792	5.757	4.771	3.870	2.763	2.437	2.207	2.097
300	8.495		7.644	6.174			2.966	
HEIGHT	SCALE HEIGHT, KM							
950	799.2	749.8	812.6	831.9	971.8	1193.3	1056.5	
900	684.1	714.7	747.2	694.3	877.7	861.3	964.5	1147.1
850	572.5	654.8	681.8	640.6	765.4	751.1	871.7	1072.1
800	475.1	560.1	653.4	589.3	668.7	667.1	763.0	935.6
750	388.6	441.1	582.7	529.3	602.5	585.3	632.2	780.4
700	300.1	321.7	352.8	445.4	495.4	498.5	480.7	582.1
650	210.6	220.7	262.6	316.2	319.0	329.1	334.5	434.0
600	164.8	159.4	190.0	199.9	233.6	212.9	222.7	301.3
550	123.1	117.7	142.0	145.4	160.8	165.5	152.9	178.2
500	87.9	100.1	86.5	106.4	107.1	126.9	119.9	94.4
450	87.5	77.0	90.9	84.4	90.2	99.7	109.0	90.7
400	90.5	85.4	81.4	78.1	103.0	104.0	102.4	112.4
350	107.8	107.6	86.3	90.8	131.8	172.5	147.8	175.3
300	171.6		180.3	185.5			305.2	
LONG	-62.50	-62.37	-62.11	-61.96	-61.51	-61.20	-61.03	-60.49
LAT	-24.85	-25.86	-27.83	-28.79	-31.76	-33.72	-34.73	-37.64
QUAL	23	23	23	23	23	33	23	23

PASS 2251 AT SOLANT, 63 313  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	52617	52650	52724	52802	52837	52913	52948	53023
1000	0.133	0.137	0.135	0.132	0.141	0.138	0.151	0.139
950	0.139	0.142	0.140	0.138	0.147	0.146	0.160	0.149
900	0.145	0.150	0.146	0.146	0.154	0.155	0.167	0.158
850	0.152	0.157	0.152	0.154	0.165	0.165	0.176	0.168
800	0.159	0.164	0.159	0.161	0.178	0.175	0.188	0.182
750	0.168	0.173	0.167	0.171	0.193	0.187	0.202	0.200
700	0.179	0.183	0.177	0.185	0.213	0.201	0.222	0.219
650	0.195	0.200	0.193	0.205	0.242	0.219	0.253	0.247
600	0.223	0.233	0.222	0.239	0.300	0.250	0.311	0.299
550	0.300	0.288	0.282	0.323	0.390	0.321	0.422	0.408
500	0.435	0.401	0.435	0.477	0.616	0.474	0.639	0.589
450	0.719	0.705	0.721	0.755	0.967	0.776	0.982	0.849
400	1.421	1.081	1.186	1.286	1.469	1.294	1.504	1.413
350	2.175	1.902	1.904	1.981	2.171	2.006	2.134	2.081
300								
HEIGHT	SCALE HEIGHT, KM							
950	1187.0	1164.7	1336.2	1062.7	1018.4	889.0	963.9	795.8
900	1086.6	1100.9	1268.8	1006.3	885.6	859.9	982.8	774.3
850	1091.6	1095.1	1142.1	1022.3	776.9	828.8	841.8	711.9
800	1033.3	1053.2	1012.7	944.5	668.2	787.2	712.1	642.1
750	878.3	963.1	891.4	728.6	560.2	717.9	612.8	572.3
700	695.4	749.0	758.7	572.7	445.1	630.2	482.7	480.6
650	478.6	445.9	479.1	420.3	322.8	483.6	308.1	351.7
600	280.0	282.1	294.2	272.1	237.2	293.5	225.2	233.7
550	158.6	212.9	171.9	171.9	160.4	177.4	165.5	165.6
500	122.0	133.8	116.2	121.8	131.3	127.6	134.3	138.6
450	96.1	94.5	102.0	106.9	117.4	105.5	120.9	124.0
400	96.8	102.8	109.1	108.1	123.6	107.3	149.1	118.2
350	166.0	142.1	159.5	174.2	232.1	217.1	320.4	285.9
300								
LONG	-60.28	-59.90	-59.47	-58.96	-58.42	-57.84	-57.21	-56.50
LAT	-38.65	-40.49	-42.39	-44.50	-46.44	-48.43	-50.37	-52.29
QUAL	33	23	23	23	23	23	23	23

PASS 2251 AT SOLANT, 63 313

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	53055	53113	53241	53500	53610	53647	53722	53739
1000	0.148	0.146	0.076	0.026	0.020	0.041	0.058	0.068
950	0.159	0.154	0.082	0.029	0.025	0.051	0.072	0.082
900	0.170	0.162	0.090	0.032	0.032	0.064	0.088	0.100
850	0.181	0.171	0.099	0.037	0.040	0.079	0.108	0.122
800	0.196	0.183	0.110	0.044	0.051	0.099	0.131	0.149
750	0.215	0.198	0.122	0.052	0.065	0.127	0.164	0.180
700	0.239	0.223	0.145	0.062	0.083	0.161	0.205	0.226
650	0.269	0.264	0.174	0.075	0.104	0.205	0.254	0.286
600	0.376	0.323	0.221	0.105	0.130	0.265	0.323	0.356
550	0.534	0.446	0.309	0.170	0.190	0.337	0.405	0.457
500	0.735	0.646	0.465	0.272	0.269	0.420	0.504	0.587
450	1.008	1.042	0.785	0.445	0.369	0.598	0.727	0.742
400	1.665	1.566	1.343	0.748	0.529	0.859	1.022	1.017
350	2.211	2.205	2.017	1.198	0.729	1.220	1.424	1.446
300				1.675	1.041	1.656	1.935	1.908
HEIGHT	SCALE HEIGHT, KM							
950	718.5	963.1	562.0	457.5	202.7	223.7	240.9	269.3
900	720.4	929.6	537.5	398.9	209.6	221.9	241.1	258.2
850	689.9	820.8	489.1	325.0	209.4	220.2	240.3	253.2
800	590.9	680.3	434.3	303.0	208.0	217.2	238.5	248.2
750	494.3	529.2	379.6	281.0	204.1	213.6	234.2	243.2
700	402.1	366.6	320.0	258.9	198.0	210.0	230.0	234.6
650	310.0	281.6	259.9	225.4	192.0	205.0	224.9	225.2
600	198.5	201.0	186.3	132.5	185.9	198.7	212.9	215.7
550	143.8	148.7	141.4	116.6	174.1	192.3	200.9	206.0
500	141.1	119.9	112.1	108.2	162.0	185.9	188.6	196.3
450	139.1	114.0	93.2	102.7	151.1	167.0	168.4	186.6
400	142.4	131.0	110.1	106.2	150.7	143.8	151.8	175.7
350	223.8	181.3	181.6	131.7	150.4	172.2	159.8	164.1
300				169.4	193.8	211.9	322.4	196.9
LONG	-55.82	-55.37	-52.87	-46.87	-41.99	-38.68	-34.77	-32.65
LAT	-54.04	-55.02	-59.78	-67.10	-70.60	-72.38	-73.99	-74.75
QUAL	33	23	33	33	33	33	32	32

PASS 2258 AT QUITOE, 63 313  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	182143	182218	182236	182311	182346	182421	182456	182532
1000	0.363	0.384	0.374	0.356	0.380	0.376	0.361	0.337
950	0.429	0.457	0.448	0.423	0.453	0.443	0.420	0.392
900	0.523	0.564	0.563	0.529	0.553	0.537	0.506	0.468
850	0.643	0.701	0.715	0.677	0.690	0.665	0.624	0.566
800	0.829	0.917	0.918	0.871	0.863	0.831	0.778	0.686
750	1.163	1.297	1.291	1.198	1.195	1.046	0.968	0.884
700	1.690	1.878	1.896	1.704	1.740	1.548	1.365	1.213
650	2.367	2.598	2.628	2.365	2.458	2.304	2.055	1.746
600	3.303	3.315	3.273	3.058		3.276	3.150	2.686
550	4.239	4.117	4.033	3.788		4.267	4.818	4.385
500	5.342	5.167	5.131	4.780		5.511	6.691	7.103
450	6.603	6.192	6.139	5.859		7.060		10.704
400		6.825		6.694		8.455		
350								
300								
HEIGHT	SCALE HEIGHT, KM							
950	273.6	264.7	246.6	248.4	265.4	278.6	297.6	302.0
900	248.6	235.0	226.7	227.1	234.0	248.5	258.8	268.6
850	221.9	208.8	205.1	206.1	213.4	225.5	230.5	247.3
800	174.5	171.5	177.1	180.9	192.7	205.8	212.1	226.3
750	151.1	143.8	141.2	145.4	164.1	184.1	193.8	196.4
700	143.6	148.7	144.2	151.5	142.0	133.8	154.0	158.4
650	156.5	180.8	191.5	178.8	156.8	135.7	121.2	131.6
600	181.2	214.7	227.8	218.8		167.4	117.4	109.6
550	207.2	225.3	223.9	222.4		195.3	132.1	102.5
500	224.5	251.3	245.1	228.3		197.1	178.6	108.7
450	327.6	389.2	380.1	307.6		237.1		166.9
400		700.1		469.5		358.1		
350								
300								
LONG	-85.49	-85.29	-85.19	-84.99	-84.80	-84.61	-84.42	-84.23
LAT	-15.18	-13.22	-12.20	-10.23	-8.26	-6.29	-4.32	-2.29
QUAL	23	23	23	23	23	23	23	23



PASS 2258 AT QUITOE, 63 313  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	182607	182717	182752	182827	182903	182938	183013	183048
1000	0.327	0.290	0.275	0.239	0.208	0.196	0.189	0.179
950	0.378	0.334	0.315	0.275	0.240	0.224	0.212	0.202
900	0.448	0.394	0.364	0.323	0.281	0.258	0.243	0.231
850	0.538	0.469	0.424	0.382	0.330	0.300	0.279	0.265
800	0.648	0.558	0.513	0.453	0.387	0.351	0.322	0.308
750	0.816	0.703	0.633	0.557	0.487	0.433	0.393	0.373
700	1.090	0.910	0.809	0.717	0.626	0.545	0.489	0.454
650	1.513	1.209	1.047	0.918	0.799	0.701	0.612	0.578
600	2.214	1.654	1.441	1.260	1.086	0.929	0.803	0.744
550	3.601	2.510	2.136	1.755	1.520	1.281	1.040	0.953
500	6.272	4.156	3.517	2.888	2.363	1.966	1.519	1.415
450	10.581	7.275	6.216	5.105	4.159	3.263	2.349	2.178
400		12.125	10.709	9.082	7.355	5.867	4.065	3.633
350					12.222	10.085	7.255	6.305
300								9.605
HEIGHT	SCALE HEIGHT, KM							
950	316.5	327.4	349.6	327.2	333.0	358.6	402.1	392.0
900	286.3	298.1	319.8	305.3	309.1	335.7	359.4	359.1
850	261.3	273.0	293.1	282.3	284.6	306.1	328.2	329.8
800	238.1	248.5	261.0	259.1	260.0	276.4	297.0	299.9
750	209.8	223.1	227.9	235.5	237.4	248.3	268.0	268.4
700	175.5	197.3	203.3	211.5	215.1	220.5	239.4	236.9
650	146.1	171.4	181.7	187.5	192.9	194.5	211.8	214.4
600	119.2	145.4	150.5	161.8	165.4	171.2	190.2	194.0
550	97.7	111.9	117.1	131.9	135.5	144.1	168.6	173.0
500	90.6	94.8	93.7	94.6	103.7	111.0	134.7	135.0
450	105.0	88.4	89.2	86.0	85.3	93.1	106.6	110.2
400		113.3	100.7	92.1	88.4	85.4	82.3	91.1
350					124.4	118.8	97.1	98.9
300								183.1
LONG	-84.05	-83.68	-83.49	-83.31	-83.11	-82.92	-82.72	-82.51
LAT	-0.32	3.63	5.60	7.57	9.60	11.57	13.54	15.51
QUAL	23	23	23	23	23	23	23	23

PASS 2258 AT QUITOE, 63 313

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)						
	183124	183159	183234	183309	183344	183424	183437
1000	0.174	0.176	0.166	0.155	0.170	0.165	0.148
950	0.196	0.197	0.189	0.177	0.188	0.180	0.167
900	0.224	0.226	0.216	0.203	0.211	0.199	0.189
850	0.256	0.259	0.248	0.232	0.238	0.224	0.215
800	0.301	0.300	0.289	0.269	0.279	0.262	0.250
750	0.357	0.359	0.344	0.313	0.329	0.310	0.295
700	0.432	0.433	0.413	0.381	0.399	0.368	0.350
650	0.542	0.544	0.518	0.465	0.493	0.436	0.436
600	0.678	0.692	0.650	0.590	0.606	0.532	0.542
550	0.855	0.877	0.838	0.783	0.788	0.730	0.691
500	1.240	1.246	1.174	1.056	1.108	0.989	0.969
450	1.828	1.811	1.687	1.507	1.593	1.383	1.377
400	2.909	2.778	2.536	2.251	2.331	2.095	2.032
350	5.045	4.426	4.024	3.533	3.549	3.311	3.214
300	7.849		6.048	5.441	5.352	5.426	5.331
HEIGHT	SCALE HEIGHT, KM						
950	401.1	409.2	372.7	370.8	455.9	520.1	402.1
900	363.9	366.0	358.5	359.8	407.2	450.5	379.7
850	331.5	338.4	332.2	343.1	359.3	385.3	349.5
800	304.5	310.0	305.8	318.2	324.0	329.8	321.1
750	277.5	279.1	279.5	292.8	288.8	291.2	293.6
700	252.7	248.1	253.4	264.2	261.2	271.8	266.3
650	232.1	225.7	231.6	235.7	239.5	252.4	241.7
600	211.5	205.6	209.8	208.6	217.9	230.0	217.2
550	188.9	185.2	185.8	183.1	189.5	197.4	191.4
500	150.4	153.5	156.4	159.0	151.7	165.0	161.5
450	121.5	128.6	133.8	138.3	137.4	135.2	137.8
400	96.3	112.9	117.0	121.0	126.9	116.2	121.5
350	99.5	114.8	109.2	109.0	118.4	105.8	104.9
300	162.1		223.6	139.0	127.7	105.0	99.5
LONG	-82.29	-82.08	-81.84	-81.61	-81.35	-81.05	-80.95
LAT	17.53	19.50	21.47	23.44	25.40	27.64	28.37
QUAL	23	23	23	22	23	22	23

PASS 2259 AT OTTAWA, 63 313

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	183420	183455	183513	183548	183623	183714	183749	183824
1000	0.180	0.140	0.139	0.136	0.132	0.134	0.126	0.132
950	0.199	0.161	0.159	0.155	0.152	0.155	0.146	0.153
900	0.222	0.185	0.181	0.179	0.174	0.177	0.168	0.177
850	0.251	0.214	0.208	0.206	0.200	0.202	0.192	0.203
800	0.292	0.250	0.244	0.239	0.232	0.235	0.221	0.235
750	0.345	0.296	0.287	0.281	0.270	0.273	0.256	0.273
700	0.414	0.360	0.345	0.331	0.320	0.324	0.296	0.319
650	0.515	0.437	0.431	0.409	0.390	0.402	0.372	0.389
600	0.639	0.540	0.536	0.511	0.485	0.497	0.474	0.473
550	0.821	0.749	0.662	0.636	0.637	0.610	0.599	0.603
500	1.189	1.020	0.934	0.833	0.831	0.813	0.787	0.785
450	1.732	1.486	1.327	1.181	1.140	1.093	1.051	1.028
400	2.578	2.197	2.006	1.714	1.627	1.517	1.456	1.438
350	4.111	3.415	3.228	2.582	2.430	2.189	2.094	2.034
300	6.320	5.590	5.276	4.123	3.738	3.348	3.107	2.951
HEIGHT	SCALE HEIGHT, KM							
	950	448.4	354.4	366.1	360.4	354.9	362.6	352.3
900	408.7	342.9	351.5	350.4	351.3	359.1	358.1	346.3
850	369.3	325.3	332.7	336.0	341.0	346.0	346.0	342.5
800	332.3	299.8	307.4	317.4	323.9	321.8	325.4	327.3
750	295.8	275.4	282.2	293.6	306.7	297.5	304.8	311.4
700	261.3	254.4	259.4	269.9	281.0	275.5	284.2	293.0
650	236.9	233.4	240.4	249.6	244.6	256.6	259.9	263.5
600	212.5	211.2	221.3	230.1	213.5	237.6	235.0	234.0
550	185.1	181.8	202.3	210.5	196.8	218.7	210.0	211.9
500	148.3	152.3	168.0	185.5	180.2	195.3	188.5	193.3
450	130.9	137.7	133.3	151.6	159.9	170.5	169.0	174.7
400	117.9	122.8	117.7	131.5	136.1	148.9	152.0	156.4
350	110.1	108.6	103.0	113.9	123.6	129.5	137.2	142.1
300	130.7	105.6	104.9	108.3	115.8	123.4	127.7	141.1
LONG	-81.08	-80.81	-80.66	-80.35	-80.03	-79.52	-79.13	-78.71
LAT	27.42	29.38	30.39	32.34	34.29	37.14	39.08	41.02
QUAL	22	23	23	23	23	23	23	23

PASS 2259 AT OTTAWA, 63 313  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	183900	183935	184010	184045	184120	184156	184231	184306
1000	0.131	0.141	0.139	0.122	0.134	0.137	0.156	0.166
950	0.153	0.159	0.157	0.141	0.157	0.158	0.178	0.191
900	0.176	0.182	0.179	0.164	0.181	0.184	0.203	0.219
850	0.202	0.207	0.205	0.191	0.210	0.213	0.234	0.251
800	0.233	0.238	0.236	0.225	0.244	0.251	0.273	0.289
750	0.270	0.277	0.273	0.267	0.290	0.295	0.320	0.338
700	0.313	0.323	0.325	0.319	0.346	0.355	0.378	0.403
650	0.379	0.381	0.389	0.391	0.420	0.429	0.451	0.481
600	0.475	0.482	0.464	0.479	0.528	0.526	0.540	0.585
550	0.594	0.607	0.598	0.581	0.660	0.682	0.659	0.735
500	0.745	0.757	0.769	0.774	0.815	0.876	0.837	0.917
450	1.000	1.005	1.005	1.021	1.101	1.176	1.057	1.195
400	1.330	1.335	1.373	1.386	1.480	1.591	1.419	1.573
350	1.895	1.855	1.906	1.889	2.075	2.176	1.939	2.185
300	2.700	2.631	2.687	2.620	2.879	2.980	2.738	3.028
HEIGHT	SCALE HEIGHT, KM							
950	341.5	387.0	381.7	324.3	341.7	335.6	370.4	366.3
900	354.8	369.8	372.8	322.5	336.9	326.8	354.3	362.3
850	347.0	355.7	359.9	312.0	321.4	317.6	340.7	347.2
800	330.3	337.8	335.1	296.8	304.8	302.4	328.0	324.8
750	311.1	316.2	310.5	280.3	286.6	287.2	310.8	305.3
700	291.8	294.6	289.1	264.8	268.4	268.0	289.0	287.9
650	271.3	273.1	267.8	251.2	251.8	248.6	272.2	270.4
600	249.8	252.3	246.5	237.6	237.7	229.5	256.3	252.2
550	228.3	231.5	224.2	223.9	223.6	210.7	238.9	232.9
500	206.5	210.6	201.9	201.1	209.5	191.9	219.1	213.5
450	183.8	189.5	181.5	178.0	184.0	177.0	199.3	192.2
400	161.9	168.4	164.7	167.4	161.4	164.6	176.4	170.4
350	146.1	153.7	153.3	159.1	154.5	161.8	155.6	155.4
300	142.9	148.2	163.5	154.8	160.5	181.0	171.8	233.5
LONG	-78.27	-77.77	-77.24	-76.66	-76.02	-75.31	-74.50	-73.65
LAT	43.01	44.94	46.87	48.79	50.71	52.67	54.57	56.46
QUAL	23	23	23	22	22	22	23	31

PASS 2259 AT OTTAWA, 63 313  
 ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)			
	184341	184416	184452	184509
1000	0.206	0.210	0.216	0.228
950	0.234	0.237	0.243	0.253
900	0.268	0.270	0.278	0.284
850	0.307	0.310	0.321	0.319
800	0.354	0.365	0.376	0.365
750	0.410	0.431	0.444	0.421
700	0.476	0.509	0.518	0.490
650	0.552	0.598	0.601	0.576
600	0.664	0.713	0.726	0.677
550	0.850	0.871	0.894	0.836
500	1.080	1.061	1.118	1.051
450	1.390	1.394	1.453	1.355
400	1.773	1.841	1.899	1.770
350	2.349	2.497	2.523	2.296
300	3.175	3.354	3.266	3.038
HEIGHT	SCALE HEIGHT, KM			
950	379.4	392.0	381.6	458.9
900	368.4	363.5	360.1	422.1
850	355.0	338.0	338.6	391.8
800	339.2	325.4	328.5	369.5
750	322.9	312.7	320.5	347.3
700	306.6	299.7	305.4	324.0
650	290.2	286.5	289.4	299.4
600	267.8	268.6	266.0	274.8
550	237.1	246.6	241.1	247.0
500	207.7	224.6	218.0	218.4
450	201.0	199.2	199.6	201.9
400	193.5	175.8	186.6	192.9
350	178.2	172.7	187.3	187.1
300	256.8	380.7	292.2	178.1
LONG	-72.65	-71.54	-70.26	-69.58
LAT	58.35	60.22	62.13	63.03
QUAL	31	32	32	33

PASS 2259 AT RESLUT, 63 313  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	184544	184602	184636	184654	184711	184729	184748	184804
1000	0.164	0.189	0.228	0.237	0.149	0.145	0.158	0.160
950	0.182	0.207	0.260	0.272	0.168	0.161	0.175	0.180
900	0.204	0.229	0.298	0.310	0.190	0.179	0.196	0.204
850	0.231	0.256	0.339	0.353	0.214	0.203	0.222	0.233
800	0.272	0.295	0.387	0.404	0.245	0.234	0.255	0.267
750	0.325	0.348	0.447	0.468	0.282	0.271	0.294	0.308
700	0.389	0.413	0.516	0.543	0.324	0.319	0.345	0.355
650	0.469	0.494	0.613	0.633	0.376	0.375	0.407	0.426
600	0.563	0.590	0.737	0.759	0.459	0.440	0.486	0.515
550	0.671	0.702	0.883	0.910	0.572	0.529	0.615	0.621
500	0.823	0.896	1.088	1.107	0.766	0.728	0.775	0.808
450	1.077	1.137	1.338	1.375	1.052	0.979	1.000	1.111
400	1.392	1.468	1.674	1.710	1.394	1.301	1.341	1.439
350	1.815	1.896	2.109	2.195	1.760	1.649	1.654	1.746
300	2.453	2.465	2.518	2.620		1.891	1.900	

HEIGHT	SCALE HEIGHT, KM							
	184544	184602	184636	184654	184711	184729	184748	184804
950	438.7	494.9	390.2	368.9	409.2	465.7	446.8	403.5
900	393.9	445.4	377.0	372.0	394.5	418.4	413.7	386.9
850	348.6	396.1	369.2	361.8	381.1	381.6	384.5	373.4
800	327.3	358.5	356.0	350.3	379.6	351.9	359.9	354.5
750	309.1	325.3	336.4	337.3	378.2	323.8	335.2	330.8
700	290.8	293.1	316.8	324.3	363.0	304.8	308.8	307.2
650	275.8	279.2	298.7	309.9	282.0	285.8	282.1	283.2
600	263.0	265.2	281.0	289.4	249.1	266.7	256.7	259.2
550	250.1	251.1	263.3	268.8	216.1	244.7	235.8	235.2
500	235.1	231.0	250.2	250.9	194.6	208.9	214.8	209.6
450	215.8	210.9	237.3	235.6	178.6	176.7	207.9	182.8
400	196.6	201.7	233.7	229.4	221.9	208.6	221.4	242.9
350	180.0	197.0	264.2	262.2	306.0	304.0	296.1	391.2
300	440.1	359.2	419.9	505.2		974.7	766.0	

LONG	-68.01	-67.17	-65.19	-64.14	-62.94	-61.54	-60.06	-58.70
LAT	64.86	65.79	67.53	68.45	69.30	70.19	71.12	71.90
QUAL	32	32	31	31	32	31	31	31

PASS 2259 AT RESLUT, 63 313  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	184822	184839	184857	184932	184950	185007	185025	185100
1000	0.144	0.207	0.146	0.119	0.130	0.122	0.109	0.113
950	0.167	0.228	0.163	0.137	0.146	0.140	0.128	0.130
900	0.190	0.254	0.183	0.158	0.164	0.162	0.149	0.149
850	0.216	0.285	0.208	0.183	0.188	0.187	0.171	0.172
800	0.248	0.329	0.239	0.213	0.217	0.218	0.198	0.199
750	0.286	0.383	0.280	0.249	0.253	0.255	0.229	0.232
700	0.334	0.451	0.336	0.291	0.300	0.298	0.272	0.270
650	0.403	0.533	0.405	0.345	0.354	0.350	0.323	0.318
600	0.493	0.629	0.528	0.426	0.438	0.432	0.399	0.382
550	0.617	0.739	0.687	0.528	0.545	0.540	0.498	0.480
500	0.852	1.010	0.898	0.687	0.680	0.731	0.617	0.610
450	1.124	1.353	1.170	0.958	0.910	0.996	0.822	0.805
400	1.409	1.744	1.530	1.278	1.202	1.289	1.094	1.089
350	1.771	2.185	1.992	1.619	1.582	1.646	1.429	1.420
300			2.378	1.931	2.039	2.100	1.840	
HEIGHT	SCALE HEIGHT, KM							
950	367.5	475.3	438.8	348.2	436.2	352.4	330.9	351.7
900	372.7	435.2	402.7	341.2	393.5	340.9	337.4	349.9
850	366.4	395.2	369.7	334.5	367.0	332.5	338.7	343.5
800	357.7	359.4	337.6	328.1	340.7	329.5	328.0	334.4
750	333.2	324.1	303.8	314.6	315.4	326.5	315.5	327.6
700	287.1	299.8	268.1	291.6	291.2	305.6	288.5	321.4
650	258.7	281.9	233.3	267.9	267.1	268.4	261.5	287.9
600	233.0	264.1	217.3	242.3	247.2	235.2	244.0	240.1
550	208.4	246.1	201.3	216.7	227.5	201.9	228.0	223.2
500	188.9	210.2	192.8	196.8	208.7	191.2	211.9	206.3
450	196.5	187.1	190.4	185.5	195.9	183.5	195.1	192.8
400	217.8	205.6	196.1	205.7	185.2	193.8	183.0	181.9
350	345.1	428.3	227.5	253.1	192.1	217.0	194.0	217.4
300			820.2	327.1	199.6	283.1	245.9	
LONG	-56.78	-54.96	-53.03	-47.86	-45.13	-42.11	-38.24	-30.72
LAT	72.73	73.52	74.36	75.83	76.58	77.24	77.85	79.03
QUAL	31	31	31	33	32	33	33	33

PASS 2259 AT RESLUT, 63 313						
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)						
HEIGHT	TIME (UT)					
	185135	185153	185228	185303	185321	185414
1000	0.069	0.064	0.045	0.032	0.030	0.024
950	0.079	0.074	0.054	0.041	0.036	0.031
900	0.091	0.087	0.065	0.050	0.044	0.037
850	0.106	0.103	0.077	0.060	0.055	0.043
800	0.126	0.123	0.092	0.071	0.069	0.052
750	0.150	0.146	0.110	0.089	0.086	0.064
700	0.181	0.177	0.136	0.116	0.111	0.086
650	0.219	0.214	0.168	0.151	0.142	0.115
600	0.273	0.257	0.217	0.193	0.178	0.151
550	0.359	0.329	0.280	0.261	0.219	0.211
500	0.465	0.442	0.368	0.357	0.296	0.299
450	0.630	0.597	0.543	0.489	0.485	0.431
400	0.842	0.820	0.771	0.725	0.722	0.642
350	1.120	1.112	1.053	1.041	1.010	0.905
300	1.425	1.429	1.361	1.448	1.317	1.199
HEIGHT	SCALE HEIGHT, KM					
	950	900	850	800	750	700
350	353.5	317.1	276.5			257.0
300	328.1	304.1	277.7	251.5	237.8	285.7
250	310.6	292.9	273.7	244.4	228.5	275.1
200	293.8	283.0	268.7	237.4	219.2	242.9
150	276.7	273.2	261.3	227.9	211.0	213.6
100	259.1	260.4	238.6	216.3	205.4	200.8
50	241.4	247.6	216.0	204.8	199.9	188.1
0	223.0	234.7	200.4	193.2	194.3	175.3
50	203.4	212.8	184.9	178.7	188.7	161.3
100	183.9	183.4	170.3	162.6	175.7	146.5
150	179.9	167.3	159.8	149.3	143.1	139.6
200	177.6	167.0	156.5	144.3	137.3	143.1
250	223.4	213.0	183.0	148.5	176.7	164.9
300	324.4	345.8	248.5	167.9	304.5	436.7
LONG	-20.56	-15.34	-3.95	7.66	13.19	28.45
LAT	79.76	80.13	80.35	80.38	80.09	79.02
QUAL	33	33	33	33	33	32



PASS 2271 AT SOLANT, 63 314													
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)													
HEIGHT	TIME (UT)												
	165914	165949	170024	170100	170135	170210	170245	170320					
1000	0.055	0.061	0.075	0.084	0.093	0.095	0.102	0.093					
950	0.063	0.070	0.084	0.093	0.099	0.101	0.109	0.100					
900	0.072	0.080	0.096	0.102	0.107	0.109	0.117	0.108					
850	0.082	0.091	0.108	0.113	0.119	0.121	0.128	0.119					
800	0.095	0.105	0.123	0.125	0.134	0.140	0.141	0.133					
750	0.109	0.121	0.141	0.140	0.152	0.163	0.159	0.151					
700	0.127	0.141	0.163	0.161	0.173	0.187	0.179	0.173					
650	0.150	0.167	0.191	0.188	0.195	0.214	0.216	0.201					
600	0.181	0.202	0.232	0.227	0.240	0.255	0.266	0.245					
550	0.223	0.252	0.285	0.277	0.301	0.314	0.340	0.302					
500	0.297	0.336	0.381	0.364	0.385	0.413	0.449	0.405					
450	0.402	0.455	0.517	0.510	0.549	0.581	0.613	0.560					
400	0.562	0.647	0.722	0.724	0.778	0.857	0.864	0.796					
350	0.828	0.978	1.073	1.083	1.138	1.313	1.263	1.163					
300	1.382	1.676	1.837	1.774	1.962	2.256	2.079	1.910					
HEIGHT	SCALE HEIGHT, KM												
	950	900	850	800	750	700	650	600	550	500	450	400	350
950	366.1	364.6	424.1	497.5	675.2	661.6	707.2	660.1					
900	363.0	363.1	399.4	512.8	547.5	540.1	622.2	558.2					
850	359.2	360.2	392.2	490.5	498.3	463.0	540.0	491.0					
800	354.5	347.7	374.9	448.9	453.3	422.3	465.5	423.8					
750	349.8	335.3	357.6	401.9	407.9	381.5	405.0	384.1					
700	310.2	311.3	325.5	345.8	360.8	349.1	344.6	346.1					
650	281.3	280.2	289.6	290.7	313.8	319.9	291.8	306.7					
600	246.9	244.2	249.8	260.1	274.8	276.2	240.0	258.9					
550	209.6	204.5	211.0	229.5	236.1	226.4	204.1	211.6					
500	187.3	179.9	184.3	166.1	184.2	176.6	180.4	176.5					
450	167.7	158.1	159.8	143.3	131.7	140.7	159.5	152.2					
400	144.5	137.9	141.6	136.1	138.5	127.3	141.5	140.5					
350	116.4	108.9	114.3	115.4	115.5	107.3	118.3	121.8					
300	86.7	81.7	81.7	89.7	83.6	84.8	85.0	88.6					
LONG	-83.16	-81.81	-80.65	-79.55	-78.67	-77.83	-77.10	-76.44					
LAT	-62.82	-60.95	-59.07	-57.13	-55.22	-53.31	-51.39	-49.47					
QUAL	22	23	23	23	23	22	22	22					

PASS 2271 AT SOLANT, 63 314

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)						
	170356	170431	170524	170634	170709	170744	170820
1000	0.119	0.119	0.118	0.135	0.140	0.142	0.151
950	0.128	0.129	0.132	0.144	0.152	0.155	0.164
900	0.138	0.140	0.146	0.155	0.165	0.172	0.179
850	0.150	0.151	0.161	0.169	0.180	0.192	0.198
800	0.164	0.165	0.180	0.189	0.200	0.215	0.223
750	0.182	0.183	0.201	0.214	0.229	0.248	0.255
700	0.204	0.206	0.229	0.245	0.267	0.290	0.297
650	0.235	0.241	0.266	0.293	0.319	0.349	0.351
600	0.282	0.288	0.322	0.360	0.403	0.422	0.434
550	0.351	0.366	0.404	0.467	0.532	0.522	0.561
500	0.458	0.498	0.543	0.643	0.726	0.717	0.781
450	0.640	0.710	0.762	0.925	1.038	1.048	1.136
400	0.916	1.018	1.092	1.402	1.552	1.594	1.707
350	1.380	1.543	1.672	2.244	2.435	2.574	2.740
300	2.431	2.636	2.896	3.709	4.038	4.262	
HEIGHT	SCALE HEIGHT, KM						
950	656.9	605.4	469.2	686.9	612.4	506.7	555.6
900	618.7	629.9	477.7	611.0	581.4	466.8	515.2
850	571.0	575.4	470.8	526.4	506.3	435.9	470.3
800	521.6	510.8	445.2	425.5	413.5	405.0	416.3
750	460.2	449.4	415.3	372.6	358.1	346.7	355.1
700	396.3	387.9	358.2	324.6	306.0	290.5	310.6
650	333.7	324.4	300.8	278.1	256.1	267.9	268.6
600	272.4	260.5	253.1	232.1	216.1	245.2	228.6
550	218.8	199.2	205.3	190.6	182.0	212.5	180.1
500	173.6	151.9	159.4	154.1	153.1	146.4	142.6
450	144.7	141.2	148.0	130.7	134.9	127.1	129.9
400	133.4	131.9	131.1	113.9	118.5	111.5	116.0
350	107.4	107.8	106.0	102.6	105.8	104.9	100.8
300	77.9	83.0	81.5	100.6	103.8	104.0	
LONG	-75.80	-75.26	-74.52	-73.66	-73.28	-72.93	-72.59
LAT	-47.48	-45.54	-42.59	-38.70	-36.75	-34.79	-32.78
QUAL	12	13	21	23	21	22	23

PASS 2271 AT QUITOE, 63 314  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	171713	171748	171917	171953	172028	172103	172138	172213
1000	0.262	0.216	0.204	0.176	0.174	0.172	0.187	0.173
950	0.297	0.244	0.227	0.200	0.194	0.191	0.204	0.193
900	0.343	0.274	0.253	0.228	0.217	0.213	0.229	0.215
850	0.397	0.317	0.296	0.262	0.247	0.248	0.266	0.243
800	0.462	0.376	0.352	0.323	0.293	0.294	0.314	0.284
750	0.566	0.449	0.421	0.415	0.351	0.349	0.373	0.337
700	0.703	0.553	0.521	0.530	0.421	0.432	0.454	0.403
650	0.874	0.683	0.647	0.669	0.530	0.535	0.559	0.502
600	1.148	0.838	0.796	0.885	0.665	0.658	0.683	0.622
550	1.491	1.058	0.968	1.155	0.825	0.800	0.825	0.764
500	2.272	1.804	1.352	1.683	1.010	0.971	0.985	0.928
450	4.210	3.032	2.482	2.832	1.528	1.869	1.518	1.356
400	6.841	5.276	4.249	4.656	2.883	3.022	2.664	2.289
350	10.270		7.142	7.427	5.166	5.478	4.490	3.683
300			10.683	10.828		8.966	7.369	5.842
HEIGHT	SCALE HEIGHT, KM							
950	358.4	393.4	413.5	365.7	435.8	418.7	454.7	429.0
900	338.9	363.9	371.4	332.6	390.8	376.9	414.4	399.2
850	319.4	332.9	338.0	299.5	348.9	342.3	376.8	367.8
800	300.0	301.4	304.7	273.9	316.9	307.6	339.3	331.1
750	271.0	269.9	271.3	252.0	285.0	273.0	301.8	294.4
700	239.6	247.3	251.1	230.1	253.0	254.3	276.6	262.4
650	209.3	226.5	233.4	208.2	236.4	237.7	259.0	247.0
600	184.6	205.6	215.7	185.6	220.1	221.0	241.3	231.5
550	160.0	177.8	198.0	162.9	203.7	204.4	223.6	216.0
500	118.3	95.3	152.4	127.2	187.3	186.4	205.9	200.5
450	95.0	95.0	88.2	100.1	128.7	90.5	143.1	139.0
400	111.7	95.8	93.3	101.5	83.7	97.1	92.9	100.5
350	184.0		109.3	116.7	90.1	85.7	95.9	105.2
300			169.2	189.8		141.8	127.2	119.5
LONG	-69.11	-68.93	-68.46	-68.28	-68.04	-67.80	-67.66	-67.49
LAT	-2.82	-0.85	4.16	6.19	8.16	10.13	12.10	14.07
QUAL	12	13	13	13	13	13	13	13

PASS 2271 AT QUITOE, 63 314  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)				
	172248	172325	172359	172435	172509
1000	0.181	0.176	0.162	0.159	0.146
950	0.203	0.197	0.183	0.179	0.164
900	0.225	0.222	0.204	0.203	0.183
850	0.260	0.253	0.235	0.232	0.212
800	0.305	0.293	0.277	0.275	0.252
750	0.359	0.347	0.329	0.328	0.302
700	0.437	0.412	0.395	0.396	0.362
650	0.534	0.511	0.485	0.491	0.448
600	0.649	0.635	0.592	0.606	0.550
550	0.782	0.783	0.717	0.741	0.669
500	0.932	0.956	0.858	0.911	0.804
450	1.387	1.493	1.326	1.392	1.199
400	2.195	2.286	1.993	2.094	1.850
350	3.421	3.470	2.970	3.221	2.881
300	5.342	5.065	4.452	4.889	4.445
HEIGHT	SCALE HEIGHT, KM				
950	405.0	417.3	399.5	395.3	411.5
900	383.8	390.3	373.0	368.1	372.0
850	352.8	363.2	346.6	340.6	343.3
800	321.8	331.5	320.3	309.6	318.2
750	290.9	296.2	294.0	278.5	293.1
700	273.0	260.8	271.1	253.9	268.3
650	258.5	243.8	255.2	240.9	253.2
600	244.0	227.3	239.3	227.9	238.0
550	229.5	210.9	223.4	214.9	222.8
500	215.0	194.4	207.5	199.0	207.6
450	156.1	144.4	154.6	135.8	139.5
400	110.6	120.0	124.0	120.4	114.5
350	110.5	119.6	124.5	115.3	115.4
300	142.2	170.1	138.5	146.5	123.8
LONG	-67.29	-67.06	-66.85	-66.61	-66.37
LAT	16.04	18.12	20.03	22.06	23.97
QUAL	13	12	13	12	13

PASS 2279 AT COLEGE, 63 315						
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)						
HEIGHT	TIME (UT)					
	60319	60354	60429	60505	60540	60615
1000	0.019	0.020	0.009	0.008	0.006	0.004
950	0.029	0.030	0.016	0.015	0.014	0.006
900	0.036	0.037	0.023	0.023	0.023	0.009
850	0.049	0.049	0.033	0.031	0.033	0.011
800	0.065	0.064	0.052	0.042	0.044	0.015
750	0.064	0.082	0.077	0.072	0.070	0.019
700	0.110	0.103	0.108	0.110	0.113	0.023
650	0.147	0.137	0.144	0.156	0.160	0.028
600	0.192	0.178	0.195	0.211	0.229	0.033
550	0.244	0.225	0.260	0.287	0.309	0.038
500	0.304	0.280	0.336	0.385	0.426	0.044
450	0.412	0.342	0.450	0.556	0.565	0.058
400	0.618	0.482	0.635	0.799	0.847	0.388
350	0.903	0.656	0.883	1.187	1.265	0.615
300	1.308	0.896	1.223	1.739	1.918	0.741
HEIGHT	SCALE HEIGHT, KM					
900	163.9	170.0				
850	169.9	180.0				
800	176.0	186.0	131.7	119.8	116.6	151.3
750	182.1	192.1	143.8	130.8	128.7	157.7
700	185.2	197.7	156.0	141.7	137.3	164.2
650	185.1	193.9	168.2	152.7	145.8	170.7
600	184.9	200.0	172.4	163.6	154.3	177.2
550	184.8	201.2	173.0	159.3	159.4	183.7
500	184.7	202.4	173.6	151.4	154.1	190.2
450	173.4	203.6	169.3	143.3	148.9	191.1
400	145.0	183.3	158.7	136.4	137.3	66.7
350	135.3	162.3	157.1	133.8	125.9	84.4
300	148.5	165.7	166.6	157.9	136.4	102.2
LONG	-168.13	-156.57	-146.61	-137.09	-130.08	-123.97
LAT	80.37	80.14	79.40	78.48	77.23	75.88
QUAL	33	33	33	33	32	33

PASS 2279 AT AGASTA, 63 315  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)			
	63825	64053	64156	64247
1000	0.101	0.191	0.160	0.161
950	0.111	0.203	0.176	0.172
900	0.122	0.213	0.190	0.178
850	0.134	0.229	0.203	0.184
800	0.147	0.252	0.217	0.191
750	0.163	0.284	0.234	0.203
700	0.184	0.331	0.256	0.248
650	0.209	0.398	0.300	0.284
600	0.248	0.516	0.368	0.312
550	0.301	0.715	0.461	0.448
500	0.438	1.026	0.653	0.676
450	0.684	1.478	1.028	1.069
400	1.138		1.666	1.799
350	1.680		2.418	2.704
300				
HEIGHT	SCALE HEIGHT, KM			
900	533.0	881.8	688.4	1413.8
850	522.0	645.6	737.0	1218.3
800	502.8	473.0	684.4	1022.8
750	457.6	376.2	574.8	770.9
700	397.9	318.1	452.2	325.2
650	330.6	236.7	336.6	307.4
600	271.9	182.5	237.8	289.5
550	213.2	150.1	188.6	117.7
500	132.1	139.7	128.0	114.7
450	104.2	161.3	108.4	104.7
400	111.6		113.3	106.1
350	187.8		189.4	190.7
300				
LONG	-84.51	-83.09	-82.35	-81.65
LAT	-29.92	-38.22	-41.74	-44.57
QUAL	32	33	32	32

PASS 2279 AT SOLANT, 63 315  
ELECTRON DENSITY IN ELECTRONS PER CC (X10<sup>-5</sup>)

HEIGHT	TIME (UT)							
	64103	64156	64248	64432	64507	64543	64618	64653
1000	0.153	0.172	0.160	0.159	0.130	0.118	0.113	0.118
950	0.162	0.183	0.169	0.169	0.138	0.127	0.123	0.125
900	0.169	0.196	0.178	0.179	0.149	0.136	0.132	0.133
850	0.177	0.209	0.187	0.193	0.161	0.146	0.142	0.143
800	0.185	0.223	0.200	0.209	0.176	0.158	0.154	0.155
750	0.194	0.245	0.214	0.231	0.194	0.173	0.168	0.169
700	0.203	0.278	0.241	0.263	0.222	0.201	0.193	0.189
650	0.215	0.322	0.276	0.307	0.270	0.238	0.228	0.216
600	0.230	0.387	0.336	0.400	0.333	0.291	0.290	0.263
550	0.250	0.497	0.472	0.537	0.423	0.398	0.392	0.365
500	0.277	0.715	0.696	0.785	0.557	0.630	0.614	0.562
450	0.315	1.110	1.090	1.324	0.907	1.073	1.039	0.986
400	0.375	1.814	1.867	2.130	1.588	1.798	1.758	1.720
350	0.469	2.486	2.798	3.134	2.695		2.809	2.641
300								
HEIGHT	SCALE HEIGHT, KM							
950	1023.7	769.2	951.4	851.7	701.6	682.4	654.6	920.4
900	1111.2	774.7	935.5	754.1	656.8	683.7	670.5	782.0
850	1106.3	753.6	831.4	660.5	594.6	649.4	646.7	708.0
800	1077.3	613.4	704.1	543.7	515.3	561.2	564.0	606.4
750	1037.5	479.1	578.0	439.3	422.8	427.9	452.9	481.1
700	963.9	411.7	464.8	358.8	350.8	363.5	365.9	409.9
650	807.6	344.2	351.6	280.0	302.8	299.1	278.8	338.6
600	682.2	271.4	217.9	216.3	254.7	230.7	210.3	249.6
550	572.4	186.7	138.7	157.3	203.6	139.0	145.8	140.0
500	455.5	135.2	122.4	118.5	148.1	101.3	101.2	103.1
450	339.7	106.6	96.1	99.1	101.6	96.1	97.4	90.9
400	268.3	118.5	102.7	116.5	89.0	97.7	95.4	96.5
350	207.0	318.7	226.0	211.2	126.1		141.1	203.7
300								
LONG	-82.98	-82.35	-81.64	-79.91	-79.22	-78.42	-77.55	-76.60
LAT	-38.78	-41.74	-44.62	-50.38	-52.30	-54.27	-56.17	-58.07
QUAL	33	31	32	32	33	33	33	32

PASS 2279 AT SOLANT, 63 315

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	64728	64803	64838	64913	64948	65024	65134	65209
1000	0.110	0.095	0.080	0.072	0.049	0.035	0.027	0.051
950	0.117	0.102	0.086	0.078	0.054	0.038	0.034	0.062
900	0.126	0.109	0.092	0.084	0.058	0.042	0.040	0.076
850	0.135	0.115	0.099	0.091	0.064	0.048	0.048	0.092
800	0.146	0.124	0.107	0.100	0.073	0.057	0.058	0.112
750	0.158	0.135	0.121	0.112	0.086	0.068	0.069	0.139
700	0.172	0.168	0.144	0.135	0.102	0.083	0.086	0.171
650	0.201	0.215	0.174	0.166	0.123	0.102	0.108	0.214
600	0.251	0.271	0.211	0.206	0.146	0.124	0.138	0.268
550	0.345	0.337	0.280	0.272	0.196	0.154	0.176	0.347
500	0.505	0.518	0.377	0.363	0.302	0.230	0.221	0.460
450	0.871	0.895	0.593	0.606	0.478	0.352	0.307	0.628
400	1.514	1.539	1.073	1.088	0.812	0.599	0.420	0.875
350	2.431	2.410	1.916	1.828	1.382	1.051	0.614	1.243
300							0.914	1.737
HEIGHT	SCALE HEIGHT, KM							
950	756.4	705.7	680.3	642.6	584.7	527.7	259.0	241.3
900	706.5	806.0	723.0	616.4	559.7	448.0	268.5	245.5
850	653.7	719.8	644.1	575.5	463.8	368.8	266.2	244.9
800	593.9	586.4	483.8	465.6	342.8	309.1	260.4	243.7
750	532.7	455.2	412.1	367.7	298.6	256.3	254.7	239.5
700	468.2	352.0	359.5	323.4	276.9	244.0	236.6	235.3
650	322.6	248.7	306.9	279.2	255.1	231.8	217.9	224.2
600	211.6	203.3	254.3	235.0	233.4	219.5	206.4	209.2
550	148.5	176.6	204.0	189.1	188.8	201.1	197.5	189.1
500	114.4	131.4	154.6	142.4	112.1	145.4	188.5	171.1
450	90.6	95.3	106.0	92.6	104.3	107.8	169.1	160.5
400	98.0	94.7	79.2	89.6	94.3	91.7	149.7	149.3
350	137.6	153.9	116.2	112.4	106.6	92.8	132.8	146.0
300							130.2	158.3
LONG	-75.47	-74.27	-72.80	-71.18	-69.29	-66.92	-61.03	-57.27
LAT	-59.95	-61.82	-63.66	-65.49	-67.29	-69.11	-72.51	-74.13
QUAL	32	33	33	33	33	33	33	33



PASS 2279 AT SOLANT, 63 315

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)
	65244
1000	0.057
950	0.069
900	0.084
850	0.102
800	0.124
750	0.152
700	0.190
650	0.237
600	0.301
550	0.377
500	0.505
450	0.673
400	0.927
350	1.314
300	1.830

HEIGHT	SCALE HEIGHT, KM
950	249.4
900	248.0
850	248.0
800	248.0
750	241.9
700	227.9
650	216.0
600	207.0
550	198.0
500	185.5
450	172.6
400	150.3
350	148.4
300	159.1

LONG	-52.47
LAT	-75.65
QUAL	33

PASS 2285 AT AGASTA, 63 315

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	174536	174609	174647	174722	174757	174833	174909	174944
1000	0.190	0.219	0.240	0.272	0.324	0.386	0.402	0.426
950	0.209	0.238	0.270	0.308	0.370	0.431	0.461	0.500
900	0.233	0.264	0.305	0.349	0.423	0.491	0.540	0.597
850	0.262	0.298	0.349	0.407	0.493	0.582	0.650	0.717
800	0.299	0.345	0.408	0.484	0.594	0.723	0.812	0.931
750	0.344	0.406	0.488	0.597	0.737	0.908	1.032	1.244
700	0.415	0.493	0.616	0.755	0.945	1.168	1.396	1.739
650	0.520	0.631	0.811	1.006	1.316	1.691	2.050	2.507
600	0.682	0.843	1.118	1.455	1.938	2.658	3.235	3.609
550	0.950	1.209	1.693	2.312	3.204	4.393	5.020	4.631
500	1.449	1.975	2.856	4.081	5.617	7.331		5.712
450	2.490	3.555	5.328	7.809	10.493	11.032		7.150
400	4.595	6.382	9.713					
350	8.296	10.867						
300	12.874							
HEIGHT	SCALE HEIGHT, KM							
950	488.2	536.3	412.5	395.6	367.4	403.3	332.9	292.9
900	444.5	452.7	389.6	351.4	345.0	340.5	296.0	262.7
850	389.1	382.4	341.7	309.6	299.7	281.8	244.8	232.9
800	353.8	334.6	295.6	269.1	248.9	227.5	216.7	197.3
750	317.4	282.8	253.6	235.7	215.7	204.2	194.7	166.4
700	258.4	231.0	207.8	199.2	177.0	174.5	148.9	150.1
650	208.4	197.6	171.4	158.0	149.7	125.6	122.4	136.3
600	168.2	162.2	141.7	123.5	116.4	106.9	105.5	166.8
550	135.6	117.4	110.4	100.9	96.6	95.5	140.9	221.9
500	112.7	95.7	90.9	83.4	80.3	108.0		229.5
450	83.9	80.2	77.3	80.9	89.3	165.7		247.4
400	83.6	89.1	83.9					
350	90.9	103.5						
300	151.0							
LONG	-84.00	-83.78	-83.78	-83.43	-82.87	-82.59	-82.34	-82.12
LAT	-33.11	-31.26	-29.13	-27.17	-25.21	-23.19	-21.16	-19.20
QUAL	23	23	23	23	23	33	23	23

## PASS 2285 AT AGASTA, 63 315

## ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)					
	175019	175112	175205	175240	175315	175350
1000	0.478	0.510	0.532	0.512	0.514	0.497
950	0.570	0.610	0.640	0.612	0.614	0.591
900	0.690	0.759	0.806	0.755	0.759	0.721
850	0.887	0.949	1.019	0.937	0.954	0.887
800	1.183	1.203	1.330	1.194	1.216	1.143
750	1.592	1.598	1.750	1.642	1.678	1.542
700	2.147	2.040	2.170	2.197	2.301	2.141
650	2.878	2.468	2.534	2.712	3.022	3.032
600	3.514	2.856	2.939	3.218	3.646	3.965
550	4.197	3.384	3.600	3.858	4.395	4.935
500	5.237	4.155	4.441		5.401	6.264
450	6.374	5.017	5.247		6.525	7.898
400	7.249		5.903			
350						
300						
HEIGHT	SCALE HEIGHT, KM					
950	263.9	258.6	246.7	259.9	254.7	267.5
900	226.6	228.3	218.5	230.6	228.4	243.0
850	200.8	214.4	204.1	213.2	209.0	220.3
800	179.1	204.1	188.9	195.4	187.7	190.9
750	172.1	202.9	210.8	176.4	158.9	162.4
700	168.4	237.4	283.1	205.5	170.6	148.6
650	209.3	313.4	338.0	267.5	226.6	164.5
600	277.0	318.2	293.1	283.2	274.1	208.2
550	253.1	270.2	239.6	267.3	254.1	221.6
500	232.3	256.5	268.3		248.4	204.9
450	311.3	267.6	362.1		335.8	256.4
400	532.7		507.1			
350						
300						
LONG	-81.92	-81.61	-81.28	-81.09	-80.90	-80.71
LAT	-17.23	-14.25	-11.27	-9.30	-7.32	-5.35
QUAL	22	32	22	33	23	33



PASS 2285 AT QUITOE, 63 315  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	175740	175815	175850	175926	180000	180036	180111	180129
1000	0.376	0.350	0.310	0.292	0.276	0.238	0.208	0.212
950	0.435	0.400	0.359	0.338	0.313	0.276	0.241	0.244
900	0.515	0.470	0.424	0.398	0.367	0.331	0.284	0.288
850	0.615	0.560	0.504	0.473	0.439	0.402	0.338	0.345
800	0.741	0.697	0.627	0.575	0.529	0.489	0.404	0.414
750	0.936	0.888	0.785	0.729	0.658	0.603	0.513	0.522
700	1.178	1.130	0.983	0.922	0.843	0.773	0.652	0.665
650	1.511	1.464	1.249	1.190	1.067	0.978	0.827	0.837
600	1.966	1.918	1.651	1.532	1.392	1.259	1.076	1.097
550	2.873	2.738	2.358	2.144	1.873	1.634	1.386	1.421
500	4.462	4.233	3.589	3.246	2.775	2.335	2.071	2.090
450	7.422	6.933	5.759	5.136	4.450	3.596	3.261	3.235
400	11.647		9.655	8.083	7.345	5.898	5.514	5.328
350				12.262		9.747	9.103	8.896
300						12.315		
HEIGHT	SCALE HEIGHT, KM							
950	322.7	341.0	320.5	326.4	359.9	306.2	327.8	323.8
900	296.0	303.4	289.6	297.8	329.5	284.1	299.9	301.6
850	273.2	265.8	258.8	270.7	299.1	268.7	275.9	279.4
800	251.3	241.8	246.6	247.5	268.7	253.2	251.9	257.3
750	233.7	223.3	234.5	230.3	243.7	238.3	236.0	239.4
700	216.2	205.2	219.6	213.1	224.2	224.7	220.1	222.7
650	192.3	188.8	196.5	195.2	204.8	211.1	203.6	206.1
600	165.2	167.6	165.7	177.0	181.8	192.5	185.3	186.4
550	127.3	132.0	132.4	141.2	152.4	170.6	166.2	166.6
500	105.4	105.8	112.0	115.6	118.7	133.1	121.8	126.0
450	101.9	99.2	104.1	110.1	100.5	108.6	103.3	109.1
400	130.7		115.8	109.4	101.2	97.8	97.7	98.2
350				184.5		151.9	125.4	122.0
300						241.1		
LONG	-79.50	-79.31	-79.11	-78.91	-78.71	-78.49	-78.27	-78.15
LAT	7.59	9.56	11.54	13.56	15.48	17.50	19.47	20.48
QUAL	23	23	23	23	23	23	22	23

## PASS 2285 AT QUITOE, 63 315

## ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)			
	180204	180239	180314	180350
1000	0.180	0.171	0.182	0.164
950	0.207	0.195	0.206	0.187
900	0.245	0.231	0.240	0.218
850	0.294	0.278	0.284	0.257
800	0.354	0.337	0.338	0.303
750	0.428	0.407	0.403	0.361
700	0.556	0.515	0.516	0.465
650	0.714	0.659	0.666	0.596
600	0.917	0.838	0.847	0.754
550	1.213	1.106	1.115	0.988
500	1.669	1.438	1.480	1.284
450	2.596	2.246	2.199	1.836
400	4.279	3.629	3.387	2.808
350	7.282	6.094	5.488	4.665
300	10.704	9.732	8.767	7.711
HEIGHT	SCALE HEIGHT, KM			
950	334.7	349.0	383.3	361.5
900	301.7	308.9	337.0	328.7
850	281.5	288.9	309.6	303.9
800	261.4	268.9	282.1	279.2
750	241.5	248.9	254.7	255.2
700	225.6	231.0	236.2	239.3
650	209.7	213.8	219.3	223.3
600	192.4	196.2	202.4	207.4
550	171.0	176.1	180.0	188.7
500	140.4	155.9	155.2	169.4
450	108.5	116.8	123.2	134.2
400	95.0	98.9	111.6	109.5
350	100.8	99.6	100.8	97.6
300	327.1	135.5	144.4	106.8
LONG	-77.92	-77.68	-77.42	-77.15
LAT	22.45	24.41	26.38	28.40
QUAL	23	23	23	23

## PASS 2286 AT OTTAWA, 63 315

## ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	180350	180425	180524	180559	180634	180709	180744	180820
1000	0.133	0.150	0.129	0.129	0.105	0.128	0.123	0.116
950	0.154	0.172	0.148	0.148	0.123	0.148	0.143	0.136
900	0.179	0.200	0.170	0.170	0.144	0.171	0.166	0.160
850	0.208	0.231	0.198	0.197	0.169	0.198	0.193	0.186
800	0.250	0.272	0.233	0.232	0.199	0.231	0.224	0.218
750	0.300	0.320	0.275	0.274	0.239	0.270	0.266	0.257
700	0.370	0.393	0.336	0.332	0.287	0.324	0.317	0.307
650	0.464	0.489	0.412	0.403	0.357	0.395	0.382	0.371
600	0.579	0.606	0.503	0.488	0.451	0.481	0.490	0.462
550	0.764	0.821	0.646	0.644	0.565	0.634	0.627	0.609
500	1.094	1.120	0.906	0.844	0.742	0.829	0.804	0.798
450	1.629	1.656	1.283	1.172	1.028	1.116	1.103	1.089
400	2.501	2.509	1.879	1.676	1.478	1.553	1.528	1.513
350	4.252	4.074	2.910	2.493	2.178	2.235	2.206	2.200
300	7.131	6.849	4.831	3.947	3.458	3.394	3.258	3.302
HEIGHT	SCALE HEIGHT, KM							
950	335.6	346.2	354.5	356.7	310.7	343.2	331.1	312.7
900	317.2	332.8	333.9	339.1	308.6	337.0	332.5	316.0
850	298.2	317.9	312.6	320.1	297.1	327.2	323.3	314.1
800	277.1	294.8	293.5	299.3	283.3	310.3	305.7	303.1
750	256.1	271.8	274.4	278.7	267.2	293.4	284.8	291.0
700	237.3	250.0	257.3	261.9	251.0	271.4	263.5	268.4
650	220.3	226.6	240.2	245.2	235.7	246.7	242.7	241.0
600	203.3	207.2	223.1	228.1	220.7	222.3	225.0	217.5
550	178.6	178.8	199.7	202.5	205.7	203.9	207.2	200.3
500	142.2	148.9	165.2	176.8	183.7	185.5	188.8	183.0
450	124.1	129.3	139.7	154.2	152.9	167.0	167.2	163.9
400	107.9	113.4	124.9	135.2	137.3	148.3	147.4	144.6
350	91.3	98.9	107.7	119.4	121.4	131.5	132.9	131.8
300	120.0	104.8	99.8	103.8	100.4	122.7	139.0	128.5
LONG	-77.15	-76.86	-76.33	-76.00	-75.63	-75.24	-74.82	-74.35
LAT	28.40	30.36	33.65	35.59	37.54	39.49	41.42	43.42
QUAL	22	23	23	23	23	23	23	23

PASS 2286 AT OTTAWA, 63 315								
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)								
HEIGHT	TIME (UT)							
	180855	180930	181005	181040	181116	181151	181226	181301
1000	0.115	0.100	0.118	0.122	0.134	0.122	0.103	0.114
950	0.134	0.118	0.136	0.137	0.151	0.142	0.121	0.138
900	0.158	0.139	0.157	0.156	0.172	0.164	0.141	0.162
850	0.185	0.163	0.180	0.180	0.199	0.190	0.168	0.192
800	0.217	0.192	0.208	0.208	0.231	0.220	0.199	0.226
750	0.257	0.228	0.243	0.241	0.270	0.259	0.236	0.265
700	0.303	0.276	0.288	0.279	0.320	0.307	0.285	0.319
650	0.371	0.334	0.349	0.335	0.381	0.363	0.342	0.381
600	0.455	0.418	0.435	0.410	0.474	0.457	0.406	0.453
550	0.562	0.543	0.542	0.519	0.594	0.581	0.527	0.559
500	0.783	0.700	0.683	0.655	0.754	0.740	0.723	0.753
450	1.061	0.966	0.930	0.909	1.022	1.002	0.982	1.018
400	1.487	1.348	1.277	1.298	1.436	1.376	1.396	1.385
350	2.174	1.957	1.796	1.884	2.055	1.951	1.976	1.919
300	3.317	2.982	2.668	2.778	2.949	2.803	2.775	2.670
HEIGHT	SCALE HEIGHT, KM							
950	323.5	309.0	351.9	396.0	388.6	340.9	278.8	273.6
900	314.1	307.8	353.7	366.0	364.1	338.4	290.1	287.9
850	308.0	303.5	345.2	347.8	339.1	330.2	288.3	289.7
800	298.3	290.7	326.3	336.0	325.5	315.8	286.5	291.6
750	287.3	277.8	301.7	325.7	313.0	298.0	281.3	292.2
700	275.4	258.3	274.6	311.2	283.6	277.7	266.3	278.1
650	250.5	238.5	252.2	264.6	250.3	257.4	251.2	264.0
600	225.6	219.5	236.4	230.0	234.3	236.4	236.2	250.0
550	202.2	201.5	220.6	210.7	218.2	215.3	212.6	227.5
500	180.2	183.4	202.4	191.3	198.5	194.1	182.6	188.1
450	160.3	163.0	174.2	165.2	165.5	171.6	157.0	164.8
400	144.9	143.8	152.9	139.2	147.1	153.4	149.1	158.5
350	127.4	129.8	138.9	133.5	140.5	142.5	147.5	155.7
300	115.9	116.7	123.7	149.6	153.6	145.6	154.8	149.5
LONG	-73.87	-73.31	-72.73	-72.07	-71.33	-70.54	-69.62	-68.66
LAT	45.35	47.27	49.19	51.11	53.07	54.97	56.86	58.74
QUAL	23	23	23	23	22	22	22	22



PASS 2286 AT OTTAWA, 63 315

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)	
	181336	181412
1000	0.115	0.118
950	0.140	0.144
900	0.164	0.173
850	0.187	0.204
800	0.225	0.243
750	0.274	0.293
700	0.332	0.352
650	0.404	0.428
600	0.507	0.525
550	0.631	0.639
500	0.774	0.833
450	0.994	1.135
400	1.473	1.559
350	2.073	2.135
300	2.828	2.912
HEIGHT	SCALE HEIGHT, KM	
900	268.0	265.0
850	281.1	275.8
800	275.7	277.1
750	265.3	270.2
700	254.8	263.4
650	243.9	251.4
600	231.6	235.8
550	219.3	220.1
500	207.0	197.7
450	191.8	170.3
400	167.6	161.9
350	155.0	161.7
300	158.9	179.5
LONG	-67.47	-66.15
LAT	60.61	62.52
QUAL	22	22

PASS 2292 AT QUITOE, 63 316

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)			
	52457	52515	52550	52608
1000	0.236	0.227	0.245	0.206
950	0.266	0.251	0.269	0.224
900	0.293	0.275	0.299	0.244
850	0.321	0.304	0.334	0.270
800	0.358	0.344	0.377	0.301
750	0.401	0.392	0.427	0.335
700	0.449	0.444	0.485	0.383
650	0.533	0.504	0.559	0.444
600	0.652	0.602	0.691	0.527
550	0.807	0.764	0.886	0.645
500	1.084	1.062	1.215	0.809
450	1.523	1.503	1.713	1.340
400	2.224	2.222	2.530	1.987
350	3.424		3.928	
300			5.698	

HEIGHT	SCALE HEIGHT, KM			
950	472.3	518.5	497.0	621.8
900	487.5	487.7	466.9	538.1
850	488.8	459.9	436.7	480.2
800	470.8	433.5	419.5	444.5
750	442.2	407.1	405.2	415.3
700	339.0	373.3	360.3	366.5
650	299.4	339.4	291.6	317.4
600	263.2	259.9	238.7	275.7
550	227.1	199.1	191.1	214.7
500	181.8	164.5	161.8	125.6
450	139.7	140.0	140.6	126.0
400	127.8	131.0	120.3	124.7
350	112.8		119.6	
300			165.9	

LONG	-71.50	-71.39	-71.20	-71.09
LAT	-12.00	-13.01	-14.99	-16.00
QUAL	33	33	33	33

PASS 2292 AT AGASTA, 63 316

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	52939	53014	53049	53125	53200	53252	53345	53420
1000	0.138	0.144	0.144	0.190	0.208	0.146	0.143	0.130
950	0.151	0.156	0.153	0.207	0.218	0.157	0.152	0.142
900	0.161	0.166	0.160	0.217	0.228	0.168	0.161	0.152
850	0.170	0.177	0.166	0.228	0.239	0.179	0.170	0.163
800	0.183	0.188	0.175	0.242	0.255	0.190	0.182	0.173
750	0.196	0.202	0.188	0.268	0.281	0.200	0.194	0.185
700	0.212	0.222	0.211	0.296	0.316	0.215	0.209	0.197
650	0.249	0.259	0.244	0.357	0.360	0.239	0.231	0.216
600	0.324	0.319	0.298	0.436	0.486	0.287	0.267	0.242
550	0.469	0.432	0.388	0.626	0.651	0.397	0.339	0.302
500	0.831	0.677	0.585	0.904	0.918	0.590	0.492	0.440
450	1.478	1.303	0.981	1.345	1.313	0.941	0.813	0.730
400	2.609	2.339	1.646	1.827	1.893	1.482	1.362	1.218
350		3.788						
300								

HEIGHT	SCALE HEIGHT, KM							
	796.7	710.4	1111.6	974.4	1507.4	714.7	907.8	690.2
950	816.5	772.8	1533.8	1061.4	1144.1	730.4	856.3	711.3
900	775.9	819.2	1032.3	994.0	944.1	836.2	826.3	752.4
850	690.9	771.3	788.8	586.5	668.1	969.6	758.6	782.5
800	594.6	616.2	565.3	492.0	475.7	789.5	685.2	714.3
750	498.3	452.8	400.2	373.2	362.7	605.2	585.0	646.2
700	266.5	278.4	300.8	251.7	259.8	411.0	453.2	506.0
650	169.7	225.9	219.9	166.3	192.9	226.7	275.9	349.8
600	111.1	139.3	164.6	138.9	163.1	143.8	184.9	197.1
550	88.7	90.3	119.9	133.0	148.9	123.5	112.8	113.9
500	85.7	83.3	98.0	136.2	136.1	107.2	97.5	98.8
450	103.4	85.9	112.4	231.1	151.3	133.9	106.2	104.4
400		166.7						
350								
300								

LONG	-69.04	-69.37	-69.06	-68.72	-68.39	-67.83	-67.19	-66.73
LAT	-27.89	-29.81	-31.82	-33.84	-35.60	-38.71	-41.66	-43.61
QUAL	33	33	33	32	33	33	33	33

PASS 2292 AT AGASTA, 63 316		
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)		
HEIGHT	TIME (UT)	
	53456	53531
1000	0.146	0.147
950	0.158	0.159
900	0.169	0.170
850	0.179	0.180
800	0.191	0.193
750	0.204	0.208
700	0.220	0.226
650	0.242	0.251
600	0.260	0.316
550	0.357	0.419
500	0.482	0.599
450	0.783	0.957
400	1.311	1.495
350	2.027	2.165
300		
HEIGHT	SCALE HEIGHT, KM	
950		845.2
900	816.6	794.1
850	806.6	780.7
800	781.2	742.1
750	678.5	645.8
700	567.9	508.4
650	455.2	371.3
600	321.8	255.2
550	189.1	168.6
500	140.1	122.6
450	99.5	111.5
400	104.0	120.7
350	142.9	184.7
300		
LONG	-66.22	-65.65
LAT	-45.61	-47.55
QUAL	33	21

PASS 2292 AT SOLANT, 63 316								
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)								
HEIGHT	TIME (UT)							
	52921	53107	53252	53345	53420	53455	53530	53606
1000	0.126	0.137	0.149	0.148	0.137	0.149	0.151	0.142
950	0.135	0.144	0.157	0.156	0.143	0.160	0.159	0.148
900	0.142	0.151	0.163	0.163	0.151	0.169	0.168	0.157
850	0.149	0.157	0.171	0.171	0.160	0.176	0.178	0.169
800	0.160	0.165	0.179	0.181	0.169	0.185	0.190	0.181
750	0.175	0.173	0.192	0.193	0.180	0.200	0.204	0.194
700	0.195	0.189	0.208	0.210	0.193	0.219	0.223	0.210
650	0.243	0.218	0.230	0.235	0.211	0.243	0.251	0.236
600	0.349	0.275	0.279	0.284	0.240	0.278	0.292	0.271
550	0.563	0.381	0.419	0.368	0.296	0.365	0.393	0.359
500	0.872		0.667	0.543	0.447	0.494	0.595	0.541
450	1.494		1.120	0.890	0.785	0.803	0.914	0.883
400	2.615			1.491	1.357	1.413	1.535	1.475
350	4.325						2.193	2.203
300								
HEIGHT	SCALE HEIGHT, KM							
	950	900	850	800	750	700	650	600
950	978.0		1152.4	1094.2	1055.6		1024.8	1010.3
900	942.6	1202.9	1174.2	1027.7	921.1	1050.9	896.6	824.4
850	841.9	1135.1	1033.7	945.6	843.1	986.9	810.8	738.7
800	640.5	967.2	889.3	842.7	798.4	835.6	733.3	702.5
750	493.3	786.6	724.6	668.2	753.7	632.3	610.9	640.8
700	369.1	524.5	562.5	525.3	639.1	497.9	490.4	509.8
650	210.9	313.2	412.1	390.4	463.8	413.9	393.4	401.2
600	111.5	190.4	178.4	271.6	343.1	318.7	284.1	294.0
550	109.5	136.5	114.8	169.7	204.3	177.7	140.1	153.4
500	106.6		103.4	109.6	100.5	138.5	119.7	110.4
450	91.2		107.5	99.6	87.9	96.5	105.7	101.2
400	88.4			104.0	107.0	92.2	115.1	106.2
350	130.2						214.4	174.5
300								
LONG	-69.78	-68.89	-67.83	-67.19	-66.73	-66.23	-65.67	-65.06
LAT	-26.87	-32.83	-38.71	-41.66	-43.61	-45.55	-47.49	-49.48
QUAL	33	33	33	33	23	23	22	22

PASS 2292 AT SULANT, 63 316  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	53659	53734	53809	53920	53955	54030	54105	54140
1000	0.149	0.141	0.139	0.111	0.097	0.074	0.067	0.043
950	0.159	0.148	0.150	0.123	0.104	0.080	0.074	0.050
900	0.168	0.155	0.159	0.134	0.110	0.086	0.081	0.056
850	0.179	0.163	0.169	0.145	0.118	0.093	0.088	0.062
800	0.191	0.171	0.181	0.158	0.129	0.102	0.096	0.068
750	0.205	0.181	0.195	0.175	0.142	0.114	0.106	0.077
700	0.225	0.194	0.212	0.203	0.167	0.131	0.127	0.091
650	0.253	0.222	0.245	0.243	0.200	0.154	0.155	0.111
600	0.296	0.264	0.300	0.300	0.255	0.183	0.193	0.136
550	0.390	0.346	0.409	0.408	0.343	0.242	0.265	0.179
500	0.594	0.531	0.591	0.606	0.508	0.370	0.376	0.244
450	0.960	0.888	0.990	0.972	0.837	0.605	0.628	0.391
400	1.625	1.471	1.620	1.543	1.348	1.091	1.101	0.672
350	2.277	2.167	2.268			1.750	1.675	1.201
300								

HEIGHT	SCALE HEIGHT, KM							
	950	853.3	1090.4			761.6	645.6	
900	814.5	1042.4	808.1	612.6	727.4	628.1	579.2	483.7
850	774.6	952.7	786.8	586.5	644.5	574.5	557.6	471.3
800	694.1	861.9	708.6	513.7	528.7	503.2	476.2	420.9
750	607.1	771.1	590.1	397.6	410.5	394.6	382.2	355.0
700	507.4	594.5	464.1	335.2	336.9	332.7	322.3	309.0
650	404.9	322.6	338.0	279.4	265.0	292.3	266.4	270.2
600	287.6	247.6	226.2	222.2	207.4	251.9	211.1	231.3
550	141.7	169.5	151.2	159.3	160.6	180.4	169.6	187.6
500	112.7	111.1	119.2	118.7	119.2	111.6	127.1	141.2
450	97.6	99.9	99.5	105.1	99.1	94.1	94.1	109.0
400	116.8	107.2	113.0	132.4	117.8	89.5	104.8	89.4
350	238.9	194.5	262.5			146.0	168.2	96.0
300								

LONG	-64.03	-63.23	-62.38	-60.26	-59.04	-57.56	-55.97	-53.99
LAT	-52.39	-54.30	-56.21	-60.04	-61.90	-63.74	-65.58	-67.37
QUAL	22	32	33	23	33	33	33	33

## PASS 2292 AT SOLANT, 63 316

## ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)					
	54215	54250	54326	54401	54436	54511
1000	0.038	0.030	0.027	0.046	0.068	0.123
950	0.042	0.035	0.033	0.056	0.083	0.142
900	0.047	0.041	0.040	0.069	0.100	0.166
850	0.052	0.048	0.049	0.085	0.120	0.196
800	0.059	0.056	0.061	0.103	0.144	0.230
750	0.070	0.068	0.075	0.129	0.172	0.270
700	0.087	0.083	0.095	0.160	0.211	0.325
650	0.108	0.102	0.119	0.202	0.256	0.393
600	0.135	0.132	0.153	0.257	0.320	0.483
550	0.185	0.169	0.201	0.335	0.399	0.599
500	0.248	0.227	0.269	0.444	0.512	0.783
450	0.390	0.328	0.376	0.617	0.682	1.068
400	0.669	0.504	0.541	0.873	0.933	1.513
350	1.181	0.811	0.813	1.272	1.344	2.212
300			1.220	1.832	2.012	3.148
HEIGHT	SCALE HEIGHT, KM					
950	466.9	302.4	239.4	243.9		322.0
900	458.9	315.9	240.7	239.7	264.5	312.4
850	409.0	301.9	242.1	239.9	266.1	305.2
800	338.3	287.3	234.5	240.2	267.7	299.0
750	285.3	267.6	225.0	232.7	265.5	292.9
700	259.1	246.3	216.3	224.2	253.6	276.4
650	232.9	225.2	207.9	213.2	241.7	259.2
600	206.5	206.5	196.1	200.7	230.3	236.5
550	176.3	187.8	180.7	184.2	218.8	211.2
500	146.2	164.8	165.4	166.0	188.2	178.9
450	111.1	135.5	150.2	154.0	168.6	155.1
400	90.3	116.4	133.9	140.7	152.2	138.4
350	106.1	100.9	125.5	135.2	132.1	134.3
300			136.9	149.4	126.4	162.2
LONG	-51.74	-49.12	-45.70	-42.07	-37.00	-31.25
LAT	-69.14	-70.87	-72.59	-74.22	-75.70	-77.10
QUAL	33	33	33	33	33	33

PASS 2298 AT AGASTA, 63 316  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	163720	163755	163830	163906	163941	164016	164051	164127
1000	0.195	0.197	0.222	0.237	0.261	0.295	0.314	0.362
950	0.212	0.217	0.244	0.262	0.292	0.332	0.359	0.409
900	0.232	0.241	0.270	0.294	0.334	0.382	0.426	0.489
850	0.257	0.270	0.302	0.333	0.388	0.448	0.511	0.591
800	0.289	0.303	0.343	0.379	0.454	0.528	0.615	0.734
750	0.338	0.352	0.401	0.449	0.549	0.651	0.782	0.975
700	0.401	0.418	0.490	0.568	0.715	0.868	1.126	1.444
650	0.490	0.517	0.610	0.746	0.978	1.226	1.743	2.272
600	0.609	0.662	0.847	1.034	1.401	2.039	3.017	3.261
550	0.852	0.939	1.264	1.620	2.475	3.773	4.588	
500	1.244	1.501	2.150	2.895	4.794	6.555	5.848	
450	2.085	2.644	3.953	5.940	9.297			
400	3.827	4.878	7.610	11.637				
350	6.596	8.490						
300	9.815	12.273						
HEIGHT	SCALE HEIGHT, KM							
950	542.2	474.1	511.6	455.5	410.5	377.6	330.2	351.5
900	494.1	445.3	461.4	410.3	363.7	332.7	290.4	300.9
850	442.3	417.4	417.4	374.9	324.2	300.0	259.3	252.7
800	388.8	389.4	359.4	339.6	287.1	268.3	230.4	206.1
750	331.9	325.6	286.8	276.2	242.2	227.1	195.1	159.8
700	277.8	264.4	241.5	198.9	183.2	169.9	146.3	118.8
650	239.1	225.6	198.5	168.3	153.2	126.7	97.7	117.9
600	199.1	183.0	148.8	136.0	118.4	88.2	99.4	196.4
550	148.9	130.6	110.1	99.4	81.4	81.1	168.0	
500	118.9	97.5	89.6	79.1	73.8	116.2	241.2	
450	86.4	84.9	76.3	63.3	93.1			
400	82.7	86.5	79.1	109.0				
350	103.1	97.5						
300	184.3	227.7						
LONG	-68.90	-68.58	-68.28	-67.99	-67.73	-67.48	-67.23	-67.00
LAT	-33.46	-31.50	-29.54	-27.52	-25.56	-23.60	-21.64	-19.61
QUAL	33	33	33	33	33	33	33	32



PASS 2298 AT AGASTA, 63 316								
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)								
HEIGHT	TIME (UT)							
	164204	164237	164312	164347	164423	164458	164533	164608
1000	0.374	0.366	0.381	0.370	0.363	0.374	0.348	0.346
950	0.425	0.426	0.446	0.435	0.424	0.425	0.397	0.391
900	0.514	0.513	0.538	0.531	0.512	0.498	0.468	0.450
850	0.621	0.624	0.660	0.651	0.635	0.592	0.551	0.526
800	0.813	0.821	0.908	0.877	0.792	0.770	0.682	0.620
750	1.136	1.162	1.294	1.230	1.093	1.056	0.915	0.785
700	1.695	1.742	1.875	1.788	1.594	1.523	1.294	1.054
650	2.462	2.318	2.354	2.388	2.327	2.297	1.973	1.523
600	2.971		2.627	2.727	2.992	3.336	3.136	2.413
550	3.432		3.212	3.284			4.822	4.111
500	4.224		3.926	4.118			6.692	6.950
450	5.014		4.724	5.020			8.534	
400	5.671		5.471	5.831				
350								
300								
HEIGHT	SCALE HEIGHT, KM							
	348.1	299.3	290.3	280.1	295.7	358.0	344.1	375.4
950	348.1	299.3	290.3	280.1	295.7	358.0	344.1	375.4
900	275.6	261.0	244.2	242.5	244.7	293.0	311.9	333.0
850	226.4	225.1	202.1	208.6	221.8	244.4	276.0	300.3
800	180.4	162.0	163.2	172.7	198.8	193.0	200.6	267.6
750	140.3	135.9	140.5	139.4	153.6	152.1	163.0	203.3
700	125.6	143.1	154.8	146.3	132.4	129.3	133.2	157.9
650	199.5	273.7	394.0	278.8	153.2	124.9	112.1	124.9
600	341.5		335.8	364.7	278.0	159.6	110.7	100.1
550	272.3		244.9	225.9			130.5	93.0
500	266.0		258.2	235.4			181.0	105.2
450	334.3		300.4	292.2			220.6	
400	623.9		416.0	412.3				
350								
300								
LONG	-66.77	-66.57	-66.36	-66.16	-65.96	-65.77	-65.58	-65.40
LAT	-17.53	-15.68	-13.71	-11.74	-9.71	-7.74	-5.77	-3.80
QUAL	21	22	22	22	23	23	33	33

PASS 2299 AT QUITOE, 63 316

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)						
	164746	164857	164932	165007	165100	165135	165228
1000	0.281	0.238	0.237	0.241	0.207	0.219	0.212
950	0.322	0.270	0.270	0.273	0.236	0.241	0.238
900	0.377	0.317	0.316	0.320	0.276	0.275	0.271
850	0.447	0.379	0.375	0.380	0.326	0.320	0.313
800	0.540	0.456	0.449	0.453	0.386	0.376	0.362
750	0.672	0.562	0.573	0.556	0.465	0.450	0.439
700	0.833	0.723	0.731	0.708	0.596	0.569	0.540
650	1.059	0.921	0.922	0.894	0.759	0.715	0.663
600	1.348	1.200	1.211	1.162	0.973	0.912	0.829
550	1.962	1.573	1.573	1.503	1.264	1.182	1.051
500	3.135	2.312	2.400	2.222	1.772	1.590	1.365
450	5.697	3.755	3.898	3.471	2.738	2.453	2.040
400	10.523	6.958	6.759			4.020	3.209
350		11.789	11.040			6.752	5.168
300						10.114	7.478
HEIGHT	SCALE HEIGHT, KM						
950	342.1	350.5	353.6	349.5	358.3	461.4	404.2
900	314.6	319.5	321.9	325.0	325.8	392.7	370.0
850	287.1	293.5	290.2	300.5	300.7	350.7	339.0
800	262.7	267.4	258.5	276.0	275.7	308.7	308.0
750	244.6	243.9	240.3	252.6	252.3	270.9	285.1
700	226.5	225.0	222.9	230.6	234.3	247.4	264.7
650	201.7	206.0	205.4	208.6	216.4	223.8	244.3
600	175.2	184.7	182.6	187.0	196.3	201.5	221.8
550	135.0	162.3	159.1	165.5	173.5	180.6	197.8
500	98.4	124.1	116.1	127.0	138.3	150.3	167.6
450	76.9	79.4	93.8	97.9	102.3	110.2	119.9
400	88.5	92.3	94.5			94.3	107.7
350		121.6	124.7			107.4	114.8
300						196.7	179.4
LONG	-64.88	-64.52	-64.32	-64.13	-63.84	-63.64	-63.32
LAT	1.73	5.71	7.68	9.65	12.64	14.61	17.59
QUAL	23	23	23	23	23	23	23

PASS 2299 AT QUITOE, 63 316  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)			
	165246	165321	165339	165356
1000	0.209	0.200	0.217	0.219
950	0.233	0.224	0.242	0.243
900	0.265	0.253	0.275	0.276
850	0.305	0.288	0.315	0.320
800	0.352	0.336	0.363	0.375
750	0.426	0.401	0.433	0.439
700	0.537	0.479	0.516	0.533
650	0.673	0.584	0.622	0.652
600	0.838	0.721	0.767	0.797
550	1.079	0.884	0.939	1.018
500	1.372	1.157	1.267	1.291
450	1.982	1.672	1.817	1.881
400		2.491		2.700
350		3.863		3.815
300		5.536		5.084
HEIGHT	SCALE HEIGHT, KM			
950	432.0	414.7	418.6	452.9
900	384.4	383.3	389.1	394.5
850	344.5	351.8	359.6	364.9
800	304.5	324.1	330.8	335.2
750	277.2	298.8	306.5	305.6
700	259.3	273.5	282.1	279.5
650	241.4	252.3	258.0	254.5
600	223.2	233.3	234.4	229.4
550	200.1	214.4	210.8	203.8
500	176.7	180.9	171.9	178.2
450	131.6	131.9	138.4	144.1
400		120.7		142.5
350		125.0		153.8
300		253.3		306.6
LONG	-63.21	-62.98	-62.86	-62.75
LAT	18.60	20.57	21.58	22.54
QUAL	23	22	23	32

PASS 2299 AT OTTAWA, 63 316

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)					
	170139	170214	170250	170325	170400	170435
1000	0.090	0.089	0.112	0.112	0.097	0.100
950	0.108	0.108	0.132	0.132	0.114	0.120
900	0.128	0.128	0.152	0.150	0.134	0.141
850	0.152	0.152	0.178	0.175	0.158	0.166
800	0.180	0.181	0.210	0.204	0.188	0.195
750	0.213	0.216	0.249	0.240	0.223	0.229
700	0.254	0.255	0.292	0.283	0.267	0.273
650	0.308	0.314	0.358	0.331	0.326	0.324
600	0.371	0.385	0.440	0.397	0.397	0.381
550	0.443	0.467	0.537	0.525	0.479	0.507
500	0.612	0.562	0.648	0.685	0.594	0.674
450	0.850	0.800	0.864	0.941	0.896	0.898
400	1.189	1.168	1.227	1.349	1.297	1.261
350	1.650	1.698	1.743	2.006	1.847	1.748
300	2.480	2.661	2.564	2.974	2.708	2.442

HEIGHT	SCALE HEIGHT, KM					
900	286.3	272.0	309.0	340.4	294.7	293.6
850	290.5	280.6	306.1	322.2	290.2	296.1
800	286.4	276.2	296.7	305.8	284.5	298.7
750	282.2	271.9	287.3	293.7	278.8	294.4
700	272.2	267.1	277.8	281.7	270.1	277.3
650	255.8	253.6	264.4	269.6	254.5	260.2
600	239.5	240.1	250.1	253.2	238.9	243.0
550	223.2	226.6	235.9	219.4	223.4	217.0
500	194.0	213.1	221.6	185.6	204.2	190.4
450	162.4	177.1	188.1	157.0	164.2	168.2
400	148.0	133.4	142.3	134.3	137.0	159.8
350	139.8	124.5	137.9	127.5	137.3	154.9
300	132.7	109.5	133.0	145.3	138.9	158.8

LONG	-57.85	-57.23	-56.52	-55.75	-54.93	-53.94
LAT	48.29	50.21	52.17	54.07	55.97	57.85
QUAL	22	22	23	23	23	22

PASS 2306 AT RESLUT, 63 317

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	53509	53527	53602	53620	53655	53712	53730	53805
1000	0.056	0.063	0.014	0.006	0.009	0.015	0.014	0.005
950	0.067	0.079	0.017	0.009	0.013	0.019	0.016	0.008
900	0.080	0.096	0.020	0.012	0.016	0.023	0.020	0.011
850	0.096	0.117	0.023	0.017	0.021	0.030	0.026	0.015
800	0.117	0.144	0.026	0.024	0.029	0.038	0.034	0.020
750	0.143	0.178	0.034	0.033	0.039	0.050	0.043	0.027
700	0.182	0.227	0.046	0.044	0.051	0.064	0.054	0.034
650	0.233	0.291	0.063	0.057	0.066	0.088	0.074	0.051
600	0.295	0.374	0.086	0.073	0.096	0.131	0.109	0.074
550	0.401	0.513	0.115	0.120	0.139	0.186	0.163	0.112
500	0.537	0.704	0.175	0.179	0.217	0.278	0.242	0.168
450	0.737	0.999	0.273	0.284	0.327	0.423	0.362	0.269
400	1.065	1.461	0.447	0.457	0.520	0.661	0.567	0.433
350	1.544	2.101	0.754	0.751	0.827	1.014	0.885	0.705
300				1.222	1.319	1.497	1.368	1.141
HEIGHT	SCALE HEIGHT, KM							
950	271.7	231.2			183.9	229.1	270.4	
900	269.0	243.3	404.7		177.9	223.4	232.2	
850	266.8	246.1	349.1		169.2	194.8	194.9	
800	247.3	237.9	293.7		170.5	186.5	192.5	
750	225.3	213.8	240.1	155.2	171.8	181.1	190.0	160.6
700	213.7	204.9	186.6	159.4	173.2	175.8	187.6	165.4
650	203.2	196.9	163.3	163.6	174.5	166.6	159.1	152.3
600	192.6	187.5	156.7	165.8	153.8	151.7	127.5	133.8
550	181.6	169.9	150.1	141.5	125.2	136.8	129.3	122.8
500	170.5	152.7	128.7	117.2	120.5	125.9	125.8	116.6
450	151.4	138.5	107.7	110.3	118.1	118.7	117.9	109.9
400	136.5	135.0	99.1	104.8	112.6	116.3	116.0	105.4
350	152.5	157.3	99.8	102.4	106.7	123.1	115.3	104.8
300				103.8	109.2	144.9	113.7	119.0
LONG	-123.09	-120.36	-115.16	-113.23	-109.48	-108.01	-106.60	-103.98
LAT	76.64	75.89	74.43	73.59	71.96	71.14	70.25	68.52
QUAL	33	33	33	33	33	33	33	33

PASS 2306 AT RESLUT, 63 317

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	53840	53858	53915	53933	53951	54009	54026	54044
1000	0.008	0.005	0.007	0.004	0.011	0.016	0.012	0.008
950	0.011	0.006	0.009	0.005	0.015	0.020	0.016	0.011
900	0.012	0.007	0.010	0.006	0.019	0.025	0.019	0.014
850	0.013	0.010	0.012	0.008	0.023	0.031	0.023	0.018
800	0.016	0.013	0.015	0.010	0.029	0.038	0.029	0.022
750	0.021	0.018	0.021	0.015	0.036	0.047	0.035	0.026
700	0.030	0.026	0.031	0.021	0.043	0.058	0.042	0.031
650	0.042	0.037	0.043	0.029	0.056	0.072	0.052	0.036
600	0.061	0.056	0.062	0.042	0.073	0.093	0.070	0.044
550	0.087	0.082	0.086	0.060	0.093	0.120	0.093	0.055
500	0.120	0.125	0.115	0.090	0.133	0.165	0.121	0.072
450	0.175	0.189	0.175	0.139	0.186	0.230	0.155	0.099
400	0.266	0.312	0.267	0.225	0.286	0.339	0.221	0.141
350	0.423	0.513	0.412	0.360	0.442	0.496	0.306	0.209
300	0.726	0.788	0.626		0.657		0.486	0.342
HEIGHT	SCALE HEIGHT, KM							
950		240.3	336.1	366.7				
900	612.3	204.4	292.2	271.6			244.4	
850	475.9	189.6	253.2	214.7	230.0	238.0	244.8	
800	249.6	174.9	214.3	169.9	228.3	240.6	241.9	270.4
750	157.1	160.5	190.6	163.1	223.9	243.2	233.9	285.8
700	142.8	146.6	173.2	156.3	219.5	228.5	225.9	301.1
650	140.3	134.6	155.8	149.6	205.9	211.2	217.8	271.7
600	141.0	131.9	149.0	142.1	191.6	197.0	209.0	239.7
550	142.3	129.2	147.8	134.7	177.4	182.7	200.1	211.3
500	143.6	122.0	146.6	124.9	157.9	164.2	191.3	184.1
450	137.1	112.8	129.2	113.2	138.4	142.9	182.4	159.0
400	120.9	100.1	118.2	109.0	119.7	130.4	157.5	137.0
350	104.4	111.7	115.6	104.6	123.2	144.2	132.4	119.0
300	90.6	128.6	117.3		133.7		113.5	100.7
LONG	-101.94	-100.89	-100.09	-99.28	-98.47	-97.75	-97.15	-96.51
LAT	66.74	65.82	64.93	63.99	63.05	62.10	61.20	60.25
QUAL	33	33	33	33	33	33	33	33

PASS 2306 AT AGASTA, 63 317

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)					
	60732	60821	61010	61103	61213	61248
1000	0.158	0.164	0.170	0.175	0.170	0.185
950	0.169	0.173	0.182	0.182	0.181	0.194
900	0.176	0.182	0.193	0.191	0.193	0.205
850	0.185	0.192	0.205	0.201	0.205	0.216
800	0.195	0.202	0.218	0.212	0.218	0.229
750	0.206	0.214	0.235	0.225	0.231	0.243
700	0.218	0.230	0.258	0.241	0.249	0.261
650	0.239	0.254	0.286	0.267	0.276	0.286
600	0.266	0.297	0.322	0.322	0.310	0.320
550	0.323	0.359	0.467	0.429	0.409	0.414
500	0.451	0.503	0.658	0.636	0.589	0.614
450	0.866	0.803	1.071	1.031	0.997	1.073
400		1.383	1.859	1.826	1.668	1.696
350		2.215	2.781	2.674		2.291
300						

HEIGHT	SCALE HEIGHT, KM					
950		1034.6		1134.1		992.2
900	1116.7	980.6	831.1	999.5	804.3	932.5
850	999.6	967.6	825.9	938.2	820.4	884.9
800	894.6	920.0	689.7	909.9	761.3	835.8
750	799.7	761.5	581.7	772.2	689.0	753.6
700	704.7	592.5	499.8	582.0	590.0	625.6
650	558.7	414.1	417.9	411.9	466.0	486.2
600	399.4	319.0	333.9	267.1	342.0	343.9
550	249.9	224.7	157.7	161.6	188.9	186.3
500	119.5	130.1	126.6	118.6	120.1	115.2
450	67.5	100.7	98.3	93.8	91.7	96.5
400		98.7	96.0	101.9	119.3	127.4
350		134.9	220.6	196.6		349.7
300						

LONG	-80.75	-80.32	-79.23	-78.60	-77.64	-77.10
LAT	-29.64	-32.39	-38.50	-41.46	-45.34	-47.28
QUAL	23	22	32	33	32	21

PASS 2306 AT SOLANT, 63 317								
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)								
HEIGHT	TIME (UT)							
	60730	60825	61010	61103	61213	61249	61430	61505
1000	0.146	0.153	0.160	0.157	0.163	0.162	0.105	0.116
950	0.155	0.161	0.170	0.167	0.173	0.173	0.112	0.124
900	0.162	0.169	0.181	0.176	0.184	0.183	0.121	0.130
850	0.170	0.177	0.192	0.186	0.195	0.193	0.132	0.138
800	0.178	0.188	0.205	0.196	0.207	0.206	0.146	0.149
750	0.187	0.200	0.222	0.209	0.219	0.221	0.162	0.167
700	0.198	0.215	0.249	0.226	0.235	0.238	0.179	0.190
650	0.219	0.240	0.285	0.252	0.263	0.261	0.210	0.215
600	0.247	0.275	0.348	0.303	0.301	0.296	0.253	0.245
550	0.289	0.346	0.450	0.390	0.383	0.374	0.321	0.312
500	0.379	0.481	0.644	0.583	0.553	0.550	0.459	0.465
450	0.655	0.735	1.041	0.954	0.951	0.916	0.778	0.727
400	1.256	1.233	1.751	1.739	1.637	1.607	1.515	1.357
350	2.018	2.027	2.654		2.252	2.239	2.465	2.334
300								
HEIGHT	SCALE HEIGHT, KM							
950	1070.8	1001.3	794.3	932.1			684.5	941.9
900	1091.6	981.0	810.6	926.0		866.1	609.3	868.9
850	1048.0	916.1	761.2	905.1	856.6	827.8	554.6	727.9
800	950.2	836.4	657.8	849.1	851.3	759.7	509.9	599.6
750	822.5	710.4	538.1	708.5	734.0	682.5	450.1	477.8
700	694.8	577.2	436.0	551.4	576.0	590.4	389.0	393.8
650	559.1	446.9	335.4	388.2	446.1	476.6	327.2	347.5
600	423.2	320.4	248.4	268.4	316.1	334.7	265.3	301.1
550	284.3	214.2	172.7	172.5	206.8	192.1	194.4	203.0
500	152.8	143.5	124.7	117.2	112.6	117.3	122.0	118.3
450	85.2	107.7	101.4	89.8	89.9	89.5	86.8	98.7
400	83.9	97.2	105.1	103.5	112.0	109.8	83.4	79.5
350	143.5	114.5	180.5		335.0	405.5	136.7	128.0
300								
LONG	-80.76	-80.29	-79.23	-78.60	-77.64	-77.08	-75.17	-74.39
LAT	-29.52	-32.61	-38.50	-41.46	-45.34	-47.34	-52.89	-54.80
QUAL	33	23	33	33	32	22	22	21



PASS 2306 AT SOLANT, 63 317  
 ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)
	61541
1000	0.109
950	0.118
900	0.128
850	0.140
800	0.155
750	0.172
700	0.192
650	0.225
600	0.271
550	0.342
500	0.521
450	0.876
400	1.555
350	2.502
300	
HEIGHT	SCALE HEIGHT, KM
950	671.3
900	594.5
850	540.6
800	497.8
750	440.2
700	376.8
650	316.9
600	257.6
550	192.0
500	109.9
450	92.1
400	92.5
350	164.4
300	
LONG	-73.45
LAT	-56.76
QUAL	21

PASS 2312 AT AGASTA, 63 317								
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)								
HEIGHT	TIME (UT)							
	171335	171411	171446	171515	171556	171649	171742	171835
1000	0.154	0.167	0.190	0.215	0.229	0.257	0.305	0.333
950	0.169	0.183	0.207	0.234	0.250	0.284	0.344	0.377
900	0.186	0.205	0.228	0.257	0.273	0.320	0.392	0.429
850	0.208	0.229	0.253	0.284	0.301	0.364	0.453	0.496
800	0.235	0.258	0.286	0.321	0.343	0.416	0.527	0.577
750	0.281	0.298	0.333	0.368	0.398	0.504	0.632	0.738
700	0.339	0.349	0.391	0.439	0.482	0.624	0.802	0.984
650	0.414	0.426	0.478	0.537	0.591	0.798	1.069	1.391
600	0.518	0.527	0.588	0.698	0.795	1.101	1.590	2.249
550	0.645	0.697	0.800	0.976	1.113	1.679	2.716	3.792
500	0.912	0.986	1.188	1.502	1.701	2.832	5.021	5.998
450	1.371	1.502	1.903	2.513	2.902	5.388	8.919	7.892
400	2.177	2.462	3.329	4.345	5.205	10.308	12.348	
350	3.570	4.212	5.650		8.859			
300	5.797	6.922	8.568					
HEIGHT	SCALE HEIGHT, KM							
	503.3	474.4	534.2	543.7	549.3	449.7	387.9	395.0
950	503.3	474.4	534.2	543.7	549.3	449.7	387.9	395.0
900	459.3	439.6	478.6	493.7	503.8	401.7	354.2	350.3
850	407.4	413.5	432.0	451.3	445.1	362.1	330.4	314.4
800	358.4	387.5	384.3	392.7	376.5	322.5	306.7	278.4
750	320.8	340.1	335.5	330.9	305.4	270.6	252.5	219.0
700	283.2	286.2	287.5	280.1	258.4	221.0	192.7	162.9
650	248.2	249.2	250.4	233.5	214.2	186.4	160.1	127.0
600	221.9	215.8	213.2	184.7	172.9	142.8	109.9	97.7
550	195.4	175.9	151.7	137.4	136.6	106.3	87.2	97.5
500	134.7	135.0	117.6	106.6	105.5	89.8	78.9	141.6
450	117.1	111.6	97.4	94.0	88.5	72.2	106.9	237.2
400	103.5	95.3	89.5	89.8	90.2	96.8	264.0	
350	97.9	94.6	101.4		100.2			
300	118.9	125.9	162.8					
LONG	-80.92	-80.55	-80.21	-79.95	-79.60	-79.19	-78.81	-78.45
LAT	-37.20	-35.19	-33.23	-31.61	-29.31	-26.35	-23.37	-20.39
QUAL	22	22	23	23	33	33	33	33

PASS 2312 AT AGASTA, 63 317

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	171906	171946	172018	172112	172150	172224	172334	172413
1000	0.351	0.372	0.376	0.402	0.397	0.384	0.403	0.367
950	0.402	0.428	0.438	0.463	0.463	0.445	0.458	0.430
900	0.472	0.510	0.533	0.551	0.558	0.536	0.536	0.509
850	0.560	0.613	0.663	0.666	0.683	0.657	0.634	0.608
800	0.679	0.742	0.827	0.872	0.857	0.807	0.751	0.730
750	0.871	1.026	1.138	1.216	1.181	1.075	0.975	0.901
700	1.204	1.459	1.621	1.719	1.672	1.522	1.284	1.173
650	1.791	2.135	2.299	2.369	2.383	2.221	1.797	1.597
600	2.807	3.104	2.967	3.055	3.324	3.315	2.700	2.385
550	4.177	3.989	3.576	3.724	4.233	4.668	4.286	3.838
500	5.369	4.751	4.337	4.538	5.033	5.958	6.804	6.474
450		5.662	5.257	5.469		7.034		10.638
400		6.534	6.181	6.218				
350								
300								
HEIGHT	SCALE HEIGHT, KM							
950	340.1	325.1	288.8	316.1	297.9	301.4	345.9	307.6
900	303.2	277.7	239.9	269.9	259.6	258.6	310.9	292.7
850	271.2	246.4	219.9	229.3	228.9	235.6	277.0	274.1
800	232.9	214.7	199.8	178.1	196.7	213.6	243.2	250.4
750	180.2	170.3	157.5	146.1	159.4	171.0	208.4	221.7
700	147.7	139.5	142.5	149.5	143.1	140.7	173.6	185.9
650	117.9	130.2	166.4	177.9	145.5	127.4	138.8	146.8
600	111.5	161.5	240.6	226.1	175.9	130.3	117.4	115.0
550	160.7	255.5	262.0	250.2	250.2	173.9	104.0	99.2
500	242.5	284.3	258.8	256.6	344.9	255.3	109.5	96.2
450		306.5	282.5	321.6		366.5		131.0
400		488.0	392.4	528.8				
350								
300								
LONG	-78.25	-78.01	-77.81	-77.50	-77.29	-77.11	-76.74	-76.53
LAT	-18.65	-16.41	-14.61	-11.57	-9.43	-7.52	-3.57	-1.38
QUAL	33	22	22	32	32	32	23	33

PASS 2312 AT AGASTA, 63 317

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)	
	172446	172524
1000	0.371	0.348
950	0.429	0.400
900	0.504	0.467
850	0.598	0.552
800	0.714	0.659
750	0.851	0.785
700	1.095	1.024
650	1.450	1.359
600	2.013	1.873
550	3.065	2.764
500	5.050	4.495
450	8.661	7.528
400		
350		
300		

HEIGHT	SCALE HEIGHT, KM	
	172446	172524
950	321.6	338.2
900	302.6	313.5
850	283.9	289.4
800	265.7	266.1
750	247.5	242.6
700	203.9	202.8
650	168.7	170.3
600	137.1	143.7
550	110.0	116.7
500	92.7	97.7
450	99.5	99.7
400		
350		
300		

LONG	-76.36	-76.16
LAT	0.47	2.61
QUAL	33	33

PASS 2312 AT QUITOE, 63 317

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	172321	172356	172432	172507	172542	172617	172652	172728
1000	0.377	0.363	0.373	0.348	0.332	0.298	0.291	0.281
950	0.436	0.424	0.433	0.399	0.378	0.340	0.333	0.319
900	0.514	0.507	0.516	0.474	0.447	0.405	0.391	0.371
850	0.617	0.611	0.622	0.574	0.531	0.487	0.462	0.440
800	0.743	0.758	0.760	0.703	0.630	0.584	0.552	0.524
750	0.956	0.939	0.930	0.860	0.786	0.697	0.696	0.624
700	1.349	1.156	1.130	1.044	1.019	0.907	0.883	0.768
650	1.939	1.626	1.579	1.390	1.331	1.188	1.159	1.041
600	2.951	2.529	2.278	1.962	1.782	1.649	1.523	1.405
550	4.607	4.052	3.563	2.876	2.661	2.417	2.241	1.954
500	6.940	6.741	5.859	4.841	4.263	3.859	3.496	2.980
450	9.936	10.503	9.659	8.086	7.133	6.546	5.831	4.970
400			14.583			11.201		8.326
350								
300								
HEIGHT	SCALE HEIGHT, KM							
950	315.2	289.9	306.3	315.8	345.1	333.1	336.8	352.0
900	280.9	269.4	282.2	284.2	296.8	294.4	309.2	318.3
850	255.8	248.9	262.6	256.0	275.8	271.2	278.8	289.9
800	230.7	231.9	244.7	243.4	254.9	255.1	250.3	269.9
750	199.5	214.9	227.1	230.9	231.6	239.0	228.5	249.8
700	159.9	197.9	209.6	218.3	206.7	208.4	206.6	226.2
650	132.0	158.5	165.5	185.1	180.5	176.2	184.1	192.7
600	115.5	111.9	127.8	138.8	151.4	149.1	161.4	161.3
550	118.1	96.5	104.5	119.2	117.5	121.0	124.0	139.4
500	127.1	105.6	101.9	97.0	102.5	100.7	107.3	108.1
450	171.2	125.1	98.6	99.5	99.3	93.7	90.8	96.0
400			145.0			117.0		102.3
350								
300								
LONG	-76.81	-76.62	-76.43	-76.25	-76.07	-75.88	-75.69	-75.50
LAT	-4.31	-2.34	-0.31	1.65	3.63	5.60	7.57	9.60
QUAL	23	23	23	23	23	23	23	23

PASS 2312 AT QUITOE, 63 317  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	172803	172838	172913	172949	173024	173059	173134	173210
1000	0.238	0.228	0.210	0.190	0.200	0.155	0.165	0.176
950	0.273	0.261	0.236	0.215	0.223	0.178	0.186	0.194
900	0.319	0.299	0.272	0.246	0.252	0.205	0.212	0.217
850	0.377	0.347	0.315	0.283	0.286	0.237	0.241	0.245
800	0.446	0.405	0.366	0.327	0.337	0.275	0.281	0.285
750	0.549	0.498	0.449	0.399	0.404	0.330	0.329	0.335
700	0.702	0.645	0.557	0.494	0.493	0.397	0.398	0.405
650	0.907	0.831	0.715	0.611	0.618	0.495	0.488	0.494
600	1.211	1.109	0.921	0.807	0.771	0.636	0.597	0.602
550	1.703	1.501	1.262	1.057	1.020	0.810	0.821	0.790
500	2.661	2.258	1.888	1.491	1.427	1.160	1.115	1.083
450	4.278	3.570	3.042	2.292	2.203	1.705	1.649	1.559
400	7.041	6.079	5.267	3.778	3.679	2.688	2.564	2.330
350	11.192	10.413	8.674	6.541	6.067	4.513	4.165	3.618
300				10.343	9.223		6.617	5.770
HEIGHT	SCALE HEIGHT, KM							
950	337.4	361.9	385.9	384.9	430.4	353.2	441.0	467.8
900	303.0	335.2	340.8	358.7	381.9	345.3	382.4	417.8
850	283.7	306.9	317.0	326.5	340.6	323.8	350.5	371.0
800	264.4	278.7	293.1	294.2	306.3	301.3	321.0	332.7
750	240.6	249.9	258.0	268.2	273.2	276.6	291.4	294.4
700	212.9	220.7	221.6	242.6	245.0	251.8	264.1	267.4
650	187.1	191.8	200.5	217.1	225.4	227.6	237.2	245.5
600	165.4	171.8	182.2	194.7	205.8	203.9	210.3	223.6
550	135.5	148.8	151.2	172.4	177.3	180.1	180.6	193.4
500	109.0	118.7	116.9	140.0	139.4	149.6	150.8	157.7
450	104.2	101.8	96.4	110.4	105.6	123.4	126.3	135.9
400	100.2	91.6	94.1	93.1	99.1	105.3	110.1	120.6
350	176.1	143.0	116.1	94.4	107.1	97.1	101.9	110.9
300				139.9	174.3		131.1	116.2
LONG	-75.30	-75.10	-74.90	-74.69	-74.46	-74.24	-73.99	-73.73
LAT	11.57	13.54	15.51	17.53	19.50	21.47	23.43	25.45
QUAL	23	23	23	23	23	23	23	22

PASS 2312 AT QUITOE, 63 317  
 ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)
	173227
1000	0.148
950	0.164
900	0.185
850	0.213
800	0.249
750	0.296
700	0.358
650	0.434
600	0.523
550	0.685
500	0.949
450	1.384
400	2.081
350	3.222
300	5.117

HEIGHT	SCALE HEIGHT, KM
950	422.7
900	378.5
850	340.7
800	306.6
750	279.0
700	262.9
650	246.8
600	230.7
550	197.4
500	149.8
450	132.3
400	119.7
350	112.1
300	117.6

LONG -73.61  
 LAT 26.40  
 QUAL 23

PASS 2313 AT RESLUT, 63 317  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	174346	174404	174421	174440	174456	174515	174549	174607
1000	0.196	0.230	0.174	0.320	0.220	0.337	0.231	0.215
950	0.218	0.250	0.189	0.347	0.248	0.363	0.258	0.235
900	0.244	0.277	0.206	0.377	0.285	0.394	0.292	0.263
850	0.275	0.308	0.225	0.413	0.323	0.433	0.331	0.297
800	0.321	0.346	0.246	0.459	0.367	0.491	0.376	0.343
750	0.381	0.411	0.269	0.515	0.425	0.563	0.441	0.409
700	0.467	0.493	0.295	0.591	0.496	0.650	0.518	0.487
650	0.573	0.590	0.327	0.683	0.582	0.756	0.616	0.574
600	0.715	0.702	0.366	0.800	0.687	0.879	0.736	0.672
550	0.925	0.838	0.411	0.945	0.814	1.039	0.905	0.831
500	1.232	1.052	0.474	1.151	0.982	1.263	1.134	1.048
450	1.670	1.341	0.559	1.424	1.188	1.551	1.457	1.365
400	2.320	1.749	0.683	1.838	1.491	1.942	1.899	1.820
350	3.271	2.342	0.839	2.440	1.907	2.464		2.355
300		3.234	1.104	3.299	2.513			
HEIGHT	SCALE HEIGHT, KM							
950	451.1	510.6	586.1	608.0	444.3	616.1	419.3	466.2
900	411.5	466.9	576.6	556.4	389.5	534.9	396.2	425.8
850	372.0	423.3	567.6	506.0	376.6	466.7	376.7	385.3
800	319.8	379.6	557.8	456.8	363.6	432.3	356.6	344.2
750	270.2	341.1	528.6	409.0	346.8	397.9	331.8	301.9
700	255.0	302.5	499.4	374.1	329.5	363.5	306.9	286.2
650	239.7	280.1	467.6	339.2	312.6	337.3	283.7	281.9
600	219.1	269.2	435.8	307.2	296.6	312.2	261.1	277.7
550	188.1	254.8	398.2	276.9	280.3	287.5	239.5	238.3
500	173.3	225.2	331.0	251.4	263.2	263.5	218.5	204.9
450	158.6	200.3	280.6	222.8	245.2	237.4	200.6	183.7
400	148.5	181.9	253.2	188.3	220.1	217.9	187.3	190.7
350	150.9	165.9	225.9	172.2	196.9	217.9		212.5
300		156.4	175.3	174.9	184.9			
LONG	-61.46	-60.68	-59.80	-58.81	-57.98	-56.74	-54.41	-53.00
LAT	63.64	64.59	65.46	66.45	67.27	68.23	69.94	70.82
QUAL	33	33	33	33	33	33	33	33



PASS 2313 AT RESLUT, 63 317

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	174625	174642	174700	174717	174735	174810	174828	174845
1000	0.145	0.162	0.157	0.159	0.166	0.174	0.183	0.160
950	0.167	0.185	0.180	0.183	0.190	0.197	0.205	0.184
900	0.191	0.211	0.210	0.212	0.216	0.227	0.235	0.215
850	0.219	0.243	0.243	0.244	0.248	0.263	0.271	0.254
800	0.253	0.280	0.282	0.285	0.287	0.311	0.314	0.299
750	0.294	0.328	0.334	0.335	0.336	0.388	0.380	0.359
700	0.351	0.390	0.397	0.398	0.399	0.482	0.470	0.451
650	0.428	0.474	0.476	0.480	0.478	0.594	0.578	0.562
600	0.521	0.577	0.586	0.581	0.578	0.725	0.705	0.692
550	0.666	0.745	0.718	0.725	0.725	0.905	0.870	0.852
500	0.860	0.967	0.895	0.912	0.915	1.116	1.072	1.060
450	1.151	1.270	1.150	1.172	1.163	1.358	1.304	1.300
400	1.559	1.698	1.519	1.524	1.516	1.753	1.662	1.663
350	2.117	2.240	2.016	2.013	1.990	2.285	2.154	2.181
300	2.818		2.682	2.705	2.604	2.862	2.768	2.677
HEIGHT	SCALE HEIGHT, KM							
950	350.8	357.8	344.7	355.6	369.3	384.0	418.4	349.9
900	356.5	358.5	330.0	341.4	364.0	349.2	377.4	324.6
850	353.0	350.1	322.8	330.3	350.4	314.4	341.0	303.5
800	333.7	332.7	315.7	315.9	330.0	284.9	304.5	282.4
750	297.5	299.6	298.5	299.8	304.1	275.8	286.3	266.8
700	274.3	273.4	280.1	283.1	284.7	266.6	275.9	260.8
650	255.9	253.2	263.5	265.7	267.9	257.5	265.4	254.9
600	237.5	233.1	251.5	247.8	249.9	248.3	255.0	248.9
550	214.4	210.9	239.4	228.0	228.4	240.5	246.3	241.5
500	189.9	190.5	220.9	211.1	211.7	232.8	238.3	231.5
450	174.0	179.9	193.3	199.9	200.4	225.0	230.2	221.4
400	164.9	175.9	181.4	188.7	190.8	217.6	214.5	221.6
350	169.5	188.4	177.1	177.1	187.7	210.2	197.2	227.8
300	181.1		171.4	166.2	196.3	236.0	203.3	278.8
LONG	-51.32	-49.73	-48.05	-45.83	-43.48	-38.35	-35.00	-31.83
LAT	71.69	72.50	73.36	74.11	74.90	76.38	77.05	77.69
QUAL	33	33	33	33	33	33	33	32

PASS 2313 AT RESLUT, 63 317  
 ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	174903	174921	174938	174956	175013	175031	175049	175106
1000	0.135	0.132	0.156	0.155	0.145	0.123	0.101	0.103
950	0.156	0.154	0.179	0.177	0.168	0.145	0.120	0.122
900	0.183	0.183	0.209	0.205	0.194	0.172	0.142	0.148
850	0.216	0.218	0.244	0.239	0.228	0.204	0.171	0.179
800	0.256	0.262	0.304	0.291	0.279	0.242	0.208	0.216
750	0.312	0.333	0.383	0.369	0.342	0.307	0.252	0.279
700	0.392	0.420	0.479	0.466	0.417	0.395	0.308	0.370
650	0.488	0.523	0.593	0.581	0.505	0.502	0.385	0.481
600	0.601	0.649	0.733	0.719	0.628	0.627	0.478	0.612
550	0.751	0.818	0.916	0.908	0.777	0.784	0.586	0.796
500	0.944	1.016	1.128	1.128	0.949	0.994	0.708	1.021
450	1.171	1.336	1.491	1.462	1.248	1.237	0.996	1.360
400	1.517	1.778	2.001	1.942	1.685	1.674	1.414	1.857
350	2.016	2.407	2.679	2.602	2.266	2.338	2.006	2.535
300	2.639	3.132			2.991	3.034	2.910	
HEIGHT	SCALE HEIGHT, KM							
950	342.0	302.1	336.5	349.8	328.6	300.3	291.0	280.0
900	317.0	286.2	302.8	317.6	302.6	284.7	279.0	265.1
850	295.8	270.3	269.2	285.4	283.2	269.2	268.6	250.1
800	274.6	256.0	262.0	267.7	277.0	253.6	259.6	235.2
750	260.3	249.9	257.4	260.0	270.8	246.7	250.5	225.7
700	253.1	243.8	252.9	252.3	264.6	241.9	242.0	219.1
650	245.9	237.7	248.3	244.7	258.4	237.1	234.3	212.5
600	238.7	230.0	240.3	236.3	245.5	232.3	226.6	205.8
550	230.5	218.1	225.3	223.6	231.3	224.4	218.9	196.8
500	221.4	206.1	210.2	211.0	217.1	211.4	211.2	187.4
450	212.3	190.6	189.2	193.9	193.2	198.3	176.9	174.9
400	198.2	173.9	184.2	177.6	169.7	167.6	142.2	163.7
350	184.6	183.7	233.9	191.2	178.6	209.4	154.2	172.6
300	225.7	211.0			349.7	468.1	411.5	
LONG	-28.26	-23.60	-19.20	-14.54	-9.30	-3.49	2.32	7.83
LAT	78.34	78.82	79.28	79.76	80.01	80.20	80.39	80.46
QUAL	33	33	33	33	32	32	33	33

PASS 2313 AT RESLUT, 63 317

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)			
	175124	175141	175159	175217
1000	0.092	0.091	0.077	0.068
950	0.108	0.108	0.092	0.081
900	0.129	0.130	0.112	0.094
850	0.154	0.155	0.135	0.113
800	0.200	0.193	0.171	0.140
750	0.261	0.251	0.230	0.173
700	0.336	0.324	0.304	0.213
650	0.424	0.412	0.393	0.275
600	0.542	0.529	0.498	0.351
550	0.696	0.684	0.643	0.440
500	0.876	0.866	0.823	0.543
450	1.173	1.167	1.029	0.743
400	1.642	1.617	1.436	1.123
350	2.274	2.246	2.021	1.671
300	2.994	3.054	2.818	2.458

HEIGHT	SCALE HEIGHT, KM			
950	291.9	275.9	267.6	291.7
900	264.0	260.2	249.0	275.5
850	236.4	244.5	230.5	261.7
800	232.0	232.6	219.2	249.8
750	227.7	226.1	217.3	237.9
700	223.3	219.5	215.5	226.0
650	218.9	213.0	213.7	218.1
600	211.8	205.8	211.8	210.2
550	202.1	197.8	204.8	202.4
500	192.5	189.8	196.2	194.6
450	172.0	171.1	187.6	167.7
400	154.2	153.8	162.6	123.3
350	171.4	157.4	166.4	128.9
300	199.0	218.1	254.3	147.5

LONG	13.73	19.29	25.18	30.04
LAT	80.30	80.15	80.00	79.56
QUAL	33	33	33	33

PASS 2319 AT RESLUT, 63 318  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	42542	42559	42617	42634	42652	42710	42727	42745
1000	0.082	0.107	0.085	0.092	0.088	0.084	0.084	0.071
950	0.090	0.122	0.097	0.103	0.102	0.097	0.096	0.079
900	0.101	0.141	0.114	0.118	0.122	0.114	0.110	0.092
850	0.114	0.161	0.133	0.136	0.146	0.135	0.127	0.109
800	0.131	0.184	0.157	0.158	0.174	0.163	0.151	0.130
750	0.153	0.211	0.189	0.185	0.209	0.203	0.185	0.157
700	0.180	0.245	0.228	0.221	0.255	0.253	0.238	0.200
650	0.218	0.290	0.276	0.270	0.323	0.317	0.312	0.258
600	0.270	0.360	0.345	0.346	0.429	0.411	0.425	0.343
550	0.346	0.462	0.435	0.470	0.586	0.540	0.583	0.485
500	0.449	0.610	0.564	0.649	0.830	0.733	0.821	0.728
450	0.600	0.817	0.748	0.911	1.178	1.066	1.155	1.047
400	0.813	1.156	1.026	1.345	1.667	1.538	1.616	1.505
350	1.130	1.646	1.472	1.966	2.465	2.197	2.284	2.197
300	1.605	2.280	2.051	2.806	3.009	3.125	3.100	3.010
HEIGHT	SCALE HEIGHT, KM							
950	455.1	369.0	339.0	385.1	310.6	313.8	366.4	358.6
900	410.3	361.7	317.0	363.8	283.7	300.3	345.8	321.8
850	377.7	367.3	300.4	347.5	280.1	275.8	307.7	291.8
800	346.7	361.3	285.9	326.6	272.6	254.8	268.1	268.2
750	317.9	346.4	275.3	296.4	261.8	238.5	233.6	243.8
700	289.7	309.9	264.7	265.5	230.7	222.6	205.0	216.2
650	255.2	265.9	250.9	232.4	202.1	207.0	180.8	189.5
600	221.4	223.3	227.8	183.4	176.6	191.6	166.6	166.0
550	200.6	195.6	206.7	158.4	148.4	173.4	155.9	136.2
500	179.4	182.9	190.1	152.6	146.5	147.0	151.0	130.0
450	170.5	163.4	169.0	137.9	142.8	143.9	148.5	135.5
400	158.6	143.8	152.6	132.8	143.9	140.7	148.7	136.8
350	151.3	149.7	148.2	137.8	197.1	136.6	158.3	150.2
300	150.7	161.1	158.1	140.9	339.4	322.6	175.6	187.4
LONG	-124.87	-120.13	-116.39	-112.93	-109.26	-106.20	-103.76	-101.19
LAT	79.18	78.78	78.16	77.56	76.92	76.21	75.49	74.73
QUAL	33	33	33	33	32	32	33	33

PASS 2319 AT RESLUT, 63 318

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	42820	42855	42913	42931	42948	43006	43023	43041
1000	0.073	0.075	0.043	0.056	0.049	0.040	0.037	0.041
950	0.083	0.083	0.049	0.065	0.058	0.045	0.043	0.047
900	0.097	0.097	0.055	0.076	0.068	0.053	0.049	0.053
850	0.117	0.115	0.064	0.090	0.079	0.061	0.057	0.063
800	0.141	0.137	0.075	0.111	0.094	0.072	0.068	0.075
750	0.172	0.163	0.092	0.137	0.114	0.086	0.083	0.092
700	0.224	0.206	0.116	0.179	0.143	0.105	0.102	0.113
650	0.292	0.259	0.151	0.238	0.191	0.138	0.135	0.147
600	0.394	0.334	0.209	0.324	0.260	0.187	0.179	0.199
550	0.526	0.431	0.299	0.463	0.374	0.270	0.234	0.289
500	0.753	0.591	0.468	0.702	0.574	0.423	0.325	0.434
450	1.067	0.829	0.713	1.052	0.896	0.680	0.501	0.651
400	1.528	1.177	1.156	1.537	1.350	1.087	0.835	0.962
350	2.252	1.707	1.765	2.182	1.962	1.639	1.289	1.387
300	3.105	2.481	2.494	2.894	2.726	2.398		
HEIGHT	SCALE HEIGHT, KM							
950	332.9	361.1	333.5	312.3	295.4	333.0	349.9	376.0
900	294.8	319.8	341.9	289.0	314.6	334.7	331.3	332.4
850	267.3	291.1	311.5	268.5	298.9	308.0	297.3	294.0
800	248.4	272.6	277.0	242.1	269.1	283.2	267.0	269.9
750	228.8	254.1	241.2	215.2	240.9	258.8	243.8	243.6
700	203.5	235.0	206.5	194.7	208.3	231.9	220.6	215.5
650	180.0	216.0	172.9	177.3	169.5	191.4	198.7	186.0
600	169.4	197.6	150.1	155.1	151.3	154.9	179.8	153.4
550	159.0	179.4	131.4	132.0	130.7	126.6	167.8	130.9
500	150.4	158.7	123.4	124.9	114.0	109.4	140.9	123.8
450	142.4	145.9	116.2	129.9	118.8	106.8	106.3	126.2
400	135.8	142.0	113.8	138.9	128.9	114.8	106.2	134.1
350	145.8	138.6	131.5	164.9	145.2	128.1	115.3	142.0
300	176.8	134.4	164.8	228.2	174.7	156.5		
LONG	-97.01	-93.45	-91.98	-90.64	-89.38	-88.15	-87.20	-86.19
LAT	73.15	71.51	70.64	69.75	68.90	68.00	67.13	66.21
QUAL	33	33	33	33	33	33	33	33

PASS 2319 AT RESLUT, 63 318

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)					
	43059	43116	43134	43152	43209	43227
1000	0.030	0.025	0.018	0.024	0.014	0.014
950	0.035	0.029	0.022	0.027	0.018	0.017
900	0.042	0.033	0.027	0.031	0.021	0.020
850	0.049	0.041	0.032	0.037	0.026	0.025
800	0.058	0.053	0.040	0.047	0.033	0.031
750	0.070	0.076	0.053	0.060	0.041	0.039
700	0.084	0.107	0.071	0.077	0.056	0.051
650	0.112	0.142	0.093	0.100	0.077	0.069
600	0.153	0.193	0.127	0.137	0.104	0.096
550	0.216	0.273	0.193	0.200	0.151	0.141
500	0.341	0.383	0.294	0.293	0.217	0.210
450	0.540	0.574	0.434	0.424	0.333	0.318
400	0.787	0.826	0.688	0.643	0.506	0.486
350	1.141	1.151		0.926	0.743	0.710
300	1.656			1.216	1.057	0.997
HEIGHT	SCALE HEIGHT, KM					
950	282.0	342.8	239.1	369.4	270.7	258.1
900	306.4	282.3	263.6	319.5	255.9	259.6
850	293.0	227.6	243.4	268.5	221.8	243.0
800	274.1	180.4	206.6	224.9	209.2	219.7
750	254.6	170.5	175.5	203.0	196.6	197.7
700	235.1	162.1	174.7	195.1	183.5	180.2
650	188.3	160.3	173.9	176.9	170.4	161.0
600	151.0	155.7	139.9	148.8	157.2	141.4
550	132.3	148.8	125.1	132.8	142.9	132.9
500	108.1	142.8	124.1	129.5	129.5	124.7
450	117.6	141.7	115.3	127.9	120.9	120.5
400	129.2	144.8	97.1	141.7	127.7	131.2
350	135.5	153.4		165.5	139.0	148.3
300	149.0			203.5	160.4	192.7
LONG	-85.19	-84.44	-83.66	-82.89	-82.23	-81.61
LAT	65.28	64.39	63.44	62.50	61.60	60.64
QUAL	33	33	33	33	23	23

PASS 2319 AT AGASTA, 63 318

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)					
	50016	50109	50202	50255	50348	50440
1000	0.155	0.150	0.151	0.153	0.158	0.150
950	0.164	0.159	0.160	0.163	0.168	0.159
900	0.175	0.168	0.168	0.172	0.176	0.169
850	0.184	0.179	0.176	0.181	0.185	0.178
800	0.193	0.191	0.187	0.192	0.199	0.190
750	0.203	0.207	0.202	0.207	0.219	0.205
700	0.226	0.234	0.224	0.231	0.248	0.232
650	0.264	0.272	0.252	0.261	0.284	0.268
600	0.324	0.325	0.310	0.322	0.368	0.346
550	0.484	0.428	0.433	0.459	0.535	0.499
500	0.787	0.642	0.655	0.677	0.797	0.750
450	1.388	1.085	1.041	1.099	1.262	1.182
400	2.439	1.884	1.678	1.667	1.920	1.844
350	4.338	2.864				2.545
300						
HEIGHT	SCALE HEIGHT, KM					
950	838.2	872.2	973.3	913.5	1101.1	835.0
900	914.8	830.2	1005.8	919.3	977.3	865.4
850	940.6	784.9	881.4	846.1	819.0	803.0
800	834.0	648.2	734.7	710.4	607.8	669.7
750	727.3	525.3	601.7	584.8	490.2	536.6
700	493.7	438.5	486.9	473.5	400.6	424.7
650	284.2	351.8	372.1	362.2	310.8	312.8
600	191.6	263.5	218.1	181.2	166.6	176.5
550	119.0	168.0	140.5	136.7	134.3	131.8
500	95.0	113.8	117.4	116.5	119.3	119.0
450	91.4	91.0	104.8	112.2	110.8	108.1
400	85.1	103.4	118.6	133.5	141.0	129.5
350	97.2	155.4				213.7
300						
LONG	-65.11	-64.61	-64.05	-63.41	-62.69	-61.90
LAT	-32.66	-35.62	-38.59	-41.55	-44.49	-47.37
QUAL	33	33	23	23	23	23

PASS 2319 AT SOLANT, 63 318

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	45831	45941	50016	50109	50202	50255	50347	50440
1000	0.181	0.193	0.158	0.155	0.161	0.153	0.157	0.154
950	0.201	0.205	0.170	0.164	0.168	0.162	0.167	0.163
900	0.220	0.214	0.180	0.173	0.175	0.171	0.177	0.172
850	0.238	0.226	0.188	0.183	0.184	0.179	0.184	0.181
800	0.260	0.241	0.197	0.194	0.195	0.190	0.193	0.192
750	0.315	0.267	0.212	0.210	0.210	0.204	0.206	0.207
700	0.393	0.347	0.233	0.228	0.229	0.227	0.237	0.232
650	0.502	0.435	0.268	0.264	0.254	0.260	0.273	0.275
600	0.768	0.514	0.333	0.327	0.323	0.319	0.351	0.366
550	1.063	0.761	0.465	0.421	0.446	0.428	0.484	0.518
500	1.629	1.140	0.660	0.590	0.649	0.633	0.734	0.730
450	2.567	2.004	1.099	0.935	1.009	0.985	1.090	1.118
400	4.005		1.894	1.556	1.569	1.503	1.623	1.690
350	5.902		3.208	2.540	2.249	2.152		
300			5.562	3.395				
HEIGHT	SCALE HEIGHT, KM							
900	590.6	1095.4	1022.3	909.3	1079.2	1017.2	1075.6	954.2
850	604.7	849.7	997.2	813.5	924.9	880.3	1003.5	866.1
800	431.0	630.7	814.8	707.6	718.5	747.7	853.9	748.1
750	233.4	432.2	653.2	599.0	613.1	613.5	646.8	584.5
700	200.3	278.9	493.4	490.5	508.9	468.0	332.9	367.9
650	170.9	223.8	334.5	361.2	394.9	321.2	279.5	250.3
600	130.9	207.2	206.4	218.5	181.6	211.7	189.2	185.6
550	134.3	122.3	145.9	181.3	149.7	152.7	139.2	146.6
500	118.9	107.2	123.4	131.8	126.5	122.0	124.1	133.7
450	110.5	94.0	96.0	105.0	115.6	118.1	126.5	123.1
400	122.7		95.0	96.1	128.0	131.4	137.7	134.3
350	151.6		88.0	134.9	158.9	163.7		
300			122.3	238.7				
LONG	-65.99	-65.42	-65.11	-64.61	-64.05	-63.41	-62.71	-61.90
LAT	-26.76	-30.69	-32.66	-35.62	-38.59	-41.55	-44.44	-47.37
QUAL	33	33	33	33	33	33	33	33



PASS 2319 AT SOLANT, 63 318														
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)														
HEIGHT	TIME (UT)													
	50532	50626	50656	50731	50806	50842	50916	50952						
1000	0.161	0.167	0.150	0.173	0.152	0.137	0.120	0.093						
950	0.172	0.173	0.159	0.180	0.161	0.146	0.130	0.101						
900	0.180	0.182	0.167	0.187	0.172	0.156	0.141	0.110						
850	0.195	0.194	0.177	0.197	0.185	0.171	0.153	0.122						
800	0.207	0.208	0.190	0.210	0.201	0.189	0.169	0.137						
750	0.218	0.225	0.205	0.230	0.220	0.209	0.191	0.156						
700	0.237	0.252	0.229	0.257	0.246	0.244	0.223	0.186						
650	0.279	0.296	0.268	0.304	0.283	0.295	0.271	0.228						
600	0.344	0.369	0.339	0.374	0.344	0.373	0.351	0.305						
550	0.464	0.501	0.454	0.509	0.451	0.502	0.472	0.415						
500	0.670	0.746	0.674	0.754	0.639	0.725	0.689	0.602						
450	1.051	1.127	1.126	1.173	0.998	1.096	1.058	0.932						
400	1.657	1.817	1.836	1.809	1.594	1.754	1.652	1.461						
350	2.434	2.659	2.643	2.547	2.462	2.542	2.368	2.120						
300														
HEIGHT	SCALE HEIGHT, KM													
	950	900	850	800	750	700	650	600	550	500	450	400	350	300
950	143.4	1119.1	932.5	1534.5	809.0	882.9	621.6	572.8						
900	926.8	918.8	882.0	1130.1	721.2	684.1	624.9	522.8						
850	763.1	768.6	785.2	888.8	644.5	548.4	553.3	459.1						
800	711.6	661.9	673.5	680.5	568.6	461.4	454.8	391.5						
750	660.1	543.1	550.6	545.5	494.0	397.2	364.3	333.0						
700	499.1	385.3	413.5	410.5	413.0	329.3	299.8	272.9						
650	274.0	287.4	285.2	303.9	324.6	261.1	241.7	217.7						
600	206.9	207.1	195.5	210.6	238.9	201.7	199.4	187.0						
550	156.2	149.0	155.6	158.1	168.5	158.2	158.7	155.9						
500	123.2	125.6	113.4	124.9	130.4	131.4	126.3	125.7						
450	113.4	113.8	99.7	117.0	111.6	116.2	115.5	113.9						
400	119.5	118.3	115.1	132.7	111.3	122.1	125.5	124.8						
350	210.0	201.9	251.3	219.9	172.4	179.8	164.4	190.2						
300														
LONG	-60.98	-59.88	-59.22	-58.29	-57.31	-56.12	-54.87	-53.37						
LAT	-50.24	-53.20	-54.84	-56.74	-58.63	-60.56	-62.36	-64.26						
QUAL	21	32	31	21	31	21	22	22						

PASS 2319 AT SOLANT, 63 318

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)	
	51027	51102
1000	0.077	0.067
950	0.083	0.074
900	0.091	0.081
850	0.100	0.090
800	0.114	0.103
750	0.133	0.121
700	0.159	0.147
650	0.195	0.186
600	0.260	0.263
550	0.371	0.367
500	0.534	0.518
450	0.813	0.762
400	1.255	1.162
350		1.641
300		

HEIGHT	SCALE HEIGHT, KM	
	51027	51102
950	596.5	521.8
900	537.2	526.0
850	447.1	422.4
800	375.3	350.0
750	312.5	288.5
700	262.2	239.9
650	217.9	197.7
600	181.4	177.0
550	149.9	156.4
500	131.4	140.1
450	117.4	128.6
400	128.5	137.0
350		218.0
300		

LONG	-51.60	-49.70
LAT	-66.07	-67.87
QUAL	22	22

PASS 2326 AT QUITOE, 63 318  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	175736	175811	175847	175922	175957	180032	180109	180143
1000	0.327	0.326	0.339	0.356	0.351	0.353	0.378	0.367
950	0.367	0.362	0.380	0.398	0.394	0.400	0.425	0.419
900	0.413	0.408	0.432	0.451	0.449	0.456	0.484	0.482
850	0.480	0.469	0.496	0.519	0.522	0.522	0.554	0.555
800	0.581	0.606	0.617	0.652	0.638	0.637	0.663	0.661
750	0.713	0.799	0.806	0.830	0.795	0.790	0.821	0.803
700	0.941	1.074	1.077	1.096	1.031	1.019	1.039	1.008
650	1.261	1.471	1.462	1.469	1.413	1.361	1.386	1.314
600	1.988	2.348	2.291	2.373	2.194	2.021	1.979	1.823
550	3.263	3.772	3.704	3.734	3.605	3.385	3.055	2.747
500	5.247	5.671	5.443	5.447	5.574	5.526	4.969	4.436
450	7.613	7.593	6.933	7.030	7.349	7.708	7.826	7.299
400	9.831	9.282		8.289	8.581			10.884
350								
300								
HEIGHT	SCALE HEIGHT, KM							
950	422.4	422.5	395.8	408.3	393.7	381.5	394.5	359.9
900	359.9	358.7	347.7	353.2	345.0	343.3	355.4	341.6
850	308.8	295.4	299.6	299.3	298.7	304.8	316.2	310.3
800	266.8	236.4	252.2	254.1	256.5	267.3	277.8	278.6
750	224.9	181.0	205.2	208.9	216.7	229.9	239.7	246.7
700	187.1	162.8	169.1	175.2	184.7	193.7	202.5	214.3
650	148.3	139.4	144.3	143.4	142.5	158.8	167.9	181.1
600	107.0	106.9	102.4	108.5	108.2	110.1	131.4	144.8
550	102.1	113.5	114.7	118.9	104.1	99.3	111.1	114.7
500	114.3	142.4	168.4	162.7	143.5	111.2	101.3	101.1
450	164.7	216.5	246.2	254.4	244.9	269.6	125.9	103.1
400	290.3	285.5		401.6	459.9			212.1
350								
300								
LONG	-89.20	-89.00	-88.79	-88.60	-88.41	-88.22	-88.03	-87.85
LAT	-14.84	-12.87	-10.84	-8.87	-6.90	-4.93	-2.84	-0.93
QUAL	22	23	23	22	23	23	23	23

PASS 2326 AT QUITOE, 63 318

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	180218	180255	180330	180405	180440	180515	180532	180608
1000	0.366	0.393	0.381	0.361	0.371	0.331	0.328	0.306
950	0.418	0.450	0.430	0.418	0.429	0.381	0.378	0.352
900	0.479	0.518	0.498	0.488	0.502	0.448	0.446	0.417
850	0.553	0.602	0.583	0.575	0.592	0.530	0.531	0.501
800	0.655	0.701	0.684	0.678	0.700	0.635	0.632	0.602
750	0.804	0.862	0.802	0.824	0.861	0.760	0.753	0.721
700	0.994	1.080	1.017	1.032	1.085	0.905	0.950	0.900
650	1.297	1.399	1.315	1.332	1.409	1.164	1.210	1.155
600	1.745	1.873	1.771	1.763	1.879	1.531	1.600	1.527
550	2.564	2.776	2.496	2.517	2.725	2.169	2.263	2.106
500	4.026	4.350	3.800	3.744	4.192	3.337	3.428	3.103
450	6.554	6.907	6.108	6.062	6.714	5.452	5.550	4.927
400	9.955	10.209	9.345		10.112	8.647	8.835	8.077
350					12.469			
300								
HEIGHT	SCALE HEIGHT, KM							
950	367.8	361.0	362.4	327.6	327.7	323.9	321.5	328.6
900	343.4	336.7	322.3	307.0	306.9	306.9	306.5	300.2
850	310.5	310.1	304.2	291.4	287.9	289.9	290.5	277.4
800	279.8	283.5	286.1	275.8	268.8	276.0	271.2	264.2
750	251.0	251.4	268.0	250.8	242.3	262.4	251.3	251.0
700	222.0	218.4	232.0	217.7	212.3	248.7	224.8	226.1
650	189.2	187.5	191.0	190.7	185.3	209.2	198.0	194.1
600	154.4	153.9	162.5	164.2	158.2	167.5	169.9	173.2
550	122.5	120.4	135.5	134.4	128.8	132.0	132.4	141.5
500	104.7	109.5	113.1	115.7	109.5	108.6	111.5	117.4
450	109.1	112.9	105.2	105.1	108.5	100.5	101.5	103.0
400	137.8	153.5	138.4		161.8	121.9	117.5	111.1
350					344.5			
300								
LONG	-87.67	-87.48	-87.29	-87.10	-86.91	-86.72	-86.62	-86.42
LAT	1.03	3.12	5.09	7.06	9.03	11.00	11.96	13.98
QUAL	23	23	23	23	23	23	23	23

PASS 2327 AT OTTAWA, 63 318  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	181435	181510	181545	181620	181656	181731	181806	181841
1000	0.171	0.172	0.160	0.162	0.174	0.155	0.145	0.148
950	0.194	0.193	0.181	0.181	0.190	0.174	0.165	0.170
900	0.222	0.217	0.203	0.201	0.209	0.196	0.188	0.194
850	0.254	0.246	0.229	0.225	0.231	0.222	0.212	0.219
800	0.292	0.285	0.266	0.257	0.268	0.257	0.247	0.253
750	0.346	0.335	0.310	0.296	0.315	0.302	0.288	0.294
700	0.411	0.395	0.363	0.340	0.371	0.356	0.338	0.342
650	0.501	0.478	0.437	0.410	0.444	0.426	0.406	0.402
600	0.619	0.584	0.544	0.502	0.538	0.523	0.508	0.505
550	0.805	0.759	0.686	0.624	0.648	0.640	0.633	0.632
500	1.073	1.005	0.903	0.794	0.824	0.808	0.811	0.801
450	1.513	1.361	1.221	1.022	1.067	1.040	1.051	1.025
400	2.216	1.896	1.679	1.357	1.404	1.371	1.385	1.338
350	3.291	2.722	2.361	1.848	1.885	1.805	1.834	1.754
300	4.777	3.923	3.339	2.550	2.496	2.342	2.377	2.324
HEIGHT	SCALE HEIGHT, KM							
950	382.1	414.1	415.7	462.6	518.0	414.8	391.0	403.5
900	363.0	390.5	392.2	428.8	461.1	388.6	373.0	375.5
850	345.9	359.3	360.8	398.7	404.2	361.3	350.3	360.4
800	327.3	335.7	340.4	373.7	373.3	339.0	331.6	342.0
750	302.7	315.2	320.0	348.7	342.4	318.3	312.9	323.4
700	278.0	294.7	299.6	323.8	311.5	297.6	294.2	304.9
650	248.4	261.4	272.5	289.3	285.7	277.3	272.8	284.6
600	216.9	221.9	236.4	251.9	264.6	257.9	247.5	256.0
550	190.5	196.7	203.7	224.4	243.6	238.4	222.1	227.4
500	164.6	175.4	179.5	208.5	214.0	213.1	202.8	209.3
450	140.2	163.1	165.7	191.4	189.5	191.8	189.1	196.7
400	128.4	144.1	151.0	172.3	177.4	184.8	182.2	189.2
350	129.3	136.9	147.7	158.7	175.4	186.2	185.3	181.6
300	144.1	140.7	156.3	163.2	190.5	200.0	199.3	186.8
LONG	-82.17	-81.70	-81.18	-80.62	-80.00	-79.30	-78.56	-77.71
LAT	42.33	44.26	46.18	48.11	50.08	51.99	53.89	55.79
QUAL	23	23	23	33	31	33	33	33

PASS 2327 AT OTTAWA, 63 318

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)			
	181917	181952	182027	182045
1000	0.159	0.191	0.217	0.176
950	0.179	0.223	0.241	0.195
900	0.202	0.257	0.269	0.216
850	0.227	0.297	0.301	0.242
800	0.261	0.341	0.341	0.279
750	0.303	0.396	0.392	0.324
700	0.351	0.464	0.455	0.378
650	0.414	0.553	0.541	0.457
600	0.511	0.669	0.646	0.561
550	0.629	0.825	0.793	0.687
500	0.807	1.040	0.990	0.863
450	1.044	1.327	1.261	1.100
400	1.369	1.715	1.604	1.427
350	1.784	2.214	2.038	1.823
300	2.267	2.862	2.578	2.306
HEIGHT	SCALE HEIGHT, KM			
950	410.3	333.4	456.2	478.6
900	393.8	343.1	433.4	431.9
850	372.5	341.9	411.7	390.5
800	353.6	340.7	383.0	363.4
750	334.8	325.6	349.4	336.3
700	315.9	301.3	318.1	309.2
650	293.2	278.9	295.1	284.4
600	258.9	257.8	272.1	260.7
550	224.7	230.7	243.8	237.5
500	206.1	211.2	217.9	217.6
450	193.0	203.8	213.1	205.4
400	188.8	194.9	209.0	201.2
350	194.6	197.2	212.2	208.4
300	205.5	207.4	219.3	228.1
LONG	-76.73	-75.69	-74.44	-73.77
LAT	57.73	59.61	61.47	62.42
QUAL	33	32	33	33

PASS 2327 AT RESLUT, 63 318  
 ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	182027	182044	182104	182120	182137	182155	182213	182230
1000	0.229	0.196	0.188	0.152	0.182	0.147	0.153	0.186
950	0.243	0.223	0.212	0.172	0.204	0.166	0.171	0.210
900	0.271	0.251	0.238	0.198	0.231	0.188	0.194	0.235
850	0.311	0.280	0.267	0.229	0.264	0.213	0.222	0.262
800	0.365	0.328	0.306	0.268	0.303	0.250	0.254	0.292
750	0.434	0.389	0.362	0.312	0.358	0.298	0.304	0.341
700	0.516	0.464	0.428	0.381	0.432	0.358	0.369	0.401
650	0.613	0.552	0.507	0.469	0.519	0.427	0.448	0.473
600	0.724	0.664	0.608	0.574	0.621	0.516	0.539	0.563
550	0.876	0.801	0.731	0.694	0.755	0.628	0.655	0.672
500	1.058	0.959	0.873	0.856	0.917	0.757	0.806	0.798
450	1.282	1.161	1.082	1.051	1.104	0.902	0.980	0.958
400	1.664	1.505	1.429	1.305	1.404	1.143	1.234	1.252
350	2.156	1.961	1.867	1.689	1.793	1.473	1.617	1.623
300	2.760	2.529	2.402	2.171	2.306	1.907	2.122	2.163
HEIGHT	SCALE HEIGHT, KM							
950	870.0	400.7	422.8	392.1	420.8	394.2	421.1	423.8
900	671.8	378.3	397.7	362.4	391.0	367.5	389.1	424.6
850	515.5	356.0	372.6	340.9	362.0	340.8	357.0	402.2
800	359.2	340.9	352.0	319.5	333.0	323.9	324.9	379.7
750	315.4	326.1	334.5	298.0	315.6	310.9	309.2	357.0
700	306.6	311.4	317.0	286.1	303.1	297.8	297.4	334.3
650	297.8	296.7	299.5	276.7	290.6	284.8	285.7	311.7
600	289.0	283.2	282.7	267.3	278.2	274.3	273.9	293.5
550	271.8	270.3	266.1	257.9	265.8	265.6	261.1	277.9
500	253.8	257.3	249.6	247.5	253.5	256.9	247.0	262.3
450	234.1	238.5	228.7	236.8	241.2	248.2	233.0	244.4
400	205.0	198.2	201.1	214.7	221.5	226.8	215.0	215.0
350	201.8	203.4	198.7	196.7	208.6	200.1	192.9	188.6
300	222.4	221.3	215.6	205.5	245.5	207.5	203.7	200.1
LONG	-74.44	-73.84	-73.02	-72.26	-71.46	-70.61	-69.57	-68.51
LAT	61.47	62.37	63.43	64.26	65.15	66.09	67.01	67.87
QUAL	33	33	33	33	33	33	33	33

PASS 2327 AT RESLUT, 63 318  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)			
	182248	182305	182323	182341
1000	0.191	0.152	0.171	0.123
950	0.215	0.170	0.188	0.137
900	0.245	0.190	0.206	0.153
850	0.281	0.213	0.226	0.173
800	0.323	0.237	0.252	0.199
750	0.374	0.265	0.286	0.231
700	0.452	0.302	0.327	0.270
650	0.546	0.345	0.374	0.314
600	0.655	0.395	0.428	0.363
550	0.783	0.452	0.498	0.430
500	0.949	0.528	0.578	0.507
450	1.141	0.684	0.668	0.595
400	1.400	0.874	0.784	0.692
350	1.824	1.108	1.007	0.844
300	2.390	1.397	1.283	1.076
HEIGHT	SCALE HEIGHT, KM			
950	406.2	453.8	535.2	462.5
900	382.2	453.3	501.0	425.2
850	360.2	442.9	466.9	388.0
800	338.1	421.7	443.7	364.6
750	318.2	400.9	424.6	355.1
700	308.3	381.3	405.4	345.7
650	298.4	361.8	386.3	336.3
600	288.5	342.2	366.8	326.9
550	277.7	322.6	345.1	315.7
500	262.4	300.4	323.3	304.4
450	247.1	266.6	301.6	293.2
400	228.4	232.8	278.1	282.0
350	202.6	211.4	246.6	265.5
300	180.0	204.3	215.1	243.9
LONG	-67.40	-66.24	-64.75	-63.26
LAT	68.78	69.63	70.51	71.39
QUAL	33	33	33	33



PASS 2333 AT RESLUT, 63 319

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	50155	50213	50248	50306	50359	50417	50434	50452
1000	0.199	0.202	0.171	0.171	0.130	0.119	0.115	0.111
950	0.227	0.225	0.197	0.196	0.150	0.136	0.128	0.128
900	0.260	0.252	0.224	0.220	0.173	0.158	0.147	0.150
850	0.296	0.285	0.256	0.249	0.203	0.188	0.174	0.177
800	0.336	0.323	0.293	0.282	0.242	0.225	0.208	0.220
750	0.390	0.367	0.338	0.323	0.289	0.269	0.248	0.275
700	0.455	0.416	0.399	0.379	0.351	0.321	0.294	0.347
650	0.529	0.488	0.482	0.455	0.436	0.380	0.352	0.445
600	0.613	0.584	0.587	0.551	0.561	0.506	0.502	0.563
550	0.726	0.703	0.712	0.665	0.727	0.706	0.695	0.748
500	0.858	0.869	0.927	0.877	0.989	0.966	0.952	1.038
450	1.007	1.070	1.189	1.151	1.333	1.307	1.264	1.402
400	1.224	1.349	1.411	1.407	1.791	1.561	1.583	1.699
350	1.521						1.761	
300								
HEIGHT	SCALE HEIGHT, KM							
950	368.6	446.6	362.8	397.5	337.6	351.0	396.6	327.4
900	364.7	424.4	372.9	404.8	318.6	312.8	334.9	296.4
850	360.8	410.1	365.8	390.8	303.0	289.5	288.7	267.3
800	357.0	400.5	358.7	376.8	290.0	270.0	271.8	249.9
750	348.7	373.9	321.9	341.9	273.1	258.1	258.2	232.4
700	340.0	341.8	274.0	284.6	242.8	246.3	244.6	216.6
650	331.4	314.6	261.5	267.4	219.2	234.4	229.1	205.2
600	322.6	288.5	249.0	250.2	202.2	207.3	194.7	193.7
550	309.3	263.4	236.5	233.0	186.2	171.9	160.3	180.0
500	296.0	247.8	235.0	219.9	176.3	158.2	174.3	164.1
450	282.7	232.3	252.2	220.3	171.2	212.8	214.5	226.7
400	241.5	617.9	469.1	452.5	489.6	874.8	345.3	490.6
350	184.0						556.7	
300								
LONG	-156.72	-151.10	-140.48	-135.45	-123.22	-120.22	-117.45	-114.51
LAT	80.40	80.18	79.58	79.18	77.51	76.80	76.11	75.39
QUAL	33	31	31	31	32	32	32	32

PASS 2333 AT RESLUT, 63 319

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	50509	50527	50545	50602	50620	50638	50655	50713
1000	0.062	0.056	0.053	0.047	0.045	0.043	0.043	0.043
950	0.078	0.067	0.065	0.057	0.054	0.054	0.051	0.050
900	0.096	0.082	0.077	0.067	0.063	0.064	0.061	0.060
850	0.118	0.102	0.093	0.078	0.075	0.075	0.073	0.072
800	0.146	0.127	0.111	0.101	0.091	0.090	0.089	0.087
750	0.183	0.161	0.144	0.130	0.113	0.112	0.108	0.108
700	0.227	0.203	0.186	0.169	0.151	0.145	0.139	0.141
650	0.302	0.271	0.247	0.217	0.204	0.193	0.184	0.183
600	0.400	0.365	0.331	0.294	0.270	0.270	0.241	0.258
550	0.565	0.530	0.453	0.464	0.383	0.385	0.369	0.379
500	0.814	0.783	0.711	0.702	0.615	0.588	0.561	0.591
450	1.149	1.133	1.044	1.011	0.927	0.872	0.855	0.886
400	1.609	1.567	1.446	1.475	1.281	1.206	1.226	1.270
350		1.871	1.831				1.526	1.609
300								
HEIGHT	SCALE HEIGHT, KM							
950	230.7	251.5	263.3	278.3	320.9	279.3	274.1	287.2
900	233.5	238.6	259.2	265.5	318.1	312.3	274.0	273.3
850	233.1	230.2	249.6	252.6	260.3	278.1	266.1	257.0
800	228.9	220.7	239.9	229.5	233.6	249.2	246.1	240.5
750	216.3	208.9	215.9	206.0	210.5	222.2	224.1	221.7
700	203.7	197.1	191.8	188.1	184.7	190.7	202.6	199.9
650	185.3	178.0	174.7	172.7	164.2	162.0	181.4	178.1
600	166.6	156.9	161.0	154.5	152.8	148.2	160.3	149.5
550	155.3	143.0	147.3	129.2	141.4	136.7	137.4	123.2
500	148.0	134.6	133.7	126.9	129.8	131.2	121.9	126.6
450	145.2	146.6	143.7	135.6	150.3	148.7	130.5	136.2
400	456.3	212.3	191.2	254.3	312.1	202.9	177.6	169.3
350		690.6	316.1				427.0	694.5
300								
LONG	-112.17	-110.10	-108.03	-106.14	-104.65	-103.16	-101.74	-100.53
LAT	74.66	73.84	73.02	72.24	71.36	70.48	69.65	68.75
QUAL	32	32	31	32	32	31	33	32

PASS 2333 AT RESLUT, 63 319

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	50730	50748	50806	50823	50841	50859	50916	50934
1000	0.036	0.029	0.033	0.023	0.016	0.015	0.019	0.018
950	0.044	0.037	0.041	0.029	0.023	0.020	0.024	0.024
900	0.052	0.045	0.049	0.035	0.030	0.025	0.030	0.029
850	0.061	0.055	0.058	0.040	0.036	0.032	0.037	0.035
800	0.077	0.069	0.070	0.048	0.044	0.042	0.046	0.044
750	0.104	0.086	0.083	0.059	0.055	0.055	0.058	0.058
700	0.138	0.106	0.109	0.071	0.070	0.072	0.077	0.078
650	0.187	0.139	0.146	0.085	0.089	0.092	0.102	0.102
600	0.261	0.190	0.192	0.129	0.138	0.115	0.141	0.132
550	0.354	0.253	0.288	0.210	0.211	0.161	0.209	0.206
500	0.559	0.371	0.440	0.336	0.323	0.272	0.327	0.310
450	0.847	0.604	0.675	0.530	0.502	0.439	0.513	0.482
400	1.225	0.957	0.982	0.866	0.798	0.673	0.757	0.715
350		1.366	1.359		1.110	0.974	1.189	1.005
300					1.273	1.213	1.606	1.295
HEIGHT	SCALE HEIGHT, KM							
900	274.7	226.3	268.2	285.5	237.8	195.9	242.1	243.3
850	249.8	222.1	258.3	273.0	238.7	188.3	240.8	223.6
800	228.3	218.9	245.8	257.5	222.2	180.8	221.9	203.8
750	207.8	215.6	233.4	242.0	208.0	179.0	189.9	192.0
700	187.3	212.4	210.8	226.6	193.7	177.1	182.7	182.7
650	169.1	200.3	185.5	211.1	179.5	175.3	174.0	173.4
600	154.3	179.7	160.2	174.9	157.2	173.5	139.4	164.1
550	139.7	159.1	131.9	122.3	132.5	158.4	124.5	143.3
500	126.6	126.7	122.6	106.9	116.7	114.2	109.9	121.0
450	130.2	107.9	127.9	102.9	112.5	112.5	120.4	126.5
400	191.6	130.9	145.2	87.1	137.6	133.4	117.7	138.5
350		270.7	254.6		260.2	181.8		171.2
300					660.8	348.6		523.4
LONG	-99.47	-98.36	-97.34	-96.53	-95.68	-94.83	-94.18	-93.51
LAT	67.89	66.98	66.06	65.17	64.23	63.29	62.39	61.44
QUAL	32	32	32	32	33	33	33	32

PASS 2333 AT RESLUT, 63 319

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)	
	50952	51009
1000	0.017	0.030
950	0.023	0.038
900	0.028	0.046
850	0.035	0.056
800	0.045	0.077
750	0.061	0.106
700	0.082	0.143
650	0.108	0.196
600	0.158	0.269
550	0.226	0.357
500	0.329	0.515
450	0.477	0.765
400	0.677	1.138
350	0.908	
300	1.136	

HEIGHT	SCALE HEIGHT, KM	
	50952	51009
950		244.1
900	230.2	228.1
850	207.2	202.8
800	192.9	193.8
750	184.5	184.9
700	176.2	175.9
650	167.9	168.5
600	155.8	162.6
550	142.8	156.6
500	138.1	142.9
450	141.0	130.3
400	164.3	163.0
350	216.2	
300	313.6	

LONG	-92.84	-92.27
LAT	60.48	59.58
QUAL	33	33

PASS 2333 AT OTTAWA, 63 319  
 ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)			
	51108	51143	51219	51236
1000	0.058	0.064	0.044	0.066
950	0.064	0.070	0.050	0.072
900	0.067	0.077	0.057	0.079
850	0.071	0.086	0.066	0.089
800	0.076	0.095	0.077	0.100
750	0.081	0.110	0.090	0.118
700	0.091	0.131	0.106	0.142
650	0.104	0.157	0.126	0.170
600	0.122	0.188	0.157	0.204
550	0.158	0.225	0.198	0.252
500	0.208	0.268	0.249	0.307
450	0.282	0.317	0.332	0.382
400	0.393	0.405	0.443	0.520
350	0.592	0.569	0.600	0.703
300	0.873	0.882	0.799	
HEIGHT	SCALE HEIGHT, KM			
950		509.4	351.0	534.5
900	956.7	475.7	345.7	470.6
850	844.2	437.2	335.4	415.4
800	714.5	398.6	325.1	361.6
750	584.9	364.8	306.4	338.1
700	473.7	334.6	285.1	314.6
650	373.3	304.5	263.9	291.2
600	276.0	280.1	243.6	268.7
550	218.1	267.1	223.5	249.5
500	174.8	254.0	203.5	230.4
450	159.8	240.9	185.8	209.4
400	143.8	205.1	172.8	181.8
350	126.5	139.6	172.7	168.6
300	132.2	114.1	181.4	
LONG	-90.54	-89.69	-88.88	-88.53
LAT	56.41	54.51	52.55	51.62
QUAL	33	23	23	23

PASS 2333 AT AGASTA, 63 319

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	53522	53612	53707	53818	53911	53946	54038	54131
1000	0.131	0.145	0.143	0.145	0.149	0.151	0.168	0.164
950	0.138	0.153	0.151	0.151	0.158	0.162	0.177	0.174
900	0.144	0.160	0.159	0.158	0.166	0.170	0.186	0.185
850	0.151	0.168	0.169	0.164	0.173	0.179	0.195	0.197
800	0.159	0.176	0.180	0.171	0.182	0.192	0.208	0.212
750	0.171	0.189	0.196	0.179	0.191	0.208	0.229	0.230
700	0.186	0.210	0.219	0.222	0.232	0.231	0.259	0.261
650	0.210	0.241	0.261	0.265	0.288	0.261	0.315	0.305
600	0.251	0.290	0.339	0.376	0.352	0.339	0.432	0.393
550	0.380	0.399	0.471	0.548	0.530	0.499	0.626	0.564
500	0.606	0.577	0.716	0.880	0.808	0.807	0.986	0.889
450	1.197	0.984	1.129	1.358	1.323	1.319	1.520	1.470
400	2.220		1.668		2.115	2.068		
350								
300								

HEIGHT	SCALE HEIGHT, KM							
	1083.2	1093.4	1006.4	1161.0			1038.6	832.2
950	1083.2	1093.4	1006.4	1161.0			1038.6	832.2
900	1098.1	1086.6	883.8	1271.3	1051.3	920.9	996.6	780.2
850	949.1	1036.4	788.3	1095.5	944.3	808.9	837.6	733.2
800	808.9	824.3	667.5	919.6	797.7	689.9	644.7	628.0
750	679.2	632.4	537.8	743.7	651.1	570.8	503.3	492.5
700	549.5	475.6	402.5	237.0	380.7	454.6	378.6	396.2
650	397.3	337.9	267.8	213.0	226.1	339.6	240.6	299.8
600	212.5	226.0	176.8	118.5	190.1	158.5	147.2	196.1
550	112.6	147.0	139.3	118.9	128.1	118.2	125.8	128.4
500	92.4	118.5	116.9	113.4	113.3	103.8	114.3	99.8
450	78.1	89.0	120.5	128.8	98.4	106.0	121.5	114.3
400	88.4		138.4		141.8	138.4		
350								
300								

LONG	-77.58	-77.20	-76.75	-76.09	-75.54	-75.14	-74.49	-73.73
LAT	-25.02	-27.84	-30.93	-34.91	-37.87	-39.83	-42.73	-45.67
QUAL	33	33	33	33	32	33	33	33

PASS 2333 AT SOLANT, 63 319  
 ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)	
	53800	53853
1000	0.148	0.137
950	0.157	0.149
900	0.165	0.158
850	0.181	0.166
800	0.194	0.176
750	0.208	0.190
700	0.246	0.209
650	0.305	0.243
600	0.387	0.310
550	0.559	0.454
500	0.853	0.836
450	1.280	1.317
400	1.851	1.970
350		2.625
300		
HEIGHT	SCALE HEIGHT, KM	
950	1151.4	763.8
900	889.2	924.1
850	623.6	882.6
800	562.3	732.7
750	501.0	595.9
700	227.1	458.6
650	209.2	271.0
600	180.3	178.3
550	128.4	82.5
500	121.6	100.8
450	131.3	117.2
400	165.4	152.7
350		202.3
300		
LONG	-76.27	-75.74
LAT	-33.90	-36.87
QUAL	33	33

PASS 2346 AT RESLUT, 63 320  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	34945	35004	35022	35039	35057	35132	35150	35207
1000	0.025	0.102	0.122	0.118	0.129	0.182	0.121	0.097
950	0.035	0.120	0.140	0.135	0.150	0.203	0.134	0.110
900	0.047	0.139	0.161	0.154	0.175	0.229	0.151	0.125
850	0.060	0.162	0.187	0.179	0.203	0.261	0.174	0.143
800	0.076	0.191	0.220	0.211	0.238	0.298	0.202	0.165
750	0.097	0.227	0.259	0.252	0.280	0.341	0.236	0.192
700	0.121	0.273	0.310	0.300	0.336	0.401	0.276	0.225
650	0.152	0.335	0.379	0.356	0.403	0.489	0.326	0.274
600	0.204	0.410	0.464	0.465	0.503	0.615	0.412	0.334
550	0.268	0.538	0.609	0.607	0.650	0.792	0.522	0.439
500	0.352	0.713	0.803	0.818	0.833	1.022	0.704	0.608
450	0.513	0.952	1.081	1.109	1.131	1.330	0.947	0.827
400	0.719	1.302	1.471	1.495	1.514	1.720	1.298	1.096
350	1.070	1.796	2.014	1.979	1.986	2.240	1.720	1.446
300	1.564	2.488		2.620	2.618			
HEIGHT	SCALE HEIGHT, KM							
950		325.6	361.1	378.1	328.0	428.0	429.6	394.6
900		326.1	338.9	347.2	325.1	400.0	387.2	374.7
850	194.6	311.6	323.5	319.6	318.6	380.0	360.5	358.2
800	203.5	294.8	306.5	293.0	305.2	355.2	336.9	337.4
750	203.6	276.0	284.1	277.0	290.8	328.4	313.1	311.7
700	203.7	257.1	262.7	261.1	269.0	292.0	289.1	285.1
650	201.0	238.0	242.3	245.1	247.3	245.1	263.3	254.1
600	189.5	218.8	221.9	216.7	227.1	218.5	229.1	223.1
550	176.1	202.1	202.8	187.5	208.1	207.3	194.8	196.0
500	166.3	185.9	183.9	174.1	189.2	199.0	180.0	171.8
450	153.0	171.8	166.0	168.1	181.7	197.8	168.4	171.6
400	139.7	161.5	180.0	175.0	176.6	191.6	173.4	186.1
350	135.0	157.1	710.6	179.3	178.8	305.7	313.7	280.1
300	143.8	250.3		499.2	380.4			
LONG	159.47	161.85	164.79	167.56	170.49	177.83	-178.31	-174.16
LAT	74.37	75.21	75.94	76.63	77.36	78.49	79.05	79.49
QUAL	23	23	23	22	22	31	33	33



PASS 2346 AT RESLUT, 63 320  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	35225	35243	35300	35318	35336	35353	35411	35446
1000	0.084	0.084	0.099	0.107	0.160	0.139	0.137	0.132
950	0.095	0.095	0.111	0.128	0.176	0.153	0.153	0.153
900	0.109	0.108	0.127	0.149	0.196	0.173	0.171	0.177
850	0.125	0.124	0.147	0.173	0.220	0.200	0.194	0.203
800	0.144	0.142	0.171	0.198	0.250	0.230	0.222	0.235
750	0.167	0.163	0.198	0.230	0.289	0.264	0.256	0.274
700	0.192	0.187	0.228	0.267	0.332	0.307	0.295	0.323
650	0.222	0.222	0.276	0.309	0.377	0.363	0.351	0.387
600	0.254	0.267	0.343	0.360	0.434	0.443	0.434	0.483
550	0.291	0.321	0.465	0.432	0.515	0.555	0.537	0.608
500	0.328	0.429	0.642	0.523	0.623	0.715	0.707	0.829
450	0.450	0.568	0.893	0.728	0.838	0.963	0.924	1.136
400	0.641	0.881	1.232	1.037	1.104	1.275	1.195	1.451
350	0.968	1.276	1.606	1.445	1.352	1.532	1.647	
300	1.424	1.753	1.904	1.885				
HEIGHT	SCALE HEIGHT, KM							
950	378.5	388.4	411.6		475.0	445.5	446.8	341.8
900	364.7	373.4	376.3	334.0	442.5	390.1	413.8	352.5
850	357.8	368.4	353.1	342.8	407.0	360.7	383.1	342.9
800	352.4	362.9	334.7	343.6	389.8	347.3	356.4	330.0
750	352.4	340.5	316.4	343.1	380.5	336.1	333.8	315.6
700	352.3	316.2	298.1	342.6	367.7	310.4	311.3	287.1
650	338.2	290.3	255.2	321.5	351.3	276.6	292.9	247.3
600	324.1	261.5	204.0	295.6	321.6	246.3	248.1	222.1
550	307.9	232.7	181.7	256.2	274.8	217.9	213.3	196.8
500	246.7	189.4	166.4	216.8	232.0	196.3	207.0	184.7
450	188.0	145.2	162.9	162.6	218.4	186.0	200.9	189.9
400	141.5	137.0	175.2	149.5	240.6	265.4	170.9	307.0
350	121.1	150.0	244.8	183.9	347.8	618.6	790.0	
300	167.0	191.9	460.3	348.5				
LONG	-168.99	-163.83	-158.95	-152.33	-145.71	-139.46	-133.66	-123.40
LAT	79.80	80.11	80.40	80.37	80.35	80.32	80.09	79.41
QUAL	33	33	32	32	33	33	31	31

PASS 2346 AT RESLUT, 63 320

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	35504	35521	35539	35557	35614	35632	35650	35707
1000	0.151	0.146	0.140	0.101	0.105	0.067	0.080	0.080
950	0.165	0.166	0.157	0.117	0.116	0.078	0.090	0.090
900	0.185	0.190	0.177	0.135	0.133	0.091	0.103	0.104
850	0.211	0.218	0.201	0.156	0.160	0.111	0.125	0.127
800	0.245	0.257	0.232	0.184	0.195	0.137	0.155	0.158
750	0.287	0.305	0.281	0.225	0.236	0.171	0.193	0.198
700	0.339	0.360	0.345	0.275	0.282	0.223	0.239	0.247
650	0.405	0.431	0.428	0.353	0.349	0.289	0.294	0.304
600	0.496	0.535	0.538	0.464	0.479	0.392	0.431	0.410
550	0.632	0.730	0.702	0.642	0.666	0.574	0.621	0.603
500	0.865	1.008	0.969	0.889	0.925	0.822	0.873	0.883
450	1.225	1.355	1.340	1.218	1.299	1.154	1.199	1.223
400	1.595	1.714	1.820	1.583	1.761	1.614	1.572	1.655
350			2.242	1.806		1.960	1.846	2.124
300								

HEIGHT	SCALE HEIGHT, KM							
	35504	35521	35539	35557	35614	35632	35650	35707
950	469.6	380.3	423.4	343.9	422.1	311.1	378.9	361.4
900	412.1	358.4	389.0	334.9	333.8	278.0	308.3	297.9
850	363.3	332.4	349.6	308.8	285.0	254.2	275.7	267.8
800	338.4	318.4	310.9	283.1	257.2	234.7	243.2	239.5
750	318.4	305.2	283.3	258.2	246.5	215.1	225.0	223.3
700	295.1	283.0	255.7	233.2	235.9	197.6	208.7	212.9
650	263.6	248.8	229.6	200.8	216.4	180.0	192.5	202.5
600	229.4	199.0	205.5	172.1	171.0	162.9	165.4	161.1
550	191.3	174.1	180.4	162.3	153.9	146.5	144.0	133.9
500	162.1	170.7	156.9	161.3	152.6	143.8	153.9	144.1
450	188.8	195.4	162.2	180.3	159.2	150.9	176.4	159.4
400	387.1	278.0	210.9	290.5	223.7	196.9	246.5	184.8
350			342.1	620.9		826.1	543.5	321.1
300								

LONG	-118.41	-114.68	-110.73	-106.78	-103.96	-101.18	-98.40	-96.10
LAT	79.00	78.43	77.84	77.24	76.56	75.82	75.08	74.35
QUAL	32	31	32	32	32	32	32	32

PASS 2346 AT RESLUT, 63 320

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)		
	35725	35742	35818
1000	0.069	0.058	0.025
950	0.080	0.067	0.033
900	0.094	0.080	0.041
850	0.114	0.098	0.051
800	0.139	0.121	0.067
750	0.179	0.156	0.087
700	0.231	0.200	0.112
650	0.295	0.252	0.167
600	0.432	0.373	0.244
550	0.618	0.552	0.365
500	0.873	0.801	0.528
450	1.232	1.131	0.787
400	1.703	1.557	1.107
350	2.232		1.411
300			
HEIGHT	SCALE HEIGHT, KM		
	35725	35742	35818
950	314.0	302.9	
900	279.3	267.9	219.0
850	255.8	243.4	205.5
800	232.3	219.3	194.8
750	213.2	205.5	184.2
700	194.4	191.6	173.5
650	175.6	177.8	154.3
600	154.9	152.7	133.5
550	142.7	132.2	131.1
500	146.7	141.8	132.5
450	152.9	152.3	141.1
400	172.1	210.6	178.7
350	432.4		350.0
300			
LONG	-94.13	-92.27	-88.88
LAT	73.52	72.73	71.01
QUAL	32	32	32

PASS 2346 AT OTTAWA, 63 320  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)		
	40229	40304	40322
1000	0.004	0.009	0.007
950	0.008	0.012	0.010
900	0.013	0.014	0.012
850	0.018	0.016	0.014
800	0.024	0.018	0.017
750	0.031	0.020	0.020
700	0.040	0.024	0.023
650	0.051	0.029	0.026
600	0.064	0.036	0.033
550	0.079	0.044	0.045
500	0.101	0.053	0.060
450	0.134	0.077	0.077
400	0.191	0.107	0.097
350	0.286	0.143	0.146
300	0.474	0.247	0.255
HEIGHT	SCALE HEIGHT, KM		
900	130.1	358.9	300.9
850	156.4	345.8	295.2
800	177.3	332.7	289.6
750	192.7	319.7	284.0
700	208.1	300.9	278.4
650	217.9	279.2	272.7
600	221.0	257.6	260.3
550	217.7	235.9	238.9
500	193.4	214.1	217.5
450	160.3	187.9	196.2
400	132.7	161.7	174.5
350	118.0	135.4	123.9
300	104.8	103.5	82.1
LONG	-76.74	-76.20	-75.47
LAT	58.01	56.12	55.14
QUAL	23	21	23

PASS 2353 AT AGASTA, 63 320														
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)														
HEIGHT	TIME (UT)													
	172258	172333	172409	172444	172519	172555	172630	172705						
1000	0.174	0.185	0.209	0.217	0.236	0.266	0.277	0.278						
950	0.188	0.200	0.226	0.242	0.260	0.292	0.302	0.305						
900	0.206	0.219	0.248	0.271	0.290	0.324	0.333	0.338						
850	0.227	0.242	0.274	0.304	0.324	0.361	0.376	0.381						
800	0.257	0.272	0.308	0.345	0.367	0.412	0.435	0.445						
750	0.294	0.314	0.360	0.397	0.425	0.486	0.522	0.542						
700	0.343	0.369	0.427	0.475	0.511	0.589	0.654	0.708						
650	0.411	0.450	0.522	0.578	0.649	0.792	0.901	1.021						
600	0.495	0.551	0.680	0.779	0.907	1.136	1.331	1.616						
550	0.676	0.776	0.983	1.143	1.380	1.843	2.270	2.737						
500	1.018	1.185	1.591	1.922	2.476	3.322	4.112	4.853						
450	1.649	2.084	2.846	3.476	4.624	6.078	7.380	8.010						
400	2.952	3.874	5.120	6.055	8.320	10.672	10.930							
350	5.376	6.940	8.422	9.944										
300	9.272	10.487												
HEIGHT	SCALE HEIGHT, KM													
	950	900	850	800	750	700	650	600	550	500	450	400	350	300
950	563.0	554.9	550.4	447.9	481.5	505.8	545.1	508.4						
900	510.7	508.1	502.3	432.5	444.2	465.6	462.7	450.5						
850	458.4	461.2	454.3	407.3	415.4	417.0	382.8	362.9						
800	408.5	405.2	400.5	367.4	375.8	339.8	309.3	287.8						
750	359.0	343.1	334.6	319.6	315.2	280.4	256.9	235.8						
700	312.4	288.7	273.9	269.5	248.7	225.8	202.0	178.1						
650	271.8	249.3	227.2	218.8	185.3	169.0	146.2	125.8						
600	231.2	209.9	175.9	164.6	140.9	124.5	113.3	104.1						
550	141.3	146.1	125.3	114.3	104.3	93.6	88.7	91.2						
500	114.8	105.1	91.2	90.7	80.9	80.9	82.1	86.5						
450	96.3	81.7	84.5	82.2	83.7	81.7	91.6	131.5						
400	80.8	80.1	91.3	98.2	84.6	113.5	311.6							
350	86.3	105.1	110.2	108.2										
300	106.4	195.8												
LONG	-86.94	-86.68	-86.42	-86.18	-85.95	-85.72	-85.51	-85.30						
LAT	-27.71	-25.75	-23.73	-21.77	-19.80	-17.78	-15.81	-13.85						
QUAL	32	33	33	33	33	33	32	32						

PASS 2353 AT AGASTA, 63 320

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)				
	172740	172816	172851	172926	173002
1000	0.287	0.276	0.294	0.296	0.297
950	0.313	0.306	0.323	0.327	0.335
900	0.347	0.342	0.359	0.366	0.376
850	0.392	0.391	0.410	0.415	0.427
800	0.462	0.463	0.482	0.486	0.496
750	0.559	0.571	0.589	0.584	0.598
700	0.724	0.762	0.782	0.767	0.747
650	1.010	1.073	1.090	1.061	0.979
600	1.602	1.707	1.692	1.601	1.492
550	2.751	3.016	2.916	2.712	2.501
500	4.997	5.271	5.133	4.797	4.537
450	7.522	7.818	7.940	7.972	7.939
400					
350					
300					

HEIGHT	SCALE HEIGHT, KM				
	172740	172816	172851	172926	173002
950	524.8	469.7	496.8	474.7	414.6
900	453.1	410.2	419.7	425.1	400.5
850	368.4	334.2	349.5	348.3	363.5
800	277.4	266.2	282.3	284.2	298.1
750	233.9	214.4	215.9	235.3	250.4
700	184.8	173.1	177.0	186.4	214.7
650	129.5	132.6	137.7	143.1	166.8
600	103.2	94.1	99.9	107.4	108.3
550	86.9	85.3	87.1	89.2	90.4
500	92.9	98.0	95.0	89.0	83.9
450	313.4	270.5	181.2	121.9	100.1
400					
350					
300					

LONG	-85.10	-84.90	-84.71	-84.53	-84.34
LAT	-11.88	-9.86	-7.90	-5.93	-3.90
QUAL	32	22	22	33	33

PASS 2353 AT QUITOE, 63 320

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	172613	172648	172723	172759	172834	172909	172945	173020
1000	0.255	0.272	0.275	0.275	0.279	0.286	0.280	0.272
950	0.278	0.297	0.302	0.301	0.305	0.316	0.310	0.311
900	0.307	0.327	0.336	0.335	0.339	0.351	0.348	0.352
850	0.340	0.363	0.376	0.376	0.380	0.397	0.393	0.404
800	0.389	0.428	0.450	0.452	0.457	0.471	0.446	0.466
750	0.474	0.531	0.550	0.569	0.573	0.569	0.540	0.537
700	0.582	0.677	0.707	0.740	0.744	0.733	0.685	0.671
650	0.767	0.889	0.948	1.001	0.985	0.979	0.912	0.869
600	1.062	1.290	1.471	1.593	1.558	1.480	1.340	1.215
550	1.777	2.226	2.533	2.743	2.756	2.502	2.244	1.974
500	3.156	3.916	4.436	4.716	4.847	4.384	3.885	3.411
450	5.738	6.921	7.395	7.488	7.668	7.321	6.770	6.127
400	9.698					9.535	10.089	9.984
350								
300								

HEIGHT	SCALE HEIGHT, KM							
	950	519.3	526.9	493.9	495.7	496.4	480.1	450.2
900	464.4	458.2	424.8	426.2	428.8	420.1	412.4	364.0
850	409.5	389.5	354.8	358.5	361.2	349.3	375.3	340.4
800	351.2	321.4	300.7	289.0	289.2	299.1	338.2	316.8
750	287.4	253.5	246.6	218.8	215.6	248.8	255.0	293.2
700	223.5	200.8	197.5	182.4	185.9	202.1	197.5	245.0
650	181.8	167.9	149.5	143.3	153.7	154.6	161.3	186.5
600	131.6	110.7	102.1	98.6	97.5	109.1	115.3	126.1
550	89.3	89.1	92.5	94.3	88.1	91.8	92.9	97.2
500	84.7	87.5	87.7	92.1	93.3	89.3	90.4	87.2
450	85.3	96.9	125.4	182.0	186.3	122.2	97.0	88.9
400	118.1					449.7	207.9	132.0
350								
300								

LONG	-85.61	-85.40	-85.20	-85.00	-84.80	-84.61	-84.43	-84.24
LAT	-16.77	-14.80	-12.84	-10.82	-8.85	-6.88	-4.85	-2.88
QUAL	22	23	22	21	22	22	23	23

PASS 2353 AT QUITOE, 63 320

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	173055	173130	173221	173256	173331	173407	173442	173517
1000	0.271	0.264	0.233	0.208	0.208	0.187	0.185	0.193
950	0.307	0.295	0.262	0.236	0.234	0.211	0.206	0.215
900	0.355	0.344	0.299	0.273	0.267	0.240	0.232	0.241
850	0.412	0.400	0.347	0.319	0.306	0.274	0.262	0.271
800	0.480	0.467	0.404	0.375	0.352	0.318	0.298	0.309
750	0.558	0.545	0.470	0.442	0.432	0.383	0.357	0.366
700	0.692	0.688	0.602	0.517	0.540	0.466	0.439	0.436
650	0.873	0.884	0.778	0.669	0.679	0.583	0.544	0.525
600	1.183	1.165	1.048	0.889	0.874	0.754	0.701	0.673
550	1.770	1.649	1.486	1.261	1.196	1.011	0.923	0.862
500	3.042	2.643	2.292	1.944	1.807	1.483	1.339	1.231
450	5.379	4.578	3.848	3.445	3.026	2.447	2.133	1.929
400	9.146	7.966	6.715	6.224	5.450	4.361	3.736	3.135
350			11.313		9.682	7.884	6.729	5.335
300								8.713
HEIGHT	SCALE HEIGHT, KM							
950	367.8	400.8	388.4	353.2	404.2	406.8	442.0	444.6
900	337.0	337.5	349.8	325.6	367.5	379.1	403.0	412.8
850	320.1	316.3	324.7	308.3	332.4	339.8	368.5	376.6
800	303.7	295.6	299.7	293.4	297.2	304.8	334.0	342.3
750	287.3	274.8	274.7	278.4	269.4	277.9	296.6	312.3
700	242.7	240.8	231.9	263.4	242.3	251.0	258.5	282.4
650	193.3	203.8	187.6	219.2	214.5	223.0	222.7	251.8
600	153.1	162.8	162.0	165.0	185.1	193.7	196.5	216.5
550	107.4	131.0	133.5	131.9	139.3	154.6	164.5	179.9
500	89.7	98.9	105.3	101.3	110.2	120.1	124.2	127.8
450	89.7	88.0	91.8	83.3	90.9	88.9	95.1	103.1
400	106.4	96.4	91.1	88.0	82.6	84.7	86.6	99.1
350			111.1		98.2	91.5	88.6	93.1
300								124.9
LONG	-84.06	-83.87	-83.61	-83.42	-83.23	-83.04	-82.84	-82.64
LAT	-0.91	1.05	3.91	5.88	7.86	9.88	11.85	13.82
QUAL	23	23	23	23	23	23	23	23



PASS 2353 AT QUITOE, 63 320

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	173553	173628	173703	173738	173814	173849	173907	173942
1000	0.192	0.181	0.184	0.175	0.169	0.166	0.167	0.161
950	0.213	0.203	0.207	0.197	0.188	0.186	0.186	0.183
900	0.239	0.229	0.232	0.223	0.215	0.210	0.211	0.209
850	0.270	0.260	0.263	0.255	0.246	0.238	0.239	0.240
800	0.306	0.298	0.302	0.292	0.282	0.274	0.276	0.277
750	0.364	0.351	0.358	0.347	0.337	0.326	0.330	0.332
700	0.436	0.416	0.429	0.415	0.407	0.390	0.397	0.401
650	0.526	0.501	0.522	0.502	0.494	0.469	0.481	0.490
600	0.661	0.625	0.650	0.631	0.620	0.593	0.603	0.610
550	0.841	0.784	0.838	0.792	0.773	0.745	0.771	0.786
500	1.158	1.064	1.132	1.078	1.049	1.010	1.039	1.061
450	1.701	1.532	1.601	1.542	1.495	1.463	1.463	1.507
400	2.678	2.395	2.388	2.267	2.193	2.168	2.154	2.230
350	4.419	3.810		3.409	3.282	3.198	3.257	3.360
300	7.114			4.867	4.862	4.815	4.801	5.023
HEIGHT	SCALE HEIGHT, KM							
950	442.2	416.6	415.3	395.9	412.6	422.0	424.6	367.7
900	408.1	393.2	399.7	379.3	369.9	390.3	389.3	357.0
850	375.0	364.4	363.9	352.5	346.5	357.2	353.4	334.3
800	342.2	336.9	331.0	325.8	323.1	327.4	323.4	311.6
750	312.6	312.0	305.0	301.0	297.6	303.7	300.5	289.6
700	283.0	287.1	279.0	276.2	271.6	280.1	277.7	267.7
650	253.2	260.3	250.7	251.0	246.3	255.9	252.9	243.7
600	222.2	230.0	219.1	224.6	223.9	226.8	221.3	216.9
550	187.9	198.2	188.2	197.6	201.6	197.7	189.6	187.7
500	144.9	156.3	158.9	152.7	157.2	151.6	158.7	157.4
450	123.4	127.2	138.7	139.2	140.1	135.4	143.1	138.8
400	105.2	110.3	117.2	126.5	127.1	128.3	125.5	126.3
350	96.7	107.2		124.5	120.3	123.6	121.0	120.4
300	151.8			183.8	171.2	141.6	144.6	161.5
LONG	-82.43	-82.22	-82.00	-81.77	-81.52	-81.27	-81.14	-80.86
LAT	15.85	17.81	19.78	21.74	23.75	25.71	26.72	28.67
QUAL	23	23	23	21	31	23	23	23

PASS 2354 AT OTTAWA, 63 320

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	173924	173959	174017	174128	174154	174229	174247	174340
1000	0.133	0.145	0.147	0.133	0.137	0.138	0.129	0.130
950	0.153	0.167	0.168	0.154	0.156	0.159	0.149	0.149
900	0.179	0.191	0.193	0.178	0.181	0.181	0.172	0.170
850	0.208	0.222	0.223	0.206	0.209	0.208	0.199	0.196
800	0.242	0.257	0.258	0.239	0.240	0.241	0.231	0.228
750	0.289	0.302	0.312	0.282	0.286	0.289	0.276	0.273
700	0.350	0.369	0.381	0.345	0.343	0.349	0.330	0.328
650	0.422	0.450	0.466	0.422	0.411	0.419	0.394	0.392
600	0.538	0.566	0.582	0.523	0.514	0.527	0.495	0.492
550	0.682	0.716	0.732	0.678	0.651	0.663	0.624	0.617
500	0.932	0.967	0.984	0.911	0.871	0.882	0.829	0.811
450	1.367	1.396	1.430	1.288	1.212	1.216	1.141	1.116
400	2.073	2.063	2.155	1.869	1.751	1.751	1.632	1.584
350	3.112	3.104	3.290		2.641	2.612	2.439	2.342
300	4.605	4.627				3.896		
HEIGHT	SCALE HEIGHT, KM							
950	340.5	347.9	359.1	336.8	352.5	362.2	341.7	364.2
900	327.9	342.5	342.3	330.8	341.9	355.9	338.8	349.7
850	313.7	326.0	320.2	316.9	326.9	330.9	320.8	327.2
800	299.4	309.5	298.1	303.0	311.8	308.2	303.9	307.1
750	281.3	290.7	281.0	286.8	294.5	290.9	289.5	291.1
700	262.2	266.9	264.8	266.9	277.0	273.6	275.1	275.2
650	243.1	243.0	248.6	247.0	259.5	256.4	260.6	259.2
600	217.2	218.5	225.1	223.5	230.6	229.8	232.9	234.6
550	191.3	193.8	198.6	190.6	197.0	202.1	202.6	209.0
500	150.4	155.3	151.3	158.3	167.9	173.7	173.3	177.6
450	126.9	134.4	131.3	142.0	146.1	149.3	150.7	151.8
400	122.6	126.1	121.1	127.7	128.9	129.1	133.6	135.9
350	121.3	120.6	123.6		117.6	125.3	118.8	126.7
300	155.3	137.0				129.7		
LONG	-81.00	-80.73	-80.57	-79.93	-79.68	-79.31	-79.11	-78.48
LAT	27.67	29.62	30.63	34.12	35.13	37.45	38.75	41.90
QUAL	21	23	23	23	23	23	23	23

PASS 2354 AT OTTAWA, 63 320

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	174415	174432	174508	174543	174618	174653	174729	174804
1000	0.119	0.126	0.117	0.123	0.141	0.138	0.117	0.116
950	0.140	0.146	0.136	0.143	0.161	0.156	0.136	0.133
900	0.163	0.170	0.158	0.166	0.184	0.176	0.159	0.153
850	0.189	0.196	0.184	0.193	0.208	0.200	0.184	0.175
800	0.218	0.228	0.214	0.224	0.239	0.232	0.214	0.205
750	0.260	0.272	0.258	0.265	0.277	0.273	0.255	0.243
700	0.311	0.325	0.310	0.314	0.321	0.323	0.304	0.288
650	0.371	0.388	0.372	0.376	0.371	0.382	0.361	0.347
600	0.460	0.478	0.465	0.472	0.461	0.473	0.447	0.426
550	0.588	0.605	0.590	0.591	0.585	0.583	0.561	0.519
500	0.767	0.806	0.787	0.784	0.769	0.753	0.738	0.682
450	1.045	1.114	1.096	1.075	1.065	1.033	1.005	0.910
400	1.491	1.592	1.580	1.547	1.552	1.490	1.418	1.321
350	2.216	2.347	2.371	2.304	2.293	2.099	2.013	1.874
300	3.308		3.643	3.559	3.374	3.059	2.877	2.650
HEIGHT	SCALE HEIGHT, KM							
950	319.2	335.3	322.8	324.7	374.3	398.1	324.7	359.9
900	324.9	331.9	319.3	327.9	372.3	376.9	321.0	345.9
850	316.3	317.2	307.7	319.7	361.0	352.8	313.1	328.5
800	307.6	303.3	295.9	309.1	345.3	332.3	304.2	313.4
750	292.2	291.4	282.6	293.4	328.5	314.4	292.3	299.3
700	275.8	279.5	269.3	277.7	311.6	296.4	280.3	285.3
650	259.4	267.5	256.0	259.7	294.8	278.3	268.3	267.3
600	236.4	239.7	230.4	233.5	257.6	250.8	241.2	244.5
550	208.0	199.3	199.3	207.3	213.4	223.3	208.7	221.7
500	179.8	170.9	168.7	177.5	173.9	186.7	179.6	190.5
450	153.4	150.8	146.5	151.2	145.4	150.8	156.8	158.0
400	135.8	135.0	131.0	133.2	131.3	143.9	147.1	144.5
350	122.8	125.8	119.5	119.4	128.4	140.6	141.9	143.8
300	122.2		120.8	123.2	133.3	127.3	137.5	156.4
LONG	-78.01	-77.77	-77.24	-76.65	-76.02	-75.33	-74.51	-73.67
LAT	43.83	44.77	46.75	48.67	50.58	52.50	54.45	56.35
QUAL	23	23	23	23	23	23	23	23

PASS 2354 AT OTTAWA, 63 320

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)			
	174839	174915	174950	175007
1000	0.100	0.109	0.104	0.107
950	0.117	0.126	0.121	0.126
900	0.137	0.145	0.140	0.146
850	0.159	0.167	0.161	0.170
800	0.186	0.194	0.187	0.197
750	0.218	0.228	0.218	0.230
700	0.260	0.268	0.257	0.272
650	0.315	0.324	0.311	0.332
600	0.382	0.398	0.377	0.404
550	0.477	0.488	0.477	0.504
500	0.614	0.636	0.612	0.647
450	0.820	0.854	0.817	0.847
400	1.127	1.172	1.121	1.143
350	1.566	1.614	1.519	1.542
300	2.266	2.225	2.031	2.045
HEIGHT	SCALE HEIGHT, KM			
950	322.1	338.1	336.0	315.7
900	321.5	336.5	338.6	324.8
850	322.4	331.4	339.3	328.7
800	310.4	320.3	324.1	319.9
750	292.6	303.7	306.1	298.0
700	276.1	287.0	286.2	277.9
650	261.0	267.6	264.1	261.2
600	246.0	246.4	242.1	244.5
550	223.3	224.9	219.1	225.2
500	193.3	188.3	195.8	202.8
450	167.9	163.5	170.2	178.8
400	157.1	158.7	164.2	169.3
350	145.7	156.6	170.5	173.9
300	146.3	169.3	168.2	192.2
LONG	-72.67	-71.54	-70.29	-69.62
LAT	58.23	60.16	62.02	62.92
QUAL	21	23	21	23

PASS 2354 AT RESLUT, 63 320

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	175135	175152	175210	175228	175245	175303	175321	175338
1000	0.171	0.207	0.210	0.187	0.186	0.198	0.181	0.172
950	0.204	0.237	0.254	0.215	0.227	0.235	0.215	0.205
900	0.242	0.267	0.294	0.248	0.265	0.271	0.246	0.236
850	0.284	0.308	0.331	0.285	0.308	0.311	0.290	0.275
800	0.330	0.356	0.382	0.335	0.356	0.368	0.343	0.325
750	0.379	0.414	0.451	0.403	0.408	0.435	0.403	0.383
700	0.442	0.483	0.532	0.485	0.479	0.518	0.481	0.455
650	0.522	0.561	0.636	0.580	0.562	0.619	0.573	0.542
600	0.616	0.665	0.768	0.714	0.658	0.736	0.678	0.641
550	0.725	0.845	0.922	0.873	0.803	0.902	0.835	0.791
500	0.908	1.069	1.127	1.056	0.997	1.155	1.058	1.003
450	1.177	1.357	1.453	1.319	1.235	1.463	1.326	1.264
400	1.513	1.720	1.858	1.702	1.528	1.807	1.631	1.586
350	1.932	2.199	2.364	2.110	1.913	2.180	1.906	1.990
300	2.485	2.870	2.962	2.529	2.334			
HEIGHT	SCALE HEIGHT, KM							
900		369.4	304.1	331.1		311.4	309.9	305.2
850	328.5	358.6	323.3	318.9	323.8	317.9	306.3	308.0
800	326.1	347.7	321.3	306.0	326.3	307.0	302.7	304.3
750	321.2	331.7	307.4	292.5	328.5	296.0	299.1	300.6
700	310.2	311.6	293.5	279.1	314.0	284.1	288.6	290.3
650	296.2	291.5	279.9	265.6	299.4	271.5	276.5	276.2
600	282.1	271.0	266.6	257.4	284.9	258.9	264.4	262.2
550	268.1	249.5	253.4	249.3	268.3	247.0	249.4	248.5
500	245.4	227.9	238.7	241.1	250.8	236.1	232.4	235.0
450	217.7	215.0	220.9	235.0	237.1	230.9	244.7	223.8
400	203.2	208.9	209.4	230.9	229.6	252.1	283.6	223.1
350	204.1	192.5	215.8	256.7	244.1	306.8	354.0	236.6
300	196.0	218.1	245.5	290.9	285.3			
LONG	-65.20	-64.21	-62.96	-61.57	-60.24	-58.76	-56.83	-55.01
LAT	67.48	68.35	69.25	70.14	70.97	71.85	72.69	73.48
QUAL	33	33	33	33	33	33	33	33

PASS 2354 AT RESLUT, 63 320								
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)								
HEIGHT	TIME (UT)							
	175356	175413	175431	175449	175506	175524	175542	175559
1000	0.163	0.175	0.185	0.196	0.158	0.178	0.169	0.140
950	0.199	0.205	0.223	0.233	0.191	0.210	0.202	0.171
900	0.235	0.232	0.257	0.259	0.225	0.238	0.233	0.200
850	0.281	0.275	0.297	0.297	0.266	0.280	0.275	0.227
800	0.336	0.328	0.350	0.351	0.320	0.333	0.324	0.273
750	0.402	0.393	0.412	0.417	0.383	0.396	0.380	0.330
700	0.489	0.478	0.495	0.500	0.463	0.477	0.455	0.399
650	0.591	0.579	0.597	0.603	0.563	0.572	0.544	0.493
600	0.709	0.696	0.715	0.723	0.679	0.681	0.645	0.603
550	0.904	0.854	0.895	0.898	0.855	0.873	0.784	0.732
500	1.105	1.107	1.173	1.167	1.115	1.126	1.017	0.934
450	1.497	1.442	1.497	1.492	1.436	1.459	1.305	1.223
400	1.911	1.860	1.859	1.873	1.821	1.876	1.665	1.589
350	2.408	2.336	2.328	2.374	2.308	2.356	2.117	2.047
300		2.835					2.631	2.513
HEIGHT	SCALE HEIGHT, KM							
	900	272.1	320.9	309.8	337.1	278.8	319.0	306.9
850	271.5	304.0	311.7	330.1	280.7	309.4	302.7	296.6
800	270.9	287.2	300.6	311.0	276.0	297.2	298.5	282.7
750	267.6	271.5	289.6	292.0	271.4	285.1	293.9	266.8
700	259.5	264.2	275.7	276.6	262.1	272.0	282.9	252.5
650	251.4	257.0	261.3	262.7	250.0	258.8	271.9	245.4
600	243.3	249.7	246.8	248.9	237.8	245.7	261.0	238.3
550	226.0	234.2	231.4	234.0	225.1	226.1	246.1	231.3
500	205.9	200.1	215.0	218.0	211.9	205.6	222.7	218.1
450	205.0	198.6	215.3	211.7	206.2	203.2	205.6	201.0
400	212.8	210.6	227.0	216.8	212.2	210.8	209.1	197.2
350	241.4	239.6	240.1	225.7	225.3	242.3	220.3	220.0
300		321.9					247.7	369.6
LONG	-53.08	-50.68	-47.96	-45.23	-42.28	-38.41	-34.54	-30.88
LAT	74.31	75.04	75.79	76.54	77.20	77.81	78.42	79.00
QUAL	33	33	33	33	33	33	33	33

PASS 2354 AT RESLUT, 63 320  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	175617	175634	175652	175710	175727	175745	175802	175820
1000	0.166	0.146	0.177	0.153	0.138	0.189	0.156	0.167
950	0.197	0.174	0.206	0.182	0.170	0.222	0.189	0.195
900	0.222	0.200	0.232	0.211	0.201	0.248	0.211	0.212
850	0.260	0.235	0.266	0.247	0.233	0.284	0.245	0.241
800	0.304	0.277	0.313	0.293	0.274	0.325	0.285	0.276
750	0.356	0.329	0.369	0.348	0.319	0.374	0.330	0.317
700	0.424	0.391	0.442	0.414	0.372	0.437	0.390	0.368
650	0.503	0.473	0.530	0.501	0.441	0.512	0.460	0.426
600	0.594	0.597	0.633	0.602	0.521	0.610	0.541	0.493
550	0.746	0.754	0.782	0.718	0.648	0.781	0.647	0.598
500	0.950	0.965	1.011	0.946	0.862	0.996	0.819	0.761
450	1.207	1.221	1.294	1.238	1.144	1.243	1.030	1.001
400	1.528	1.571	1.649	1.601	1.551	1.542	1.309	1.314
350	1.933	2.007	2.073	2.060	1.955			1.691
300	2.433							2.164
HEIGHT	SCALE HEIGHT, KM							
	900	323.8	318.4	352.4	299.0		362.2	330.6
850	318.1	310.7	340.0	300.5	304.7	356.9	327.0	391.9
800	312.4	303.0	320.6	293.8	307.6	348.0	323.4	376.7
750	305.3	286.3	301.3	287.2	310.5	333.9	319.7	361.4
700	290.8	267.9	284.7	277.9	303.0	310.1	307.6	340.5
650	276.2	249.3	269.3	264.7	279.8	286.3	294.0	318.4
600	261.7	230.4	253.9	251.6	256.5	264.2	280.4	296.3
550	243.5	213.2	238.2	238.5	230.3	248.0	264.0	256.7
500	224.3	211.5	222.2	216.4	200.7	231.7	240.0	201.7
450	214.3	209.9	209.4	194.3	180.9	230.1	216.9	193.5
400	215.4	204.1	212.2	197.8	194.9	225.9	201.6	193.2
350	217.2	232.2	277.6	256.5	224.1			199.6
300	283.7							262.9
LONG	-25.74	-20.82	-15.60	-9.94	-4.27	1.73	7.35	12.88
LAT	79.38	79.73	80.10	80.30	80.34	80.39	80.40	80.10
QUAL	33	33	33	33	33	33	33	33

PASS 2354 AT RESLUT, 63 320  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)					
	175838	175855	175913	175931	175948	180006
1000	0.167	0.085	0.069	0.061	0.046	0.036
950	0.195	0.109	0.086	0.081	0.058	0.049
900	0.223	0.120	0.102	0.095	0.067	0.058
850	0.253	0.146	0.124	0.113	0.080	0.071
800	0.294	0.180	0.150	0.133	0.095	0.086
750	0.342	0.220	0.181	0.158	0.116	0.105
700	0.398	0.266	0.218	0.191	0.144	0.130
650	0.471	0.328	0.260	0.229	0.177	0.160
600	0.556	0.399	0.319	0.274	0.216	0.194
550	0.665	0.481	0.412	0.339	0.279	0.268
500	0.840	0.670	0.530	0.468	0.409	0.372
450	1.057	0.922	0.721	0.640	0.584	0.528
400	1.331	1.252	0.965	0.884	0.816	0.738
350		1.575	1.265	1.178	1.091	1.021
300					1.340	
HEIGHT	SCALE HEIGHT, KM					
900	342.3	262.8	255.5	275.1	271.9	228.6
850	347.6	262.2	262.0	278.0	266.1	234.5
800	337.9	261.4	268.6	278.5	260.4	240.4
750	328.3	260.7	271.2	273.2	250.1	238.0
700	317.0	259.1	260.0	262.8	238.9	228.9
650	297.8	243.8	248.8	252.3	227.7	219.7
600	278.7	228.5	232.0	241.8	216.5	210.6
550	259.9	213.2	208.2	223.7	195.3	185.1
500	242.4	183.8	186.3	183.9	150.3	155.6
450	224.9	166.7	183.2	161.1	145.5	150.5
400	212.9	189.7	182.0	166.2	164.1	150.3
350		272.2	190.4	199.2	212.0	163.4
300					302.5	
LONG	18.41	23.62	28.21	32.44	36.43	40.25
LAT	79.81	79.53	79.05	78.50	77.98	77.37
QUAL	33	33	33	33	33	33



PASS 2366 AT SOLANT, 63 321

ELECTRON DENSITY IN ELECTRONS PER CC (X10<sup>-5</sup>)

HEIGHT	TIME (UT)							
	160411	160446	160522	160557	160650	160725	160801	160836
1000	0.041	0.043	0.045	0.048	0.065	0.083	0.077	0.098
950	0.045	0.051	0.052	0.055	0.073	0.092	0.085	0.110
900	0.052	0.059	0.060	0.062	0.082	0.102	0.096	0.116
850	0.060	0.067	0.068	0.070	0.093	0.112	0.106	0.123
800	0.069	0.076	0.079	0.079	0.106	0.124	0.117	0.128
750	0.079	0.088	0.091	0.090	0.120	0.138	0.132	0.157
700	0.095	0.104	0.107	0.106	0.139	0.160	0.154	0.200
650	0.115	0.127	0.129	0.130	0.163	0.188	0.181	0.227
600	0.141	0.155	0.156	0.160	0.193	0.224	0.215	0.241
550	0.177	0.194	0.197	0.201	0.241	0.266	0.266	0.304
500	0.228	0.245	0.247	0.268	0.304	0.354	0.356	0.438
450	0.312	0.343	0.345	0.376	0.418	0.482	0.485	0.565
400	0.451	0.518	0.510	0.560	0.611	0.678	0.691	0.800
350	0.678	0.805	0.777	0.849	0.900	1.031	1.051	1.201
300	1.140	1.390	1.307	1.393	1.475	1.806	1.684	1.902
HEIGHT	SCALE HEIGHT, KM							
950	399.0	317.6	336.8	390.2	409.0	470.5	467.6	529.8
900	372.7	358.9	356.8	411.5	410.6	493.5	472.0	713.3
850	349.1	360.8	352.1	395.8	403.9	484.0	465.2	652.1
800	328.7	340.2	336.2	363.7	385.8	449.0	427.4	590.8
750	306.3	314.2	320.2	331.5	359.4	407.9	387.3	387.2
700	287.2	290.4	299.4	300.2	331.0	349.0	343.4	301.2
650	265.9	269.4	272.0	269.0	301.3	299.7	299.9	304.0
600	244.5	248.4	244.5	236.3	271.3	269.1	258.0	306.7
550	216.7	216.2	216.8	201.3	230.6	238.3	220.4	231.7
500	184.5	183.6	189.1	168.6	190.1	189.8	189.0	155.0
450	151.4	141.3	149.8	138.0	151.1	157.1	153.7	162.0
400	132.3	120.1	124.9	126.8	131.9	135.2	129.9	130.9
350	111.5	105.1	112.5	111.4	119.5	106.9	112.2	112.5
300	84.6	81.9	84.8	85.2	90.4	80.5	91.9	90.8
LONG	-83.07	-81.75	-80.55	-79.49	-78.17	-77.40	-76.66	-76.06
LAT	-62.79	-60.92	-59.73	-59.01	-54.56	-52.31	-50.34	-48.41
QUAL	23	23	23	23	23	23	23	23

PASS 2366 AT SOLANT, 63 321

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	160941	160947	161022	161057	161133	161208	161243	161348
1000	0.091	0.086	0.079	0.102	0.115	0.114	0.146	0.189
950	0.097	0.095	0.090	0.115	0.128	0.124	0.160	0.212
900	0.104	0.104	0.100	0.126	0.142	0.137	0.178	0.234
850	0.113	0.114	0.112	0.138	0.157	0.153	0.200	0.261
800	0.125	0.128	0.127	0.153	0.176	0.176	0.226	0.294
750	0.147	0.145	0.145	0.178	0.204	0.206	0.262	0.338
700	0.175	0.168	0.166	0.209	0.239	0.244	0.312	0.397
650	0.208	0.200	0.199	0.245	0.283	0.297	0.386	0.478
600	0.246	0.247	0.244	0.305	0.350	0.376	0.492	0.610
550	0.291	0.312	0.312	0.397	0.460	0.505	0.667	0.821
500	0.400	0.432	0.429	0.540	0.665	0.748	0.978	1.254
450	0.564	0.627	0.644	0.788	0.981	1.178	1.553	2.114
400	0.813	0.928	0.997	1.185	1.564	2.036	2.543	3.915
350	1.280	1.555	1.639	2.024	2.642	3.441	4.275	6.633
300	2.279	2.992	3.074	3.868	4.622	5.623	6.394	10.066
HEIGHT	SCALE HEIGHT, KM							
950	782.6	529.3	413.1	500.1	469.6	515.5	475.4	464.7
900	649.4	521.3	434.8	534.9	485.5	464.2	449.7	465.8
850	535.5	473.6	403.1	481.0	441.5	409.6	412.9	427.3
800	432.8	423.3	380.0	420.2	394.5	351.0	373.7	395.0
750	378.7	372.8	357.3	343.2	344.9	306.9	325.0	343.8
700	324.5	322.8	330.0	299.6	303.7	276.9	270.1	283.1
650	287.8	273.1	277.3	271.0	268.7	239.8	228.3	237.3
600	262.5	229.4	228.3	223.7	220.4	196.1	189.2	197.7
550	235.1	187.9	187.8	178.4	163.2	147.8	150.9	149.4
500	173.5	153.1	144.8	152.5	132.5	126.0	119.9	111.6
450	144.1	131.0	120.2	129.7	118.5	106.1	105.5	93.6
400	125.6	118.0	107.1	107.1	105.9	92.1	100.0	78.2
350	101.3	92.6	93.1	87.5	94.7	98.3	105.6	109.2
300	82.7	71.6	76.7	79.7	91.6	171.8	205.8	175.6
LONG	-75.47	-74.93	-74.46	-74.01	-73.60	-73.22	-72.87	-72.28
LAT	-46.48	-44.49	-42.55	-40.62	-38.61	-36.66	-34.71	-31.09
QUAL	23	23	23	23	23	23	23	23

PASS 2366 AT SOLANT, 63 321

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)
	161423
1000	0.189
950	0.209
900	0.236
850	0.266
800	0.301
750	0.348
700	0.413
650	0.502
600	0.642
550	0.904
500	1.433
450	2.530
400	4.786
350	8.697
300	
HEIGHT	SCALE HEIGHT, KM
950	451.7
900	420.2
850	399.3
800	372.5
750	319.5
700	276.6
650	231.9
600	177.3
550	130.9
500	105.1
450	84.8
400	80.2
350	95.7
300	
LONG	-71.98
LAT	-29.13
QUAL	23

PASS 2366 AT AGASTA, 63 321  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	161133	161208	161243	161348	161423	161458	161534	161609
1000	0.129	0.143	0.154	0.184	0.205	0.238	0.273	0.273
950	0.141	0.156	0.169	0.202	0.226	0.263	0.300	0.300
900	0.155	0.171	0.188	0.227	0.253	0.291	0.330	0.335
850	0.171	0.188	0.209	0.255	0.285	0.324	0.366	0.376
800	0.194	0.215	0.237	0.288	0.322	0.368	0.415	0.435
750	0.223	0.251	0.279	0.341	0.376	0.426	0.481	0.519
700	0.263	0.295	0.333	0.407	0.443	0.500	0.574	0.645
650	0.312	0.368	0.406	0.495	0.543	0.615	0.736	0.865
600	0.405	0.460	0.522	0.627	0.702	0.834	1.007	1.283
550	0.528	0.611	0.710	0.860	0.979	1.210	1.552	2.241
500	0.751	0.901	1.044	1.260	1.554	2.037	2.720	4.312
450	1.165	1.429	1.686	2.102	2.853	3.844	5.238	8.268
400	1.938	2.427	2.865	3.745	5.351	7.391	10.034	
350	3.384	4.203	4.839	6.605	9.572	12.355		
300	5.840	6.277	6.827	10.389				
HEIGHT	SCALE HEIGHT, KM							
950	547.2	553.5	493.2	492.9	459.5	488.0	524.1	493.1
900	500.6	496.9	454.3	431.5	425.1	458.4	490.7	443.9
850	453.0	440.2	415.8	393.7	397.6	415.3	446.8	382.5
800	391.3	386.1	373.6	355.9	368.1	374.7	374.1	323.5
750	331.0	332.8	320.1	321.6	325.6	335.3	307.7	262.7
700	287.3	279.5	269.1	287.4	282.4	290.6	250.6	204.4
650	244.0	246.0	223.7	243.8	229.4	204.8	196.3	158.5
600	211.4	212.8	188.6	184.9	181.3	158.3	145.0	110.8
550	178.8	145.2	153.3	150.6	137.0	119.7	101.9	78.8
500	135.2	121.6	119.6	116.6	93.1	84.2	84.1	73.6
450	106.2	102.3	100.0	92.7	80.6	75.2	72.8	91.3
400	93.3	91.7	92.0	84.6	82.7	80.3	88.6	
350	89.2	98.4	108.5	95.5	96.3	134.6		
300	117.2	230.3	310.0	145.9				
LONG	-73.60	-73.22	-72.87	-72.28	-71.98	-71.70	-71.44	-71.19
LAT	-38.61	-36.66	-34.71	-31.09	-29.13	-27.17	-25.16	-23.20
QUAL	23	22	22	33	33	33	33	33

PASS 2366 AT AGASTA, 63 321

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	161644	161717	161755	161830	161906	161941	162016	162052
1000	0.294	0.303	0.314	0.327	0.326	0.333	0.323	0.324
950	0.325	0.338	0.352	0.367	0.368	0.377	0.365	0.362
900	0.365	0.383	0.402	0.424	0.427	0.439	0.422	0.413
850	0.413	0.438	0.466	0.495	0.502	0.515	0.494	0.476
800	0.478	0.532	0.567	0.613	0.593	0.642	0.582	0.613
750	0.590	0.672	0.725	0.808	0.779	0.842	0.770	0.811
700	0.767	0.887	0.960	1.113	1.071	1.159	1.056	1.085
650	1.064	1.280	1.425	1.652	1.585	1.740	1.543	1.534
600	1.638	2.120	2.258	2.563	2.474	2.717	2.454	2.387
550	2.876	3.670	3.612	3.548	3.437	3.892	3.888	3.959
500	5.270	5.555	4.590	4.336	4.193	4.768	5.301	6.113
450		6.889	5.688	5.345	5.116	5.625	6.373	8.072
400		8.064	6.855	6.251	5.844			
350								
300								
HEIGHT	SCALE HEIGHT, KM							
950	451.8	419.2	394.0	377.9	364.3	362.8	374.7	408.4
900	404.0	369.4	348.1	324.3	315.1	311.3	324.0	343.8
850	359.4	316.5	304.3	280.4	283.7	270.6	289.2	269.3
800	306.6	256.2	235.0	229.2	252.2	222.6	254.3	231.8
750	230.1	201.2	189.7	172.1	199.1	173.7	196.5	194.4
700	179.8	165.6	160.1	148.0	147.4	147.3	149.3	164.4
650	139.4	119.4	119.3	118.1	118.6	113.1	119.6	129.9
600	102.6	93.2	103.0	128.2	126.9	120.6	104.9	105.7
550	84.5	96.0	154.1	221.6	220.8	194.0	127.8	100.0
500	91.5	181.3	233.7	238.2	248.1	284.2	222.3	137.4
450		276.7	237.1	275.3	314.5	378.0	325.2	260.6
400		369.1	345.2	377.3	531.9			
350								
300								
LONG	-70.95	-70.74	-70.50	-70.29	-70.08	-69.88	-69.68	-69.49
LAT	-21.24	-19.39	-17.25	-15.28	-13.26	-11.30	-9.33	-7.30
QUAL	33	32	32	32	32	32	22	22

PASS 2366 AT AGASTA, 63 321

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)				
	162127	162202	162237	162322	162358
1000	0.318	0.321	0.302	0.313	0.290
950	0.358	0.359	0.340	0.350	0.328
900	0.409	0.409	0.390	0.402	0.376
850	0.471	0.469	0.449	0.466	0.433
800	0.573	0.541	0.520	0.540	0.499
750	0.719	0.664	0.635	0.640	0.591
700	0.942	0.836	0.795	0.791	0.728
650	1.277	1.116	1.038	1.021	0.913
600	2.006	1.613	1.441	1.369	1.202
550	3.431	2.715	2.278	1.991	1.718
500	5.902	4.777	3.911	3.191	2.740
450	9.381	8.583	7.125	5.596	4.688
400		12.678	11.788	9.633	7.992
350					
300					
HEIGHT	SCALE HEIGHT, KM				
	950	900	850	800	750
950	394.8	403.2	393.3	405.0	393.9
900	355.2	367.7	362.1	365.9	362.9
850	296.9	334.3	330.9	336.3	337.5
800	256.3	301.0	299.3	309.6	312.6
750	218.7	250.9	249.3	273.8	282.2
700	182.2	200.3	207.4	225.6	245.4
650	145.0	164.7	179.4	189.9	207.8
600	99.6	115.2	137.5	157.0	167.8
550	89.7	92.2	98.6	122.8	126.3
500	96.2	84.2	85.7	94.6	99.4
450	135.0	93.8	89.1	87.4	89.1
400		198.0	128.4	101.8	98.2
350					
300					
LONG	-69.31	-69.12	-68.94	-68.70	-68.51
LAT	-5.33	-3.37	-1.40	1.14	3.16
QUAL	23	33	33	33	33

PASS 2366 AT QUITOE, 63 321  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	162110	162145	162220	162256	162340	162416	162451	162526
1000	0.305	0.309	0.308	0.297	0.266	0.249	0.227	0.212
950	0.341	0.345	0.345	0.328	0.297	0.283	0.257	0.238
900	0.391	0.393	0.393	0.373	0.342	0.327	0.293	0.274
850	0.454	0.455	0.451	0.429	0.394	0.382	0.338	0.318
800	0.530	0.529	0.523	0.495	0.454	0.449	0.390	0.369
750	0.647	0.626	0.646	0.573	0.554	0.527	0.484	0.447
700	0.882	0.823	0.807	0.715	0.684	0.656	0.603	0.565
650	1.240	1.112	1.065	0.927	0.865	0.846	0.760	0.713
600	1.985	1.627	1.477	1.240	1.123	1.113	0.988	0.940
550	3.362	2.753	2.329	1.818	1.584	1.554	1.402	1.272
500	5.623	4.823	3.943	2.992	2.461	2.431	2.188	1.882
450	8.282	8.327	6.795		4.131	4.123	3.653	2.995
400			10.906		7.207	7.057	6.329	5.207
350						11.136	10.357	8.735
300								
HEIGHT	SCALE HEIGHT, KM							
950	394.4	390.5	403.9	425.4	403.0	358.6	376.1	383.2
900	341.4	352.9	366.3	370.7	358.1	333.4	348.0	344.7
850	311.2	324.5	331.0	345.7	328.4	311.8	319.7	317.5
800	281.0	296.0	294.3	320.7	298.7	291.4	291.5	290.3
750	239.4	262.3	250.9	295.7	268.5	271.1	266.3	262.9
700	170.5	197.5	208.6	238.7	238.4	241.1	241.2	235.3
650	127.3	153.0	176.6	181.6	207.6	205.9	210.9	207.7
600	100.0	114.6	138.3	156.5	176.2	169.8	169.9	180.6
550	91.2	91.8	98.4	117.4	134.3	134.7	130.0	151.1
500	105.4	88.1	92.2	96.1	104.6	105.4	103.2	118.4
450	185.0	104.4	94.8		92.4	93.3	93.7	98.2
400			146.9		93.7	98.2	91.4	87.8
350						139.6	134.1	118.9
300								
LONG	-69.40	-69.21	-69.03	-68.84	-68.61	-68.42	-68.24	-68.05
LAT	-6.29	-4.32	-2.35	-0.33	2.15	4.70	7.83	9.24
QUAL	23	23	23	23	23	23	23	23

PASS 2366 AT QUITOE, 63 321

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)						
	162602	162637	162712	162747	162823	162840	162916
1000	0.202	0.187	0.183	0.189	0.183	0.175	0.180
950	0.229	0.210	0.205	0.209	0.203	0.195	0.200
900	0.263	0.237	0.233	0.235	0.228	0.221	0.225
850	0.304	0.271	0.265	0.266	0.257	0.251	0.253
800	0.353	0.315	0.309	0.308	0.294	0.286	0.287
750	0.423	0.385	0.367	0.366	0.352	0.337	0.338
700	0.513	0.474	0.439	0.437	0.426	0.400	0.400
650	0.636	0.597	0.547	0.534	0.519	0.488	0.475
600	0.836	0.759	0.699	0.684	0.649	0.619	0.603
550	1.138	1.027	0.918	0.873	0.811	0.783	0.765
500	1.691	1.471	1.324	1.245	1.117	1.092	1.025
450	2.712	2.260	2.089	1.918	1.669	1.609	1.506
400	4.676	3.785	3.534	3.101	2.693	2.471	2.419
350	7.973	6.710	6.006	5.206	4.352	4.028	3.783
300				7.477	6.521	6.088	5.627
HEIGHT	SCALE HEIGHT, KM						
950	374.8	398.8	410.3	449.8	449.8	425.2	445.9
900	351.4	385.7	388.5	406.9	411.7	395.0	414.9
850	328.9	338.3	341.4	356.4	369.9	367.9	382.3
800	305.4	297.1	312.5	324.7	331.7	340.0	350.6
750	277.6	271.0	288.5	299.4	304.0	308.2	321.7
700	247.2	244.8	264.4	274.1	276.3	276.5	292.9
650	209.8	218.6	236.4	246.6	249.0	246.5	264.0
600	179.6	192.4	205.8	214.9	223.1	218.7	232.9
550	152.3	157.9	167.0	181.5	196.0	190.1	201.7
500	118.4	131.3	125.7	130.0	144.5	141.2	154.7
450	100.7	106.0	99.8	108.8	115.8	125.9	118.4
400	88.9	90.6	94.3	98.6	106.7	110.6	108.6
350	112.9	96.5	93.4	102.1	102.4	103.5	112.8
300				229.1	199.2	177.7	181.0
LONG	-67.85	-67.65	-67.45	-67.25	-67.02	-66.92	-66.68
LAT	10.13	12.10	14.07	16.04	18.06	19.02	21.04
QUAL	23	23	23	23	23	23	31



PASS 2367 AT STJOHN, 63 321

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	163212	163321	163356	163431	163506	163542	163617	163634
1000	0.122	0.107	0.110	0.119	0.105	0.100	0.100	0.090
950	0.142	0.124	0.126	0.136	0.121	0.116	0.115	0.104
900	0.163	0.144	0.145	0.155	0.138	0.134	0.131	0.120
850	0.188	0.166	0.167	0.177	0.158	0.153	0.150	0.138
800	0.216	0.192	0.192	0.204	0.183	0.178	0.174	0.161
750	0.253	0.226	0.228	0.240	0.214	0.208	0.203	0.189
700	0.302	0.267	0.269	0.281	0.252	0.244	0.237	0.224
650	0.359	0.314	0.326	0.330	0.306	0.294	0.289	0.271
600	0.443	0.402	0.413	0.420	0.377	0.366	0.352	0.327
550	0.572	0.524	0.521	0.532	0.468	0.454	0.437	0.418
500	0.734	0.672	0.649	0.667	0.617	0.594	0.573	0.539
450	1.055	0.912	0.908	0.912	0.832	0.788	0.762	0.733
400	1.581	1.314	1.297	1.284	1.181	1.111	1.056	1.020
350	2.391	1.946	1.892	1.876	1.728	1.615	1.525	1.474
300	3.875		2.881	2.913	2.642	2.484	2.314	2.256
HEIGHT	SCALE HEIGHT, KM							
950	336.3	326.7	356.0	374.5	371.2	345.9	373.8	346.8
900	344.6	334.5	346.7	361.7	357.7	345.6	358.5	337.5
850	334.9	326.2	335.5	347.3	346.2	336.9	349.0	331.6
800	325.1	314.4	320.8	329.9	329.0	322.2	331.5	318.3
750	307.0	295.7	296.7	309.7	307.8	305.4	310.6	302.4
700	284.6	277.0	272.6	289.6	286.5	288.5	289.6	284.6
650	262.1	258.4	250.9	269.4	262.9	267.7	266.5	260.5
600	237.1	237.1	233.5	245.9	238.4	242.3	243.4	236.4
550	209.5	215.1	216.2	222.3	213.4	216.8	219.5	211.5
500	179.2	193.1	198.8	198.7	186.1	191.9	193.3	186.6
450	130.9	155.7	156.8	163.7	158.1	166.0	167.9	165.5
400	124.8	133.1	139.0	142.0	138.9	140.1	145.7	146.6
350	113.8	121.2	125.0	122.6	126.0	126.7	132.6	129.2
300	99.3		117.7	109.7	113.3	114.5	115.4	115.8
LONG	-65.37	-64.74	-64.40	-64.02	-63.62	-63.17	-62.69	-62.44
LAT	30.88	34.72	36.67	38.61	40.54	42.53	44.46	45.40
QUAL	23	33	23	21	23	23	22	23

PASS 2367 AT STJOHN, 63 321

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	163710	163745	163820	163856	163931	164006	164041	164059
1000	0.091	0.089	0.086	0.087	0.080	0.086	0.092	0.095
950	0.104	0.103	0.100	0.100	0.091	0.099	0.105	0.108
900	0.119	0.118	0.115	0.114	0.105	0.114	0.121	0.125
850	0.136	0.135	0.132	0.131	0.121	0.131	0.139	0.144
800	0.159	0.157	0.153	0.152	0.142	0.153	0.163	0.167
750	0.187	0.184	0.178	0.176	0.168	0.180	0.190	0.195
700	0.221	0.216	0.209	0.207	0.200	0.210	0.225	0.230
650	0.266	0.259	0.253	0.247	0.241	0.254	0.272	0.275
600	0.319	0.311	0.305	0.293	0.290	0.307	0.328	0.327
550	0.410	0.394	0.388	0.370	0.366	0.387	0.393	0.415
500	0.536	0.512	0.508	0.484	0.474	0.507	0.519	0.542
450	0.707	0.670	0.667	0.626	0.624	0.668	0.677	0.710
400	0.987	0.931	0.925	0.850	0.864	0.906	0.912	0.961
350	1.448	1.343	1.316	1.188	1.226	1.272	1.273	1.329
300	2.206	2.017	2.037	1.740	1.800	1.849	1.799	1.860
HEIGHT	SCALE HEIGHT, KM							
	950	365.1	365.9	352.7	360.5	354.7	350.0	351.2
900	353.2	353.6	347.2	355.2	342.2	339.4	344.7	348.1
850	341.4	341.2	340.5	348.3	329.7	328.7	338.2	341.1
800	324.1	327.2	326.5	333.3	312.1	318.3	320.7	326.0
750	306.0	313.2	312.5	318.4	294.5	307.8	301.3	310.2
700	285.5	297.1	294.6	298.1	277.2	297.4	283.6	291.2
650	261.3	269.8	266.9	274.4	260.1	268.9	267.9	269.8
600	237.0	242.5	239.2	250.8	243.1	239.7	252.1	248.5
550	215.9	219.8	216.4	229.3	221.4	216.3	236.3	226.0
500	195.5	198.8	196.0	209.4	197.3	196.5	211.0	203.1
450	172.4	176.5	174.9	189.4	174.7	177.4	185.7	181.1
400	142.0	148.6	150.6	163.8	155.9	160.0	160.0	161.8
350	126.9	133.9	132.3	142.5	139.1	143.3	150.9	155.1
300	115.7	115.8	115.7	111.1	121.8	134.5	142.4	145.9
LONG	-61.89	-61.29	-60.63	-59.90	-59.07	-58.19	-57.16	-56.63
LAT	47.38	49.30	51.21	53.17	55.07	56.96	58.84	59.81
QUAL	23	21	23	23	23	22	21	23

PASS 2367 AT STJOHN, 63 321

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	164134	164210	164246	164344	164420	164455	164530	164606
1000	0.091	0.101	0.119	0.095	0.100	0.129	0.136	0.100
950	0.106	0.117	0.134	0.107	0.113	0.148	0.152	0.115
900	0.123	0.135	0.151	0.121	0.128	0.169	0.171	0.133
850	0.142	0.155	0.170	0.139	0.147	0.191	0.193	0.154
800	0.166	0.181	0.198	0.164	0.170	0.217	0.222	0.179
750	0.193	0.212	0.234	0.195	0.199	0.247	0.257	0.208
700	0.229	0.252	0.276	0.232	0.233	0.288	0.303	0.247
650	0.273	0.307	0.336	0.282	0.277	0.337	0.358	0.295
600	0.328	0.373	0.409	0.342	0.328	0.396	0.421	0.353
550	0.423	0.454	0.494	0.412	0.415	0.507	0.537	0.449
500	0.544	0.592	0.645	0.531	0.536	0.646	0.683	0.569
450	0.708	0.787	0.844	0.687	0.688	0.836	0.886	0.745
400	0.948	1.075	1.118	0.920	0.924	1.098	1.162	1.002
350	1.303		1.496	1.252	1.266	1.485	1.543	1.356
300	1.823		1.966	1.700	1.740	1.965	2.057	1.822
HEIGHT	SCALE HEIGHT, KM							
950	331.8	419.9	419.3	394.5	382.7	393.9	426.9	343.1
900	332.2	391.8	391.2	361.3	368.3	394.0	405.2	341.0
850	332.5	363.7	363.2	333.3	353.9	403.7	381.7	337.4
800	320.0	336.6	336.2	316.6	337.8	371.7	349.7	322.2
750	305.5	309.8	309.5	300.0	321.5	343.3	320.1	306.9
700	285.2	283.1	282.7	283.4	302.0	319.6	301.6	288.2
650	262.8	266.0	265.8	268.0	277.1	295.9	283.1	268.9
600	240.9	249.5	249.3	252.7	252.2	272.1	264.6	249.4
550	223.3	233.1	232.9	237.3	231.9	242.6	236.1	228.0
500	205.8	204.8	204.5	211.6	212.5	213.0	207.3	206.5
450	186.9	183.0	182.8	186.1	192.9	191.6	191.7	186.0
400	165.7	175.0	175.0	171.3	170.1	176.8	183.0	168.8
350	157.1	175.7	175.8	164.3	161.0	173.7	178.0	170.7
300	160.7	203.9	204.8	171.4	157.0	213.3	185.7	179.6
LONG	-55.35	-52.29	-51.04	-48.91	-46.30	-43.44	-39.64	-35.30
LAT	61.67	65.39	66.64	68.42	70.21	71.92	73.54	75.16
QUAL	21	31	31	33	33	31	33	31

PASS 2367 AT STJOHN, 63 321  
 ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)
	164623
1000	0.121
950	0.139
900	0.157
850	0.178
800	0.204
750	0.233
700	0.273
650	0.321
600	0.392
550	0.493
500	0.617
450	0.814
400	1.084
350	1.451
300	1.987
HEIGHT	SCALE HEIGHT, KM
950	394.7
900	389.0
850	379.2
800	361.3
750	343.4
700	310.5
650	277.0
600	252.0
550	231.9
500	211.8
450	189.4
400	173.6
350	170.3
300	157.2
LONG	-32.58
LAT	75.86
QUAL	23

PASS 2367 AT RESLUT, 63 321  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	164419	164437	164455	164512	164529	164547	164605	164622
1000	0.109	0.111	0.119	0.123	0.115	0.148	0.096	0.116
950	0.128	0.133	0.143	0.146	0.137	0.173	0.119	0.141
900	0.144	0.151	0.163	0.166	0.158	0.200	0.141	0.166
850	0.167	0.179	0.190	0.193	0.186	0.231	0.168	0.194
800	0.196	0.213	0.226	0.224	0.218	0.266	0.203	0.226
750	0.230	0.253	0.269	0.260	0.255	0.305	0.244	0.261
700	0.273	0.301	0.319	0.306	0.302	0.359	0.291	0.309
650	0.325	0.365	0.386	0.360	0.357	0.421	0.352	0.365
600	0.384	0.438	0.469	0.421	0.427	0.494	0.422	0.429
550	0.484	0.522	0.564	0.529	0.557	0.647	0.535	0.563
500	0.636	0.678	0.672	0.670	0.723	0.844	0.702	0.737
450	0.849	0.942	0.888	0.845	0.960	1.112	0.910	0.993
400	1.132	1.276	1.159	1.096	1.281	1.447	1.191	1.346
350	1.470	1.686	1.515	1.438	1.681	1.864	1.542	1.803
300	1.937	2.203	1.934	1.942	2.252		1.977	2.428
HEIGHT	SCALE HEIGHT, KM							
900	334.1	305.4	305.2	331.6	308.3	328.4		300.7
850	326.7	300.5	303.7	329.4	309.5	331.6	269.4	307.1
800	316.8	295.4	297.9	326.4	310.7	334.9	272.4	311.7
750	306.9	290.4	292.0	322.3	311.9	335.5	275.4	314.2
700	290.4	283.1	286.2	304.5	290.1	309.2	273.8	293.0
650	272.6	266.5	275.5	286.7	267.5	282.9	255.2	271.7
600	254.8	249.9	263.0	268.9	244.6	256.3	236.6	250.4
550	227.4	233.4	250.5	249.5	220.6	224.3	222.1	219.5
500	193.7	212.5	238.0	229.9	196.6	192.3	210.1	188.6
450	180.5	188.0	214.3	210.8	185.7	191.8	198.1	176.3
400	183.6	174.9	190.7	194.7	182.1	195.6	195.6	172.6
350	184.6	185.7	199.0	177.1	178.1	217.1	200.8	169.1
300	176.5	197.2	218.7	157.4	170.8		252.5	187.6
LONG	-46.38	-44.91	-43.44	-41.68	-39.76	-37.73	-35.46	-32.74
LAT	70.16	71.04	71.92	72.72	73.50	74.32	75.12	75.81
QUAL	33	33	33	33	33	33	33	33

PASS 2367 AT RESLUT, 63 321

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	164640	164658	164715	164733	164750	164808	164826	164843
1000	0.111	0.092	0.108	0.106	0.126	0.101	0.082	0.092
950	0.139	0.119	0.133	0.130	0.148	0.121	0.103	0.112
900	0.162	0.143	0.155	0.150	0.165	0.136	0.124	0.131
850	0.190	0.163	0.186	0.177	0.192	0.161	0.149	0.156
800	0.227	0.198	0.222	0.209	0.226	0.190	0.180	0.186
750	0.269	0.240	0.265	0.246	0.265	0.225	0.215	0.221
700	0.322	0.289	0.319	0.290	0.313	0.268	0.257	0.267
650	0.391	0.347	0.390	0.348	0.373	0.321	0.314	0.325
600	0.471	0.439	0.473	0.415	0.443	0.383	0.379	0.391
550	0.570	0.549	0.569	0.527	0.535	0.484	0.479	0.494
500	0.776	0.677	0.717	0.692	0.687	0.658	0.637	0.680
450	1.040	0.883	0.951	0.901	0.876	0.879	0.850	0.928
400	1.359	1.255	1.241	1.173	1.131	1.158	1.171	1.292
350	1.773	1.683	1.622	1.535	1.472	1.530	1.588	1.711
300		2.221	2.180	2.028	1.927	2.036	2.058	2.109
HEIGHT	SCALE HEIGHT, KM							
900	268.4		275.8		337.6	311.7		277.6
850	279.1	263.8	275.0	295.7	330.1	307.1	261.3	280.1
800	278.4	262.4	274.2	296.8	322.5	302.5	265.1	277.1
750	277.8	258.2	273.4	297.9	314.9	297.9	268.9	274.1
700	271.0	253.9	269.0	290.9	303.3	284.5	267.6	262.2
650	255.2	248.8	259.0	267.0	284.6	262.7	250.0	246.5
600	239.3	235.4	249.1	243.2	265.8	241.0	232.3	230.7
550	223.4	222.0	239.2	224.4	246.9	219.7	212.0	210.5
500	206.7	208.6	221.3	207.8	227.5	199.1	189.0	182.6
450	189.9	190.3	194.5	194.5	208.1	181.1	171.4	162.3
400	188.4	164.1	187.2	190.9	196.6	182.2	168.3	170.5
350	214.6	175.3	179.1	183.6	189.7	175.9	172.5	199.0
300		202.8	200.8	198.7	214.6	257.4	345.0	395.3
LONG	-29.85	-26.97	-23.25	-19.16	-15.31	-10.64	-5.24	-0.15
LAT	76.55	77.28	77.84	78.42	78.97	79.44	79.76	80.07
QUAL	33	33	33	33	33	33	33	33

PASS 2367 AT RESLUT, 63 321

ELECTRON DENSITY IN ELECTRCNS PER CC (X10-5)

HEIGHT	TIME (UT)							
	164901	164919	164936	164955	165011	165029	165047	165105
1000	0.065	0.071	0.065	0.065	0.065	0.038	0.041	0.040
950	0.084	0.092	0.081	0.084	0.081	0.053	0.054	0.055
900	0.103	0.112	0.096	0.099	0.097	0.069	0.066	0.066
850	0.121	0.131	0.115	0.119	0.121	0.085	0.082	0.084
800	0.155	0.163	0.143	0.141	0.149	0.107	0.101	0.111
750	0.197	0.202	0.176	0.168	0.183	0.140	0.125	0.145
700	0.247	0.249	0.217	0.202	0.229	0.180	0.155	0.185
650	0.306	0.307	0.271	0.242	0.286	0.228	0.190	0.235
600	0.392	0.392	0.335	0.293	0.353	0.299	0.235	0.302
550	0.496	0.493	0.409	0.392	0.434	0.389	0.325	0.379
500	0.615	0.610	0.573	0.524	0.601	0.495	0.438	0.497
450	0.854	0.807	0.794	0.740	0.815	0.645	0.619	0.680
400	1.180	1.139	1.109	1.039	1.155	0.966	0.873	0.941
350	1.566	1.535	1.528	1.443	1.576	1.397	1.262	1.305
300	2.043		2.003		2.055			1.660
HEIGHT	SCALE HEIGHT, KM							
850	228.8	243.0	249.7	269.0	236.3	195.6	223.2	201.9
800	227.4	240.8	245.3	276.3	238.0	204.1	232.1	205.6
750	225.9	237.4	241.0	272.8	239.6	203.1	230.7	209.4
700	224.5	234.1	234.7	260.0	233.7	202.0	223.5	213.1
650	222.6	229.4	224.0	247.1	225.1	201.0	216.2	214.0
600	213.1	220.4	213.3	230.3	216.4	195.4	206.8	205.0
550	203.6	211.3	202.6	194.0	206.2	188.7	185.0	195.9
500	194.2	202.2	183.4	162.4	180.6	181.9	163.2	183.0
450	178.4	187.5	163.5	154.4	156.9	171.6	151.5	166.7
400	166.9	166.5	159.3	153.0	161.8	146.6	143.6	161.2
350	180.0	201.1	172.6	156.5	174.6	175.9	153.4	176.5
300	274.7		193.4		285.1			289.5
LONG	5.28	11.31	17.00	23.36	28.30	33.65	39.00	43.97
LAT	80.38	80.37	80.36	80.35	80.14	79.80	79.46	79.05
QUAL	33	33	33	33	33	33	33	33

PASS 2367 AT RESLUT, 63 321

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)		
	165122	165140	165157
1000	0.044	0.034	0.027
950	0.057	0.046	0.037
900	0.069	0.058	0.047
850	0.081	0.073	0.056
800	0.096	0.090	0.067
750	0.118	0.110	0.084
700	0.145	0.141	0.104
650	0.175	0.182	0.128
600	0.211	0.231	0.174
550	0.291	0.289	0.243
500	0.407	0.367	0.345
450	0.591	0.566	0.489
400	0.841	0.830	0.698
350	1.178	1.164	1.033
300	1.598	1.564	1.457
HEIGHT	SCALE HEIGHT, KM		
850	256.6	205.8	239.4
800	255.9	211.3	238.9
750	247.8	216.8	229.6
700	239.7	213.6	220.3
650	231.6	206.5	210.9
600	223.5	199.4	177.9
550	187.7	192.4	146.0
500	142.7	181.7	145.1
450	143.2	147.0	142.5
400	147.7	140.4	137.4
350	157.9	159.4	136.5
300	166.8	171.8	169.2
LONG	47.77	51.78	55.57
LAT	78.49	77.91	77.36
QUAL	33	33	33



PASS 2374 AT FTMYS, 65 322

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)			
	52432	52616	52652	52727
1000	0.075	0.107	0.116	0.119
950	0.083	0.116	0.123	0.127
900	0.091	0.121	0.128	0.132
850	0.096	0.126	0.133	0.138
800	0.100	0.131	0.139	0.146
750	0.105	0.139	0.146	0.155
700	0.112	0.150	0.167	0.166
650	0.123	0.164	0.196	0.179
600	0.138	0.181	0.232	0.198
550	0.161	0.202	0.277	0.225
500	0.200	0.258	0.363	0.281
450	0.265	0.413	0.617	0.440
400	0.487	0.691	0.891	0.740
350		1.132		1.242
300				
HEIGHT	SCALE HEIGHT, KM			
900		1309.6	1276.4	1125.4
850	1107.8	1202.9	1116.9	1014.0
800	981.0	991.1	934.5	882.5
750	834.0	820.8	753.6	772.4
700	686.9	657.0	601.3	660.1
650	555.4	542.7	449.0	587.9
600	428.3	453.8	305.7	476.3
550	305.7	364.8	240.9	352.2
500	193.1	158.8	167.2	186.2
450	121.4	98.8	109.5	106.6
400	81.3	102.1	121.4	98.8
350		99.2		157.0
300				
LONG	-91.69	-90.79	-90.51	-90.26
LAT	33.62	27.99	25.98	24.01
QUAL	33	23	23	23

PASS 2374 AT AGASTA, 63 322

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)			
	53918	53952	54417	54508
1000	0.122	0.117	0.115	0.125
950	0.131	0.125	0.123	0.133
900	0.143	0.137	0.129	0.140
850	0.171	0.153	0.137	0.147
800	0.222	0.179	0.146	0.155
750	0.295	0.237	0.157	0.165
700	0.411	0.338	0.172	0.180
650	0.565	0.514	0.191	0.198
600	0.801	0.765	0.246	0.219
550	1.163	1.152	0.331	0.294
500	1.739	1.777	0.496	0.433
450	2.677	2.815	0.909	0.701
400	4.307	4.723	1.530	1.169
350		8.023		1.843
300				

HEIGHT	SCALE HEIGHT, KM			
950	610.0	583.6	893.4	
900	455.2	504.1	905.5	997.7
850	237.1	409.8	805.5	922.2
800	185.2	267.3	714.2	802.9
750	165.8	144.3	622.8	689.1
700	154.1	129.6	490.3	584.4
650	149.3	127.0	357.0	479.8
600	139.3	124.8	231.9	375.2
550	132.2	119.8	153.9	164.9
500	121.0	114.1	99.9	117.4
450	109.9	102.0	86.8	100.7
400	108.9	95.0	115.7	102.6
350		111.2		145.1
300				

LONG	-86.19	-85.98	-83.98	-83.49
LAT	-16.15	-18.07	-32.99	-35.85
QUAL	33	33	33	23

PASS 2374 AT SOLANT, 63 322

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	54417	54510	54528	54603	54656	54749	54859	54934
1000	0.123	0.115	0.120	0.108	0.113	0.117	0.132	0.112
950	0.134	0.125	0.130	0.120	0.123	0.130	0.143	0.123
900	0.142	0.133	0.134	0.128	0.132	0.138	0.151	0.129
850	0.152	0.142	0.142	0.137	0.141	0.146	0.159	0.135
800	0.162	0.151	0.158	0.146	0.151	0.156	0.168	0.143
750	0.173	0.159	0.178	0.160	0.162	0.166	0.179	0.156
700	0.189	0.172	0.191	0.174	0.176	0.177	0.197	0.172
650	0.220	0.190	0.215	0.193	0.197	0.193	0.223	0.189
600	0.266	0.225	0.256	0.223	0.230	0.223	0.272	0.215
550	0.327	0.287	0.333	0.280	0.294	0.286	0.360	0.272
500	0.511	0.410	0.478	0.399	0.444	0.431	0.521	0.384
450	0.968	0.678	0.808	0.698	0.811	0.761	0.794	0.640
400	1.516	1.199	1.388	1.248	1.385	1.391	1.274	1.026
350		1.888	2.036	2.009	2.152		1.740	
300								
HEIGHT	SCALE HEIGHT, KM							
950	835.4	811.7	1104.8	633.0	680.6	625.3	848.4	785.8
900	779.5	799.6	1329.2	710.6	742.5	780.4	954.0	1108.2
850	782.2	826.9	678.3	700.8	756.4	824.3	909.4	947.5
800	787.5	863.1	596.5	655.5	698.0	804.9	798.8	786.4
750	676.4	740.4	546.4	598.5	617.0	784.4	645.2	624.8
700	431.8	594.1	532.4	527.5	533.8	653.7	501.3	509.5
650	283.8	419.0	386.7	419.7	408.9	499.6	344.3	441.3
600	238.8	242.4	251.0	298.9	282.4	255.6	217.9	328.8
550	192.8	175.2	168.5	190.5	173.1	168.3	160.2	183.2
500	92.3	123.0	120.9	120.0	103.1	101.1	131.1	121.2
450	99.7	96.2	85.9	88.6	85.3	87.4	116.1	100.0
400	154.2	97.7	110.4	95.4	102.4	105.9	131.7	114.4
350		172.3	203.6	153.0	139.4		329.9	
300								
LONG	-83.98	-83.46	-83.28	-82.90	-82.26	-81.53	-80.44	-79.77
LAT	-32.99	-35.96	-36.97	-38.93	-41.88	-44.82	-48.69	-50.61
QUAL	33	33	33	33	33	33	33	33

PASS 2374 AT SOLANT, 63 322

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)						
	55027	55120	55213	55305	55451	55544	55730
1000	0.121	0.112	0.073	0.069	0.041	0.030	0.027
950	0.135	0.120	0.082	0.077	0.049	0.037	0.034
900	0.144	0.130	0.090	0.083	0.053	0.043	0.043
850	0.151	0.141	0.096	0.090	0.060	0.051	0.052
800	0.159	0.152	0.103	0.099	0.069	0.059	0.063
750	0.171	0.163	0.114	0.110	0.082	0.071	0.077
700	0.189	0.178	0.131	0.124	0.098	0.088	0.095
650	0.220	0.201	0.150	0.147	0.121	0.110	0.119
600	0.268	0.244	0.177	0.181	0.152	0.141	0.149
550	0.359	0.327	0.229	0.234	0.210	0.186	0.191
500	0.541	0.454	0.337	0.348	0.322	0.276	0.252
450	0.829	0.728	0.566	0.555	0.533	0.455	0.338
400		1.173	0.957	0.949	0.935	0.781	0.488
350			1.504	1.438	1.533	1.312	0.703
300							0.977
HEIGHT	SCALE HEIGHT, KM						
950	627.5	640.0	512.4	573.2	382.8	296.4	211.9
900	857.0	631.3	682.8	617.1	435.2	314.5	235.3
850	990.4	671.4	654.4	585.7	371.8	303.2	245.5
800	815.4	717.7	572.8	497.4	330.4	284.5	252.0
750	620.5	620.9	478.5	434.5	300.8	263.9	243.2
700	443.6	491.9	373.0	367.6	271.1	242.3	234.6
650	304.3	369.0	323.4	290.8	232.5	219.5	226.6
600	219.1	211.2	260.8	226.7	193.5	191.1	217.7
550	143.0	156.1	167.9	171.7	151.7	159.3	191.3
500	125.5	135.5	116.2	108.8	104.5	117.7	173.1
450	124.0	116.3	99.8	103.3	96.1	102.9	158.2
400		123.5	102.7	106.7	91.0	97.5	143.3
350			147.7	165.4	124.4	122.9	148.2
300							170.6
LONG	-78.07	-77.38	-75.85	-74.06	-68.94	-65.27	-53.99
LAT	-53.52	-56.40	-59.26	-62.03	-67.56	-70.21	-75.14
QUAL	33	33	33	33	33	33	33

PASS 2380 AT AGASTA, 63 322  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	165030	165105	165141	165216	165251	165327	165402	165437
1000	0.132	0.141	0.147	0.157	0.173	0.189	0.206	0.228
950	0.141	0.152	0.159	0.170	0.189	0.205	0.222	0.248
900	0.152	0.164	0.172	0.185	0.206	0.223	0.244	0.272
850	0.166	0.178	0.187	0.203	0.224	0.245	0.270	0.301
800	0.185	0.196	0.205	0.225	0.251	0.274	0.301	0.336
750	0.209	0.221	0.228	0.253	0.286	0.309	0.336	0.378
700	0.240	0.251	0.267	0.294	0.330	0.356	0.376	0.429
650	0.284	0.298	0.316	0.344	0.388	0.414	0.451	0.507
600	0.338	0.357	0.379	0.408	0.457	0.511	0.545	0.644
550	0.401	0.429	0.456	0.528	0.559	0.658	0.742	0.885
500	0.528	0.579	0.612	0.714	0.824	0.951	1.063	1.380
450	0.747	0.833	0.925	1.079	1.232	1.484	1.793	2.452
400	1.087	1.218	1.346	1.667	1.947	2.498	3.278	4.454
350	1.645	1.860	2.094	2.736	3.372	4.465	5.698	8.701
300	2.651	3.065	3.585	4.795	5.884	7.890	11.729	
HEIGHT	SCALE HEIGHT, KM							
950	679.0	661.6	614.6	589.5	585.6	606.3	577.9	561.6
900	587.4	599.0	588.4	552.4	549.6	543.2	515.3	517.1
850	510.0	541.4	538.3	498.9	486.7	488.7	465.4	476.2
800	455.1	481.6	488.1	441.8	434.9	439.9	435.0	435.9
750	400.3	409.0	426.9	392.7	383.0	392.3	404.7	396.9
700	350.0	336.5	347.2	351.1	337.1	340.9	373.1	347.6
650	316.1	302.1	283.5	309.5	300.0	287.9	295.2	267.8
600	282.2	268.3	253.5	265.2	262.8	233.2	218.1	199.1
550	248.4	234.5	223.5	203.7	220.5	177.6	171.9	141.1
500	197.8	186.8	179.1	153.4	152.1	136.3	125.9	102.4
450	138.8	135.0	125.9	129.1	119.2	107.2	89.4	86.1
400	130.1	128.1	123.0	111.5	101.0	90.2	89.5	81.0
350	116.1	109.0	103.9	94.2	90.5	90.7	82.1	72.6
300	105.1	107.3	93.5	89.4	83.5	81.0	74.0	
LONG	-83.99	-83.67	-83.37	-83.09	-82.83	-82.58	-82.34	-82.11
LAT	-33.31	-31.36	-29.35	-27.39	-25.43	-23.42	-21.46	-19.49
QUAL	22	22	23	23	23	23	23	23

PASS 2380 AT AGASTA, 63 322

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)						
	165513	165606	165659	165734	165809	165845	165920
1000	0.240	0.250	0.256	0.263	0.252	0.253	0.249
950	0.261	0.272	0.279	0.291	0.279	0.282	0.276
900	0.286	0.298	0.305	0.319	0.309	0.314	0.308
850	0.316	0.325	0.334	0.350	0.344	0.354	0.349
800	0.350	0.355	0.368	0.392	0.388	0.403	0.400
750	0.389	0.402	0.423	0.448	0.441	0.467	0.467
700	0.452	0.465	0.497	0.528	0.528	0.551	0.553
650	0.534	0.578	0.646	0.679	0.648	0.684	0.688
600	0.694	0.763	0.893	0.947	0.900	0.919	0.870
550	0.995	1.152	1.428	1.518	1.382	1.377	1.222
500	1.622	1.948	2.573	2.827	2.575	2.518	1.941
450	2.936	3.569	4.815	5.044	4.697	4.722	3.569
400	5.550	6.641	7.325	7.200	7.079	7.121	6.255
350	10.261						
300							

HEIGHT	SCALE HEIGHT, KM						
	950	568.5	565.9	571.2	521.1	488.3	452.8
900	529.0	561.6	547.5	514.7	463.8	430.1	419.5
850	491.5	519.5	495.3	479.8	425.9	398.1	384.0
800	444.9	467.7	427.6	411.1	383.2	363.1	347.7
750	398.2	387.7	346.7	339.4	340.6	318.9	306.8
700	330.8	303.7	264.8	263.5	275.0	270.8	266.3
650	261.8	229.0	199.4	195.9	205.7	213.8	227.9
600	186.3	159.5	139.3	136.2	145.1	159.5	188.2
550	127.2	110.2	96.4	92.6	100.9	108.9	137.6
500	94.3	91.6	81.9	85.7	79.7	75.7	94.6
450	83.1	78.8	86.7	95.6	91.6	91.8	82.9
400	75.7	97.8	267.8	476.5	304.2	258.1	114.2
350	119.6						
300							

LONG	-81.88	-81.57	-81.27	-81.07	-80.88	-80.69	-80.50
LAT	-17.47	-14.50	-11.53	-9.55	-7.58	-5.56	-3.59
QUAL	23	23	23	23	23	23	22

PASS 2380 AT QUITOE, 63 322  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	165752	165918	170202	170237	170313	170348	170423	170459
1000	0.272	0.272	0.186	0.176	0.168	0.173	0.163	0.155
950	0.301	0.301	0.209	0.199	0.190	0.194	0.182	0.173
900	0.335	0.338	0.237	0.225	0.214	0.217	0.204	0.197
850	0.373	0.380	0.271	0.256	0.243	0.245	0.230	0.223
800	0.421	0.430	0.309	0.292	0.276	0.278	0.262	0.254
750	0.484	0.500	0.361	0.345	0.323	0.327	0.308	0.297
700	0.569	0.592	0.433	0.411	0.384	0.388	0.364	0.351
650	0.682	0.714	0.533	0.505	0.468	0.471	0.440	0.423
600	0.888	0.920	0.675	0.634	0.584	0.585	0.550	0.520
550	1.256	1.275	0.897	0.843	0.766	0.742	0.685	0.660
500	1.967	1.934	1.292	1.200	1.065	1.022	0.933	0.884
450	3.488	3.334	2.022	1.858	1.575	1.479	1.373	1.267
400	5.722	5.634	3.540	3.163	2.621	2.319	2.116	1.913
350		7.691	6.262		4.595	3.907	3.437	3.029
300			8.641		7.180	6.226	5.319	4.877
HEIGHT	SCALE HEIGHT, KM							
950	480.3	479.9	401.6	396.0	407.6	430.7	430.5	436.9
900	451.0	431.0	378.8	386.4	392.4	411.0	411.1	392.4
850	427.7	406.8	360.6	362.2	371.5	382.4	381.2	371.7
800	393.0	377.2	342.4	337.5	350.7	353.2	351.0	351.0
750	340.1	322.4	312.4	305.5	317.3	318.7	319.5	321.6
700	288.7	276.6	268.9	273.6	279.5	284.2	287.9	292.2
650	238.1	236.3	229.8	239.7	244.7	253.6	258.1	262.1
600	178.5	183.2	193.6	204.7	212.5	226.2	230.9	231.4
550	135.1	143.3	158.0	164.9	174.6	191.5	203.7	196.1
500	99.7	108.7	129.8	132.1	142.6	144.9	147.5	156.7
450	88.7	88.5	100.2	108.1	117.8	128.5	126.1	135.9
400	123.4	110.3	89.8	88.4	92.9	104.0	112.5	119.9
350		360.6	101.9		91.8	97.8	105.2	103.0
300			365.5		178.4	148.4	125.2	116.9
LONG	-80.97	-80.51	-79.65	-79.46	-79.27	-79.08	-78.88	-78.67
LAT	-8.54	-3.71	5.51	7.48	9.51	11.48	13.45	15.47
QUAL	32	32	32	22	22	21	23	31

PASS 2380 AT QUITOE, 63 322  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)				
	170534	170609	170645	170720	170755
1000	0.157	0.159	0.167	0.178	0.158
950	0.175	0.172	0.182	0.193	0.177
900	0.200	0.189	0.200	0.212	0.201
850	0.227	0.210	0.223	0.236	0.229
800	0.257	0.241	0.253	0.269	0.259
750	0.301	0.285	0.295	0.316	0.302
700	0.360	0.341	0.346	0.373	0.355
650	0.430	0.412	0.411	0.441	0.423
600	0.537	0.496	0.504	0.519	0.522
550	0.673	0.604	0.635	0.654	0.658
500	0.906	0.810	0.838	0.848	0.857
450	1.266	1.150	1.149	1.170	1.165
400	1.828	1.688	1.632	1.630	1.627
350	2.818	2.638	2.440	2.454	2.352
300	4.345	4.030	3.939	3.797	
HEIGHT	SCALE HEIGHT, KM				
950	514.6	539.7	518.1	537.3	415.0
900	401.3	480.7	472.0	483.8	389.8
850	375.9	421.8	426.0	430.4	373.2
800	350.5	369.0	386.2	380.7	356.7
750	322.0	320.8	352.6	334.1	329.9
700	292.5	277.9	318.9	298.7	301.0
650	262.9	262.1	267.6	279.6	270.9
600	231.2	246.3	233.0	260.5	237.0
550	199.3	222.8	203.5	220.6	205.3
500	164.7	157.1	175.9	176.2	176.7
450	146.5	142.0	154.9	160.8	161.8
400	128.1	120.9	137.1	142.5	146.2
350	113.8	110.4	115.4	117.5	140.7
300	125.3	124.2	105.1	116.9	
LONG	-78.46	-78.24	-78.00	-77.76	-77.51
LAT	17.44	19.40	21.42	23.38	25.34
QUAL	33	33	33	33	23



PASS 2381 AT RESLUT, 63 322  
 ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	172037	172054	172112	172130	172147	172205	172223	172241
1000	0.141	0.195	0.205	0.204	0.216	0.222	0.220	0.205
950	0.165	0.215	0.226	0.226	0.236	0.240	0.241	0.221
900	0.190	0.238	0.248	0.252	0.260	0.263	0.265	0.244
850	0.221	0.264	0.274	0.282	0.290	0.291	0.294	0.272
800	0.255	0.299	0.307	0.320	0.329	0.330	0.332	0.311
750	0.296	0.340	0.345	0.365	0.377	0.380	0.380	0.358
700	0.348	0.394	0.405	0.421	0.437	0.441	0.443	0.420
650	0.414	0.467	0.483	0.495	0.506	0.519	0.519	0.490
600	0.504	0.563	0.587	0.591	0.614	0.632	0.630	0.601
550	0.627	0.694	0.720	0.734	0.755	0.775	0.771	0.741
500	0.798	0.876	0.909	0.911	0.926	0.970	0.958	0.942
450	1.027	1.122	1.166	1.178	1.188	1.221	1.204	1.192
400	1.397	1.431	1.501	1.558	1.535	1.581	1.558	1.537
350	1.904	1.912	1.978	2.132	2.083	2.092	2.083	2.004
300	2.627	2.600	2.668	3.006	2.823	2.742	2.747	2.503
HEIGHT	SCALE HEIGHT, KM							
950	325.7	498.4	517.8	466.8	524.8	570.9	523.1	526.9
900	334.9	465.8	495.9	444.3	479.9	512.6	490.1	474.2
850	339.4	432.0	463.5	422.3	436.1	453.8	451.4	426.1
800	343.9	400.0	418.6	401.8	394.7	394.0	387.9	383.9
750	319.6	367.9	373.6	366.0	356.2	348.8	346.7	344.9
700	293.4	331.2	327.2	320.0	325.9	317.5	320.9	311.8
650	270.5	290.4	280.5	291.4	295.6	287.9	295.1	280.4
600	247.4	256.8	253.4	264.4	273.6	261.6	271.3	253.8
550	224.1	229.7	232.4	242.9	253.0	238.3	247.9	228.0
500	202.8	214.3	218.9	221.4	232.4	224.2	228.0	219.8
450	182.5	205.4	208.9	194.8	206.2	208.5	210.9	211.6
400	173.9	196.0	190.6	170.4	183.4	188.6	187.7	196.8
350	164.9	177.6	176.4	157.2	172.8	190.3	181.5	198.6
300	204.4	161.1	189.2	140.5	210.8	201.4	212.6	227.5
LONG	-62.02	-61.09	-59.88	-58.56	-57.32	-55.87	-54.07	-52.41
LAT	66.94	67.81	68.72	69.61	70.46	71.34	72.19	72.96
QUAL	33	33	33	33	33	33	33	33

PASS 2381 AT RESLUT, 63 322

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	172258	172316	172333	172351	172408	172426	172444	172501
1000	0.221	0.187	0.177	0.184	0.180	0.180	0.175	0.176
950	0.241	0.206	0.195	0.200	0.200	0.200	0.194	0.197
900	0.267	0.227	0.214	0.219	0.222	0.222	0.213	0.219
850	0.297	0.252	0.237	0.245	0.249	0.249	0.237	0.244
800	0.335	0.284	0.266	0.279	0.283	0.283	0.267	0.276
750	0.382	0.327	0.304	0.322	0.330	0.328	0.315	0.318
700	0.440	0.383	0.354	0.378	0.391	0.389	0.376	0.378
650	0.510	0.458	0.422	0.448	0.471	0.469	0.448	0.457
600	0.623	0.551	0.512	0.551	0.577	0.576	0.543	0.557
550	0.765	0.682	0.636	0.681	0.720	0.711	0.688	0.693
500	0.966	0.850	0.790	0.865	0.895	0.897	0.871	0.860
450	1.224	1.081	0.988	1.101	1.164	1.154	1.113	1.106
400	1.626	1.375	1.278	1.440	1.527	1.518	1.413	1.435
350	2.217	1.780	1.709	1.894	2.052	2.052	1.883	1.923
300	2.929	2.328	2.294	2.457	2.729	2.753	2.495	2.599
HEIGHT	SCALE HEIGHT, KM							
	950	511.8	508.9	539.8	549.3	468.5	465.6	509.1
900	480.7	481.9	503.3	485.6	446.3	442.8	481.2	450.3
850	449.6	441.9	456.9	433.1	406.7	409.3	425.3	418.5
800	403.9	390.8	402.6	387.1	358.0	374.4	369.6	382.5
750	361.7	339.3	356.4	342.5	317.3	322.6	316.5	335.3
700	330.0	296.7	312.7	306.1	284.1	279.2	279.3	273.3
650	298.4	277.6	275.3	270.7	259.1	256.0	260.3	257.9
600	267.4	256.6	244.8	249.0	240.5	242.5	243.4	242.7
550	236.3	240.2	238.2	227.2	228.7	228.6	230.9	230.8
500	215.4	221.9	231.6	214.0	216.9	210.9	218.3	218.8
450	196.8	212.4	216.2	202.1	198.0	193.5	206.0	202.0
400	183.0	204.5	183.4	191.5	178.5	176.5	193.8	184.7
350	172.0	192.8	173.2	195.8	173.1	167.9	185.2	170.2
300	221.7	200.0	190.5	229.4	234.0	217.3	209.1	194.2
LONG	-50.58	-48.13	-45.74	-43.21	-40.34	-36.74	-33.14	-29.67
LAT	73.84	74.62	75.35	76.12	76.80	77.44	78.09	78.60
QUAL	33	33	33	33	33	33	33	33

PASS 2381 AT RESLUT, 63 322

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	172519	172535	172554	172612	172629	172647	172705	172722
1000	0.115	0.103	0.091	0.090	0.095	0.091	0.096	0.097
950	0.129	0.121	0.105	0.103	0.112	0.103	0.108	0.110
900	0.145	0.142	0.121	0.119	0.131	0.118	0.123	0.126
850	0.165	0.164	0.141	0.137	0.152	0.135	0.141	0.144
800	0.190	0.191	0.165	0.161	0.178	0.159	0.166	0.169
750	0.223	0.221	0.196	0.191	0.209	0.187	0.196	0.198
700	0.267	0.261	0.236	0.228	0.248	0.226	0.235	0.239
650	0.320	0.313	0.283	0.278	0.301	0.274	0.283	0.291
600	0.396	0.384	0.341	0.343	0.375	0.338	0.348	0.358
550	0.495	0.486	0.440	0.435	0.461	0.428	0.438	0.450
500	0.647	0.625	0.568	0.564	0.629	0.553	0.569	0.589
450	0.843	0.820	0.752	0.735	0.838	0.721	0.750	0.773
400	1.119	1.082	0.998	0.993	1.120	0.976	1.022	1.064
350	1.502	1.452	1.357	1.355	1.508	1.330	1.394	1.453
300	1.974	1.909	1.848	1.833	1.953	1.825	1.875	1.966
HEIGHT	SCALE HEIGHT KM							
950	434.0	321.2	344.7	351.2	309.3	377.7	392.0	377.3
900	400.8	324.7	335.1	336.5	316.2	358.4	366.9	357.2
850	367.5	333.6	320.6	321.7	317.4	337.1	341.6	336.4
800	334.2	325.3	296.3	307.7	307.6	309.8	315.6	314.8
750	305.4	312.2	279.0	293.7	296.1	284.3	289.6	293.1
700	283.6	290.2	268.2	277.7	276.9	269.0	272.8	274.8
650	261.8	262.2	257.4	250.8	245.5	253.6	257.0	257.1
600	231.9	236.4	244.9	225.9	220.1	233.6	235.5	232.0
550	205.5	213.3	214.1	204.5	200.1	208.5	209.1	199.1
500	197.8	196.6	188.5	191.1	186.6	191.7	189.9	187.3
450	190.0	187.7	180.6	180.8	179.7	178.2	173.9	175.6
400	183.1	181.4	173.5	170.1	176.3	169.4	167.1	168.6
350	179.3	179.1	168.1	169.9	180.5	165.0	170.3	165.1
300	220.8	235.1	186.5	221.6	256.0	174.5	189.8	197.6
LONG	-24.72	-20.32	-15.10	-12.03	-10.01	-7.87	-3.68	5.31
LAT	77.53	76.58	75.45	74.77	74.32	73.84	73.27	72.49
QUAL	32	32	32	32	32	33	33	33

PASS 2381 AT RESLUT, 63 322

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	172740	172758	172815	172833	172851	172908	172926	172943
1000	0.089	0.077	0.068	0.069	0.064	0.116	0.105	0.091
950	0.103	0.088	0.080	0.079	0.075	0.134	0.119	0.107
900	0.119	0.101	0.094	0.090	0.088	0.153	0.135	0.126
850	0.137	0.118	0.111	0.106	0.104	0.172	0.152	0.146
800	0.161	0.140	0.133	0.128	0.123	0.195	0.173	0.169
750	0.190	0.167	0.160	0.155	0.151	0.225	0.199	0.195
700	0.229	0.204	0.198	0.194	0.186	0.267	0.231	0.227
650	0.276	0.248	0.245	0.240	0.232	0.318	0.273	0.264
600	0.341	0.311	0.310	0.306	0.294	0.387	0.328	0.311
550	0.432	0.397	0.399	0.398	0.386	0.475	0.402	0.370
500	0.562	0.521	0.525	0.519	0.518	0.611	0.505	0.449
450	0.744	0.703	0.707	0.707	0.721	0.789	0.645	0.563
400	1.004	0.958	0.971	0.985	1.001	1.054	0.845	0.729
350	1.392	1.345	1.354	1.405	1.398	1.437	1.140	
300	1.954	1.832		1.923		1.954		
HEIGHT	SCALE HEIGHT, KM							
950	348.2	364.1	304.7	376.0	318.8	366.2	396.6	308.6
900	339.5	339.0	298.4	330.0	310.1	391.9	401.2	323.7
850	327.1	315.0	286.7	300.8	287.6	389.9	390.0	336.0
800	306.9	291.4	270.4	273.7	262.9	356.6	370.5	337.3
750	286.7	271.9	255.3	251.1	251.1	329.4	346.2	335.3
700	269.5	257.7	242.8	236.8	239.3	306.3	319.4	329.5
650	252.4	242.1	230.4	222.5	222.6	283.2	291.9	319.9
600	231.0	216.7	208.2	208.0	201.3	253.1	263.5	300.9
550	204.9	196.1	190.8	193.5	181.9	220.6	238.2	267.3
500	188.3	180.6	179.6	178.6	163.9	205.3	217.1	236.4
450	177.4	167.9	166.6	162.7	157.5	190.7	198.7	212.2
400	165.7	157.1	156.5	151.5	154.0	172.8	183.5	167.9
350	152.9	159.6	157.3	152.5	155.9	169.1	157.3	
300	180.2	170.3		199.5		224.2		
LONG	14.84	24.36	29.18	33.70	38.22	41.91	45.14	48.19
LAT	71.66	70.83	69.82	68.71	67.60	66.74	66.05	65.40
QUAL	33	33	33	33	33	33	33	33

PASS 2387 AT QUITOE, 63 323

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)			
	42849	42924	43017	43110
1000	0.201	0.129	0.138	0.125
950	0.216	0.144	0.152	0.140
900	0.231	0.161	0.168	0.150
850	0.252	0.181	0.188	0.164
800	0.278	0.205	0.212	0.191
750	0.315	0.240	0.254	0.230
700	0.361	0.289	0.315	0.281
650	0.431	0.353	0.392	0.344
600	0.540	0.444	0.490	0.459
550	0.732	0.580	0.675	0.665
500	1.125	0.852	1.035	1.005
450	1.794	1.455	1.783	1.661
400	2.981	2.544	3.049	3.031
350	4.477	4.192	5.137	5.277
300	6.661	6.849	8.165	7.617
HEIGHT	SCALE HEIGHT, KM			
950	771.2	438.9	495.2	655.8
900	642.0	420.3	441.3	616.5
850	553.8	388.8	398.2	437.4
800	465.9	357.2	355.1	368.4
750	398.8	318.7	310.9	299.4
700	331.7	277.5	266.2	252.7
650	264.9	239.8	225.3	216.3
600	201.0	209.1	192.6	152.5
550	145.5	167.8	144.5	133.7
500	115.9	115.0	106.2	111.0
450	104.0	91.3	91.4	92.5
400	108.7	95.9	95.6	84.1
350	127.4	101.6	95.7	100.4
300	124.1	114.1	168.7	285.4
LONG	-71.82	-71.62	-71.32	-71.01
LAT	-8.28	-10.26	-13.25	-16.24
QUAL	33	33	33	33

PASS 2387 AT RESLUT, 63 323							
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)							
HEIGHT	TIME (UT)						
	40329	40346	40404	40422	40439	40457	40515
1000	0.063	0.063	0.069	0.083	0.042	0.017	0.014
950	0.070	0.072	0.082	0.089	0.051	0.022	0.017
900	0.080	0.083	0.098	0.096	0.060	0.027	0.021
850	0.095	0.097	0.115	0.105	0.069	0.034	0.028
800	0.114	0.116	0.134	0.115	0.081	0.044	0.038
750	0.138	0.141	0.157	0.127	0.098	0.059	0.052
700	0.165	0.173	0.185	0.141	0.118	0.079	0.069
650	0.200	0.212	0.219	0.165	0.150	0.108	0.093
600	0.253	0.265	0.266	0.195	0.210	0.145	0.131
550	0.325	0.335	0.330	0.235	0.293	0.207	0.177
500	0.420	0.436	0.415	0.313	0.400	0.293	0.252
450	0.560	0.575	0.541	0.418	0.555	0.437	0.378
400	0.749	0.773	0.704	0.571	0.751	0.659	0.575
350	1.023	1.043	0.939	0.810	1.007	0.966	0.855
300	1.329	1.362	1.262	1.159	1.285	1.311	
HEIGHT	SCALE HEIGHT, KM						
950	396.9	356.9		653.1		206.8	222.4
900	339.8	332.7	302.9	620.1	342.8	206.9	199.7
850	293.1	305.4	316.1	552.9	313.9	204.8	181.6
800	265.7	274.7	310.5	491.6	290.1	193.0	180.1
750	261.6	256.6	303.1	446.4	266.5	181.1	178.6
700	257.5	249.0	294.8	401.2	242.9	171.4	177.1
650	245.6	241.3	282.5	347.2	207.5	165.1	173.8
600	215.7	224.1	249.9	293.2	149.2	158.8	164.7
550	196.7	201.6	223.5	241.3	153.4	149.1	155.7
500	185.1	187.1	201.3	204.4	158.3	138.4	137.3
450	177.5	177.7	194.6	170.2	164.6	127.9	121.7
400	170.9	174.2	188.0	150.6	171.0	128.6	125.1
350	177.7	181.0	180.7	146.1	193.6	151.6	143.4
300	208.6	224.8	179.0	156.3	234.9	204.8	
LONG	-105.49	-103.23	-100.98	-99.27	-97.65	-95.94	-94.61
LAT	74.87	74.13	73.33	72.47	71.67	70.81	69.92
QUAL	33	33	33	33	33	33	33

PASS 2393 AT AGASTA, 63 323  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	154235	154310	154346	154421	154456	154546	154607	154642
1000	0.173	0.177	0.197	0.202	0.216	0.249	0.245	0.238
950	0.184	0.191	0.211	0.220	0.233	0.267	0.264	0.256
900	0.197	0.206	0.228	0.239	0.252	0.290	0.287	0.280
850	0.214	0.223	0.250	0.261	0.277	0.321	0.322	0.317
800	0.238	0.246	0.275	0.286	0.308	0.367	0.379	0.369
750	0.266	0.277	0.304	0.322	0.356	0.431	0.455	0.438
700	0.303	0.317	0.349	0.368	0.415	0.512	0.558	0.524
650	0.346	0.369	0.416	0.446	0.500	0.659	0.699	0.738
600	0.408	0.446	0.499	0.573	0.669	0.906	1.019	1.116
550	0.535	0.571	0.684	0.795	0.975	1.431	1.619	1.911
500	0.721	0.808	1.006	1.255	1.585	2.582	2.941	3.496
450	0.990	1.238	1.656	2.133	2.895	4.734	5.359	6.082
400	1.516	2.081	2.967	3.964	5.407	8.326	8.618	8.026
350	2.578	3.821	5.327	7.096	9.720			
300	4.865	6.833	8.698	11.651				
HEIGHT	SCALE HEIGHT, KM							
950	790.7	663.4	681.9	586.4	639.0	637.7	605.4	599.1
900	657.1	606.0	598.3	573.0	559.8	540.7	496.4	487.2
850	561.9	541.3	537.3	521.4	485.4	418.8	413.9	394.6
800	489.9	480.0	476.7	464.1	411.7	362.0	356.2	311.7
750	423.0	425.1	416.2	404.1	357.8	315.5	298.4	267.6
700	376.1	370.1	355.0	339.0	303.9	269.0	240.4	223.6
650	329.1	312.1	293.1	254.6	243.0	202.1	182.0	158.0
600	273.8	249.3	231.3	186.6	156.0	139.6	132.5	111.4
550	194.9	188.5	168.7	136.4	124.5	99.5	97.0	85.4
500	161.5	133.6	119.2	104.1	93.7	84.3	81.5	82.7
450	141.2	109.2	94.4	88.9	80.3	82.3	89.2	117.5
400	110.2	92.0	83.4	80.5	85.0	115.2	152.2	302.3
350	86.8	80.0	93.6	92.7	88.7			
300	75.8	102.6	107.3	126.2				
LONG	-68.69	-68.38	-68.08	-67.82	-67.56	-67.22	-67.07	-66.85
LAT	-32.50	-30.54	-28.53	-26.57	-24.61	-21.81	-20.64	-18.68
QUAL	23	23	23	23	23	23	23	23

PASS 2393 AT AGASTA, 63 323  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	154700	154736	154811	154846	154922	154957	155032	155108
1000	0.253	0.255	0.265	0.261	0.263	0.260	0.267	0.267
950	0.277	0.278	0.225	0.285	0.287	0.284	0.295	0.295
900	0.304	0.305	0.260	0.313	0.315	0.316	0.326	0.327
850	0.338	0.344	0.309	0.357	0.358	0.358	0.368	0.370
800	0.403	0.405	0.379	0.431	0.427	0.414	0.421	0.424
750	0.490	0.493	0.485	0.528	0.518	0.489	0.495	0.500
700	0.622	0.631	0.667	0.695	0.680	0.608	0.606	0.601
650	0.820	0.877	0.980	0.968	0.986	0.839	0.810	0.765
600	1.280	1.362	1.551	1.518	1.590	1.274	1.183	1.041
550	2.310	2.374	2.569	2.476	2.712	2.240	1.964	1.648
500	4.095	4.065	4.098	4.060	4.514	3.983	3.644	3.114
450	6.332	5.826	5.395	5.559	6.329	6.530	6.378	5.850
400	7.715	6.894	6.272	6.482	7.163		9.029	9.505
350								
300								
HEIGHT	SCALE HEIGHT, KM							
950	526.6	547.0	444.5	513.4	522.0	503.1	484.8	473.3
900	454.5	459.6	310.9	429.7	441.3	433.9	439.4	427.6
850	383.4	362.5	273.2	356.3	368.2	375.1	394.8	384.1
800	322.2	298.4	221.7	294.6	303.7	321.9	350.4	340.9
750	261.0	247.2	183.0	232.9	239.3	271.7	284.0	295.2
700	206.0	193.0	143.1	183.6	176.0	212.4	215.9	248.4
650	156.9	135.4	123.2	136.5	125.0	140.7	165.5	197.3
600	95.5	104.0	105.1	107.8	100.6	107.2	123.7	141.8
550	87.1	91.8	98.9	99.6	93.0	88.6	86.4	95.7
500	94.7	106.7	130.7	122.0	118.1	87.6	83.8	78.8
450	173.9	223.9	281.6	242.8	247.1	144.2	102.3	83.2
400	349.4	352.6	351.3	420.8	629.4		253.7	140.0
350								
300								
LONG	-66.73	-66.52	-66.24	-66.12	-65.92	-65.73	-65.54	-65.35
LAT	-17.67	-15.65	-13.27	-11.72	-9.69	-7.72	-5.75	-3.73
QUAL	23	23	21	23	23	23	23	23



PASS 2393 AT AGASTA, 63 323  
 ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)
	155125
1000	0.260
950	0.288
900	0.321
850	0.361
800	0.413
750	0.478
700	0.573
650	0.690
600	0.933
550	1.334
500	2.220
450	4.277
400	7.611
350	11.232
300	
HEIGHT	SCALE HEIGHT, KM
950	461.2
900	430.8
850	395.7
800	354.5
750	312.8
700	269.7
650	226.6
600	175.1
550	125.5
500	84.2
450	78.8
400	95.4
350	254.6
300	
LONG	-65.26
LAT	-2.77
QUAL	23

PASS 2394 AT QUITOE, 63 323

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	155220	155255	155331	155406	155441	155517	155552	155627
1000	0.243	0.272	0.233	0.205	0.204	0.202	0.191	0.162
950	0.271	0.302	0.262	0.234	0.230	0.227	0.214	0.206
900	0.304	0.340	0.294	0.265	0.262	0.256	0.243	0.233
850	0.343	0.385	0.332	0.302	0.299	0.291	0.277	0.266
800	0.390	0.436	0.381	0.345	0.342	0.332	0.318	0.308
750	0.453	0.510	0.448	0.406	0.405	0.390	0.375	0.367
700	0.542	0.606	0.536	0.484	0.485	0.468	0.448	0.443
650	0.657	0.743	0.653	0.597	0.597	0.577	0.547	0.551
600	0.837	0.925	0.838	0.763	0.757	0.725	0.692	0.711
550	1.119	1.247	1.125	1.028	1.007	0.956	0.916	0.945
500	1.621	1.838	1.561	1.477	1.439	1.348	1.297	1.320
450	2.734	2.978	2.480	2.397	2.303	2.032	2.001	2.006
400	4.881	5.094	4.303	4.152	3.937	3.449	3.275	3.361
350	8.249	8.598	7.419	7.170	6.807	5.951	5.404	5.613
300	12.516	12.966	11.660	11.311	10.881	9.559	8.361	8.567
HEIGHT	SCALE HEIGHT, KM							
950	439.3	458.7	422.1	394.3	409.6	407.7	403.1	401.6
900	419.2	413.7	408.9	384.7	379.4	391.0	382.4	400.0
850	396.3	387.1	378.5	364.7	356.5	369.8	359.2	352.0
800	361.2	360.5	344.1	344.6	333.1	348.6	334.5	315.4
750	304.4	318.2	302.5	303.2	299.0	302.1	303.0	285.9
700	270.6	270.9	264.4	263.5	264.9	255.8	270.8	246.0
650	239.7	239.2	228.4	228.4	231.3	233.9	235.6	214.1
600	198.4	205.5	192.0	190.8	194.8	203.8	201.2	195.2
550	158.2	149.2	162.3	154.0	158.9	163.4	165.5	168.8
500	122.0	118.7	138.1	125.5	129.9	139.5	131.3	137.1
450	90.4	99.3	98.4	98.5	100.9	110.2	109.4	107.2
400	87.6	93.0	90.1	87.9	90.3	93.0	96.7	94.4
350	98.9	104.4	97.3	96.0	98.5	96.2	105.1	102.8
300	171.1	159.6	108.4	123.7	108.8	110.7	136.5	135.8
LONG	-64.97	-64.79	-64.60	-64.42	-64.22	-64.03	-63.83	-63.57
LAT	0.32	2.28	4.31	6.28	8.25	10.27	12.24	14.85
QUAL	23	23	33	23	23	23	23	22

PASS 2394 AT QUITOE, 63 323

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)		
	155703	155738	155813
1000	0.176	0.173	0.171
950	0.197	0.194	0.191
900	0.222	0.219	0.216
850	0.253	0.249	0.245
800	0.289	0.285	0.283
750	0.344	0.337	0.334
700	0.413	0.402	0.399
650	0.506	0.496	0.487
600	0.634	0.624	0.610
550	0.837	0.825	0.798
500	1.152	1.147	1.110
450	1.705	1.697	1.605
400	2.707	2.692	2.465
350	4.457	4.271	4.041
300	7.008	6.594	6.192

HEIGHT	SCALE HEIGHT, KM		
950	423.9	415.6	429.2
900	389.8	393.1	395.0
850	362.1	366.3	363.0
800	334.1	337.5	332.1
750	302.5	300.9	302.2
700	270.9	265.1	271.9
650	237.3	234.6	240.5
600	203.5	202.5	207.1
550	170.8	167.0	171.4
500	142.7	143.4	150.9
450	121.3	119.6	128.3
400	101.0	106.6	108.6
350	107.2	113.8	103.6
300	128.7	143.5	141.2

LONG	-63.42	-63.21	-62.98
LAT	16.23	18.19	20.16
QUAL	23	23	21

PASS 2394 AT FTMYRS, 63 323

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)			
	155959	160017	160052	160128
1000	0.185	0.184	0.182	0.170
950	0.206	0.206	0.204	0.191
900	0.234	0.235	0.231	0.216
850	0.265	0.268	0.263	0.249
800	0.309	0.312	0.309	0.292
750	0.365	0.369	0.365	0.345
700	0.442	0.445	0.443	0.416
650	0.549	0.553	0.537	0.500
600	0.681	0.688	0.649	0.645
550	0.888	0.891	0.893	0.848
500	1.222	1.272	1.236	1.163
450	1.795	1.867	1.776	1.621
400	2.738	2.796	2.634	2.414
350	4.236	4.160	3.939	3.725
300	5.921		5.713	5.355

HEIGHT	SCALE HEIGHT, KM			
	155959	160017	160052	160128
950	446.6	415.8	416.6	406.7
900	390.7	372.7	382.0	372.0
850	356.6	347.6	347.4	340.9
800	320.6	316.6	313.2	313.8
750	283.8	282.3	279.5	286.9
700	255.1	253.9	259.5	260.9
650	235.3	233.0	239.6	235.0
600	215.4	212.0	219.6	208.0
550	187.3	186.3	181.0	180.8
500	149.3	149.7	148.1	159.4
450	128.9	129.2	136.0	141.5
400	115.4	125.0	126.2	122.2
350	127.6	138.3	125.9	123.4
300	404.9		335.9	197.2

LONG	-62.26	-62.12	-61.84	-61.54
LAT	26.09	27.10	29.05	31.06
QUAL	22	23	22	23

PASS 2394 AT OTTAWA, 63 323

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)						
	160635	160652	160728	160803	160838	160914	160931
1000	0.178	0.178	0.179	0.195	0.193	0.200	0.204
950	0.201	0.200	0.204	0.217	0.217	0.227	0.235
900	0.228	0.228	0.231	0.243	0.245	0.261	0.273
850	0.258	0.259	0.263	0.272	0.278	0.300	0.315
800	0.297	0.298	0.304	0.312	0.323	0.344	0.366
750	0.345	0.350	0.353	0.362	0.381	0.407	0.428
700	0.400	0.413	0.412	0.421	0.451	0.482	0.511
650	0.495	0.498	0.499	0.503	0.554	0.585	0.619
600	0.614	0.607	0.605	0.606	0.683	0.718	0.761
550	0.779	0.786	0.786	0.739	0.868	0.903	0.974
500	1.036	1.055	1.038	0.947	1.125	1.168	1.274
450	1.465	1.501	1.448	1.259	1.484	1.531	1.682
400	2.071	2.111	1.982	1.706	1.982	2.022	2.249
350	2.943		2.707	2.340	2.675	2.715	2.990
300	4.177		3.734	3.221	3.487	3.620	3.876
HEIGHT	SCALE HEIGHT, KM						
950	414.6	398.6	408.9	466.0	416.3	389.1	352.3
900	387.8	380.3	380.5	423.9	385.1	362.1	339.4
850	361.9	356.7	359.5	385.5	352.9	346.8	335.8
800	340.1	335.4	340.8	363.0	328.3	330.6	318.5
750	318.3	315.6	322.1	340.6	304.7	306.0	297.1
700	296.5	295.8	301.0	318.1	281.2	281.4	276.5
650	265.6	263.0	265.1	291.8	256.2	259.7	256.1
600	234.4	224.7	229.3	264.4	230.9	239.1	230.6
550	199.0	191.6	199.1	233.8	206.2	208.9	195.1
500	162.2	161.5	171.3	194.9	188.9	191.5	186.8
450	146.0	145.3	156.6	175.2	179.2	185.1	176.7
400	145.1	151.4	160.0	161.3	170.4	175.4	175.2
350	135.2		156.1	157.8	176.6	170.4	183.7
300	187.2		172.7	168.8	218.5	202.1	207.8
LONG	-57.87	-57.59	-56.91	-56.22	-55.40	-54.49	-54.01
LAT	48.05	48.98	50.95	52.86	54.76	56.71	57.63
QUAL	23	23	23	23	33	31	23

PASS 2401 AT OTTAWA, 63 324

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	44717	44753	44810	44919	44954	45029	45105	45140
1000	0.039	0.019	0.021	0.016	0.012	0.032	0.043	0.065
950	0.046	0.024	0.026	0.021	0.016	0.037	0.050	0.070
900	0.053	0.027	0.028	0.024	0.019	0.043	0.056	0.074
850	0.060	0.032	0.032	0.029	0.022	0.049	0.061	0.079
800	0.069	0.039	0.035	0.034	0.027	0.057	0.068	0.087
750	0.060	0.048	0.043	0.040	0.032	0.065	0.078	0.097
700	0.093	0.059	0.055	0.051	0.042	0.075	0.090	0.110
650	0.108	0.073	0.071	0.064	0.055	0.087	0.106	0.125
600	0.128	0.090	0.093	0.081	0.071	0.110	0.126	0.143
550	0.162	0.109	0.120	0.108	0.101	0.140	0.149	0.164
500	0.208	0.130	0.154	0.154	0.141	0.177	0.178	0.213
450	0.282	0.157	0.211	0.224	0.198	0.243	0.290	
400	0.382	0.237	0.308	0.334	0.302	0.328		
350	0.531	0.338		0.500	0.449	0.437		
300	0.726	0.471			0.650	0.563		
HEIGHT	SCALE HEIGHT, KM							
900	369.7	305.2	460.3	289.1	273.0	354.2	484.1	722.5
850	360.0	290.4	407.0	283.8	261.8	356.7	461.0	626.1
800	346.6	270.0	353.7	268.9	250.5	342.6	413.6	547.0
750	333.2	249.5	305.3	254.0	239.3	326.1	366.2	468.0
700	319.8	239.3	257.6	236.3	218.2	309.6	329.6	411.6
650	306.4	235.3	209.9	218.5	197.0	290.0	303.2	369.9
600	280.9	231.3	195.7	200.8	175.8	257.4	276.7	328.2
550	228.7	227.3	187.4	178.6	163.0	224.8	250.2	286.5
500	187.5	223.4	179.1	150.9	151.3	194.6	216.6	166.6
450	174.0	217.0	145.8	133.3	140.0	185.3	22.8	
400	163.2	177.7	86.6	127.3	130.0	176.0		
350	162.8	147.5		124.9	128.3	189.6		
300	167.2	175.6			131.5	208.9		
LONG	-93.77	-92.92	-92.55	-91.25	-90.67	-90.15	-89.65	-89.21
LAT	55.21	53.25	52.32	48.54	46.61	44.68	42.68	40.74
QUAL	32	31	33	33	33	21	23	23

PASS 2401 AT OTTAWA, 63 324  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	45215	45233	45308	45344	45419	45454	45529	45605
1000	0.090	0.085	0.102	0.110	0.107	0.124	0.117	0.128
950	0.098	0.094	0.111	0.122	0.116	0.134	0.127	0.139
900	0.104	0.099	0.121	0.130	0.125	0.141	0.134	0.148
850	0.109	0.102	0.130	0.137	0.133	0.149	0.141	0.156
800	0.114	0.106	0.139	0.145	0.140	0.157	0.149	0.165
750	0.121	0.112	0.147	0.155	0.149	0.166	0.159	0.174
700	0.131	0.120	0.158	0.165	0.160	0.177	0.170	0.185
650	0.149	0.133	0.174	0.181	0.174	0.196	0.187	0.202
600	0.172	0.150	0.198	0.207	0.199	0.221	0.214	0.224
550	0.201	0.170	0.265	0.244	0.230	0.276	0.252	0.255
500	0.252	0.207	0.423	0.317	0.283	0.385	0.335	0.363
450		0.286	0.556	0.491	0.447	0.621	0.523	0.591
400		0.399	0.850	0.797	0.781	1.087	0.931	0.999
350		0.608	1.387	1.454	1.451			1.635
300		0.912						
HEIGHT	SCALE HEIGHT, KM							
950	655.2	643.6	611.5	665.0	616.2	849.4	838.2	822.0
900	1107.9	1451.6	647.0	905.0	771.4	934.1	912.1	866.5
850	1068.2	1319.3	750.0	869.0	866.6	928.6	899.8	892.1
800	904.4	1000.3	761.2	810.6	826.5	891.8	843.1	878.8
750	726.2	828.9	764.1	725.6	733.2	769.1	744.3	811.5
700	553.2	662.3	605.6	626.7	622.9	622.7	605.8	663.8
650	472.9	506.0	449.9	517.0	517.2	495.4	487.2	553.8
600	392.6	399.3	295.6	399.9	425.0	368.1	381.7	445.1
550	312.2	335.8	203.0	279.9	332.8	243.3	269.5	313.5
500	194.3	222.1	148.0	156.0	206.3	135.0	148.5	123.2
450		144.5	141.7	109.1	86.1	99.7	102.3	101.5
400		135.3	109.0	92.4	84.3	94.0	87.6	93.5
350		120.7	136.0	92.4	97.8			126.8
300		125.3						
LONG	-88.79	-88.00	-88.22	-87.87	-87.56	-87.25	-86.97	-86.69
LAT	38.79	37.79	35.84	33.83	31.88	29.92	27.95	25.93
QUAL	23	23	33	33	33	33	23	23

PASS 2401 AT OTTAWA, 63 324

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)		
	45622	45733	45751
1000	0.119	0.135	0.121
950	0.128	0.145	0.132
900	0.135	0.152	0.139
850	0.142	0.158	0.145
800	0.150	0.164	0.152
750	0.158	0.172	0.161
700	0.168	0.181	0.170
650	0.183	0.196	0.183
600	0.205	0.219	0.203
550	0.233	0.263	0.254
500	0.309	0.418	0.367
450	0.514	0.643	0.563
400	0.879	1.000	0.969
350	1.486	1.322	
300			
HEIGHT	SCALE HEIGHT, KM		
900	936.9	1248.8	1060.6
850	942.3	1265.2	1024.5
800	910.1	1121.4	945.9
750	800.7	971.4	850.3
700	680.4	821.3	754.7
650	561.3	639.2	601.8
600	442.9	434.8	392.6
550	324.4	196.4	170.5
500	136.1	119.4	128.2
450	95.7	115.3	108.7
400	92.9	110.6	94.5
350	107.8	141.5	
300			
LONG	-86.57	-86.08	-85.96
LAT	24.97	20.98	19.97
QUAL	23	23	33



PASS 2401 AT QUITOE, 63 324

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)
	51017
1000	0.110
950	0.123
900	0.132
850	0.141
800	0.153
750	0.170
700	0.203
650	0.262
600	0.363
550	0.566
500	0.979
450	1.750
400	3.476
350	6.008
300	

HEIGHT	SCALE HEIGHT, KM
900	745.2
850	667.0
800	527.0
750	404.4
700	265.9
650	184.5
600	138.5
550	103.7
500	88.3
450	80.3
400	76.4
350	125.4
300	

LONG	-81.69
LAT	-22.19
QUAL	22

PASS 2401 AT SOLANT, 63 324

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	51313	51348	51441	51551	51644	51737	51830	51951
1000	0.111	0.119	0.128	0.123	0.120	0.135	0.141	0.133
950	0.124	0.132	0.141	0.134	0.132	0.147	0.152	0.145
900	0.136	0.140	0.150	0.141	0.142	0.156	0.158	0.152
850	0.146	0.148	0.160	0.150	0.150	0.165	0.169	0.162
800	0.157	0.160	0.171	0.161	0.159	0.175	0.182	0.173
750	0.168	0.171	0.182	0.171	0.169	0.187	0.197	0.186
700	0.182	0.182	0.198	0.182	0.180	0.199	0.219	0.205
650	0.203	0.200	0.221	0.197	0.192	0.222	0.246	0.234
600	0.248	0.227	0.255	0.221	0.216	0.252	0.277	0.270
550	0.350	0.361	0.351	0.250	0.249	0.289	0.312	0.354
500	0.522	0.473	0.503	0.435	0.336	0.413	0.352	0.503
450	0.905	0.826	0.931	0.611	0.607	0.677	0.889	0.807
400	1.524	1.638	1.539	0.762	0.871	1.108	1.151	1.294
350	2.407	2.355	2.233	1.846	1.470	1.749	1.759	1.937
300					2.097			
HEIGHT	SCALE HEIGHT, KM							
950	521.1	737.0	724.0	802.2	631.7	689.9	991.5	732.7
900	626.4	813.6	820.8	819.6	763.3	820.9	956.3	846.7
850	708.7	805.8	820.6	821.7	871.9	868.9	826.4	760.0
800	754.3	785.8	767.0	823.8	872.7	838.3	702.0	672.4
750	666.7	765.0	675.9	817.4	807.0	754.2	588.1	584.7
700	539.6	649.7	535.0	733.9	729.0	655.5	477.7	491.0
650	372.9	367.9	360.0	631.1	624.6	454.0	367.5	392.1
600	201.5	205.5	237.4	470.2	407.6	335.1	286.0	293.2
550	128.9	144.9	180.4	185.5	254.8	235.8	210.7	202.2
500	99.2	117.5	114.9	115.4	146.6	146.0	144.8	133.5
450	98.0	102.0	104.7	108.0	98.2	94.4	104.8	113.5
400	98.8	100.3	109.0	90.0	95.2	97.1	120.3	114.2
350	179.8	125.5	123.1	126.6	121.9	147.1	169.6	175.2
300					252.2			
LONG	-80.32	-79.99	-79.46	-78.66	-77.97	-77.17	-76.26	-74.61
LAT	-32.10	-34.06	-37.03	-40.93	-43.88	-46.81	-49.73	-54.17
QUAL	23	23	23	23	23	23	23	23

PASS 2401 AT SOLANT, 63 324  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	52044	52137	52248	52323	52416	52509	52602	52655
1000	0.131	0.163	0.098	0.087	0.049	0.043	0.047	0.059
950	0.144	0.177	0.111	0.099	0.061	0.053	0.058	0.069
900	0.153	0.189	0.124	0.110	0.070	0.061	0.069	0.080
850	0.163	0.202	0.138	0.124	0.081	0.072	0.079	0.092
800	0.178	0.218	0.152	0.143	0.096	0.090	0.095	0.106
750	0.196	0.235	0.171	0.165	0.116	0.112	0.114	0.125
700	0.219	0.256	0.196	0.192	0.138	0.138	0.136	0.150
650	0.247	0.291	0.226	0.230	0.167	0.169	0.161	0.178
600	0.280	0.337	0.261	0.278	0.210	0.209	0.193	0.211
550	0.366	0.392	0.301	0.334	0.260	0.260	0.229	0.255
500	0.520	0.478	0.346	0.399	0.318	0.320	0.271	0.313
450	0.783	0.652	0.457	0.528	0.385	0.387	0.349	0.380
400	1.351	0.897	0.727	0.757	0.576	0.511	0.449	0.468
350	2.079	1.262	1.066	1.035	0.821	0.669	0.586	0.590
300		1.849	1.551	1.368	1.123	0.840	0.727	0.707
HEIGHT	SCALE HEIGHT, KM							
900	693.1	717.6	456.3	398.3	297.5	266.3	272.1	321.5
850	648.4	694.4	436.6	382.4	300.1	267.3	286.6	318.3
800	583.8	637.4	416.9	358.8	290.3	264.1	288.5	315.1
750	519.3	555.1	395.1	335.2	280.5	261.0	290.3	307.5
700	451.5	477.6	371.9	311.7	270.7	257.9	292.2	299.2
650	380.6	422.1	348.8	291.6	259.7	254.8	292.1	290.9
600	309.7	366.6	325.7	272.3	245.4	249.1	278.9	282.6
550	213.4	311.1	302.5	253.0	231.2	240.3	265.7	272.7
500	133.0	254.2	279.4	233.7	217.0	231.5	251.1	261.9
450	111.4	193.4	225.3	200.5	202.6	222.7	220.8	251.1
400	102.8	153.2	118.6	153.6	167.4	210.2	201.3	247.8
350	156.8	143.3	131.3	168.6	152.5	207.7	216.8	253.4
300		151.3	144.8	229.4	173.4	276.9	297.7	307.5
LONG	-73.26	-71.65	-68.97	-67.30	-64.29	-60.44	-55.45	-48.56
LAT	-57.04	-59.90	-63.67	-65.49	-68.21	-70.85	-73.39	-75.73
QUAL	23	32	32	32	32	32	32	32

PASS 2407 AT QUITOE, 63 324  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	162947	163022	163058	163151	163226	163300	163337	163410
1000	0.251	0.281	0.254	0.253	0.203	0.206	0.167	0.162
950	0.282	0.316	0.284	0.281	0.227	0.231	0.189	0.182
900	0.322	0.360	0.321	0.320	0.259	0.262	0.216	0.208
850	0.370	0.414	0.366	0.364	0.297	0.298	0.248	0.238
800	0.426	0.476	0.418	0.417	0.341	0.341	0.285	0.273
750	0.515	0.556	0.498	0.491	0.400	0.404	0.340	0.324
700	0.629	0.677	0.611	0.589	0.480	0.485	0.410	0.387
650	0.807	0.853	0.768	0.723	0.594	0.600	0.503	0.477
600	1.060	1.123	0.995	0.920	0.753	0.770	0.637	0.590
550	1.539	1.584	1.391	1.226	1.009	1.028	0.847	0.782
500	2.390	2.454	2.059	1.766	1.425	1.447	1.185	1.088
450	4.204	4.052	3.309	2.794	2.128	2.190	1.770	1.598
400	7.334	6.582	5.806	4.680	3.466	3.533	2.792	2.580
350	11.438	10.226	9.444	7.706	6.020	5.971	4.973	4.384
300				11.715	9.661	9.379	8.001	7.276
HEIGHT	SCALE HEIGHT, KM							
950	398.5	390.9	429.6	434.2	398.5	428.8	384.4	401.5
900	361.1	367.6	394.2	390.0	371.1	389.4	361.9	371.3
850	336.4	348.1	368.1	369.1	353.6	365.2	339.8	351.2
800	311.8	328.6	340.5	346.1	336.1	338.9	317.8	330.0
750	271.4	299.2	265.5	295.5	303.2	297.4	294.4	297.1
700	230.6	244.6	235.1	261.2	257.4	257.7	271.0	264.1
650	203.7	204.1	205.0	228.5	228.3	223.5	233.7	237.9
600	160.5	167.3	172.0	189.2	194.6	191.5	193.3	211.8
550	126.5	133.2	146.8	158.9	158.4	162.3	164.4	174.1
500	103.2	106.6	122.3	124.3	138.9	134.4	140.9	143.0
450	92.0	100.1	92.4	107.3	115.8	116.2	118.1	120.4
400	94.8	108.4	100.0	96.4	94.9	98.4	100.4	100.4
350	172.4	143.8	110.3	110.3	96.7	95.4	93.6	98.6
300				145.2	121.6	129.1	111.3	116.6
LONG	-76.31	-76.12	-75.93	-75.65	-75.46	-75.27	-75.06	-74.87
LAT	0.59	2.56	4.59	7.56	9.53	11.45	13.53	15.38
QUAL	33	33	23	23	23	23	23	23

PASS 2407 AT QUITOE, 63 324  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)			
	163447	163523	163558	163634
1000	0.156	0.154	0.167	0.140
950	0.176	0.171	0.182	0.157
900	0.201	0.195	0.201	0.178
850	0.229	0.221	0.224	0.202
800	0.263	0.252	0.260	0.234
750	0.311	0.299	0.318	0.279
700	0.374	0.357	0.391	0.333
650	0.457	0.435	0.471	0.407
600	0.576	0.543	0.562	0.497
550	0.759	0.714	0.736	0.646
500	1.052	0.988	1.007	0.871
450	1.540	1.453	1.398	1.212
400	2.363	2.260	2.075	1.788
350	3.992	3.748	3.256	2.828
300	6.486	6.093	5.255	4.551
HEIGHT	SCALE HEIGHT, KM			
950	385.7	435.5	523.1	416.2
900	369.2	389.2	460.9	385.7
850	348.9	364.9	398.8	354.9
800	328.6	340.4	346.1	326.6
750	300.8	310.5	305.4	301.2
700	271.1	280.5	265.2	275.8
650	239.8	245.1	249.6	249.8
600	205.6	205.0	234.1	223.8
550	172.0	167.8	181.9	188.9
500	142.9	146.2	156.4	159.6
450	125.9	124.8	144.8	143.6
400	106.3	109.6	126.2	125.0
350	97.3	96.5	104.2	102.2
300	119.8	129.5	113.7	111.2
LONG	-74.65	-74.42	-74.19	-73.95
LAT	17.45	19.47	21.44	23.45
QUAL	23	23	23	23

PASS 2408 AT OTTAWA, 63 324

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	163813	163848	163924	163959	164034	164110	164145	164220
1000	0.144	0.141	0.119	0.129	0.138	0.122	0.118	0.106
950	0.162	0.160	0.140	0.146	0.156	0.138	0.134	0.123
900	0.182	0.183	0.161	0.167	0.176	0.156	0.152	0.141
850	0.207	0.208	0.185	0.190	0.199	0.177	0.172	0.162
800	0.236	0.238	0.212	0.220	0.228	0.206	0.198	0.187
750	0.277	0.278	0.249	0.256	0.266	0.242	0.231	0.218
700	0.326	0.326	0.296	0.300	0.311	0.284	0.275	0.255
650	0.397	0.397	0.351	0.365	0.375	0.347	0.337	0.316
600	0.464	0.489	0.433	0.447	0.458	0.431	0.413	0.394
550	0.622	0.615	0.548	0.565	0.573	0.546	0.523	0.487
500	0.823	0.804	0.723	0.738	0.751	0.718	0.678	0.637
450	1.168	1.122	0.997	1.026	1.043	0.995	0.928	0.863
400	1.665	1.612	1.439	1.451	1.494	1.403	1.315	1.217
350	2.482	2.410	2.151	2.137	2.184	2.057	1.897	1.745
300	3.890	3.764	3.321	3.281	3.321	3.090	2.848	2.601
HEIGHT	SCALE HEIGHT, KM							
950	402.2	382.9		373.5	413.0	391.7	392.7	
900	390.9	374.2	344.2	367.9	394.8	375.5	380.7	350.2
850	372.8	360.5	335.2	352.5	373.5	351.0	367.4	345.7
800	352.5	342.8	326.2	333.4	350.0	329.6	337.4	325.7
750	315.7	314.6	308.8	312.7	324.7	308.4	304.4	302.2
700	279.9	286.4	289.6	292.0	299.5	287.2	277.9	279.0
650	255.4	261.7	270.3	264.9	271.7	260.4	257.9	260.0
600	231.0	237.6	241.5	237.1	242.7	231.1	238.0	241.1
550	200.6	209.1	207.0	207.1	211.0	201.7	212.2	222.2
500	167.0	173.5	173.5	175.2	174.7	172.0	181.4	187.7
450	140.1	144.2	141.2	147.4	145.1	149.0	151.9	155.5
400	135.8	132.8	134.6	141.2	138.6	142.3	143.6	143.5
350	121.2	120.1	119.2	123.1	125.8	126.6	129.6	130.6
300	111.5	111.9	122.7	115.8	114.0	129.1	119.3	126.6
LONG	-73.21	-72.92	-72.60	-72.28	-71.92	-71.53	-71.12	-70.67
LAT	28.99	30.94	32.94	34.88	36.83	38.83	40.77	42.70
QUAL	11	23	23	23	23	23	23	23

PASS 2408 AT OTTAWA, 63 324

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	164256	164331	164406	164442	164517	164552	164628	164703
1000	0.116	0.124	0.122	0.143	0.148	0.140	0.159	0.148
950	0.135	0.143	0.141	0.160	0.166	0.163	0.177	0.165
900	0.155	0.164	0.165	0.181	0.187	0.184	0.198	0.184
850	0.178	0.186	0.189	0.206	0.211	0.209	0.223	0.208
800	0.206	0.213	0.216	0.238	0.243	0.240	0.255	0.242
750	0.239	0.244	0.249	0.278	0.283	0.279	0.294	0.284
700	0.281	0.288	0.286	0.326	0.331	0.324	0.342	0.334
650	0.341	0.341	0.341	0.388	0.394	0.385	0.404	0.397
600	0.412	0.416	0.408	0.464	0.469	0.465	0.477	0.470
550	0.519	0.521	0.510	0.582	0.586	0.574	0.596	0.581
500	0.662	0.650	0.643	0.753	0.753	0.738	0.760	0.743
450	0.900	0.881	0.873	1.030	1.026	1.006	1.039	0.999
400	1.267	1.227	1.234	1.475	1.411	1.404	1.443	1.366
350	1.801	1.723	1.749	2.080	1.948	1.987	1.998	1.882
300	2.652	2.535	2.530	2.951	2.766	2.834	2.839	2.649
HEIGHT	SCALE HEIGHT, KM							
950	344.3	365.0	353.7	407.6	424.1	367.5	440.3	446.7
900	348.6	369.1	349.9	386.0	400.8	375.6	415.4	407.3
850	344.4	374.6	358.4	362.1	376.0	362.1	388.8	369.0
800	329.2	357.4	349.6	343.6	352.9	346.9	368.4	348.8
750	310.9	324.6	337.4	326.7	330.3	331.1	348.0	328.6
700	291.4	299.3	323.5	309.7	307.4	315.2	324.9	308.3
650	268.1	274.0	289.0	282.7	283.2	290.7	295.5	286.9
600	244.9	250.1	254.6	254.1	259.0	259.3	266.2	265.5
550	218.5	227.4	226.3	217.2	222.9	223.1	228.0	231.6
500	190.9	204.7	198.7	180.1	185.6	182.8	188.8	191.6
450	159.4	163.9	158.2	151.8	160.0	156.6	157.2	163.6
400	146.5	151.4	146.2	144.6	160.6	149.4	156.2	162.3
350	136.2	138.9	139.2	144.8	149.5	142.7	148.7	151.3
300	127.3	128.7	134.7	131.6	136.5	143.7	137.1	152.8
LONG	-70.19	-69.65	-69.09	-68.44	-67.74	-66.97	-66.06	-65.12
LAT	44.69	46.61	48.54	50.51	52.42	54.32	56.27	58.16
QUAL	23	21	23	23	21	21	23	23

PASS 2409 AT OTTAWA, 63 324

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)
	164721
1000	0.139
950	0.158
900	0.179
850	0.203
800	0.235
750	0.272
700	0.323
650	0.387
600	0.467
550	0.590
500	0.702
450	1.038
400	1.418
350	1.934
300	2.699

HEIGHT	SCALE HEIGHT, KM
950	395.4
900	381.3
850	366.3
800	339.8
750	313.4
700	291.3
650	270.5
600	247.9
550	215.7
500	184.7
450	162.6
400	160.9
350	156.4
300	162.7

LONG	-64.54
LAT	59.12
QUAL	23



PASS 2414 AT AGASTA, 63 325

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	40013	40048	40106	40219	40254	40312	40350	40423
1000	0.129	0.145	0.139	0.132	0.122	0.127	0.126	0.165
950	0.136	0.157	0.149	0.143	0.132	0.137	0.134	0.179
900	0.146	0.167	0.159	0.152	0.140	0.146	0.142	0.190
850	0.158	0.182	0.172	0.163	0.151	0.156	0.152	0.202
800	0.165	0.210	0.193	0.179	0.166	0.171	0.165	0.218
750	0.227	0.255	0.228	0.204	0.185	0.190	0.181	0.238
700	0.319	0.342	0.294	0.237	0.213	0.213	0.207	0.282
650	0.498	0.515	0.412	0.291	0.286	0.271	0.252	0.356
600	0.829	0.678	0.615	0.430	0.394	0.427	0.348	0.463
550			1.611	0.771	0.537	0.692	0.513	0.600
500				1.689	1.397	1.157	0.837	0.932
450					2.759	2.443	1.446	1.586
400						4.901	2.579	2.285
350								
300								
HEIGHT	SCALE HEIGHT, KM							
950	660.1	756.9	783.8	756.8	743.0	746.5	817.8	741.1
900	600.9	669.0	681.3	791.7	709.0	736.1	746.6	799.4
850	500.4	469.0	556.4	629.8	609.4	623.2	677.3	719.1
800	299.9	311.6	411.0	490.6	508.4	504.8	610.3	593.5
750	199.0	218.7	261.5	366.3	400.2	432.2	478.2	437.7
700	131.2	152.7	166.6	297.0	295.3	359.6	320.3	322.5
650	104.7	112.9	139.4	192.5	203.6	156.3	217.6	217.4
600	113.2	91.4	86.5	104.8	145.4	131.7	166.6	186.0
550			139.6	74.6	111.7	107.3	124.2	160.4
500				65.1	67.1	83.3	99.8	118.4
450					61.9	70.5	91.4	117.8
400						79.1	93.2	152.7
350								
300								
LONG	-67.25	-67.04	-66.93	-66.44	-66.19	-66.06	-65.77	-65.49
LAT	-15.74	-17.72	-18.74	-22.85	-24.82	-25.84	-27.98	-29.84
QUAL	23	33	23	23	23	23	23	23

PASS 2414 AT AGASTA, 63 325  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)						
	40458	40626	40719	40737	40759	40830	40905
1000	0.142	0.158	0.157	0.162	0.159	0.150	0.165
950	0.150	0.163	0.165	0.168	0.168	0.161	0.170
900	0.157	0.170	0.172	0.175	0.176	0.171	0.178
850	0.164	0.177	0.180	0.183	0.185	0.179	0.188
800	0.174	0.186	0.189	0.191	0.195	0.189	0.199
750	0.187	0.198	0.201	0.205	0.207	0.201	0.212
700	0.203	0.219	0.222	0.229	0.223	0.217	0.228
650	0.225	0.259	0.261	0.264	0.246	0.241	0.253
600	0.290	0.314	0.312	0.334	0.323	0.293	0.304
550	0.408	0.420	0.421	0.436	0.437	0.386	0.398
500	0.615	0.566	0.664	0.676	0.587	0.547	0.611
450	1.011	0.914	1.039	1.048	0.772	0.799	0.965
400	1.700	1.468	1.593	1.627	1.483	1.429	1.502
350							2.221
300							
HEIGHT	SCALE HEIGHT, KM						
950	1033.1	1528.0	1144.1	1294.3	1008.3	801.7	1278.0
900	1079.0	1283.1	1150.9	1232.0	1031.5	920.5	1104.7
850	935.8	1114.8	1065.8	1129.6	989.6	943.0	942.7
800	799.6	897.3	949.7	918.2	908.1	839.6	866.9
750	675.1	643.9	668.2	577.5	721.2	729.1	733.2
700	558.7	421.5	428.3	433.7	551.8	582.6	569.3
650	295.1	328.4	294.0	283.1	383.6	375.5	405.9
600	170.7	235.3	231.8	195.0	248.8	228.5	277.2
550	135.5	191.3	141.2	155.1	164.7	170.0	173.2
500	110.6	150.9	109.3	113.9	148.8	143.6	130.4
450	101.1	118.7	115.8	116.0	132.9	118.2	113.2
400	106.1	125.1	138.0	131.6	112.1	104.0	124.6
350							209.2
300							
LONG	-65.20	-64.35	-63.76	-63.55	-63.28	-62.85	-62.36
LAT	-31.81	-36.73	-39.69	-40.70	-41.92	-43.64	-45.59
QUAL	23	33	33	23	23	13	13

PASS 2414 AT AGASTA, 63 325

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)	
	40923	41016
1000	0.159	0.160
950	0.168	0.169
900	0.177	0.178
850	0.187	0.188
800	0.197	0.200
750	0.209	0.214
700	0.225	0.229
650	0.251	0.252
600	0.299	0.293
550	0.382	0.362
500	0.537	0.494
450	0.869	0.737
400	1.417	1.207
350	2.128	1.931
300		
HEIGHT	SCALE HEIGHT, KM	
950		944.2
900	934.6	905.0
850	945.4	857.6
800	894.2	794.5
750	730.7	714.6
700	569.4	605.5
650	410.2	441.7
600	292.1	321.5
550	212.7	232.8
500	146.3	167.6
450	104.9	127.1
400	116.6	105.8
350	167.1	133.4
300		
LONG	-62.07	-61.18
LAT	-46.28	-49.50
QUAL	13	13

PASS 2422 AT OTTAWA, 63 325  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	171935	172010	172045	172121	172156	172231	172307	172342
1000	0.129	0.129	0.122	0.122	0.132	0.141	0.129	0.120
950	0.150	0.147	0.142	0.140	0.150	0.160	0.148	0.138
900	0.173	0.170	0.164	0.161	0.172	0.182	0.170	0.159
850	0.199	0.195	0.190	0.185	0.196	0.208	0.195	0.182
800	0.230	0.225	0.221	0.215	0.228	0.239	0.225	0.212
750	0.271	0.265	0.264	0.253	0.268	0.279	0.263	0.250
700	0.320	0.313	0.316	0.299	0.314	0.327	0.307	0.295
650	0.384	0.380	0.377	0.357	0.380	0.391	0.367	0.352
600	0.484	0.482	0.470	0.445	0.465	0.481	0.449	0.431
550	0.606	0.608	0.588	0.551	0.586	0.590	0.548	0.527
500	0.807	0.826	0.768	0.733	0.777	0.762	0.723	0.696
450	1.118	1.151	1.045	1.002	1.038	1.049	0.956	0.926
400	1.631	1.634	1.518	1.484	1.500	1.481	1.382	1.335
350	2.398	2.349	2.223	2.151	2.151	2.106	2.006	1.924
300	3.581	3.346	3.265	3.170		3.024	2.879	2.740
HEIGHT	SCALE HEIGHT, KM							
950	339.6	375.9	330.6	347.3	380.1	376.3	363.5	352.9
900	346.6	354.7	325.9	342.8	360.7	368.4	353.0	342.6
850	333.5	340.9	314.9	332.7	343.6	356.0	345.5	329.7
800	317.9	322.9	303.2	319.3	326.8	340.0	332.4	317.6
750	299.8	299.6	289.8	302.7	310.0	317.5	315.9	305.7
700	281.8	276.3	276.4	286.1	293.3	294.9	299.4	293.8
650	260.7	251.4	263.0	266.2	265.4	272.1	276.6	275.5
600	232.9	224.8	238.1	238.3	234.7	249.1	248.8	246.3
550	205.1	198.1	211.8	210.4	207.6	226.1	221.0	217.2
500	173.5	168.7	181.8	178.5	185.2	190.5	192.3	190.2
450	146.8	149.0	151.8	148.6	161.7	152.6	163.5	162.5
400	131.0	140.5	133.2	133.2	138.6	145.9	136.3	137.4
350	127.8	140.3	133.8	133.5	145.1	140.9	137.5	140.1
300	131.7	140.9	124.6	133.7		136.1	134.6	139.5
LONG	-82.13	-81.66	-81.15	-80.57	-79.96	-79.26	-78.50	-77.64
LAT	42.31	44.24	46.16	48.14	50.06	51.97	53.94	55.83
QUAL	23	23	22	23	23	21	22	23

PASS 2422 AT OTTAWA, 63 325

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)			
	172418	172453	172528	172604
1000	0.127	0.098	0.110	0.158
950	0.145	0.114	0.127	0.179
900	0.166	0.132	0.147	0.204
850	0.188	0.152	0.169	0.234
800	0.218	0.177	0.196	0.268
750	0.253	0.208	0.229	0.319
700	0.293	0.249	0.270	0.380
650	0.343	0.305	0.325	0.453
600	0.421	0.372	0.391	0.554
550	0.516	0.453	0.469	0.683
500	0.677	0.595	0.618	0.879
450	0.885	0.802	0.825	1.178
400	1.237	1.129	1.118	1.582
350	1.750	1.565	1.522	2.102
300	2.463	2.140	2.082	2.752

HEIGHT	SCALE HEIGHT, KM			
950	379.2	339.7	347.8	383.2
900	365.3	336.2	343.9	362.5
850	352.2	331.8	341.1	343.5
800	339.8	312.7	326.2	325.0
750	327.3	287.5	304.8	309.2
700	314.8	269.5	285.8	293.5
650	298.3	257.2	270.2	277.7
600	257.1	244.9	254.5	253.4
550	215.8	230.9	238.9	225.4
500	196.0	191.6	203.1	188.7
450	176.4	157.2	170.6	173.5
400	150.0	152.0	163.2	174.8
350	144.7	157.6	161.5	182.8
300	155.9	160.9	174.6	232.0

LONG	-76.66	-75.62	-74.36	-72.98
LAT	57.78	59.65	61.52	63.43
QUAL	21	23	23	21

PASS 2428 AT RESLUT, 63 326

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	40643	40703	40721	40756	40907	40925	40942	41000
1000	0.137	0.177	0.145	0.160	0.153	0.067	0.180	0.113
950	0.153	0.195	0.161	0.177	0.173	0.080	0.201	0.129
900	0.172	0.217	0.180	0.198	0.196	0.095	0.224	0.148
850	0.194	0.244	0.202	0.223	0.222	0.115	0.251	0.172
800	0.223	0.277	0.234	0.258	0.255	0.139	0.289	0.207
750	0.258	0.324	0.275	0.301	0.296	0.172	0.335	0.250
700	0.301	0.379	0.330	0.365	0.355	0.214	0.391	0.311
650	0.363	0.451	0.401	0.444	0.439	0.266	0.475	0.402
600	0.437	0.536	0.486	0.541	0.543	0.327	0.584	0.514
550	0.531	0.634	0.585	0.653	0.681	0.421	0.722	0.666
500	0.667	0.792	0.755	0.832	0.860	0.551	0.931	0.892
450	0.864	1.014	0.972	1.097	1.124	0.726	1.245	1.221
400	1.140	1.340	1.300	1.484	1.482	0.978	1.705	1.671
350	1.532	1.835	1.808	2.000		1.327	2.343	2.247
300	2.125	2.605	2.623	2.681				

HEIGHT	SCALE HEIGHT, KM							
950	432.7	473.1	449.2	449.0	395.0	279.2	446.5	363.3
900	407.3	439.6	416.2	418.7	388.6	272.3	420.0	331.0
850	381.9	406.1	383.1	388.5	373.4	265.3	386.0	297.6
800	356.3	372.5	340.1	333.7	338.9	254.8	357.3	273.8
750	330.8	338.5	294.9	283.3	300.6	238.4	328.8	250.1
700	306.2	304.6	274.4	275.0	275.4	227.6	300.4	230.5
650	287.8	291.8	264.4	266.8	258.8	222.4	274.8	217.8
600	269.5	279.0	254.4	258.6	242.2	217.2	249.8	205.1
550	246.8	266.2	244.4	250.4	223.0	206.1	222.9	189.4
500	208.7	229.5	215.6	208.0	202.0	192.3	189.2	168.5
450	189.6	193.0	187.2	175.5	188.5	178.4	167.7	161.4
400	176.9	172.5	163.8	168.0	178.0	169.1	156.8	164.4
350	162.2	151.7	145.2	169.6		188.3	167.7	178.8
300	152.8	153.6	129.9	174.9				

LONG	-160.74	-154.15	-148.68	-138.05	-122.53	-121.39	-120.31	-119.17
LAT	80.38	80.36	80.05	79.44	77.20	76.47	75.79	75.06
QUAL	33	32	33	33	33	32	33	33

PASS 2428 AT RESLUT, 63 326

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	41018	41035	41053	41112	41129	41146	41204	41222
1000	0.064	0.056	0.043	0.055	0.047	0.047	0.025	0.021
950	0.078	0.065	0.050	0.063	0.054	0.054	0.031	0.027
900	0.095	0.077	0.060	0.072	0.063	0.063	0.034	0.031
850	0.116	0.090	0.074	0.085	0.075	0.074	0.039	0.037
800	0.141	0.107	0.091	0.101	0.088	0.086	0.045	0.046
750	0.177	0.129	0.114	0.120	0.107	0.102	0.054	0.059
700	0.226	0.164	0.144	0.147	0.129	0.120	0.066	0.075
650	0.287	0.211	0.181	0.180	0.162	0.148	0.082	0.101
600	0.366	0.300	0.235	0.228	0.207	0.186	0.102	0.140
550	0.510	0.423	0.308	0.301	0.270	0.247	0.139	0.201
500	0.688	0.599	0.409	0.403	0.365	0.334	0.188	0.289
450	0.971	0.890	0.563	0.542	0.507	0.461	0.277	0.416
400	1.398	1.314	0.788	0.736	0.700	0.664	0.414	0.619
350	2.011	1.916	1.093	1.013		0.955	0.628	0.895
300	2.841	2.675					1.001	
HEIGHT	SCALE HEIGHT, KM							
950	243.2	313.8	284.7	346.5	329.1	325.7		
900	245.2	308.6	260.4	323.4	314.6	324.6	424.8	308.5
850	239.9	295.0	246.9	307.6	297.8	321.5	380.7	255.7
800	234.6	269.4	233.5	292.6	280.9	313.3	308.7	226.1
750	223.0	241.3	223.7	275.8	261.7	296.3	263.1	212.1
700	208.0	209.0	216.1	253.9	242.1	263.2	246.2	198.0
650	193.3	179.3	208.5	229.3	222.4	234.0	229.4	171.4
600	185.0	160.8	197.4	196.0	202.5	205.6	212.6	147.7
550	176.7	145.5	184.5	181.8	182.0	181.9	182.2	143.4
500	162.2	137.1	171.3	172.3	161.1	161.1	150.7	138.3
450	142.5	130.0	157.5	168.4	155.4	147.3	134.1	132.0
400	138.7	130.6	152.9	163.2	155.7	143.3	122.9	136.7
350	138.5	140.8	176.8	161.6		135.3	116.9	140.7
300	187.5	169.9					110.1	
LONG	-115.30	-111.64	-107.77	-105.27	-103.86	-102.44	-101.03	-99.92
LAT	74.24	73.47	72.65	71.74	70.91	70.08	69.20	68.29
QUAL	33	32	33	33	33	33	33	33

PASS 2428 AT RESLUT, 63 326  
 ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)						
	41239	41257	41315	41332	41350	41408	41426
1000	0.034	0.030	0.027	0.033	0.025	0.009	0.009
950	0.041	0.035	0.032	0.041	0.031	0.014	0.014
900	0.049	0.042	0.037	0.049	0.037	0.018	0.017
850	0.059	0.049	0.045	0.059	0.044	0.025	0.021
800	0.071	0.060	0.056	0.070	0.054	0.034	0.028
750	0.085	0.074	0.071	0.085	0.071	0.046	0.038
700	0.105	0.098	0.093	0.104	0.094	0.062	0.051
650	0.129	0.130	0.119	0.130	0.123	0.081	0.070
600	0.169	0.169	0.150	0.170	0.161	0.113	0.097
550	0.222	0.238	0.203	0.220	0.218	0.156	0.130
500	0.287	0.327	0.280	0.285	0.295	0.220	0.190
450	0.415	0.480	0.399	0.380	0.403	0.310	0.271
400	0.628	0.712	0.570	0.533	0.570	0.436	0.404
350	0.965	1.011	0.804	0.755	0.820	0.609	0.604
300			1.149				
HEIGHT	SCALE HEIGHT, KM						
950	264.3	292.4	332.0				
900	269.0	292.8	287.2	276.1	303.5	174.9	215.6
850	266.1	269.4	260.2	271.2	261.1	164.3	185.9
800	263.2	239.9	234.4	262.7	225.8	162.0	179.3
750	254.8	214.7	213.7	247.2	209.5	166.4	175.7
700	235.0	202.1	207.2	231.8	193.1	170.8	172.1
650	215.1	189.5	200.7	219.4	183.7	175.2	166.4
600	200.2	176.8	194.2	211.2	176.1	160.9	160.0
550	186.3	161.8	173.7	203.0	170.8	150.0	153.5
500	172.5	146.5	148.5	189.1	162.0	149.9	146.1
450	138.2	128.7	143.4	159.0	152.6	147.9	136.7
400	118.5	138.1	143.3	150.3	145.4	152.0	125.0
350	127.2	161.5	145.8	140.8	130.7	169.1	131.8
300			158.5				
LONG	-98.87	-97.76	-96.86	-96.05	-95.19	-94.42	-93.75
LAT	67.42	66.51	65.57	64.69	63.74	62.79	61.84
QUAL	33	33	33	33	33	33	33



PASS 2428 AT OTTAWA, 63 326  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	41651	41709	41744	41802	41837	41912	41948	42041
1000	0.013	0.010	0.016	0.019	0.016	0.018	0.028	0.039
950	0.017	0.013	0.020	0.024	0.021	0.023	0.032	0.042
900	0.021	0.017	0.025	0.029	0.026	0.028	0.037	0.045
850	0.025	0.022	0.031	0.035	0.031	0.034	0.042	0.049
800	0.030	0.029	0.037	0.043	0.037	0.040	0.048	0.054
750	0.038	0.037	0.047	0.052	0.045	0.049	0.056	0.061
700	0.050	0.048	0.060	0.063	0.054	0.059	0.066	0.070
650	0.065	0.061	0.075	0.078	0.072	0.074	0.080	0.082
600	0.083	0.076	0.098	0.104	0.094	0.097	0.098	0.100
550	0.110	0.109	0.129	0.136	0.121	0.126	0.131	0.126
500	0.159	0.151	0.165	0.176	0.161	0.161	0.177	0.169
450	0.218	0.214	0.247	0.260	0.237	0.243	0.261	0.234
400	0.314	0.321	0.363	0.373	0.363	0.369	0.378	0.379
350	0.473	0.485	0.534	0.560	0.560	0.551	0.554	0.591
300	0.679		0.749	0.774	0.795		0.764	0.860
HEIGHT	SCALE HEIGHT, KM							
950	225.6	189.7					361.6	730.8
900	233.1	184.9	226.6	240.5	256.2	249.0	371.1	710.0
850	229.3	189.7	230.0	250.5	258.4	260.7	368.2	552.8
800	225.5	194.6	231.4	249.6	248.5	257.9	333.2	455.5
750	218.1	195.1	223.8	240.8	238.6	246.2	309.8	401.0
700	208.9	192.0	216.1	232.0	228.5	234.5	290.5	347.5
650	199.8	189.0	208.5	221.1	214.4	221.0	251.4	294.3
600	190.6	185.6	195.2	203.6	200.3	204.7	209.3	235.8
550	180.0	170.0	180.9	186.0	186.2	188.4	180.0	192.7
500	166.5	154.4	166.6	168.5	167.5	172.1	152.9	161.9
450	152.9	139.2	146.7	149.8	135.6	139.3	144.0	136.3
400	128.6	124.5	132.6	134.9	115.8	125.0	138.1	106.3
350	136.3	119.0	143.3	144.5	132.8	138.5	149.3	123.6
300	179.2		158.8	176.0	169.8		172.0	132.4
LONG	-89.43	-89.03	-88.32	-87.96	-87.35	-86.77	-86.25	-85.54
LAT	54.04	53.06	51.14	50.16	48.23	46.30	44.30	41.37
QUAL	31	33	23	23	33	33	33	33

PASS 2428 AT OTTAWA, 63 326  
 ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)
	42058
1000	0.068
950	0.072
900	0.075
850	0.080
800	0.086
750	0.094
700	0.107
650	0.125
600	0.151
550	0.189
500	0.244
450	0.352
400	0.561
350	0.698
300	1.327

HEIGHT	SCALE HEIGHT, KM
950	1174.3
900	1009.6
850	710.5
800	616.3
750	488.9
700	363.4
650	291.8
600	247.4
550	208.0
500	172.1
450	129.6
400	111.0
350	117.8
300	141.6

LONG	-85.33
LAT	40.43
QUAL	33

## PASS 2428 AT AGASTA, 63 326

## ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	43819	43855	43912	44430	44501	44539	44612	44630
1000	0.139	0.151	0.131	0.143	0.151	0.151	0.151	0.147
950	0.148	0.163	0.150	0.150	0.159	0.158	0.159	0.156
900	0.161	0.175	0.165	0.158	0.166	0.165	0.167	0.165
850	0.180	0.193	0.184	0.168	0.175	0.173	0.176	0.175
800	0.206	0.218	0.210	0.180	0.185	0.183	0.185	0.186
750	0.237	0.254	0.242	0.196	0.197	0.194	0.195	0.197
700	0.315	0.306	0.293	0.220	0.213	0.206	0.208	0.211
650	0.443	0.383	0.371	0.252	0.235	0.224	0.227	0.229
600	0.613	0.525	0.498	0.296	0.262	0.249	0.257	0.256
550	0.823	0.848	0.749	0.364	0.316	0.294	0.296	0.302
500	1.166	1.301	1.181	0.515	0.458	0.458	0.395	0.437
450	1.805	1.931	1.844	0.793	0.770	0.843	0.558	0.706
400	2.628	2.794	2.712	1.181	1.147	1.193	0.862	1.034
350							1.479	1.651
300								
HEIGHT	SCALE HEIGHT, KM							
950	665.4	732.5	468.2	993.9	995.6	1084.5	1000.8	872.4
900	522.5	566.9	459.1	874.8	1002.4	1059.9	993.4	863.1
850	445.4	484.5	401.6	752.5	930.8	975.2	972.0	852.4
800	384.0	402.0	361.1	636.6	842.4	881.8	927.1	820.0
750	252.2	311.8	320.5	524.9	690.2	801.5	829.1	780.1
700	208.1	245.5	268.5	449.2	583.2	721.1	662.6	662.6
650	168.0	201.1	206.2	373.4	489.1	552.1	495.6	535.9
600	157.2	127.6	148.7	295.0	394.0	392.4	394.5	404.8
550	151.7	118.7	124.0	199.8	246.6	260.9	293.4	237.4
500	136.8	122.5	114.9	138.8	155.4	157.6	206.4	147.9
450	124.1	133.6	122.7	127.6	114.2	110.0	133.9	118.8
400	139.9	156.2	129.1	139.1	125.6	127.1	108.4	118.9
350							113.8	129.9
300								
LONG	-78.34	-78.11	-77.98	-75.24	-74.89	-74.39	-73.93	-73.66
LAT	-18.65	-20.33	-21.23	-39.09	-40.83	-42.93	-44.76	-45.76
QUAL	33	33	33	33	23	23	23	23

PASS 2428 AT AGASTA, 63 326  
 ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)
	44705
1000	0.138
950	0.145
900	0.154
850	0.165
800	0.175
750	0.187
700	0.202
650	0.218
600	0.252
550	0.296
500	0.402
450	0.591
400	0.929
350	1.533
300	
HEIGHT	SCALE HEIGHT, KM
950	915.1
900	866.1
850	817.0
800	746.0
750	667.8
700	587.9
650	508.0
600	379.8
550	250.2
500	174.4
450	126.6
400	108.9
350	117.3
300	
LONG	-73.12
LAT	-47.69
QUAL	23

PASS 2441 AT RESLUT, 63 327								
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)								
HEIGHT	TIME (UT)							
	30227	30245	30303	30320	30338	30356	30413	30431
1000	0.041	0.058	0.064	0.064	0.023	0.020	0.015	0.006
950	0.049	0.066	0.074	0.075	0.028	0.025	0.019	0.011
900	0.058	0.076	0.087	0.088	0.034	0.029	0.023	0.014
850	0.070	0.088	0.104	0.104	0.042	0.036	0.029	0.019
800	0.087	0.104	0.128	0.126	0.055	0.049	0.039	0.025
750	0.107	0.124	0.159	0.154	0.071	0.067	0.052	0.033
700	0.133	0.150	0.202	0.193	0.092	0.094	0.074	0.049
650	0.165	0.189	0.256	0.251	0.118	0.129	0.113	0.080
600	0.206	0.239	0.322	0.340	0.175	0.185	0.171	0.116
550	0.274	0.314	0.440	0.467	0.266	0.279	0.253	0.176
500	0.360	0.443	0.625	0.644	0.408	0.415	0.381	0.282
450	0.511	0.653	0.904	0.932	0.618	0.612	0.580	0.444
400	0.745	0.971	1.311	1.357		0.917	0.868	0.705
350	1.134	1.488	1.867	1.928		1.345	1.280	1.076
300		2.241					1.807	
HEIGHT	SCALE HEIGHT, KM							
	30227	30245	30303	30320	30338	30356	30413	30431
950	277.8	360.4	312.9	302.6	279.3	277.9	231.1	130.4
900	268.3	339.9	288.3	295.6	248.2	245.1	230.5	192.3
850	258.9	320.6	264.9	286.0	212.0	215.5	199.9	176.9
800	249.2	302.2	245.0	265.6	187.5	189.6	182.5	171.0
750	239.4	263.2	225.2	235.9	183.8	163.7	159.3	165.1
700	228.9	237.8	214.8	203.4	180.1	158.2	131.7	113.8
650	217.8	223.5	205.6	179.9	174.4	153.1	125.9	120.2
600	205.3	209.3	196.3	166.5	135.1	128.1	125.6	123.7
550	186.4	175.6	161.8	156.4	120.4	125.0	126.7	113.2
500	167.6	138.5	141.0	148.7	119.6	128.3	120.1	109.1
450	147.1	129.7	136.7	136.0	122.0	128.4	124.2	111.1
400	128.3	123.2	139.2	137.1		126.4	127.0	114.7
350	130.8	119.9	150.3	169.5		143.9	138.0	131.5
300		125.2					156.2	
LONG	-93.80	-91.84	-89.96	-88.62	-87.19	-85.77	-84.68	-83.62
LAT	73.40	72.56	71.72	70.89	70.00	69.12	68.26	67.34
QUAL	33	33	33	32	33	33	33	23

PASS 2441 AT RESLUT, 63 327  
 ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)						
	30449	30506	30524	30542	30600	30617	30635
1000	0.016	0.012	0.007	0.017	0.027	0.012	0.005
950	0.019	0.016	0.010	0.020	0.033	0.015	0.006
900	0.022	0.019	0.012	0.023	0.040	0.016	0.008
850	0.029	0.024	0.016	0.031	0.048	0.019	0.010
800	0.038	0.032	0.022	0.039	0.059	0.027	0.014
750	0.050	0.041	0.030	0.048	0.073	0.036	0.018
700	0.067	0.061	0.044	0.058	0.092	0.046	0.024
650	0.095	0.087	0.065	0.085	0.121	0.062	0.033
600	0.138	0.139	0.099	0.129	0.165	0.086	0.049
550	0.207	0.214	0.153	0.193	0.235	0.125	0.073
500	0.320	0.325	0.240	0.288	0.333	0.185	0.111
450	0.466	0.485	0.373	0.441	0.487	0.286	0.178
400	0.723	0.713	0.580	0.662	0.720	0.440	0.289
350	1.062	1.045	0.888	0.972	1.049	0.686	0.467
300			1.276	1.326		1.042	0.729
HEIGHT	SCALE HEIGHT, KM						
950	334.9	245.8	204.5	331.9	262.9	391.7	
900	226.8	236.5	192.0	268.7	269.1	335.9	192.0
850	213.5	216.5	180.9	200.9	262.2	272.6	185.1
800	200.1	196.5	170.5	197.1	234.2	194.7	178.4
750	184.4	176.6	160.2	193.3	215.2	178.9	172.3
700	160.5	150.6	146.1	189.5	202.1	183.5	166.1
650	143.6	123.9	128.5	156.7	177.9	162.8	154.1
600	131.2	120.8	118.8	120.9	154.0	142.4	135.8
550	120.4	119.6	113.8	124.5	147.9	130.5	123.4
500	119.7	124.1	113.1	122.7	141.4	123.2	116.2
450	123.7	127.8	113.9	120.3	132.5	119.9	106.0
400	129.1	132.1	117.4	128.4	132.9	116.7	104.3
350	136.8	144.4	125.2	147.3	144.9	117.3	110.1
300			159.6	231.9		141.0	113.6
LONG	-82.55	-81.63	-80.80	-79.98	-79.16	-78.55	-77.91
LAT	66.42	65.55	64.60	63.66	62.72	61.61	60.85
QUAL	33	33	33	32	32	32	33

PASS 2441 AT OTTAWA, 63 327  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)			
	30729	30840	30915	31008
1000	0.004	0.017	0.021	0.025
950	0.006	0.021	0.026	0.033
900	0.008	0.025	0.032	0.041
850	0.011	0.029	0.040	0.049
800	0.014	0.035	0.049	0.058
750	0.019	0.042	0.060	0.071
700	0.024	0.055	0.073	0.088
650	0.031	0.075	0.088	0.108
600	0.042	0.103	0.110	0.136
550	0.058	0.144	0.142	0.177
500	0.085	0.215	0.187	0.248
450	0.120	0.317	0.264	0.358
400	0.177	0.458	0.367	0.532
350	0.267	0.633	0.509	0.774
300	0.414		0.668	1.065

HEIGHT	SCALE HEIGHT, KM			
950				
900		298.9		251.0
850		278.2	237.2	253.1
800	189.2	259.0	246.8	254.3
750	189.6	235.7	249.5	248.2
700	189.9	172.2	243.0	239.6
650	185.3	165.4	236.5	230.9
600	163.3	156.4	219.7	209.9
550	147.8	135.4	193.8	174.4
500	144.6	134.5	172.1	152.3
450	141.4	133.8	162.6	135.8
400	131.7	145.0	159.4	135.4
350	118.6	175.9	183.1	149.4
300	124.4		231.3	189.1

LONG	-76.16	-74.31	-73.54	-72.51
LAT	57.95	54.11	52.20	49.30
QUAL	33	33	22	32

PASS 2441 AT AGASTA, 63 327							
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)							
HEIGHT	TIME (UT)						
	33118	33154	33247	33322	33415	33654	33747
1000	0.185	0.147	0.188	0.175	0.152	0.144	0.140
950	0.195	0.157	0.196	0.184	0.158	0.149	0.146
900	0.210	0.169	0.207	0.194	0.164	0.156	0.152
850	0.225	0.185	0.219	0.207	0.172	0.164	0.158
800	0.244	0.208	0.235	0.224	0.181	0.175	0.164
750	0.268	0.237	0.256	0.246	0.192	0.189	0.173
700	0.329	0.271	0.285	0.272	0.205	0.206	0.188
650	0.433	0.311	0.326	0.345	0.224	0.226	0.209
600	0.570	0.408	0.389	0.505	0.257	0.292	0.243
550	0.739	0.552	0.488	0.667	0.336	0.386	0.307
500	1.060	0.827	0.644	0.830	0.497	0.516	0.419
450	1.913	1.332	0.920	1.183	0.755	0.700	0.593
400	3.448	2.382	1.374	1.765	1.116	1.001	0.898
350			2.118		1.614		
300							
HEIGHT	SCALE HEIGHT, KM						
	33118	33154	33247	33322	33415	33654	33747
950	826.0	696.5	1072.6	931.6	1299.9	1257.2	1318.0
900	732.9	594.3	890.0	848.5	1166.2	1039.3	1289.7
850	637.5	514.9	790.9	713.1	1000.3	863.3	1283.2
800	524.6	458.6	642.2	573.3	889.7	704.0	1069.0
750	410.0	402.2	521.0	475.7	799.7	603.1	800.5
700	290.8	338.8	435.7	378.1	674.1	502.9	615.0
650	183.5	274.7	349.9	282.0	448.9	401.7	441.7
600	170.8	217.8	263.2	187.4	304.9	266.1	295.5
550	158.1	161.6	210.0	171.9	204.8	178.0	199.9
500	127.3	125.3	160.6	171.0	138.5	168.6	156.8
450	88.3	98.6	136.0	146.2	130.3	164.2	140.1
400	82.8	88.2	123.2	147.3	132.0	172.8	134.7
350			108.7		134.7		
300							
LONG	-62.72	-62.47	-62.08	-61.80	-61.34	-59.68	-58.98
LAT	-22.12	-24.15	-27.14	-29.11	-32.09	-40.97	-43.93
QUAL	23	33	33	23	23	23	



PASS 2448 AT QUITOE, 63 327

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	163517	163553	163717	163751	163827	163902	163937	164048
1000	0.308	0.314	0.311	0.286	0.245	0.240	0.224	0.196
950	0.352	0.359	0.347	0.324	0.281	0.275	0.255	0.224
900	0.408	0.416	0.399	0.374	0.324	0.317	0.293	0.258
850	0.476	0.484	0.461	0.433	0.374	0.368	0.340	0.299
800	0.574	0.571	0.539	0.503	0.439	0.429	0.394	0.346
750	0.713	0.699	0.659	0.607	0.529	0.515	0.464	0.415
700	0.913	0.887	0.821	0.749	0.652	0.629	0.568	0.506
650	1.280	1.157	1.027	0.944	0.823	0.786	0.706	0.626
600	1.946	1.600	1.394	1.237	1.074	1.007	0.904	0.803
550	3.031	2.437	2.032	1.774	1.478	1.375	1.215	1.087
500	4.912	3.994	3.165	2.681	2.244	2.044	1.760	1.532
450	7.523	6.605	5.258	4.405	3.775	3.404	2.739	2.426
400	9.707	10.362	8.587	7.421	6.529	5.983	4.911	4.134
350			12.242	11.240	10.465	10.033	8.687	6.866
300				13.365				10.039
HEIGHT	SCALE HEIGHT, KM							
950	348.4	356.2	437.8	374.0	354.8	353.0	363.4	367.7
900	326.9	332.3	363.0	348.8	345.0	339.1	348.2	345.2
850	295.2	312.0	328.9	325.7	326.3	321.1	329.5	328.1
800	255.9	278.4	292.2	302.6	290.7	303.0	310.1	311.0
750	216.8	226.6	246.0	262.8	253.1	268.7	285.4	274.3
700	184.0	206.4	220.9	229.1	233.9	238.0	251.3	242.3
650	133.5	176.0	202.5	208.5	205.1	219.5	219.6	221.7
600	118.5	138.7	145.6	157.1	173.8	184.0	192.3	185.1
550	106.7	109.4	126.3	133.5	142.2	145.9	155.3	154.9
500	107.3	101.1	105.2	112.2	109.9	117.5	126.3	132.7
450	151.3	93.6	98.4	97.1	90.7	88.1	102.6	108.9
400	260.4	165.3	107.7	106.5	88.4	87.6	84.2	94.1
350			226.3	294.8	120.4	118.2	103.6	107.6
300				25.1				223.4
LONG	-84.20	-84.01	-83.57	-83.39	-83.20	-83.01	-82.82	-82.41
LAT	-3.04	-1.01	3.70	5.61	7.64	9.60	11.57	15.56
QUAL	33	33	33	33	33	23	23	23

PASS 2448 AT QUITOE, 63 327

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)					
	164122	164158	164234	164310	164345	164420
1000	0.190	0.185	0.175	0.168	0.182	0.162
950	0.217	0.209	0.198	0.188	0.200	0.184
900	0.251	0.239	0.227	0.216	0.223	0.210
850	0.292	0.276	0.262	0.248	0.251	0.242
800	0.339	0.318	0.303	0.286	0.288	0.278
750	0.400	0.377	0.362	0.334	0.344	0.330
700	0.487	0.456	0.438	0.409	0.416	0.396
650	0.601	0.568	0.542	0.502	0.505	0.485
600	0.775	0.712	0.699	0.640	0.619	0.599
550	1.016	0.949	0.927	0.819	0.815	0.779
500	1.429	1.332	1.315	1.157	1.108	1.059
450	2.159	2.002	1.991	1.694	1.585	1.498
400	3.588	3.272	3.269	2.738	2.380	2.248
350	5.993	5.597	5.312	4.626	3.786	3.538
300	8.769	8.313	7.705		5.927	5.177
HEIGHT	SCALE HEIGHT, KM					
950	351.2	374.2	375.0	429.5	478.6	372.9
900	337.0	359.1	353.9	366.7	433.3	361.1
850	321.8	341.1	336.1	344.4	390.6	344.3
800	306.6	323.0	315.2	322.1	345.3	327.6
750	284.5	285.1	281.2	296.8	295.9	293.5
700	252.5	244.5	248.7	262.1	260.3	261.6
650	222.7	224.4	218.5	228.2	241.4	240.4
600	199.5	203.0	189.9	203.6	220.2	217.4
550	171.5	169.2	162.5	178.7	185.3	183.9
500	135.4	139.5	139.5	150.1	155.3	158.8
450	113.2	115.8	116.8	119.8	133.6	137.4
400	90.7	92.1	97.9	98.2	119.1	117.4
350	107.3	103.0	106.8	100.6	104.7	117.3
300	183.9	223.1	274.9		158.7	153.2
LONG	-82.20	-81.97	-81.74	-81.33	-80.50	-80.12
LAT	17.47	19.49	21.50	23.52	25.47	27.43
QUAL	23	22	22	23	22	22

PASS 2448 AT AGASTA, 63 327  
 ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	162719	162754	162830	162905	162940	163016	163051	163127
1000	0.176	0.193	0.238	0.240	0.293	0.295	0.319	0.325
950	0.192	0.211	0.259	0.267	0.328	0.333	0.363	0.370
900	0.213	0.235	0.291	0.304	0.374	0.385	0.418	0.431
850	0.238	0.266	0.332	0.349	0.434	0.449	0.515	0.507
800	0.273	0.307	0.383	0.404	0.518	0.570	0.648	0.605
750	0.317	0.372	0.467	0.490	0.622	0.731	0.814	0.781
700	0.371	0.454	0.578	0.610	0.771	0.931	1.066	1.076
650	0.440	0.556	0.716	0.763	0.959	1.234	1.378	1.590
600	0.538	0.708	0.929	0.987	1.219	1.625	2.061	2.513
550	0.758	0.893	1.194	1.283	1.948	2.645	3.398	3.679
500	1.096	1.386	1.925	2.088	3.398	4.542	5.165	4.339
450	1.711	2.314	3.224	3.568	6.244	7.505	6.802	5.221
400	3.012	4.245	5.735	6.552	10.959			6.278
350	5.422	7.622	9.940	11.399				
300	9.166	12.740						
HEIGHT	SCALE HEIGHT, KM							
950	525.5	512.6	521.6	442.8	407.5	373.5	347.6	350.7
900	469.6	451.7	451.7	392.2	364.1	323.8	289.3	313.3
850	413.7	390.8	387.3	350.4	323.8	274.0	264.5	283.2
800	377.4	334.8	322.8	308.7	290.9	250.5	239.7	248.8
750	343.1	301.4	285.1	274.7	258.0	227.6	214.9	184.4
700	304.9	268.0	251.8	243.6	231.4	204.6	190.4	149.6
650	259.7	234.9	218.8	213.1	205.5	177.1	166.0	117.6
600	214.5	204.0	189.2	185.0	173.6	148.7	114.9	110.3
550	169.1	173.1	159.6	154.9	100.8	96.8	108.1	225.0
500	129.6	120.9	100.7	101.4	85.6	90.9	150.5	294.0
450	101.4	93.2	92.8	87.0	82.5	127.2	243.2	259.4
400	86.8	81.4	86.4	86.1	117.3			323.6
350	90.1	87.9	99.8	109.0				
300	104.7	152.8						
LONG	-87.19	-86.91	-86.63	-86.38	-86.14	-85.91	-85.69	-85.47
LAT	-29.85	-27.89	-25.88	-23.92	-21.96	-19.94	-17.98	-15.97
QUAL	13	13	13	13	13	13	13	22

PASS 2448 AT AGASTA, 63 327						
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)						
HEIGHT	TIME (UT)					
	163202	163237	163313	163348	163424	163459
1000	0.338	0.331	0.331	0.329	0.327	0.322
950	0.389	0.380	0.381	0.379	0.377	0.368
900	0.452	0.445	0.447	0.445	0.445	0.431
850	0.531	0.535	0.532	0.530	0.529	0.507
800	0.649	0.669	0.672	0.660	0.657	0.611
750	0.851	0.895	0.897	0.876	0.852	0.774
700	1.190	1.243	1.257	1.219	1.163	1.027
650	1.785	1.842	1.875	1.798	1.710	1.436
600	2.644	2.663	2.688	2.623	2.628	2.164
550	3.476		3.317	3.548	3.893	3.374
500	3.987		3.786	4.196	5.112	5.176
450	4.757		4.444	4.888	6.122	7.285
400	5.507		4.983			
350	6.106					
300						
HEIGHT	SCALE HEIGHT, KM					
950	348.2	334.6	326.6	326.5	330.6	345.4
900	309.9	293.3	290.8	293.4	297.8	320.5
850	274.7	244.6	251.6	255.2	257.8	282.5
800	231.7	201.4	208.8	215.2	220.8	243.8
750	176.8	174.0	165.6	173.1	185.6	204.8
700	140.6	145.3	138.7	142.3	150.9	170.7
650	122.6	130.1	131.2	129.4	121.3	137.3
600	142.3	173.6	171.5	143.6	119.7	116.8
550	307.4		343.4	234.1	149.7	112.3
500	326.8		342.0	320.8	232.9	126.0
450	303.4		360.0	366.3	320.2	199.6
400	393.9		547.3			
350	731.4					
300						
LONG	-85.26	-85.06	-84.86	-84.67	-84.48	-84.30
LAT	-14.01	-12.04	-10.01	-8.04	-6.02	-4.06
QUAL	22	23	22	22	22	33

PASS 2449 AT OTTAWA, 63 327

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	164531	164549	164606	164717	164752	164827	164903	164938
1000	0.164	0.158	0.145	0.135	0.138	0.129	0.114	0.116
950	0.186	0.179	0.167	0.156	0.158	0.148	0.132	0.134
900	0.211	0.204	0.192	0.180	0.182	0.171	0.154	0.154
850	0.241	0.233	0.221	0.208	0.210	0.197	0.179	0.178
800	0.277	0.266	0.254	0.243	0.242	0.228	0.208	0.207
750	0.332	0.316	0.304	0.293	0.289	0.273	0.252	0.249
700	0.400	0.380	0.366	0.355	0.347	0.327	0.307	0.300
650	0.481	0.455	0.440	0.428	0.415	0.399	0.373	0.360
600	0.602	0.572	0.545	0.518	0.513	0.502	0.449	0.455
550	0.766	0.729	0.698	0.672	0.658	0.627	0.589	0.586
500	1.052	0.990	0.939	0.897	0.882	0.855	0.778	0.763
450	1.494	1.429	1.322	1.250	1.249	1.200	1.096	1.074
400	2.215	2.118	1.910	1.766	1.810	1.727	1.582	1.552
350	3.272	3.148	2.801	2.545	2.633	2.523	2.335	2.270
300	4.664	4.443	4.050	3.664		3.701	3.521	3.410
HEIGHT	SCALE HEIGHT, KM							
950	382.4	384.7	352.6	338.3	356.8	350.0	335.4	348.9
900	367.8	366.4	344.1	332.5	344.8	340.1	317.9	333.4
850	342.3	346.4	327.0	311.0	328.2	325.9	303.9	317.7
800	317.4	326.4	309.8	293.0	311.6	310.4	290.0	301.7
750	297.9	303.4	292.9	282.0	294.9	288.4	277.4	284.7
700	278.4	280.1	275.9	271.0	278.1	266.3	264.9	267.8
650	258.9	256.9	258.9	260.0	261.4	244.0	252.3	250.8
600	225.3	226.1	232.1	244.8	234.8	221.3	239.8	228.4
550	186.3	192.6	195.1	198.6	197.8	198.6	202.0	203.4
500	150.9	151.2	157.9	163.1	160.5	166.2	165.9	173.9
450	138.2	134.0	143.4	149.7	141.3	145.8	142.5	142.1
400	127.2	126.5	132.4	139.2	132.0	135.0	133.2	134.8
350	132.5	132.9	131.8	137.1	137.1	130.8	126.1	129.3
300	168.0	164.6	144.9	149.0		138.8	129.2	125.0
LONG	-80.40	-80.25	-80.09	-79.39	-79.01	-78.59	-78.14	-77.64
LAT	31.39	32.39	33.33	37.28	39.23	41.16	43.15	45.08
QUAL	23	23	23	23	23	23	23	23

PASS 2449 AT OTTAWA, 63 327  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	165013	165049	165124	165159	165235	165310	165346	165422
1000	0.106	0.112	0.118	0.118	0.129	0.126	0.133	0.141
950	0.123	0.129	0.135	0.137	0.146	0.143	0.152	0.161
900	0.143	0.149	0.156	0.157	0.166	0.164	0.173	0.183
850	0.165	0.171	0.178	0.180	0.189	0.187	0.197	0.207
800	0.194	0.200	0.207	0.209	0.219	0.214	0.228	0.238
750	0.236	0.238	0.243	0.245	0.256	0.248	0.266	0.276
700	0.287	0.282	0.285	0.286	0.298	0.295	0.312	0.321
650	0.349	0.334	0.335	0.340	0.349	0.350	0.364	0.391
600	0.419	0.425	0.427	0.430	0.418	0.414	0.454	0.476
550	0.553	0.537	0.542	0.539	0.529	0.522	0.563	0.594
500	0.727	0.688	0.691	0.693	0.680	0.664	0.714	0.765
450	1.023	0.963	0.954	0.945	0.922	0.886	0.959	1.018
400	1.462	1.377	1.346	1.323	1.293	1.212	1.330	1.416
350	2.150	2.002	1.932	1.893	1.809	1.665	1.819	1.927
300	3.235	2.981	2.847	2.775	2.555	2.328	2.482	2.593
HEIGHT	SCALE HEIGHT, KM							
950	348.9	357.9	356.5	348.6	387.9	378.1	372.2	385.0
900	323.2	340.1	348.1	344.4	368.8	368.9	361.7	378.2
850	303.3	324.9	336.1	336.0	350.0	352.9	346.1	367.3
800	286.7	309.2	320.6	321.3	342.5	336.9	331.1	345.8
750	275.2	292.9	303.6	305.3	334.9	319.8	316.2	322.1
700	263.8	276.7	286.6	289.2	327.3	301.9	301.3	298.3
650	252.4	260.5	269.4	270.6	307.2	283.9	285.9	271.9
600	240.9	236.2	243.0	244.6	237.5	266.0	257.7	245.5
550	204.2	212.0	216.6	218.5	214.4	234.2	229.5	220.0
500	167.5	184.3	188.5	190.6	191.5	199.6	198.5	195.4
450	144.2	145.7	152.5	158.8	158.1	170.1	163.0	168.2
400	137.4	140.6	145.8	147.9	151.9	161.0	158.8	157.3
350	126.1	129.5	133.5	134.5	146.4	152.1	160.4	166.4
300	127.1	128.1	125.9	136.2	152.0	153.1	171.2	190.2
LONG	-77.10	-76.50	-75.85	-75.16	-74.32	-73.44	-72.41	-71.23
LAT	47.00	48.98	50.90	52.81	54.77	56.67	58.61	60.53
QUAL	23	23	21	23	21	21	21	21

PASS 2449 AT OTTAWA, 63 327

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)
	165527
1000	0.172
950	0.195
900	0.221
850	0.252
800	0.294
750	0.345
700	0.405
650	0.500
600	0.615
550	0.772
500	0.980
450	1.287
400	1.706
350	2.305
300	3.003
HEIGHT	SCALE HEIGHT, KM
950	406.1
900	371.0
850	341.9
800	324.5
750	307.1
700	289.6
650	264.5
600	239.4
550	218.5
500	200.2
450	185.7
400	171.0
350	177.9
300	245.4
LONG	-68.66
LAT	63.96
QUAL	22

PASS 2449 AT RESLUT, 63 327

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	165622	165639	165657	165715	165732	165750	165808	165825
1000	0.150	0.156	0.182	0.161	0.177	0.147	0.155	0.096
950	0.171	0.176	0.202	0.180	0.198	0.167	0.174	0.106
900	0.195	0.200	0.224	0.202	0.222	0.188	0.194	0.119
850	0.222	0.228	0.249	0.226	0.248	0.212	0.217	0.135
800	0.256	0.262	0.282	0.256	0.280	0.244	0.246	0.154
750	0.300	0.305	0.325	0.290	0.317	0.281	0.280	0.178
700	0.359	0.355	0.381	0.335	0.366	0.331	0.327	0.209
650	0.435	0.412	0.454	0.392	0.426	0.399	0.386	0.245
600	0.540	0.491	0.556	0.470	0.509	0.485	0.468	0.294
550	0.673	0.588	0.685	0.578	0.611	0.596	0.576	0.365
500	0.865	0.713	0.872	0.721	0.753	0.743	0.718	0.455
450	1.126	0.901	1.134	0.918	0.945	0.951	0.918	0.589
400	1.477	1.172	1.514	1.207	1.235	1.228	1.215	0.757
350	1.952	1.571	2.072	1.614	1.652	1.594	1.634	1.037
300	2.565	2.177		2.180	2.275		2.195	1.451
HEIGHT	SCALE HEIGHT, KM							
950	375.9	392.5	483.6	437.0	438.7	404.6	451.2	447.6
900	370.0	380.5	462.6	429.1	432.2	395.5	431.5	416.4
850	363.9	368.1	430.4	417.4	423.5	376.3	411.4	387.6
800	331.8	355.6	374.1	396.4	401.0	352.9	385.1	359.5
750	293.3	343.0	336.7	375.5	378.5	329.4	358.8	333.9
700	272.6	324.5	305.6	341.6	341.5	303.3	323.1	312.6
650	252.6	298.3	277.1	297.9	302.0	274.0	284.9	291.4
600	235.2	283.0	252.6	255.5	282.3	250.8	259.8	268.0
550	217.7	267.7	228.5	240.2	262.5	236.0	241.4	240.6
500	199.1	247.0	205.5	222.5	237.0	220.0	220.6	214.4
450	189.7	210.4	185.5	198.5	207.1	202.2	195.0	199.1
400	182.9	184.3	168.0	181.5	184.3	196.2	177.9	183.5
350	179.6	163.2	162.0	170.1	165.9	197.5	169.7	159.1
300	179.0	148.4		178.3	152.1		170.4	153.8
LONG	-65.90	-64.90	-63.85	-62.51	-61.18	-59.78	-58.14	-56.32
LAT	66.62	67.69	68.61	69.75	70.87	72.06	72.96	73.47
QUAL	33	33	33	33	33	33	33	23



PASS 2449 AT RESLUT, 63 327

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	165843	165901	165918	165936	165954	170011	170029	170047
1000	0.099	0.067	0.059	0.064	0.062	0.072	0.090	0.089
950	0.110	0.078	0.068	0.074	0.073	0.084	0.102	0.102
900	0.122	0.088	0.079	0.085	0.084	0.097	0.118	0.117
850	0.138	0.100	0.092	0.098	0.098	0.112	0.137	0.135
800	0.157	0.112	0.107	0.115	0.114	0.131	0.158	0.157
750	0.163	0.130	0.127	0.134	0.133	0.152	0.188	0.184
700	0.216	0.157	0.149	0.161	0.158	0.180	0.227	0.220
650	0.257	0.190	0.180	0.194	0.187	0.215	0.275	0.265
600	0.317	0.230	0.218	0.238	0.234	0.266	0.344	0.329
550	0.389	0.276	0.274	0.300	0.294	0.333	0.428	0.408
500	0.495	0.351	0.345	0.376	0.367	0.424	0.554	0.527
450	0.636	0.464	0.450	0.497	0.482	0.551	0.721	0.679
400	0.854	0.612	0.600	0.656	0.635	0.714	0.960	0.901
350	1.177	0.832	0.841	0.913	0.895	0.959	1.310	1.215
300	1.664	1.160	1.214	1.311	1.298	1.328	1.776	1.657
HEIGHT	SCALE HEIGHT, KM							
950	462.5		334.6	350.1	326.9	327.6	367.3	355.0
900	432.0	391.8	329.0	338.9	330.4	330.2	343.7	349.1
850	392.7	373.3	323.4	326.0	329.2	329.2	326.6	339.5
800	352.5	354.9	314.2	312.0	317.8	321.5	309.5	320.8
750	324.3	327.2	303.7	297.9	303.4	313.8	289.5	300.7
700	297.2	291.5	293.2	277.7	279.5	290.6	269.4	275.2
650	272.2	262.9	264.6	257.3	255.6	257.2	249.8	251.5
600	251.9	248.3	237.9	238.7	240.4	236.2	231.8	234.2
550	231.6	233.8	223.2	222.4	226.3	219.8	213.9	217.0
500	210.6	215.7	208.6	206.0	212.2	206.8	199.4	204.6
450	189.4	195.6	189.1	188.1	191.8	198.5	184.6	192.0
400	168.4	176.7	166.2	169.9	169.7	185.3	168.7	175.2
350	152.1	162.4	146.0	147.9	141.7	162.4	165.2	166.1
300	147.7	144.8	135.7	136.4	139.7	167.4	184.0	170.7
LONG	-54.39	-52.42	-49.84	-47.12	-44.39	-41.11	-37.24	-33.36
LAT	74.00	74.55	75.26	76.01	76.76	77.38	77.99	78.59
QUAL	33	33	22	33	33	22	33	33

PASS 2449 AT RESLUT, 63 327

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	170104	170122	170140	170158	170215	170233	170251	170308
1000	0.066	0.049	0.070	0.069	0.067	0.068	0.077	0.061
950	0.077	0.060	0.081	0.080	0.079	0.081	0.087	0.074
900	0.090	0.073	0.094	0.093	0.092	0.094	0.099	0.085
850	0.105	0.088	0.108	0.107	0.107	0.109	0.114	0.098
800	0.124	0.105	0.127	0.125	0.125	0.127	0.132	0.113
750	0.146	0.126	0.148	0.145	0.146	0.148	0.154	0.131
700	0.174	0.152	0.176	0.172	0.172	0.173	0.183	0.158
650	0.210	0.187	0.212	0.206	0.205	0.208	0.219	0.194
600	0.252	0.234	0.264	0.256	0.254	0.256	0.271	0.240
550	0.311	0.294	0.329	0.319	0.318	0.322	0.336	0.296
500	0.388	0.382	0.417	0.395	0.396	0.406	0.421	0.362
450	0.505	0.511	0.554	0.525	0.527	0.547	0.562	0.491
400	0.664	0.694	0.739	0.698	0.706	0.733	0.744	0.684
350	0.920	0.972	1.021	0.969	0.967	1.016	1.023	0.966
300	1.315	1.407	1.435	1.367	1.330	1.416	1.406	1.327
HEIGHT	SCALE HEIGHT, KM							
950	326.7		333.9	334.1			375.9	
900	317.7		331.6	334.6	320.6	318.9	362.6	342.0
850	309.0	271.3	327.2	331.6	326.5	324.7	347.6	337.0
800	300.8	273.4	319.0	324.3	321.0	320.1	331.4	323.8
750	292.6	275.2	310.8	317.0	313.8	315.6	312.1	304.4
700	282.6	250.9	278.6	283.0	288.1	298.1	282.8	266.4
650	270.6	229.7	244.1	249.1	252.2	257.6	256.3	238.5
600	258.7	222.3	232.1	237.8	238.5	232.8	240.8	229.9
550	235.6	213.0	220.0	226.4	225.1	216.5	225.3	221.4
500	209.0	183.9	206.0	215.1	211.7	200.2	209.1	212.8
450	190.6	170.1	186.5	191.3	187.3	183.1	190.1	178.9
400	172.1	158.9	167.4	167.0	167.5	166.2	172.1	150.0
350	150.1	143.2	151.9	150.2	159.3	152.9	162.6	152.7
300	141.0	143.9	150.0	142.7	161.0	163.7	167.9	163.5
LONG	-29.40	-24.18	-18.97	-13.75	-8.15	-2.13	3.89	9.35
LAT	79.11	79.49	79.86	80.24	80.32	80.36	80.41	80.30
QUAL	23	33	33	23	33	33	22	33

## PASS 2449 AT RESLUT, 63 327

## ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	170326	170344	170401	170419	170437	170454	170512	170530
1000	0.070	0.057	0.064	0.053	0.054	0.048	0.055	0.042
950	0.079	0.068	0.075	0.062	0.061	0.058	0.061	0.049
900	0.091	0.079	0.087	0.073	0.070	0.069	0.069	0.058
850	0.105	0.093	0.101	0.087	0.082	0.081	0.081	0.068
800	0.123	0.109	0.118	0.103	0.097	0.096	0.096	0.081
750	0.145	0.128	0.139	0.123	0.116	0.113	0.115	0.099
700	0.172	0.155	0.167	0.149	0.139	0.135	0.136	0.120
650	0.208	0.188	0.201	0.182	0.172	0.165	0.163	0.150
600	0.256	0.233	0.248	0.225	0.215	0.203	0.203	0.191
550	0.319	0.290	0.310	0.290	0.273	0.261	0.262	0.247
500	0.410	0.378	0.400	0.381	0.357	0.345	0.350	0.333
450	0.550	0.510	0.544	0.527	0.482	0.467	0.476	0.451
400	0.747	0.691	0.753	0.732	0.668	0.652	0.659	0.620
350	1.031	0.949	1.051	1.025	0.943	0.906	0.929	0.875
300	1.449		1.469	1.441		1.274	1.333	1.258
HEIGHT	SCALE HEIGHT, KM							
950	360.5	307.5	327.3	293.7	365.4		398.8	309.7
900	348.2	310.7	325.6	293.7	333.0	289.2	352.1	305.8
850	334.0	307.8	320.3	292.0	314.2	303.7	324.0	289.2
800	315.5	300.6	307.7	285.1	297.2	298.4	298.9	272.4
750	296.7	290.7	293.2	277.1	276.5	286.9	285.2	256.1
700	277.6	267.0	272.7	257.7	253.4	265.4	274.0	239.8
650	258.6	245.7	253.0	237.4	236.3	242.6	255.6	222.3
600	239.8	230.7	234.6	216.6	220.7	219.4	218.2	204.2
550	216.0	213.2	212.1	194.9	203.0	199.2	191.3	188.1
500	183.9	178.4	182.6	173.0	182.6	180.6	175.7	175.2
450	173.0	170.8	165.7	162.0	165.5	165.9	163.2	163.7
400	162.1	166.2	154.6	153.1	151.6	155.9	154.3	155.1
350	153.0	153.5	150.5	148.7	146.9	151.2	141.9	143.7
300	150.2		158.4	152.8		149.8	133.5	131.9
LONG	14.87	20.39	25.53	29.76	33.98	37.97	41.38	44.37
LAT	80.01	79.71	79.42	78.86	78.31	77.78	77.12	76.40
QUAL	33	23	23	33	23	33	33	33

PASS 2462 AT STJOHN, 63 328

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	153805	153841	153933	154008	154044	154119	154152	154230
1000	0.136	0.127	0.130	0.122	0.118	0.111	0.113	0.095
950	0.154	0.146	0.147	0.138	0.135	0.127	0.129	0.110
900	0.174	0.167	0.166	0.157	0.154	0.145	0.149	0.129
850	0.197	0.191	0.188	0.179	0.175	0.167	0.171	0.150
800	0.226	0.219	0.217	0.208	0.204	0.194	0.198	0.176
750	0.259	0.258	0.254	0.245	0.240	0.226	0.234	0.209
700	0.305	0.304	0.297	0.289	0.282	0.269	0.277	0.248
650	0.364	0.358	0.350	0.350	0.338	0.322	0.331	0.302
600	0.444	0.442	0.435	0.427	0.423	0.386	0.409	0.370
550	0.570	0.547	0.543	0.528	0.526	0.500	0.514	0.468
500	0.734	0.725	0.725	0.701	0.704	0.645	0.675	0.618
450	1.021	1.007	0.999	0.969	0.992	0.886	0.928	0.853
400	1.460	1.436	1.424	1.390	1.438	1.268	1.333	1.244
350	2.139	2.082	2.076	2.014	2.105	1.848	1.962	1.854
300	3.135	3.107	3.144	3.008	3.209	2.801	2.975	2.870
HEIGHT	SCALE HEIGHT, KM							
950	392.8	359.1	397.3	389.9	373.8	363.4	349.8	319.6
900	389.0	356.8	380.9	368.7	359.1	358.0	344.5	316.1
850	381.3	345.1	358.9	344.1	341.2	347.2	332.5	310.5
800	356.6	332.8	340.3	325.7	323.6	326.0	319.1	300.9
750	330.6	315.3	322.8	308.0	306.1	303.2	304.1	288.9
700	300.1	297.8	305.2	290.2	288.6	282.3	289.0	277.0
650	268.3	280.3	284.4	266.9	267.5	261.9	269.7	255.4
600	237.9	246.9	242.9	242.1	237.3	241.2	236.3	231.1
550	210.3	212.3	203.3	214.7	207.2	213.1	204.9	205.3
500	182.3	172.9	174.0	177.6	168.2	185.0	177.6	177.6
450	148.8	142.6	148.2	142.6	134.9	152.7	149.7	146.6
400	139.3	142.4	140.6	140.6	136.9	139.6	136.6	131.3
350	130.3	129.4	126.0	130.0	125.4	125.3	124.1	119.8
300	148.0	129.2	122.1	127.8	119.8	121.4	125.9	114.2
LONG	-64.85	-64.50	-63.94	-63.54	-63.08	-62.60	-62.13	-61.49
LAT	33.81	35.81	38.70	40.63	42.62	44.56	46.38	48.46
QUAL	13	23	23	21	13	23	13	13

PASS 2462 AT STJOHN, 63 328  
 ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	154305	154340	154416	154451	154527	154602	154637	154713
1000	0.106	0.105	0.111	0.120	0.128	0.130	0.130	0.157
950	0.121	0.121	0.126	0.136	0.143	0.148	0.148	0.173
900	0.139	0.139	0.144	0.154	0.160	0.167	0.169	0.191
850	0.159	0.160	0.164	0.175	0.180	0.189	0.192	0.213
800	0.183	0.185	0.188	0.202	0.206	0.219	0.221	0.246
750	0.213	0.215	0.216	0.235	0.237	0.255	0.256	0.287
700	0.255	0.255	0.257	0.277	0.279	0.297	0.296	0.336
650	0.307	0.305	0.306	0.327	0.329	0.345	0.349	0.402
600	0.376	0.366	0.365	0.388	0.401	0.418	0.419	0.483
550	0.490	0.473	0.473	0.495	0.498	0.518	0.509	0.580
500	0.635	0.608	0.616	0.631	0.616	0.666	0.659	0.762
450	0.881	0.823	0.827	0.855	0.837	0.910	0.884	1.006
400	1.278	1.165	1.184	1.240	1.156	1.271	1.258	1.379
350	1.894	1.694	1.725	1.782	1.626	1.802	1.757	1.907
300	2.983	2.583	2.650	2.637	2.355	2.579	2.477	2.730
HEIGHT	SCALE HEIGHT, KM							
950	367.0	361.6	374.2	395.6	439.2	395.0	383.0	489.1
900	361.7	354.3	374.6	381.9	414.0	376.0	370.7	442.7
850	357.9	348.9	370.2	368.1	388.6	355.4	360.9	397.6
800	332.1	330.5	343.7	343.2	362.9	342.2	348.7	369.7
750	295.6	309.6	317.5	318.3	337.1	329.3	336.1	341.7
700	274.5	287.1	294.3	297.5	307.5	316.4	323.4	313.8
650	253.3	264.0	271.1	276.9	277.9	303.5	299.6	287.1
600	231.5	240.7	247.8	255.8	253.1	270.7	265.8	260.8
550	207.2	216.5	220.8	226.4	230.5	227.2	231.8	234.1
500	182.8	192.2	193.1	196.9	207.9	190.8	196.8	202.0
450	149.9	161.1	159.8	157.2	173.4	163.3	156.2	173.8
400	133.0	141.1	137.1	137.8	154.1	149.9	147.5	162.5
350	119.5	127.3	125.0	133.2	143.4	139.7	149.5	146.8
300	104.3	112.8	116.3	131.6	128.6	139.2	144.5	151.7
LONG	-60.88	-60.17	-59.38	-58.53	-57.51	-56.47	-55.18	-53.72
LAT	50.38	52.29	54.25	56.15	58.09	59.97	61.83	63.73
QUAL	13	23	23	33	23	21	31	31

PASS 2462 AT STJOHN, 63 328  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)						
	154748	154823	154854	154912	154929	154947	155015
1000	0.172	0.164	0.160	0.240	0.230	0.207	0.193
950	0.194	0.180	0.179	0.264	0.249	0.230	0.219
900	0.218	0.200	0.200	0.292	0.272	0.257	0.246
850	0.246	0.223	0.224	0.324	0.300	0.288	0.274
800	0.283	0.258	0.258	0.306	0.339	0.327	0.308
750	0.329	0.301	0.299	0.419	0.386	0.374	0.345
700	0.382	0.357	0.348	0.485	0.444	0.432	0.392
650	0.454	0.424	0.404	0.509	0.512	0.507	0.459
600	0.553	0.526	0.497	0.673	0.591	0.597	0.538
550	0.689	0.661	0.614	0.833	0.716	0.700	0.661
500	0.891	0.843	0.770	1.041	0.908	0.876	0.821
450	1.191	1.088	0.985	1.318	1.180	1.122	1.106
400	1.607	1.427	1.308	1.710	1.559	1.474	1.484
350	2.187	1.902	1.775	2.272	2.133	2.012	1.900
300	2.969	2.582	2.454	3.011	2.983	2.821	2.453
HEIGHT	SCALE HEIGHT, KM						
950	422.8	483.0	439.6	498.4	567.9	448.3	
900	396.3	440.8	409.8	469.4	516.9	431.8	429.0
850	372.0	398.9	378.7	440.4	466.0	412.3	429.8
800	353.9	361.5	359.9	404.4	422.5	385.9	410.6
750	335.8	324.1	341.2	364.0	379.0	355.4	391.4
700	317.7	290.5	322.4	329.7	350.1	329.4	365.2
650	289.2	258.2	303.6	301.9	325.9	312.4	324.6
600	250.0	239.8	274.0	273.7	301.7	295.4	283.9
550	216.4	223.1	242.5	244.1	264.4	278.4	246.5
500	189.8	205.3	214.4	220.2	216.3	233.0	208.6
450	175.2	190.2	190.4	206.9	191.0	193.9	170.6
400	165.5	182.8	176.1	184.4	173.2	176.0	187.1
350	162.4	168.9	157.2	175.9	154.9	155.1	199.0
300	231.9	172.3	161.5	223.1	156.1	142.9	208.2
LONG	-52.08	-50.12	-48.23	-46.88	-45.49	-44.01	-41.25
LAT	65.56	67.36	68.93	69.83	70.66	71.54	72.87
QUAL	31	33	33	31	33	31	33

PASS 2462 AT RESLUT, 63 328

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	154928	154946	155003	155021	155039	155056	155114	155132
1000	0.222	0.212	0.230	0.237	0.214	0.234	0.199	0.182
950	0.247	0.243	0.257	0.265	0.237	0.261	0.228	0.205
900	0.274	0.276	0.287	0.294	0.263	0.293	0.257	0.231
850	0.305	0.313	0.320	0.328	0.293	0.326	0.289	0.261
800	0.342	0.354	0.359	0.367	0.331	0.365	0.324	0.302
750	0.386	0.403	0.406	0.413	0.376	0.411	0.364	0.353
700	0.438	0.463	0.465	0.470	0.432	0.472	0.412	0.413
650	0.505	0.538	0.543	0.543	0.503	0.551	0.482	0.491
600	0.594	0.638	0.650	0.645	0.592	0.660	0.574	0.591
550	0.722	0.776	0.791	0.773	0.715	0.803	0.688	0.729
500	0.890	0.969	0.979	0.953	0.880	0.985	0.870	0.910
450	1.148	1.226	1.244	1.203	1.148	1.260	1.121	1.166
400	1.509	1.604	1.606	1.546	1.523	1.647	1.463	1.523
350	2.057	2.141	2.128	2.038	2.037	2.277	1.954	2.050
300	2.927	2.938	2.855	2.746	2.840	3.360	2.665	2.834
HEIGHT	SCALE HEIGHT, KM							
950	453.3		445.9	453.0	465.8	449.2		405.3
900	454.8	388.6	444.1	456.9	456.1	446.3	411.4	389.5
850	444.0	392.2	436.7	449.8	432.2	448.3	424.9	365.2
800	425.6	394.9	416.1	432.3	406.3	423.7	427.1	346.6
750	406.8	369.6	391.9	407.4	379.6	388.3	418.3	330.3
700	377.0	342.5	343.2	359.0	346.6	345.5	333.5	313.1
650	334.8	313.0	302.1	320.9	316.0	306.7	308.8	280.3
600	274.1	280.7	275.4	295.0	287.5	275.1	286.0	254.6
550	248.9	245.0	249.9	267.9	257.6	249.1	263.1	237.6
500	225.7	222.0	225.7	232.1	221.8	226.7	225.5	220.0
450	199.9	202.6	207.6	211.4	183.0	202.0	193.7	200.5
400	175.1	185.9	188.5	192.4	176.5	171.5	182.4	179.0
350	153.1	167.2	175.2	175.3	162.6	145.0	167.9	164.2
300	139.0	160.9	183.5	173.9	141.0	122.3	162.2	163.2
LONG	-45.57	-44.10	-42.61	-40.58	-38.54	-36.62	-33.93	-31.04
LAT	70.61	71.49	72.32	73.14	73.97	74.75	75.50	76.23
QUAL	33	33	33	33	32	33	33	33

PASS 2462 AT RESLUT, 63 328  
 ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	155149	155207	155225	155242	155300	155318	155335	155411
1000	0.298	0.186	0.212	0.204	0.209	0.211	0.184	0.177
950	0.325	0.212	0.237	0.226	0.230	0.234	0.204	0.198
900	0.355	0.246	0.268	0.250	0.257	0.262	0.227	0.223
850	0.389	0.284	0.303	0.279	0.287	0.295	0.254	0.251
800	0.433	0.327	0.343	0.316	0.323	0.335	0.293	0.288
750	0.490	0.380	0.393	0.361	0.369	0.384	0.343	0.333
700	0.567	0.446	0.456	0.421	0.429	0.444	0.403	0.389
650	0.664	0.528	0.535	0.495	0.503	0.517	0.483	0.465
600	0.795	0.632	0.635	0.594	0.605	0.608	0.578	0.556
550	0.968	0.780	0.776	0.728	0.744	0.732	0.716	0.697
500	1.190	0.977	0.969	0.910	0.945	0.908	0.895	0.882
450	1.506	1.245	1.239	1.179	1.239	1.164	1.159	1.142
400	1.938	1.607	1.623	1.562	1.640	1.528	1.527	1.516
350	2.503	2.160	2.170	2.110	2.178	2.064	2.045	2.048
300	3.467	2.996	2.932	2.816	2.887	2.816	2.731	2.702
HEIGHT	SCALE HEIGHT, KM							
950	563.4	357.5	418.9	474.7	502.5	456.0	465.2	425.2
900	537.5	345.9	404.3	456.5	457.4	429.4	425.8	406.2
850	502.5	346.4	397.8	428.9	433.8	408.2	384.6	384.9
800	432.2	340.7	390.0	391.4	402.1	385.9	358.2	360.1
750	381.1	321.2	348.1	353.5	355.4	363.2	333.1	333.4
700	343.7	302.7	320.5	324.5	322.6	341.9	308.0	306.9
650	307.1	284.8	301.2	297.2	294.3	322.8	282.4	280.4
600	272.7	264.5	278.4	267.7	265.1	288.5	256.8	254.0
550	248.5	238.8	244.5	236.0	235.3	248.2	235.0	229.6
500	229.6	217.1	218.5	212.7	197.9	222.6	214.0	206.4
450	210.6	199.2	199.6	190.7	183.8	199.8	192.7	188.6
400	192.0	184.2	182.3	173.5	177.4	177.5	178.8	174.6
350	174.1	165.8	171.2	170.1	177.8	165.3	172.3	175.4
300	174.8	152.1	198.6	203.2	199.0	181.4	181.9	216.3
LONG	-28.31	-24.96	-20.86	-17.00	-12.90	-7.49	-2.38	8.81
LAT	76.92	77.59	78.17	78.71	79.29	79.62	79.93	80.37
QUAL	33	33	33	33	33	33	33	32



PASS 2462 AT RESLUT, 63 328

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	155429	155446	155504	155522	155539	155557	155615	155632
1000	0.167	0.177	0.141	0.139	0.167	0.108	0.119	0.113
950	0.167	0.198	0.159	0.157	0.188	0.127	0.138	0.127
900	0.209	0.222	0.179	0.177	0.213	0.148	0.158	0.143
850	0.235	0.249	0.203	0.200	0.240	0.169	0.179	0.163
800	0.268	0.282	0.234	0.228	0.272	0.195	0.204	0.187
750	0.308	0.324	0.274	0.262	0.309	0.227	0.238	0.219
700	0.361	0.375	0.320	0.307	0.354	0.271	0.285	0.259
650	0.429	0.442	0.379	0.362	0.415	0.327	0.343	0.307
600	0.526	0.523	0.451	0.434	0.498	0.406	0.421	0.375
550	0.647	0.636	0.544	0.527	0.612	0.517	0.521	0.481
500	0.815	0.790	0.674	0.654	0.768	0.666	0.667	0.635
450	1.058	1.016	0.866	0.836	0.980	0.874	0.862	0.828
400	1.397	1.344	1.156	1.137	1.294	1.145	1.146	1.087
350	1.847	1.816	1.578	1.580	1.759			1.467
300	2.424	2.475	2.138					
HEIGHT	SCALE HEIGHT, KM							
950	441.3	434.7	416.0	407.1	400.6			413.5
900	420.8	420.0	389.8	400.8	405.1	343.9	372.6	398.6
850	395.4	404.0	364.1	393.9	404.7	359.6	382.8	372.1
800	371.5	384.6	347.4	369.4	398.8	330.9	338.8	323.0
750	347.7	356.4	332.5	328.6	389.0	304.0	307.4	309.5
700	307.0	328.2	317.6	310.9	329.2	281.7	288.2	297.0
650	264.7	304.2	298.8	293.2	295.4	257.2	269.1	284.5
600	249.2	280.3	278.4	271.8	264.5	221.5	244.3	230.7
550	233.7	249.4	253.3	248.3	237.6	205.3	220.3	196.1
500	214.7	216.8	221.3	220.2	215.2	194.3	206.8	193.5
450	191.1	192.7	190.4	187.0	194.9	190.9	188.1	187.4
400	184.3	176.5	171.1	165.1	175.8	176.6	162.7	176.7
350	183.2	166.6	163.0	160.6	145.9			162.5
300	201.0	182.9	198.4					
LONG	14.64	20.52	26.40	31.74	36.79	42.13	46.36	50.15
LAT	80.36	80.35	80.26	79.92	79.60	79.26	78.71	78.15
QUAL	32	32	32	33	33	33	33	33

PASS 2462 AT RESLUT, 63 328  
 ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)	
	155650	155708
1000	0.128	0.119
950	0.140	0.132
900	0.155	0.146
850	0.173	0.164
800	0.195	0.186
750	0.222	0.214
700	0.255	0.249
650	0.293	0.300
600	0.349	0.369
550	0.434	0.468
500	0.547	0.615
450	0.701	0.832
400	0.943	1.136
350	1.257	1.540
300		
HEIGHT	SCALE HEIGHT, KM	
950	512.3	476.7
900	481.6	447.3
850	443.3	417.2
800	394.7	386.6
750	377.9	347.4
700	364.4	291.1
650	341.5	261.4
600	254.9	235.6
550	221.4	208.8
500	207.9	180.9
450	192.9	167.6
400	173.7	162.6
350	174.3	168.3
300		
LONG	54.16	57.65
LAT	77.57	76.91
QUAL	33	33

PASS 2469 AT COLEGE, 63 329

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	41316	41351	41427	41502	41537	41613	41648	41724
1000	0.079	0.112	0.189	0.195	0.213	0.181	0.180	0.199
950	0.090	0.131	0.210	0.219	0.234	0.200	0.202	0.215
900	0.104	0.152	0.227	0.239	0.258	0.218	0.220	0.230
850	0.121	0.175	0.248	0.261	0.287	0.237	0.242	0.252
800	0.143	0.199	0.274	0.284	0.321	0.258	0.268	0.280
750	0.170	0.228	0.305	0.313	0.363	0.287	0.308	0.324
700	0.203	0.265	0.349	0.347	0.410	0.325	0.362	0.390
650	0.242	0.310	0.407	0.388	0.463	0.375	0.426	0.471
600	0.297	0.377	0.485	0.436	0.531	0.438	0.509	0.568
550	0.373	0.463	0.586	0.511	0.619	0.526	0.629	0.680
500	0.474	0.578	0.725	0.621	0.742	0.650	0.783	0.864
450	0.618	0.719	0.938	0.761	0.927	0.802	0.995	1.124
400	0.816	0.955	1.206	0.938	1.166	1.013	1.256	1.476
350	1.114	1.272	1.610	1.158	1.459	1.262	1.536	1.913
300	1.522	1.751	2.205	1.430		1.521		2.375
HEIGHT	SCALE HEIGHT, KM							
950	363.5		553.6		510.5		532.9	714.2
900	342.2	348.8	561.1	558.1	481.1	587.2	538.0	615.1
850	321.7	371.6	521.1	554.5	454.5	563.1	482.0	519.3
800	307.0	359.7	472.4	536.5	440.8	511.6	424.3	423.6
750	292.3	340.7	423.8	506.4	430.1	435.7	368.0	357.3
700	280.5	319.4	369.8	474.8	414.2	382.1	314.7	305.6
650	269.0	295.3	313.9	422.4	384.3	346.1	286.5	268.4
600	232.6	262.9	278.1	362.2	347.9	310.1	262.4	254.9
550	213.6	235.5	250.1	320.3	301.9	280.5	243.7	241.4
500	201.6	220.9	226.5	285.5	250.6	256.6	227.1	219.5
450	188.6	206.2	210.9	255.0	233.1	233.7	223.6	194.6
400	175.2	188.7	195.4	245.4	229.5	232.6	235.7	196.3
350	169.5	170.7	171.0	240.5	242.2	251.4	307.8	214.2
300	173.0	173.9	175.9	252.6		308.0		271.0
LONG	-168.94	-157.37	-146.98	-137.52	-130.52	-124.09	-119.18	-115.09
LAT	80.39	80.15	79.44	78.58	77.32	75.94	74.44	72.80
QUAL	33	33	33	33	33	33	33	33

PASS 2469 AT COLEGE, 63 329

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	41759	41834	41910	41945	42021	42056	42131	42207
1000	0.167	0.100	0.065	0.034	0.069	0.099	0.056	0.031
950	0.181	0.116	0.074	0.042	0.077	0.116	0.068	0.041
900	0.195	0.129	0.083	0.051	0.087	0.136	0.080	0.051
850	0.214	0.146	0.095	0.063	0.100	0.156	0.095	0.062
800	0.240	0.168	0.112	0.077	0.116	0.180	0.112	0.075
750	0.278	0.197	0.136	0.095	0.136	0.207	0.133	0.091
700	0.327	0.243	0.167	0.118	0.162	0.242	0.162	0.115
650	0.391	0.300	0.212	0.153	0.197	0.285	0.197	0.152
600	0.470	0.377	0.267	0.202	0.246	0.345	0.243	0.201
550	0.602	0.479	0.356	0.267	0.312	0.422	0.302	0.268
500	0.781	0.642	0.497	0.373	0.414	0.542	0.383	0.374
450	1.027	0.876	0.711	0.535	0.556	0.705	0.489	0.530
400	1.341	1.222	1.009	0.793	0.796	0.924	0.639	0.749
350			1.403	1.219	1.185	1.275	0.831	1.031
300			1.962	1.832	1.711	1.711	1.068	1.357
HEIGHT	SCALE HEIGHT, KM							
950	635.7	406.1	448.6	240.1	411.1			
900	578.3	405.6	388.5	241.9	384.2	336.8	291.9	233.5
850	484.2	369.7	339.1	242.1	355.8	351.6	291.5	241.8
800	402.9	331.3	295.0	242.1	326.2	345.2	283.5	235.5
750	355.8	295.8	257.2	229.0	298.2	329.6	275.0	229.2
700	308.7	264.5	229.7	211.0	270.6	308.8	263.3	216.2
650	273.0	234.1	214.4	196.6	246.6	288.0	251.7	195.8
600	238.5	212.9	199.1	184.0	224.2	257.1	237.2	177.4
550	212.4	192.5	178.0	170.3	202.0	224.0	221.2	163.5
500	192.6	174.7	151.5	150.9	180.5	207.3	208.9	151.2
450	192.8	160.1	145.6	135.3	158.7	193.3	197.5	147.2
400	210.2	150.5	146.4	124.1	135.9	181.1	199.1	155.3
350			149.9	120.6	134.5	175.1	202.8	172.3
300			187.0	151.4	188.8	179.1	199.6	203.9
LONG	-111.60	-109.01	-106.56	-104.63	-102.91	-101.42	-100.20	-99.03
LAT	71.15	69.41	67.59	65.79	63.91	62.07	60.20	58.27
QUAL	33	33	33	31	31	31	33	33

PASS 2469 AT COLEGE, 63 329

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)	
	42351	42426
1000	0.024	0.029
950	0.031	0.037
900	0.037	0.044
850	0.044	0.051
800	0.052	0.059
750	0.061	0.069
700	0.072	0.081
650	0.067	0.100
600	0.107	0.123
550	0.136	0.159
500	0.179	0.207
450	0.247	0.275
400	0.342	0.375
350	0.457	
300		
HEIGHT	SCALE HEIGHT, KM	
		303.6
850	286.8	314.9
800	289.2	318.6
750	285.0	299.0
700	280.8	279.2
650	263.6	251.0
600	231.1	222.8
550	200.5	205.7
500	172.3	191.2
450	169.0	164.5
400	173.6	158.4
350	184.9	
300		
LONG	-96.41	-95.72
LAT	52.62	50.70
QUAL	33	33

PASS 2469 AT GFORKS, 63 329

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)						
	41835	41910	42021	42149	42408	42444	42648
1000	0.109	0.065	0.079	0.053	0.028	0.031	0.038
950	0.118	0.074	0.090	0.062	0.035	0.037	0.043
900	0.129	0.083	0.100	0.072	0.041	0.043	0.047
850	0.147	0.096	0.113	0.084	0.049	0.050	0.052
800	0.171	0.110	0.128	0.100	0.056	0.058	0.060
750	0.201	0.128	0.145	0.119	0.065	0.068	0.069
700	0.246	0.159	0.165	0.142	0.076	0.080	0.081
650	0.311	0.201	0.207	0.167	0.092	0.094	0.100
600	0.391	0.267	0.268	0.224	0.112	0.120	0.123
550	0.514	0.369	0.341	0.294	0.136	0.153	0.151
500	0.668	0.533	0.462	0.391	0.167	0.202	0.197
450	0.916	0.773	0.619	0.523	0.238	0.280	0.285
400	1.299	1.112	0.926	0.720	0.330	0.388	
350	1.838	1.560	1.358	1.018	0.448	0.538	
300	2.557	2.164	1.834	1.347	0.572		
HEIGHT	SCALE HEIGHT, KM						
950	560.7	388.4	435.6	316.2	260.4	310.3	484.5
900	443.1	367.8	413.0	300.8	295.5	323.2	456.5
850	397.4	342.4	388.7	289.3	323.0	317.7	412.3
800	351.7	316.4	364.0	280.2	328.2	306.9	368.8
750	306.0	290.5	339.4	271.0	304.4	294.5	325.3
700	267.2	250.2	314.8	261.9	285.1	282.1	292.9
650	235.0	209.1	276.9	252.7	269.2	267.9	269.8
600	204.5	176.0	234.9	222.4	253.3	236.1	246.6
550	191.9	148.1	192.8	191.4	237.4	204.4	223.5
500	178.5	140.9	172.2	174.4	219.3	179.6	171.4
450	151.4	138.1	153.1	166.7	181.5	162.8	72.2
400	147.5	143.3	127.2	155.6	161.5	150.9	
350	147.2	149.6	148.6	161.4	181.9	143.1	
300	151.4	158.8	189.7	479.8	276.5		
LONG	-108.94	-106.56	-102.91	-99.59	-96.06	-95.37	-93.44
LAT	69.36	67.59	63.91	59.24	51.69	49.72	42.88
QUAL	33	33	33	31	31	33	23

PASS 2469 AT GFORKS, 63 329

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)					
	42758	42834	42927	43020	43148	43259
1000	0.055	0.055	0.066	0.081	0.102	0.112
950	0.064	0.060	0.073	0.089	0.113	0.128
900	0.069	0.063	0.075	0.094	0.120	0.133
850	0.073	0.067	0.079	0.099	0.126	0.138
800	0.078	0.073	0.082	0.107	0.133	0.144
750	0.085	0.078	0.086	0.114	0.141	0.151
700	0.094	0.088	0.090	0.123	0.150	0.160
650	0.107	0.104	0.111	0.139	0.164	0.178
600	0.125	0.125	0.141	0.159	0.185	0.201
550	0.145	0.154	0.174	0.193	0.220	0.238
500	0.181	0.201	0.218	0.258	0.298	0.301
450	0.248	0.295	0.342	0.388	0.449	0.456
400	0.395	0.468	0.533	0.661	0.727	0.777
350	0.645					
300						

HEIGHT	SCALE HEIGHT, KM					
	900	727.1	993.1	1286.0	874.8	984.9
850	714.5	768.2	1109.1	815.7	982.9	1247.7
800	642.8	627.6	963.7	741.3	887.4	1073.4
750	541.3	522.3	818.2	639.4	778.4	893.6
700	436.9	439.5	672.8	531.4	669.4	719.7
650	383.0	372.7	472.4	439.4	540.5	570.4
600	338.3	305.8	267.3	347.4	401.0	421.2
550	293.6	239.0	210.2	246.3	251.0	287.5
500	226.6	172.1	176.7	152.8	142.7	175.3
450	138.7	124.4	116.4	107.3	116.7	109.0
400	93.7	99.9	94.8	103.4	102.9	77.3
350	139.2					
300						

LONG	-92.57	-92.19	-91.65	-91.17	-90.46	-89.95
LAT	38.99	36.98	34.02	31.05	26.11	22.12
QUAL	33	33	33	33	33	33

PASS 2475 AT AGASTA, 63 329								
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)								
HEIGHT	TIME (UT)							
	155719	155754	155830	155905	155940	160016	160051	160127
1000	0.152	0.159	0.165	0.189	0.196	0.204	0.215	0.213
950	0.162	0.171	0.176	0.203	0.214	0.223	0.233	0.233
900	0.175	0.186	0.211	0.220	0.236	0.245	0.256	0.258
850	0.192	0.204	0.233	0.241	0.261	0.272	0.283	0.287
800	0.215	0.227	0.263	0.275	0.296	0.309	0.321	0.327
750	0.243	0.257	0.301	0.318	0.340	0.360	0.375	0.388
700	0.275	0.294	0.347	0.375	0.403	0.431	0.445	0.470
650	0.330	0.356	0.402	0.444	0.489	0.519	0.545	0.581
600	0.403	0.437	0.466	0.566	0.608	0.694	0.764	0.805
550	0.524	0.571	0.677	0.790	0.870	1.033	1.135	1.222
500	0.728	0.838	1.026	1.195	1.378	1.794	1.920	2.097
450	1.150	1.364	1.759	2.193	2.536	3.359	3.509	3.941
400	2.069	2.573	3.371	4.118	4.724	6.263	6.459	7.243
350	4.014	4.892	5.965	7.184	8.518	10.630		
300	7.308	8.217	9.136					
HEIGHT	SCALE HEIGHT, KM							
950	691.3	620.4	710.9	631.9	532.8	527.4	560.0	502.6
900	596.0	567.5	595.7	553.7	488.0	488.5	506.1	471.8
850	519.4	506.7	502.9	477.4	442.6	447.7	442.1	425.7
800	450.9	440.0	415.3	407.2	388.1	353.6	361.3	319.5
750	389.6	376.4	359.9	336.9	332.8	301.8	316.9	286.2
700	331.1	316.5	325.3	298.3	287.2	268.9	281.8	252.9
650	284.1	275.6	290.7	260.4	246.2	236.0	201.1	215.9
600	237.5	234.6	256.1	175.8	199.8	175.0	139.5	149.0
550	187.2	162.1	157.3	139.3	128.7	111.7	116.0	107.4
500	134.5	120.7	105.1	105.9	96.8	81.8	86.4	85.7
450	100.3	90.6	83.7	75.1	78.9	79.6	81.7	77.0
400	80.9	77.2	79.6	87.8	82.5	87.6	85.5	102.6
350	74.1	83.9	98.0	97.7	103.1	187.3		
300	98.6	117.3	191.6					
LONG	-83.01	-82.74	-82.49	-82.25	-82.03	-81.80	-81.59	-81.38
LAT	-27.20	-25.24	-23.22	-21.26	-19.30	-17.28	-15.32	-13.30
QUAL	23	22	22	23	23	23	33	23



PASS 2475 AT AGASTA, 63 329  
 ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)				
	160202	160237	160313	160348	160424
1000	0.209	0.217	0.212	0.225	0.222
950	0.228	0.241	0.233	0.245	0.241
900	0.254	0.268	0.262	0.270	0.267
850	0.284	0.300	0.294	0.303	0.297
800	0.325	0.344	0.340	0.355	0.342
750	0.387	0.407	0.403	0.425	0.410
700	0.469	0.497	0.495	0.520	0.499
650	0.611	0.622	0.638	0.646	0.620
600	0.850	0.865	0.895	0.877	0.811
550	1.291	1.385	1.380	1.305	1.189
500	2.298	2.461	2.445	2.189	1.987
450	4.208	4.526	4.510	3.911	3.568
400	7.497	7.789	7.889	6.894	6.405
350				10.249	9.951
300					
HEIGHT	SCALE HEIGHT, KM				
950	530.4	468.4	482.0	528.7	519.5
900	465.0	441.6	426.5	449.4	458.3
850	401.6	403.2	366.1	375.5	402.5
800	321.2	331.8	325.1	330.7	347.8
750	280.4	275.4	269.3	286.0	294.4
700	239.6	239.9	228.7	245.1	247.4
650	194.4	200.2	184.6	206.4	215.4
600	146.4	134.5	136.7	143.9	162.2
550	101.0	97.1	102.8	113.2	116.3
500	86.6	85.2	83.2	91.3	87.3
450	78.7	82.6	84.0	83.8	86.0
400	114.9	125.7	116.6	97.3	93.8
350				310.5	159.8
300					
LONG	-81.18	-80.99	-80.79	-80.61	-80.42
LAT	-11.34	-9.37	-7.35	-5.38	-3.35
QUAL	22	22	23	23	23

PASS 2476 AT RESLUT, 63 329  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	162556	162612	162631	162649	162707	162743	162801	162818
1000	0.133	0.131	0.148	0.181	0.180	0.166	0.165	0.141
950	0.151	0.150	0.169	0.207	0.202	0.189	0.187	0.161
900	0.172	0.173	0.192	0.231	0.228	0.215	0.213	0.184
850	0.197	0.200	0.217	0.260	0.256	0.245	0.241	0.210
800	0.229	0.233	0.249	0.294	0.290	0.281	0.275	0.240
750	0.272	0.275	0.286	0.336	0.331	0.324	0.315	0.278
700	0.325	0.325	0.333	0.386	0.381	0.376	0.367	0.322
650	0.390	0.384	0.392	0.446	0.449	0.442	0.433	0.384
600	0.471	0.465	0.478	0.525	0.535	0.525	0.518	0.459
550	0.582	0.562	0.586	0.644	0.656	0.640	0.642	0.563
500	0.733	0.683	0.732	0.807	0.817	0.802	0.795	0.727
450	0.957	0.866	0.959	1.038	1.036	1.031	1.019	0.938
400	1.270	1.111	1.292	1.359	1.336	1.330	1.338	1.243
350	1.711	1.476	1.738	1.845	1.783	1.717	1.796	1.687
300	2.302	2.030	2.385	2.594	2.438	2.267		
HEIGHT	SCALE HEIGHT, KM							
950	374.1	360.9	385.1	411.4	417.3	374.0	393.6	373.1
900	359.4	346.8	383.7	422.4	415.5	374.2	388.8	369.8
850	338.0	335.0	375.5	410.1	411.0	368.6	385.3	364.5
800	319.7	319.8	361.9	393.6	393.2	358.9	367.0	353.4
750	305.1	303.2	348.2	376.1	366.9	341.5	344.6	332.8
700	290.6	289.6	315.1	352.6	320.9	322.5	319.1	312.3
650	272.3	276.3	272.4	321.1	294.9	299.7	288.1	286.1
600	251.2	266.0	256.9	269.6	269.7	274.6	261.5	259.8
550	229.1	255.7	241.3	244.2	248.1	244.6	243.5	235.2
500	206.5	243.0	215.3	222.2	227.8	214.6	225.5	213.7
450	187.9	217.4	176.3	200.2	208.4	199.1	202.4	192.5
400	175.0	190.5	171.8	177.4	188.8	195.2	178.6	173.0
350	169.9	167.2	165.3	156.3	167.1	190.0	169.6	155.3
300	166.3	155.4	153.9	151.6	158.9	180.0		
LONG	-60.91	-59.81	-58.42	-57.10	-55.60	-51.99	-50.15	-47.75
LAT	67.92	68.73	69.67	70.56	71.44	73.15	73.99	74.72
QUAL	33	33	33	33	33	33	33	33

PASS 2476 AT RESLUT, 63 329

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	162836	162854	162911	162947	163004	163022	163040	163053
1000	0.164	0.162	0.147	0.123	0.136	0.117	0.147	0.110
950	0.165	0.185	0.166	0.141	0.154	0.133	0.166	0.124
900	0.209	0.211	0.187	0.160	0.174	0.151	0.186	0.141
850	0.237	0.242	0.211	0.182	0.198	0.173	0.209	0.161
800	0.271	0.277	0.239	0.210	0.227	0.201	0.238	0.185
750	0.314	0.323	0.275	0.245	0.264	0.236	0.273	0.214
700	0.363	0.378	0.323	0.287	0.313	0.279	0.319	0.255
650	0.425	0.447	0.380	0.344	0.379	0.335	0.377	0.306
600	0.516	0.541	0.465	0.416	0.461	0.400	0.454	0.366
550	0.636	0.652	0.573	0.527	0.573	0.499	0.556	0.463
500	0.794	0.823	0.723	0.667	0.718	0.629	0.701	0.585
450	1.009	1.048	0.925	0.859	0.914	0.818	0.900	0.764
400	1.336	1.352	1.222	1.124	1.180	1.083	1.191	1.015
350	1.828	1.768	1.636	1.482	1.531	1.459	1.575	1.376
300	2.603				1.919	1.909	1.998	1.805
HEIGHT	SCALE HEIGHT, KM							
950	397.6	372.5	412.6	376.5	387.7	379.3	412.5	381.8
900	388.1	364.8	409.6	372.0	382.9	366.7	411.5	377.4
850	375.6	354.8	404.6	357.8	369.0	350.3	401.5	368.4
800	367.6	343.8	371.2	341.3	343.5	330.1	374.6	337.0
750	363.6	325.7	327.5	322.6	312.1	306.5	343.0	307.5
700	350.2	307.6	304.7	303.4	286.9	287.3	315.5	290.3
650	282.4	288.3	281.8	268.3	269.5	272.9	289.3	273.2
600	263.1	267.2	258.8	238.7	252.1	258.5	262.7	256.0
550	243.0	246.1	235.7	227.0	233.1	230.5	235.6	231.8
500	220.6	221.7	214.8	215.2	215.6	204.9	213.0	206.9
450	197.2	203.5	195.4	195.3	203.5	189.7	192.6	186.6
400	172.2	194.3	179.1	187.2	197.3	178.1	185.1	173.6
350	153.4	176.3	165.4	189.9	203.0	178.5	194.2	177.0
300	142.3				387.6	233.9	307.5	223.4
LONG	-45.22	-42.68	-39.63	-32.42	-28.71	-23.76	-18.81	-15.24
LAT	75.49	76.26	76.91	78.20	78.76	79.19	79.62	79.93
QUAL	33	33	33	33	31	31	33	33

PASS 2476 AT RESLUT, 63 329								
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)								
HEIGHT	TIME (UT)							
	163115	163133	163150	163208	163226	163243	163301	163319
1000	0.102	0.106	0.139	0.115	0.127	0.117	0.124	0.110
950	0.116	0.120	0.161	0.131	0.146	0.134	0.141	0.130
900	0.131	0.136	0.184	0.149	0.168	0.152	0.160	0.150
850	0.149	0.152	0.210	0.170	0.193	0.172	0.182	0.171
800	0.172	0.173	0.241	0.196	0.223	0.196	0.211	0.194
750	0.200	0.198	0.279	0.229	0.261	0.225	0.246	0.221
700	0.238	0.230	0.325	0.267	0.306	0.266	0.294	0.259
650	0.266	0.273	0.383	0.321	0.365	0.318	0.354	0.316
600	0.349	0.329	0.465	0.386	0.442	0.379	0.436	0.387
550	0.435	0.407	0.567	0.477	0.548	0.479	0.543	0.483
500	0.541	0.528	0.707	0.596	0.703	0.605	0.689	0.605
450	0.710	0.690	0.901	0.771	0.915	0.798	0.891	0.793
400	0.931	0.899	1.169	1.017	1.214	1.066	1.177	1.053
350	1.243	1.203	1.535	1.346	1.587	1.427	1.537	1.396
300	1.646	1.587				1.853	1.952	1.815
HEIGHT	SCALE HEIGHT, KM							
	950	900	850	800	750	700	650	600
398.3	409.8		374.1	347.7		394.0		
380.7	407.9	363.2	369.6	346.4	387.6	377.1	360.7	
361.8	396.1	360.3	357.0	341.6	394.0	357.4	378.1	
337.9	374.9	352.4	339.7	332.0	355.9	331.4	361.3	
313.9	353.8	336.8	321.3	317.9	323.2	305.5	330.0	
289.3	325.6	310.9	302.5	300.7	303.1	281.5	301.4	
264.6	291.5	275.0	280.7	275.0	282.9	257.7	275.2	
244.1	252.9	260.3	258.8	248.1	262.8	239.9	249.1	
228.3	213.6	245.7	236.6	219.7	232.6	224.4	227.7	
212.5	200.2	226.0	214.2	201.8	201.4	207.4	207.5	
196.1	189.4	201.1	194.6	187.6	182.9	189.1	189.0	
162.1	182.7	190.5	181.9	187.4	175.7	189.6	179.4	
176.6	177.9	176.3	189.6	199.0	183.6	198.8	185.2	
208.6	220.2				216.4	267.8	203.8	
LONG	-8.36	-2.41	3.20	9.05	14.79	20.20	25.87	30.38
LAT	80.20	80.32	80.43	80.40	80.17	79.95	79.70	79.19
QUAL	33	32	33	33	32	32	21	32

PASS 2476 AT RESLUT, 63 329

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)				
	163336	163354	163412	163430	163447
1000	0.109	0.106	0.133	0.155	0.086
950	0.125	0.123	0.150	0.173	0.102
900	0.144	0.144	0.169	0.192	0.121
850	0.166	0.168	0.190	0.214	0.145
800	0.192	0.196	0.216	0.240	0.172
750	0.223	0.232	0.247	0.274	0.205
700	0.265	0.276	0.285	0.316	0.246
650	0.317	0.337	0.331	0.366	0.293
600	0.384	0.416	0.395	0.445	0.346
550	0.495	0.535	0.474	0.545	0.408
500	0.636	0.694	0.592	0.670	0.485
450	0.838	0.922	0.751	0.838	0.593
400	1.113	1.262	0.977	1.070	0.738
350	1.463	1.719	1.289	1.385	0.940
300		2.219	1.721	1.777	1.201
HEIGHT	SCALE HEIGHT, KM				
950	344.7	323.7	410.0	454.2	
900	346.4	318.0	406.9	457.6	280.3
850	345.1	315.5	397.3	449.0	282.9
800	329.3	313.1	381.7	396.7	285.4
750	307.0	294.0	366.0	361.6	288.5
700	285.0	272.5	337.7	333.3	292.1
650	262.9	244.9	303.2	304.9	295.9
600	240.9	218.3	278.3	281.6	301.1
550	219.2	203.9	253.7	259.2	290.3
500	197.4	188.2	230.4	237.8	265.1
450	183.4	168.9	207.5	218.7	244.3
400	182.2	162.1	190.0	204.0	225.4
350	195.5	179.3	179.1	201.0	209.4
300		258.5	181.3	222.3	221.4
LCNG	34.04	39.15	42.80	46.02	49.06
LAT	78.71	78.20	77.57	76.87	76.22
QUAL	33	32	31	32	31

PASS 2482 AT RESLUT, 63 330

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)												
	30742	30800	30817	30835	30853	30911	30928	30946					
1000	0.149	0.136	0.126	0.124	0.121	0.122	0.113	0.107					
950	0.171	0.157	0.146	0.143	0.140	0.140	0.131	0.129					
900	0.195	0.180	0.167	0.166	0.161	0.160	0.152	0.153					
850	0.221	0.205	0.191	0.191	0.185	0.183	0.175	0.179					
800	0.252	0.234	0.221	0.222	0.214	0.214	0.204	0.208					
750	0.288	0.268	0.257	0.260	0.253	0.253	0.240	0.248					
700	0.329	0.308	0.303	0.304	0.305	0.306	0.296	0.297					
650	0.382	0.361	0.364	0.364	0.374	0.371	0.369	0.361					
600	0.452	0.438	0.451	0.446	0.473	0.471	0.475	0.462					
550	0.553	0.544	0.573	0.566	0.595	0.609	0.608	0.605					
500	0.661	0.686	0.745	0.733	0.781	0.816	0.819	0.799					
450	0.858	0.879	0.981	0.979	1.032	1.092	1.106	1.079					
400		1.170	1.299	1.293	1.369	1.415	1.471	1.438					
350		1.523		1.571		1.708	1.891	1.887					
300		1.752											
HEIGHT	SCALE HEIGHT, KM												
	900	850	800	750	700	650	600	550	500	450	400	350	300
379.7	364.1	355.8	338.6	347.1	355.9	337.4	305.0						
376.1	372.9	349.6	332.6	349.1	340.6	333.6	304.4						
371.7	373.6	336.1	324.4	316.0	312.1	306.4	296.3						
367.2	368.5	322.7	314.7	281.8	278.4	271.3	280.5						
362.8	339.0	298.6	305.0	259.0	256.2	243.9	264.7						
315.6	271.8	241.3	263.7	237.9	238.1	217.1	241.0						
273.9	248.2	221.3	230.6	222.1	213.5	203.3	199.3						
256.7	234.9	210.2	211.2	206.3	187.0	189.6	184.9						
239.2	215.7	193.6	191.2	190.5	176.0	178.0	176.8						
216.9	190.0	183.2	178.7	180.3	186.2	173.9	175.0						
	186.6	201.8	225.0	189.5	222.9	184.3	180.0						
	248.0		338.8		380.5	317.5	231.6						
	570.8												
LONG	-112.61	-109.20	-106.94	-104.55	-102.16	-100.19	-98.57	-96.87					
LAT	76.78	76.11	75.37	74.58	73.80	72.97	72.16	71.30					
QUAL	33	31	32	32	33	32	31	31					

PASS 2482 AT RESULT, 63 330								
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)								
HEIGHT	TIME (UT)							
	31004	31021	31039	31057	31114	31132	31150	31208
1000	0.099	0.060	0.078	0.058	0.066	0.057	0.053	0.042
950	0.117	0.095	0.093	0.070	0.077	0.068	0.061	0.051
900	0.137	0.112	0.112	0.084	0.092	0.080	0.071	0.061
850	0.161	0.133	0.134	0.100	0.109	0.094	0.083	0.071
800	0.188	0.158	0.159	0.121	0.131	0.111	0.100	0.085
750	0.225	0.190	0.192	0.147	0.160	0.133	0.122	0.103
700	0.271	0.231	0.233	0.183	0.197	0.163	0.151	0.128
650	0.329	0.289	0.287	0.229	0.247	0.209	0.190	0.164
600	0.411	0.366	0.373	0.301	0.324	0.275	0.252	0.218
550	0.538	0.496	0.513	0.402	0.449	0.385	0.339	0.306
500	0.722	0.709	0.716	0.567	0.638	0.561	0.498	0.457
450	1.012	0.998	1.000	0.824	0.919	0.827	0.758	0.731
400	1.369	1.377	1.389	1.182	1.321	1.183	1.099	1.052
350	1.694	1.747			1.809	1.656	1.518	1.514
300								
HEIGHT	SCALE HEIGHT, KM							
	293.1	279.8	273.1	271.8	287.6	289.2	335.1	275.0
950	293.1	279.8	273.1	271.8	287.6	289.2	335.1	275.0
900	304.8	285.0	273.7	270.8	283.1	298.8	316.2	293.2
850	300.3	286.7	278.0	269.7	277.6	296.3	294.4	288.4
800	295.6	288.4	277.5	258.1	266.9	287.0	264.9	267.9
750	282.9	262.8	262.4	244.2	251.4	262.4	242.2	244.3
700	270.1	235.4	245.2	224.2	230.1	219.2	223.5	219.8
650	243.9	216.8	226.8	203.4	202.3	196.9	203.2	193.6
600	202.7	195.5	170.8	183.6	171.9	171.1	180.6	169.2
550	184.4	156.5	161.0	163.9	154.7	142.0	156.6	148.3
500	166.1	142.6	153.5	144.8	143.5	134.4	126.5	106.9
450	157.0	152.6	152.6	136.6	138.2	136.6	127.2	123.7
400	202.6	180.6	165.5	149.7	148.1	144.8	144.2	136.7
350	311.8	282.0			187.8	172.6	180.8	160.5
300								
LONG	-95.26	-94.08	-92.82	-91.57	-90.62	-89.67	-88.72	-87.86
LAT	70.43	69.58	68.67	67.77	66.90	65.97	65.04	64.10
QUAL	32	32	33	33	33	32	33	33

PASS 2482 AT RESLUT, 63 330						
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)						
HEIGHT	TIME (UT)					
	31225	31243	31301	31336	31354	31411
1000	0.052	0.051	0.050	0.059	0.059	0.062
950	0.059	0.058	0.060	0.070	0.070	0.073
900	0.069	0.068	0.070	0.082	0.083	0.085
850	0.062	0.080	0.081	0.095	0.098	0.099
800	0.099	0.097	0.096	0.112	0.115	0.114
750	0.121	0.117	0.115	0.133	0.135	0.131
700	0.147	0.142	0.141	0.162	0.157	0.149
650	0.187	0.182	0.178	0.200	0.183	0.171
600	0.242	0.234	0.226	0.257	0.211	0.200
550	0.337	0.320	0.308	0.332	0.259	0.244
500	0.467	0.460	0.445	0.463	0.319	0.303
450	0.710	0.675	0.645	0.644	0.415	0.395
400	1.021	0.976	0.907	0.872	0.552	0.535
350	1.400	1.383	1.204	1.117	0.724	0.742
300			1.446		0.899	
HEIGHT	SCALE HEIGHT, KM					
900	313.1	317.9	310.4	317.6	297.8	328.1
850	285.7	298.7	305.7	314.2	306.6	342.4
800	259.9	274.0	289.0	295.3	314.9	355.0
750	246.2	249.4	262.0	273.8	322.6	367.7
700	232.4	225.0	229.3	246.4	321.5	367.1
650	206.1	206.2	211.4	221.7	306.6	343.2
600	175.1	187.4	193.4	201.8	291.6	275.2
550	149.4	156.6	151.1	181.2	258.3	250.6
500	138.1	136.3	139.2	151.0	224.3	226.0
450	136.6	133.9	142.9	164.9	185.3	187.9
400	151.3	140.4	161.5	187.6	190.5	163.4
350	281.2	159.6	216.6	236.1	212.9	164.5
300			441.9		253.1	
LONG	-87.16	-86.42	-85.69	-84.54	-83.96	-83.47
LAT	63.20	62.25	61.30	59.42	58.45	57.53
QUAL	31	32	31	32	32	33



PASS 2482 AT RESLUT, 63 330

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)			
	31447	31505	31522	31558
1000	0.053	0.026	0.019	0.017
950	0.066	0.032	0.025	0.021
900	0.078	0.040	0.031	0.025
850	0.092	0.050	0.039	0.030
800	0.109	0.061	0.050	0.035
750	0.129	0.076	0.068	0.042
700	0.152	0.094	0.090	0.051
650	0.181	0.118	0.123	0.064
600	0.217	0.149	0.170	0.081
550	0.263	0.193	0.240	0.101
500	0.312	0.257	0.337	0.135
450	0.366	0.363	0.474	0.178
400	0.437	0.505	0.655	0.243
350		0.671	0.873	0.325
300				0.417
HEIGHT	SCALE HEIGHT, KM			
900		230.2	206.9	279.4
850	294.7	234.8	196.7	287.2
800	304.0	233.1	187.6	276.6
750	312.6	231.1	181.0	256.8
700	289.5	229.0	174.4	241.7
650	281.8	221.0	165.3	231.3
600	277.9	205.3	153.4	220.8
550	283.9	185.0	149.8	210.3
500	312.0	162.5	150.3	192.6
450	295.9	149.6	153.4	174.6
400	269.5	164.9	165.0	171.3
350		200.4	207.0	192.3
300				286.0
LONG	-82.51	-82.06	-81.69	-80.89
LAT	55.58	54.61	53.68	51.72
QUAL	33	32	32	31

PASS 2482 AT AGASTA, 63 330  
 ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)
	33755
1000	0.177
950	0.194
900	0.212
850	0.233
800	0.261
750	0.297
700	0.352
650	0.426
600	0.611
550	0.961
500	1.539
450	2.469
400	3.913
350	
300	
HEIGHT	SCALE HEIGHT, KM
950	564.8
900	525.3
850	481.4
800	416.9
750	344.3
700	278.8
650	213.1
600	125.4
550	109.7
500	108.5
450	103.3
400	123.0
350	
300	
LONG	-70.25
LAT	-22.32
QUAL	33

PASS 2488 AT QUITOE, 63 330  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	145612	145838	145913	145949	150024	150059	150135	150210
1000	0.228	0.220	0.222	0.206	0.193	0.179	0.171	0.168
950	0.254	0.248	0.249	0.231	0.218	0.202	0.193	0.189
900	0.286	0.283	0.284	0.264	0.248	0.231	0.221	0.214
850	0.323	0.325	0.325	0.303	0.285	0.265	0.253	0.244
800	0.373	0.375	0.374	0.350	0.333	0.309	0.295	0.281
750	0.437	0.455	0.456	0.436	0.401	0.370	0.354	0.337
700	0.519	0.558	0.570	0.548	0.489	0.448	0.428	0.407
650	0.645	0.691	0.711	0.687	0.617	0.561	0.535	0.504
600	0.802	0.883	0.922	0.883	0.775	0.700	0.678	0.646
550	1.116	1.187	1.216	1.201	1.071	0.959	0.900	0.841
500	1.756	1.783	1.830	1.795	1.589	1.385	1.289	1.211
450	3.063	2.961	2.978	2.906	2.635	2.274	2.032	1.905
400	5.392	5.110	5.022	4.936	4.580	3.972	3.506	3.209
350	8.217	8.150	8.082	7.969	7.694	6.935	6.239	5.633
300								
HEIGHT	SCALE HEIGHT, KM							
950	435.3	382.1	402.0	402.7	396.5	385.1	404.5	404.7
900	408.9	365.7	371.1	365.1	365.7	365.1	373.8	380.7
850	370.5	332.5	335.4	324.7	333.6	334.0	332.6	348.8
800	336.3	300.0	299.8	285.3	301.6	303.9	301.7	317.7
750	303.5	276.8	273.1	264.9	269.8	275.3	278.7	288.4
700	270.2	253.7	248.2	244.5	239.5	247.4	255.6	259.2
650	235.0	228.0	223.3	224.2	216.5	222.5	229.3	230.6
600	199.7	195.7	192.2	188.4	193.4	197.7	201.5	202.8
550	144.4	144.0	157.5	142.0	148.1	161.4	165.6	171.2
500	96.5	111.3	113.1	115.0	114.6	122.2	128.2	127.4
450	88.2	95.5	100.5	98.7	95.4	93.5	97.7	100.6
400	95.7	92.0	91.7	93.3	87.9	86.4	86.5	91.5
350	250.5	160.4	140.5	142.2	121.0	107.8	97.1	96.6
300								
LONG	-65.27	-64.50	-64.32	-64.13	-63.93	-63.74	-63.53	-63.32
LAT	-3.18	4.70	6.67	8.69	10.66	12.62	14.65	16.61
QUAL	23	22	23	23	23	23	23	23

PASS 2488 AT QUITOE, 03 330  
 ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)		
	150246	150321	150339
1000	0.172	0.164	0.183
950	0.193	0.184	0.205
900	0.220	0.211	0.231
850	0.250	0.241	0.261
800	0.289	0.278	0.300
750	0.345	0.337	0.348
700	0.415	0.411	0.410
650	0.508	0.500	0.499
600	0.620	0.633	0.630
550	0.838	0.814	0.819
500	1.187	1.149	1.119
450	1.835	1.730	1.623
400	3.059	2.762	2.565
350	5.129	4.536	4.219
300		6.537	
HEIGHT	SCALE HEIGHT, KM		
950	406.6	419.4	436.1
900	377.6	373.0	407.6
850	346.2	337.2	375.2
800	317.1	305.7	353.5
750	291.9	286.6	325.7
700	266.6	267.5	285.2
650	240.4	248.3	231.9
600	211.8	215.6	206.1
550	178.3	176.4	176.3
500	130.9	135.1	148.1
450	105.2	115.9	126.2
400	94.7	102.0	99.9
350	107.1	110.2	111.9
300		240.6	
LONG	-63.10	-62.87	-62.80
LAT	18.63	20.59	21.38
QUAL	23	23	22

PASS 2489 AT FTMYRS, 63 330  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	150210	150246	150321	150356	150432	150507	150543	150618
1000	0.184	0.193	0.186	0.179	0.188	0.166	0.169	0.169
950	0.207	0.217	0.207	0.200	0.207	0.185	0.189	0.189
900	0.236	0.245	0.231	0.226	0.230	0.207	0.212	0.213
850	0.270	0.279	0.261	0.256	0.260	0.236	0.239	0.242
800	0.316	0.324	0.303	0.290	0.304	0.275	0.276	0.279
750	0.379	0.382	0.365	0.343	0.361	0.323	0.322	0.323
700	0.459	0.462	0.442	0.408	0.430	0.380	0.377	0.380
650	0.561	0.560	0.556	0.501	0.513	0.474	0.464	0.456
600	0.733	0.703	0.703	0.654	0.652	0.612	0.582	0.579
550	0.983	0.970	0.879	0.847	0.864	0.788	0.725	0.738
500	1.399	1.395	1.253	1.190	1.197	1.058	1.042	0.983
450	2.275	2.193	1.960	1.783	1.767	1.541	1.529	1.408
400	3.943	3.596	3.184	2.892	2.833	2.408	2.308	2.085
350	6.707	5.853	5.296	4.724	4.399	3.739	3.538	3.156
300			6.781		6.142	5.683	5.190	4.734
HEIGHT	SCALE HEIGHT, KM							
950	402.4	418.0	453.1	421.7	472.3	443.8	425.6	419.3
900	367.7	385.0	408.3	398.7	423.5	406.0	403.9	397.3
850	335.4	351.6	362.3	371.1	374.7	367.3	371.1	374.5
800	304.3	317.6	321.8	342.6	331.4	320.0	342.3	350.2
750	273.6	286.6	285.2	305.4	290.2	290.6	314.0	322.0
700	244.4	261.9	243.7	268.1	266.8	257.1	285.6	282.9
650	221.5	237.3	226.7	234.6	243.5	233.7	254.9	247.0
600	198.6	207.6	207.4	207.9	213.8	214.3	223.4	223.3
550	166.9	165.7	188.1	181.2	180.3	194.9	191.8	199.1
500	126.4	128.7	148.7	147.0	148.1	165.1	153.4	172.6
450	98.4	106.2	109.0	116.4	119.7	124.2	128.3	142.0
400	90.9	100.3	98.4	102.4	110.2	114.8	120.8	126.9
350	119.5	119.8	124.5	112.0	127.6	120.1	121.3	120.0
300			622.5		78.8	430.6	256.3	139.5
LONG	-63.32	-63.10	-62.87	-62.65	-62.39	-62.14	-61.86	-61.57
LAT	16.61	18.63	20.59	22.55	24.56	26.52	28.52	30.47
QUAL	23	23	22	22	22	22	22	22

PASS 2489 AT FTMYRS, 63 330

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)		
	150653	150729	150746
1000	0.159	0.147	0.150
950	0.179	0.166	0.169
900	0.201	0.187	0.191
850	0.228	0.213	0.216
800	0.263	0.246	0.249
750	0.305	0.285	0.290
700	0.364	0.342	0.338
650	0.435	0.413	0.419
600	0.557	0.499	0.521
550	0.717	0.669	0.644
500	0.942	0.888	0.866
450	1.327	1.277	1.207
400	1.934	1.858	1.781
350	2.939	2.862	2.660
300	4.354	4.328	4.103
HEIGHT	SCALE HEIGHT, KM		
950	430.2	408.5	401.7
900	394.8	389.1	386.3
850	367.6	365.0	367.6
800	344.3	334.7	340.0
750	320.4	304.4	311.0
700	279.9	277.9	282.1
650	239.5	251.9	258.8
600	218.3	225.7	235.4
550	197.4	195.3	212.1
500	175.5	164.8	160.8
450	150.6	144.7	144.6
400	129.5	127.8	132.4
350	123.1	118.2	122.0
300	200.6	140.9	120.5
LONG	-61.27	-60.93	-60.77
LAT	32.43	34.43	35.38
QUAL	22	22	22

PASS 2496 AT RESLUT, 63 331								
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)								
HEIGHT	TIME (UT)							
	34527	34545	34559	34620	34638	34655	34713	34731
1000	0.193	0.207	0.240	0.239	0.070	0.062	0.081	0.084
950	0.205	0.220	0.246	0.246	0.077	0.071	0.094	0.099
900	0.218	0.229	0.257	0.258	0.087	0.081	0.109	0.115
850	0.236	0.250	0.272	0.292	0.101	0.095	0.125	0.132
800	0.262	0.273	0.298	0.343	0.121	0.114	0.145	0.154
750	0.300	0.291	0.357	0.398	0.146	0.139	0.170	0.180
700	0.348	0.344	0.417	0.444	0.178	0.175	0.206	0.215
650	0.411	0.408	0.473	0.490	0.215	0.219	0.251	0.266
600	0.494	0.470	0.547	0.577	0.259	0.277	0.310	0.331
550	0.609	0.531	0.692	0.759	0.336	0.357	0.391	0.417
500	0.754	0.590	0.876	0.975	0.433	0.476	0.511	0.540
450	0.957	0.773	1.084	1.193	0.578	0.639	0.677	0.709
400	1.212	1.035	1.363	1.484	0.762	0.864	0.911	0.941
350	1.568	1.295	1.710	1.812	1.028	1.161	1.220	1.253
300	1.977	1.595			1.379		1.609	1.625
HEIGHT	SCALE HEIGHT, KM							
950	829.0	1134.5	1300.5	1357.1	432.6	361.6		324.8
900	697.8	982.5	1050.0	781.9	372.7	322.5	335.3	330.8
850	554.9	555.6	799.5	611.6	329.7	297.4	342.3	330.7
800	462.7	518.1	565.4	441.3	298.7	272.2	314.0	312.6
750	398.0	480.6	378.7	387.3	269.4	252.4	288.3	294.4
700	336.0	327.7	323.9	368.8	258.5	238.6	271.3	272.7
650	291.2	299.0	313.6	350.3	247.5	224.8	254.3	247.2
600	259.0	296.0	294.5	313.8	235.1	204.3	232.7	223.9
550	243.8	293.1	254.2	251.4	210.4	187.6	204.6	204.7
500	228.8	290.1	225.8	222.6	186.4	178.3	189.0	193.9
450	217.0	237.4	223.9	237.3	182.7	172.8	178.7	186.8
400	207.7	198.6	231.5	239.2	179.1	171.6	173.7	181.0
350	213.0	225.2	259.3	256.0	173.9	175.6	171.8	184.0
300	234.2	239.1			181.6		242.4	214.8
LONG	-120.17	-117.45	-115.33	-113.04	-111.12	-109.30	-107.76	-106.36
LAT	75.86	75.11	74.52	73.55	72.71	71.92	71.05	70.16
QUAL	33	33	33	33	33	33	33	33

PASS 2496 AT RESLUT 63 331  
ELECTRON DENSITY IN ELECTRONICNS PER CC (X10-5)

HEIGHT	TIME (UT)							
	34749	34806	34824	34842	34859	34917	34935	34952
1000	0.082	0.103	0.101	0.087	0.117	0.083	0.037	0.024
950	0.096	0.120	0.120	0.103	0.130	0.092	0.048	0.028
900	0.110	0.136	0.140	0.120	0.146	0.102	0.059	0.032
850	0.127	0.155	0.161	0.138	0.164	0.115	0.069	0.037
800	0.151	0.176	0.184	0.159	0.184	0.131	0.080	0.046
750	0.181	0.204	0.219	0.186	0.209	0.153	0.095	0.059
700	0.217	0.242	0.264	0.222	0.241	0.182	0.114	0.077
650	0.266	0.290	0.322	0.266	0.285	0.224	0.144	0.098
600	0.324	0.359	0.401	0.327	0.344	0.277	0.183	0.124
550	0.415	0.457	0.508	0.405	0.427	0.357	0.244	0.154
500	0.536	0.594	0.656	0.516	0.548	0.478	0.324	0.232
450	0.694	0.774	0.847	0.667	0.719	0.664	0.449	0.337
400	0.897	1.009	1.099	0.869	0.945	0.907	0.619	0.493
350		1.342	1.438	1.143	1.239	1.222	0.845	0.721
300			1.860	1.474	1.558	1.615		1.010
HEIGHT	SCALE HEIGHT, KM							
950	351.8				438.0	464.6		365.6
900	336.7	379.3	340.6	332.1	436.7	435.8		351.4
850	315.6	383.2	346.0	343.6	428.2	393.7	311.1	289.3
800	298.1	347.9	311.7	321.7	410.4	349.0	304.7	253.2
750	281.2	321.7	290.9	299.9	363.7	304.8	277.0	219.0
700	264.5	298.1	270.4	283.2	324.8	270.1	249.5	199.8
650	248.1	263.1	248.3	266.5	290.0	249.1	223.5	194.1
600	231.7	218.4	223.6	245.4	255.5	228.0	197.4	186.5
550	209.0	199.4	209.2	222.8	221.1	193.9	182.8	182.8
500	197.0	193.8	203.9	208.7	202.8	165.5	168.9	156.6
450	197.6	192.1	198.4	198.7	194.0	162.2	156.2	133.9
400	201.0	191.4	192.6	193.2	191.4	166.5	159.0	131.7
350		196.8	189.3	192.4	203.6	169.6	162.1	143.3
300			200.3	214.1	233.5	214.8		173.6
LONG	-104.96	-103.75	-102.70	-101.66	-100.67	-99.85	-99.04	-98.28
LAT	69.27	68.42	67.50	66.57	65.70	64.76	63.82	62.93
QUAL	33	33	33	33	33	33	33	33



PASS 2496 AT RESLUT, 63 331  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)						
	35010	35028	35045	35103	35121	35156	35214
1000	0.010	0.010	0.009	0.011	0.013	0.019	0.012
950	0.014	0.013	0.015	0.014	0.017	0.023	0.016
900	0.016	0.015	0.018	0.016	0.020	0.025	0.018
850	0.019	0.018	0.021	0.019	0.024	0.028	0.024
800	0.024	0.022	0.026	0.022	0.030	0.032	0.030
750	0.029	0.028	0.033	0.026	0.035	0.041	0.037
700	0.034	0.036	0.042	0.034	0.042	0.053	0.044
650	0.048	0.050	0.056	0.044	0.050	0.068	0.052
600	0.068	0.068	0.075	0.058	0.061	0.089	0.073
550	0.099	0.095	0.105	0.079	0.073	0.120	0.102
500	0.141	0.135	0.149	0.110	0.100	0.166	0.144
450	0.211	0.199	0.219	0.158	0.137	0.233	0.199
400	0.320	0.297	0.327	0.238	0.195	0.339	0.303
350	0.489	0.447	0.485	0.375	0.285	0.493	0.449
300	0.727	0.664	0.712	0.579	0.450	0.698	0.645
HEIGHT	SCALE HEIGHT, KM						
950	340.7		183.5	359.6	276.1	450.6	277.1
900	285.0	310.3	325.1	430.9	267.9	503.8	257.4
850	232.8	266.5	306.6	288.6	274.3	413.7	233.0
800	226.3	241.3	229.7	268.9	283.4	323.7	221.6
750	219.7	216.1	210.1	247.1	274.8	241.9	220.5
700	213.2	193.6	196.0	209.4	265.0	191.1	219.5
650	183.5	178.2	175.5	189.5	255.1	191.7	218.4
600	143.4	162.7	156.0	168.0	245.2	177.4	190.0
550	135.8	150.8	149.9	157.2	233.7	160.7	154.6
500	134.4	140.5	137.4	145.8	185.1	153.3	143.5
450	127.8	130.6	129.1	132.3	150.0	146.1	138.1
400	120.3	124.3	127.4	115.3	140.2	139.6	134.5
350	122.6	127.4	129.6	115.5	124.9	144.4	136.5
300	140.1	134.0	140.5	125.7	106.3	176.4	154.3
LONG	-97.56	-96.93	-96.32	-95.70	-95.19	-94.18	-93.74
LAT	61.98	61.02	60.11	59.25	58.88	58.15	56.84
QUAL	33	33	33	33	33	32	33

PASS 2502 AT AGASTA, 63 331

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	152316	152351	152427	152502	152538	152613	152649	152724
1000	0.108	0.118	0.123	0.123	0.131	0.145	0.157	0.177
950	0.115	0.126	0.131	0.132	0.139	0.156	0.170	0.193
900	0.123	0.134	0.140	0.142	0.149	0.168	0.184	0.211
850	0.134	0.144	0.152	0.153	0.162	0.184	0.203	0.233
800	0.148	0.157	0.166	0.166	0.178	0.204	0.228	0.267
750	0.166	0.176	0.185	0.185	0.199	0.230	0.259	0.309
700	0.188	0.202	0.209	0.211	0.225	0.262	0.295	0.364
650	0.222	0.235	0.243	0.245	0.263	0.304	0.358	0.444
600	0.266	0.275	0.287	0.287	0.310	0.372	0.451	0.542
550	0.318	0.322	0.340	0.337	0.388	0.458	0.575	0.724
500	0.414	0.425	0.455	0.462	0.525	0.629	0.810	1.080
450	0.582	0.602	0.643	0.653	0.751	0.948	1.289	1.927
400	0.841	0.868	0.928	0.981	1.149	1.592	2.251	3.482
350	1.215	1.291	1.427	1.536	1.925	2.743	3.941	5.182
300	1.985	2.157	2.343	2.614	3.428	4.474	5.709	7.306
HEIGHT	SCALE HEIGHT, KM							
950	722.9	774.9	718.1	687.7	742.8	651.6	613.0	540.9
900	639.7	698.2	646.6	650.5	649.9	588.5	544.9	487.7
850	561.4	620.7	591.7	598.9	568.6	520.9	488.5	434.8
800	486.3	534.8	536.9	547.3	494.9	453.1	441.0	386.2
750	416.9	420.6	450.7	432.6	430.9	404.1	383.6	337.6
700	348.7	348.8	359.9	354.9	368.5	356.5	309.0	293.0
650	316.2	321.3	324.2	321.8	320.7	308.9	265.2	257.5
600	283.7	293.7	288.6	288.8	272.8	261.2	228.8	222.0
550	251.2	266.2	253.0	255.8	221.5	213.5	191.5	168.0
500	177.8	180.3	175.1	186.6	165.8	154.8	138.8	107.2
450	148.2	143.0	142.7	137.2	133.7	106.2	96.2	81.9
400	141.9	137.8	131.0	119.2	108.6	94.5	86.6	98.1
350	122.9	113.6	109.2	104.5	90.5	94.8	107.6	152.0
300	94.6	93.0	93.0	88.3	89.5	117.9	161.4	123.7
LONG	-80.98	-80.61	-80.26	-79.93	-79.63	-79.34	-79.06	-78.81
LAT	-38.08	-36.13	-34.13	-32.19	-30.18	-28.22	-26.21	-24.26
QUAL	22	23	23	22	22	23	23	23

PASS 2502 AT AGASTA, 63 331  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	152759	152835	152910	152946	153021	153056	153132	153207
1000	0.201	0.206	0.223	0.234	0.246	0.248	0.256	0.251
950	0.219	0.228	0.246	0.260	0.272	0.275	0.286	0.281
900	0.240	0.254	0.274	0.288	0.302	0.306	0.322	0.318
850	0.265	0.284	0.306	0.322	0.338	0.344	0.362	0.360
800	0.306	0.323	0.347	0.367	0.393	0.403	0.419	0.413
750	0.361	0.373	0.404	0.440	0.472	0.488	0.505	0.494
700	0.428	0.447	0.484	0.537	0.574	0.598	0.623	0.611
650	0.519	0.545	0.585	0.697	0.768	0.807	0.834	0.814
600	0.660	0.719	0.802	0.955	1.080	1.147	1.185	1.147
550	0.930	1.037	1.171	1.454	1.692	1.834	1.868	1.760
500	1.472	1.668	1.975	2.546	2.940	3.137	3.093	2.880
450	2.598	3.040	3.634	4.539	4.980	5.020	4.977	4.853
400	4.350	5.381	6.333	6.963	6.603			6.972
350	6.919	9.195						
300	11.137							
HEIGHT	SCALE HEIGHT, KM							
950	546.0	463.6	479.6	488.3	484.1	476.6	439.1	427.7
900	485.1	439.0	453.6	460.3	464.7	452.5	403.9	403.4
850	424.2	415.3	426.2	396.8	359.0	347.3	364.3	385.9
800	377.4	372.4	355.1	325.7	309.8	296.9	319.2	311.4
750	332.2	308.9	303.7	283.2	273.3	262.7	268.0	256.9
700	286.7	266.6	265.2	240.7	236.9	228.4	217.6	213.1
650	239.1	227.6	226.7	193.1	181.6	173.4	170.9	172.8
600	188.0	175.0	164.0	144.3	132.9	126.5	129.7	134.3
550	133.7	124.9	118.4	106.7	98.5	98.2	103.1	109.8
500	98.5	91.6	83.6	84.0	89.9	94.6	97.4	96.8
450	87.5	83.1	86.1	95.9	118.3	148.3	131.1	107.8
400	111.9	89.3	99.6	208.0	418.1			236.9
350	98.0	111.8						
300	204.3							
LONG	-78.57	-78.33	-78.11	-77.89	-77.68	-77.48	-77.28	-77.09
LAT	-22.30	-20.28	-18.32	-16.30	-14.34	-12.37	-10.35	-8.39
QUAL	22	23	23	22	21	21	22	22

PASS 2502 AT QUITOE, 63 331  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	153317	153335	153407	153446	153743	153816	153853	153911
1000	0.266	0.229	0.244	0.222	0.160	0.169	0.163	0.163
950	0.295	0.255	0.271	0.249	0.180	0.187	0.182	0.183
900	0.334	0.291	0.306	0.285	0.204	0.210	0.204	0.207
850	0.379	0.332	0.347	0.326	0.232	0.237	0.229	0.235
800	0.432	0.381	0.396	0.381	0.268	0.267	0.262	0.267
750	0.510	0.445	0.470	0.467	0.316	0.319	0.307	0.314
700	0.634	0.562	0.591	0.576	0.374	0.387	0.361	0.372
650	0.800	0.715	0.756	0.722	0.461	0.469	0.435	0.441
600	1.058	0.951	0.993	0.935	0.590	0.585	0.548	0.555
550	1.566	1.380	1.425	1.337	0.782	0.752	0.686	0.706
500	2.507	2.284	2.266	2.095	1.080	1.050	0.916	0.951
450	4.161	3.896	3.899	3.585	1.693	1.634	1.378	1.412
400	6.707	6.557	6.559	6.217	3.003	2.706	2.322	2.302
350				9.245	5.653	4.833	4.021	3.937
300					9.712	7.945	6.783	6.469
HEIGHT	SCALE HEIGHT, KM							
950	447.2	441.5	445.6	423.0	403.1	447.1	436.8	413.5
900	395.2	381.1	394.1	371.4	383.9	407.8	414.3	388.7
850	364.4	352.7	362.8	328.5	352.8	375.5	380.5	365.9
800	333.7	324.3	331.6	293.6	326.1	343.2	349.8	342.8
750	295.4	291.5	290.7	270.5	300.8	314.4	320.7	317.4
700	247.3	241.8	237.5	247.3	275.4	286.0	291.6	292.0
650	201.2	195.5	194.3	217.0	242.6	257.6	263.0	266.7
600	161.7	168.2	167.3	172.1	203.4	223.8	235.0	233.8
550	114.5	104.9	130.8	127.8	169.6	184.0	207.0	198.9
500	103.3	101.3	97.4	98.3	141.7	135.9	160.3	155.8
450	98.7	91.9	91.1	90.6	97.4	105.3	110.8	115.8
400	129.5	114.8	106.1	98.5	86.4	97.1	92.3	97.9
350				213.6	77.8	83.4	86.9	90.6
300					151.2	157.9	135.1	157.6
LONG	-76.72	-76.62	-76.45	-76.25	-75.31	-75.13	-74.91	-74.80
LAT	-4.46	-3.44	-1.65	0.54	10.50	12.35	14.42	15.43
QUAL	33	23	23	23	23	23	23	23

PASS 2502 AT QUITOE, 63 331						
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)						
HEIGHT	TIME (UT)					
	153946	154022	154057	154133	154150	154226
1000	0.159	0.162	0.156	0.132	0.130	0.134
950	0.179	0.181	0.171	0.148	0.148	0.150
900	0.204	0.206	0.190	0.166	0.168	0.169
850	0.232	0.233	0.212	0.192	0.192	0.191
800	0.265	0.266	0.243	0.220	0.220	0.217
750	0.315	0.313	0.292	0.262	0.257	0.255
700	0.379	0.370	0.353	0.313	0.307	0.300
650	0.457	0.444	0.427	0.374	0.367	0.354
600	0.558	0.552	0.530	0.467	0.453	0.445
550	0.715	0.688	0.651	0.584	0.582	0.557
500	0.950	0.931	0.828	0.770	0.746	0.692
450	1.353	1.316	1.207	1.087	1.056	0.970
400	2.044	1.960	1.839	1.645	1.571	1.427
350	3.273	3.034	2.765	2.490	2.355	2.146
300	5.084	4.387	4.052	3.662	3.532	3.292
HEIGHT	SCALE HEIGHT, KM					
950	401.2	453.4	491.8	389.0	374.0	416.3
900	374.6	398.4	443.2	370.6	367.3	399.1
850	349.9	371.8	394.5	349.4	351.9	375.9
800	325.2	345.2	351.9	327.9	336.6	351.9
750	304.4	318.5	319.8	305.9	314.6	323.9
700	284.4	291.9	287.7	283.9	288.6	295.9
650	264.5	263.9	257.2	261.9	262.6	268.1
600	240.8	232.7	237.3	235.0	236.0	245.3
550	205.8	201.3	217.5	207.6	208.8	222.4
500	168.6	167.0	183.6	173.6	180.0	199.6
450	129.9	139.7	126.6	136.1	135.4	146.8
400	112.6	117.7	121.4	121.5	128.8	128.7
350	104.6	116.6	123.2	124.7	123.0	119.1
300	143.6	191.9	164.4	152.6	146.6	122.9
LONG	-74.59	-74.37	-74.15	-73.90	-73.78	-73.51
LAT	17.39	19.41	21.37	23.39	24.34	26.35
QUAL	23	23	22	23	23	23

PASS 2503 AT RESLUT, 63 331

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	155348	155406	155424	155441	155457	155520	155534	155552
1000	0.171	0.169	0.187	0.185	0.183	0.140	0.127	0.127
950	0.190	0.188	0.206	0.205	0.198	0.158	0.146	0.146
900	0.211	0.210	0.228	0.228	0.216	0.178	0.166	0.166
850	0.235	0.235	0.255	0.254	0.240	0.202	0.187	0.187
800	0.266	0.267	0.289	0.288	0.273	0.232	0.212	0.213
750	0.305	0.305	0.332	0.330	0.314	0.269	0.242	0.242
700	0.356	0.356	0.391	0.388	0.361	0.316	0.282	0.283
650	0.418	0.418	0.462	0.460	0.423	0.376	0.334	0.335
600	0.499	0.503	0.560	0.549	0.509	0.451	0.401	0.405
550	0.605	0.618	0.684	0.673	0.632	0.555	0.488	0.495
500	0.708	0.779	0.861	0.832		0.704	0.611	0.620
450	0.904	0.993	1.096	1.061		0.889	0.765	0.777
400	1.304	1.292	1.419	1.372		1.162	0.994	1.006
350	1.727	1.722	1.872	1.821		1.545	1.283	1.308
300	2.346	2.340	2.486	2.428		2.100	1.715	1.728
HEIGHT	SCALE HEIGHT, KM							
950	472.9	450.8	488.1	476.5	600.5	409.5		
900	452.3	434.7	457.7	451.8	521.7	397.6	391.3	388.4
850	422.7	417.0	421.8	422.6	457.1	377.4	392.2	390.6
800	383.7	385.1	377.7	379.3	409.0	351.7	371.9	369.6
750	350.2	351.3	339.6	339.0	366.4	325.8	351.6	348.6
700	328.7	321.8	314.2	318.0	335.1	299.6	323.3	319.2
650	307.2	293.1	288.8	297.0	293.2	276.2	292.2	288.3
600	274.8	263.6	261.7	274.7	248.6	254.0	265.2	261.7
550	232.8	233.6	235.0	248.6	220.4	236.0	239.9	236.9
500	212.2	216.6	217.6	224.3		222.5	223.9	222.8
450	193.1	204.2	202.1	204.0		209.0	208.4	209.7
400	184.0	186.6	189.7	187.2		187.4	198.4	199.6
350	175.1	171.1	182.7	179.0		177.6	188.5	190.2
300	168.4	172.2	193.1	190.1		186.6	178.6	184.2
LONG	-61.27	-60.47	-59.53	-58.64	-57.81	-56.27	-55.31	-54.07
LAT	63.76	64.70	65.63	66.51	67.33	68.49	69.20	70.10
QUAL	33	33	33	33	33	33	33	33

PASS 2503 AT RESLUT, 63 331

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	155614	155627	155645	155703	155756	155813	155831	155849
1000	0.178	0.162	0.139	0.126	0.152	0.122	0.124	0.134
950	0.199	0.178	0.154	0.144	0.172	0.140	0.141	0.151
900	0.221	0.197	0.173	0.166	0.193	0.159	0.160	0.169
850	0.247	0.221	0.194	0.189	0.217	0.181	0.180	0.191
800	0.277	0.248	0.218	0.215	0.246	0.208	0.207	0.218
750	0.314	0.281	0.252	0.246	0.283	0.241	0.238	0.252
700	0.359	0.321	0.293	0.288	0.331	0.285	0.281	0.298
650	0.414		0.345	0.340	0.392	0.339	0.334	0.361
600	0.490		0.410	0.413	0.473	0.415	0.407	0.437
550	0.587		0.494	0.509	0.577	0.511	0.496	0.545
500	0.737		0.607	0.643	0.724	0.651	0.628	0.684
450	0.927		0.764	0.811	0.905	0.835	0.796	0.886
400	1.213		0.983	1.055	1.167	1.066	1.031	1.147
350	1.606		1.293	1.401	1.509	1.395	1.347	1.483
300	2.090		1.695	1.833	1.945	1.798	1.748	1.894
HEIGHT	SCALE HEIGHT, KM							
950	460.7	489.7	456.7		405.9	365.1	393.2	409.9
900	456.1	466.3	432.5	372.4	411.6	372.3	392.5	402.5
850	445.2	439.2	411.0	381.7	408.8	369.8	384.3	387.6
800	408.4	406.3	388.0	363.1	372.0	346.6	357.2	355.8
750	381.6	388.8	353.8	340.0	337.9	318.1	329.8	321.4
700	357.7	374.7	322.2	313.7	310.8	294.7	301.5	294.8
650	328.9		297.2	287.5	285.0	271.3	273.2	274.5
600	288.7		275.7	254.5	260.5	247.5	252.4	254.2
550	252.6		256.5	227.7	240.4	223.6	231.6	231.0
500	231.5		235.4	219.7	227.8	214.4	219.6	207.6
450	210.3		212.2	211.2	215.3	208.1	207.5	201.1
400	198.2		197.8	181.6	208.9	202.8	200.1	197.6
350	189.9		191.6	187.2	204.4	202.6	195.5	201.0
300	191.3		187.2	205.4	211.6	209.8	209.1	213.4
LONG	-52.21	-51.00	-49.31	-47.52	-40.56	-37.62	-34.26	-30.90
LAT	71.17	71.79	72.65	73.50	75.83	76.50	77.18	77.86
QUAL	33	33	33	33	33	33	33	33

PASS 2503 AT RESLUT, 63 331						
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)						
HEIGHT	TIME (UT)					
	155924	155942	160000	160017	160053	160110
1000	0.167	0.167	0.109	0.127	0.104	0.116
950	0.204	0.189	0.127	0.149	0.119	0.136
900	0.223	0.211	0.147	0.169	0.136	0.155
850	0.247	0.234	0.169	0.192	0.156	0.177
800	0.278	0.263	0.196	0.219	0.181	0.204
750	0.318	0.298	0.230	0.253	0.211	0.237
700	0.373	0.356	0.273	0.293	0.250	0.277
650	0.440	0.430	0.328	0.353	0.297	0.334
600	0.531	0.524	0.403	0.436	0.359	0.410
550	0.649	0.638	0.502	0.542	0.443	0.509
500	0.812	0.803	0.637	0.683	0.551	0.653
450	1.033	1.023	0.825	0.879	0.718	0.844
400	1.316	1.323	1.064	1.137	0.928	1.097
350	1.719	1.706	1.395	1.484	1.245	1.462
300	2.220	2.150	1.814	1.917	1.656	1.897
HEIGHT	SCALE HEIGHT, KM					
	900	509.9	447.0	334.9	375.2	355.2
850	457.2	428.2	333.8	368.4	346.5	355.7
800	400.1	387.1	325.5	350.6	330.8	342.3
750	354.6	346.2	304.9	329.3	312.9	322.9
700	325.0	312.3	282.5	308.0	294.2	298.4
650	295.4	278.3	258.1	279.8	275.1	259.6
600	267.1	253.8	238.4	248.9	255.1	235.6
550	239.4	234.9	221.1	223.4	233.6	217.0
500	223.4	219.8	209.5	207.1	213.7	206.1
450	213.6	205.9	203.1	202.0	200.8	197.6
400	204.4	200.6	196.5	195.0	187.9	191.7
350	197.0	209.2	189.4	196.3	184.4	191.1
300	254.2	239.0	220.6	234.5	191.3	203.3
LONG	-22.62	-17.95	-13.28	-7.79	3.85	9.38
LAT	78.91	79.40	79.88	80.06	80.44	80.42
QUAL	33	33	33	33	33	32



PASS 2944 AT COLEGE, 63 5 2  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	233623	233858	233934	234009	234045	234120	234156	234232
1000	0.259	0.354	0.302	0.376	0.340	0.430	0.255	0.248
950	0.295	0.387	0.330	0.407	0.405	0.473	0.299	0.288
900	0.322	0.409	0.352	0.430	0.443	0.510	0.340	0.316
850	0.362	0.433	0.382	0.460	0.474	0.551	0.381	0.346
800	0.411	0.458	0.417	0.497	0.513	0.598	0.436	0.385
750	0.470	0.483	0.456	0.540	0.558	0.647	0.499	0.427
700	0.540	0.511	0.500	0.591	0.615	0.698	0.571	0.481
650	0.620	0.547	0.547	0.648	0.683	0.751	0.653	0.544
600	0.723	0.591	0.605	0.740	0.763	0.811	0.745	0.615
550	0.878	0.643	0.676	0.866	0.865	0.897	0.850	0.697
500	1.008	0.702	0.774	1.016	1.017	1.005	0.985	0.845
450	1.307	0.872	0.915	1.191	1.224	1.187	1.181	1.023
400	1.597	1.134	1.160	1.390	1.550	1.401	1.472	1.231
350	1.956	1.495	1.494	1.651	1.968			1.465
300					2.390			
HEIGHT	SCALE HEIGHT, KM							
900	444.5	836.6	654.9	767.3	611.1	616.6	371.4	471.6
850	419.9	876.4	610.1	671.9	628.4	629.9	384.1	470.9
800	395.4	914.1	572.2	611.7	592.0	637.1	331.5	454.7
750	373.0	876.6	555.4	565.0	555.9	650.5	379.0	436.8
700	352.7	743.3	538.5	518.3	520.7	666.8	376.4	415.5
650	332.4	672.3	521.7	471.5	485.4	625.9	374.0	394.2
600	309.0	601.3	479.6	419.8	423.2	555.8	371.5	372.9
550	279.9	530.3	411.7	366.0	347.7	474.3	359.8	350.6
500	255.5	459.3	340.3	321.2	299.6	392.9	307.3	310.5
450	252.3	281.5	265.8	316.1	255.7	328.8	258.2	271.0
400	251.9	187.3	210.4	311.1	227.6	358.5	192.1	283.5
350	311.4	190.2	191.1	261.2	236.3			350.8
300					307.6			
LONG	-163.09	-152.22	-142.54	-133.92	-127.04	-121.50	-116.69	-113.21
LAT	80.29	79.96	79.05	78.03	76.69	75.25	73.67	71.95
QUAL	33	33	33	33	33	32	33	32

PASS 2944 AT COLEGE, 63 5 2  
 ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	234307	234343	234418	234454	234529	234605	234641	234734
1000	0.431	0.389	0.301	0.227	0.245	0.246	0.253	0.378
950	0.470	0.436	0.339	0.261	0.281	0.291	0.298	0.427
900	0.502	0.483	0.374	0.293	0.307	0.337	0.338	0.468
850	0.537	0.532	0.417	0.330	0.348	0.393	0.386	0.511
800	0.581	0.606	0.466	0.380	0.404	0.463	0.468	0.586
750	0.632	0.696	0.526	0.440	0.474	0.544	0.573	0.682
700	0.692	0.806	0.594	0.515	0.557	0.652	0.701	0.800
650	0.772	0.938	0.670	0.606	0.653	0.787	0.850	0.949
600	0.868	1.105	0.785	0.711	0.799	0.944	1.023	1.124
550	0.996	1.378	0.962	0.849	1.004	1.158	1.262	1.336
500	1.150	1.749	1.176	1.064	1.275	1.496	1.579	1.710
450	1.446	2.251	1.469	1.331	1.625	1.915	2.010	2.191
400	1.960	2.829	1.861	1.656	2.084	2.421	2.591	2.783
350	2.678		2.370	2.093	2.653	3.124	3.330	
300	3.501		3.041	2.690				

HEIGHT	SCALE HEIGHT, KM							
	659.7	458.3	450.0	381.7	430.1	305.2	340.6	499.1
950	659.7	458.3	450.0	381.7	430.1	305.2	340.6	499.1
900	692.1	446.4	467.4	385.7	431.5	313.3	329.8	478.1
850	662.6	430.6	445.5	376.6	394.7	308.6	316.6	448.5
800	614.8	400.6	423.2	356.2	352.7	300.2	299.0	404.8
750	566.6	370.6	398.9	335.8	319.4	291.7	281.4	361.0
700	515.5	339.6	374.7	319.1	299.3	279.9	265.3	320.6
650	456.3	307.5	350.5	304.0	279.1	267.1	258.0	299.8
600	397.7	274.1	321.3	288.9	254.1	254.3	250.8	279.1
550	346.2	235.5	287.0	269.7	226.5	237.8	237.6	256.9
500	294.7	212.3	252.7	240.9	212.8	214.6	221.6	220.9
450	203.1	210.5	229.9	224.6	208.5	205.3	207.2	224.4
400	169.2	241.5	215.5	221.1	206.0	206.3	200.6	266.4
350	177.0		206.3	209.3	226.3	248.8	234.7	
300	224.2		195.6	193.2				

LONG	-110.12	-107.48	-105.28	-103.38	-101.86	-100.42	-99.24	-97.71
LAT	70.26	68.45	66.65	64.78	62.93	61.01	59.07	56.19
QUAL	32	33	33	33	33	33	33	33

PASS 2944 AT FTMYRS, 63 5 3						
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)						
HEIGHT	TIME (UT)					
	235819	235855	235930	6	41	117
1000	0.202	0.200	0.210	0.201	0.227	0.213
950	0.237	0.228	0.241	0.225	0.258	0.243
900	0.265	0.255	0.268	0.253	0.287	0.272
850	0.301	0.291	0.309	0.289	0.329	0.314
800	0.345	0.339	0.360	0.336	0.388	0.369
750	0.400	0.397	0.425	0.392	0.460	0.439
700	0.465	0.470	0.508	0.470	0.559	0.531
650	0.575	0.572	0.608	0.565	0.683	0.642
600	0.744	0.764	0.742	0.697	0.829	0.780
550	0.977	1.021	1.043	0.995	1.034	1.125
500	1.307	1.398	1.448	1.402	1.581	1.601
450	1.833	1.940	1.987	1.931	2.384	2.261
400	2.735	2.960	2.914	2.940	3.564	3.470
350	4.360	4.677	4.542	4.496	5.260	5.315
300	7.038	7.524	7.167	6.781		
HEIGHT	SCALE HEIGHT, KM					
950	366.4	393.0	389.6	420.3	404.0	389.3
900	389.3	385.1	384.2	387.0	381.3	370.0
850	370.3	363.0	355.2	358.8	351.4	342.3
800	346.1	336.2	325.6	333.0	320.0	312.8
750	314.9	308.1	297.3	307.1	288.5	284.0
700	283.6	265.9	272.0	275.2	264.7	259.8
650	248.2	227.9	246.7	242.6	243.5	235.6
600	210.1	200.7	219.4	208.9	222.3	210.3
550	181.1	173.4	180.2	170.1	193.6	169.8
500	164.7	158.3	152.9	146.5	121.2	141.2
450	140.7	139.9	146.2	140.1	123.7	133.6
400	117.3	115.5	123.5	118.2	124.2	115.2
350	106.2	106.9	111.3	117.8	134.6	134.9
300	109.8	106.9	111.8	134.7		
LONG	-89.44	-89.20	-88.99	-88.77	-88.57	-88.37
LAT	20.17	18.13	16.15	14.12	12.14	10.11
QUAL	23	23	23	23	23	23

PASS 2944 AT QUITOE, 63 5 3  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	228	303	339	414	450	526	601	637
1000	0.189	0.202	0.200	0.205	0.193	0.189	0.183	0.195
950	0.210	0.227	0.224	0.230	0.216	0.215	0.214	0.232
900	0.237	0.256	0.254	0.263	0.248	0.251	0.257	0.288
850	0.270	0.292	0.290	0.304	0.290	0.304	0.330	0.375
800	0.310	0.334	0.335	0.354	0.352	0.403	0.455	0.512
750	0.372	0.399	0.407	0.445	0.468	0.572	0.629	0.685
700	0.454	0.487	0.505	0.577	0.680	0.825	0.877	0.956
650	0.571	0.623	0.675	0.830	1.052	1.228	1.297	1.416
600	0.747	0.832	0.977	1.355	1.670	1.957	2.015	2.129
550	1.049	1.225	1.615	2.341	2.845	3.199	3.187	3.124
500	1.588	2.052	3.218	4.133	4.883	5.008	4.622	4.182
450	2.673	4.179	5.978	7.203	7.665	6.998	5.793	4.925
400	4.769	8.166	9.818	10.701				
350								
300								
HEIGHT	SCALE HEIGHT, KM							
950	439.5	419.2	413.4	402.1	390.4	352.8	307.3	263.4
900	398.9	396.9	387.6	369.1	334.3	292.6	236.3	207.9
850	360.7	363.6	346.7	322.8	288.1	223.9	181.2	179.2
800	321.5	326.0	304.9	271.9	231.2	164.7	159.1	171.4
750	277.7	282.8	264.5	222.9	160.5	141.7	147.5	158.9
700	236.8	230.5	207.9	174.3	125.6	131.4	143.6	143.4
650	201.0	185.0	158.0	128.2	113.2	120.3	121.6	125.7
600	170.5	158.5	125.2	96.0	103.0	103.8	110.7	124.5
550	140.5	117.3	83.9	90.7	92.7	103.7	115.7	147.3
500	108.8	84.9	72.7	86.8	97.4	123.4	177.1	234.3
450	89.4	69.3	89.3	105.7	140.7	226.8	295.3	415.1
400	87.9	89.2	122.0	199.9				
350								
300								
LONG	-87.98	-87.79	-87.60	-87.42	-87.23	-87.04	-86.85	-86.66
LAT	6.09	4.11	2.07	0.09	-1.94	-3.97	-5.96	-7.99
QUAL	23	23	23	23	23	33	33	32

PASS 2944 AT QUITOE, 63 5 3  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)						
	712	748	935	1011	1046	1122	1215
1000	0.206	0.207	0.169	0.151	0.132	0.126	0.115
950	0.253	0.250	0.191	0.169	0.145	0.135	0.123
900	0.327	0.314	0.222	0.194	0.161	0.145	0.131
850	0.425	0.402	0.271	0.225	0.183	0.162	0.140
800	0.550	0.514	0.353	0.282	0.217	0.186	0.152
750	0.752	0.668	0.473	0.373	0.267	0.219	0.183
700	1.073	0.927	0.627	0.512	0.353	0.261	0.230
650	1.578	1.330	0.857	0.722	0.519	0.342	0.285
600	2.314	1.935	1.291	1.064	0.781	0.498	0.346
550	3.236		2.092	1.664	1.216	0.823	0.475
500	4.133		3.576	2.840	2.103	1.413	0.768
450			5.647	5.035	4.180	2.711	1.508
400				8.289	7.865	5.717	3.125
350						10.195	5.853
300							10.204
HEIGHT	SCALE HEIGHT, KM						
950	218.7	241.0	359.3	402.9	497.1	671.7	772.1
900	202.7	210.9	295.4	340.6	430.8	562.1	751.2
850	191.5	201.9	209.4	282.2	339.6	405.8	618.3
800	178.1	210.2	185.7	216.8	264.9	338.4	442.4
750	151.3	171.4	175.0	175.8	221.7	296.8	359.5
700	136.3	149.1	163.4	156.5	169.6	255.3	276.7
650	131.0	137.4	146.4	137.3	124.2	194.8	232.4
600	140.7	136.5	111.5	122.5	119.4	119.8	206.4
550	170.3		97.7	104.0	102.6	96.0	141.9
500	269.8		97.5	88.9	80.8	86.8	93.5
450			125.3	88.0	72.9	70.8	67.4
400				138.7	90.4	73.4	73.8
350						105.3	85.3
300							107.7
LONG	-86.46	-86.26	-85.62	-85.40	-85.16	-84.91	-84.52
LAT	-9.97	-12.00	-18.03	-20.06	-22.03	-24.06	-27.03
QUAL	32	33	33	33	33	33	33

PASS 2944 AT AGASTA, 63 5 3

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	917	952	1010	1121	1137	1211	1248	1326
1000	0.132	0.154	0.145	0.129	0.134	0.127	0.101	0.113
950	0.164	0.175	0.164	0.140	0.146	0.133	0.112	0.120
900	0.220	0.206	0.192	0.153	0.155	0.139	0.120	0.127
850	0.295	0.251	0.231	0.168	0.165	0.145	0.126	0.133
800	0.361	0.309	0.285	0.201	0.180	0.152	0.135	0.141
750	0.498	0.405	0.356	0.249	0.215	0.164	0.149	0.148
700	0.673	0.580	0.502	0.311	0.251	0.197	0.167	0.168
650	0.946	0.792	0.707	0.421	0.311	0.231	0.190	0.214
600	1.473	1.169	1.055	0.604	0.439	0.293	0.246	0.265
550	2.378	1.903	1.722	0.987	0.698	0.410	0.332	0.315
500	3.830	3.346	3.028	1.684	1.265	0.628	0.465	0.493
450	5.736	5.714	5.337	3.245	2.446	1.262	0.813	0.771
400	7.435		8.512	6.532	5.025	2.795	1.508	1.244
350				10.922	9.029	5.466	2.937	1.928
300							5.509	2.898
HEIGHT	SCALE HEIGHT, KM							
950	210.8	343.5	367.3	575.8	792.8	1143.6		
900	193.5	293.3	315.2	487.7	750.5	1028.7	846.8	966.8
850	186.3	252.5	268.9	399.6	636.2	913.8	772.0	869.0
800	190.2	217.0	233.9	340.2	481.7	798.9	608.6	763.3
750	175.6	183.6	196.3	293.5	288.3	600.2	511.1	657.5
700	157.1	153.4	147.0	226.8	264.6	272.1	417.8	511.9
650	135.4	144.8	135.8	172.4	192.2	253.5	324.4	315.1
600	110.8	112.6	114.6	123.5	130.5	190.7	216.3	227.2
550	101.3	95.9	95.8	101.6	100.3	136.0	154.7	199.2
500	111.7	90.4	85.4	85.1	80.1	101.7	124.6	123.2
450	154.2	104.0	87.9	71.4	71.9	62.8	87.9	110.1
400	248.3		156.9	84.8	76.9	64.6	78.7	105.4
350				128.2	95.3	84.5	73.8	117.3
300							93.5	127.7
LONG	-85.74	-85.52	-85.40	-84.92	-84.80	-84.55	-84.26	-83.94
LAT	-17.02	-18.99	-20.00	-24.00	-24.90	-26.81	-28.89	-31.01
QUAL	23	23	23	23	23	23	23	23

PASS 2944 AT AGASTA, 63 5 3  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)				
	1401	1437	1512	1548	1624
1000	0.115	0.111	0.106	0.099	0.095
950	0.122	0.120	0.112	0.103	0.098
900	0.126	0.126	0.116	0.108	0.102
850	0.132	0.133	0.123	0.115	0.106
800	0.139	0.142	0.130	0.125	0.112
750	0.153	0.153	0.141	0.136	0.121
700	0.168	0.169	0.158	0.148	0.132
650	0.190	0.189	0.179	0.162	0.144
600	0.223	0.229	0.205	0.177	0.159
550	0.280	0.305	0.258	0.194	0.174
500	0.401	0.428	0.356	0.290	0.242
450	0.668	0.640	0.583	0.452	0.365
400	1.061	1.050	0.905	0.745	0.672
350	1.570	1.537	1.331	1.184	1.112
300	2.094		1.085		1.619
HEIGHT	SCALE HEIGHT, KM				
950	1181.5		1212.7	1182.1	1537.9
900	1189.7	906.5	1000.2	916.3	1322.5
850	1002.4	816.7	863.2	788.9	1055.1
800	808.9	708.1	726.2	661.6	867.1
750	604.0	600.9	603.2	577.3	679.1
700	467.2	495.9	513.9	526.2	572.2
650	368.9	390.8	424.6	475.1	505.0
600	276.1	283.0	335.4	424.0	437.8
550	201.6	172.0	229.9	372.9	370.7
500	134.6	141.0	137.2	120.2	144.4
450	104.9	117.3	109.7	105.4	104.6
400	117.5	118.0	122.3	97.4	88.3
350	145.4	164.1	157.7	126.6	114.6
300	261.6		450.6		240.3
LONG	-83.64	-83.29	-82.94	-82.55	-82.12
LAT	-32.97	-34.97	-36.92	-38.92	-40.92
QUAL	11	22	21	23	21

PASS 2944 AT SULANT, 63 5 3  
 ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)		
	1548	1641	2431
1000	0.089	0.087	0.017
950	0.094	0.094	0.019
900	0.099	0.098	0.020
850	0.106	0.103	0.022
800	0.113	0.109	0.025
750	0.122	0.117	0.027
700	0.135	0.128	0.033
650	0.152	0.142	0.040
600	0.176	0.158	0.049
550	0.218	0.176	0.061
500	0.307	0.272	0.083
450	0.494	0.408	0.110
400	0.831	0.685	0.155
350	1.318	1.109	0.229
300		1.690	0.353
HEIGHT	SCALE HEIGHT, KM		
950	891.6	861.8	498.5
900	831.1	1102.7	503.1
850	732.9	939.2	463.2
800	649.6	782.0	423.2
750	569.0	641.6	383.2
700	487.2	532.2	341.2
650	404.9	459.7	298.5
600	311.4	387.3	255.9
550	193.9	314.8	216.0
500	128.4	174.0	192.1
450	101.9	112.2	168.2
400	103.8	97.8	145.2
350	133.7	106.9	124.5
300		198.7	120.4
LONG	-82.55	-81.91	-69.03
LAT	-38.92	-41.86	-67.12
QUAL	23	22	32



PASS 2950 AT AGASTA, 63 5 3  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	112501	112519	112554	112611	112648	112706	112741	112759
1000	0.142	0.138	0.122	0.128	0.126	0.125	0.130	0.128
950	0.158	0.152	0.136	0.144	0.141	0.141	0.147	0.150
900	0.173	0.166	0.150	0.158	0.156	0.156	0.162	0.166
850	0.190	0.181	0.166	0.174	0.171	0.171	0.178	0.183
800	0.208	0.198	0.184	0.194	0.191	0.192	0.199	0.203
750	0.241	0.237	0.215	0.228	0.230	0.222	0.229	0.234
700	0.265	0.296	0.255	0.274	0.283	0.261	0.269	0.287
650	0.340	0.376	0.306	0.332	0.359	0.308	0.317	0.360
600	0.463	0.488	0.409	0.444	0.481	0.396	0.433	0.486
550	0.659	0.668	0.587	0.621	0.658	0.593	0.640	0.692
500	1.010	1.008	0.841	0.893	0.950	0.858	0.945	1.052
450	1.548	1.548	1.353	1.399	1.482	1.392	1.512	1.612
400	2.305	2.323	2.069			2.093	2.220	
350	3.146		2.938					
300								
HEIGHT	SCALE HEIGHT, KM							
900	537.9	552.2	499.4	513.7	509.4	509.4	506.5	486.1
850	491.3	480.6	454.6	456.4	443.5	450.0	465.1	455.2
800	416.4	408.9	375.7	379.5	360.6	381.6	395.8	394.6
750	360.6	336.9	333.1	334.8	308.8	343.6	351.3	332.0
700	304.8	264.8	290.5	290.2	256.9	305.5	306.8	266.7
650	249.0	208.0	247.9	245.5	210.4	267.4	262.2	205.4
600	184.2	181.2	193.7	187.0	179.7	212.6	191.1	167.8
550	133.1	148.1	137.6	142.7	151.4	128.8	126.9	135.9
500	117.5	119.6	123.8	127.5	125.6	122.5	118.2	117.8
450	121.7	120.5	112.2	114.3	123.9	110.0	115.8	119.8
400	142.2	143.9	122.3			160.0	174.8	
350	194.0		204.3					
300								
LONG	-81.65	-81.55	-81.34	-81.24	-81.02	-80.92	-80.73	-80.64
LAT	-18.04	-17.04	-15.08	-14.12	-12.04	-11.03	-9.07	-8.06
QUAL	33	33	23	23	23	22	23	22

PASS 2950 AT AGASTA, 63 5 3  
 ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)	
	112834	112852
1000	0.096	0.145
950	0.112	0.162
900	0.125	0.180
850	0.140	0.201
800	0.159	0.228
750	0.183	0.261
700	0.220	0.319
650	0.277	0.397
600	0.350	0.495
550	0.506	0.695
500	0.812	1.089
450	1.375	1.739
400	2.172	
350		
300		
HEIGHT	SCALE HEIGHT, KM	
950		449.2
900	413.2	439.7
850	399.2	422.4
800	361.2	363.1
750	309.0	300.7
700	264.4	269.2
650	226.0	237.6
600	187.6	206.1
550	129.8	149.3
500	100.1	107.1
450	101.7	111.2
400	119.8	
350		
300		
LONG	-80.45	-80.35
LAT	-6.09	-5.08
QUAL	23	23

PASS 2950 AT QUITOE, 63 5 3  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)			
	113627	113738	113813	113849
1000	0.097	0.060	0.079	0.068
950	0.102	0.071	0.091	0.077
900	0.109	0.082	0.105	0.087
850	0.118	0.094	0.121	0.100
800	0.143	0.109	0.141	0.117
750	0.178	0.126	0.164	0.138
700	0.208	0.146	0.192	0.164
650	0.238	0.172	0.228	0.199
600	0.267	0.207	0.271	0.244
550	0.359	0.260	0.336	0.302
500	0.488	0.328	0.417	0.381
450	0.649	0.445	0.545	0.500
400	0.904	0.620	0.716	0.677
350	1.364	0.922	0.981	
300			1.399	
HEIGHT	SCALE HEIGHT, KM			
950	857.2		336.6	379.9
900	681.2	335.8	337.3	364.4
850	505.2	342.2	335.2	339.4
800	379.4	340.2	330.8	319.4
750	286.3	331.7	320.6	300.9
700	282.1	318.2	308.8	282.4
650	277.9	281.4	283.8	264.3
600	273.7	248.1	259.4	246.3
550	217.4	223.6	237.3	225.8
500	168.2	199.1	215.2	202.7
450	161.3	169.1	195.3	179.0
400	139.1	140.9	175.6	151.8
350	116.0	125.8	151.9	
300			126.2	
LONG	-77.81	-77.33	-77.07	-76.79
LAT	20.50	24.48	26.45	28.46
QUAL	33	33	33	33

PASS 2951 AT OTTAWA, 63 5 3  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	114119	114136	114230	114305	114323	114359	114434	114510
1000	0.060	0.055	0.055	0.053	0.045	0.050	0.053	0.057
950	0.069	0.062	0.063	0.059	0.052	0.057	0.064	0.065
900	0.078	0.071	0.071	0.070	0.059	0.066	0.074	0.074
850	0.089	0.082	0.082	0.081	0.069	0.076	0.084	0.085
800	0.103	0.097	0.096	0.093	0.081	0.088	0.096	0.097
750	0.119	0.115	0.113	0.110	0.095	0.101	0.112	0.111
700	0.139	0.137	0.134	0.129	0.114	0.119	0.134	0.131
650	0.166	0.165	0.159	0.151	0.137	0.140	0.161	0.156
600	0.198	0.198	0.188	0.184	0.163	0.163	0.193	0.185
550	0.250	0.242	0.223	0.224	0.199	0.197	0.236	0.226
500	0.315	0.311	0.288	0.284	0.258	0.251	0.290	0.282
450	0.422	0.399	0.368	0.367	0.330	0.317	0.353	0.348
400	0.583	0.547	0.509	0.494	0.440	0.412	0.468	0.465
350	0.801	0.750	0.707	0.666	0.596	0.571	0.626	0.632
300	1.090	1.042		0.925	0.888	0.800	0.905	0.875
HEIGHT	SCALE HEIGHT, KM							
950	377.6	370.5	386.0	460.8	356.7	366.1		361.6
900	365.5	345.2	364.8	345.3	340.3	357.3	354.6	370.6
850	355.4	323.2	343.7	335.9	321.7	346.3	351.4	360.5
800	342.7	311.2	321.6	325.9	302.0	334.0	328.6	344.9
750	330.0	299.1	299.5	314.1	287.0	321.4	312.1	329.0
700	312.3	286.4	288.2	302.2	277.5	307.8	299.3	311.5
650	281.1	269.8	278.5	289.1	268.0	294.2	286.5	294.0
600	249.9	253.2	268.8	262.7	258.5	280.6	273.6	276.5
550	225.9	233.8	257.3	236.2	243.9	262.0	256.3	255.7
500	201.9	208.6	219.4	211.2	219.9	236.0	237.8	232.8
450	157.8	184.4	181.4	186.6	195.9	210.0	219.3	210.0
400	160.1	170.1	164.0	174.6	173.0	185.2	191.0	184.5
350	162.6	159.0	146.2	165.7	150.5	162.3	160.6	161.0
300	165.2	161.3		152.0	92.9	146.8	138.1	156.7
LONG	-75.42	-75.24	-74.61	-74.17	-73.92	-73.41	-72.84	-72.22
LAT	36.85	37.80	40.81	42.76	43.76	45.75	47.69	49.68
QUAL	33	33	33	33	33	33	21	21

PASS 2951 AT OTTAWA, 63 5 3  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)					
	114545	114621	114656	114732	114807	114843
1000	0.053	0.055	0.071	0.076	0.056	0.073
950	0.061	0.064	0.081	0.086	0.075	0.092
900	0.070	0.073	0.091	0.098	0.090	0.102
850	0.080	0.083	0.103	0.112	0.107	0.120
800	0.092	0.095	0.116	0.130	0.129	0.140
750	0.106	0.110	0.132	0.150	0.154	0.164
700	0.126	0.131	0.154	0.174	0.181	0.193
650	0.151	0.156	0.179	0.201	0.211	0.229
600	0.179	0.186	0.208	0.233	0.246	0.270
550	0.223	0.223	0.255	0.282	0.298	0.316
500	0.277	0.271	0.312	0.342	0.364	0.368
450	0.341	0.334	0.385	0.426	0.442	0.484
400	0.458	0.445	0.515	0.550	0.533	0.628
350	0.638	0.620	0.688	0.734	0.741	0.800
300	0.935	0.848	0.974	1.033	1.112	1.069
HEIGHT	SCALE HEIGHT, KM					
950	359.2	368.2	396.4	395.5		284.1
900	361.9	378.2	407.2	378.9		320.4
850	350.2	359.1	398.2	362.3		318.2
800	336.4	332.3	377.3	355.8	286.1	316.0
750	321.7	319.4	356.9	350.0	304.5	313.8
700	302.4	311.3	337.1	337.0	317.0	307.0
650	283.2	303.2	317.4	318.5	298.3	296.1
600	263.9	295.2	297.5	298.6	280.5	285.2
550	246.0	279.0	269.9	273.9	265.1	274.4
500	228.3	252.3	242.3	249.2	249.7	263.5
450	210.5	210.2	214.8	222.9	234.3	240.0
400	177.4	166.8	188.4	194.4	218.9	216.6
350	144.0	161.1	163.7	167.5	187.2	193.6
300	138.7	162.3	158.7	163.3	140.7	181.4
LONG	-71.54	-70.76	-69.95	-68.96	-67.94	-66.68
LAT	51.60	53.58	55.49	57.44	59.34	61.27
QUAL	21	31	21	33	33	33

PASS 2951 AT RESLUT, 63 5 3

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	115352	115410	115428	115444	115502	115520	115538	115556
1000	0.157	0.223	0.157	0.171	0.175	0.176	0.152	0.198
950	0.183	0.254	0.176	0.198	0.202	0.210	0.183	0.231
900	0.200	0.272	0.193	0.221	0.221	0.237	0.204	0.258
850	0.220	0.300	0.212	0.244	0.242	0.264	0.226	0.298
800	0.242	0.334	0.233	0.267	0.270	0.292	0.248	0.349
750	0.267	0.374	0.258	0.295	0.301	0.322	0.274	0.410
700	0.293	0.418	0.288	0.330	0.338	0.362	0.303	0.487
650	0.325	0.467	0.322	0.370	0.379	0.407	0.336	0.577
600	0.368	0.522	0.378	0.414	0.424	0.457	0.390	0.680
550	0.419	0.587	0.449	0.474	0.492	0.514	0.458	0.796
500	0.490	0.679	0.534	0.562	0.574	0.601	0.538	0.997
450	0.615	0.787	0.639	0.665	0.670	0.706	0.633	1.262
400	0.774	0.910	0.768	0.780	0.784	0.809	0.791	1.579
350	1.025	1.071	0.918	0.904	0.914		1.004	1.957
300	1.401	1.258	1.121				1.294	2.431
HEIGHT	SCALE HEIGHT, KM							
900	484.5	526.4	515.3	467.2	482.8		461.6	366.1
850	502.2	505.9	509.3	471.5	487.0	445.3	483.2	346.8
800	513.2	485.4	491.2	475.9	471.2	448.5	495.0	327.5
750	492.5	464.9	459.1	462.5	455.5	447.3	478.0	308.2
700	471.8	446.8	416.3	439.9	431.6	432.1	435.4	299.5
650	439.6	429.5	373.4	417.3	406.3	417.0	393.5	290.7
600	392.9	412.2	349.8	394.7	381.3	401.9	366.6	282.0
550	346.0	394.3	327.1	373.2	367.6	386.7	339.7	273.3
500	300.2	374.6	304.4	353.2	353.9	375.3	312.8	255.8
450	257.2	355.0	288.4	333.2	340.2	364.0	286.0	235.8
400	214.2	335.4	279.6	332.6	325.1	405.8	251.1	229.9
350	179.1	308.9	270.1	347.5	309.2		213.4	231.7
300	152.9	282.0	250.3				229.2	294.2
LONG	-41.51	-38.22	-34.43	-31.05	-27.11	-21.96	-16.81	-11.65
LAT	76.46	77.15	77.78	78.33	78.93	79.33	79.73	80.12
QUAL	32	32	32	32	32	32	32	32

PASS 2951 AT RESLUT, 63 5 3

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	115614	115632	115650	115708	115724	115742	115800	115818
1000	0.233	0.193	0.200	0.184	0.175	0.168	0.162	0.125
950	0.273	0.226	0.241	0.226	0.209	0.204	0.192	0.153
900	0.314	0.261	0.281	0.262	0.243	0.227	0.217	0.170
850	0.359	0.304	0.321	0.304	0.281	0.258	0.244	0.189
800	0.408	0.354	0.369	0.351	0.323	0.295	0.277	0.219
750	0.406	0.412	0.422	0.403	0.372	0.340	0.317	0.257
700	0.540	0.486	0.495	0.476	0.437	0.397	0.364	0.303
650	0.627	0.573	0.583	0.563	0.514	0.463	0.418	0.362
600	0.727	0.672	0.686	0.662	0.602	0.539	0.507	0.430
550	0.840	0.799	0.803	0.814	0.701	0.631	0.639	0.508
500	1.032	1.010	0.995	1.039	0.890	0.828	0.799	0.646
450	1.276	1.265	1.317	1.306	1.149	1.071	1.031	0.861
400	1.569	1.589	1.682	1.611	1.470	1.371	1.321	1.134
350	1.901	1.986	2.065	2.018	1.888	1.736	1.730	1.486
300		2.431			2.440	2.300	2.354	1.953
HEIGHT	SCALE HEIGHT, KM							
900	356.6	325.2	325.6	317.9	332.9	393.8	387.0	370.8
850	365.5	322.1	343.8	320.5	331.1	373.7	382.9	371.2
800	356.8	319.1	335.3	323.1	329.3	353.6	368.0	345.8
750	347.6	315.0	326.7	324.2	325.6	336.0	349.4	320.4
700	336.9	304.4	313.2	307.2	312.6	320.4	330.8	299.9
650	326.2	293.9	299.4	290.2	299.6	304.8	312.3	284.2
600	315.5	283.3	285.6	273.2	286.6	289.3	284.4	268.5
550	304.7	270.1	271.8	254.1	273.6	272.7	250.1	252.7
500	281.1	248.2	251.7	233.5	250.5	245.8	215.8	230.2
450	255.4	226.3	224.0	226.3	224.1	218.8	204.1	202.5
400	265.6	225.6	226.8	231.5	204.1	202.9	194.7	183.1
350	316.4	238.9	255.0	261.0	201.6	196.3	180.0	180.5
300		316.8			324.0	204.9	165.5	175.1
LONG	-5.82	0.22	6.25	12.10	17.10	22.72	28.34	32.67
LAT	80.27	80.34	80.41	80.33	80.08	79.81	79.53	78.98
QUAL	32	32	32	22	22	32	33	33

PASS 2951 AT RESLUT, 63 5 3

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)	
	115836	115854
1000	0.134	0.110
950	0.155	0.137
900	0.178	0.156
850	0.203	0.182
800	0.239	0.213
750	0.283	0.249
700	0.353	0.292
650	0.398	0.341
600	0.478	0.405
550	0.571	0.512
500	0.675	0.645
450	0.893	0.806
400	1.168	1.057
350	1.617	1.379
300	2.178	1.800
HEIGHT	SCALE HEIGHT, KM	
950	343.2	
900	337.0	325.2
850	329.8	323.6
800	319.5	322.1
750	309.2	314.3
700	299.0	298.5
650	286.3	282.6
600	272.1	266.3
550	257.9	248.6
500	243.7	231.0
450	209.7	213.4
400	175.7	197.6
350	161.0	189.7
300	179.7	187.4
LONG	37.00	41.34
LAT	78.44	77.89
QUAL	33	33



PASS 2957 AT RESLUT, 63 5 3  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	223218	223234	223306	223328	223346	223404	223422	223440
1000	0.159	0.178	0.201	0.185	0.183	0.185	0.215	0.223
950	0.189	0.212	0.234	0.214	0.209	0.215	0.261	0.263
900	0.212	0.230	0.262	0.239	0.236	0.242	0.298	0.302
850	0.238	0.255	0.296	0.264	0.265	0.266	0.338	0.341
800	0.274	0.284	0.335	0.300	0.302	0.304	0.387	0.390
750	0.317	0.321	0.378	0.342	0.345	0.348	0.442	0.446
700	0.367	0.363	0.436	0.393	0.396	0.403	0.516	0.520
650	0.433	0.413	0.504	0.454	0.463	0.473	0.602	0.611
600	0.509	0.493	0.581	0.524	0.542	0.555	0.701	0.716
550	0.596	0.590	0.674	0.602	0.632	0.650	0.852	0.855
500	0.699	0.708	0.813	0.710	0.758	0.763	1.062	1.078
450	0.855	0.852	0.978	0.849	0.913	0.911	1.296	1.328
400	1.042	1.018	1.138	0.992	1.089	1.087		1.592
350	1.264	1.225		1.128		1.250		
300	1.530							
HEIGHT	SCALE HEIGHT, KM							
900	373.9	465.2	395.1	419.4	392.4	401.2	349.2	358.7
850	374.3	445.5	391.7	420.9	395.4	412.1	359.5	371.2
800	360.1	423.3	383.3	400.4	378.7	384.3	351.8	355.5
750	345.9	398.5	375.0	379.9	361.0	356.5	343.4	339.7
700	331.8	373.7	361.1	362.5	344.4	335.4	327.1	323.5
650	322.3	348.7	346.9	352.3	332.0	330.2	310.7	307.1
600	312.9	321.8	332.7	342.0	319.5	324.9	294.3	290.8
550	303.4	294.9	319.6	331.7	307.0	319.7	273.1	274.0
500	292.9	280.1	312.3	324.9	295.2	310.5	249.3	256.0
450	275.8	280.9	308.1	319.6	283.5	291.2	262.5	259.2
400	260.2	281.8	351.6	368.0	333.7	324.2		318.8
350	261.4	298.3		470.3		587.7		
300	331.5							
LONG	-115.05	-112.16	-106.72	-103.95	-101.68	-99.55	-97.92	-96.29
LAT	77.34	76.72	75.44	74.46	73.66	72.84	71.96	71.09
QUAL	32	32	32	32	32	32	32	33

PASS 2957 AT RESLUT, 63 5 3													
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)													
HEIGHT	TIME (UT)												
	223458	223515	223532	223551	223609	223626	223644	223721					
1000	0.211	0.298	0.206	0.239	0.336	0.227	0.218	0.316					
950	0.246	0.333	0.247	0.288	0.377	0.273	0.257	0.352					
900	0.284	0.361	0.283	0.328	0.411	0.315	0.282	0.384					
850	0.326	0.397	0.323	0.372	0.462	0.356	0.317	0.429					
800	0.381	0.440	0.375	0.423	0.525	0.418	0.360	0.491					
750	0.445	0.495	0.436	0.491	0.601	0.491	0.410	0.568					
700	0.520	0.561	0.514	0.574	0.695	0.582	0.467	0.659					
650	0.619	0.679	0.609	0.670	0.803	0.695	0.564	0.769					
600	0.735	0.833	0.719	0.831	0.926	0.841	0.686	0.898					
550	0.876	1.013	0.862	1.048	1.130	1.053	0.836	1.043					
500	1.082	1.213	1.070	1.318	1.386	1.316	1.031	1.247					
450	1.311	1.432	1.317	1.627	1.642	1.624	1.262	1.511					
400		1.661	1.565	1.882			1.528	1.814					
350			1.757	2.089				2.155					
300								2.458					
HEIGHT	SCALE HEIGHT, KM												
	900	850	800	750	700	650	600	550	500	450	400	350	300
900	333.8	540.7	332.7	377.8	463.7	322.8	449.8	455.7					
850	332.0	499.1	337.7	364.9	431.6	335.5	415.9	429.8					
800	324.3	450.9	327.5	349.0	399.4	321.1	384.6	404.7					
750	316.5	392.1	317.3	328.3	371.1	306.7	354.2	379.6					
700	308.5	336.3	306.3	307.6	350.3	288.6	323.9	354.5					
650	295.8	309.9	295.0	286.8	329.5	268.0	299.7	337.8					
600	283.1	283.5	283.7	256.2	308.7	252.0	275.4	322.7					
550	272.8	278.2	270.9	222.6	291.3	243.8	256.5	307.5					
500	273.4	293.4	255.3	232.9	275.7	241.4	255.2	291.8					
450	340.3	319.8	276.2	293.7	298.2	290.9	258.3	276.0					
400		376.7	370.6	419.4			274.0	290.1					
350			537.7	699.2				327.6					
300								606.1					
LONG	-94.66	-93.48	-92.35	-91.08	-90.02	-89.16	-88.24	-86.60					
LAT	70.22	69.36	68.50	67.54	66.61	65.72	64.78	62.82					
QUAL	32	32	32	32	32	32	33	32					

PASS 2957 AT RESLUT, 63 5 3					
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)					
HEIGHT	TIME (UT)				
	223812	223830	223849	223907	223925
1000	0.216	0.215	0.235	0.240	0.251
950	0.247	0.236	0.258	0.267	0.279
900	0.276	0.261	0.280	0.288	0.304
850	0.311	0.292	0.304	0.313	0.332
800	0.351	0.331	0.333	0.344	0.366
750	0.397	0.376	0.368	0.383	0.407
700	0.461	0.426	0.417	0.435	0.457
650	0.536	0.497	0.476	0.512	0.524
600	0.623	0.584	0.551	0.611	0.613
550	0.721	0.694	0.669	0.735	0.724
500	0.866	0.852	0.814	0.889	0.894
450	1.130	1.070	1.045	1.095	1.116
400	1.455	1.393	1.338	1.376	1.390
350	1.860	1.942	1.724	1.778	1.673
300	2.452	2.803	2.228	2.433	1.923
HEIGHT	SCALE HEIGHT, KM				
950		514.9	584.2	607.7	546.5
900	415.7	466.6	587.8	606.1	556.5
850	401.2	428.9	563.0	555.7	524.7
800	382.3	402.2	502.5	493.8	490.9
750	363.4	377.0	447.9	419.4	445.1
700	346.3	352.0	405.6	360.9	393.8
650	329.1	328.4	363.2	331.3	353.1
600	311.9	304.8	320.2	301.6	317.8
550	294.8	277.9	275.0	276.0	281.8
500	271.4	241.3	230.9	254.4	242.0
450	233.6	207.9	219.6	233.2	237.1
400	202.0	173.9	208.2	211.0	256.1
350	193.2	144.6	197.0	178.3	301.1
300	175.5	156.1	204.4	162.7	498.6
LONG	-84.68	-84.11	-83.51	-82.98	-82.51
LAT	60.09	59.12	58.09	57.12	56.13
QUAL	32	32	33	33	21

PASS 2957 AT OTTAWA, 63 5 3

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)				
	224112	224223	224259	224334	224428
1000	0.302	0.250	0.218	0.210	0.214
950	0.346	0.278	0.255	0.250	0.250
900	0.387	0.317	0.297	0.292	0.290
850	0.429	0.367	0.344	0.338	0.334
800	0.512	0.432	0.394	0.387	0.391
750	0.621	0.524	0.486	0.452	0.477
700	0.757	0.636	0.601	0.557	0.583
650	0.923	0.769	0.739	0.684	0.712
600	1.132	0.939	0.910	0.833	0.879
550	1.375	1.150	1.134	1.021	1.075
500	1.706	1.394	1.396	1.267	1.384
450	2.161	1.790	1.736	1.555	1.804
400	2.650	2.317	2.213	1.969	2.320
350	3.091	2.941	2.791		2.879
300			3.189		
HEIGHT	SCALE HEIGHT, KM				
950	407.3	403.1	318.9	304.5	330.7
900	381.3	365.1	313.2	303.6	320.0
850	355.7	328.8	301.7	302.1	306.6
800	331.8	299.0	290.2	300.6	292.8
750	308.0	288.5	278.2	295.7	278.7
700	284.1	278.0	266.3	283.7	264.6
650	264.4	267.4	254.3	271.6	250.6
600	255.0	256.1	244.3	259.6	236.9
550	245.6	244.4	239.0	249.1	223.2
500	228.1	232.6	233.7	240.7	211.7
450	232.5	210.7	225.9	232.3	200.9
400	287.9	205.8	214.3	250.6	226.1
350	437.5	266.4	273.2		280.5
300			596.8		
LONG	-80.11	-78.90	-78.35	-77.88	-77.21
LAT	50.26	46.32	44.32	42.37	39.35
QUAL	33	32	32	32	33

PASS 2957 AT OTTAWA, 63 5 3  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	224521	224614	224708	224819	224854	224930	225005	225041
1000	0.198	0.192	0.194	0.221	0.205	0.196	0.191	0.184
950	0.228	0.230	0.227	0.262	0.241	0.230	0.229	0.225
900	0.265	0.272	0.267	0.302	0.278	0.272	0.269	0.263
850	0.311	0.321	0.313	0.340	0.322	0.322	0.312	0.298
800	0.364	0.374	0.367	0.407	0.381	0.381	0.371	0.351
750	0.436	0.440	0.448	0.492	0.451	0.466	0.461	0.413
700	0.551	0.536	0.549	0.594	0.546	0.588	0.573	0.490
650	0.690	0.651	0.669	0.730	0.664	0.735	0.706	0.598
600	0.854	0.806	0.838	0.896	0.803	0.934	0.901	0.728
550	1.074	1.008	1.042	1.114	1.045	1.193	1.140	0.880
500	1.349	1.249	1.300	1.488	1.442	1.523	1.420	1.199
450	1.670	1.638	1.716	1.988	1.959	2.135	1.970	1.749
400	2.172	2.187	2.249	2.661	2.676	2.930	2.782	2.524
350	2.814	2.825				3.937	3.830	3.627
300								4.927
HEIGHT	SCALE HEIGHT, KM							
950	326.1	283.5	313.2	319.2	321.2	296.3	295.9	
900	312.5	288.3	306.3	318.1	320.4	285.2	288.6	303.0
850	298.8	289.7	292.8	317.0	313.7	276.4	281.3	321.8
800	285.2	291.0	279.3	299.9	296.1	267.6	270.9	306.8
750	272.0	285.9	267.2	282.1	278.4	254.9	257.6	289.8
700	259.6	267.3	255.1	264.2	261.1	239.3	244.4	272.5
650	247.2	248.7	243.1	247.3	243.9	223.6	231.1	254.0
600	234.8	234.8	233.1	230.6	226.7	209.5	218.5	235.5
550	226.4	223.6	223.1	210.5	202.1	196.2	206.0	217.0
500	220.1	212.3	211.2	179.1	171.1	183.2	193.5	182.4
450	213.7	196.7	191.3	173.7	162.8	171.1	168.1	136.3
400	211.2	189.8	187.7	191.7	168.5	166.5	152.8	138.5
350	279.2	247.3				184.7	174.3	149.6
300								185.2
LONG	-76.63	-76.10	-75.61	-75.05	-74.78	-74.53	-74.30	-74.06
LAT	36.58	33.40	30.37	26.37	24.40	22.36	20.39	18.36
QUAL	33	33	33	33	33	32	32	22

PASS 2957 AT OTTAWA, 63 5 3  
 ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)
	225120
1000	0.194
950	0.225
900	0.263
850	0.307
800	0.359
750	0.440
700	0.558
650	0.703
600	0.897
550	1.155
500	1.462
450	2.064
400	2.940
350	4.158
300	5.673

HEIGHT	SCALE HEIGHT, KM
950	322.6
900	306.4
850	292.1
800	277.8
750	260.5
700	241.0
650	221.6
600	206.3
550	194.3
500	182.3
450	156.0
400	144.7
350	151.1
300	184.9

LONG -73.82  
 LAT 16.16  
 QUAL 22

PASS 2957 AT QUITOE, 63 5 3  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	225221	225254	225332	225407	225443	225518	225554	225630
1000	0.186	0.188	0.186	0.196	0.202	0.223	0.233	0.225
950	0.211	0.211	0.208	0.222	0.232	0.254	0.266	0.262
900	0.241	0.242	0.239	0.257	0.268	0.296	0.313	0.310
850	0.278	0.279	0.277	0.303	0.313	0.350	0.374	0.369
800	0.321	0.322	0.323	0.358	0.366	0.417	0.445	0.443
750	0.372	0.378	0.383	0.424	0.444	0.504	0.545	0.530
700	0.448	0.456	0.474	0.523	0.555	0.635	0.689	0.657
650	0.551	0.571	0.608	0.669	0.722	0.825	0.893	0.839
600	0.700	0.741	0.799	0.875	0.970	1.127	1.194	1.128
550	0.914	0.988	1.124	1.247	1.385	1.631	1.681	1.639
500	1.259	1.390	1.682	1.892	2.133	2.490	2.551	2.608
450	1.814	2.078	2.641	3.014	3.561	3.972	4.153	4.521
400	2.731	3.269	4.179	4.890	5.819	6.220	6.609	7.877
350	4.149	4.958	6.198			8.743	9.537	
300	5.899							
HEIGHT	SCALE HEIGHT, KM							
950	378.3	386.3	385.4	358.6	354.2	344.1	335.7	307.5
900	363.5	368.8	358.4	331.1	335.5	314.0	315.4	294.1
850	347.2	348.5	331.1	306.9	312.5	290.8	294.1	281.5
800	327.7	322.3	303.1	290.9	286.2	273.3	262.2	268.1
750	306.9	289.5	270.4	271.2	249.0	246.4	236.3	254.7
700	263.8	249.4	226.0	220.2	209.8	203.1	213.9	225.4
650	228.2	218.2	195.5	196.0	186.6	179.0	188.8	188.2
600	205.6	194.7	173.1	170.7	159.5	150.8	161.4	158.0
550	178.6	166.0	134.2	132.8	130.5	127.9	135.4	122.9
500	149.1	136.7	119.1	114.0	106.2	113.7	111.6	99.1
450	130.1	116.5	107.9	103.5	96.2	105.7	102.7	87.4
400	119.2	112.0	116.2	110.2	113.3	119.4	114.9	100.7
350	129.5	135.4	152.5			240.3	183.1	
300	179.1							
LONG	-73.46	-73.27	-73.06	-72.87	-72.68	-72.49	-72.30	-72.11
LAT	12.71	10.84	8.69	6.71	4.68	2.70	0.66	-1.37
QUAL	22	23	23	23	23	22	33	33

PASS 2957 AT QUITOE, 63 5 3  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	225705	225741	225816	225852	225927	230003	230020	230056
1000	0.222	0.213	0.217	0.207	0.186	0.170	0.173	0.189
950	0.257	0.244	0.246	0.237	0.213	0.196	0.197	0.213
900	0.301	0.282	0.283	0.274	0.247	0.229	0.229	0.245
850	0.356	0.329	0.332	0.320	0.292	0.270	0.271	0.286
800	0.422	0.385	0.401	0.384	0.359	0.329	0.330	0.343
750	0.497	0.470	0.496	0.481	0.459	0.418	0.420	0.425
700	0.624	0.588	0.634	0.608	0.602	0.538	0.539	0.532
650	0.793	0.777	0.808	0.766	0.783	0.689	0.688	0.673
600	1.104	1.123	1.141	1.089	1.089	1.251	1.287	1.280
550	1.676	1.871	2.274	2.296	2.443	2.297	2.234	2.189
500	3.023	3.464	4.163	4.027	3.757	3.583	3.476	3.495
450	5.554	6.382	6.427	5.522	4.960	4.814	4.712	4.887
400	9.484	9.313		6.541				6.435
350								
300								
HEIGHT	SCALE HEIGHT, KM							
950	323.7	350.2	377.7	363.7	359.8	342.2	366.0	394.6
900	311.8	336.0	333.3	335.4	316.5	313.3	322.6	351.2
850	298.9	313.5	290.8	288.9	271.7	276.9	275.0	302.0
800	279.5	283.1	254.0	236.6	223.8	221.0	221.3	242.6
750	260.1	244.5	221.2	216.9	194.8	199.5	199.5	217.3
700	223.7	204.6	196.9	197.1	176.4	179.0	178.4	192.0
650	186.0	166.7	172.6	177.4	158.0	158.6	157.2	164.8
600	147.0	121.6	134.8	134.4	130.4	79.7	80.5	86.4
550	102.0	88.0	79.5	78.3	93.1	97.6	102.2	99.9
500	81.0	80.4	90.6	125.7	151.1	143.2	140.7	129.2
450	84.9	91.1	188.9	225.0	239.6	214.7	211.1	165.0
400	113.0	239.7		485.7				224.6
350								
300								
LONG	-71.93	-71.74	-71.55	-71.35	-71.16	-70.95	-70.85	-70.64
LAT	-3.34	-5.38	-7.36	-9.40	-11.37	-13.40	-14.36	-16.39
QUAL	33	33	23	23	23	23	23	23



PASS 2957 AT QUITOE, 63 5 3  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)					
	230132	230247	230305	230341	230416	230434
1000	0.165	0.143	0.142	0.139	0.116	0.112
950	0.185	0.160	0.156	0.151	0.128	0.124
900	0.213	0.177	0.174	0.164	0.139	0.134
850	0.249	0.201	0.196	0.180	0.153	0.149
800	0.296	0.235	0.230	0.204	0.173	0.168
750	0.362	0.278	0.278	0.234	0.198	0.191
700	0.461	0.331	0.343	0.277	0.229	0.218
650	0.592	0.394	0.428	0.343	0.273	0.268
600	0.875	0.641	0.531	0.461	0.341	0.336
550	1.766	1.034	0.752	0.656	0.455	0.443
500	3.228	1.655	1.317	1.026	0.683	0.659
450	4.926	3.287	2.552	1.724	1.136	0.998
400	6.916	6.174	5.109	3.361	2.000	1.740
350	8.905	9.230	8.702	8.496	3.637	2.977
300					6.223	4.814
HEIGHT	SCALE HEIGHT, KM					
950	407.0	459.8	517.7	601.3	561.5	503.6
900	360.4	430.6	442.2	542.8	543.8	499.5
850	318.3	376.5	366.3	480.1	459.2	464.6
800	271.7	326.6	312.8	410.0	410.9	426.5
750	219.6	284.2	264.5	338.2	362.5	365.7
700	193.7	245.7	231.5	276.7	311.8	301.7
650	167.7	207.2	209.7	199.5	260.8	259.8
600	124.3	157.2	187.9	160.5	209.2	217.9
550	77.9	107.3	150.0	132.7	159.9	178.1
500	98.4	93.9	86.8	102.9	107.5	143.6
450	133.5	72.8	70.6	88.5	94.4	111.1
400	165.1	99.3	80.7	82.8	86.2	92.5
350	253.6	148.3	120.8	78.7	90.3	98.8
300					91.1	107.6
LONG	-70.42	-69.92	-69.79	-69.54	-69.27	-69.13
LAT	-18.42	-22.65	-23.66	-25.68	-27.64	-28.64
QUAL	23	23	23	23	23	23

PASS 2957 AT AGASTA, 63 5 3  
 ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	230305	230340	230416	230451	230527	230807	230843	230918
1000	0.169	0.144	0.125	0.119	0.108	0.084	0.082	0.076
950	0.183	0.156	0.135	0.128	0.117	0.090	0.088	0.082
900	0.198	0.172	0.149	0.139	0.126	0.095	0.093	0.087
850	0.218	0.191	0.166	0.155	0.137	0.100	0.098	0.092
800	0.254	0.211	0.185	0.174	0.151	0.106	0.105	0.099
750	0.302	0.233	0.207	0.198	0.174	0.112	0.112	0.106
700	0.366	0.283	0.232	0.225	0.204	0.119	0.121	0.117
650	0.472	0.370	0.281	0.272	0.241	0.134	0.137	0.130
600	0.621	0.482	0.357	0.339	0.285	0.154	0.157	0.146
550	0.886	0.657	0.493	0.456	0.336	0.183	0.190	0.178
500	1.498	1.067	0.737	0.655	0.539	0.232	0.247	0.238
450	2.967	2.004	1.223	1.064	0.858	0.374	0.351	0.357
400	6.008	3.934	2.239	1.790	1.462	0.648	0.579	0.621
350	9.895	7.299	4.125	2.989	2.325	1.111	0.982	1.045
300				4.629	3.384	1.707	1.608	1.683
HEIGHT	SCALE HEIGHT, KM							
950	688.0	568.4	566.5	629.4	663.1			898.0
900	559.7	494.2	485.5	530.3	620.2	911.0	855.9	836.9
850	419.0	449.6	440.5	471.7	586.3	871.3	799.6	770.6
800	347.5	410.7	412.4	415.0	413.9	793.8	720.0	680.1
750	279.8	371.8	384.3	369.5	362.8	720.2	640.4	589.6
700	224.0	288.7	356.3	324.0	315.9	644.7	553.3	515.1
650	196.7	187.0	282.7	267.6	283.7	494.4	441.7	442.3
600	167.8	169.8	184.0	206.9	251.5	334.9	330.1	369.5
550	126.7	141.4	150.2	165.0	219.2	258.9	246.2	247.7
500	84.1	92.6	116.6	126.9	114.0	179.5	177.8	156.1
450	66.3	77.4	90.1	101.2	102.0	99.8	126.7	112.5
400	83.8	78.5	80.1	94.1	100.2	92.8	98.8	94.7
350	135.0	81.7	90.0	109.0	121.0	99.4	97.9	97.9
300				112.5	139.4	188.6	144.7	139.7
LONG	-69.79	-69.54	-69.27	-68.99	-68.68	-67.04	-66.59	-66.12
LAT	-23.66	-25.62	-27.64	-29.60	-31.61	-40.52	-42.50	-44.43
QUAL	23	23	33	23	33	33	32	32

PASS 2957 AT SOLANT, 63 5 3  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)			
	230451	230527	230825	231536
1000	0.129	0.117	0.066	0.038
950	0.139	0.127	0.070	0.041
900	0.151	0.136	0.074	0.044
850	0.165	0.147	0.078	0.047
800	0.184	0.162	0.087	0.051
750	0.207	0.180	0.107	0.055
700	0.238	0.208	0.135	0.060
650	0.287	0.244	0.172	0.067
600	0.351	0.291	0.209	0.077
550	0.462	0.380	0.249	0.090
500	0.674	0.542	0.317	0.108
450	1.068	0.872	0.475	0.136
400	1.740	1.415	0.729	0.190
350	2.844	2.194	1.126	0.298
300	4.481	3.197	1.677	0.535
HEIGHT	SCALE HEIGHT, KM			
950	614.5	657.7	863.7	
900	573.6	656.2	854.0	661.1
850	516.6	563.5	656.6	653.2
800	441.2	488.5	510.8	628.0
750	378.3	413.6	435.5	597.4
700	321.4	356.9	360.2	539.6
650	276.8	305.5	285.0	396.8
600	232.3	252.3	253.7	353.8
550	169.7	183.6	236.0	310.8
500	117.7	121.4	163.7	259.6
450	107.9	105.1	120.8	199.4
400	100.8	108.4	118.0	144.2
350	106.8	123.6	116.3	98.3
300	110.5	146.8	184.7	103.0
LONG	-68.99	-68.68	-66.82	-56.25
LAT	-29.60	-31.61	-41.51	-64.79
QUAL	23	23	22	23

PASS 2963 AT QUITOE, 63 5 4  
 ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)		
	102727	102802	102838
1000	0.076	0.075	0.090
950	0.089	0.081	0.100
900	0.098	0.090	0.110
850	0.109	0.100	0.123
800	0.120	0.113	0.139
750	0.134	0.128	0.158
700	0.151	0.145	0.182
650	0.172	0.175	0.210
600	0.200	0.218	0.242
550	0.240	0.273	0.287
500	0.298	0.365	0.362
450	0.395	0.482	0.480
400	0.555	0.700	0.690
350	0.843	1.047	1.052
300	1.379	1.737	1.579
HEIGHT	SCALE HEIGHT, KM		
950	388.6	529.1	455.1
900	462.4	481.1	453.2
850	477.5	433.6	429.7
800	466.2	400.4	403.6
750	437.4	367.1	377.8
700	399.0	333.9	356.1
650	355.1	292.1	334.4
600	308.2	247.1	312.7
550	261.4	204.3	276.4
500	214.6	183.6	214.2
450	173.5	162.8	162.3
400	138.0	139.2	134.2
350	113.4	114.9	125.3
300	92.4	97.6	130.0
LONG	-62.97	-62.75	-62.51
LAT	17.67	19.64	21.66
QUAL	33	33	33

PASS 2963 AT SOLANT, 63 5 4  
 ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)	
	100419	100454
1000	0.052	0.064
950	0.054	0.068
900	0.056	0.072
850	0.059	0.076
800	0.064	0.081
750	0.069	0.086
700	0.074	0.092
650	0.080	0.100
600	0.087	0.108
550	0.097	0.118
500	0.109	0.133
450	0.124	0.150
400	0.146	0.179
350	0.174	0.215
300	0.215	0.277
HEIGHT	SCALE HEIGHT, KM	
950	1206.9	
900	1060.4	902.7
850	918.9	874.2
800	782.9	813.2
750	705.4	752.1
700	676.5	691.8
650	605.9	631.9
600	523.5	572.0
550	459.9	505.3
500	408.7	433.6
450	358.7	361.8
400	313.5	301.5
350	271.1	242.1
300	249.8	207.9
LONG	-76.72	-75.64
LAT	-59.46	-57.59
QUAL	22	23

PASS 2964 AT FTMYRS, 63 5 4						
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)						
HEIGHT	TIME (UT)					
	102820	102855	102931	103118	103153	103247
1000	0.112	0.111	0.110	0.075	0.071	0.058
950	0.122	0.129	0.124	0.088	0.081	0.069
900	0.132	0.143	0.139	0.102	0.093	0.082
850	0.144	0.158	0.156	0.118	0.107	0.095
800	0.158	0.179	0.177	0.139	0.126	0.109
750	0.177	0.204	0.202	0.164	0.148	0.125
700	0.202	0.232	0.232	0.193	0.174	0.144
650	0.233	0.265	0.265	0.237	0.208	0.169
600	0.284	0.305	0.321	0.296	0.268	0.197
550	0.350	0.388	0.404	0.367	0.341	0.229
500	0.474	0.489	0.509	0.463	0.434	0.284
450	0.605	0.637	0.668	0.586	0.552	0.355
400	0.945	0.822	0.897	0.763	0.720	0.445
350	1.380	1.125	1.222	0.980	0.945	0.592
300		1.602		1.250	1.238	0.778
HEIGHT	SCALE HEIGHT, KM					
950	580.5	406.5	420.2	321.8	363.2	
900	570.1	424.1	412.7	322.7	344.8	
850	527.9	413.8	398.2	315.3	322.4	340.4
800	485.6	395.1	379.4	303.5	308.1	345.9
750	432.4	376.4	358.3	288.1	293.7	339.9
700	371.7	357.7	337.2	272.8	279.3	329.1
650	311.1	339.0	316.1	258.5	263.6	314.9
600	261.2	315.9	284.0	244.7	243.3	300.8
550	211.3	257.9	243.2	230.9	223.0	286.6
500	168.6	202.1	204.9	215.8	208.5	260.2
450	147.2	191.7	183.7	204.6	199.3	231.2
400	142.5	181.2	172.8	203.7	191.0	204.1
350	132.1	159.9	180.8	204.0	186.2	189.9
300		150.8		202.9	182.4	175.8
LONG	-62.63	-62.40	-62.15	-61.30	-61.00	-60.49
LAT	20.65	22.62	24.64	30.63	32.59	35.61
QUAL	33	33	33	33	33	33

PASS 2964 AT OTTAWA, 63 5 4							
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)							
HEIGHT	TIME (UT)						
	103735	103811	103904	103940	104015	104051	104127
1000	0.063	0.061	0.069	0.107	0.099	0.061	0.079
950	0.081	0.081	0.092	0.130	0.114	0.082	0.097
900	0.094	0.100	0.114	0.156	0.134	0.102	0.115
850	0.110	0.119	0.138	0.186	0.159	0.122	0.135
800	0.129	0.140	0.169	0.220	0.188	0.141	0.159
750	0.154	0.176	0.210	0.263	0.221	0.175	0.185
700	0.185	0.219	0.259	0.318	0.267	0.222	0.220
650	0.220	0.269	0.315	0.381	0.321	0.278	0.262
600	0.260	0.327	0.383	0.464	0.384	0.344	0.321
550	0.308	0.407	0.477	0.569	0.476	0.436	0.404
500	0.425	0.510	0.586	0.691	0.589	0.550	0.540
450	0.567	0.630	0.711	0.846	0.722	0.682	0.721
400	0.742	0.766	0.882	1.070	0.905	0.879	0.950
350	0.956	1.038	1.149	1.358	1.235	1.154	1.267
300	1.250	1.366	1.437	1.722	1.622	1.503	1.657
HEIGHT	SCALE HEIGHT, KM						
900	300.8			275.2	308.5		291.7
850	292.7	234.3		277.9	304.1	231.4	299.6
800	285.1	245.3	237.0	280.6	299.7	244.6	302.3
750	278.0	245.2	240.5	276.8	295.3	243.8	305.0
700	270.8	245.1	244.0	269.8	282.7	238.8	288.4
650	263.7	245.0	247.6	262.8	268.6	233.8	266.5
600	256.6	244.9	249.1	257.7	254.5	228.8	229.3
550	248.7	239.6	244.7	253.2	243.9	223.6	196.9
500	225.3	231.4	240.4	248.8	233.5	218.5	193.6
450	202.0	223.2	236.1	239.4	223.2	213.3	190.3
400	189.9	215.0	229.9	218.9	211.6	204.6	187.3
350	191.9	190.0	220.5	218.1	196.4	193.7	187.2
300	198.8	197.8	254.4	235.0	205.3	187.7	188.7
LONG	-56.38	-55.62	-54.33	-53.28	-52.16	-50.86	-49.29
LAT	51.58	53.56	56.46	58.41	60.29	62.22	64.12
QUAL	32	33	33	32	33	33	33

PASS 2971 AT OTTAWA, 63 5 4  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	231735	231811	231915	231950	232026	232101	232137	232212
1000	0.212	0.259	0.182	0.161	0.175	0.174	0.171	0.168
950	0.255	0.308	0.223	0.192	0.201	0.199	0.197	0.192
900	0.293	0.367	0.261	0.222	0.228	0.228	0.224	0.218
850	0.325	0.435	0.296	0.251	0.260	0.261	0.255	0.249
800	0.381	0.513	0.349	0.293	0.300	0.299	0.291	0.285
750	0.459	0.621	0.416	0.342	0.350	0.345	0.339	0.333
700	0.555	0.772	0.496	0.402	0.418	0.408	0.400	0.392
650	0.668	0.954	0.600	0.478	0.507	0.488	0.481	0.471
600	0.818	1.182	0.722	0.566	0.616	0.603	0.587	0.567
550	0.999	1.472	0.861	0.672	0.766	0.761	0.721	0.713
500	1.208	1.825	1.077	0.884	0.976	0.976	0.915	0.905
450	1.506	2.321	1.399	1.153	1.265	1.271	1.177	1.162
400	1.956	2.950	1.799	1.491	1.634	1.650	1.529	1.495
350	2.544	3.700	2.285		2.107	2.125	1.978	
300	3.268		2.755		2.644		2.474	
HEIGHT	SCALE HEIGHT, KM							
950	326.9	287.3			381.0	377.6	376.8	386.7
900	329.5	283.3	310.9	331.1	377.0	367.3	378.4	380.9
850	332.1	277.0	320.4	342.8	359.4	356.2	364.9	364.7
800	320.1	270.6	307.0	329.0	332.3	344.7	346.5	346.0
750	304.6	262.7	292.9	315.1	301.4	325.8	319.1	317.5
700	289.0	253.4	279.1	299.7	279.5	294.5	288.0	289.8
650	273.4	244.2	268.9	282.4	265.1	263.4	267.4	267.8
600	261.8	236.4	258.8	265.1	250.6	232.7	251.5	245.8
550	251.3	230.3	248.7	247.5	228.7	212.2	233.9	229.6
500	240.7	223.6	233.0	226.8	201.4	198.4	210.9	214.3
450	223.9	214.0	212.6	206.2	198.0	194.1	198.3	205.3
400	199.6	217.7	208.7	198.1	196.7	195.6	195.0	200.3
350	199.4	260.4	220.6		212.6	200.5	208.2	
300	246.8		462.0		537.4		260.8	
LONG	-92.69	-91.91	-90.73	-90.16	-89.64	-89.15	-88.72	-88.31
LAT	53.48	51.50	47.97	46.02	44.02	42.06	40.05	38.10
QUAL	33	33	32	32	31	23	23	23



PASS 2971 AT OTTAWA, 63 5 4  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	232248	232323	232359	232435	232510	232546	232621	232657
1000	0.157	0.163	0.173	0.165	0.167	0.177	0.179	0.187
950	0.184	0.186	0.197	0.190	0.192	0.198	0.212	0.213
900	0.210	0.213	0.224	0.217	0.220	0.225	0.240	0.238
850	0.241	0.244	0.256	0.249	0.253	0.258	0.270	0.268
800	0.277	0.281	0.294	0.287	0.292	0.296	0.305	0.304
750	0.321	0.327	0.342	0.334	0.337	0.340	0.350	0.353
700	0.379	0.389	0.405	0.396	0.398	0.406	0.405	0.420
650	0.460	0.469	0.494	0.484	0.477	0.490	0.478	0.511
600	0.564	0.579	0.607	0.599	0.588	0.616	0.588	0.624
550	0.693	0.718	0.759	0.749	0.725	0.780	0.755	0.760
500	0.895	0.925	0.977	0.974	0.935	1.014	0.994	1.017
450	1.165	1.208	1.291	1.287	1.236	1.329	1.339	1.387
400	1.529	1.585	1.713	1.718	1.691	1.769	1.832	1.898
350	1.976	2.076	2.272	2.299	2.413	2.423	2.541	2.637
300		2.722		3.037		3.262		3.648
HEIGHT	SCALE HEIGHT, KM							
950	347.3	376.4	390.8	364.9	370.9	427.9		430.9
900	358.1	366.9	377.8	360.5	358.9	389.2	402.0	431.7
850	354.0	352.3	362.8	351.3	347.5	361.0	400.6	402.4
800	342.4	334.3	346.9	338.3	337.2	343.1	384.7	363.0
750	318.1	310.6	310.5	312.8	326.8	325.3	358.2	308.5
700	273.3	281.8	266.5	264.3	291.7	285.2	324.2	274.9
650	256.8	257.6	253.2	247.7	257.4	243.3	268.9	259.9
600	244.1	240.1	239.9	234.2	240.9	224.3	225.3	244.8
550	230.7	221.7	221.0	217.6	224.4	206.1	198.5	229.3
500	204.2	198.1	193.3	190.4	195.8	191.2	174.4	174.4
450	190.0	188.7	181.4	179.0	172.7	182.0	165.0	162.0
400	190.9	185.6	177.6	172.3	150.4	167.2	155.4	156.1
350	198.7	185.3	180.0	175.1	141.2	163.0	155.4	152.7
300		250.0		203.2		173.4		173.4
LONG	-87.93	-87.58	-87.24	-86.93	-86.64	-86.37	-86.11	-85.85
LAT	36.07	34.11	32.09	30.06	28.10	26.07	24.09	22.06
QUAL	23	22	23	23	23	33	33	33

PASS 2971 AT OTTAWA, 63 5 4  
 ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)
	232732
1000	0.185
950	0.216
900	0.241
850	0.268
800	0.300
750	0.344
700	0.399
650	0.477
600	0.597
550	0.762
500	1.018
450	1.396
400	1.947
350	2.747
300	3.822
HEIGHT	SCALE HEIGHT, KM
900	452.0
850	434.9
800	403.5
750	359.9
700	314.1
650	249.3
600	220.4
550	196.0
500	170.9
450	156.1
400	148.0
350	146.7
300	165.6
LONG	-85.62
LAT	20.09
QUAL	33

PASS 2971 AT QUITOE, 63 5 4  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	232919	232955	233010	233106	233121	233217	233252	233308
1000	0.170	0.154	0.153	0.172	0.180	0.203	0.211	0.234
950	0.192	0.175	0.175	0.196	0.206	0.237	0.253	0.287
900	0.219	0.201	0.204	0.228	0.241	0.287	0.316	0.367
850	0.253	0.234	0.239	0.266	0.285	0.355	0.401	0.473
800	0.294	0.276	0.283	0.319	0.355	0.460	0.528	0.606
750	0.351	0.328	0.347	0.393	0.450	0.601	0.712	0.816
700	0.420	0.398	0.425	0.497	0.589	0.802	0.953	1.098
650	0.518	0.484	0.541	0.638	0.772	1.075	1.300	1.496
600	0.639	0.613	0.690	0.811	1.010	1.508	1.811	2.042
550	0.782	0.891	0.869	1.217	1.701	2.389	2.822	3.208
500	1.141	1.285	1.335	2.120	2.851	3.945	4.598	5.082
450	1.693	1.878	2.326	4.006	5.013	6.714	7.461	7.847
400	2.500	3.119	4.448	7.332	8.367	10.737	11.059	
350	3.849	5.283	8.159					
300	5.780							
HEIGHT	SCALE HEIGHT, KM							
950	394.7	373.5	350.8	357.3	340.9	287.0	250.3	225.5
900	363.4	345.9	323.3	327.7	301.9	252.2	222.9	208.3
850	338.3	324.5	299.3	296.3	264.7	220.4	200.0	199.1
800	312.4	297.0	275.4	264.2	233.6	202.6	186.2	189.9
750	285.1	267.4	251.6	231.6	203.1	186.5	178.3	180.4
700	258.0	244.6	227.7	207.7	185.1	172.2	169.4	170.8
650	238.2	221.9	209.3	189.3	169.1	159.0	156.5	156.7
600	218.3	196.3	191.4	170.9	151.5	136.4	136.5	139.6
550	198.5	161.9	173.4	130.3	99.3	106.2	108.6	111.3
500	157.7	133.8	128.7	86.7	93.8	94.6	100.8	110.2
450	127.9	119.5	85.1	75.6	92.3	98.2	111.8	134.8
400	123.1	96.7	76.2	98.6	110.8	145.6	175.1	
350	119.5	104.8	96.5					
300	135.1							
LONG	-84.96	-84.75	-84.66	-84.36	-84.27	-83.97	-83.79	-83.71
LAT	14.05	12.01	11.16	8.00	7.15	3.98	2.00	1.10
QUAL	23	23	23	23	23	23	23	23

PASS 2971 AT QUITOE, 63 5 4

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	233405	233419	233515	233550	233626	233700	233717	233813
1000	0.290	0.336	0.341	0.324	0.310	0.304	0.281	0.244
950	0.335	0.400	0.398	0.381	0.363	0.356	0.336	0.293
900	0.438	0.474	0.468	0.451	0.425	0.423	0.396	0.356
850	0.542	0.576	0.560	0.554	0.522	0.503	0.464	0.433
800	0.708	0.751	0.732	0.724	0.688	0.640	0.562	0.521
750	0.952	0.983	0.970	0.948	0.916	0.853	0.701	0.648
700	1.269	1.296	1.287	1.248	1.215	1.130	0.877	0.814
650	1.704	1.698	1.691	1.629	1.593	1.504	1.100	1.017
600	2.422	2.427	2.367	2.256	2.185	2.020	1.722	1.525
550	3.625	3.574	3.421	3.254	3.095	2.904	2.557	2.431
500	5.405	5.191	4.861	4.569	4.309	4.093	3.764	3.758
450	7.755	7.151	6.559	6.023	5.657	5.454	5.382	5.631
400						6.633	7.002	7.798
350								
300								
HEIGHT	SCALE HEIGHT, KM							
950	240.4	281.0	316.6	290.3	320.2	307.2	293.0	268.6
900	224.6	255.8	280.7	257.4	269.5	281.0	300.6	263.4
850	208.9	233.1	235.0	232.2	232.2	241.5	282.6	253.5
800	196.7	215.3	216.6	216.0	215.3	218.1	231.2	238.0
750	186.0	197.6	198.3	199.8	198.3	201.8	215.6	220.1
700	174.2	181.3	182.2	185.4	184.4	185.5	199.9	201.9
650	158.5	165.7	168.1	172.1	172.7	172.2	183.3	183.7
600	137.4	140.9	147.7	152.3	157.9	158.1	131.7	137.8
550	125.3	132.6	139.6	143.9	149.4	143.8	128.4	111.6
500	129.8	143.1	134.1	166.1	169.0	159.0	134.3	119.1
450	166.5	202.6	234.1	292.8	298.9	220.2	160.2	137.3
400						340.8	252.4	183.0
350								
300								
LONG	-83.40	-83.33	-83.03	-82.84	-82.64	-82.45	-82.35	-82.02
LAT	-2.12	-2.91	-6.08	-8.05	-10.09	-12.01	-12.97	-16.12
QUAL	23	23	23	22	22	23	23	23

PASS 2971 AT QUITOE, 63 5 4

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)			
	233820	234059	234125	234216
1000	0.220	0.140	0.110	0.145
950	0.266	0.153	0.120	0.154
900	0.326	0.168	0.133	0.164
850	0.400	0.190	0.150	0.175
800	0.488	0.220	0.174	0.193
750	0.644	0.255	0.204	0.216
700	0.871	0.309	0.241	0.244
650	1.179	0.388	0.295	0.278
600	1.620	0.518	0.405	0.316
550	2.401	0.767	0.558	0.370
500	3.727	1.263	0.881	0.505
450	5.726	2.427	1.553	0.753
400	8.146	4.966	3.566	1.264
350		9.136	7.475	2.294
300				3.768

HEIGHT	SCALE HEIGHT, KM			
950	256.6	561.4	544.6	836.2
900	242.5	474.0	453.5	739.7
850	229.4	384.0	385.7	625.8
800	216.3	328.9	356.3	549.2
750	198.7	298.7	326.8	472.6
700	179.4	250.5	268.8	412.4
650	161.6	201.5	214.8	368.8
600	146.2	153.0	179.9	325.2
550	123.6	115.7	145.0	273.3
500	115.7	88.3	113.3	180.1
450	126.0	73.0	74.5	119.3
400	174.3	75.5	63.5	91.6
350		91.3	79.4	91.8
300				114.5

LONG	-81.98	-80.93	-80.73	-80.32
LAT	-16.52	-25.46	-26.92	-29.78
QIAL	23	23	23	23

PASS 2971 AT AGASTA, 63 5 4  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	233920	234013	234049	234124	234200	234253	234329	234404
1000	0.205	0.196	0.188	0.127	0.129	0.118	0.114	0.107
950	0.241	0.214	0.203	0.138	0.139	0.128	0.122	0.114
900	0.265	0.239	0.221	0.152	0.150	0.136	0.130	0.121
850	0.339	0.278	0.247	0.171	0.163	0.146	0.141	0.129
800	0.420	0.330	0.285	0.195	0.184	0.160	0.154	0.138
750	0.534	0.405	0.335	0.224	0.214	0.177	0.172	0.150
700	0.689	0.524	0.418	0.269	0.253	0.201	0.194	0.167
650	0.888	0.706	0.540	0.333	0.300	0.237	0.231	0.191
600	1.234	0.983	0.756	0.440	0.367	0.269	0.281	0.235
550	1.950	1.483	1.148	0.608	0.502	0.374	0.344	0.298
500	3.373	2.508	2.028	0.990	0.734	0.523	0.491	0.420
450	5.856	4.883	3.783	2.102	1.194	0.820	0.742	0.647
400	9.016	8.801	7.310	4.811	2.217	1.354	1.193	1.062
350			12.552	9.112	4.526	2.135	1.899	1.670
300					8.562	3.240	2.814	2.331
HEIGHT	SCALE HEIGHT, KM							
950	296.7	495.0	665.0	558.9	678.1	752.5	768.3	961.1
900	279.6	402.1	506.7	454.3	590.5	773.4	692.0	823.6
850	257.4	331.7	411.1	407.5	472.7	630.5	603.0	756.2
800	234.3	270.2	338.7	370.3	407.7	518.7	521.2	651.4
750	210.8	224.4	275.1	333.1	367.9	439.5	428.4	521.3
700	192.7	193.2	227.2	276.7	328.2	354.3	341.7	426.7
650	176.3	166.4	183.2	208.8	288.5	289.0	299.5	332.2
600	132.5	141.0	144.7	174.5	242.6	227.1	257.4	263.2
550	102.7	111.6	104.8	137.6	172.4	174.7	214.7	199.5
500	85.3	84.5	61.3	89.4	122.4	138.2	153.1	146.5
450	101.4	72.0	75.3	55.2	90.5	106.8	116.1	111.1
400	139.3	101.0	78.1	67.6	75.8	104.3	105.4	105.7
350			128.4	89.9	71.5	115.5	115.6	125.7
300					92.7	135.7	210.6	205.8
LONG	-81.61	-81.25	-81.00	-80.74	-80.46	-80.01	-79.67	-79.34
LAT	-19.90	-22.88	-24.90	-26.86	-28.88	-31.65	-33.85	-35.80
QUAL	23	23	23	23	23	23	32	33

PASS 2971 AT AGASTA, 63 5 4  
 ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)
	234440
1000	0.095
950	0.103
900	0.110
850	0.116
800	0.125
750	0.136
700	0.152
650	0.173
600	0.200
550	0.262
500	0.402
450	0.649
400	1.031
350	1.638
300	
HEIGHT	SCALE HEIGHT, KM
900	810.9
850	725.9
800	629.5
750	529.2
700	441.7
650	366.5
600	291.3
550	172.8
500	121.5
450	109.0
400	107.0
350	132.9
300	
LONG	-78.96
LAT	-37.61
QUAL	33

PASS 2978 AT OTTAWA, 63 5 5

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	110915	110950	111026	111101	111137	111212	111248	111324
1000	0.101	0.096	0.088	0.093	0.072	0.073	0.067	0.065
950	0.117	0.111	0.102	0.109	0.082	0.084	0.079	0.076
900	0.134	0.129	0.121	0.128	0.096	0.097	0.092	0.089
850	0.155	0.151	0.143	0.149	0.112	0.114	0.106	0.103
800	0.179	0.176	0.169	0.174	0.132	0.133	0.124	0.120
750	0.211	0.207	0.198	0.206	0.160	0.157	0.145	0.141
700	0.251	0.247	0.238	0.245	0.195	0.192	0.171	0.165
650	0.314	0.307	0.284	0.291	0.241	0.232	0.203	0.197
600	0.397	0.392	0.347	0.351	0.298	0.285	0.247	0.236
550	0.524	0.513	0.428	0.435	0.380	0.349	0.301	0.288
500	0.701	0.670	0.554	0.556	0.496	0.436	0.382	0.364
450	0.932	0.883	0.724	0.717	0.657	0.566	0.506	0.483
400	1.223	1.170	0.992	0.957	0.876	0.739	0.675	
350	1.604	1.549			1.155	0.974	0.901	
300								

HEIGHT	SCALE HEIGHT, KM							
	110915	110950	111026	111101	111137	111212	111248	111324
950	346.0	326.8	307.7		326.7	329.6		
900	347.1	321.4	297.2	316.1	312.3	321.9	327.5	325.1
850	336.5	319.6	297.4	311.8	301.1	312.8	322.8	324.9
800	326.0	317.8	297.7	307.6	289.9	303.6	315.7	318.0
750	293.0	292.2	294.7	300.1	272.6	292.1	306.8	309.1
700	253.7	254.1	281.4	291.9	252.9	274.9	297.9	298.8
650	228.3	226.3	268.2	277.4	235.3	257.6	282.9	281.6
600	204.3	194.2	242.3	247.0	219.5	243.7	259.7	264.4
550	189.2	186.7	217.4	225.2	204.1	230.8	232.9	237.3
500	177.5	187.8	198.4	209.1	188.8	216.6	192.8	199.4
450	181.5	182.1	179.4	192.1	179.0	200.8	184.2	165.8
400	184.8	180.3	160.9	172.7	180.0	187.9	178.2	
350	177.2	180.8			190.0	178.7	169.5	
300								
LONG	-72.36	-72.03	-71.67	-71.30	-70.87	-70.43	-69.93	-69.39
LAT	32.61	34.56	36.57	38.53	40.53	42.48	44.47	46.47
QUAL	33	33	33	33	33	33	33	33



PASS 2978 AT OTTAWA, 63 5 5  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	111359	111435	111510	111546	111621	111657	111733	111808
1000	0.082	0.067	0.078	0.071	0.085	0.070	0.068	0.076
950	0.094	0.080	0.091	0.082	0.102	0.085	0.080	0.091
900	0.109	0.092	0.106	0.095	0.118	0.100	0.092	0.108
850	0.125	0.108	0.123	0.110	0.135	0.117	0.107	0.127
800	0.144	0.126	0.143	0.129	0.154	0.136	0.124	0.148
750	0.169	0.150	0.168	0.153	0.176	0.159	0.146	0.174
700	0.197	0.177	0.199	0.181	0.204	0.185	0.171	0.205
650	0.233	0.212	0.238	0.218	0.246	0.224	0.209	0.243
600	0.281	0.256	0.291	0.260	0.299	0.271	0.254	0.296
550	0.337	0.312	0.355	0.310	0.361	0.328	0.309	0.361
500	0.431	0.393	0.451	0.394	0.451	0.413	0.388	0.451
450	0.549	0.508	0.571	0.502	0.565	0.519	0.494	0.568
400	0.717	0.662	0.734	0.630	0.720	0.645	0.621	0.730
350	0.962	0.875	0.962	0.834	0.943	0.848	0.833	0.951
300		1.171	1.293	1.138	1.236	1.127	1.133	1.240
HEIGHT	SCALE HEIGHT, KM							
	900	346.8	317.7	326.5	327.6	352.4	303.2	330.0
850	339.5	312.8	321.8	319.8	361.6	315.0	328.4	306.4
800	330.7	306.7	314.7	309.5	349.8	318.4	314.7	309.1
750	319.5	297.2	301.0	296.6	328.0	304.7	298.6	300.2
700	308.3	287.7	287.3	283.8	307.1	291.1	282.8	291.3
650	291.2	275.5	271.5	272.3	289.7	276.1	269.7	279.4
600	264.8	261.6	252.8	260.6	272.3	261.0	256.6	261.3
550	238.7	239.7	234.2	249.2	254.9	246.0	243.5	243.2
500	221.8	202.5	222.0	235.1	237.3	234.8	229.4	227.8
450	204.9	195.7	210.5	220.8	219.8	224.0	214.9	213.3
400	187.0	188.3	195.8	206.6	202.0	213.1	200.4	201.0
350	168.2	178.7	178.1	176.8	188.2	187.0	174.9	192.4
300		164.5	161.2	145.4	208.0	180.8	169.4	209.7
LONG	-68.84	-68.16	-67.47	-66.67	-65.79	-64.81	-63.63	-62.39
LAT	48.41	50.39	52.32	54.28	56.19	58.16	60.09	61.96
QUAL	33	33	33	33	31	32	33	32

PASS 2984 AT QUITOE, 63 5 5

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)
	222219
1000	0.193
950	0.213
900	0.243
850	0.282
800	0.331
750	0.396
700	0.516
650	0.668
600	0.853
550	1.121
500	1.461
450	2.114
400	3.204
350	4.866
300	6.868
HEIGHT	SCALE HEIGHT, KM
950	439.3
900	370.8
850	332.3
800	293.8
750	258.8
700	240.5
650	222.2
600	203.9
550	185.0
500	166.0
450	134.2
400	119.7
350	130.2
300	212.5
LONG	-69.40
LAT	10.09
QUAL	23

PASS 2984 AT AGASTA, 63 5 5

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	223036	223130	223220	223314	223407	223500	223834	223927
1000	0.161	0.166	0.160	0.123	0.105	0.101	0.089	0.079
950	0.176	0.162	0.172	0.132	0.113	0.111	0.097	0.087
900	0.196	0.200	0.186	0.144	0.120	0.120	0.102	0.093
850	0.221	0.223	0.206	0.160	0.130	0.128	0.111	0.099
800	0.271	0.257	0.235	0.182	0.142	0.137	0.121	0.106
750	0.340	0.308	0.276	0.209	0.160	0.148	0.131	0.113
700	0.458	0.395	0.324	0.242	0.183	0.161	0.141	0.123
650	0.650	0.551	0.419	0.289	0.224	0.181	0.154	0.135
600	1.028	0.816	0.576	0.363	0.292	0.210	0.177	0.150
550	1.603	1.344	0.851	0.500	0.386	0.268	0.209	0.174
500	2.555	2.293	1.475	0.762	0.515	0.363	0.260	0.230
450	4.023	3.850	2.842	1.329	0.780	0.598	0.363	0.325
400	6.144	5.756	4.903	2.703	1.261	0.958	0.587	0.570
350		8.116	7.302	5.073	2.127	1.407	0.891	0.862
300				7.764	3.822		1.314	
HEIGHT	SCALE HEIGHT, KM							
950	494.0	549.9	714.4	600.7	743.1		876.8	
900	413.4	478.7	577.7	521.7	685.3	693.2	740.4	766.1
850	333.8	408.5	452.0	455.6	592.3	709.5	660.1	752.5
800	272.9	330.2	344.0	402.1	499.6	659.1	605.8	711.9
750	212.4	246.9	311.3	358.4	409.9	584.9	573.4	663.2
700	167.8	176.7	267.0	317.2	321.5	510.7	541.0	592.7
650	131.0	146.4	171.8	244.7	257.1	408.2	485.1	517.2
600	112.4	119.0	138.3	188.1	212.8	290.8	371.8	434.6
550	110.7	94.1	113.6	150.1	176.5	210.6	273.8	261.8
500	108.6	95.6	83.4	111.5	152.1	141.8	205.1	171.8
450	113.5	110.2	79.2	78.2	117.0	104.2	125.8	117.6
400	127.9	133.0	113.7	68.8	102.1	118.9	113.3	105.1
350		167.0	146.2	98.5	86.1	151.1	123.6	121.7
300				149.7	94.0		173.3	
LONG	-66.66	-66.31	-65.97	-65.57	-65.15	-64.69	-62.25	-61.44
LAT	-17.98	-21.02	-23.83	-26.85	-29.82	-32.79	-44.65	-47.56
QUAL	23	23	23	23	33	33	33	33

PASS 2998 AT RESLUT, 63 5 6  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	223524	223542	223600	223617	223635	223653	223711	223729
1000	0.138	0.158	0.149	0.161	0.166	0.203	0.178	0.180
950	0.157	0.175	0.169	0.177	0.187	0.218	0.195	0.193
900	0.179	0.194	0.192	0.197	0.210	0.237	0.216	0.214
850	0.203	0.216	0.218	0.222	0.238	0.261	0.241	0.237
800	0.232	0.245	0.248	0.251	0.270	0.290	0.271	0.264
750	0.271	0.285	0.282	0.293	0.310	0.328	0.310	0.301
700	0.319	0.335	0.331	0.345	0.363	0.389	0.364	0.352
650	0.376	0.396	0.391	0.411	0.427	0.465	0.429	0.414
600	0.466	0.484	0.472	0.496	0.505	0.557	0.514	0.495
550	0.580	0.590	0.586	0.598	0.615	0.664	0.626	0.595
500	0.717	0.714	0.726	0.716	0.747	0.786	0.758	0.713
450	0.896	0.869	0.893	0.863	0.899	0.932	0.910	0.847
400	1.143	1.114	1.139	1.120	1.153	1.229	1.128	1.081
350	1.444	1.409	1.435	1.428	1.483	1.614	1.521	1.392
300	1.823	1.757	1.825	1.776	1.911	2.167	2.043	1.798
HEIGHT	SCALE HEIGHT, KM							
950	380.8	478.6	392.8	503.8	433.0	659.2	512.7	734.9
900	383.7	446.2	391.9	433.0	403.2	536.3	456.2	501.4
850	363.6	407.4	383.7	398.9	384.4	483.5	424.0	458.8
800	341.9	371.3	364.6	364.8	365.6	430.6	391.8	416.2
750	318.9	341.1	344.8	333.4	345.8	381.8	359.6	376.5
700	295.8	311.0	313.8	302.4	324.8	343.1	327.2	339.3
650	272.8	284.1	282.7	279.8	303.7	304.4	294.8	302.1
600	260.2	273.9	262.3	272.3	284.2	281.0	275.1	285.2
550	248.7	263.8	252.5	264.9	269.6	270.3	264.4	274.5
500	237.2	253.6	242.8	257.4	255.0	259.6	253.8	263.9
450	227.9	243.5	233.1	248.1	240.3	247.1	243.1	253.2
400	221.5	233.7	224.1	228.4	224.4	210.8	224.1	231.3
350	227.3	224.0	214.0	222.5	208.3	182.9	184.4	206.7
300	269.3	275.2	172.5	260.4	232.0	197.9	204.8	181.8
LONG	177.46	-177.03	-171.52	-165.80	-159.74	-153.69	-148.09	-142.79
LAT	79.78	80.09	80.40	80.37	80.34	80.31	80.26	80.19
QUAL	21	23	21	21	21	23	23	23

PASS 2998 AT RESLUT, 63 5 6

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	223746	223804	223822	223840	223858	223915	223933	223951
1000	0.231	0.224	0.224	0.152	0.201	0.217	0.213	0.200
950	0.255	0.255	0.240	0.175	0.223	0.233	0.231	0.222
900	0.288	0.289	0.265	0.193	0.251	0.258	0.258	0.255
850	0.326	0.325	0.295	0.216	0.281	0.285	0.289	0.294
800	0.368	0.364	0.330	0.246	0.317	0.322	0.325	0.333
750	0.423	0.414	0.371	0.286	0.358	0.373	0.375	0.379
700	0.495	0.473	0.459	0.335	0.414	0.437	0.437	0.432
650	0.580	0.542	0.574	0.400	0.486	0.514	0.512	0.509
600	0.688	0.643	0.715	0.487	0.571	0.613	0.616	0.603
550	0.842	0.826	0.886	0.592	0.670	0.728	0.742	0.716
500	1.026	1.053	1.092	0.713	0.821	0.861	0.888	0.865
450	1.241	1.321	1.329	0.939	1.063	1.022	1.124	1.128
400	1.563	1.628	1.659	1.224	1.393	1.390	1.483	1.464
350	1.993	1.965	2.131	1.661	1.912	1.864	2.023	1.911
300	2.467	2.259	2.677	2.185		2.516	2.735	
HEIGHT	SCALE HEIGHT, KM							
950	453.3		637.1		447.3	667.3	539.6	421.5
900	412.5	413.7	483.3	447.7	432.6	499.8	447.3	385.8
850	389.5	410.3	434.5	396.9	425.5	437.7	414.2	379.3
800	368.5	389.8	385.7	363.1	393.7	391.8	381.1	389.1
750	347.1	365.5	336.9	335.9	355.9	363.4	353.2	358.7
700	325.3	341.2	312.1	308.7	335.5	335.0	325.5	330.8
650	303.6	316.9	287.2	286.1	317.9	307.9	298.8	312.0
600	284.4	291.8	262.3	268.4	300.4	292.2	281.6	293.3
550	272.0	264.9	244.3	250.7	282.9	276.5	264.4	274.6
500	259.6	238.0	239.4	233.0	254.3	260.8	247.2	252.3
450	247.2	238.2	234.4	206.9	210.9	243.3	217.9	217.0
400	209.3	257.6	226.8	180.6	175.0	203.5	178.8	196.8
350	231.4	318.6	216.7	197.6	152.9	173.0	170.0	209.8
300	3833.9	912.8	202.8	239.0		182.3	174.7	
LONG	-137.79	-132.80	-128.86	-124.92	-120.99	-118.24	-115.47	-112.70
LAT	80.13	79.88	78.97	78.07	77.16	76.43	75.68	74.93
QUAL	21	21	31	32	33	22	33	33

PASS 2998 AT RESLUT, 63 5 6								
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)								
HEIGHT	TIME (UT)							
	224009	224027	224044	224102	224120	224139	224213	224231
1000	0.183	0.187	0.220	0.217	0.201	0.273	0.173	0.151
950	0.195	0.204	0.242	0.251	0.222	0.296	0.197	0.173
900	0.212	0.229	0.271	0.284	0.253	0.327	0.223	0.197
850	0.233	0.258	0.304	0.320	0.286	0.364	0.254	0.225
800	0.260	0.294	0.342	0.359	0.324	0.409	0.291	0.256
750	0.306	0.342	0.395	0.410	0.370	0.465	0.336	0.298
700	0.365	0.400	0.459	0.472	0.426	0.548	0.394	0.348
650	0.433	0.476	0.541	0.546	0.502	0.650	0.477	0.421
600	0.511	0.568	0.652	0.638	0.593	0.782	0.578	0.516
550	0.600	0.675	0.786	0.783	0.715	0.944	0.699	0.632
500	0.700	0.797	0.959	0.957	0.889	1.135	0.888	0.770
450	0.833	1.036	1.218	1.170	1.101	1.466	1.164	1.025
400	1.087	1.352	1.540	1.450	1.384	1.898	1.505	1.343
350	1.396	1.774	1.945	1.778	1.730	2.472	1.921	1.763
300	1.770	2.331			2.068	3.129	2.446	2.322
HEIGHT	SCALE HEIGHT, KM							
	950	703.3	510.9	484.3		458.0	552.8	402.5
900	556.0	420.3	444.4	403.6	411.2	467.3	389.3	382.0
850	480.9	390.4	410.3	405.4	395.8	432.6	372.4	367.9
800	408.6	360.8	377.3	383.9	376.7	397.9	347.7	350.2
750	351.7	331.9	349.2	363.0	354.3	362.9	316.4	318.6
700	294.8	302.9	321.1	342.4	331.6	327.5	291.0	287.0
650	287.6	288.8	296.9	321.8	307.6	292.0	275.3	269.7
600	283.3	276.9	278.9	301.6	283.5	271.5	259.7	255.7
550	278.9	265.1	261.0	282.9	263.8	255.4	244.1	241.8
500	274.6	253.3	243.9	264.3	249.4	239.2	226.9	227.6
450	264.5	226.8	228.9	250.9	235.1	214.4	208.6	205.6
400	233.5	197.8	227.0	254.8	240.3	196.1	201.2	185.8
350	202.0	171.1	268.6	232.5	260.9	202.0	207.3	183.9
300	166.8	1494.1			338.4	330.1	205.4	190.4
LONG	-110.34	-108.39	-106.55	-104.66	-103.25	-101.75	-99.34	-98.28
LAT	74.13	73.29	72.50	71.65	70.76	69.81	68.10	67.17
QUAL	21	31	33	31	21	23	23	23

PASS 2998 AT RESLUT, 63 5 6

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)						
	224249	224307	224325	224342	224400	224418	224436
1000	0.140	0.163	0.162	0.157	0.156	0.159	0.157
950	0.163	0.184	0.187	0.177	0.179	0.181	0.177
900	0.187	0.210	0.212	0.202	0.207	0.203	0.201
850	0.215	0.240	0.242	0.230	0.241	0.231	0.231
800	0.248	0.275	0.276	0.264	0.279	0.264	0.266
750	0.286	0.320	0.324	0.307	0.323	0.308	0.312
700	0.349	0.382	0.382	0.367	0.384	0.363	0.381
650	0.425	0.458	0.461	0.440	0.458	0.436	0.467
600	0.517	0.554	0.568	0.532	0.552	0.526	0.582
550	0.657	0.688	0.699	0.662	0.698	0.632	0.733
500	0.838	0.849	0.857	0.819	0.878	0.782	0.912
450	1.053	1.064	1.119	1.030	1.125	1.054	1.205
400	1.394	1.425	1.453	1.360	1.489	1.396	1.602
350	1.853	1.913	1.940	1.786	1.976	1.821	2.158
300	2.557	2.690	2.569	2.349	2.576	2.357	2.829
HEIGHT	SCALE HEIGHT, KM						
950	351.3	397.8	368.3	392.0	345.3	406.4	408.0
900	352.1	375.9	381.3	374.0	340.5	394.4	366.7
850	337.5	354.2	362.1	354.2	334.0	373.5	343.4
800	318.9	332.5	341.2	334.2	322.6	351.8	320.2
750	300.2	312.2	312.4	314.1	310.6	316.2	296.4
700	280.2	293.5	283.5	294.1	290.2	283.3	271.6
650	260.1	274.8	264.1	274.0	269.8	270.4	246.8
600	240.1	257.0	252.1	255.5	250.1	257.4	230.1
550	226.7	241.5	240.2	240.6	233.3	244.5	219.1
500	215.0	226.0	227.4	225.8	216.5	227.6	208.1
450	203.4	206.1	204.8	210.7	199.9	200.6	189.6
400	185.3	183.3	185.4	195.2	183.8	184.5	175.0
350	160.2	158.6	180.4	188.4	188.9	192.1	183.3
300	105.2	328.4	258.9	196.0	255.1	142.2	179.3
LONG	-97.22	-96.25	-95.44	-94.67	-93.85	-93.20	-92.56
LAT	66.25	65.31	64.36	63.47	62.52	61.55	60.58
QUAL	23	33	23	22	22	22	21

PASS 2998 AT AGASTA, 63 5 6  
 ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)						
	230820	230855	230931	231024	231118	231153	231211
1000	0.185	0.174	0.169	0.165	0.129	0.125	0.115
950	0.205	0.195	0.186	0.175	0.141	0.137	0.126
900	0.230	0.215	0.200	0.188	0.152	0.147	0.134
850	0.259	0.242	0.216	0.205	0.163	0.158	0.144
800	0.295	0.275	0.254	0.227	0.177	0.170	0.155
750	0.340	0.314	0.301	0.257	0.196	0.185	0.167
700	0.417	0.372	0.344	0.303	0.228	0.203	0.187
650	0.536	0.470	0.420	0.364	0.272	0.226	0.211
600	0.749	0.617	0.548	0.454	0.331	0.274	0.239
550	1.144	0.887	0.754	0.576	0.436	0.336	0.289
500	1.786	1.476	1.169	0.831	0.588	0.467	0.398
450	2.891	2.474	2.121	1.269	0.925	0.699	0.620
400	4.502	4.025	3.801	2.107	1.442	1.097	0.941
350	7.217	6.369	5.969	3.909	2.231	1.642	1.430
300		10.089	9.673	6.881	3.455	2.441	2.091
HEIGHT	SCALE HEIGHT, KM						
950	446.6	558.9	640.1	827.0			
900	424.7	480.0	560.4	632.7	670.5	701.2	735.0
850	396.3	429.2	480.6	523.3	639.6	675.9	673.5
800	352.1	388.8	380.1	449.9	518.0	617.1	607.1
750	297.1	336.2	316.9	379.0	406.9	542.7	540.7
700	244.8	249.0	291.9	313.9	351.6	467.1	478.5
650	194.0	210.9	245.7	255.1	296.3	391.1	416.3
600	145.4	171.3	187.3	219.7	241.8	301.2	354.2
550	115.6	124.2	144.5	183.2	194.1	211.3	245.7
500	109.2	96.1	95.8	136.8	147.2	157.4	142.8
450	105.4	101.0	78.4	109.5	113.0	121.5	119.1
400	113.5	109.7	102.6	86.5	114.6	118.3	120.3
350	110.1	103.2	107.9	88.7	113.9	127.1	126.3
300		150.2	114.6	94.3	126.2	125.6	129.6
LONG	-77.87	-77.65	-77.40	-77.02	-76.59	-76.31	-76.15
LAT	-19.24	-21.21	-23.23	-26.20	-29.22	-31.18	-32.18
QUAL	23	23	23	33	33	33	33



PASS 3011 AT RESLUT, 63 5 7  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	213127	213145	213203	213221	213239	213256	213314	213332
1000	0.199	0.192	0.191	0.169	0.207	0.178	0.215	0.241
950	0.240	0.221	0.240	0.213	0.232	0.221	0.266	0.269
900	0.268	0.249	0.265	0.243	0.254	0.247	0.302	0.294
850	0.301	0.281	0.292	0.274	0.285	0.279	0.347	0.330
800	0.340	0.319	0.321	0.309	0.323	0.318	0.398	0.371
750	0.386	0.370	0.375	0.358	0.367	0.366	0.461	0.424
700	0.442	0.436	0.443	0.418	0.426	0.426	0.534	0.500
650	0.514	0.517	0.514	0.494	0.504	0.506	0.617	0.598
600	0.602	0.627	0.591	0.585	0.599	0.604	0.754	0.726
550	0.744	0.797	0.697	0.721	0.736	0.760	0.936	0.900
500	0.946		0.917	0.914	0.920	0.969	1.176	1.141
450	1.183		1.179	1.156	1.162	1.223	1.473	1.452
400			1.476	1.420	1.431	1.501	1.823	1.813
350			1.730	1.654	1.699	1.735	2.193	2.176
300					1.949			
HEIGHT	SCALE HEIGHT, KM							
950		398.9			580.2			606.7
900	433.5	409.8	500.1	389.9	485.6	409.2	367.8	500.2
850	417.8	392.8	461.2	386.9	433.0	393.2	357.2	453.3
800	408.4	364.3	422.4	377.7	390.9	375.0	342.0	387.4
750	375.3	313.1	341.4	334.7	353.9	338.2	328.2	338.9
700	335.9	292.1	301.6	304.3	325.5	307.2	314.4	313.8
650	311.4	272.4	293.3	287.5	301.6	283.4	300.6	288.8
600	286.8	235.1	284.9	270.7	277.7	259.5	266.2	260.4
550	255.1	170.1	263.6	246.0	250.4	230.5	228.9	227.4
500	219.9		200.7	216.7	222.3	216.9	226.4	216.9
450	229.8		213.9	237.7	237.1	238.6	232.7	220.6
400			272.9	294.4	275.2	306.1	261.6	254.4
350			457.7	389.3	331.0	458.9	324.9	327.2
300					400.3			
LONG	-99.70	-97.09	-94.61	-92.76	-90.92	-89.17	-87.71	-86.37
LAT	75.51	74.74	73.96	73.11	72.26	71.46	70.57	69.67
QUAL	32	33	32	32	32	32	32	32

PASS 3011 AT RESLUT, 63 5 7  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	213350	213408	213425	213444	213502	213520	213537	213555
1000	0.222	0.206	0.237	0.260	0.277	0.249	0.219	0.266
950	0.270	0.257	0.280	0.311	0.310	0.280	0.258	0.300
900	0.310	0.294	0.319	0.354	0.345	0.309	0.292	0.337
850	0.353	0.339	0.361	0.403	0.387	0.346	0.329	0.380
800	0.399	0.390	0.407	0.461	0.438	0.392	0.371	0.429
750	0.460	0.451	0.463	0.534	0.500	0.455	0.432	0.489
700	0.535	0.522	0.531	0.625	0.581	0.532	0.509	0.558
650	0.637	0.619	0.632	0.740	0.689	0.623	0.602	0.637
600	0.774	0.764	0.764	0.893	0.842	0.752	0.727	0.769
550	0.968	0.966	0.946	1.105	1.041	0.910	0.910	0.943
500	1.231	1.223	1.197	1.397	1.295	1.139	1.152	1.173
450	1.564	1.529	1.528	1.783	1.616	1.430	1.459	1.470
400	1.943	1.877	1.962	2.244	2.010		1.840	1.893
350	2.282	2.245	2.465	2.722	2.489		2.304	2.518
300					2.981		2.822	3.373
HEIGHT	SCALE HEIGHT, KM							
900	369.3	354.0	390.4	378.5	442.3	460.1	411.8	420.6
850	378.0	351.1	399.2	370.7	416.9	412.7	392.2	402.5
800	368.5	345.3	390.2	355.0	388.8	368.7	370.2	381.7
750	343.0	331.1	361.7	331.3	358.6	347.4	333.0	364.1
700	315.1	315.1	331.1	306.8	313.9	326.1	300.2	346.5
650	277.2	270.9	290.5	285.6	273.5	304.8	276.7	328.9
600	243.3	228.2	253.6	251.4	252.5	274.6	251.6	288.0
550	217.8	215.9	223.7	226.1	238.4	243.9	224.3	240.6
500	213.3	221.9	213.6	213.4	231.8	232.0	217.0	229.0
450	223.0	236.6	204.2	213.1	229.0	219.2	215.2	211.4
400	275.2	277.9	215.5	238.7	232.3		220.1	188.1
350	390.9	374.9	274.8	279.6	259.2		236.7	173.6
300					377.7		296.5	186.7
LONG	-85.02	-83.82	-82.87	-81.80	-80.81	-80.03	-79.29	-78.51
LAT	68.77	67.86	66.97	65.99	65.05	64.10	63.20	62.24
QUAL	32	32	32	33	32	33	32	32

PASS 3011 AT RESLUT, 63 5 7  
 ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)				
	213613	213631	213648	213706	213724
1000	0.310	0.265	0.218	0.205	0.296
950	0.359	0.312	0.263	0.250	0.344
900	0.402	0.347	0.307	0.290	0.388
850	0.448	0.385	0.351	0.335	0.438
800	0.502	0.430	0.398	0.384	0.497
750	0.576	0.489	0.456	0.443	0.571
700	0.668	0.561	0.525	0.517	0.661
650	0.782	0.654	0.622	0.604	0.783
600	0.918	0.779	0.748	0.712	0.933
550	1.114	0.939	0.910	0.862	1.151
500	1.375	1.154	1.133	1.055	1.435
450	1.730	1.438	1.420	1.316	1.817
400	2.286	1.853	1.784	1.666	2.328
350	3.036	2.439	2.195	2.128	2.851
300	3.963	3.218		2.771	

HEIGHT	SCALE HEIGHT, KM				
900	446.0	471.6		341.8	409.0
850	425.6	445.9	375.1	348.8	394.7
800	394.1	416.3	372.3	340.0	376.7
750	365.8	387.1	352.2	330.6	349.3
700	337.5	351.8	332.0	320.8	318.7
650	312.1	303.2	290.0	311.1	291.9
600	287.2	280.5	262.1	294.9	265.5
550	257.8	259.2	244.4	264.3	243.2
500	228.2	239.8	232.0	239.7	222.2
450	200.8	216.3	223.6	222.4	210.0
400	179.2	191.3	234.6	210.3	227.1
350	182.3	181.3	281.5	196.0	290.6
300	222.5	194.4		265.9	

LONG	-77.84	-77.22	-76.63	-76.05	-75.55
LAT	61.28	60.31	59.40	58.42	57.45
QUAL	32	33	32	32	32

PASS 3019 AT OTTAWA, 63 5 8

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	111711	111746	111839	111915	111951	112026	112102	112138
1000	0.074	0.073	0.076	0.069	0.068	0.071	0.077	0.078
950	0.084	0.085	0.086	0.078	0.079	0.082	0.091	0.094
900	0.096	0.097	0.097	0.090	0.091	0.094	0.106	0.112
850	0.111	0.112	0.111	0.104	0.105	0.109	0.123	0.132
800	0.129	0.130	0.128	0.121	0.123	0.127	0.143	0.155
750	0.153	0.154	0.148	0.142	0.145	0.149	0.167	0.182
700	0.181	0.182	0.175	0.167	0.172	0.175	0.195	0.214
650	0.220	0.217	0.209	0.198	0.208	0.210	0.231	0.255
600	0.266	0.262	0.248	0.236	0.255	0.250	0.277	0.309
550	0.336	0.324	0.318	0.292	0.311	0.300	0.337	0.386
500	0.435	0.411	0.409	0.362	0.386	0.377	0.421	0.483
450	0.576	0.542	0.519	0.467	0.500	0.494	0.543	0.610
400	0.777	0.719	0.700	0.608	0.638	0.652	0.724	0.801
350	1.065	0.975	0.926	0.822	0.852	0.870	0.962	1.052
300		1.340		1.137	1.170	1.172	1.281	1.403
HEIGHT	SCALE HEIGHT, KM							
950	363.7	345.9	386.4	365.4	338.2	349.4		
900	348.3	343.0	380.5	350.4	332.4	340.8	327.5	291.0
850	338.0	328.5	367.9	339.2	322.9	331.3	327.7	300.2
800	326.8	317.1	342.9	325.3	310.2	319.9	323.9	308.9
750	300.9	308.0	315.6	310.5	294.6	306.9	316.0	304.2
700	275.6	298.9	292.4	295.3	279.0	294.1	308.1	295.6
650	258.4	280.5	270.0	279.9	265.5	283.3	290.1	269.9
600	241.3	252.9	247.7	263.1	252.9	272.4	267.0	239.6
550	211.8	223.9	230.0	242.6	240.3	253.3	241.6	230.1
500	187.6	197.7	212.5	222.1	226.4	200.8	213.8	220.6
450	177.3	186.2	195.1	199.9	209.9	190.3	196.0	209.9
400	166.2	174.5	182.6	178.9	193.4	181.9	187.3	194.7
350	155.1	162.9	169.6	165.1	170.3	172.5	181.1	181.3
300		161.8		142.9	157.8	175.5	182.4	172.4
LONG	-79.10	-78.71	-78.07	-77.58	-77.05	-76.48	-75.86	-75.13
LAT	37.20	39.16	42.11	44.11	46.11	48.04	50.03	52.01
QUAL	23	23	33	33	33	33	32	33

PASS 3019 AT OTTAWA, 63 5 8  
 ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)				
	112213	112249	112324	112400	112451
1000	0.092	0.108	0.116	0.095	0.124
950	0.108	0.124	0.134	0.114	0.143
900	0.126	0.144	0.154	0.136	0.164
850	0.146	0.165	0.175	0.160	0.186
800	0.169	0.190	0.199	0.188	0.211
750	0.197	0.221	0.230	0.221	0.243
700	0.230	0.257	0.266	0.261	0.280
650	0.275	0.308	0.319	0.311	0.334
600	0.331	0.370	0.384	0.378	0.401
550	0.410	0.457	0.477	0.471	0.491
500	0.520	0.569	0.593	0.590	0.600
450	0.660	0.721	0.747	0.747	0.757
400	0.862	0.922	0.966	0.951	0.989
350	1.132	1.213	1.286	1.254	1.270
300	1.484	1.605	1.724	1.654	1.679
HEIGHT	SCALE HEIGHT, KM				
900	324.2	349.3	369.0	294.5	372.6
850	329.9	347.5	367.4	300.3	374.9
800	335.5	341.9	357.4	304.7	370.6
750	318.0	321.7	335.7	299.5	345.9
700	299.7	301.3	313.7	289.5	320.1
650	276.1	279.2	281.7	271.3	288.7
600	251.8	257.1	249.8	241.6	261.3
550	233.6	241.2	238.9	230.6	248.9
500	219.1	226.2	228.3	222.6	236.5
450	204.9	210.9	211.1	210.4	217.1
400	191.8	195.4	185.7	196.5	196.4
350	186.4	185.5	175.6	184.4	184.4
300	188.8	191.0	185.5	189.8	184.4
LONG	-74.37	-73.50	-72.52	-71.45	-69.23
LAT	53.93	55.90	57.80	59.75	62.93
QUAL	33	31	32	32	32

PASS 3119 AT RESULT, 63 5 8  
 ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)			
	112736	112753	112830	112923
1000	0.100	0.088	0.084	0.130
950	0.127	0.114	0.106	0.153
900	0.147	0.133	0.126	0.171
850	0.172	0.155	0.149	0.193
800	0.201	0.180	0.174	0.216
750	0.241	0.218	0.212	0.248
700	0.289	0.267	0.261	0.285
650	0.345	0.325	0.320	0.328
600	0.417	0.397	0.391	0.377
550	0.517	0.486	0.484	0.452
500	0.636	0.589	0.591	0.561
450	0.807	0.744	0.745	0.695
400			0.952	0.871
350			1.227	1.102
300			1.552	1.397
HEIGHT	SCALE HEIGHT, KM			
950	339.2	280.6	265.2	432.3
900	325.3	323.5	294.4	425.7
850	307.5	304.4	283.7	415.9
800	290.9	288.2	272.4	384.9
750	284.7	281.7	266.8	360.2
700	278.5	275.1	262.2	345.1
650	272.3	268.5	257.6	329.9
600	262.1	259.9	252.0	314.7
550	245.8	248.4	242.6	290.7
500	229.3	236.3	233.1	259.7
450	200.8	209.0	217.9	232.0
400			203.0	220.3
350			210.5	218.3
300			243.8	253.4
LONG	-59.81	-58.42	-54.43	-47.31
LAT	70.97	71.80	73.53	75.86
QUAL	33	33	32	32

PASS 3019 AT RESLUT, 63 5 8  
 ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)						
	112940	112959	113016	113053	113109	113127	113145
1000	0.138	0.127	0.156	0.184	0.156	0.159	0.117
950	0.165	0.151	0.171	0.206	0.186	0.188	0.151
900	0.195	0.173	0.188	0.227	0.205	0.213	0.173
850	0.222	0.190	0.210	0.249	0.230	0.242	0.194
800	0.252	0.209	0.235	0.276	0.263	0.277	0.240
750	0.290	0.243	0.267	0.307	0.303	0.318	0.306
700	0.335	0.288	0.306	0.342	0.352	0.365	0.392
650	0.387	0.346	0.352	0.382	0.412	0.432	0.469
600	0.459	0.414	0.405	0.450	0.501	0.542	0.552
550	0.551	0.491	0.465	0.534	0.609	0.679	0.640
500	0.662	0.578	0.573	0.635	0.749	0.837	0.792
450	0.792	0.684	0.711	0.764	0.925	1.037	0.988
400	0.973	0.829	0.899		1.152	1.321	1.267
350	1.168	0.992	1.150		1.414	1.672	1.648
300			1.445			2.064	2.162
HEIGHT	SCALE HEIGHT, KM						
950	298.2	372.3	545.4	522.8	503.9	418.9	303.3
900	351.2	450.7	489.6	507.7	450.0	395.8	363.9
850	367.1	485.8	445.0	476.3	386.6	370.8	306.8
800	359.0	406.5	400.0	458.9	367.4	350.5	291.9
750	349.9	380.9	376.8	441.4	348.1	331.7	277.2
700	340.8	355.3	362.9	424.0	328.8	313.0	262.6
650	331.8	329.7	348.9	406.5	308.5	291.4	267.5
600	307.9	308.4	335.0	335.3	283.2	264.5	272.9
550	276.8	301.7	321.1	285.4	257.9	237.7	278.2
500	269.8	294.9	270.5	273.4	244.6	231.1	246.6
450	264.9	289.6	223.9	244.1	235.6	223.5	216.8
400	259.7	287.4	209.3		248.5	213.9	201.3
350	290.9	323.2	218.6		274.4	217.7	186.8
300			292.5			330.4	235.6
LONG	-44.56	-39.06	-35.46	-29.18	-24.88	-19.47	-14.06
LAT	76.55	77.76	78.25	79.07	79.46	79.79	80.11
QUAL	33	32	32	33	32	32	32

PASS 3019 AT RESLUT, 63 5 8								
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)								
HEIGHT	TIME (UT)							
	113203	113221	113237	113256	113314	113349	113406	113424
1000	0.108	0.108	0.095	0.121	0.112	0.069	0.055	0.048
950	0.140	0.138	0.113	0.152	0.134	0.091	0.076	0.070
900	0.165	0.162	0.131	0.175	0.152	0.111	0.095	0.088
850	0.197	0.190	0.154	0.203	0.176	0.132	0.115	0.107
800	0.231	0.222	0.182	0.237	0.205	0.155	0.137	0.128
750	0.273	0.265	0.219	0.280	0.240	0.184	0.166	0.161
700	0.322	0.316	0.263	0.331	0.282	0.222	0.202	0.203
650	0.378	0.376	0.315	0.389	0.329	0.277	0.253	0.255
600	0.466	0.468	0.375	0.482	0.384	0.345	0.317	0.316
550	0.602	0.592	0.479	0.603	0.503	0.438	0.393	0.392
500	0.765	0.756	0.607	0.755	0.649	0.570	0.520	0.513
450	0.953	0.976	0.777	0.945	0.846	0.749	0.685	0.658
400	1.210	1.296	0.998	1.245	1.127	1.012	0.906	0.866
350	1.515	1.691	1.316	1.714	1.559	1.396	1.213	1.152
300	1.844	2.179		2.499	2.290	1.953	1.639	1.569
HEIGHT	SCALE HEIGHT, KM							
950	280.0	278.6	357.3	333.6	401.2	226.0	192.1	180.5
900	294.5	307.9	322.9	335.9	364.2	278.6	243.8	229.7
850	295.9	302.8	298.5	320.1	330.5	292.9	257.9	235.6
800	293.6	289.8	280.0	303.6	311.2	287.4	266.6	230.0
750	285.0	280.6	274.6	294.1	301.7	266.9	251.7	229.7
700	276.2	271.5	269.2	284.5	292.1	249.9	236.7	229.3
650	267.5	262.3	263.8	275.0	282.5	237.4	228.3	228.8
600	248.6	243.2	258.4	256.8	272.4	224.9	220.1	228.4
550	220.2	220.0	235.6	236.7	235.4	210.7	212.0	225.5
500	213.4	201.6	212.2	219.0	198.4	194.3	195.9	209.5
450	217.5	188.3	201.3	203.0	183.4	177.4	181.5	193.4
400	226.0	180.2	187.4	175.3	166.5	162.3	177.2	181.9
350	241.9	192.8	162.1	143.8	144.1	154.7	170.5	170.4
300	336.1	200.9		126.4	116.7	148.8	162.4	146.4
LONG	-8.54	-2.42	3.02	9.48	15.00	25.40	30.00	33.99
LAT	80.38	80.36	80.34	80.32	80.04	79.36	78.94	78.34
QUAL	32	33	33	32	32	33	33	33



PASS 3019 AT RESLUT, 63 5 8

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)		
	113442	113500	113517
1000	0.063	0.043	0.040
950	0.083	0.057	0.058
900	0.101	0.071	0.070
850	0.122	0.089	0.086
800	0.146	0.110	0.105
750	0.180	0.133	0.129
700	0.222	0.166	0.161
650	0.272	0.213	0.206
600	0.331	0.270	0.262
550	0.403	0.339	0.329
500	0.534	0.433	0.418
450	0.702	0.571	0.562
400	0.937	0.760	0.751
350	1.274	1.048	1.035
300	1.778	1.488	1.490

HEIGHT	SCALE HEIGHT, KM		
950	226.3	218.5	244.0
900	257.3	223.9	245.3
850	253.8	237.7	247.5
800	245.7	243.4	242.3
750	244.5	224.3	225.9
700	243.3	220.2	216.2
650	242.1	219.2	214.5
600	240.9	218.1	212.7
550	235.6	217.1	210.9
500	201.7	208.4	204.3
450	177.4	187.3	184.1
400	169.5	167.2	165.0
350	159.4	150.8	148.1
300	151.7	137.5	128.1

LONG	37.98	41.97	44.62
LAT	77.75	77.15	76.44
QUAL	32	33	32

PASS 3052 AT RESLUT, 63 510  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	213728	213745	213803	213822	213840	213915	213933	213950
1000	0.176	0.193	0.181	0.268	0.290	0.298	0.233	0.184
950	0.190	0.209	0.204	0.291	0.326	0.321	0.256	0.214
900	0.208	0.230	0.234	0.323	0.360	0.354	0.287	0.246
850	0.230	0.254	0.269	0.360	0.402	0.397	0.320	0.282
800	0.258	0.286	0.305	0.405	0.454	0.446	0.360	0.324
750	0.300	0.333	0.352	0.469	0.518	0.503	0.412	0.376
700	0.359	0.393	0.410	0.558	0.612	0.580	0.473	0.439
650	0.431	0.469	0.479	0.666	0.726	0.694	0.555	0.515
600	0.515	0.561	0.559	0.800	0.871	0.833	0.676	0.618
550	0.610	0.668	0.724	0.960	1.043	1.006	0.824	0.742
500	0.718	0.791	0.936	1.165	1.241	1.220	1.016	0.890
450	0.885	0.962	1.206	1.477	1.604	1.468	1.273	1.140
400	1.114	1.196	1.553	1.866	2.067	1.855	1.592	1.450
350	1.390	1.457	2.009	2.329	2.649	2.365	2.056	1.877
300	1.720	1.735	2.248	2.798	3.086	2.962	2.443	2.366
HEIGHT	SCALE HEIGHT, KM							
950	580.9	595.6	401.6	554.0	464.0	575.1	493.3	342.2
900	503.7	499.9	384.8	462.9	455.4	484.0	450.7	355.1
850	450.1	441.7	367.8	420.4	423.1	434.5	419.0	351.2
800	396.4	388.3	350.8	378.0	390.9	404.1	389.1	343.9
750	351.0	348.5	331.5	345.5	357.6	373.6	360.8	328.9
700	309.5	308.7	311.6	318.8	321.1	343.7	332.6	311.4
650	280.1	290.8	291.8	292.0	284.8	314.3	305.8	294.4
600	276.1	286.0	271.9	274.6	272.1	285.0	281.8	278.9
550	272.1	281.1	244.5	259.7	259.3	266.5	257.9	263.4
500	268.1	276.2	216.6	243.8	246.6	255.7	239.1	247.6
450	256.6	268.1	201.0	225.4	222.3	244.8	226.8	226.2
400	241.4	257.5	199.7	229.8	206.4	224.5	221.2	204.8
350	258.2	287.7	344.9	254.7	229.2	220.1	255.8	222.8
300	331.8	348.1	1088.1	318.2	1234.2	286.0	790.7	424.1
LONG	-109.34	-108.04	-106.52	-104.17	-101.94	-98.13	-96.53	-95.02
LAT	76.81	76.15	75.42	74.57	73.76	72.13	71.25	70.43
QUAL	32	32	32	23	22	33	31	32

PASS 3052 AT RESLUT, 63 510  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	214008	214026	214044	214119	214137	214156	214213	214231
1000	0.195	0.203	0.194	0.195	0.195	0.246	0.237	0.247
950	0.217	0.218	0.212	0.222	0.219	0.269	0.264	0.278
900	0.246	0.241	0.238	0.252	0.247	0.296	0.294	0.314
850	0.278	0.270	0.267	0.287	0.279	0.328	0.328	0.354
800	0.312	0.301	0.302	0.326	0.316	0.369	0.369	0.402
750	0.355	0.344	0.349	0.376	0.363	0.422	0.419	0.463
700	0.407	0.401	0.405	0.436	0.419	0.488	0.483	0.535
650	0.471	0.471	0.478	0.510	0.502	0.581	0.580	0.635
600	0.569	0.561	0.573	0.617	0.608	0.697	0.701	0.759
550	0.692	0.690	0.686	0.748	0.735	0.834	0.844	0.905
500	0.838	0.844	0.824	0.908	0.903	1.014	1.052	1.136
450	1.051	1.033	1.050	1.158	1.163	1.276	1.305	1.446
400	1.326	1.337	1.339	1.473	1.490	1.603	1.648	1.837
350	1.716	1.725	1.754	1.936	1.940	2.043	2.116	2.292
300	2.210	2.298	2.301	2.689	2.493	2.586	2.731	2.551
HEIGHT	SCALE HEIGHT, KM							
950	446.7	614.3	534.6	389.6	430.6	540.3	459.4	409.9
900	421.0	504.9	436.7	388.1	413.2	494.3	455.6	409.6
850	406.4	441.6	405.4	377.6	394.8	442.7	428.7	393.8
800	395.9	398.1	375.1	363.5	371.8	398.8	393.7	369.7
750	368.7	364.3	347.7	341.4	340.5	359.6	357.0	342.4
700	337.8	335.7	320.3	318.2	309.2	320.4	324.0	315.1
650	309.1	307.0	299.5	296.0	290.5	303.4	302.2	295.8
600	289.9	282.1	284.0	278.0	273.4	287.4	280.5	277.3
550	270.7	264.7	268.6	260.0	256.4	271.5	258.7	258.8
500	251.5	247.3	251.3	241.5	237.9	253.7	243.2	238.1
450	231.4	229.4	223.1	219.3	216.2	232.5	227.9	216.7
400	211.1	208.1	199.0	194.6	199.7	216.9	214.0	248.7
350	237.7	204.8	190.9	152.3	200.2	215.4	201.4	339.2
300	370.8	287.7	246.1	1648.2	329.0	210.2	1170.6	1210.4
LONG	-93.60	-92.42	-91.24	-89.24	-88.35	-87.40	-86.69	-85.99
LAT	69.53	68.61	67.70	65.89	64.94	63.95	63.05	62.09
QUAL	31	32	33	32	32	32	32	31

PASS 3052 AT RESLUT, 63 510

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	214248	214306	214324	214342	214359	214417	214435	214453
1000	0.189	0.180	0.175	0.152	0.154	0.139	0.179	0.194
950	0.210	0.196	0.196	0.179	0.180	0.164	0.203	0.221
900	0.240	0.225	0.227	0.202	0.205	0.189	0.235	0.254
850	0.279	0.259	0.261	0.231	0.235	0.217	0.275	0.295
800	0.321	0.297	0.300	0.264	0.271	0.250	0.322	0.344
750	0.370	0.349	0.350	0.315	0.314	0.291	0.376	0.400
700	0.441	0.420	0.411	0.378	0.381	0.353	0.442	0.490
650	0.527	0.505	0.498	0.462	0.468	0.428	0.555	0.606
600	0.629	0.618	0.606	0.571	0.574	0.531	0.695	0.747
550	0.787	0.772	0.739	0.702	0.725	0.679	0.862	0.951
500	0.969	0.958	0.953	0.872	0.914	0.861	1.106	1.208
450	1.245	1.239	1.224	1.136	1.186	1.103	1.406	1.587
400	1.585	1.604	1.588	1.462	1.627	1.443	1.830	2.116
350	1.985	2.068	2.006	1.865	2.135	1.885	2.381	2.790
300	2.294	2.443		2.344	2.723	2.442	3.025	3.428
HEIGHT	SCALE HEIGHT, KM							
950	407.4	474.9	397.2	379.0	357.2	331.9	358.2	369.2
900	375.0	388.9	354.6	385.2	359.6	347.6	338.5	346.3
850	347.3	349.6	346.1	354.2	343.9	339.7	319.3	324.4
800	330.3	323.0	335.0	322.9	320.7	319.9	303.3	304.2
750	313.3	302.6	309.2	295.5	297.4	298.9	287.4	284.0
700	295.7	284.8	283.7	268.1	277.5	274.5	271.4	266.6
650	278.1	267.0	267.4	251.1	258.1	250.0	255.7	249.5
600	260.6	250.0	251.1	242.1	238.7	231.7	240.0	232.5
550	244.8	234.0	234.6	233.0	221.2	222.0	224.2	216.5
500	229.4	218.0	215.0	223.1	204.0	212.3	213.1	200.7
450	219.4	206.4	201.0	211.3	189.7	202.5	202.3	184.8
400	217.9	202.2	213.4	205.1	179.7	192.7	197.6	181.4
350	248.2	232.0	236.7	216.1	182.6	194.5	206.9	214.1
300	1485.9	998.1		431.2	1215.2	274.7	316.3	455.5
LONG	-85.32	-84.66	-84.10	-83.54	-83.01	-82.55	-82.09	-81.63
LAT	61.18	60.21	59.24	58.26	57.34	56.36	55.38	54.39
QUAL	31	31	31	31	31	22	21	23

PASS 3052 AT RESLUT, 63 510  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)					
	214511	214529	214546	214604	214622	214640
1000	0.196	0.197	0.196	0.201	0.207	0.217
950	0.220	0.219	0.229	0.232	0.232	0.248
900	0.255	0.252	0.269	0.270	0.265	0.286
850	0.298	0.289	0.316	0.315	0.306	0.332
800	0.351	0.333	0.370	0.368	0.355	0.387
750	0.413	0.394	0.431	0.429	0.411	0.450
700	0.486	0.468	0.517	0.522	0.494	0.549
650	0.607	0.560	0.621	0.645	0.601	0.672
600	0.759	0.695	0.758	0.753	0.730	0.820
550	0.959	0.859	0.961	1.013	0.923	1.028
500	1.232	1.105	1.211	1.313	1.159	1.284
450	1.598	1.471	1.583	1.753	1.479	1.672
400	2.129	1.980	2.147	2.352	2.044	2.250
350	2.822	2.649	2.987	3.196	2.841	3.026
300	3.528	3.676	3.981	4.090	3.863	3.926
HEIGHT	SCALE HEIGHT, KM					
950	369.7	423.1	312.7	335.9	392.3	354.8
900	342.2	365.7	311.0	325.2	367.9	342.2
850	319.2	342.1	311.4	312.7	344.2	327.2
800	302.0	320.2	303.7	298.1	322.6	306.4
750	285.7	301.6	295.9	283.5	300.9	285.5
700	269.0	282.9	276.9	266.4	280.7	272.0
650	249.2	263.9	257.8	248.7	260.8	258.5
600	229.5	242.7	239.9	231.0	240.8	245.0
550	212.8	221.5	224.2	211.1	225.1	227.7
500	200.1	199.2	208.5	190.2	209.4	209.9
450	188.4	176.1	184.5	173.9	190.3	188.4
400	178.7	174.0	159.8	169.2	160.1	171.5
350	210.1	155.9	166.0	188.5	157.5	180.7
300	689.5	1003.8	210.0	368.7	218.8	251.1
LONG	-81.22	-80.84	-80.48	-80.11	-79.79	-79.47
LAT	53.40	52.41	51.48	50.49	49.49	48.49
QUAL	21	33	32	22	22	33

PASS 3052 AT OTTAWA, 63 510

\* ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	214725	214819	214948	215023	215059	215135	215228	215304
1000	0.227	0.210	0.199	0.200	0.207	0.219	0.223	0.220
950	0.261	0.235	0.220	0.222	0.236	0.252	0.253	0.252
900	0.298	0.271	0.249	0.250	0.269	0.287	0.289	0.288
850	0.342	0.315	0.285	0.284	0.311	0.327	0.332	0.331
800	0.395	0.363	0.327	0.324	0.359	0.377	0.383	0.382
750	0.455	0.421	0.378	0.376	0.416	0.437	0.442	0.444
700	0.538	0.496	0.446	0.448	0.502	0.526	0.527	0.537
650	0.646	0.595	0.540	0.545	0.611	0.639	0.652	0.653
600	0.787	0.728	0.657	0.670	0.756	0.790	0.821	0.831
550	0.966	0.911	0.827	0.858	0.966	1.027	1.077	1.065
500	1.236	1.170	1.062	1.121	1.280	1.381	1.439	1.443
450	1.614	1.522	1.398	1.492	1.743	1.861	2.011	2.024
400	2.142	1.987	1.859	2.037	2.422	2.604	2.916	2.943
350	2.817	2.597	2.461	2.792	3.350	3.656	4.264	4.548
300	3.571	3.225	3.206	3.682		4.865	6.032	6.953
HEIGHT	SCALE HEIGHT, KM							
950	365.1	395.9	474.0	444.4	398.6	371.9	380.2	367.7
900	360.0	364.7	399.4	405.5	366.9	368.4	364.5	361.5
850	350.4	344.4	372.9	377.9	343.6	354.3	350.2	349.4
800	336.5	336.9	356.8	353.1	326.8	334.3	338.0	324.1
750	322.6	322.3	325.8	320.7	308.5	312.3	323.4	297.8
700	299.0	294.8	275.0	276.9	276.4	279.7	255.0	268.6
650	271.5	261.8	259.1	248.6	246.6	247.4	229.3	239.5
600	248.0	235.0	243.2	226.2	222.0	215.8	208.9	213.9
550	226.1	217.0	217.3	202.9	192.1	179.7	188.6	188.6
500	202.1	200.9	193.3	183.6	173.3	170.4	168.3	158.8
450	183.8	190.5	180.9	169.6	157.5	159.8	142.4	142.4
400	180.4	187.4	177.3	160.1	153.3	148.0	133.3	124.6
350	194.7	206.2	184.2	170.0	163.5	156.8	131.6	110.6
300	235.7	321.1	200.9	185.4		204.6	205.6	132.6
LONG	-78.73	-77.95	-76.87	-76.50	-76.13	-75.80	-75.35	-75.06
LAT	45.99	42.99	38.01	36.05	34.04	32.01	29.04	27.01
QUAL	33	32	33	33	33	23	22	23

PASS 3052 AT OTTAWA, 63 510  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)			
	215339	215415	215509	215526
1000	0.222	0.219	0.230	0.233
950	0.253	0.246	0.257	0.260
900	0.288	0.281	0.295	0.298
850	0.330	0.325	0.343	0.346
800	0.380	0.377	0.401	0.405
750	0.440	0.439	0.470	0.473
700	0.534	0.544	0.577	0.581
650	0.658	0.679	0.727	0.732
600	0.846	0.878	0.943	0.949
550	1.101	1.108	1.255	1.261
500	1.527	1.639	1.753	1.760
450	2.208	2.384	2.612	2.621
400	3.342	3.751	4.157	4.169
350	5.417	6.214	7.043	7.061
300	8.725		11.469	11.494
HEIGHT	SCALE HEIGHT, KM			
950	378.0	390.7	394.7	396.0
900	369.2	366.0	364.3	365.6
850	353.2	340.0	334.0	335.4
800	329.6	310.5	306.7	307.9
750	304.7	281.0	279.4	287.5
700	261.4	251.7	247.3	248.3
650	222.7	222.8	213.4	214.2
600	201.8	193.0	189.1	189.7
550	178.5	164.8	165.5	165.9
500	146.5	142.3	138.0	138.2
450	129.8	122.2	118.8	119.0
400	113.5	103.9	97.8	97.9
350	98.2	99.5	94.7	94.7
300	123.4		138.0	138.1
LONG	-74.80	-74.55	-74.18	-74.07
LAT	25.04	23.01	19.97	19.01
QUAL	23	23	23	23

PASS 3052 AT QUITOE, 63 510  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	215727	215802	215838	215913	215949	220025	220100	220136
1000	0.238	0.263	0.281	0.321	0.322	0.309	0.298	0.303
950	0.279	0.312	0.321	0.375	0.361	0.351	0.348	0.346
900	0.330	0.371	0.375	0.432	0.415	0.405	0.396	0.403
850	0.390	0.441	0.444	0.508	0.485	0.470	0.459	0.472
800	0.477	0.533	0.529	0.634	0.582	0.553	0.548	0.570
750	0.598	0.702	0.679	0.794	0.707	0.693	0.662	0.754
700	0.746	0.918	0.875	0.991	0.857	0.872	0.816	0.989
650	0.953	1.191	1.136	1.264	1.067	1.117	1.004	1.350
600	1.215	1.580	1.503	1.591	1.335	1.455	1.499	1.845
550	1.663	2.051	1.951	2.036	1.653	1.978	2.365	3.193
500	2.478	3.071	2.815	2.955	2.537	3.252	3.975	5.189
450	3.763	4.766	4.305	4.469	3.892	5.502	7.078	7.989
400	6.121	7.422	6.662	6.927	6.209	9.087	11.091	10.991
350	9.643	10.872	9.882	10.349	9.633			
300								
HEIGHT	SCALE HEIGHT, KM							
950	300.0	281.8	349.4	314.2	389.3	370.9	333.3	337.2
900	283.5	266.7	314.1	295.3	351.9	337.3	332.0	308.0
850	267.0	251.6	279.9	277.1	314.6	304.9	312.8	278.7
800	251.8	236.4	246.4	260.1	288.7	273.8	283.5	248.8
750	237.3	220.9	226.6	243.2	269.0	248.4	253.6	216.8
700	222.7	205.4	206.7	226.3	249.4	223.1	222.5	184.8
650	203.4	190.1	190.2	212.1	227.5	198.6	191.5	156.5
600	182.9	175.7	179.2	197.9	205.1	174.8	139.6	129.6
550	156.2	161.4	168.1	178.5	182.6	142.2	105.8	98.3
500	124.2	125.6	129.1	134.6	135.7	98.8	86.4	107.0
450	115.3	112.1	117.4	117.2	113.3	96.0	96.2	130.6
400	101.8	120.3	115.9	121.4	109.5	105.0	136.2	214.9
350	120.6	148.6	147.5	144.0	120.0			
300								
LONG	-73.54	-73.14	-72.95	-72.76	-72.57	-72.38	-72.19	-72.00
LAT	12.18	10.21	6.17	6.19	4.15	2.12	0.14	-1.89
QUAL	13	13	13	13	13	13	13	13



PASS 3052 AT QUITOE, 63 510  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	220212	220247	220323	220359	220434	220510	220546	220621
1000	0.268	0.268	0.248	0.217	0.254	0.246	0.224	0.216
950	0.309	0.312	0.295	0.258	0.304	0.293	0.264	0.255
900	0.363	0.381	0.361	0.321	0.371	0.355	0.320	0.308
850	0.431	0.474	0.447	0.419	0.481	0.447	0.401	0.377
800	0.558	0.614	0.622	0.567	0.660	0.588	0.534	0.504
750	0.738	0.866	0.894	0.798	0.899	0.779	0.715	0.690
700	0.986	1.230	1.251	1.116	1.198	1.029	0.959	0.938
650	1.368	1.742	1.706	1.575	1.623	1.361	1.260	1.262
600	1.932	2.611	2.444	2.260	2.271	1.957	1.832	1.780
550	3.205	3.878	3.563	3.245	3.179	2.755	2.608	2.571
500	4.898	5.560	5.073	4.490	4.311	3.774	3.648	3.850
450	7.136	7.392	6.581	5.743	5.381	4.856	4.834	4.940
400	9.392	8.773	7.538		6.315	5.823	6.026	6.303
350								
300								
HEIGHT	SCALE HEIGHT, KM							
950	323.1	294.9	269.1	254.0	261.5	268.3	282.0	285.9
900	285.1	253.2	233.3	214.1	221.4	237.7	246.3	250.0
850	247.1	218.4	197.9	182.8	194.5	212.7	213.8	214.5
800	219.2	184.9	175.6	152.2	177.9	192.0	188.9	194.4
750	193.1	154.2	157.2	148.8	168.8	179.2	171.6	178.0
700	168.8	142.7	151.8	148.6	167.7	172.8	167.1	165.4
650	149.7	136.4	150.4	141.6	160.5	164.9	162.5	157.4
600	128.6	126.4	140.2	139.0	150.4	149.9	147.2	148.1
550	110.6	129.7	136.7	142.9	156.0	154.3	146.5	141.8
500	123.0	153.3	165.0	174.6	196.9	176.9	162.6	153.4
450	151.3	228.4	263.4	274.0	263.8	237.2	203.7	185.8
400	234.5	412.0	538.3		413.3	318.6	271.3	238.9
350								
300								
LONG	-71.81	-71.62	-71.43	-71.24	-71.04	-70.83	-70.61	-70.40
LAT	-3.92	-5.90	-7.93	-9.95	-11.93	-13.96	-15.99	-17.96
QUAL	13	13	12	22	12	12	12	12

PASS 3052 AT AGASTA, 63 510  
 ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)					
	220629	220738	220804	220907	220943	221018
1000	0.212	0.187	<b>0.177</b>	0.154	0.159	0.139
950	0.245	0.216	<b>0.196</b>	0.167	0.171	0.150
900	0.287	0.251	<b>0.221</b>	0.180	0.185	0.162
850	0.340	0.292	<b>0.253</b>	0.201	0.209	0.179
800	0.436	0.350	<b>0.305</b>	0.244	0.242	0.200
750	0.569	0.438	<b>0.375</b>	0.296	0.280	0.227
700	0.778	0.569	<b>0.464</b>	0.348	0.325	0.262
650	1.099	0.803	<b>0.636</b>	0.456	0.404	0.323
600	1.627	1.172	<b>0.925</b>	0.621	0.582	0.421
550	2.441	1.828	<b>1.452</b>	0.863	0.789	0.568
500	3.684	2.925	<b>2.477</b>	1.425	1.118	0.857
450	5.132	4.691	<b>4.239</b>	2.527	1.812	1.320
400	6.651	6.667	<b>6.410</b>	4.591	3.005	2.429
350	7.986	8.791	<b>8.553</b>			
300						
HEIGHT	SCALE HEIGHT, KM					
950	312.7	332.1	<b>428.6</b>	610.5	638.7	671.3
900	282.9	319.2	<b>386.2</b>	511.1	508.4	572.6
850	253.2	303.4	<b>343.8</b>	414.2	443.9	470.8
800	217.2	252.3	<b>278.5</b>	321.9	379.5	423.2
750	180.7	211.1	<b>232.1</b>	266.3	326.3	356.9
700	160.1	175.7	<b>202.6</b>	239.5	277.9	299.1
650	135.6	143.3	<b>145.2</b>	198.8	222.9	228.0
600	127.7	123.7	<b>128.4</b>	159.1	155.7	180.8
550	121.1	110.0	<b>102.7</b>	132.9	148.5	149.2
500	133.5	101.4	<b>90.7</b>	91.3	119.8	122.8
450	172.7	124.1	<b>107.8</b>	85.5	103.8	106.4
400	227.9	161.4	<b>140.3</b>	103.2	94.5	146.5
350	356.7	212.5	<b>210.8</b>			
300						
LONG	-70.35	-69.90	<b>-69.72</b>	-69.26	-68.97	<b>-68.68</b>
LAT	-18.41	-22.28	<b>-23.74</b>	-27.27	-29.29	<b>-31.24</b>
QUAL	23	23	<b>23</b>	33	33	33

PASS 3052 AT SULANT, 63 510

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)					
	221054	221130	221205	221241	221317	221334
1000	0.137	0.118	0.111	<b>0.099</b>	0.086	0.084
950	0.145	0.126	0.119	<b>0.103</b>	0.091	0.091
900	0.154	0.135	0.125	<b>0.108</b>	0.097	0.095
850	0.167	0.149	0.133	<b>0.115</b>	0.104	0.100
800	0.183	0.165	0.144	<b>0.125</b>	0.112	0.108
750	0.205	0.184	0.158	<b>0.137</b>	0.121	0.119
700	0.232	0.213	0.174	<b>0.152</b>	0.137	0.131
650	0.275	0.249	0.192	<b>0.173</b>	0.160	0.149
600	0.345	0.292	0.236	<b>0.205</b>	0.188	0.179
550	0.446	0.341	0.325	<b>0.259</b>	0.233	0.221
500	0.578	0.492	0.447	<b>0.345</b>	0.305	0.299
450	0.875	0.748	0.632	<b>0.501</b>	0.445	0.425
400	1.263	1.061	0.922	<b>0.722</b>	0.646	0.614
350	1.833	1.480	1.245	<b>1.008</b>	0.872	0.830
300	2.554		1.698	<b>1.359</b>	1.107	1.049
HEIGHT	SCALE HEIGHT, KM					
950	830.3	679.8	1013.5	<b>1171.5</b>	986.0	990.6
900	703.1	581.7	849.5	<b>915.8</b>	733.4	925.3
850	607.4	525.3	672.3	<b>725.0</b>	662.7	796.8
800	514.7	469.0	590.8	<b>585.6</b>	591.9	648.3
750	440.0	412.6	526.4	<b>517.3</b>	521.2	521.3
700	365.3	371.6	462.1	<b>435.4</b>	449.2	452.1
650	291.7	331.5	397.7	<b>344.0</b>	376.9	342.0
600	219.2	291.4	306.5	<b>258.9</b>	304.6	257.9
550	187.5	250.6	183.8	<b>206.3</b>	235.1	194.8
500	163.2	128.1	150.5	<b>162.4</b>	168.7	162.7
450	128.6	132.7	145.7	<b>136.2</b>	150.0	142.2
400	134.8	147.1	150.8	<b>144.4</b>	155.2	149.7
350	145.0	151.0	163.6	<b>159.5</b>	188.5	189.2
300	147.5		178.3	<b>172.2</b>	311.3	281.2
LONG	-68.36	-68.01	-67.65	<b>-67.26</b>	-66.83	-66.62
LAT	-33.25	-35.25	-37.20	<b>-39.19</b>	-41.18	-42.12
QUAL	23	23	23	23	12	21

PASS 3058 AT SOLANT, 63 511  
 ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)
	90808
1000	0.041
950	0.044
900	0.048
850	0.052
800	0.056
750	0.061
700	0.066
650	0.073
600	0.064
550	0.099
500	0.126
450	0.179
400	0.277
350	0.434
300	0.647
HEIGHT	SCALE HEIGHT, KM
950	683.4
900	644.5
850	620.0
800	597.6
750	550.3
700	503.0
650	446.8
600	368.1
550	289.5
500	204.4
450	131.5
400	113.2
350	114.7
300	238.1
LONG	-79.18
LAT	-63.15
QUAL	11

PASS 3059 AT FTMYS, 63 511

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)	
	93638	93714
1000	0.046	0.046
950	0.055	0.054
900	0.063	0.062
850	0.072	0.073
800	0.063	0.086
750	0.097	0.102
700	0.116	0.123
650	0.139	0.148
600	0.172	0.183
550	0.212	0.230
500	0.273	0.296
450	0.360	0.387
400	0.486	0.529
350	0.663	0.724
300	0.974	1.044
HEIGHT	SCALE HEIGHT, KM	
950		326.8
900	354.9	321.4
850	348.2	313.3
800	325.2	298.6
750	303.2	282.5
700	283.1	266.0
650	263.0	249.4
600	243.2	232.8
550	223.5	216.1
500	191.9	194.8
450	174.5	173.0
400	161.6	164.4
350	149.3	151.7
300	122.7	122.9
LONG	-61.04	-60.71
LAT	31.89	33.90
QUAL	13	33

PASS 3059 AT OTTAWA, 63 511								
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)								
HEIGHT	TIME (UT)							
	94129	94222	94258	94333	94409	94445	94520	94556
1000	0.050	0.063	0.054	0.055	0.110	0.081	0.094	0.085
950	0.060	0.075	0.064	0.067	0.123	0.099	0.110	0.096
900	0.070	0.085	0.075	0.078	0.137	0.115	0.124	0.107
850	0.082	0.099	0.088	0.091	0.154	0.131	0.139	0.121
800	0.095	0.114	0.103	0.105	0.177	0.148	0.157	0.136
750	0.111	0.134	0.121	0.121	0.207	0.172	0.177	0.156
700	0.133	0.159	0.144	0.144	0.242	0.201	0.203	0.180
650	0.160	0.189	0.171	0.172	0.284	0.235	0.233	0.210
600	0.194	0.230	0.208	0.207	0.332	0.275	0.273	0.249
550	0.238	0.278	0.255	0.253	0.389	0.333	0.335	0.296
500	0.290	0.334	0.309	0.307	0.501	0.415	0.415	0.350
450	0.351	0.416	0.394	0.399	0.643	0.524	0.519	0.464
400	0.455	0.570	0.512	0.525	0.835	0.674	0.646	0.623
350	0.600	0.767	0.670	0.727	1.087	0.868	0.845	0.846
300	0.813	1.084	0.888	1.054	1.426	1.213	1.200	1.182
HEIGHT	SCALE HEIGHT, KM							
900	316.6	351.3	311.0	319.7	432.6	384.3	425.0	422.1
850	318.2	336.4	309.6	323.7	388.5	382.1	424.1	404.7
800	309.0	321.4	304.8	319.5	357.7	360.5	402.6	386.3
750	298.1	305.1	295.7	313.2	332.6	324.3	380.2	364.5
700	282.5	288.8	283.1	296.8	312.2	311.5	355.3	338.1
650	267.0	273.6	270.6	280.5	297.3	299.7	330.3	311.7
600	255.7	261.4	258.4	263.0	282.3	287.9	297.7	288.4
550	247.5	249.3	246.1	244.5	266.0	265.0	253.3	265.0
500	239.4	237.2	233.9	225.9	237.3	233.0	226.1	241.7
450	231.2	219.5	217.2	201.9	208.7	208.6	214.9	213.3
400	209.6	188.8	198.3	176.8	195.6	194.6	203.7	184.0
350	182.2	159.1	184.1	150.1	191.0	180.6	183.9	161.1
300	154.6	139.4	176.0	120.6	200.4	166.5	154.5	147.7
LONG	-57.48	-56.51	-55.79	-54.95	-54.03	-52.97	-51.80	-50.49
LAT	48.10	51.03	53.01	54.92	56.89	58.84	60.72	62.65
QUAL	33	33	33	33	33	32	33	33

PASS 3079 AT RESLUT, 63 512  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	210212	210229	210247	210305	210323	210341	210358	210416
1000	0.205	0.185	0.188	0.186	0.195	0.158	0.179	0.188
950	0.223	0.201	0.208	0.202	0.213	0.180	0.198	0.206
900	0.249	0.218	0.236	0.225	0.238	0.200	0.218	0.229
850	0.277	0.239	0.265	0.253	0.267	0.227	0.244	0.257
800	0.310	0.275	0.299	0.286	0.300	0.258	0.278	0.290
750	0.353	0.322	0.339	0.328	0.347	0.304	0.323	0.339
700	0.403	0.381	0.388	0.380	0.407	0.366	0.380	0.404
650	0.409	0.447	0.458	0.446	0.479	0.445	0.453	0.482
600	0.555	0.522	0.544	0.524	0.577	0.547	0.539	0.593
550	0.658	0.606	0.646	0.615	0.703	0.671	0.640	0.728
500	0.800	0.724	0.766	0.718	0.851	0.814	0.790	0.888
450	1.023	0.953	0.987	0.960	1.054	1.044	1.069	1.120
400	1.297	1.233	1.258	1.270	1.360	1.359	1.385	1.409
350	1.708	1.556	1.587	1.647	1.753	1.679	1.710	1.741
300	2.262	1.923	1.944	2.083	2.259	2.001	1.931	2.054
HEIGHT	SCALE HEIGHT, KM							
	950	540.1	620.9	448.3	521.0	520.2	422.1	504.8
900	465.0	542.8	416.1	447.5	440.9	408.3	458.3	438.7
850	440.1	443.4	412.4	419.6	408.0	377.8	415.1	400.5
800	413.1	390.9	398.8	390.4	375.2	347.3	369.4	362.3
750	382.6	343.0	362.4	349.0	348.4	313.0	322.0	329.9
700	352.1	310.3	330.9	317.4	322.7	276.5	295.2	298.6
650	324.8	299.7	314.1	303.9	297.0	251.2	282.1	268.3
600	299.8	289.0	297.3	290.5	278.1	245.1	269.0	258.9
550	274.8	278.4	280.5	277.0	262.7	239.1	256.0	249.6
500	250.1	262.2	263.6	263.5	247.4	233.0	237.9	240.3
450	225.9	229.2	240.8	215.1	230.2	228.3	208.6	236.2
400	201.7	208.7	218.0	188.5	210.1	224.0	228.4	232.7
350	187.7	227.6	262.1	206.2	199.5	262.2	317.4	277.7
300	176.9	257.1	403.5	280.6	199.8	512.7	798.7	602.0
LONG	176.07	-179.43	-174.66	-169.57	-163.67	-157.78	-152.21	-146.32
LAT	78.67	79.11	79.59	79.98	80.15	80.33	80.49	80.35
QUAL	32	21	21	21	22	21	21	22

PASS 3079 AT RESLUT, 63 512

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	210434	210452	210510	210527	210545	210603	210621	210638
1000	0.191	0.162	0.179	0.192	0.186	0.187	0.172	0.203
950	0.222	0.179	0.202	0.208	0.211	0.207	0.196	0.229
900	0.258	0.202	0.230	0.231	0.240	0.236	0.219	0.259
850	0.268	0.230	0.262	0.259	0.274	0.274	0.247	0.296
800	0.303	0.267	0.305	0.291	0.313	0.315	0.280	0.340
750	0.351	0.322	0.359	0.342	0.367	0.362	0.331	0.399
700	0.408	0.390	0.428	0.408	0.434	0.438	0.398	0.469
650	0.491	0.478	0.521	0.493	0.514	0.538	0.479	0.565
600	0.545	0.587	0.633	0.600	0.637	0.661	0.597	0.686
550	0.718	0.715	0.765	0.728	0.790	0.810	0.745	0.829
500	0.898	0.933	0.981	0.876	0.972	1.037	0.921	1.086
450	1.158	1.242	1.252	1.153	1.256	1.310	1.205	1.434
400	1.471	1.579	1.563	1.504	1.620	1.683	1.578	1.866
350	1.852	1.928	1.914	1.865	1.984	2.112	2.032	2.397
300	2.109	2.168	2.281	2.131				
HEIGHT	SCALE HEIGHT, KM							
950	451.9	451.1	402.3	557.9	395.5	430.2	420.8	405.0
900	420.2	387.6	369.5	451.6	379.8	392.6	413.3	381.2
850	396.9	348.5	344.0	409.8	358.2	356.7	378.2	357.8
800	371.5	313.3	320.7	368.1	336.4	327.8	343.0	334.8
750	332.9	283.7	297.6	328.0	313.8	298.9	313.6	312.7
700	294.9	264.1	277.7	288.0	291.0	282.3	285.1	290.7
650	279.9	247.4	265.2	263.8	268.2	267.7	256.7	270.3
600	264.9	234.8	252.7	253.9	254.2	253.0	242.2	250.4
550	250.0	222.2	240.1	244.0	240.3	238.4	229.4	230.4
500	235.3	210.2	233.0	234.1	226.4	224.7	216.5	210.0
450	220.8	198.4	226.1	222.2	216.2	211.0	205.3	189.4
400	235.9	237.9	236.4	219.4	234.4	220.3	196.8	196.8
350	286.8	339.4	252.1	295.0	381.9	320.1	291.0	283.3
300	624.2	653.2	950.0	869.4				
LONG	-140.44	-134.56	-129.32	-124.85	-120.11	-115.60	-112.20	-108.98
LAT	80.16	79.98	79.63	79.18	78.71	78.20	77.52	76.88
QUAL	22	22	21	22	32	21	21	22



PASS 3079 AT RESLUT, 63 512  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	210656	210714	210732	210750	210807	210825	210843	210901
1000	0.207	0.190	0.194	0.211	0.211	0.297	0.294	0.352
950	0.232	0.220	0.222	0.241	0.249	0.337	0.343	0.403
900	0.261	0.256	0.255	0.275	0.295	0.382	0.399	0.465
850	0.296	0.292	0.292	0.313	0.350	0.437	0.460	0.538
800	0.336	0.333	0.334	0.356	0.412	0.507	0.544	0.624
750	0.390	0.379	0.390	0.414	0.488	0.591	0.661	0.724
700	0.466	0.452	0.456	0.486	0.589	0.695	0.802	0.863
650	0.558	0.548	0.549	0.572	0.709	0.822	0.974	1.028
600	0.677	0.667	0.686	0.712	0.856	0.980	1.189	1.235
550	0.850	0.807	0.853	0.889	1.092	1.225	1.438	1.502
500	1.059	1.057	1.079	1.117	1.372	1.529	1.808	1.843
450	1.324	1.373	1.376	1.429	1.621	1.897	2.320	2.357
400	1.701	1.794	1.727	1.808			2.960	3.004
350	2.363	2.324	2.130	2.247			3.490	3.505
300			2.537	2.542				
HEIGHT	SCALE HEIGHT, KM							
950	424.9		372.4	376.7	295.0	394.1	320.8	360.8
900	403.5	357.4	366.5	378.6	296.0	369.1	312.2	347.5
850	375.8	375.8	353.2	366.5	292.5	351.9	303.5	336.8
800	348.0	348.5	337.1	346.7	287.1	338.9	293.5	326.1
750	322.4	313.8	312.8	323.1	279.6	325.9	282.3	314.6
700	298.5	294.8	286.5	298.6	268.8	306.5	271.2	299.4
650	274.6	276.8	267.2	274.2	257.9	284.7	260.3	284.2
600	254.6	258.8	249.3	254.3	249.3	263.3	249.7	267.8
550	243.0	240.8	231.5	234.7	256.1	242.9	239.2	250.0
500	231.5	213.3	223.5	220.4	266.5	230.6	224.4	231.2
450	207.2	195.4	222.2	216.4	353.8	232.8	207.5	209.2
400	151.8	195.0	231.9	241.1			254.3	253.3
350	2501.9	501.8	269.2	307.8			334.6	461.8
300			521.2	714.9				
LONG	-105.58	-102.97	-100.59	-98.20	-96.22	-94.52	-92.82	-91.14
LAT	76.20	75.43	74.63	73.83	73.05	72.19	71.32	70.45
QUAL	21	31	22	21	21	22	22	22

PASS 3079 AT RESLUT, 63 512

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)					
	210933	210955	211013	211031	211049	211106
1000	0.312	0.322	0.315	0.307	0.214	0.246
950	0.326	0.368	0.365	0.342	0.265	0.297
900	0.412	0.413	0.413	0.391	0.308	0.345
850	0.482	0.473	0.459	0.453	0.357	0.394
800	0.563	0.554	0.544	0.529	0.417	0.450
750	0.657	0.654	0.652	0.618	0.486	0.519
700	0.773	0.773	0.783	0.730	0.581	0.608
650	0.916	0.924	0.942	0.871	0.694	0.714
600	1.024	1.099	1.129	1.035	0.825	0.837
550	1.351	1.329	1.343	1.268	1.031	1.032
500	1.720	1.664	1.698	1.617	1.347	1.322
450	2.205	2.126	2.157	2.060	1.710	1.673
400	2.801	2.678	2.716	2.598	2.169	2.087
350	3.368	3.289	3.264	3.148	2.719	2.630
300		3.799	3.819		3.284	3.233
HEIGHT	SCALE HEIGHT, KM					
950	354.0	381.1	365.7	410.9	278.3	299.0
900	343.3	365.0	357.6	370.5	312.9	337.7
850	332.6	348.8	349.0	339.3	315.1	350.1
800	322.1	332.5	328.8	325.4	308.7	339.4
750	311.7	316.3	308.5	311.5	301.7	326.1
700	297.2	300.2	288.2	296.6	285.7	310.9
650	279.9	284.7	275.6	280.8	269.7	295.6
600	262.6	269.2	265.1	265.1	253.7	280.4
550	240.7	250.2	254.5	244.1	231.9	257.3
500	217.2	223.7	226.5	217.1	209.4	228.2
450	217.5	217.2	221.8	219.9	211.1	218.0
400	239.7	232.2	247.4	239.9	218.0	222.1
350	324.8	292.4	292.8	355.6	243.1	232.2
300		532.5	416.5		299.4	266.4
LONG	-88.92	-87.40	-86.37	-85.42	-84.46	-83.65
LAT	68.83	67.72	66.79	65.85	64.91	64.02
QUAL	22	21	22	22	23	23

PASS 3079 AT QUITOE, 63 512

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)					
	213204	213240	213333	213409	213502	213538
1000	0.547	0.551	0.549	0.518	0.491	0.426
950	0.681	0.681	0.655	0.611	0.576	0.508
900	0.845	0.828	0.795	0.738	0.688	0.614
850	1.053	1.031	0.975	0.905	0.829	0.748
800	1.311	1.282	1.191	1.109	0.999	0.914
750	1.625	1.594	1.444	1.352	1.198	1.114
700	2.065	1.962	1.742	1.634	1.427	1.361
650	2.663	2.491	2.175	2.024	1.766	1.744
600	3.460	3.153	2.724	2.540	2.195	2.252
550	4.538	3.998	3.455	3.212	2.788	2.950
500	5.783	4.960	4.217	3.972	3.518	3.861
450	6.878	5.738	4.740	4.678	4.364	4.930
400				5.237	5.187	6.073
350						
300						

HEIGHT	SCALE HEIGHT, KM					
	213204	213240	213333	213409	213502	213538
950	226.5	232.5	267.7	284.6	294.4	270.2
900	228.6	237.4	257.3	262.9	281.5	261.4
850	229.2	234.0	255.5	259.8	277.5	255.0
800	225.9	230.8	253.6	256.7	272.7	247.9
750	219.8	228.5	251.3	251.4	266.7	240.4
700	207.2	226.3	247.3	245.8	260.8	230.3
650	194.4	219.8	232.3	234.5	241.5	209.2
600	189.3	215.5	223.8	220.7	223.1	194.4
550	197.2	221.3	233.0	228.9	219.1	189.1
500	240.7	287.0	335.6	277.5	227.7	196.4
450	383.5	470.6	558.2	373.0	265.3	221.1
400				554.2	363.4	282.9
350						
300						

LONG	-67.79	-67.59	-67.30	-67.10	-66.79	-66.56
LAT	-6.20	-8.22	-11.21	-13.25	-16.22	-18.25
QUAL	23	23	23	22	23	23

PASS 3079 AT AGASTA, 63 512

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	213518	213554	213629	213719	213755	213830	213906	213941
1000	0.419	0.393	0.356	0.247	0.229	0.178	0.177	0.144
950	0.503	0.473	0.433	0.306	0.269	0.207	0.195	0.156
900	0.606	0.568	0.521	0.384	0.322	0.242	0.219	0.172
850	0.730	0.689	0.633	0.478	0.396	0.285	0.251	0.195
800	0.891	0.847	0.778	0.588	0.514	0.356	0.296	0.227
750	1.101	1.064	0.984	0.756	0.665	0.456	0.362	0.269
700	1.374	1.351	1.255	0.978	0.844	0.598	0.460	0.321
650	1.738	1.763	1.639	1.324	1.107	0.815	0.598	0.412
600	2.246	2.326	2.204	1.873	1.571	1.152	0.860	0.556
550	2.954	3.118	3.062	2.802	2.414	1.754	1.319	0.805
500	3.855	4.148	4.253	4.332	3.922	2.999	2.244	1.342
450	4.881	5.312	5.680	6.318	6.356	5.426	4.051	2.452
400	5.900	6.569	7.181	8.335	9.218	9.024	7.348	4.829
350						13.411		8.788
300								
HEIGHT	SCALE HEIGHT, KM							
950	270.2	263.4	255.1	223.2	283.5	316.4	463.4	545.2
900	267.6	261.4	259.4	220.4	254.2	293.5	398.8	454.4
850	258.1	252.6	247.4	220.4	228.0	265.3	347.1	389.0
800	243.3	233.6	231.1	220.4	210.6	228.8	292.7	329.0
750	232.5	212.4	209.6	203.4	198.8	197.0	235.6	284.2
700	220.8	200.2	197.2	183.6	193.6	173.3	201.0	244.2
650	206.6	186.9	181.8	156.6	166.5	158.1	169.8	202.6
600	189.4	176.2	159.2	136.5	131.3	133.6	135.9	160.2
550	185.8	171.8	151.2	117.2	110.0	108.6	105.5	124.1
500	199.4	187.8	162.0	122.2	96.4	85.1	91.3	88.7
450	238.6	218.5	189.0	150.5	116.8	90.9	79.8	78.1
400	314.2	289.3	261.0	215.7	155.4	108.0	83.8	77.2
350						160.1		87.5
300								
LONG	-66.69	-66.46	-66.23	-65.89	-65.64	-65.36	-65.08	-64.77
LAT	-17.12	-19.15	-21.12	-23.92	-25.94	-27.89	-29.90	-31.86
QUAL	23	23	23	23	23	23	23	23

PASS 3079 AT AGASTA, 63 512  
 ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)		
	214017	214128	214204
1000	0.122	0.096	0.093
950	0.133	0.105	0.102
900	0.145	0.114	0.109
850	0.164	0.125	0.118
800	0.193	0.139	0.129
750	0.223	0.156	0.143
700	0.256	0.179	0.166
650	0.292	0.212	0.195
600	0.332	0.268	0.230
550	0.492	0.340	0.289
500	0.765	0.491	0.405
450	1.212	0.744	0.609
400	2.304	1.126	0.874
350	4.939	1.706	1.287
300	9.687	2.718	1.986
HEIGHT	SCALE HEIGHT, KM		
950	577.6	586.1	640.6
900	488.6	556.8	645.4
850	417.0	518.1	572.4
800	349.2	452.3	499.7
750	322.9	381.4	429.0
700	303.0	326.0	380.6
650	283.1	274.9	332.2
600	263.3	230.1	283.8
550	155.3	185.4	210.3
500	111.0	141.8	139.6
450	86.8	122.8	131.2
400	73.2	122.5	136.2
350	65.3	114.3	122.6
300	86.0	102.7	113.2
LONG	-64.45	-63.73	-63.33
LAT	-33.86	-37.80	-39.80
QUAL	23	33	33

PASS 3079 AT SULANT, 63 512

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)						
	213755	213830	213941	214017	214052	214128	214204
1000	0.221	0.181	0.147	0.133	0.119	0.106	0.087
950	0.258	0.209	0.161	0.145	0.127	0.114	0.092
900	0.311	0.244	0.180	0.157	0.137	0.123	0.100
850	0.378	0.290	0.202	0.173	0.151	0.134	0.110
800	0.461	0.346	0.229	0.194	0.170	0.148	0.123
750	0.579	0.424	0.261	0.219	0.192	0.164	0.135
700	0.747	0.560	0.308	0.258	0.222	0.183	0.148
650	0.978	0.764	0.399	0.307	0.259	0.225	0.172
600	1.370	1.054	0.521	0.366	0.302	0.277	0.235
550	2.057	1.556	0.722	0.490	0.360	0.339	0.320
500	3.221	2.547	1.100	0.702	0.530	0.462	0.420
450	5.204	4.527	1.969	1.123	0.800	0.656	0.569
400	7.742	7.728	3.767	1.987	1.237	0.999	0.815
350	10.420	11.470	6.762	3.781	1.936	1.492	1.145
300				7.202	3.284	2.254	1.676
HEIGHT	SCALE HEIGHT, KM						
950	295.6	320.2	496.1	586.4	658.1	634.5	736.6
900	263.1	301.3	448.6	537.6	568.6	567.3	610.1
850	252.9	279.3	403.4	482.6	501.3	521.8	545.1
800	242.6	250.3	364.1	417.9	440.6	476.3	486.9
750	207.1	226.2	324.7	356.6	380.0	430.8	437.8
700	188.1	177.7	281.3	319.9	344.8	384.6	388.6
650	171.5	162.4	227.4	283.2	311.2	329.2	333.4
600	137.5	146.8	176.0	246.5	277.6	273.8	262.9
550	116.9	117.3	146.0	179.5	238.8	218.4	192.3
500	106.2	93.7	102.8	127.4	146.2	171.5	172.8
450	111.3	85.6	81.5	92.2	120.8	134.8	157.9
400	147.7	108.2	78.4	86.8	113.0	123.3	146.6
350	204.9	156.9	93.3	71.5	103.7	124.1	137.1
300				84.8	81.3	118.4	133.4
LONG	-65.64	-65.36	-64.77	-64.45	-64.11	-63.73	-63.33
LAT	-25.94	-27.89	-31.86	-33.86	-35.81	-37.80	-39.80
QUAL	23	23	23	23	23	23	23

PASS 3079 AT SOLANT, 63 512

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)	
	214239	214257
1000	0.080	0.079
950	0.086	0.085
900	0.091	0.090
850	0.096	0.096
800	0.107	0.105
750	0.122	0.114
700	0.137	0.135
650	0.161	0.167
600	0.199	0.209
550	0.251	0.260
500	0.320	0.340
450	0.451	0.453
400	0.642	0.639
350	0.898	0.868
300	1.228	1.143
HEIGHT	SCALE HEIGHT, KM	
950	932.4	815.4
900	817.1	732.2
850	691.9	638.3
800	562.8	545.7
750	432.9	453.0
700	354.5	385.3
650	307.0	332.6
600	265.8	279.9
550	224.0	227.1
500	180.0	192.4
450	143.1	163.9
400	145.2	155.7
350	155.5	172.7
300	171.9	191.0
LONG	-62.90	-62.68
LAT	-41.73	-42.72
QUAL	23	23

PASS 3093 AT RESLUT, 03 513

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)					
	214033	214051	214108	214126	214202	214219
1000	0.181	0.164	0.147	0.148	0.163	0.158
950	0.199	0.200	0.173	0.167	0.188	0.179
900	0.223	0.235	0.195	0.191	0.213	0.202
850	0.251	0.270	0.222	0.217	0.243	0.229
800	0.285	0.306	0.259	0.247	0.281	0.264
750	0.329	0.349	0.307	0.290	0.326	0.307
700	0.382	0.400	0.371	0.344	0.384	0.363
650	0.455	0.497	0.449	0.413	0.467	0.440
600	0.546	0.628	0.542	0.504	0.576	0.549
550	0.665	0.793	0.659	0.611	0.712	0.684
500	0.831	0.995	0.838	0.774	0.888	0.846
450	1.045	1.244	1.052	0.999	1.097	1.061
400	1.328	1.534	1.314	1.287	1.382	1.343
350	1.657	1.863	1.655	1.635	1.759	1.693
300	2.049	2.200	5.839	2.115	2.144	2.060
HEIGHT	SCALE HEIGHT, KM					
950	486.2	284.9	363.7	400.9	371.7	409.7
900	439.1	336.2	390.0	398.3	383.8	399.8
850	401.4	364.3	349.8	378.0	362.2	369.6
800	368.3	376.8	309.5	334.2	341.6	340.7
750	337.7	336.3	277.4	312.3	314.3	308.5
700	307.4	283.4	270.6	290.4	274.0	273.6
650	287.9	271.2	263.7	270.9	259.6	254.5
600	268.9	259.0	256.8	254.7	248.9	249.9
550	250.2	246.8	249.5	238.5	239.2	245.3
500	231.8	238.3	240.7	220.7	234.1	240.7
450	219.6	247.9	231.9	202.3	229.0	229.4
400	218.2	257.4	207.1	208.1	210.6	212.8
350	227.4	261.7	148.2	201.9	217.6	209.3
300	361.6	1327.2	1954.7	1052.5	1927.3	973.2
LONG	-178.59	-173.01	-167.53	-161.47	-149.45	-144.53
LAT	79.99	80.28	80.41	80.35	80.21	79.84
QUAL	12	2	11	11	11	11



PASS 3093 AT RESLUT, 63 513  
 ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	214253	214313	214330	214348	214406	214425	214442	214500
1000	0.165	0.174	0.194	0.204	0.209	0.237	0.269	0.286
950	0.187	0.199	0.222	0.230	0.233	0.272	0.299	0.317
900	0.211	0.223	0.248	0.254	0.262	0.306	0.330	0.354
850	0.240	0.253	0.278	0.283	0.294	0.344	0.368	0.397
800	0.281	0.292	0.316	0.320	0.331	0.389	0.415	0.449
750	0.335	0.342	0.361	0.367	0.377	0.445	0.474	0.511
700	0.401	0.402	0.417	0.429	0.435	0.513	0.543	0.593
650	0.489	0.483	0.495	0.516	0.509	0.593	0.635	0.711
600	0.594	0.580	0.592	0.626	0.598	0.716	0.774	0.856
550	0.717	0.692	0.708	0.758	0.729	0.870	0.947	1.040
500	0.857	0.820	0.843	0.913	0.913	1.054	1.176	1.294
450	1.078	0.979	1.045	1.151	1.136	1.314	1.451	1.598
400	1.412	1.294	1.345	1.434	1.399	1.665	1.788	1.984
350	1.679	1.667	1.716	1.714	1.663	2.063	2.177	2.470
300	1.788			1.875	1.888	2.494	2.483	3.060
HEIGHT	SCALE HEIGHT, KM							
950	417.6	413.6	417.2	471.3	443.4	390.1	488.6	471.6
900	391.1	406.9	436.2	470.7	423.4	421.8	477.3	447.8
850	333.1	353.5	407.8	428.5	417.5	414.2	433.7	403.7
800	312.5	333.2	386.9	386.4	408.3	380.9	381.0	376.1
750	291.8	313.0	342.6	329.8	357.3	353.3	356.7	348.4
700	271.9	295.3	308.3	297.0	327.9	329.1	332.5	322.2
650	265.7	287.8	298.5	288.5	306.4	304.9	305.8	298.0
600	259.5	280.3	288.8	280.1	284.9	287.4	274.7	273.9
550	253.3	272.8	279.1	271.6	269.1	270.1	244.3	255.3
500	247.1	265.2	269.3	263.2	256.7	252.9	244.8	247.7
450	264.0	251.9	248.8	242.8	244.3	242.5	245.3	240.1
400	302.0	196.4	216.6	265.2	261.1	236.3	259.8	234.1
350	639.5	220.8	207.2	465.3	376.6	251.3	314.5	229.3
300	1051.6			1000.1	639.9	586.7	785.5	574.1
LONG	-134.08	-129.87	-126.22	-122.37	-118.90	-116.04	-113.48	-110.77
LAT	79.12	78.52	77.94	77.32	76.66	75.86	75.14	74.38
QUAL	11	13	23	22	22	33	21	23

PASS 3093 AT RESLUT, 63 513

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	214518	214536	214554	214611	214629	214647	214705	214722
1000	0.323	0.313	0.320	0.290	0.348	0.305	0.304	0.340
950	0.352	0.346	0.347	0.326	0.383	0.341	0.341	0.368
900	0.393	0.382	0.373	0.357	0.424	0.379	0.385	0.403
850	0.442	0.426	0.411	0.397	0.474	0.426	0.438	0.455
800	0.501	0.480	0.457	0.451	0.535	0.485	0.504	0.526
750	0.572	0.545	0.513	0.518	0.615	0.565	0.584	0.613
700	0.655	0.620	0.579	0.600	0.708	0.661	0.686	0.705
650	0.766	0.725	0.653	0.696	0.815	0.773	0.805	0.806
600	0.913	0.878	0.811	0.808	0.965	0.931	0.965	0.947
550	1.105	1.062	1.034	0.977	1.166	1.138	1.180	1.133
500	1.354	1.309	1.278	1.217	1.430	1.413	1.440	1.384
450	1.652	1.617	1.533	1.530	1.773	1.751	1.820	1.720
400	2.070	2.026	1.824	1.929	2.225	2.148	2.277	2.162
350	2.584	2.540	2.140	2.496	2.782	2.654	2.728	2.731
300		3.172			3.042	2.967	3.079	3.376
HEIGHT	SCALE HEIGHT, KM							
950	505.0	524.5	695.0	490.3	498.4	456.0	420.5	577.4
900	429.8	480.1	607.8	492.8	467.3	436.8	392.3	458.8
850	411.1	413.8	448.6	421.8	429.2	401.6	365.8	410.4
800	396.1	392.5	421.3	390.4	393.2	367.4	346.0	381.2
750	371.4	371.2	394.1	359.1	359.4	336.7	327.3	356.0
700	339.6	349.9	366.9	337.0	339.0	311.7	310.1	343.7
650	309.2	324.1	339.7	317.9	319.5	291.0	293.0	331.3
600	279.5	292.9	299.4	298.8	294.3	266.9	274.8	304.2
550	261.4	261.6	255.3	270.3	266.3	242.3	255.9	271.0
500	252.5	245.6	254.5	236.0	244.5	242.9	238.6	248.5
450	243.6	234.3	277.2	218.6	228.8	243.2	244.8	233.5
400	231.6	228.8	302.1	209.1	222.7	241.1	256.3	225.0
350	228.8	221.0	434.0	196.1	339.6	285.5	329.3	227.5
300		516.3			1103.3	1573.0	745.1	801.8
LONG	-108.86	-106.95	-105.04	-103.55	-102.16	-100.77	-99.47	-98.49
LAT	73.53	72.69	71.84	71.01	70.11	69.22	68.31	67.43
QUAL	23	21	22	23	22	12	12	11

PASS 3093 AT RESLUT, 63 513  
 ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)						
	214740	214758	214816	214833	214851	214909	214926
1000	0.334	0.271	0.343	0.289	0.236	0.241	0.228
950	0.371	0.299	0.378	0.320	0.272	0.281	0.264
900	0.406	0.331	0.417	0.347	0.305	0.313	0.300
850	0.452	0.371	0.464	0.380	0.341	0.347	0.336
800	0.511	0.421	0.522	0.426	0.386	0.385	0.374
750	0.563	0.481	0.593	0.490	0.444	0.436	0.423
700	0.670	0.564	0.677	0.570	0.517	0.497	0.484
650	0.762	0.690	0.790	0.673	0.610	0.607	0.579
600	0.925	0.846	0.926	0.801	0.728	0.753	0.720
550	1.093	1.035	1.115	0.951	0.873	0.935	0.897
500	1.339	1.275	1.376	1.147	1.112	1.152	1.109
450	1.648	1.555	1.701	1.439	1.414	1.404	1.355
400	2.000	1.911	2.142	1.803	1.822	1.691	1.646
350	2.553	2.353	2.674	2.307	2.345	2.222	2.111
300		2.641		2.875	3.063	2.874	2.715
HEIGHT	SCALE HEIGHT. KM						
950	538.0	511.5	518.4	561.1	392.2	392.8	370.2
900	489.9	459.6	476.6	578.5	441.5	477.5	415.5
850	441.6	394.1	440.2	471.7	418.4	480.8	454.6
800	400.5	363.8	407.7	400.4	371.9	417.6	411.8
750	369.5	333.5	380.2	366.7	343.5	369.7	368.1
700	339.5	307.9	352.4	332.9	319.6	321.9	324.4
650	317.6	288.6	322.9	309.8	295.4	294.1	295.1
600	298.7	269.2	293.3	293.3	270.8	268.6	275.5
550	279.7	253.4	269.5	276.8	246.8	244.1	255.9
500	258.8	251.1	249.7	258.7	229.1	238.9	243.9
450	237.6	248.8	234.5	237.1	211.4	233.7	238.3
400	248.1	266.2	243.7	218.7	202.3	228.6	231.5
350	275.4	327.3	254.6	217.0	195.7	217.7	213.1
300		680.4		414.0	196.4	209.4	233.2
LONG	-97.45	-96.41	-95.58	-94.82	-94.02	-93.30	-92.71
LAT	66.50	65.57	64.62	63.73	62.78	61.82	60.90
QUAL	23	22	13	23	23	22	33

PASS 3093 AT OTTAWA, 63 513

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	215036	215111	215147	215222	215258	215333	215408	215443
1000	0.296	0.363	0.381	0.324	0.288	0.249	0.224	0.226
950	0.328	0.403	0.432	0.371	0.314	0.276	0.257	0.256
900	0.371	0.455	0.500	0.431	0.357	0.316	0.296	0.292
850	0.421	0.516	0.579	0.504	0.406	0.360	0.339	0.334
800	0.479	0.591	0.666	0.588	0.465	0.414	0.392	0.385
750	0.557	0.685	0.778	0.692	0.553	0.484	0.457	0.449
700	0.656	0.802	0.913	0.820	0.662	0.568	0.544	0.534
650	0.778	0.943	1.078	0.974	0.800	0.685	0.655	0.646
600	0.932	1.124	1.297	1.154	0.976	0.831	0.789	0.783
550	1.129	1.360	1.574	1.405	1.202	1.018	1.005	0.975
500	1.420	1.705	1.986	1.737	1.526	1.309	1.287	1.252
450	1.806	2.171	2.555	2.240	1.946	1.685	1.668	1.624
400	2.380	2.808	3.225	2.856	2.486	2.166	2.158	2.116
350	3.100	3.365	3.893	3.471	3.108	2.777	2.777	2.754
300	3.765					3.349	3.338	3.422
HEIGHT	SCALE HEIGHT, KM							
950	448.9	446.9	366.0	344.8	492.7	436.3	372.0	391.3
900	396.7	400.2	347.7	325.0	395.6	383.9	360.5	375.4
850	376.0	381.6	341.0	318.0	361.4	360.4	348.7	358.0
800	355.4	359.0	336.2	313.4	328.7	337.4	327.7	333.4
750	332.8	330.8	321.6	306.2	306.5	315.3	300.8	301.8
700	309.5	311.7	304.1	297.6	284.2	293.1	281.0	279.8
650	286.9	297.0	282.6	285.5	264.2	272.8	263.2	264.5
600	265.3	274.2	261.3	271.6	246.6	252.7	245.4	249.2
550	243.5	243.4	240.0	247.1	230.2	232.4	225.1	229.5
500	221.4	223.0	222.8	220.1	215.9	211.5	204.5	205.4
450	202.2	208.1	212.4	212.5	211.7	201.3	197.9	193.8
400	191.0	222.1	239.1	238.3	216.4	202.5	201.3	192.2
350	222.9	632.3	335.6	405.4	270.7	228.7	234.7	208.4
300	280.6					522.4	414.5	281.0
LONG	-90.48	-89.54	-88.70	-87.97	-87.27	-86.69	-86.13	-85.62
LAT	57.12	55.21	53.23	51.31	49.32	47.38	45.44	43.49
QUAL	33	31	33	22	21	23	23	23

PASS 3093 AT OTTAWA, 63 513  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	215519	215554	215631	215705	215741	215816	215852	215909
1000	0.240	0.243	0.258	0.232	0.238	0.253	0.269	0.271
950	0.263	0.270	0.288	0.268	0.272	0.283	0.298	0.301
900	0.300	0.309	0.320	0.300	0.309	0.322	0.341	0.341
850	0.341	0.354	0.360	0.339	0.353	0.366	0.389	0.389
800	0.392	0.410	0.408	0.387	0.409	0.423	0.450	0.453
750	0.456	0.485	0.470	0.444	0.479	0.495	0.529	0.532
700	0.543	0.579	0.545	0.512	0.569	0.593	0.633	0.645
650	0.652	0.707	0.647	0.610	0.687	0.723	0.773	0.786
600	0.791	0.861	0.812	0.747	0.861	0.881	0.944	0.973
550	1.012	1.077	1.021	0.958	1.078	1.151	1.236	1.260
500	1.291	1.368	1.326	1.261	1.429	1.512	1.631	1.671
450	1.688	1.778	1.726	1.666	1.894	2.021	2.203	2.276
400	2.196	2.327	2.289	2.210	2.524	2.705	3.004	3.149
350	2.841	3.070	3.049	2.945	3.393	3.601	4.076	4.297
300	3.546	3.787	3.829	3.779	4.351			
HEIGHT	SCALE HEIGHT, KM							
950	472.3	422.6	460.8	416.4	381.8	420.6	446.2	428.0
900	397.1	377.1	438.8	414.8	374.5	387.2	379.6	381.7
850	371.1	344.4	406.8	396.8	358.0	356.6	353.5	349.3
800	338.5	317.5	372.2	372.2	325.1	327.1	325.2	318.0
750	304.3	293.7	338.5	343.7	298.4	298.0	295.1	287.5
700	283.7	272.8	305.0	312.2	275.3	273.0	269.0	267.5
650	263.4	258.1	272.8	274.0	252.1	250.5	247.0	247.4
600	242.8	243.4	243.2	232.8	229.1	228.1	224.9	224.5
550	221.4	224.9	213.7	207.7	206.1	202.6	198.3	195.1
500	201.1	203.9	198.4	190.5	189.3	181.1	176.6	173.2
450	193.5	193.0	185.7	180.8	178.1	173.9	166.7	160.0
400	193.8	186.9	177.5	177.8	172.1	174.2	163.3	158.4
350	210.6	208.1	193.5	188.7	178.1	189.0	178.3	172.7
300	266.6	341.9	269.9	239.3	272.6			
LONG	-85.15	-84.71	-84.31	-83.95	-83.60	-83.28	-82.97	-82.83
LAT	41.48	39.53	37.46	35.56	33.54	31.57	29.55	28.59
QUAL	23	33	33	33	23	23	23	23

PASS 3093 AT QUITOE, 63 513

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	220317	220352	220428	220503	220539	220614	220650	220725
1000	0.269	0.281	0.298	0.322	0.330	0.337	0.334	0.320
950	0.305	0.320	0.338	0.363	0.368	0.381	0.374	0.362
900	0.352	0.372	0.393	0.420	0.423	0.435	0.428	0.411
850	0.415	0.437	0.465	0.495	0.491	0.502	0.496	0.471
800	0.493	0.516	0.557	0.585	0.570	0.582	0.575	0.541
750	0.588	0.608	0.669	0.689	0.678	0.675	0.667	0.653
700	0.700	0.772	0.800	0.852	0.858	0.855	0.839	0.825
650	0.926	0.999	1.042	1.119	1.088	1.098	1.067	1.043
600	1.220	1.321	1.392	1.481	1.455	1.441	1.421	1.422
550	1.667	1.809	1.951	2.043	1.977	1.943	1.957	2.028
500	2.470	2.708	2.867	3.001	2.975	2.941	3.046	3.321
450	3.914	4.330	4.492	4.765	4.656	4.554	4.814	5.840
400	6.354	7.121	7.125	7.635	7.250	7.036	7.410	9.157
350	9.911	11.041	11.080	11.844	10.990	10.452	10.907	
300	13.324							
HEIGHT	SCALE HEIGHT, KM							
950	361.5	345.7	353.5	376.5	404.4	386.7	402.8	390.4
900	333.9	325.9	320.2	341.3	359.8	360.8	361.9	375.1
850	306.9	304.8	292.0	308.4	324.9	333.2	330.9	339.4
800	283.1	279.9	272.5	285.0	294.9	304.5	305.4	303.6
750	260.7	255.1	255.1	261.5	264.5	275.7	279.8	268.6
700	238.0	228.3	237.7	233.9	233.4	243.3	243.2	233.9
650	205.7	201.2	205.5	201.9	202.3	210.5	205.7	199.3
600	173.4	173.7	168.1	171.8	173.9	178.4	171.2	163.5
550	148.9	145.8	145.0	148.6	146.4	147.0	139.0	126.2
500	123.5	116.8	120.9	120.1	121.1	122.0	112.4	95.4
450	105.2	103.4	110.3	105.8	112.2	114.3	112.3	96.8
400	105.4	105.6	107.3	109.1	114.4	120.6	122.7	123.0
350	138.5	127.2	126.7	122.5	123.5	133.8	153.0	
300	214.4							
LONG	-81.14	-80.94	-80.74	-80.54	-80.35	-80.16	-79.96	-79.78
LAT	14.62	12.64	10.61	8.63	6.60	4.63	2.59	0.62
QUAL	23	23	23	23	23	23	23	23

PASS 3093 AT QUITOE, 63 513  
 ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	220801	220936	220912	220947	221023	221058	221134	221209
1000	0.304	0.296	0.285	0.282	0.267	0.277	0.258	0.246
950	0.337	0.330	0.319	0.311	0.292	0.302	0.282	0.271
900	0.364	0.372	0.359	0.346	0.324	0.334	0.311	0.301
850	0.439	0.423	0.406	0.388	0.369	0.392	0.373	0.353
800	0.504	0.490	0.473	0.467	0.444	0.481	0.479	0.435
750	0.612	0.590	0.581	0.539	0.588	0.670	0.645	0.575
700	0.773	0.740	0.740	0.862	0.861	0.986	0.874	0.842
650	0.993	0.979	1.127	1.365	1.341	1.509	1.346	1.302
600	1.348	1.623	1.929	2.282	2.168	2.349	2.131	2.055
550	2.242	2.906	3.272	3.636	3.400	3.584	3.269	3.235
500	4.104	5.141	5.242	5.604	5.073	5.132	4.781	4.846
450	7.155	7.889	7.563	7.573	6.889	6.791	6.472	6.698
400	10.380	9.988	9.074				7.849	8.318
350								
300								
HEIGHT	SCALE HEIGHT, KM							
950	436.3	430.5	425.8	489.0	500.8	518.5	524.2	491.9
900	374.2	391.8	395.0	425.0	421.7	391.6	386.7	378.0
850	340.8	353.9	350.0	348.9	338.1	303.5	291.8	302.1
800	307.4	310.1	299.5	266.1	249.4	221.9	211.0	238.4
750	269.2	257.5	241.4	184.1	175.7	166.3	171.8	181.2
700	228.2	204.4	180.0	138.7	124.7	126.9	147.9	136.7
650	186.0	150.6	107.5	107.3	112.2	118.3	122.1	116.4
600	140.0	91.5	95.3	102.8	107.5	115.4	114.3	111.3
550	88.3	85.4	99.8	112.3	117.9	129.2	121.8	114.5
500	85.4	99.5	119.6	132.8	139.5	155.3	148.1	138.9
450	103.5	156.5	181.8	239.9	230.5	246.8	199.8	184.1
400	256.0	314.4	476.7				403.2	375.5
350								
300								
LONG	-79.59	-79.41	-79.22	-79.03	-78.83	-78.64	-78.43	-78.23
LAT	-1.41	-3.38	-5.42	-7.40	-9.43	-11.40	-13.43	-15.40
QUAL	23	23	23	23	23	23	23	23

PASS 3093 AT QUITOE, 63 513

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)
	221227
1000	0.261
950	0.285
900	0.314
850	0.370
800	0.461
750	0.607
700	0.832
650	1.222
600	1.961
550	3.115
500	4.755
450	6.682
400	8.566
350	
300	

HEIGHT	SCALE HEIGHT, KM
950	530.0
900	400.2
850	313.5
800	239.3
750	186.5
700	156.3
650	126.9
600	108.3
550	113.4
500	133.5
450	170.1
400	301.5
350	
300	

LONG	-78.12
LAT	-16.41
QUAL	23



PASS 3093 AT AGASTA, 63 513  
 ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	221320	221355	221431	221542	221617	221653	221728	221804
1000	0.232	0.218	0.211	0.181	0.153	0.139	0.120	0.112
950	0.252	0.240	0.230	0.196	0.168	0.151	0.130	0.120
900	0.276	0.265	0.258	0.215	0.186	0.169	0.142	0.129
850	0.313	0.296	0.289	0.239	0.208	0.188	0.156	0.141
800	0.379	0.332	0.324	0.267	0.233	0.211	0.173	0.155
750	0.469	0.409	0.383	0.298	0.262	0.236	0.220	0.172
700	0.652	0.520	0.475	0.334	0.326	0.285	0.285	0.204
650	0.982	0.768	0.621	0.441	0.416	0.367	0.366	0.263
600	1.671	1.180	0.934	0.583	0.527	0.470	0.471	0.338
550	2.769	2.061	1.565	0.840	0.729	0.631	0.608	0.452
500	4.542	3.693	2.849	1.200	0.999	0.859	0.771	0.594
450	7.006	6.157	5.079	2.325	1.726	1.293	1.220	0.868
400	9.780	9.151	8.350	4.719	3.158	2.095	1.870	1.333
350			12.427	8.868	5.898	3.644	2.806	2.012
300						6.777	4.717	3.304
HEIGHT	SCALE HEIGHT, KM							
950	553.8	498.6	503.2	543.8	491.5	542.4	563.8	671.6
900	449.6	466.4	444.1	476.4	447.2	461.7	503.1	593.0
850	354.4	401.5	399.6	442.4	410.4	423.5	432.6	529.1
800	286.5	336.6	355.1	408.3	373.5	385.2	363.0	465.1
750	218.7	259.4	298.4	374.3	336.6	346.9	320.7	401.2
700	158.7	180.6	233.7	340.2	290.5	303.0	278.4	333.9
650	115.8	141.2	173.0	256.4	242.8	253.9	236.0	262.7
600	108.0	108.5	124.3	168.2	195.0	204.8	202.7	191.5
550	102.5	89.8	95.0	137.7	161.3	172.4	182.9	175.7
500	107.7	90.5	84.1	114.7	129.2	148.7	163.0	160.1
450	128.1	112.1	93.1	74.1	89.7	123.3	135.6	139.9
400	194.9	139.6	112.3	73.7	81.7	100.3	119.4	120.5
350			156.7	87.9	82.5	81.7	110.9	112.0
300						93.6	100.3	101.9
LONG	-77.79	-77.56	-77.31	-76.79	-76.52	-76.22	-75.90	-75.57
LAT	-19.39	-21.35	-23.37	-27.34	-29.30	-31.31	-33.26	-35.26
QUAL	23	23	23	23	23	23	23	23

PASS 3093 AT AGASTA, 63 513

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)					
	221839	221915	221951	222026	222102	222213
1000	0.100	0.088	0.089	0.069	0.063	0.065
950	0.107	0.096	0.095	0.076	0.090	0.071
900	0.114	0.104	0.102	0.083	0.096	0.077
850	0.124	0.112	0.110	0.091	0.104	0.084
800	0.139	0.122	0.119	0.100	0.113	0.092
750	0.158	0.137	0.131	0.110	0.126	0.102
700	0.182	0.156	0.154	0.127	0.141	0.115
650	0.211	0.183	0.185	0.151	0.160	0.132
600	0.246	0.216	0.221	0.181	0.194	0.163
550	0.267	0.266	0.289	0.216	0.245	0.210
500	0.501	0.424	0.390	0.308	0.333	0.283
450	0.739	0.616	0.548	0.445	0.466	0.416
400	0.999	0.862	0.808	0.672	0.690	0.637
350	1.576	1.328	1.174	0.991	0.962	0.913
300	2.474	2.089	1.728	1.420	1.242	1.213
HEIGHT	SCALE HEIGHT, KM					
950	739.8	605.0	736.1	574.6	683.3	597.0
900	645.2	618.2	664.0	548.2	684.3	585.1
850	550.1	568.3	590.5	505.7	627.4	571.8
800	451.5	510.5	517.1	460.4	513.7	483.5
750	364.4	430.4	444.4	415.1	440.7	436.3
700	332.0	352.1	381.6	369.7	396.1	389.1
650	299.6	305.2	318.8	324.2	351.5	329.9
600	267.1	258.3	256.0	278.7	260.2	227.5
550	233.3	208.7	210.1	233.2	177.9	188.1
500	119.6	137.6	172.6	178.4	161.6	151.6
450	124.0	131.0	147.4	130.1	135.0	129.9
400	134.7	132.2	136.1	130.8	149.8	135.4
350	114.0	115.5	133.9	155.8	175.4	165.3
300	111.3	131.0	139.6	229.7	207.5	215.2
LONG	-75.21	-74.81	-74.39	-73.93	-73.45	-72.30
LAT	-37.20	-39.20	-41.18	-43.11	-45.09	-48.98
QUAL	23	23	23	22	23	23

PASS 3106 AT RESLUT, 63 514  
 ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	203318	203336	203354	203411	203429	203447	203505	203522
1000	0.149	0.158	0.153	0.156	0.163	0.177	0.150	0.183
950	0.164	0.174	0.171	0.173	0.183	0.197	0.166	0.204
900	0.187	0.196	0.191	0.196	0.205	0.221	0.189	0.229
850	0.211	0.221	0.214	0.220	0.229	0.249	0.214	0.258
800	0.241	0.250	0.243	0.251	0.261	0.284	0.244	0.292
750	0.279	0.267	0.280	0.288	0.302	0.330	0.285	0.340
700	0.325	0.331	0.324	0.333	0.351	0.387	0.335	0.397
650	0.389	0.397	0.389	0.406	0.419	0.465	0.397	0.477
600	0.470	0.478	0.472	0.495	0.511	0.558	0.493	0.578
550	0.565	0.583	0.580	0.615	0.621	0.678	0.611	0.698
500	0.737	0.732	0.726	0.778	0.779	0.862	0.758	0.881
450	0.941	0.927	0.923	1.016	1.002	1.106	0.965	1.137
400	1.211	1.183	1.192	1.322	1.310	1.426	1.234	1.479
350	1.539	1.503	1.537	1.670	1.663	1.810	1.558	1.859
300	1.892	1.870	1.918	2.038	2.038	2.142	1.900	2.265

HEIGHT	SCALE HEIGHT, KM							
950	466.8	467.6	449.0	465.9	442.6	449.8	466.7	446.2
900	401.5	423.7	431.8	415.4	432.4	422.3	401.3	414.1
850	379.1	401.7	401.2	390.9	395.4	390.1	373.3	391.9
800	356.9	375.3	372.1	364.5	365.6	358.3	346.5	368.0
750	334.7	346.3	343.9	338.0	339.1	327.1	322.7	332.3
700	312.6	317.3	315.7	311.4	312.5	297.8	299.0	296.6
650	282.5	293.5	289.0	283.6	289.3	280.8	276.1	280.0
600	250.1	269.6	263.0	255.7	268.5	263.7	260.4	265.4
550	228.4	240.4	238.6	227.6	247.7	244.0	244.7	250.8
500	212.5	224.6	217.0	201.7	219.0	215.8	226.4	212.5
450	203.4	207.3	201.3	190.6	196.2	204.0	204.7	200.8
400	207.5	208.4	200.8	205.2	204.0	205.9	215.7	208.7
350	228.6	219.3	213.4	230.5	228.7	243.2	236.1	236.1
300	283.0	339.3	273.6	350.7	297.8	447.6	338.9	335.3

LONG	-145.67	-139.68	-133.68	-126.62	-123.62	-118.62	-114.00	-110.56
LAT	80.38	80.26	80.15	79.85	79.41	78.98	78.49	77.88
QUAL	22	21	21	21	31	31	21	31

PASS 3106 AT RESLUT, 63 514  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	203540	203558	203616	203633	203651	203710	203728	203744
1000	0.192	0.176	0.193	0.191	0.197	0.251	0.261	0.225
950	0.210	0.200	0.211	0.207	0.224	0.280	0.286	0.252
900	0.229	0.222	0.233	0.234	0.262	0.312	0.322	0.289
850	0.255	0.250	0.262	0.265	0.304	0.347	0.361	0.331
800	0.291	0.285	0.296	0.301	0.349	0.388	0.406	0.375
750	0.346	0.331	0.337	0.361	0.406	0.444	0.471	0.432
700	0.416	0.387	0.410	0.438	0.473	0.511	0.554	0.504
650	0.499	0.466	0.501	0.538	0.566	0.607	0.655	0.588
600	0.597	0.564	0.613	0.658	0.694	0.739	0.800	0.727
550	0.712	0.680	0.748	0.823	0.863	0.906	0.986	0.910
500	0.908	0.847	0.941	1.043	1.096	1.133	1.249	1.167
450	1.165	1.091	1.201	1.339	1.413	1.441	1.586	1.498
400	1.486	1.414	1.537	1.711	1.789	1.841	2.002	1.897
350	1.863	1.756	1.952	2.152	2.250	2.341	2.471	2.364
300	2.245	2.099	2.335	2.534	2.763	2.666		
HEIGHT	SCALE HEIGHT, KM							
950	552.3	427.0	507.7	560.5	362.0	459.5	483.8	407.9
900	489.9	428.7	447.7	417.9	343.5	463.3	433.7	384.1
850	424.5	392.5	411.3	379.5	339.8	432.2	401.5	369.9
800	365.2	359.1	374.9	341.0	338.7	399.9	369.6	358.8
750	315.1	328.2	338.5	290.9	319.4	365.6	342.5	337.8
700	276.2	297.4	305.4	253.0	300.1	331.3	316.0	313.5
650	269.2	283.1	272.4	246.9	276.4	296.9	289.4	289.2
600	262.1	269.4	250.4	240.7	249.6	262.5	257.4	250.4
550	253.3	255.7	236.4	222.3	221.7	234.1	228.2	214.9
500	215.4	220.8	209.9	208.3	207.2	219.8	217.4	202.2
450	206.7	202.5	207.3	206.6	207.5	211.2	213.0	207.4
400	215.8	218.0	208.9	211.7	215.7	207.4	231.7	222.7
350	245.4	257.7	244.9	240.3	232.0	226.2	266.5	255.1
300	299.0	316.0	389.9	524.2	283.5	321.2		
LONG	-106.92	-103.27	-100.61	-98.20	-95.65	-93.37	-91.57	-89.96
LAT	77.23	76.58	75.82	75.09	74.31	73.44	72.59	71.83
QUAL	21	21	31	31	21	23	23	23

PASS 3106 AT RESLUT, 63 514  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	203803	203821	203838	203856	203914	203932	203950	204007
1000	0.284	0.329	0.225	0.378	0.262	0.252	0.233	0.253
950	0.310	0.355	0.251	0.399	0.287	0.279	0.259	0.285
900	0.347	0.392	0.285	0.428	0.319	0.308	0.294	0.323
850	0.387	0.434	0.324	0.465	0.354	0.342	0.334	0.366
800	0.436	0.489	0.365	0.509	0.394	0.381	0.379	0.415
750	0.505	0.559	0.423	0.561	0.450	0.441	0.440	0.481
700	0.591	0.651	0.493	0.668	0.519	0.516	0.514	0.560
650	0.692	0.773	0.575	0.803	0.617	0.614	0.615	0.665
600	0.844	0.920	0.707	0.962	0.748	0.741	0.743	0.813
550	1.043	1.144	0.882	1.166	0.930	0.915	0.922	1.003
500	1.323	1.448	1.125	1.468	1.184	1.156	1.169	1.268
450	1.669	1.841	1.447	1.852	1.515	1.475	1.497	1.612
400	2.138	2.318	1.837	2.331	1.943	1.910	1.933	2.067
350	2.618	2.849	2.302	2.892	2.506	2.495	2.498	2.646
300		3.273		3.473	3.197	3.194	3.160	3.327

HEIGHT	SCALE HEIGHT, KM							
950	508.3	597.0	424.6	758.3	513.1	496.8	449.5	401.4
900	456.3	504.6	404.1	638.2	478.6	477.9	411.0	399.4
850	412.8	443.1	383.3	572.8	450.4	436.8	383.1	382.5
800	375.0	397.7	362.4	507.4	418.3	399.6	358.5	360.4
750	350.5	355.8	338.7	441.9	370.9	358.7	333.2	335.1
700	326.1	321.2	315.0	354.5	325.1	317.7	308.0	309.8
650	301.6	294.6	291.3	277.3	285.2	285.6	280.8	283.8
600	259.2	268.0	259.9	262.9	250.1	259.2	253.1	256.5
550	227.4	237.4	226.6	243.5	222.0	225.3	222.2	232.3
500	211.9	213.5	212.9	218.3	211.0	212.4	210.9	218.1
450	207.7	214.3	208.3	216.7	203.3	202.6	201.4	205.7
400	233.0	229.9	216.3	226.4	199.6	191.7	196.8	204.2
350	299.1	277.2	237.3	248.5	201.4	190.6	205.2	211.2
300		649.7		423.9	238.0	232.3	232.7	250.1

LONG	-88.13	-86.81	-85.56	-84.23	-83.17	-82.17	-81.18	-80.33
LAT	70.92	70.02	69.16	68.26	67.33	66.40	65.47	64.58
QUAL	31	21	33	21	22	31	32	22

PASS 3106 AT RESLUT, 63 514

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	204025	204043	204101	204117	204135	204153	204211	204228
1000	0.292	0.248	0.236	0.217	0.212	<b>0.216</b>	0.212	0.213
950	0.317	0.276	0.265	0.244	0.240	<b>0.248</b>	0.240	0.240
900	0.356	0.315	0.296	0.277	0.276	<b>0.288</b>	0.281	0.279
850	0.396	0.359	0.331	0.317	0.318	<b>0.336</b>	0.332	0.329
800	0.445	0.406	0.377	0.361	0.367	<b>0.388</b>	0.386	0.383
750	0.513	0.471	0.436	0.420	0.426	<b>0.453</b>	0.451	0.451
700	0.595	0.551	0.524	0.502	0.510	<b>0.537</b>	0.535	0.542
650	0.703	0.647	0.641	0.600	0.611	<b>0.635</b>	0.637	0.651
600	0.859	0.790	0.789	0.741	0.762	<b>0.778</b>	0.789	0.807
550	1.060	0.984	0.984	0.931	0.957	<b>0.967</b>	0.988	1.008
500	1.325	1.250	1.259	1.209	1.240	<b>1.265</b>	1.298	1.319
450	1.679	1.605	1.620	1.583	1.624	<b>1.684</b>	1.725	1.734
400	2.155	2.088	2.111	2.101	2.176	<b>2.303</b>	2.312	2.295
350	2.749	2.683	2.758	2.799	2.889	<b>3.065</b>	3.061	3.031
300	3.412	3.268	3.361	3.437	3.579	<b>3.876</b>	3.823	3.845
HEIGHT	SCALE HEIGHT, KM							
950	542.9	419.9	446.0	405.3	381.0	<b>340.2</b>	349.8	373.0
900	464.6	399.3	442.4	381.1	357.8	<b>339.8</b>	333.3	343.5
850	421.2	377.5	404.0	359.8	340.8	<b>334.8</b>	320.6	320.5
800	384.3	355.1	357.9	339.1	326.8	<b>320.5</b>	314.0	305.1
750	355.6	334.1	311.1	316.6	309.7	<b>306.3</b>	302.0	289.9
700	326.9	313.4	285.4	292.4	283.6	<b>292.1</b>	284.3	274.6
650	295.7	292.6	264.0	268.2	257.5	<b>277.8</b>	265.6	259.4
600	259.4	257.0	240.2	239.7	233.2	<b>247.2</b>	236.0	235.3
550	234.3	220.0	213.9	208.7	209.9	<b>209.7</b>	208.1	209.4
500	223.1	209.0	205.6	195.4	194.7	<b>190.4</b>	187.2	190.0
450	204.2	195.6	194.5	181.8	178.0	<b>165.5</b>	171.8	180.1
400	206.6	198.3	189.6	176.3	174.8	<b>168.2</b>	175.0	180.9
350	215.6	221.3	212.3	201.2	201.1	<b>192.8</b>	200.0	191.6
300	286.3	378.5	312.3	318.5	327.8	<b>309.2</b>	423.7	352.7
LONG	-79.56	-78.79	-78.03	-77.48	-76.88	<b>-76.27</b>	-75.73	-75.26
LAT	63.62	62.66	61.71	60.84	59.88	<b>58.91</b>	57.93	57.01
QUAL	21	21	21	21	22	<b>21</b>	21	21

PASS 3134 AT CUJEGE, 63 516  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	214819	214854	214929	215004	215040	215117	215152	215228
1000	0.209	0.194	0.212	0.209	0.229	0.315	0.281	0.262
950	0.246	0.217	0.240	0.245	0.252	0.338	0.305	0.295
900	0.277	0.246	0.274	0.279	0.280	0.370	0.343	0.330
850	0.309	0.281	0.312	0.317	0.313	0.410	0.382	0.369
800	0.344	0.321	0.354	0.361	0.352	0.456	0.426	0.414
750	0.386	0.370	0.405	0.411	0.404	0.509	0.486	0.472
700	0.443	0.429	0.467	0.477	0.466	0.578	0.557	0.541
650	0.522	0.505	0.541	0.555	0.544	0.677	0.654	0.632
600	0.619	0.593	0.650	0.664	0.644	0.796	0.777	0.758
550	0.752	0.704	0.788	0.815	0.765	0.969	0.939	0.911
500	0.922	0.877	0.977	1.008	0.946	1.207	1.159	1.118
450	1.160	1.116	1.233	1.264	1.202	1.556	1.458	1.404
400	1.497	1.447	1.555	1.609	1.550	2.049	1.879	1.844
350	2.045	1.911	1.949	2.036	2.115	2.764	2.466	2.557
300	2.921	2.401	2.411	2.454		3.822	3.181	3.435
HEIGHT	SCALE HEIGHT, KM							
950		423.0	398.1		492.9	615.3	537.0	433.0
900	440.5	387.5	386.6	384.2	453.0	533.8	455.9	443.8
850	446.9	377.0	379.7	384.5	422.2	476.6	435.4	423.3
800	435.5	362.2	373.5	370.9	392.7	445.2	414.8	398.8
750	381.8	337.8	357.2	353.5	368.2	413.8	378.0	369.5
700	345.0	316.3	336.2	327.8	343.8	377.6	341.2	340.2
650	317.9	305.1	314.3	302.2	319.6	335.0	313.2	314.1
600	290.9	292.0	280.2	277.9	295.7	292.3	287.6	292.2
550	264.3	272.4	248.6	254.5	269.8	250.7	258.3	270.4
500	238.0	226.9	222.9	234.0	222.7	217.2	226.5	239.0
450	211.9	203.7	221.5	219.8	207.1	192.9	210.7	202.8
400	180.7	189.7	221.7	211.7	185.7	175.3	190.3	170.7
350	152.2	200.2	229.0	240.1	151.3	160.0	189.7	162.3
300	161.4	351.6	242.3	396.4		152.6	454.0	218.6
LONG	-162.52	-151.22	-141.84	-133.16	-126.57	-119.31	-111.90	-109.98
LAT	80.28	79.87	78.99	77.97	76.59	75.06	73.50	71.79
QUAL	31	31	33	31	33	33	31	33

PASS 3134 AT COLEGE, 63 516

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	215303	215339	215414	215449	215524	215549	215635	215710
1000	0.307	0.309	0.306	0.236	0.208	0.190	0.184	0.181
950	0.348	0.354	0.351	0.278	0.239	0.216	0.208	0.205
900	0.396	0.410	0.408	0.326	0.279	0.249	0.240	0.234
850	0.452	0.480	0.476	0.383	0.329	0.289	0.276	0.269
800	0.514	0.564	0.556	0.453	0.385	0.334	0.317	0.308
750	0.585	0.675	0.652	0.535	0.461	0.387	0.367	0.354
700	0.673	0.820	0.768	0.645	0.557	0.461	0.436	0.421
650	0.778	0.992	0.906	0.802	0.675	0.555	0.520	0.501
600	0.924	1.189	1.072	0.996	0.834	0.685	0.640	0.614
550	1.112	1.427	1.294	1.277	1.046	0.867	0.810	0.769
500	1.302	1.735	1.592	1.676	1.354	1.125	1.047	0.994
450	1.609	2.169	2.037	2.244	1.824	1.487	1.367	1.310
400	2.197	2.809	2.735	3.003	2.465	1.986	1.802	1.729
350	3.048	3.641	3.732	3.963	3.201	2.615	2.382	2.280
300	3.918		4.703	4.860	3.833	3.269	3.036	2.932
HEIGHT	SCALE HEIGHT, KM							
950	389.5	351.2	344.0	304.4	336.1	363.6	373.6	385.3
900	383.6	325.1	328.1	304.7	325.5	348.6	356.5	368.4
850	379.1	307.3	320.8	302.9	311.3	337.0	344.7	355.4
800	376.3	292.4	318.1	289.3	287.8	327.5	334.1	343.1
750	373.6	280.8	314.2	275.1	276.0	314.9	320.9	328.6
700	347.6	271.5	308.6	259.0	266.8	285.4	296.2	300.4
650	317.2	271.2	295.9	241.2	255.9	256.7	271.5	272.2
600	288.0	270.3	279.0	223.0	232.7	229.9	229.5	239.8
550	263.0	263.6	258.7	199.2	209.3	203.5	206.8	211.3
500	246.3	240.0	225.3	178.1	185.3	188.8	194.0	190.6
450	212.9	211.8	188.9	173.2	166.7	178.7	187.9	184.2
400	171.4	193.4	164.3	174.8	178.2	178.0	180.1	179.7
350	173.1	204.4	181.5	209.2	231.9	201.5	190.3	188.2
300	222.9		319.9	353.4	499.8	272.5	258.1	252.5
LONG	-109.51	-107.08	-104.94	-103.14	-101.62	-100.62	-99.06	-98.00
LAT	70.09	68.26	66.47	64.64	62.78	61.45	58.97	57.07
QUAL	33	33	31	21	11	11	11	11



PASS 3134 AT COLEGE, 63 516  
 ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)
	215728
1000	0.180
950	0.204
900	0.232
850	0.266
800	0.304
750	0.351
700	0.417
650	0.497
600	0.608
550	0.767
500	0.988
450	1.305
400	1.715
350	2.266
300	2.902
HEIGHT	SCALE HEIGHT, KM
950	385.9
900	372.6
850	359.1
800	345.6
750	327.8
700	299.3
650	269.5
600	234.3
550	210.1
500	192.8
450	187.7
400	179.9
350	189.1
300	249.8
LONG	-97.54
LAT	56.09
QUAL	11

PASS 3134 AT FIMYRS, 53 516

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)													
	220820	220857	220932	221008	221043	221118	221154	221229						
1000	0.291	0.319	0.375	0.385	0.434	0.468	0.482	0.484						
950	0.340	0.371	0.430	0.446	0.499	0.531	0.551	0.549						
900	0.398	0.434	0.502	0.525	0.587	0.622	0.640	0.635						
850	0.466	0.510	0.589	0.623	0.697	0.736	0.749	0.741						
800	0.553	0.605	0.696	0.739	0.827	0.871	0.878	0.865						
750	0.673	0.719	0.854	0.908	1.005	1.046	1.063	1.031						
700	0.838	0.914	1.077	1.140	1.259	1.299	1.319	1.270						
650	1.064	1.178	1.391	1.490	1.614	1.668	1.681	1.631						
600	1.418	1.575	1.874	2.037	2.164	2.242	2.271	2.216						
550	1.979	2.241	2.707	2.966	3.118	3.206	3.272	3.220						
500	2.962	3.367	4.187	4.618	4.893	5.003	5.106	5.111						
450	4.834	5.561	6.899	7.642	8.212	8.244	8.394	8.644						
400	8.297	9.663	11.375	12.347	12.835	12.767	13.074	13.751						
350	12.970													
300														
HEIGHT	SCALE HEIGHT, KM													
	950	900	850	800	750	700	650	600	550	500	450	400	350	300
317.1	321.0	346.2	320.0	330.1	347.2	350.9	362.9							
315.3	311.2	320.4	301.5	307.6	320.8	329.4	340.2							
295.9	300.7	296.6	282.8	289.2	299.1	308.5	319.9							
271.2	275.8	267.9	264.0	272.6	285.4	287.1	301.5							
247.3	250.8	242.0	238.5	243.7	254.3	254.2	266.2							
221.7	219.6	217.2	210.6	212.2	217.5	221.0	222.4							
194.9	189.2	187.4	178.1	192.3	188.5	191.2	186.1							
168.6	161.6	152.9	147.3	155.5	156.5	153.1	150.8							
138.5	133.8	126.1	124.4	125.8	127.2	126.6	121.8							
113.4	112.8	108.5	104.5	100.8	104.3	103.4	98.2							
95.5	90.5	96.8	97.8	99.6	101.8	100.5	95.2							
96.6	94.9	122.6	134.2	140.9	144.3	131.6	130.3							
139.8														
LONG	-89.27	-89.03	-88.82	-88.60	-88.41	-88.21	-88.01	-87.83						
LAT	19.73	17.65	15.67	13.64	11.67	9.69	7.66	5.68						
QUAL	33	33	33	33	33	33	33	33						

PASS 3134 AT FIMYRS, 63 516

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)			
	221305	221340	221416	221451
1000	0.478	0.441	0.415	0.408
950	0.539	0.501	0.471	0.467
900	0.616	0.576	0.544	0.547
850	0.713	0.670	0.641	0.656
800	0.833	0.784	0.761	0.792
750	1.001	0.975	0.970	1.037
700	1.256	1.261	1.317	1.410
650	1.641	1.710	1.846	1.871
600	2.324	2.525	2.642	2.476
550	3.578	3.978	3.771	3.464
500	5.920	6.167	5.409	4.942
450	9.928	8.994	7.801	6.851
400		12.657	10.747	9.031
350				11.186
300				

HEIGHT	SCALE HEIGHT, KM			
950	390.2	379.9	364.1	337.9
900	355.9	347.2	322.5	289.6
850	325.4	312.8	286.8	261.9
800	297.1	277.8	252.0	234.3
750	257.0	222.9	206.5	191.7
700	206.1	184.0	160.5	171.2
650	170.2	150.3	144.2	177.8
600	131.0	113.9	140.5	166.1
550	109.5	111.5	141.2	143.2
500	92.9	121.3	133.4	144.0
450	106.9	135.2	146.0	168.2
400		178.1	182.4	198.6
350				338.3
300				

LONG	-87.63	-87.45	-87.26	-87.08
LAT	3.65	1.68	-0.35	-2.32
QUAL	33	33	33	33

PASS 3134 AT QUITOE, 63 516								
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)								
HEIGHT	TIME (UT)							
	221154	221229	221305	221340	221415	221451	221526	221602
1000	0.450	0.463	0.454	0.422	0.416	0.386	0.381	0.377
950	0.520	0.525	0.512	0.480	0.469	0.444	0.448	0.445
900	0.607	0.607	0.587	0.555	0.542	0.522	0.552	0.547
850	0.719	0.719	0.692	0.657	0.663	0.656	0.689	0.678
800	0.868	0.876	0.847	0.796	0.836	0.856	0.853	0.813
750	1.061	1.072	1.043	0.983	1.070	1.112	1.052	0.987
700	1.322	1.335	1.316	1.239	1.390	1.419	1.324	1.219
650	1.640	1.666	1.658	1.609	1.799	1.781	1.654	1.502
600	2.270	2.256	2.335	2.434	2.646	2.427	2.191	2.057
550	3.322	3.348	3.592	3.805	3.736	3.386	3.041	2.885
500	5.146	5.342	6.020	5.844	5.345	4.819	4.209	3.939
450	8.247	8.900	9.692	8.478	7.760	6.637	5.709	5.224
400	13.238	14.266		11.820	10.575	8.687	7.310	6.683
350						10.694	8.915	
300								
HEIGHT	SCALE HEIGHT, KM							
	950	900	850	800	750	700	650	600
331.9	366.6	381.1	361.1	371.3	325.7	288.6	292.8	
305.9	317.0	329.5	321.3	297.1	263.9	255.0	278.2	
281.8	284.1	290.5	285.9	258.8	232.9	236.3	264.9	
260.2	266.9	264.8	255.6	227.6	211.6	232.6	255.5	
239.1	249.7	239.0	227.4	202.8	199.3	227.4	241.3	
219.2	225.7	213.0	201.5	186.4	196.3	214.4	224.2	
199.2	199.0	187.1	167.0	169.1	193.3	201.5	207.1	
156.2	157.1	140.9	117.4	138.8	166.8	179.3	170.2	
125.4	119.4	104.6	113.8	143.2	148.5	155.4	156.0	
107.4	100.7	100.4	125.9	136.9	149.1	160.0	169.6	
105.1	98.5	115.1	141.9	146.3	170.9	184.7	192.0	
117.8	120.3		167.7	190.6	214.4	228.3	258.7	
					308.5	283.6		
LONG	-88.01	-87.83	-87.63	-87.45	-87.27	-87.08	-86.89	-86.70
LAT	7.66	5.68	3.65	1.68	-0.29	-2.32	-4.30	-6.33
QUAL	23	23	23	23	23	23	23	23

PASS 3134 AT QUITOE, 63 516

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)					
	221636	221712	221729	221956	222034	222142
1000	0.367	0.369	0.367	0.295	0.288	0.237
950	0.439	0.438	0.437	0.341	0.323	0.259
900	0.527	0.519	0.515	0.414	0.368	0.286
850	0.628	0.612	0.601	0.514	0.453	0.317
800	0.762	0.750	0.759	0.641	0.587	0.352
750	0.987	0.963	0.970	0.813	0.762	0.413
700	1.269	1.227	1.234	1.020	0.987	0.496
650	1.633	1.576	1.577	1.308	1.267	0.619
600	2.092	1.997	2.000	1.696	1.699	0.793
550	2.826	2.696	2.706	2.479	2.472	1.150
500	3.793	3.628	3.644	3.732	3.813	1.899
450	4.966	4.793	4.832	5.392	5.764	3.417
400	6.333	6.135	6.066	7.383	8.203	6.151
350				9.383	10.840	9.800
300						
HEIGHT	SCALE HEIGHT, KM					
950	271.4	283.6	291.9	316.1	395.3	524.3
900	260.9	272.0	275.1	284.6	307.1	482.9
850	250.4	260.5	258.2	257.7	266.3	441.6
800	239.0	245.9	243.0	231.5	244.1	400.2
750	225.0	228.2	228.0	221.8	221.8	337.3
700	211.0	210.6	213.4	212.2	202.0	267.2
650	197.9	200.5	202.4	192.6	185.4	217.4
600	185.3	190.9	190.8	167.4	158.0	179.0
550	176.2	174.7	174.6	136.0	126.7	120.3
500	179.7	176.4	174.7	130.6	117.4	93.3
450	198.9	192.6	231.5	146.3	131.5	80.7
400	283.1	278.8	424.1	184.9	154.1	96.2
350				256.3	238.9	116.2
300						
LONG	-86.52	-86.32	-86.23	-85.35	-85.10	-84.63
LAT	-8.25	-10.28	-11.23	-19.50	-21.63	-25.43
QUAL	23	22	23	23	23	23

PASS 3134 AT QUITOE, 63 516

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)		
	222217	222253	222310
1000	0.227	0.208	0.196
950	0.250	0.227	0.213
900	0.275	0.249	0.234
850	0.301	0.274	0.256
800	0.335	0.305	0.288
750	0.376	0.345	0.325
700	0.434	0.397	0.370
650	0.544	0.473	0.442
600	0.703	0.566	0.531
550	0.926	0.794	0.708
500	1.466	1.179	1.030
450	2.513	1.926	1.654
400	4.447	3.233	2.691
350	8.023	5.604	4.639
300		9.425	7.886
HEIGHT	SCALE HEIGHT, KM		
950	537.6	541.9	553.7
900	514.9	513.4	513.1
850	479.4	484.3	472.4
800	430.4	438.2	430.5
750	381.5	382.8	388.6
700	321.1	328.9	346.3
650	231.8	276.9	291.6
600	185.0	225.0	236.9
550	153.9	159.0	176.6
500	100.3	113.9	122.0
450	92.8	100.8	106.3
400	81.3	93.1	98.2
350	95.4	90.4	90.5
300		97.5	100.6
LONG	-84.36	-84.08	-83.93
LAT	-27.39	-29.40	-30.35
QUAL	22	22	22

PASS 3134 AT AGASTA, 63 516

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	221920	221956	222029	222106	222141	222217	222252	222328
1000	0.310	0.310	0.286	0.268	0.259	0.254	0.213	0.197
950	0.363	0.351	0.321	0.294	0.280	0.272	0.230	0.212
900	0.432	0.402	0.364	0.328	0.309	0.296	0.251	0.232
850	0.518	0.487	0.429	0.373	0.346	0.323	0.277	0.255
800	0.628	0.604	0.518	0.438	0.397	0.364	0.311	0.281
750	0.781	0.756	0.644	0.520	0.469	0.421	0.352	0.309
700	0.973	0.948	0.832	0.651	0.557	0.495	0.413	0.340
650	1.218	1.202	1.111	0.859	0.713	0.596	0.489	0.418
600	1.637	1.610	1.546	1.203	0.944	0.786	0.593	0.537
550	2.359	2.397	2.289	1.812	1.381	1.074	0.838	0.701
500	3.488	3.647	3.634	2.919	2.287	1.606	1.227	0.941
450	4.979	5.394	5.605	4.831	4.004	2.733	1.948	1.452
400	6.723	7.426	8.114	7.653	6.787	4.916	3.396	2.308
350	8.412	9.423	10.880	11.141	10.486	8.773	5.842	3.902
300						13.315		6.796
HEIGHT	SCALE HEIGHT, KM							
950	286.9	372.1	392.4	489.3	537.5	658.2	585.1	618.6
900	274.9	306.8	340.3	416.1	470.4	584.7	526.2	522.4
850	264.4	269.3	300.0	345.1	407.1	481.2	469.4	485.9
800	253.1	235.1	261.7	305.7	353.5	382.0	416.3	453.1
750	239.8	227.1	226.4	266.2	307.6	329.1	363.1	420.2
700	223.2	216.1	194.8	220.3	261.7	287.7	317.4	387.3
650	199.2	193.7	165.3	168.7	211.7	244.4	272.2	310.7
600	154.7	152.3	142.4	138.4	161.5	192.5	223.6	217.3
550	131.8	120.6	116.8	115.8	118.8	146.6	151.9	177.5
500	131.4	121.7	111.2	98.0	90.1	110.2	121.8	146.2
450	154.3	139.5	121.4	104.5	92.3	87.5	98.4	114.1
400	189.4	181.4	146.6	119.2	101.8	84.0	89.5	102.1
350	288.5	274.8	224.4	158.1	127.8	94.8	92.4	93.9
300						210.2		83.6
LONG	-85.58	-85.35	-85.14	-84.89	-84.64	-84.36	-84.08	-83.78
LAT	-17.47	-19.50	-21.35	-23.42	-25.38	-27.39	-29.34	-31.35
QUAL	23	23	23	23	23	23	23	23

PASS 3134 AT AGASTA, 63 516  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)			
	222403	222438	222514	222549
1000	0.173	0.149	0.136	0.115
950	0.185	0.159	0.144	0.125
900	0.199	0.171	0.150	0.133
850	0.217	0.186	0.162	0.143
800	0.240	0.204	0.172	0.154
750	0.270	0.226	0.182	0.165
700	0.310	0.254	0.202	0.182
650	0.364	0.299	0.255	0.207
600	0.451	0.356	0.306	0.237
550	0.566	0.463	0.376	0.298
500	0.796	0.629	0.558	0.413
450	1.151	0.929	0.759	0.602
400	1.763	1.398	1.072	0.841
350	2.870	2.222	1.623	1.241
300	5.200	3.968	2.722	2.050

HEIGHT	SCALE HEIGHT, KM			
950	701.9	702.4	1110.3	737.9
900	605.8	628.4	916.0	741.7
850	550.3	557.4	744.9	703.2
800	494.8	503.5	673.1	641.2
750	403.2	449.5	601.3	558.9
700	332.5	390.5	486.4	477.5
650	272.7	317.8	298.8	396.7
600	232.5	246.7	244.6	315.8
550	192.4	197.0	206.6	208.7
500	153.6	154.0	147.0	158.2
450	127.8	126.2	149.6	141.4
400	111.3	117.2	132.1	142.4
350	95.5	98.4	112.0	114.9
300	75.9	80.6	91.2	91.3

LONG	-83.47	-83.13	-82.77	-82.39
LAT	-33.30	-35.25	-37.24	-39.17
QUAL	23	23	23	33



PASS 3134 AT SOLANT, 63 516

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	222311	222346	222421	222457	222532	222608	222701	222736
1000	0.188	0.166	0.140	0.122	0.118	0.107	0.110	0.103
950	0.204	0.179	0.152	0.133	0.124	0.114	0.115	0.108
900	0.223	0.195	0.165	0.142	0.129	0.121	0.119	0.114
850	0.245	0.214	0.179	0.150	0.134	0.130	0.123	0.121
800	0.275	0.239	0.197	0.165	0.146	0.140	0.132	0.128
750	0.313	0.270	0.221	0.185	0.160	0.152	0.151	0.137
700	0.359	0.314	0.255	0.208	0.174	0.167	0.167	0.148
650	0.425	0.373	0.300	0.236	0.202	0.189	0.181	0.166
600	0.526	0.453	0.355	0.267	0.241	0.217	0.194	0.189
550	0.696	0.581	0.471	0.345	0.299	0.263	0.224	0.223
500	1.066	0.817	0.659	0.504	0.383	0.341	0.297	0.280
450	1.618	1.240	1.006	0.710	0.567	0.491	0.404	0.366
400	2.735	1.973	1.537	1.143	0.893	0.724	0.584	0.484
350	4.871	3.383	2.462	1.788	1.385	1.099	0.844	0.709
300	8.618	6.400	4.264	3.075	2.257	1.778	1.229	1.083
HEIGHT	SCALE HEIGHT, KM							
950	562.2	596.2	618.2		1172.5	804.4	1357.3	970.4
900	521.4	553.4	602.9	770.7	1047.7	755.2	1295.5	912.0
850	480.6	505.0	542.1	672.4	923.0	701.1	1065.7	836.6
800	440.5	443.8	472.5	550.8	580.7	641.0	822.8	750.3
750	400.6	361.4	396.0	431.3	492.2	547.6	573.4	656.6
700	328.8	311.5	339.1	388.8	442.1	458.9	503.4	561.5
650	263.5	281.8	294.3	346.3	366.1	396.2	477.1	461.5
600	221.0	244.1	249.5	303.8	290.0	333.5	450.9	361.8
550	170.6	176.5	188.8	225.0	227.8	257.8	326.1	265.9
500	123.7	134.6	137.5	134.8	175.6	170.3	170.1	214.6
450	99.0	115.8	119.0	126.9	116.6	133.8	148.5	181.0
400	91.6	101.5	115.7	111.0	112.1	125.8	136.0	159.0
350	86.2	85.1	99.6	103.9	111.6	112.7	135.7	129.9
300	99.1	76.1	81.3	85.8	92.2	98.9	122.5	123.2
LONG	-83.92	-83.62	-83.30	-82.95	-82.57	-82.17	-81.51	-81.01
LAT	-30.40	-32.35	-34.30	-36.30	-38.24	-40.22	-43.14	-45.07
QUAL	23	23	23	23	23	33	33	32

PASS 3134 AT SOLANT, 63 516  
 ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)	
	222921	222957
1000	0.074	0.061
950	0.079	0.066
900	0.084	0.072
850	0.091	0.079
800	0.098	0.085
750	0.107	0.093
700	0.119	0.104
650	0.136	0.119
600	0.157	0.140
550	0.182	0.170
500	0.229	0.214
450	0.322	0.294
400	0.473	0.435
350	0.686	0.635
300	0.963	0.883
HEIGHT	SCALE HEIGHT, KM	
950	787.3	582.6
900	719.9	579.5
850	659.3	580.2
800	594.6	569.9
750	507.3	492.0
700	422.2	417.4
650	380.4	363.1
600	338.6	308.8
550	296.8	254.2
500	201.9	199.2
450	144.6	151.8
400	131.6	125.1
350	141.5	142.0
300	145.4	150.8
LONG	-79.26	-78.55
LAT	-50.81	-52.77
QUAL	32	33

PASS 3147 AT RESLUT, 63 517

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	2042.8	204237	204255	204312	204330	204348	204406	204423
1000	0.249	0.208	0.191	0.192	0.206	0.278	0.209	0.254
950	0.284	0.240	0.232	0.225	0.244	0.325	0.262	0.300
900	0.320	0.276	0.268	0.254	0.287	0.361	0.312	0.341
850	0.358	0.316	0.302	0.281	0.334	0.401	0.360	0.382
800	0.411	0.359	0.345	0.320	0.365	0.458	0.414	0.436
750	0.477	0.423	0.394	0.367	0.460	0.528	0.471	0.498
700	0.554	0.505	0.459	0.426	0.549	0.612	0.547	0.578
650	0.652	0.601	0.538	0.496	0.654	0.717	0.642	0.674
600	0.767	0.714	0.630	0.577	0.786	0.839	0.753	0.785
550	0.899	0.864	0.738	0.721	0.955	0.977	0.881	0.914
500	1.063	1.038	0.960	0.917	1.152	1.228	1.097	1.154
450	1.349	1.246	1.238	1.170	1.436	1.562	1.401	1.449
400	1.709	1.571	1.593	1.509	1.852	2.033	1.781	1.831
350	2.182	1.996	2.043	1.989	2.435	2.627	2.247	2.306
300	2.737	2.565	2.636	2.704	3.198	3.225	2.939	2.880
HEIGHT	SCALE HEIGHT, KM							
900	392.9	351.7	346.9	405.5	308.8	414.1		380.3
850	382.1	340.8	368.5	412.5	306.7	406.6	341.8	387.0
800	364.2	329.8	355.7	383.5	304.4	383.0	339.2	368.6
750	345.9	319.1	342.9	354.4	297.3	359.3	336.7	350.3
700	327.5	308.4	324.7	329.0	290.1	337.1	324.6	333.9
650	313.4	297.6	305.3	304.2	282.9	317.6	309.5	317.7
600	299.9	286.9	285.8	279.4	272.5	298.1	294.5	301.5
550	286.4	275.5	266.1	252.7	258.7	276.5	279.4	284.6
500	269.5	264.0	239.5	225.7	245.0	244.1	254.8	253.5
450	236.6	250.8	212.8	204.3	224.3	206.8	225.4	222.4
400	212.2	224.6	202.5	191.9	197.5	203.0	208.8	219.8
350	211.3	207.0	200.2	176.9	181.8	219.9	202.8	220.5
300	298.6	220.3	212.6	176.3	272.8	335.1	208.7	249.9
LONG	-113.50	-110.22	-107.12	-104.81	-102.62	-100.44	-98.47	-96.99
LAT	77.06	76.30	75.59	74.85	74.03	73.21	72.38	71.55
QUAL	33	33	33	32	32	32	33	33

PASS 3147 AT RESLUT, 63 517  
 ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	204441	204459	204517	204534	204552	204610	204627	204645
1000	0.230	0.198	0.254	0.303	0.313	0.209	0.219	0.233
950	0.270	0.235	0.287	0.344	0.360	0.253	0.260	0.275
900	0.311	0.274	0.321	0.379	0.395	0.295	0.305	0.321
850	0.355	0.315	0.356	0.423	0.438	0.344	0.351	0.370
800	0.408	0.365	0.410	0.481	0.499	0.402	0.417	0.429
750	0.468	0.424	0.479	0.550	0.575	0.468	0.504	0.515
700	0.542	0.490	0.560	0.636	0.666	0.552	0.607	0.619
650	0.636	0.576	0.656	0.743	0.775	0.659	0.727	0.739
600	0.744	0.681	0.780	0.867	0.901	0.783	0.886	0.867
550	0.868	0.801	0.922	1.008	1.043	0.924	1.074	1.065
500	1.051	0.952	1.083	1.233	1.296	1.157	1.290	1.270
450	1.328	1.220	1.319	1.557	1.628	1.492	1.628	1.545
400	1.669	1.549	1.727	1.956	2.040	1.940	2.074	1.968
350	2.102	1.935	2.225	2.450	2.560	2.526	2.611	2.525
300	2.647	2.377	2.846	3.104	3.302	3.311	3.235	3.218
HEIGHT	SCALE HEIGHT, KM							
950			427.3	428.4	441.8		296.8	311.0
900	346.7	320.0	406.4	433.1	448.1	308.3	296.4	309.4
850	354.8	333.8	385.6	416.8	430.7	310.3	296.0	307.9
800	346.9	332.5	367.7	391.8	403.4	308.1	291.5	304.9
750	339.1	326.5	349.9	366.7	376.2	306.0	285.5	298.9
700	328.1	320.4	332.1	345.2	350.5	297.7	279.5	292.9
650	315.1	307.6	314.8	327.0	329.7	286.1	273.6	286.9
600	302.2	293.3	299.5	308.9	308.8	274.5	264.2	278.9
550	289.2	279.0	284.3	290.7	288.0	262.9	254.5	269.4
500	269.1	263.0	269.1	266.6	263.8	237.7	244.9	259.9
450	241.2	235.3	248.3	238.5	239.2	204.8	232.0	243.3
400	220.6	221.1	217.5	222.1	222.2	192.5	218.3	215.4
350	217.7	237.7	202.1	218.1	209.7	190.5	228.0	206.8
300	235.7	315.7	207.3	221.9	191.5	199.7	238.7	224.2
LONG	-95.42	-93.86	-92.68	-91.58	-90.42	-89.42	-88.59	-87.70
LAT	70.67	69.79	68.87	68.00	67.08	66.15	65.26	64.31
QUAL	32	32	32	32	32	32	32	32

PASS 3147 AT RESLUT, 63 517

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)						
	204703	204721	204738	204756	204814	<b>204831</b>	204907
1000	0.219	0.214	0.219	0.195	0.210	<b>0.206</b>	0.242
950	0.259	0.248	0.260	0.234	0.250	<b>0.252</b>	0.281
900	0.302	0.286	0.300	0.274	0.295	<b>0.295</b>	0.326
850	0.348	0.327	0.342	0.320	0.342	<b>0.341</b>	0.375
800	0.397	0.379	0.398	0.379	0.404	<b>0.406</b>	0.430
750	0.466	0.459	0.477	0.448	0.478	<b>0.484</b>	0.516
700	0.563	0.558	0.571	0.529	0.563	<b>0.575</b>	0.621
650	0.682	0.675	0.682	0.636	0.675	<b>0.692</b>	0.743
600	0.833	0.828	0.832	0.761	0.815	<b>0.843</b>	0.905
550	1.025	1.013	1.013	0.905	0.978	<b>1.019</b>	1.098
500	1.251	1.238	1.221	1.174	1.281	<b>1.284</b>	1.363
450	1.631	1.605	1.559	1.527	1.680	<b>1.742</b>	1.770
400	2.114	2.075	2.014	1.987	2.197	<b>2.370</b>	2.328
350	2.740	2.668	2.612	2.567	2.896	<b>3.186</b>	3.120
300	3.466	3.356	3.325	3.289	3.770	<b>3.965</b>	3.908
HEIGHT	SCALE HEIGHT, KM						
950		344.8	321.2	290.5	292.8	<b>290.3</b>	334.5
900	333.4	334.3	320.1	297.8	298.8	<b>296.0</b>	328.5
850	325.6	319.7	318.9	301.7	304.8	<b>299.2</b>	321.2
800	317.8	305.5	311.6	297.8	301.5	<b>293.7</b>	314.0
750	304.0	292.4	300.1	293.9	295.9	<b>288.3</b>	300.1
700	285.6	279.3	288.6	288.4	290.4	<b>282.6</b>	286.3
650	267.2	266.2	277.2	273.6	275.0	<b>270.6</b>	272.5
600	251.1	253.1	264.4	258.7	254.1	<b>252.4</b>	256.6
550	236.8	240.0	251.5	243.9	233.2	<b>234.1</b>	240.6
500	222.6	226.2	236.6	222.6	209.2	<b>209.8</b>	221.6
450	208.8	208.2	216.4	200.6	188.6	<b>176.1</b>	198.1
400	197.6	200.5	197.2	196.4	185.2	<b>169.8</b>	180.1
350	203.4	209.1	201.9	200.1	186.7	<b>198.3</b>	190.2
300	244.7	273.3	239.3	214.4	223.6	<b>268.9</b>	361.4
LONG	-86.85	-86.16	-85.51	-84.81	-84.23	<b>-83.70</b>	-82.65
LAT	63.57	62.41	61.50	60.53	59.56	<b>58.64</b>	56.69
QUAL	33	32	32	33	33	<b>33</b>	32

PASS 3147 AT RESLUT, 63 517

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)			
	204924	204942	205000	205017
1000	0.227	0.199	0.203	0.196
950	0.262	0.231	0.234	0.235
900	0.304	0.271	0.269	0.272
850	0.350	0.318	0.311	0.314
800	0.403	0.373	0.369	0.371
750	0.492	0.451	0.440	0.438
700	0.606	0.547	0.524	0.520
650	0.742	0.660	0.634	0.628
600	0.908	0.808	0.773	0.754
550	1.114	0.993	0.935	0.899
500	1.352	1.209	1.139	1.185
450	1.693	1.545	1.537	1.567
400	2.215	2.064	2.050	2.077
350	2.932	2.750	2.706	2.730
300	3.803	3.553	3.519	3.588
HEIGHT	SCALE HEIGHT, KM			
950	341.2	325.9	350.6	298.8
900	327.0	312.5	331.5	309.6
850	312.1	299.1	312.6	313.1
800	297.1	285.7	301.4	303.1
750	285.4	277.4	290.3	293.0
700	274.0	269.3	279.1	281.3
650	262.6	261.1	266.4	266.8
600	251.9	250.4	252.8	252.3
550	242.5	238.3	239.2	237.7
500	233.1	226.2	223.6	213.0
450	216.9	207.0	194.3	186.8
400	192.9	181.5	178.4	182.4
350	176.1	183.6	184.1	183.9
300	316.9	224.1	230.6	216.3
LONG	-82.21	-81.76	-81.31	-80.95
LAT	55.76	54.78	53.80	52.86
QUAL	32	32	33	32

PASS 3147 AT OTTAWA, 63 517  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	205205	205240	205317	205352	205426	205503	205537	205613
1000	0.239	0.244	0.251	0.257	0.235	0.274	0.264	0.256
950	0.268	0.270	0.282	0.292	0.276	0.302	0.298	0.295
900	0.310	0.308	0.322	0.331	0.320	0.345	0.339	0.341
850	0.354	0.351	0.368	0.376	0.370	0.394	0.387	0.394
800	0.410	0.408	0.426	0.432	0.431	0.459	0.448	0.461
750	0.478	0.478	0.498	0.503	0.505	0.541	0.533	0.546
700	0.575	0.574	0.594	0.604	0.608	0.647	0.646	0.661
650	0.705	0.691	0.718	0.729	0.735	0.783	0.790	0.813
600	0.866	0.838	0.880	0.901	0.934	0.944	1.000	1.019
550	1.126	1.128	1.135	1.162	1.202	1.262	1.261	1.333
500	1.460	1.530	1.496	1.541	1.645	1.709	1.733	1.813
450	1.969	2.077	2.025	2.116	2.294	2.365	2.440	2.538
400	2.669	2.790	2.797	2.918	3.184	3.378	3.492	3.674
350	3.579	3.747	3.659	3.979	4.363	4.694	4.924	5.377
300	4.484		4.517					6.979
HEIGHT	SCALE HEIGHT, KM							
950	402.2	448.8	403.7	394.6	328.6	453.4	398.9	348.5
900	363.8	382.5	374.4	389.8	339.9	381.0	376.2	340.1
850	348.2	353.3	351.1	369.2	333.0	346.5	348.0	323.7
800	322.3	322.0	326.4	333.9	311.4	319.6	310.7	302.2
750	295.9	290.3	301.2	301.3	288.0	295.1	282.9	279.4
700	271.6	269.8	277.5	278.5	265.0	271.7	260.4	257.2
650	248.2	249.3	254.6	255.7	242.0	248.9	237.9	235.2
600	224.9	226.8	230.0	229.8	213.2	226.1	214.8	210.8
550	203.8	185.4	200.1	198.3	182.9	189.7	191.5	181.9
500	183.7	166.8	177.1	173.5	161.3	161.6	160.9	161.5
450	172.2	166.7	163.3	159.1	154.2	149.4	144.7	144.8
400	166.6	170.2	171.1	159.6	155.9	145.9	141.6	131.8
350	190.7	200.2	209.5	174.0	168.9	175.0	153.3	148.2
300	308.4		275.1					404.4
LONG	-78.92	-78.40	-77.88	-77.42	-77.03	-76.61	-76.27	-75.92
LAT	46.89	44.95	42.89	40.95	39.04	36.97	35.07	33.05
QUAL	23	23	33	33	23	23	23	22

## PASS 3147 AT OTTAWA, 63 517

## ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)						
	205648	205723	205759	205834	205910	205945	210021
1000	0.259	0.273	0.277	0.272	0.272	0.300	0.308
950	0.298	0.308	0.315	0.314	0.323	0.346	0.358
900	0.346	0.359	0.367	0.365	0.380	0.401	0.419
850	0.402	0.417	0.427	0.424	0.446	0.469	0.494
800	0.473	0.494	0.502	0.501	0.531	0.550	0.587
750	0.564	0.588	0.598	0.604	0.634	0.670	0.726
700	0.687	0.717	0.735	0.730	0.784	0.826	0.902
650	0.852	0.878	0.923	0.931	0.977	1.059	1.151
600	1.061	1.122	1.166	1.188	1.275	1.369	1.483
550	1.422	1.482	1.567	1.604	1.721	1.913	2.056
500	1.983	2.054	2.190	2.275	2.431	2.801	3.015
450	2.944	3.030	3.223	3.396	3.758	4.373	4.740
400	4.446	4.718	4.981	5.448	6.186	7.141	7.767
350	6.516	7.087	7.688	8.468	9.836	11.154	12.256
300			10.228				
HEIGHT	SCALE HEIGHT, KM						
950	341.5	378.8	359.1	338.5	303.6	337.6	323.0
900	330.6	332.3	335.1	327.2	304.4	326.7	305.7
850	314.0	310.0	314.2	304.9	293.7	305.4	284.1
800	293.1	290.3	289.4	283.4	277.7	283.0	263.0
750	268.4	270.5	262.8	262.6	261.6	252.4	244.7
700	246.8	249.2	240.4	241.8	236.1	223.1	226.3
650	227.6	227.6	220.6	217.5	210.4	201.2	203.8
600	207.0	202.0	199.4	193.0	184.6	177.9	179.6
550	172.0	173.7	169.0	161.8	160.6	145.0	146.4
500	143.0	147.3	143.0	136.7	134.5	124.9	122.5
450	121.7	116.0	121.0	117.5	102.5	107.1	105.3
400	125.2	117.8	111.4	104.7	104.0	101.0	102.2
350	158.7	144.4	126.9	122.5	121.7	129.1	123.9
300			533.9				
LONG	-75.61	-75.31	-75.02	-74.76	-74.50	-74.26	-74.03
LAT	31.09	29.13	27.11	25.13	23.11	21.14	19.12
QUAL	23	23	23	23	23	23	23



PASS 3147 AT QUITOE, 63 517								
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)								
HEIGHT	TIME (UT)							
	210114	210151	210226	210301	210337	210412	210447	210523
1000	0.350	0.385	0.419	0.447	0.425	0.447	0.410	0.386
950	0.399	0.441	0.478	0.509	0.486	0.497	0.462	0.434
900	0.465	0.517	0.553	0.588	0.554	0.562	0.522	0.492
850	0.547	0.610	0.650	0.684	0.636	0.643	0.595	0.566
800	0.648	0.724	0.767	0.798	0.731	0.741	0.686	0.659
750	0.766	0.861	0.905	0.930	0.872	0.855	0.793	0.768
700	0.950	1.055	1.113	1.132	1.052	1.040	0.965	0.941
650	1.206	1.346	1.408	1.430	1.321	1.303	1.223	1.248
600	1.594	1.788	1.838	1.874	1.703	1.695	1.621	1.801
550	2.215	2.510	2.526	2.569	2.340	2.377	2.366	2.891
500	3.238	3.716	3.703	3.730	3.430	3.550	3.776	4.955
450	5.111	5.833	5.823	5.785	5.423	5.673	6.475	8.694
400	8.517	9.439	9.331	9.181	8.745	9.133	11.082	13.600
350	13.443	14.245	14.163					
300								
HEIGHT	SCALE HEIGHT, KM							
950	348.7	340.4	353.7	359.6	380.5	427.7	405.8	407.9
900	323.0	314.2	328.9	345.4	366.4	379.4	384.8	371.6
850	302.3	298.9	305.8	332.2	342.8	354.9	360.5	339.8
800	285.1	284.8	291.9	312.9	318.5	333.5	331.9	311.8
750	267.9	270.9	278.1	293.3	284.2	312.1	303.3	283.9
700	233.1	229.7	235.1	241.6	249.2	258.8	254.0	235.9
650	198.1	193.4	203.2	204.5	217.5	207.9	196.8	161.5
600	168.6	164.3	175.1	174.5	182.2	174.1	161.8	123.4
550	144.2	139.7	146.5	148.9	146.8	138.3	121.0	100.8
500	120.3	120.9	121.6	124.9	119.9	115.9	100.2	87.0
450	100.5	105.1	104.9	107.8	104.2	101.5	92.1	97.3
400	104.0	109.3	111.2	117.3	109.7	106.6	101.0	136.3
350	120.9	139.3	134.7					
300								
LONG	-73.71	-73.48	-73.28	-73.08	-72.89	-72.70	-72.51	-72.32
LAT	16.13	14.04	12.07	10.09	8.06	6.08	4.10	2.08
QUAL	23	23	23	23	23	23	23	23

PASS 3147 AT QUITOE, 63 517

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	210558	210634	210708	210743	210820	210855	210913	210948
1000	0.371	0.372	0.366	0.379	0.448	0.492	0.499	0.529
950	0.417	0.428	0.435	0.465	0.544	0.612	0.610	0.632
900	0.476	0.507	0.537	0.591	0.686	0.743	0.743	0.748
850	0.555	0.616	0.680	0.755	0.849	0.887	0.872	0.862
800	0.651	0.756	0.872	0.968	1.024	1.041	1.018	1.001
750	0.814	0.970	1.164	1.231	1.237	1.237	1.204	1.159
700	1.088	1.380	1.567	1.547	1.526	1.511	1.474	1.378
650	1.558	2.004	2.085	1.993	1.921	1.900	1.849	1.739
600	2.475	2.925	2.826	2.664	2.517	2.458	2.373	2.232
550	4.032	4.225	3.932	3.655	3.392	3.217	3.078	2.915
500	6.416	6.137	5.577	5.032	4.496	4.164	3.981	3.769
450	9.525	8.663	7.624	6.652	5.772	5.201	4.926	4.653
400			9.594	8.065	7.005	6.138		5.361
350								
300								
HEIGHT	SCALE HEIGHT, KM							
950	389.7	320.8	265.4	226.2	248.5			
900	338.8	273.8	229.0	208.9	247.4	271.7	280.8	315.6
850	305.6	245.4	205.3	201.6	254.6	289.2	311.7	328.8
800	272.3	221.6	192.3	208.9	261.0	295.5	305.7	313.4
750	223.4	186.4	172.0	214.9	249.8	268.7	269.7	298.0
700	162.7	140.1	172.7	208.4	230.5	240.4	236.7	268.2
650	124.1	132.5	169.6	184.6	204.1	210.6	216.0	212.8
600	104.0	134.8	160.3	166.1	178.4	190.9	196.9	193.9
550	103.3	137.1	146.1	156.7	167.7	189.7	194.0	191.2
500	119.7	136.9	148.5	164.6	190.7	206.5	210.6	216.5
450	138.7	164.5	184.8	215.7	224.3	267.4	275.7	306.8
400			275.4	350.2	328.5	365.6		450.7
350								
300								
LONG	-72.14	-71.95	-71.77	-71.58	-71.38	-71.20	-71.10	-70.90
LAT	0.11	-1.92	-3.84	-5.81	-7.90	-9.88	-10.89	-12.86
QUAL	23	23	23	23	23	23	23	22

PASS 3147 AT QUITOE, 63 517  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)					
	211023	211058	211238	211313	211349	211406
1000	0.501	0.483	0.348	0.283	0.241	0.240
950	0.594	0.578	0.424	0.345	0.278	0.269
900	0.689	0.683	0.536	0.441	0.327	0.312
850	0.795	0.792	0.677	0.565	0.398	0.373
800	0.952	0.927	0.829	0.712	0.487	0.450
750	1.099	1.085	0.999	0.895	0.667	0.571
700	1.354	1.324	1.226	1.127	0.904	0.827
650	1.703	1.672	1.568	1.450	1.222	1.163
600	2.190	2.171	2.097	1.965	1.679	1.640
550	2.872	2.890	2.980	2.830	2.449	2.410
500	3.732	3.801	4.297	4.288	3.878	3.815
450	4.627	4.817	6.005	6.501	6.351	6.305
400	5.363	5.704	7.716		9.513	9.701
350	5.819		9.064			
300						
HEIGHT	SCALE HEIGHT, KM					
950	319.3	299.4	241.0	231.8	323.0	389.8
900	325.3	310.6	232.4	221.4	275.7	316.9
850	322.0	321.1	235.8	215.3	247.5	282.1
800	304.8	306.3	256.3	215.9	219.1	247.3
750	280.7	290.9	255.0	218.5	159.0	173.5
700	226.5	229.7	220.5	207.1	166.8	142.6
650	213.3	208.1	192.3	183.8	160.8	147.4
600	190.1	182.1	154.4	152.5	149.6	138.8
550	188.6	179.1	138.5	129.4	121.2	121.5
500	212.0	195.1	140.3	118.2	103.4	101.4
450	293.5	255.5	171.7	132.1	108.1	103.0
400	435.9	386.8	254.6		139.8	126.4
350	933.3		391.3			
300						
LONG	-70.69	-70.48	-69.84	-69.59	-69.33	-69.20
LAT	-14.83	-16.80	-22.41	-24.37	-26.38	-27.32
QUAL	21	22	23	23	23	33

PASS 3147 AT AGASTA, 63 517

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	211220	211255	211327	211406	211441	211535	211610	211645
1000	0.315	0.327	0.271	0.239	0.226	0.217	0.185	0.165
950	0.437	0.409	0.318	0.269	0.249	0.228	0.198	0.176
900	0.564	0.522	0.388	0.308	0.275	0.243	0.214	0.189
850	0.701	0.653	0.532	0.373	0.310	0.274	0.236	0.205
800	0.850	0.816	0.707	0.479	0.362	0.295	0.263	0.226
750	1.024	1.018	0.889	0.635	0.469	0.351	0.292	0.252
700	1.256	1.283	1.150	0.870	0.632	0.425	0.334	0.289
650	1.633	1.692	1.537	1.222	0.873	0.508	0.403	0.335
600	2.225	2.365	2.144	1.772	1.325	0.638	0.528	0.407
550	3.151	3.533	3.191	2.712	2.165	1.028	0.724	0.526
500	4.476	5.265	5.049	4.417	3.744	1.762	1.074	0.736
450	6.034	7.438	7.706	7.387	6.523	3.691	1.925	1.087
400					10.976	7.275	4.029	1.701
350							8.524	3.123
300								6.376
HEIGHT	SCALE HEIGHT, KM							
950			267.5	384.6	502.0	881.9	656.1	730.9
900		218.0	216.0	317.9	445.2	660.8	578.5	644.2
850	242.8	219.0	192.5	231.7	369.0	484.4	538.7	565.3
800	257.5	223.7	189.9	198.9	254.5	445.3	498.9	489.0
750	249.2	220.5	200.6	173.2	206.4	311.1	414.7	412.9
700	219.9	199.4	185.0	157.5	166.2	249.6	324.6	359.7
650	181.7	170.4	163.9	142.8	143.5	224.4	247.6	306.5
600	152.5	138.1	138.3	128.5	111.3	184.6	189.2	249.1
550	141.8	122.4	113.8	109.7	93.9	105.7	150.4	186.4
500	152.0	128.6	113.2	95.5	89.0	74.7	108.5	148.0
450	197.9	174.5	129.7	107.2	93.8	72.5	70.8	121.1
400					107.5	70.6	71.3	100.9
350							70.2	72.3
300								71.6
LONG	-69.96	-69.72	-69.49	-69.20	-68.93	-68.47	-68.15	-67.80
LAT	-21.40	-23.36	-25.15	-27.32	-29.28	-32.29	-34.23	-36.18
QUAL	23	23	23	23	23	23	23	23

PASS 3147 AT AGASTA, 63 517

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)				
	211721	211756	211831	211924	212035
1000	0.145	0.136	0.115	0.108	0.130
950	0.155	0.143	0.123	0.117	0.137
900	0.167	0.151	0.130	0.125	0.144
850	0.185	0.164	0.140	0.136	0.155
800	0.203	0.178	0.153	0.150	0.169
750	0.223	0.196	0.166	0.169	0.192
700	0.246	0.221	0.186	0.187	0.223
650	0.295	0.259	0.215	0.211	0.264
600	0.360	0.315	0.251	0.260	0.325
550	0.462	0.407	0.313	0.327	0.415
500	0.611	0.555	0.419	0.434	0.540
450	0.882	0.772	0.587	0.578	0.730
400	1.261	1.101	0.812	0.788	0.994
350	1.947	1.587	1.176	1.086	1.349
300		2.525	1.816	1.467	1.755
HEIGHT	SCALE HEIGHT, KM				
950	732.4	855.8	794.1	705.9	1074.7
900	613.0	766.0	730.8	655.0	787.1
850	532.6	633.1	664.7	581.9	607.9
800	487.9	548.1	590.9	526.4	497.9
750	445.5	468.0	494.2	469.8	382.0
700	400.4	370.6	422.0	406.0	315.7
650	315.0	294.2	359.0	341.6	270.0
600	232.6	229.5	295.4	273.7	231.9
550	198.4	187.4	214.3	206.8	203.7
500	165.6	160.5	171.5	187.2	181.1
450	138.2	147.9	151.9	170.7	170.6
400	129.3	138.0	147.4	163.4	166.2
350	105.8	129.9	125.4	162.3	179.7
300		107.7	108.7	176.6	217.1
LONG	-67.42	-67.03	-66.60	-65.88	-64.75
LAT	-38.17	-40.10	-42.03	-44.95	-48.83
QUAL	23	23	23	33	33

PASS 3147 AT SOLANT, 63 517								
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)								
HEIGHT	TIME (UT)							
	211407	211442	211517	211553	211628	211704	211739	211814
1000	0.232	0.214	0.202	0.193	0.161	0.136	0.123	0.112
950	0.261	0.234	0.214	0.208	0.173	0.145	0.132	0.120
900	0.300	0.258	0.230	0.223	0.187	0.157	0.141	0.128
850	0.363	0.291	0.252	0.243	0.204	0.172	0.153	0.137
800	0.462	0.344	0.290	0.266	0.227	0.190	0.167	0.147
750	0.620	0.419	0.340	0.302	0.255	0.211	0.185	0.158
700	0.870	0.529	0.402	0.352	0.289	0.238	0.210	0.178
650	1.209	0.769	0.478	0.414	0.337	0.282	0.247	0.214
600	1.727	1.189	0.682	0.513	0.413	0.340	0.293	0.259
550	2.636	1.918	1.066	0.722	0.526	0.434	0.371	0.319
500	4.227	3.258	1.922	1.162	0.738	0.599	0.478	0.393
450	7.004	5.850	3.888	2.179	1.167	0.876	0.713	0.578
400		10.123	7.739	4.447	2.060	1.291	1.066	0.868
350						2.059	1.609	1.281
300						3.937	2.608	1.997
HEIGHT	SCALE HEIGHT, KM							
950	430.8	530.6	727.4	673.4	654.1	682.1	694.1	764.1
900	315.1	462.7	615.9	620.9	589.4	603.4	657.9	743.9
850	253.2	341.1	498.3	539.9	528.2	548.5	584.4	681.1
800	201.6	290.0	363.4	458.9	468.4	493.6	513.7	602.7
750	158.1	252.0	300.6	400.9	411.4	424.8	443.6	524.2
700	154.1	189.9	269.6	349.3	356.2	356.7	378.4	437.8
650	148.7	125.0	234.7	297.7	301.1	304.6	321.4	342.7
600	129.9	112.5	126.9	211.3	246.1	252.5	264.4	256.4
550	113.1	100.7	102.4	130.3	189.9	191.1	217.9	226.0
500	100.0	89.4	77.4	93.9	133.4	150.4	172.4	195.6
450	108.7	85.4	66.7	74.1	99.3	132.9	124.1	122.9
400		97.8	83.3	67.0	81.0	120.6	123.7	125.9
350						94.5	113.5	121.9
300						67.8	103.3	103.5
LONG	-69.20	-68.92	-68.63	-68.31	-67.97	-67.61	-67.22	-66.81
LAT	-27.38	-29.33	-31.29	-33.29	-35.23	-37.23	-39.16	-41.09
QUAL	33	33	33	33	33	33	33	33

PASS 3147 AT SOLANT, 63 517  
 ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)			
	211850	211925	212022	212111
1000	0.104	0.097	0.104	0.082
950	0.111	0.104	0.110	0.089
900	0.119	0.112	0.117	0.096
850	0.127	0.122	0.125	0.105
800	0.138	0.133	0.139	0.117
750	0.152	0.147	0.158	0.133
700	0.170	0.162	0.180	0.154
650	0.197	0.181	0.206	0.182
600	0.231	0.215	0.236	0.218
550	0.283	0.268	0.279	0.282
500	0.363	0.352	0.399	0.377
450	0.513	0.488	0.578	0.553
400	0.743	0.690	0.774	0.830
350	1.098	0.969	1.077	1.139
300	1.720	1.336	1.520	1.527
HEIGHT	SCALE HEIGHT, KM			
950	765.3	680.0	856.2	615.4
900	717.3	615.8	736.2	559.9
850	641.2	556.8	614.2	504.1
800	568.7	515.5	488.3	443.3
750	496.3	481.1	391.2	378.2
700	427.3	446.6	364.2	325.2
650	364.9	399.4	337.2	287.2
600	302.6	285.8	310.2	249.1
550	240.8	217.2	251.7	207.6
500	179.3	175.5	138.4	164.6
450	138.0	147.5	144.8	129.0
400	132.1	149.1	155.2	143.3
350	120.2	154.4	148.1	164.1
300	111.0	171.3	163.0	182.5
LONG	-66.36	-65.86	-64.98	-64.11
LAT	-43.08	-45.00	-48.12	-50.80
QUAL	33	22	23	23

PASS 3153 AT SOLANT, 63 518								
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)								
HEIGHT	TIME (UT)							
	812.4	81250	81325	81453	81528	81605	81641	81716
1000	0.029	0.041	0.033	0.044	0.057	0.064	0.064	0.060
950	0.031	0.044	0.036	0.049	0.062	0.068	0.069	0.064
900	0.033	0.047	0.038	0.053	0.068	0.070	0.073	0.069
850	0.036	0.050	0.041	0.058	0.072	0.072	0.078	0.074
800	0.039	0.053	0.047	0.064	0.078	0.080	0.082	0.079
750	0.042	0.057	0.053	0.071	0.085	0.088	0.088	0.085
700	0.046	0.063	0.058	0.080	0.094	0.096	0.093	0.092
650	0.052	0.070	0.063	0.091	0.111	0.112	0.103	0.103
600	0.063	0.080	0.074	0.112	0.136	0.132	0.129	0.119
550	0.076	0.092	0.089	0.139	0.174	0.167	0.180	0.159
500	0.095	0.116	0.107	0.204	0.255	0.247	0.253	0.245
450	0.126	0.150	0.140	0.343	0.432	0.440	0.440	0.378
400	0.172	0.217	0.192	0.593	0.722	0.717	0.753	
350	0.268	0.332	0.297	0.955		1.105	1.111	
300	0.420	0.523	0.457					
HEIGHT	SCALE HEIGHT, KM							
	950	1074.2	1239.1	787.9	796.1	1338.0		944.4
900	1192.8	1019.5	1131.0	784.1	833.0	1374.6	987.4	930.4
850	1007.9	995.4	945.1	735.8	844.5	1196.4	983.7	898.1
800	816.6	944.4	826.5	684.8	804.5	975.4	969.2	863.7
750	746.3	846.5	708.0	618.8	719.3	688.3	940.5	827.0
700	676.0	736.1	633.8	551.5	579.0	592.0	835.4	750.2
650	605.8	625.7	580.3	484.2	463.3	499.7	694.1	594.2
600	507.1	524.9	517.7	396.5	368.2	402.1	365.7	448.4
550	400.1	425.3	434.1	297.8	273.2	304.5	219.5	278.7
500	293.0	329.2	350.5	190.0	176.1	171.7	159.1	158.1
450	233.9	242.2	267.6	106.1	106.1	102.4	89.2	122.5
400	183.5	170.4	189.9	98.1	111.5	104.9	105.4	85.4
350	135.9	127.4	138.1	149.5		204.4	217.0	
300	118.4	121.7	129.8					
LONG	-81.59	-79.85	-78.42	-75.49	-74.58	-73.69	-72.94	-72.27
LAT	-65.87	-64.01	-62.17	-57.49	-55.61	-53.62	-51.67	-49.77
QUAL	23	23	23	31	32	32	31	33



PASS 3153 AT QUITOE, 63 518  
 ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)	
	83726	83802
1000	0.120	0.109
950	0.126	0.116
900	0.141	0.122
850	0.141	0.128
800	0.146	0.134
750	0.153	0.140
700	0.161	0.146
650	0.171	0.156
600	0.187	0.175
550	0.215	0.201
500	0.264	0.245
450	0.406	0.366
400	0.657	0.585
350	1.032	0.957
300		1.382

HEIGHT	SCALE HEIGHT, KM	
	83726	83802
950	3011.5	864.4
900	1453.9	1012.7
850	1707.6	1089.7
800	1252.9	1073.8
750	1016.9	963.5
700	895.9	853.3
650	708.4	719.4
600	472.8	538.1
550	277.4	356.8
500	147.1	213.0
450	123.7	114.5
400	107.0	103.5
350	134.0	119.9
300		151.1

LONG	-62.83	-62.61
LAT	17.90	19.93
QUAL	23	23

PASS 3154 AT FTMYRS, 63 518

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	83727	83802	83837	83913	83948	84023	84059	84134
1000	0.113	0.116	0.108	0.107	0.091	0.077	0.069	0.066
950	0.126	0.123	0.117	0.113	0.097	0.084	0.076	0.072
900	0.135	0.130	0.123	0.118	0.102	0.087	0.080	0.077
850	0.142	0.137	0.127	0.123	0.107	0.092	0.085	0.082
800	0.148	0.146	0.131	0.128	0.112	0.098	0.090	0.088
750	0.154	0.154	0.136	0.135	0.120	0.104	0.097	0.096
700	0.161	0.163	0.144	0.144	0.129	0.113	0.107	0.108
650	0.172	0.173	0.156	0.155	0.141	0.127	0.127	0.125
600	0.188	0.191	0.170	0.170	0.159	0.146	0.155	0.152
550	0.208	0.217	0.195	0.201	0.193	0.183	0.196	0.200
500	0.256	0.295	0.259	0.268	0.263	0.256	0.252	0.279
450	0.405	0.433	0.397	0.409	0.391	0.397	0.423	0.418
400	0.585	0.687	0.657	0.686	0.626	0.656	0.670	0.680
350	0.946	1.073	1.088	1.086	1.056	1.113	1.122	1.090
300						1.635		
HEIGHT	SCALE HEIGHT, KM							
950		905.8		1270.1	1029.8	1293.5		
900		876.3		1199.4	1045.1	1110.2	860.0	738.3
850	1117.9	884.9	1486.4	1220.4	953.0	902.2	816.9	709.6
800	1171.6	893.5	1301.1	1044.2	860.6	753.3	691.8	620.1
750	1057.9	890.4	1095.1	915.6	747.2	649.1	572.2	485.1
700	941.7	786.0	836.6	787.1	633.8	541.5	458.7	394.0
650	665.8	640.7	617.7	630.6	510.2	430.7	361.9	320.0
600	518.3	480.3	481.0	432.0	374.5	320.2	265.0	249.3
550	397.9	315.6	320.5	241.0	241.8	212.3	204.1	185.3
500	173.5	146.3	152.8	150.6	149.1	140.9	153.7	143.5
450	118.0	122.2	110.5	106.8	119.3	106.8	106.3	116.1
400	119.3	111.1	99.1	103.3	102.7	98.8	104.1	105.9
350	124.6	120.7	108.2	111.7	102.3	103.5	108.2	112.3
300						280.2		
LONG	-62.82	-62.61	-62.37	-62.12	-61.87	-61.60	-61.31	-61.00
LAT	17.96	19.93	21.90	23.93	25.90	27.86	29.88	31.85
QUAL	33	33	33	33	33	32	33	23

PASS 3154 AT FTMYS, 63 518  
 ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)
	84269
1000	0.048
950	0.053
900	0.056
850	0.060
800	0.071
750	0.081
700	0.092
650	0.104
600	0.138
550	0.211
500	0.295
450	0.391
400	0.619
350	1.004
300	1.488
HEIGHT	SCALE HEIGHT, KM
950	
900	793.3
850	576.8
800	349.2
750	325.9
700	302.7
650	279.5
600	231.0
550	153.8
500	140.5
450	139.9
400	112.7
350	108.5
300	235.1
LONG	-60.68
LAT	33.81
QUAL	31

PASS 3160 AT RESLUT, 63 518  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	192950	193008	193027	193044	193101	193120	193137	193154
1000	0.206	0.201	0.214	0.179	0.181	0.183	0.204	0.224
950	0.239	0.228	0.233	0.206	0.198	0.204	0.228	0.256
900	0.273	0.260	0.258	0.228	0.220	0.231	0.257	0.294
850	0.309	0.299	0.288	0.257	0.247	0.262	0.290	0.335
800	0.350	0.341	0.322	0.293	0.279	0.300	0.328	0.382
750	0.399	0.389	0.366	0.340	0.324	0.347	0.377	0.438
700	0.458	0.452	0.431	0.399	0.382	0.407	0.440	0.515
650	0.538	0.527	0.513	0.474	0.455	0.483	0.514	0.609
600	0.644	0.617	0.609	0.563	0.551	0.575	0.625	0.719
550	0.772	0.768	0.758	0.669	0.666	0.699	0.772	0.909
500	0.932	0.956	0.943	0.859	0.799	0.899	0.949	1.145
450	1.190	1.200	1.161	1.102	1.026	1.145	1.210	1.451
400	1.508	1.519	1.507	1.436	1.350	1.481	1.558	1.846
350	1.950	1.872	1.949	1.852	1.792	1.917	2.054	2.308
300	2.526	2.154	2.499	2.358	2.332	2.520	2.670	
HEIGHT	SCALE HEIGHT, KM							
950		376.9	551.7	424.3	516.0	433.3	432.8	368.1
900	385.6	373.7	479.9	430.4	442.6	399.2	415.8	372.6
850	388.5	371.1	453.4	397.9	408.5	378.3	393.7	373.5
800	382.9	359.9	394.3	364.8	374.5	354.1	370.2	351.0
750	356.3	346.2	358.2	329.8	338.3	325.0	344.6	329.1
700	327.7	325.4	328.8	300.4	301.7	300.9	318.3	308.6
650	305.9	304.6	299.5	285.7	276.7	282.8	292.0	288.2
600	287.7	283.6	270.1	270.9	265.0	264.8	271.3	267.7
550	269.5	260.5	254.0	255.2	253.4	246.6	252.4	247.4
500	250.5	237.3	238.7	224.6	241.7	228.1	233.4	227.0
450	228.2	229.8	223.5	198.2	217.6	209.7	212.5	218.1
400	206.7	236.1	205.4	200.3	187.7	198.8	190.7	219.0
350	199.4	318.5	199.1	205.0	196.4	191.1	169.7	230.7
300	229.4	985.3	219.9	216.5	242.4	379.6	1251.1	
LONG	-171.71	-167.13	-161.51	-156.48	-151.41	-145.01	-139.29	-133.56
LAT	78.78	79.28	79.66	79.99	80.31	80.34	80.36	80.38
QUAL	33	32	33	33	31	32	32	32

PASS 3160 AT RESLUT, 63 518  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	193213	193249	193307	193343	193359	193449	193527	193545
1000	0.265	0.285	0.313	0.320	0.338	0.342	0.340	0.327
950	0.289	0.320	0.347	0.355	0.368	0.382	0.370	0.356
900	0.321	0.356	0.377	0.398	0.404	0.428	0.407	0.394
850	0.363	0.395	0.416	0.448	0.448	0.481	0.452	0.441
800	0.413	0.443	0.469	0.505	0.501	0.542	0.506	0.496
750	0.471	0.498	0.545	0.576	0.574	0.616	0.581	0.558
700	0.537	0.587	0.640	0.676	0.675	0.713	0.688	0.652
650	0.648	0.702	0.750	0.796	0.802	0.828	0.823	0.777
600	0.802	0.840	0.877	0.963	0.968	1.000	1.001	0.926
550	0.990	1.036	1.065	1.192	1.166	1.215	1.215	1.130
500	1.228	1.275	1.364	1.480	1.504	1.472	1.530	1.382
450	1.510	1.597	1.754	1.940	1.977	1.913	1.966	1.741
400	1.847	2.018	2.245	2.522	2.510	2.479	2.497	2.270
350	2.175	2.473	2.868	3.244	3.076	3.196	3.151	2.939
300		3.076	3.398	3.657		3.743	3.857	3.320
HEIGHT	SCALE HEIGHT, KM							
950	519.9	448.9	557.1	453.8	568.1	441.4	550.7	533.1
900	448.2	457.9	528.7	428.3	495.4	427.8	480.7	465.6
850	404.0	437.7	455.7	403.3	450.6	410.5	441.0	426.0
800	374.1	399.6	398.7	378.0	406.3	392.0	401.2	397.1
750	346.9	361.5	357.2	351.0	361.6	366.9	357.2	368.1
700	319.7	330.5	319.7	320.9	316.8	333.2	309.0	338.2
650	294.8	300.0	299.4	290.8	280.2	299.6	271.3	307.9
600	270.8	269.5	279.1	263.2	258.5	278.1	256.4	277.6
550	246.7	253.1	250.9	237.9	236.8	256.8	241.5	255.8
500	246.8	237.4	213.5	214.3	215.7	235.6	224.0	235.2
450	250.6	231.0	203.8	207.5	201.6	211.6	207.4	213.8
400	294.1	229.7	206.9	200.6	229.9	198.4	213.4	193.3
350	463.9	221.8	246.9	246.1	284.4	252.4	217.0	274.6
300		1052.9	1054.6	1230.1		1066.0	2033.6	1320.1
LONG	-127.58	-116.61	-111.65	-103.35	-99.66	-91.47	-86.60	-84.54
LAT	80.16	79.52	79.11	77.95	77.44	75.40	73.71	72.88
QUAL	33	31	32	32	31	32	32	31

PASS 3160 AT RESLUT, 63 518

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	193603	193622	193640	193658	193714	193731	193750	193808
1000	0.311	0.313	0.277	0.278	0.289	0.278	0.313	0.296
950	0.337	0.338	0.306	0.309	0.312	0.316	0.342	0.324
900	0.370	0.375	0.344	0.339	0.344	0.357	0.370	0.363
850	0.409	0.422	0.389	0.376	0.382	0.402	0.404	0.407
800	0.462	0.476	0.443	0.421	0.425	0.454	0.453	0.457
750	0.536	0.539	0.504	0.491	0.491	0.518	0.520	0.522
700	0.628	0.617	0.579	0.579	0.574	0.606	0.605	0.602
650	0.747	0.739	0.700	0.687	0.674	0.711	0.712	0.708
600	0.890	0.886	0.848	0.812	0.810	0.861	0.857	0.847
550	1.056	1.069	1.023	0.956	0.982	1.064	1.052	1.039
500	1.345	1.295	1.280	1.175	1.197	1.330	1.310	1.291
450	1.720	1.606	1.590	1.496	1.544	1.671	1.652	1.615
400	2.199	2.086	2.055	1.939	1.991	2.121	2.100	2.045
350	2.829	2.724	2.687	2.522	2.607	2.685	2.665	2.619
300	3.519	3.418	3.302	3.317		3.387	3.325	3.150
HEIGHT	SCALE HEIGHT, KM							
950	569.9	554.6	458.0	508.7	577.1	402.4	605.3	489.9
900	502.1	451.8	418.4	492.9	492.5	407.8	572.7	450.2
850	440.6	413.6	367.8	437.6	442.9	394.8	487.9	423.9
800	389.7	391.2	360.5	383.0	393.7	376.1	428.2	398.6
750	349.5	368.7	345.2	354.8	364.7	354.0	379.2	366.9
700	309.3	345.4	323.6	326.6	335.7	326.5	332.3	334.9
650	291.7	318.0	300.5	301.9	306.7	299.0	292.0	300.9
600	274.4	290.6	277.4	285.3	281.0	257.4	261.1	265.5
550	257.0	265.8	254.3	268.6	256.3	231.2	238.2	237.6
500	227.8	244.4	235.1	242.5	232.5	227.5	226.8	231.7
450	205.0	219.7	215.9	210.1	213.0	214.8	212.1	219.0
400	203.6	193.1	199.2	196.2	188.2	214.2	210.9	208.4
350	216.9	206.5	226.5	190.4	148.5	216.3	217.0	241.1
300	266.1	265.1	657.8	229.6		205.7	267.7	497.0
LONG	-82.58	-81.01	-79.53	-78.04	-77.02	-75.98	-74.81	-73.82
LAT	72.04	71.10	70.22	69.33	68.51	67.64	66.66	65.73
QUAL	32	33	32	32	32	31	32	21

PASS 3160 AT OTTAWA, 63 518								
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)								
HEIGHT	TIME (UT)							
	194232	194251	194308	194404	194437	194605	194641	194715
1000	0.194	0.196	0.177	0.181	0.187	0.185	0.189	0.195
950	0.218	0.221	0.200	0.204	0.211	0.209	0.214	0.218
900	0.248	0.250	0.229	0.232	0.241	0.238	0.243	0.248
850	0.287	0.283	0.264	0.264	0.276	0.274	0.279	0.285
800	0.333	0.321	0.305	0.302	0.316	0.315	0.319	0.328
750	0.388	0.369	0.351	0.347	0.362	0.366	0.372	0.380
700	0.471	0.433	0.413	0.408	0.430	0.440	0.447	0.455
650	0.572	0.507	0.501	0.481	0.515	0.529	0.538	0.546
600	0.689	0.606	0.607	0.573	0.616	0.633	0.644	0.655
550	0.855	0.727	0.731	0.692	0.748	0.772	0.785	0.808
500	1.053	0.869	0.900	0.833	0.910	0.948	0.959	0.991
450	1.336	1.074	1.102	1.013	1.101	1.153	1.162	1.222
400	1.769	1.398	1.334	1.344	1.433	1.461	1.555	1.648
350	2.320	1.813	1.747	1.766	1.858	1.930	2.079	2.203
300	3.008	2.331	2.289	2.289	2.382	2.538	2.772	2.927
HEIGHT	SCALE HEIGHT, KM							
950	407.2	414.4	388.9	408.1	397.5	394.0	393.3	414.3
900	367.9	397.1	366.4	390.0	374.3	367.6	375.9	385.5
850	346.8	382.5	350.8	373.3	359.8	349.6	353.7	361.7
800	325.7	368.0	335.3	356.6	345.3	331.6	331.5	338.0
750	305.0	348.2	319.8	338.8	330.9	314.2	313.5	315.2
700	288.2	323.9	304.6	318.5	312.7	299.9	300.7	297.4
650	271.5	299.6	290.0	298.1	293.7	285.5	287.9	279.7
600	254.7	283.4	275.3	279.8	274.7	271.2	275.2	262.2
550	239.5	268.8	260.6	264.0	259.9	257.8	258.0	246.7
500	224.3	254.3	249.2	248.3	246.1	244.8	239.3	231.1
450	206.0	234.0	238.0	230.8	231.9	231.9	220.4	213.4
400	184.2	205.9	226.8	203.9	207.5	210.7	190.9	181.0
350	190.2	196.3	206.7	189.5	196.4	182.8	175.5	173.8
300	229.5	199.2	191.4	196.3	200.1	185.6	180.2	177.5
LONG	-65.26	-64.88	-64.56	-63.61	-63.13	-51.97	-61.58	-61.22
LAT	51.48	50.44	49.50	46.40	44.57	39.66	37.65	35.75
QUAL	22	22	22	23	21	21	21	22

## PASS 3160 AT OTTAWA, 63 518

## ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)						
	194809	194844	194921	194956	195031	195106	195142
1000	0.228	0.215	0.228	0.218	0.219	0.217	0.218
950	0.250	0.241	0.256	0.246	0.248	0.246	0.247
900	0.281	0.275	0.293	0.280	0.283	0.284	0.287
850	0.321	0.317	0.336	0.320	0.324	0.329	0.339
800	0.370	0.367	0.387	0.366	0.372	0.382	0.402
750	0.432	0.426	0.450	0.432	0.445	0.453	0.476
700	0.507	0.505	0.545	0.522	0.537	0.558	0.578
650	0.593	0.599	0.660	0.629	0.648	0.687	0.723
600	0.712	0.719	0.797	0.758	0.790	0.841	0.897
550	0.857	0.874	0.980	0.938	0.971	1.062	1.141
500	1.028	1.057	1.209	1.151	1.182	1.327	1.450
450	1.348	1.405	1.508	1.532	1.606	1.849	2.001
400	1.824	1.885	2.028	2.137	2.250	2.657	2.936
350	2.449	2.521	2.803	3.043	3.292	4.034	4.605
300	3.293	3.370	3.922	4.357	4.984	6.433	7.626
HEIGHT	SCALE HEIGHT, KM						
950	477.1	413.1	398.4	400.9	394.7	376.1	364.8
900	422.2	376.9	371.4	380.3	369.7	349.5	328.0
850	389.9	358.6	349.6	353.4	343.2	326.5	311.7
800	357.6	340.2	327.8	326.4	316.7	303.5	295.5
750	334.0	322.0	307.2	308.0	300.3	283.7	279.2
700	314.7	303.9	292.6	293.3	285.2	268.9	261.9
650	295.4	285.9	278.0	278.5	270.2	254.1	243.5
600	275.3	266.2	263.3	262.9	252.5	238.7	225.0
550	255.1	245.3	245.9	238.0	232.8	215.0	205.6
500	234.9	224.3	227.3	213.1	213.0	191.3	186.0
450	202.9	193.3	204.4	175.2	172.2	156.3	150.5
400	169.6	173.0	165.3	147.9	142.0	131.5	122.8
350	170.4	173.8	153.8	141.4	127.0	110.1	103.7
300	178.2	180.9	154.6	148.2	121.7	115.7	105.5
LONG	-60.69	-60.39	-60.08	-59.80	-59.54	-59.29	-59.05
LAT	32.72	30.76	28.68	26.71	24.74	22.77	20.75
QUAL	21	21	22	22	23	23	23



PASS 3160 AT SOLANT, 63 518

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)	
	200815	200849
1000	0.132	0.103
950	0.142	0.113
900	0.154	0.124
850	0.168	0.138
800	0.187	0.154
750	0.211	0.173
700	0.245	0.197
650	0.291	0.229
600	0.352	0.276
550	0.436	0.359
500	0.589	0.502
450	0.857	0.731
400	1.235	1.068
350	1.765	1.538
300	2.618	2.282
HEIGHT	SCALE HEIGHT, KM	
950	626.3	522.5
900	597.8	496.0
850	526.9	470.1
800	442.6	445.2
750	372.7	419.8
700	317.0	355.4
650	283.8	296.8
600	247.4	242.6
550	206.8	189.3
500	151.3	144.8
450	134.5	133.3
400	138.2	136.3
350	134.6	132.5
300	128.8	122.7
LONG	-52.84	-52.49
LAT	-35.05	-36.94
QUAL	23	23

PASS 3161 AT QUITOE, 63 518  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	213919	213956	214031	214106	214142	214217	214328	214402
1000	0.407	0.436	0.444	0.443	0.440	0.420	0.380	0.352
950	0.468	0.500	0.504	0.501	0.493	0.472	0.422	0.390
900	0.545	0.578	0.580	0.576	0.559	0.537	0.475	0.431
850	0.641	0.672	0.675	0.669	0.637	0.616	0.536	0.482
800	0.757	0.784	0.787	0.785	0.734	0.709	0.604	0.568
750	0.895	0.931	0.927	0.923	0.873	0.827	0.705	0.684
700	1.103	1.132	1.135	1.103	1.045	0.999	0.853	0.846
650	1.390	1.421	1.432	1.389	1.314	1.233	1.089	1.195
600	1.802	1.861	1.873	1.808	1.704	1.570	1.557	1.785
550	2.483	2.558	2.587	2.466	2.356	2.107	2.467	2.668
500	3.631	3.733	3.810	3.601	3.445	3.257	3.945	4.082
450	5.636	5.879	5.964	5.689	5.349	5.366	6.311	6.208
400	9.349	9.509	9.604	9.137	8.482	8.936	9.585	8.767
350			14.391		13.165	14.242		11.157
300								
HEIGHT	SCALE HEIGHT, KM							
950	335.1	355.0	366.5	369.8	416.6	404.2	441.4	487.6
900	322.2	337.0	349.4	346.9	380.4	373.9	422.6	451.3
850	310.5	322.1	331.2	324.5	351.7	351.0	390.4	358.8
800	292.0	308.4	306.9	308.4	321.9	330.5	355.5	312.7
750	272.1	278.2	279.2	292.3	289.9	304.0	308.5	266.6
700	235.1	238.9	240.1	257.3	257.9	264.5	253.5	217.5
650	207.7	204.8	206.8	203.8	217.9	227.8	183.0	143.9
600	176.7	172.8	171.2	183.3	178.5	191.6	124.9	125.1
550	146.8	149.3	145.5	149.2	146.0	144.0	108.6	121.9
500	123.6	118.7	121.0	120.4	122.6	98.1	104.2	117.7
450	107.1	104.4	106.0	104.4	108.3	96.8	111.9	129.9
400	98.6	108.4	112.0	113.2	108.0	101.7	129.8	165.1
350			131.9		122.2	121.4		305.3
300								
LONG	-84.80	-84.59	-84.40	-84.21	-84.01	-83.82	-83.45	-83.27
LAT	13.68	11.60	9.62	7.64	5.61	3.63	-0.37	-2.28
QUAL	23	23	23	23	23	23	23	23

PASS 3161 AT QUITOE, 63 518

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	214437	214506	214548	214607	214641	214716	214753	214827
1000	0.335	0.317	0.288	0.287	0.278	0.275	0.282	0.264
950	0.369	0.355	0.327	0.330	0.322	0.314	0.318	0.293
900	0.417	0.405	0.384	0.389	0.386	0.375	0.371	0.336
850	0.476	0.469	0.459	0.474	0.469	0.453	0.439	0.392
800	0.567	0.580	0.560	0.600	0.571	0.549	0.532	0.461
750	0.737	0.778	0.744	0.770	0.731	0.691	0.689	0.543
700	0.987	1.033	0.989	0.999	0.973	0.915	0.899	0.714
650	1.376	1.394	1.348	1.361	1.303	1.226	1.208	1.045
600	1.925	1.946	1.886	1.890	1.816	1.705	1.692	1.488
550	2.820	2.786	2.658	2.647	2.542	2.443	2.409	2.189
500	4.166	3.963	3.704	3.648	3.513	3.461	3.457	3.275
450	5.898	5.390	4.939	4.804	4.648	4.663	4.837	4.738
400	7.810	6.850	6.184	5.937	5.681	5.932	6.405	6.538
350		7.922	7.278	6.828		6.989	7.681	
300								
HEIGHT	SCALE HEIGHT, KM							
950	462.3	405.1	348.8	326.8	316.7	323.0	363.7	398.2
900	393.3	343.4	293.8	279.7	265.9	273.8	309.1	338.1
850	326.4	291.0	261.3	243.8	248.8	256.6	279.0	310.9
800	264.0	236.2	227.0	194.8	231.7	239.3	240.0	283.6
750	208.7	179.6	183.4	190.7	204.8	213.1	187.9	256.4
700	161.8	174.0	171.5	180.5	174.7	177.0	181.4	201.0
650	150.1	158.6	154.0	158.7	161.9	163.2	159.2	138.0
600	139.8	144.2	148.8	150.7	152.2	147.4	147.0	135.8
550	127.9	140.7	147.7	152.6	151.4	140.7	139.8	125.6
500	136.0	150.7	160.7	166.7	165.2	154.9	141.9	127.1
450	157.7	181.2	198.3	210.6	211.6	187.8	161.7	145.1
400	221.1	281.0	268.4	276.8	315.7	245.2	218.3	178.1
350		424.5	365.9	738.5		655.8	379.2	
300								
LONG	-83.09	-82.94	-82.71	-82.60	-82.41	-82.22	-82.00	-81.79
LAT	-4.25	-5.89	-8.25	-9.32	-11.24	-13.21	-15.30	-17.21
QUAL	23	23	23	21	22	21	23	23

PASS 3161 AT QUITOE, 63 518  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)				
	214936	215014	215048	215124	215142
1000	0.270	0.262	0.254	0.235	0.213
950	0.289	0.283	0.274	0.254	0.232
900	0.312	0.303	0.296	0.276	0.254
850	0.354	0.326	0.321	0.300	0.278
800	0.422	0.408	0.352	0.332	0.306
750	0.513	0.549	0.399	0.368	0.339
700	0.658	0.697	0.461	0.423	0.383
650	0.872	0.840	0.539	0.492	0.448
600	1.258	1.098	0.685	0.608	0.529
550	1.913	1.671	0.958	0.803	0.671
500	3.115	2.668	1.617	1.156	0.923
450	5.014	4.475	2.847	1.892	1.406
400	7.491	7.198	5.217	3.403	2.326
350	10.112	10.483	8.722	6.189	4.119
300					7.507
HEIGHT	SCALE HEIGHT, KM				
950	652.7	713.0	650.5	612.4	567.0
900	512.4	647.3	617.1	575.1	544.2
850	414.5	445.9	547.2	531.6	518.0
800	333.4	343.1	455.6	476.4	475.1
750	252.3	249.7	395.9	421.2	432.1
700	206.2	216.9	342.2	359.1	384.2
650	162.6	208.1	288.6	296.6	329.2
600	128.8	158.9	217.1	234.0	274.3
550	111.3	116.2	130.6	171.2	209.5
500	100.0	101.6	86.9	125.9	142.8
450	113.8	96.7	88.3	91.8	109.3
400	146.0	118.7	85.5	80.9	96.3
350	201.4	164.2	109.7	87.3	80.8
300					96.4
LONG	-81.36	-81.10	-80.86	-80.59	-80.45
LAT	-21.08	-23.20	-25.11	-27.12	-28.12
QUAL	23	23	23	23	23

PASS 3161 AT AGASTA, 63 518

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)						
	214520	214955	215030	215106	215234	215310	215345
1000	0.346	0.356	0.345	0.289	0.207	0.207	0.190
950	0.369	0.375	0.368	0.307	0.223	0.223	0.204
900	0.404	0.402	0.397	0.329	0.244	0.242	0.220
850	0.448	0.442	0.430	0.359	0.267	0.265	0.241
800	0.541	0.502	0.475	0.395	0.297	0.292	0.267
750	0.685	0.602	0.532	0.438	0.339	0.324	0.300
700	0.858	0.793	0.667	0.507	0.391	0.372	0.339
650	1.163	1.087	0.943	0.618	0.465	0.474	0.384
600	1.675	1.484	1.249	0.798	0.556	0.622	0.456
550	2.475	2.198	1.910	1.055	0.663	0.816	0.629
500	3.753	3.521	3.122	1.637	0.787	1.056	0.859
450	5.427	5.478	5.098	2.777	1.291	1.434	1.162
400	7.525	7.995	8.000	4.908	1.938	2.037	1.640
350	9.808		11.512	8.057	2.914	2.849	2.483
300				12.202	4.702	4.078	3.813
HEIGHT	SCALE HEIGHT, KM						
950	680.3	858.2	710.7	790.8	613.5	655.7	662.4
900	498.1	619.3	644.8	661.5	555.0	604.8	601.0
850	390.2	469.9	538.7	564.1	496.9	553.9	519.4
800	264.8	344.4	460.1	483.3	437.5	508.3	445.4
750	206.9	215.9	381.5	408.7	376.7	414.2	406.7
700	194.1	181.0	190.9	326.6	319.1	302.5	368.0
650	154.1	159.4	165.1	239.3	293.0	258.4	329.3
600	134.4	146.0	151.0	193.6	266.9	214.3	282.3
550	123.4	122.8	110.7	159.4	240.8	191.9	207.5
500	126.9	110.5	98.1	111.7	214.7	179.2	160.2
450	142.4	120.7	106.9	91.5	142.2	161.8	154.3
400	170.2	151.0	121.8	94.4	122.6	146.2	137.5
350	211.6		154.9	106.7	111.7	146.2	119.5
300				135.8	107.9	139.2	137.5
LONG	-82.86	-81.23	-80.99	-80.73	-80.02	-79.71	-79.38
LAT	-6.68	-22.14	-24.10	-26.11	-31.02	-33.02	-34.97
QUAL	23	23	23	23	23	23	23

PASS 3161 AT AGASTA, 63 518  
 ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)				
	215420	215531	215624	215717	215810
1000	0.166	0.121	0.114	0.116	0.122
950	0.179	0.133	0.123	0.121	0.130
900	0.194	0.145	0.132	0.126	0.136
850	0.211	0.157	0.142	0.134	0.143
800	0.232	0.173	0.153	0.143	0.151
750	0.258	0.193	0.168	0.154	0.162
700	0.313	0.218	0.185	0.173	0.181
650	0.413	0.247	0.213	0.201	0.209
600	0.552	0.333	0.258	0.240	0.249
550	0.711	0.461	0.336	0.303	0.298
500	0.894	0.628	0.443	0.402	0.358
450	1.105	0.832	0.655	0.560	0.572
400	1.631	1.124	0.951	0.832	0.902
350	2.387	1.822	1.443	1.254	1.174
300	3.490	3.083	2.398	2.033	
HEIGHT	SCALE HEIGHT, KM				
950	659.6	545.1	689.3	1094.3	
900	617.1	554.1	682.6	987.9	1022.9
850	563.7	547.7	649.5	836.1	894.9
800	480.1	489.5	595.3	700.7	765.8
750	356.9	424.7	519.4	541.8	636.7
700	288.2	357.8	440.8	381.2	471.0
650	247.3	290.8	330.3	326.7	308.9
600	206.4	240.6	232.7	272.2	275.5
550	196.7	191.9	198.5	223.7	242.0
500	190.6	165.3	164.4	180.7	208.5
450	184.5	157.3	147.9	149.5	180.7
400	146.1	142.8	132.9	134.3	160.3
350	132.2	101.7	114.9	116.2	221.2
300	119.5	89.6	93.9	84.4	
LONG	-79.03	-78.22	-77.54	-76.77	-75.89
LAT	-36.91	-40.83	-43.75	-46.66	-49.55
QUAL	23	23	23	23	23

PASS 3174 AT RESLUT, 63 519  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	200732	200808	200825	200842	200900	200918	200936	200953
1000	0.174	0.128	0.156	0.147	0.163	0.182	0.174	0.177
950	0.190	0.147	0.175	0.168	0.176	0.200	0.193	0.194
900	0.209	0.168	0.194	0.192	0.196	0.221	0.215	0.212
850	0.230	0.190	0.214	0.217	0.219	0.247	0.241	0.234
800	0.259	0.215	0.241	0.247	0.251	0.276	0.270	0.265
750	0.293	0.248	0.273	0.283	0.293	0.321	0.308	0.311
700	0.338	0.285	0.311	0.324	0.344	0.377	0.353	0.368
650	0.392	0.335	0.365	0.371	0.411	0.447	0.420	0.438
600	0.463	0.407	0.451	0.456	0.507	0.535	0.509	0.520
550	0.553	0.498	0.558	0.564	0.623	0.640	0.616	0.615
500	0.673	0.624	0.701	0.705	0.776	0.800	0.779	0.752
450	0.837	0.787	0.880	0.894	0.970	1.008	0.993	0.945
400	1.039	1.010	1.136	1.154	1.241	1.293	1.275	1.204
350	1.284	1.308	1.482	1.478	1.573	1.626	1.602	1.533
300	1.588		1.857	1.794	1.969	1.995	1.880	1.944
HEIGHT	SCALE HEIGHT, KM							
950	549.3	371.4	464.2		595.1	506.1	465.7	559.4
900	505.5	385.3	468.9	390.0	461.0	459.7	442.1	511.0
850	455.2	379.0	438.9	379.3	392.0	423.7	423.7	443.6
800	424.7	367.7	407.2	364.5	366.2	387.8	399.3	388.8
750	394.1	347.1	375.1	348.0	340.3	354.5	363.0	349.4
700	359.1	326.5	343.0	331.5	314.4	321.2	326.8	310.0
650	321.9	300.2	309.5	315.0	289.7	293.5	299.2	292.5
600	294.1	266.0	273.5	282.0	267.4	274.4	273.8	282.7
550	271.1	239.4	237.5	247.2	245.0	255.1	248.5	273.0
500	253.4	226.6	222.6	222.0	228.8	231.7	224.7	246.5
450	241.7	211.0	211.8	207.3	215.4	215.0	207.3	213.4
400	236.0	198.5	198.8	206.6	213.1	216.1	213.0	211.5
350	234.5	202.2	207.6	234.7	217.7	233.0	264.9	210.7
300	232.3		363.4	460.3	231.5	258.7	476.5	214.1
LONG	-177.50	-167.30	-161.69	-156.09	-150.15	-144.32	-138.49	-132.99
LAT	79.29	80.07	80.21	80.35	80.50	80.30	80.10	79.91
QUAL	33	33	31	31	33	33	21	33

PASS 3174 AT RESLUT, 63 519  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	201011	201029	201047	201106	201123	201140	201200	201309
1000	0.180	0.195	0.198	0.203	0.224	0.225	0.302	0.372
950	0.197	0.214	0.214	0.225	0.251	0.248	0.328	0.408
900	0.220	0.237	0.232	0.248	0.281	0.277	0.361	0.450
850	0.245	0.265	0.263	0.278	0.317	0.312	0.399	0.502
800	0.277	0.299	0.315	0.315	0.360	0.353	0.448	0.564
750	0.315	0.348	0.384	0.358	0.425	0.410	0.516	0.646
700	0.365	0.408	0.456	0.426	0.515	0.490	0.599	0.760
650	0.438	0.486	0.531	0.545	0.624	0.593	0.703	0.898
600	0.527	0.579	0.614	0.713	0.770	0.729	0.846	1.075
550	0.650	0.693	0.733	0.875	0.947	0.914	1.019	1.328
500	0.809	0.876	0.928	1.082	1.212	1.154	1.291	1.663
450	1.017	1.109	1.172	1.395	1.536	1.448	1.638	2.102
400	1.308	1.393	1.470	1.756	1.889	1.800	2.082	2.636
350	1.674	1.709	1.759		2.195	2.245	2.657	3.305
300	2.118							4.010
HEIGHT	SCALE HEIGHT, KM							
950	501.8	500.5	647.9	493.9	437.7	467.3	554.3	518.9
900	459.6	457.3	485.5	454.9	403.1	428.1	500.9	465.8
850	422.2	422.8	396.5	427.0	374.7	406.9	443.8	434.3
800	389.9	387.5	356.6	399.1	346.3	377.2	399.7	402.7
750	357.7	341.7	316.7	371.3	316.4	298.8	369.7	365.5
700	325.8	299.1	301.7	227.3	285.9	277.9	339.6	322.4
650	294.5	285.7	295.6	226.6	256.5	261.3	309.0	286.4
600	263.3	272.4	289.6	226.0	240.4	242.8	277.0	258.4
550	244.2	256.9	266.8	226.4	224.9	221.2	245.5	239.7
500	229.7	225.8	220.9	221.7	222.8	222.5	222.9	218.5
450	216.3	221.7	220.4	210.3	231.9	226.3	210.1	219.3
400	204.6	236.1	245.5	265.0	278.2	227.5	208.1	222.2
350	206.7	286.0	514.1		556.4	290.6	271.2	239.5
300	218.6							295.9
LONG	-127.88	-123.23	-118.58	-114.11	-110.98	-107.84	-104.15	-95.55
LAT	79.53	79.03	78.53	77.94	77.29	76.64	75.88	72.77
QUAL	33	21	31	31	31	31	31	33



PASS 3174 AT RESLUT, 63 519  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	201327	201346	201404	201421	201438	201455	201514	201530
1000	0.299	0.293	0.293	0.305	0.300	0.263	0.272	0.237
950	0.327	0.322	0.320	0.331	0.331	0.299	0.308	0.274
900	0.363	0.367	0.364	0.369	0.372	0.345	0.354	0.316
850	0.404	0.417	0.415	0.413	0.420	0.389	0.399	0.365
800	0.460	0.482	0.476	0.480	0.477	0.445	0.455	0.422
750	0.532	0.570	0.559	0.571	0.561	0.511	0.521	0.497
700	0.621	0.683	0.678	0.686	0.668	0.594	0.628	0.592
650	0.739	0.833	0.830	0.830	0.805	0.760	0.767	0.723
600	0.882	1.025	1.030	1.008	0.984	0.975	0.950	0.894
550	1.078	1.315	1.318	1.268	1.238	1.232	1.201	1.134
500	1.350	1.717	1.704	1.544	1.577	1.515	1.492	1.430
450	1.703	2.094	2.081	1.834	1.948	1.789	1.759	1.702
400	2.143	2.457	2.452	2.194	2.296	2.118	2.059	2.005
350	2.527	2.778	2.776	2.621	2.654	2.494	2.378	2.329
300								
HEIGHT	SCALE HEIGHT, KM							
950	517.3	470.4	492.5	525.4	458.9	379.2	388.3	349.2
900	468.5	391.0	389.5	439.4	410.0	386.4	391.7	347.4
850	408.5	358.7	363.7	380.6	381.5	378.1	389.4	336.9
800	373.2	327.0	337.9	342.2	353.0	347.5	354.5	323.7
750	346.8	295.7	307.5	310.7	323.0	316.9	319.5	296.6
700	320.4	269.1	272.0	280.3	292.8	285.7	281.5	271.9
650	295.1	248.9	241.2	260.9	262.6	249.3	246.8	253.1
600	270.0	227.6	217.7	245.5	234.5	214.3	223.3	224.5
550	246.4	201.6	205.2	247.4	216.9	241.4	241.1	224.7
500	224.3	225.1	226.5	264.7	233.1	269.2	269.5	253.4
450	216.7	277.8	273.8	280.3	269.8	294.7	307.6	290.2
400	239.0	320.1	322.4	280.5	307.5	302.5	326.9	305.8
350	557.6	659.0	734.8	357.4	576.7	348.3	415.0	473.2
300								
LONG	-93.89	-92.13	-90.57	-89.41	-88.26	-87.10	-86.04	-85.21
LAT	71.90	70.99	70.11	69.25	68.38	67.52	66.54	65.70
QUAL	31	31	31	31	31	31	31	31

PASS 3174 AT RESLUT, 63 519  
 ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)		
	201548	201606	201624
1000	0.268	0.218	0.236
950	0.301	0.247	0.275
900	0.341	0.288	0.320
850	0.387	0.334	0.368
800	0.443	0.386	0.420
750	0.521	0.448	0.488
700	0.616	0.530	0.577
650	0.741	0.629	0.703
600	0.911	0.774	0.866
550	1.098	1.000	1.096
500	1.301	1.306	1.419
450	1.550	1.638	1.848
400	1.858	1.977	2.278
350	2.226	2.409	2.796
300			

HEIGHT	SCALE HEIGHT, KM		
950	410.4	360.6	
900	391.2	339.1	348.3
850	363.7	344.5	352.2
800	338.9	329.6	346.8
750	317.3	304.6	313.8
700	295.6	286.4	284.0
650	278.0	268.3	257.8
600	264.7	235.9	226.3
550	273.4	195.0	205.9
500	286.1	216.4	197.8
450	281.4	239.4	213.6
400	279.6	249.3	238.7
350	326.6	234.5	243.9
300			

LONG	-84.28	-83.42	-82.70
LAT	64.76	63.81	62.85
QUAL	31	33	33

PASS 3174 AT QUITOE, 63 519

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	203234	203310	203344	203420	203456	203530	203607	203624
1000	0.399	0.420	0.437	0.430	0.418	0.409	0.395	0.376
950	0.456	0.475	0.495	0.487	0.478	0.461	0.440	0.421
900	0.526	0.551	0.575	0.560	0.546	0.526	0.497	0.479
850	0.611	0.646	0.678	0.650	0.628	0.605	0.565	0.548
800	0.715	0.765	0.806	0.758	0.729	0.702	0.653	0.631
750	0.851	0.909	0.962	0.891	0.849	0.817	0.782	0.734
700	1.049	1.142	1.187	1.108	1.055	1.005	0.947	0.906
650	1.331	1.477	1.524	1.409	1.337	1.271	1.209	1.164
600	1.751	1.989	2.023	1.841	1.751	1.686	1.664	1.614
550	2.491	2.845	2.862	2.552	2.450	2.443	2.531	2.514
500	3.747	4.299	4.264	3.782	3.654	3.777	3.963	3.962
450	6.003	6.875	6.577	5.900	5.838	6.155	6.442	6.372
400	10.023	10.800	10.018	9.162	9.314	9.794	9.965	9.480
350				13.439	13.837			
300								
HEIGHT	SCALE HEIGHT, KM							
950	364.0	359.8	352.8	380.2	370.1	388.9	427.5	407.9
900	340.2	337.4	335.5	343.8	357.1	370.9	401.5	388.0
850	320.0	314.9	318.3	321.4	338.1	352.3	355.2	363.5
800	301.5	286.8	297.1	302.5	312.1	319.6	314.2	328.6
750	270.3	257.1	265.8	279.5	286.1	286.8	280.9	290.2
700	226.2	215.8	218.0	232.9	241.4	244.6	247.7	235.9
650	195.7	185.8	191.1	201.3	201.8	200.4	190.0	183.6
600	168.6	153.5	158.1	174.1	171.0	165.1	138.3	130.7
550	133.1	133.6	138.9	142.0	139.3	123.4	116.1	111.3
500	114.3	110.5	118.8	117.9	115.6	109.1	105.7	108.1
450	100.3	106.2	115.2	114.3	106.1	102.7	104.4	110.1
400	113.0	126.5	126.1	120.6	113.5	115.2	139.7	154.7
350				144.8	148.4			
300								
LONG	-69.16	-68.97	-68.79	-68.59	-68.40	-68.22	-68.02	-67.94
LAT	8.89	6.86	4.94	2.91	0.88	-1.03	-3.12	-4.08
QUAL	23	23	23	23	23	23	23	23

PASS 3174 AT QUITOE, 63 519  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	203659	203733	203809	203843	203919	203955	204030	204106
1000	0.342	0.391	0.323	0.300	0.292	0.285	0.276	0.263
950	0.386	0.425	0.361	0.331	0.323	0.313	0.303	0.287
900	0.443	0.474	0.402	0.366	0.357	0.346	0.336	0.315
850	0.511	0.541	0.460	0.423	0.402	0.389	0.376	0.351
800	0.602	0.631	0.542	0.505	0.464	0.449	0.428	0.397
750	0.726	0.744	0.647	0.615	0.542	0.526	0.497	0.455
700	0.894	0.913	0.775	0.752	0.635	0.618	0.695	0.579
650	1.107	1.465	0.926	1.031	0.884	0.994	1.109	0.783
600	1.770	2.133	1.543	1.705	1.673	1.434	1.524	1.129
550	2.752	3.121	2.525	2.497	2.313	2.101	2.134	1.731
500	4.503	4.643	3.720	3.703	3.485	3.211	3.252	2.762
450	6.865	6.572	5.352	5.169	4.860	4.601	4.691	4.206
400	9.533	8.297	6.914	6.772	6.338	6.229	6.505	6.113
350					7.351	7.808		8.660
300								
HEIGHT	SCALE HEIGHT, KM							
950	384.9	527.6	456.6	477.0	494.7	506.0	514.9	543.7
900	362.7	421.1	401.2	419.0	428.7	451.4	477.4	496.6
850	337.5	345.7	320.4	312.1	360.4	367.5	413.2	440.9
800	283.6	302.2	293.9	261.5	323.7	321.8	336.5	374.0
750	246.2	258.7	267.3	235.1	287.0	276.1	259.6	290.2
700	215.9	211.0	240.8	208.7	250.4	230.4	191.4	224.2
650	184.7	132.5	214.3	168.8	183.7	120.7	135.5	162.9
600	115.3	131.1	126.5	115.5	108.9	127.5	141.5	134.5
550	109.1	127.4	114.7	128.9	129.7	126.5	134.7	113.9
500	108.7	132.9	136.1	139.4	137.8	130.1	128.9	113.7
450	134.0	185.8	171.5	168.6	170.5	152.0	144.5	127.7
400	244.7	301.5	309.7	301.9	262.3	194.5	168.9	138.1
350					654.0	254.7		167.7
300								
LONG	-67.76	-67.57	-67.37	-67.18	-66.98	-66.77	-66.55	-66.32
LAT	-6.05	-7.97	-10.00	-11.91	-13.94	-15.96	-17.92	-19.95
QUAL	23	23	23	23	22	23	23	23

PASS 3174 AT QUITOE, 63 519  
 ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)
	204124
1000	0.262
950	0.288
900	0.316
850	0.351
800	0.397
750	0.458
700	0.531
650	0.723
600	1.164
550	1.721
500	2.649
450	4.044
400	5.831
350	8.293
300	
HEIGHT	SCALE HEIGHT, KM
950	516.9
900	488.9
850	437.4
800	377.1
750	319.3
700	261.5
650	196.6
600	123.3
550	122.2
500	116.0
450	128.6
400	140.1
350	146.4
300	
LONG	-66.20
LAT	-20.95
QUAL	23

PASS 3174 AT AGASTA, 63 519

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	204013	204049	204124	204255	204330	204406	204441	204516
1000	0.272	0.283	0.284	0.232	0.227	0.195	0.182	0.156
950	0.298	0.306	0.307	0.253	0.246	0.213	0.198	0.168
900	0.325	0.335	0.336	0.279	0.266	0.235	0.216	0.184
850	0.356	0.371	0.370	0.308	0.291	0.262	0.238	0.204
800	0.410	0.418	0.417	0.340	0.332	0.294	0.265	0.226
750	0.532	0.490	0.492	0.381	0.384	0.332	0.300	0.253
700	0.702	0.599	0.589	0.446	0.434	0.378	0.346	0.292
650	0.927	0.835	0.778	0.526	0.505	0.442	0.410	0.342
600	1.366	1.206	1.090	0.656	0.622	0.523	0.497	0.415
550	2.115	1.833	1.695	0.884	0.840	0.708	0.631	0.534
500	3.202	2.834	2.673	1.291	1.205	1.015	0.876	0.724
450	4.620	4.302	4.095	2.064	1.854	1.419	1.237	1.006
400	6.286	6.180	5.925	3.711	3.130	2.153	1.781	1.413
350	7.950	8.418	8.417	5.857	5.038	3.301	2.705	2.014
300				8.708	7.666	5.211	4.268	3.181
HEIGHT	SCALE HEIGHT, KM							
950	554.9	579.1	585.4	529.6	604.9	523.4	575.4	587.7
900	489.5	524.7	544.9	511.4	543.4	478.5	528.1	508.9
850	424.0	457.4	449.8	481.2	484.8	439.3	484.1	477.5
800	344.2	365.3	363.7	433.8	433.2	416.0	440.1	446.1
750	236.6	279.0	307.1	384.9	385.4	392.7	387.5	412.3
700	177.4	207.9	250.4	333.1	353.6	364.5	330.0	352.1
650	157.0	159.5	188.4	281.3	289.9	317.8	282.2	292.5
600	123.1	129.5	133.5	223.7	208.9	253.6	240.8	235.6
550	116.5	116.2	108.9	157.1	166.0	159.3	198.8	184.4
500	127.1	116.4	112.9	122.1	127.8	148.3	155.7	162.6
450	147.5	130.0	127.7	91.6	106.8	133.6	141.6	151.9
400	182.7	142.2	140.2	96.0	97.2	117.9	131.6	145.5
350	296.7	184.5	145.1	120.6	111.8	118.1	112.1	127.2
300				128.2	135.2	110.4	116.9	102.0
LONG	-66.66	-66.43	-66.20	-65.58	-65.30	-65.02	-64.71	-64.40
LAT	-16.97	-18.99	-20.95	-26.04	-27.99	-30.00	-31.95	-33.90
QUAL	23	23	23	23	33	33	33	33

PASS 3174 AT AGASTA, 63 519

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)		
	204552	204645	204720
1000	0.139	0.129	0.102
950	0.149	0.138	0.110
900	0.160	0.147	0.118
850	0.173	0.158	0.127
800	0.190	0.171	0.139
750	0.215	0.188	0.152
700	0.248	0.207	0.166
650	0.291	0.239	0.193
600	0.341	0.296	0.228
550	0.446	0.374	0.284
500	0.608	0.491	0.366
450	0.854	0.679	0.521
400	1.206	0.985	0.737
350	1.730	1.476	1.074
300	2.833	2.460	1.676

HEIGHT	SCALE HEIGHT. KM		
950	716.5	753.9	715.0
900	651.2	730.4	670.6
850	575.5	646.8	625.4
800	447.2	559.4	569.0
750	387.2	491.1	501.5
700	350.3	422.8	433.5
650	313.4	351.0	356.3
600	276.5	274.4	278.8
550	215.1	206.7	224.4
500	155.6	176.8	177.4
450	149.0	151.9	147.9
400	143.4	132.7	139.9
350	127.1	112.2	123.3
300	89.0	90.6	105.1

LONG	-64.65	-63.48	-63.07
LAT	-35.90	-38.83	-40.76
QUAL	33	33	33

PASS 3174 AT SOLANT, 63 519

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	204238	204313	204348	204424	204459	204534	204609	204645
1000	0.251	0.238	0.205	0.187	0.164	0.140	0.126	0.110
950	0.274	0.259	0.227	0.203	0.177	0.150	0.134	0.119
900	0.300	0.284	0.252	0.223	0.194	0.162	0.143	0.127
850	0.330	0.313	0.278	0.245	0.213	0.177	0.154	0.137
800	0.367	0.348	0.311	0.276	0.240	0.195	0.167	0.149
750	0.413	0.391	0.351	0.313	0.271	0.219	0.186	0.164
700	0.477	0.445	0.400	0.358	0.308	0.255	0.210	0.188
650	0.584	0.526	0.465	0.415	0.367	0.303	0.245	0.224
600	0.730	0.657	0.561	0.496	0.445	0.370	0.302	0.269
550	1.012	0.906	0.721	0.619	0.564	0.453	0.372	0.336
500	1.614	1.337	1.024	0.843	0.784	0.611	0.521	0.437
450	2.887	2.169	1.522	1.227	1.105	0.875	0.750	0.622
400	4.666	3.592	2.403	1.891	1.528	1.262	1.091	0.911
350	6.919	5.654	3.883	2.938	2.175	1.872	1.590	1.380
300			6.064	4.340	3.408	3.014	2.532	2.261
HEIGHT	SCALE HEIGHT, KM							
950	552.1	544.3	496.9	546.6	566.3	666.6	784.3	698.5
900	528.4	522.5	477.3	507.1	528.4	596.7	710.6	671.1
850	502.0	500.7	458.7	467.5	490.3	535.5	636.9	620.5
800	455.7	465.1	432.4	434.5	440.4	474.3	554.6	533.3
750	381.4	408.8	404.0	402.7	385.9	409.0	465.2	442.4
700	293.2	330.9	362.7	368.3	323.3	330.3	381.9	376.0
650	250.5	272.3	297.9	312.9	288.2	271.4	245.5	325.8
600	207.7	208.7	242.7	255.5	253.5	244.7	229.8	275.5
550	144.4	144.4	173.5	199.4	183.3	217.9	196.2	225.1
500	95.8	119.1	138.1	155.7	151.8	164.8	144.2	174.4
450	93.7	100.4	117.5	125.9	152.1	139.1	136.0	133.7
400	116.4	99.8	107.4	114.3	149.7	133.4	134.6	129.0
350	134.7	122.7	108.3	119.2	126.9	118.1	123.2	113.2
300			114.5	138.9	114.8	96.7	97.6	89.0
LONG	-65.70	-65.44	-65.16	-64.86	-64.56	-64.22	-63.87	-63.48
LAT	-25.09	-27.05	-29.00	-31.01	-32.95	-34.90	-36.84	-38.83
QUAL	33	33	33	33	33	23	23	23



PASS 3174 AT SOLANT, 63 519  
 ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)
	204720
1000	0.103
950	0.112
900	0.121
850	0.130
800	0.141
750	0.155
700	0.173
650	0.199
600	0.230
550	0.293
500	0.392
450	0.544
400	0.810
350	1.248
300	2.037
HEIGHT	SCALE HEIGHT, KM
950	632.6
900	642.2
850	616.4
800	563.1
750	486.0
700	416.9
650	354.8
600	292.6
550	218.8
500	164.6
450	143.6
400	124.4
350	110.8
300	96.2
LONG	-63.07
LAT	-40.76
QUAL	23

PASS 3201 AT AGASTA, 63 521  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	201120	201138	201155	201231	201306	201341	201359	201449
1000	0.246	0.237	0.238	0.240	0.200	0.180	0.158	0.159
950	0.266	0.256	0.256	0.252	0.214	0.192	0.171	0.169
900	0.269	0.280	0.274	0.267	0.232	0.208	0.187	0.184
850	0.315	0.309	0.298	0.286	0.254	0.227	0.205	0.199
800	0.351	0.340	0.329	0.310	0.280	0.250	0.225	0.215
750	0.396	0.376	0.367	0.340	0.311	0.278	0.249	0.233
700	0.452	0.420	0.413	0.381	0.348	0.313	0.278	0.259
650	0.531	0.473	0.466	0.437	0.395	0.356	0.318	0.292
600	0.625	0.602	0.600	0.511	0.452	0.406	0.403	0.375
550	0.735	0.778	0.798	0.630	0.574	0.486	0.519	0.498
500	0.951	1.081	1.070	0.835	0.785	0.668	0.682	0.651
450	1.640	1.486	1.425	1.182	1.095	0.911	0.909	0.833
400	2.572	2.243	2.070	1.678	1.496	1.237	1.257	1.117
350	4.288	3.707	3.117	2.519	2.101	1.735	1.754	1.598
300	7.214	6.509	5.234	4.172	3.303	3.023		
HEIGHT	SCALE HEIGHT, KM							
950	597.0	616.0	716.4	955.5	695.6	705.1	592.5	743.7
900	556.2	580.0	625.9	767.2	611.0	626.5	570.2	682.9
850	515.4	543.3	566.0	692.6	535.3	551.3	549.9	653.2
800	458.1	494.9	508.1	567.1	500.5	495.5	516.5	630.7
750	400.1	441.3	447.1	498.8	465.6	439.7	454.9	523.4
700	349.6	386.6	380.0	413.2	421.6	398.6	381.7	423.9
650	315.4	331.3	313.0	336.2	363.6	358.9	313.3	324.5
600	281.2	254.8	246.5	284.3	302.3	319.1	267.0	261.8
550	246.9	179.1	180.2	219.6	195.9	266.8	220.7	202.4
500	194.0	162.1	168.8	158.2	164.2	179.3	187.8	188.8
450	102.8	144.9	157.5	145.3	154.9	160.1	169.2	185.4
400	102.9	112.6	130.1	130.6	155.3	150.5	156.5	160.5
350	99.6	97.1	114.0	116.1	132.3	123.1	148.3	115.5
300	96.9	84.3	93.5	100.0	108.6	43.6		
LONG	-62.10	-61.97	-61.85	-61.58	-61.31	-61.01	-60.86	-60.38
LAT	-23.42	-24.43	-25.38	-27.39	-29.34	-31.29	-32.28	-35.06
QUAL	23	23	23	23	23	23	23	23

## PASS 3201 AT AGASTA, 63 521

## ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	201527	201603	201620	201656	201749	201842	201859	201935
1000	0.146	0.146	0.125	0.105	0.102	0.092	0.122	0.098
950	0.155	0.152	0.131	0.109	0.109	0.096	0.126	0.102
900	0.165	0.159	0.137	0.114	0.115	0.102	0.131	0.108
850	0.175	0.167	0.144	0.122	0.121	0.108	0.138	0.114
800	0.166	0.173	0.153	0.131	0.129	0.115	0.146	0.123
750	0.200	0.178	0.165	0.141	0.138	0.123	0.157	0.132
700	0.222	0.192	0.183	0.154	0.149	0.135	0.170	0.152
650	0.262	0.242	0.210	0.173	0.166	0.152	0.198	0.179
600	0.319	0.266	0.248	0.199	0.190	0.180	0.248	0.215
550	0.390	0.327	0.310	0.231	0.224	0.216	0.309	0.262
500	0.477	0.435	0.401	0.318	0.299	0.277	0.377	0.319
450	0.597	0.598	0.539	0.440	0.410	0.356	0.542	0.425
400	0.937	0.797	0.736	0.661	0.558	0.487	0.849	0.665
350	1.338	1.143	1.000	0.961	0.822	0.820	1.208	0.998
300	2.065	1.825	1.569	1.676	1.297	1.277	1.590	1.468
HEIGHT	SCALE HEIGHT, KM							
950	834.1	1546.7	1020.7	1079.0	849.5	968.5	1309.9	1214.4
900	850.0	1125.1	1183.8	962.9	891.3	881.0	1147.0	944.3
850	839.5	1048.6	918.9	833.5	853.8	827.8	884.7	789.0
800	755.3	972.2	743.0	717.3	775.5	753.6	744.9	643.2
750	649.2	895.7	598.3	617.7	680.5	661.0	632.1	498.4
700	376.2	627.7	420.1	490.0	570.9	488.1	519.4	423.9
650	312.9	312.2	342.1	397.7	438.4	378.8	396.7	349.8
600	260.3	308.2	259.4	329.9	334.8	313.9	266.2	280.5
550	237.6	228.1	217.7	262.1	245.1	250.4	215.6	246.8
500	214.9	150.1	182.4	202.3	207.5	217.5	190.6	213.0
450	188.4	163.6	168.5	142.8	173.5	184.5	169.8	180.6
400	129.5	160.6	157.1	129.3	143.0	153.3	151.6	151.1
350	126.9	122.8	137.4	115.8	124.0	128.2	166.8	125.5
300	76.7	108.8	117.8	56.8	105.4	122.9	200.3	113.5
LONG	-60.00	-59.61	-59.41	-58.98	-58.25	-57.43	-57.16	-56.48
LAT	-37.17	-39.16	-40.10	-42.08	-44.99	-47.90	-48.83	-50.79
QUAL	23	23	23	23	33	33	23	23

PASS 3211 AT RESLUT, 63 522								
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)								
HEIGHT	TIME (UT)							
	131016	131034	131052	131109	131210	131229	131247	131322
1000	0.156	0.143	0.149	0.177	0.167	0.208	0.173	0.170
950	0.155	0.164	0.172	0.198	0.191	0.237	0.201	0.193
900	0.178	0.188	0.199	0.223	0.219	0.273	0.231	0.219
850	0.204	0.215	0.228	0.251	0.252	0.316	0.264	0.249
800	0.237	0.248	0.267	0.289	0.295	0.372	0.308	0.287
750	0.277	0.291	0.315	0.335	0.349	0.447	0.363	0.344
700	0.325	0.343	0.374	0.394	0.413	0.543	0.433	0.413
650	0.390	0.409	0.451	0.469	0.499	0.667	0.523	0.500
600	0.469	0.496	0.543	0.559	0.605	0.814	0.629	0.609
550	0.561	0.600	0.650	0.661	0.728	1.046	0.752	0.737
500	0.666	0.719	0.771	0.778	0.869	1.379	1.029	0.884
450	0.870	0.892	1.019	1.034	1.153	1.812	1.382	1.101
400	1.176	1.215	1.335	1.370	1.525	2.351	1.807	1.430
350	1.589	1.607	1.752	1.776	1.994	2.851	2.320	1.839
300	2.105	2.047	2.291	2.253				2.342
HEIGHT	SCALE HEIGHT, KM							
950	370.3	363.2	351.4	436.7	370.9	369.3	346.9	397.0
900	356.5	355.6	341.6	407.4	351.3	345.1	344.2	376.4
850	342.5	344.2	330.4	378.5	332.7	323.0	339.2	349.0
800	326.0	330.7	313.7	351.4	314.6	297.2	317.6	323.9
750	309.1	311.5	295.8	324.2	296.9	268.3	294.6	301.6
700	292.6	292.3	279.6	303.9	279.3	250.0	275.9	279.3
650	280.4	276.8	270.8	291.3	267.9	238.3	260.4	264.6
600	268.1	265.0	262.0	278.6	257.6	226.7	244.9	258.5
550	255.8	253.3	253.2	265.9	247.3	210.0	229.3	252.4
500	243.5	241.5	244.3	253.2	237.0	190.5	207.1	246.3
450	218.5	226.9	221.4	227.2	213.8	206.4	185.0	232.3
400	186.7	205.1	197.4	199.3	188.9	234.7	189.0	209.6
350	235.1	197.9	198.6	179.4	192.4	312.7	275.2	202.2
300	494.1	228.9	310.9	162.4				206.0
LONG	-100.63	-97.63	-94.64	-91.19	-76.10	-70.24	-64.68	-53.27
LAT	75.78	76.50	77.23	77.83	79.59	79.91	80.21	80.36
QUAL	32	33	22	22	22	33	22	32

PASS 3211 AT RESLUT, 63 522  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	131340	131357	131414	131432	131450	131508	131525	131542
1000	0.189	0.216	0.199	0.242	0.198	0.228	0.216	0.213
950	0.219	0.243	0.222	0.268	0.223	0.247	0.242	0.237
900	0.248	0.277	0.250	0.305	0.255	0.276	0.273	0.266
850	0.263	0.317	0.283	0.351	0.293	0.313	0.311	0.301
800	0.331	0.372	0.329	0.410	0.337	0.360	0.355	0.340
750	0.391	0.454	0.387	0.490	0.413	0.439	0.415	0.394
700	0.470	0.558	0.458	0.586	0.510	0.541	0.506	0.462
650	0.572	0.682	0.552	0.721	0.628	0.665	0.618	0.542
600	0.692	0.837	0.664	0.888	0.776	0.811	0.751	0.652
550	0.830	1.025	0.795	1.086	0.905	1.015	0.907	0.783
500	1.111	1.242	0.953	1.358	1.184	1.261	1.118	0.936
450	1.548	1.597	1.262	1.806	1.436	1.547	1.362	1.190
400	2.093	2.392	1.651	2.386	1.920	1.917	1.685	1.608
350	2.755	2.752	2.142	3.046	2.585	2.544	2.239	2.171
300			2.757			3.207	3.546	2.880
HEIGHT	SCALE HEIGHT, KM							
950	367.3	401.6	434.1	433.5	390.7	530.0	428.0	446.8
900	357.6	364.6	399.5	385.2	360.8	444.3	393.3	417.8
850	341.0	325.3	362.1	348.5	329.8	380.0	363.2	395.5
800	315.4	298.1	334.9	314.1	298.7	315.8	333.1	373.3
750	289.8	286.5	309.1	286.9	282.7	297.7	310.8	347.1
700	271.6	275.0	285.8	259.7	267.2	281.7	299.3	319.9
650	256.7	263.5	275.4	249.0	251.7	265.7	287.7	293.2
600	241.8	251.6	265.0	240.1	240.0	249.6	276.1	276.4
550	227.0	239.5	254.6	231.3	232.5	241.4	264.2	259.6
500	205.9	227.4	242.4	216.0	224.9	234.3	248.5	242.8
450	181.4	212.5	209.1	186.0	217.3	227.3	232.9	215.3
400	166.6	196.5	189.9	216.1	197.8	218.0	207.9	176.6
350	161.9	174.6	197.0	281.9	175.5	200.9	156.2	176.7
300			259.3			622.4	917.7	219.5
LONG	-47.22	-41.50	-36.41	-31.17	-25.92	-21.28	-17.61	-13.94
LAT	80.32	80.28	79.98	79.60	79.22	78.74	78.16	77.57
QUAL	32	22	21	32	22	32	32	33

PASS 3211 AT RESLUT, 63 522

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	131600	131618	131635	131652	131711	131728	131746	131804
1000	0.224	0.201	0.164	0.150	0.150	0.139	0.145	0.129
950	0.247	0.223	0.186	0.172	0.169	0.159	0.162	0.147
900	0.275	0.250	0.212	0.198	0.193	0.182	0.184	0.169
850	0.309	0.283	0.242	0.227	0.221	0.209	0.210	0.196
800	0.348	0.322	0.275	0.260	0.254	0.239	0.242	0.228
750	0.403	0.370	0.319	0.307	0.299	0.284	0.286	0.267
700	0.489	0.427	0.373	0.363	0.354	0.338	0.340	0.324
650	0.597	0.498	0.437	0.429	0.419	0.401	0.403	0.393
600	0.725	0.590	0.524	0.519	0.500	0.488	0.492	0.476
550	0.878	0.697	0.629	0.628	0.595	0.594	0.597	0.591
500	1.085	0.821	0.752	0.754	0.703	0.717	0.719	0.727
450	1.326	1.037	0.893	0.899	0.864	0.857	0.872	0.884
400	1.674	1.389	1.198	1.205	1.098	1.168	1.193	1.154
350	2.279	1.877	1.618	1.613	1.398	1.564	1.611	1.550
300	3.183	2.653	2.251	2.231	1.826	2.154	2.202	2.115
HEIGHT	SCALE HEIGHT, KM							
950	493.5	453.6	384.8	357.7	396.4	368.2	412.5	365.3
900	447.9	424.1	376.1	350.3	373.5	354.3	382.8	345.5
850	404.8	401.5	366.2	339.7	352.2	341.1	358.3	329.7
800	361.8	378.7	356.4	328.9	330.9	327.8	334.2	313.8
750	328.8	355.5	337.9	314.2	318.7	310.3	314.0	297.8
700	312.2	332.2	317.1	299.4	306.8	292.7	293.8	281.5
650	295.5	312.2	296.2	284.7	294.9	275.0	274.4	265.2
600	278.8	294.8	281.6	272.0	284.7	263.0	262.7	250.1
550	261.9	277.4	267.5	259.6	274.5	251.5	251.0	240.6
500	243.5	260.0	253.5	247.2	264.3	240.1	239.3	231.1
450	225.2	229.6	239.4	234.9	246.3	228.6	225.5	221.6
400	200.6	187.1	201.8	202.9	222.1	198.1	191.3	199.5
350	164.4	146.6	163.9	168.1	200.0	166.9	165.8	170.4
300	133.0	178.5	224.3	282.2	183.8	198.0	171.8	155.7
LONG	-10.05	-7.32	-4.75	-2.17	0.22	2.03	3.95	5.76
LAT	76.96	76.20	75.49	74.78	73.92	73.12	72.28	71.42
QUAL	22	32	33	32	32	22	22	22

PASS 3229 AT COLEGE, 63 523								
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)								
HEIGHT	TIME (UT)							
	205318	205355	205429	205504	205540	205615	205650	205725
1000	0.207	0.251	0.212	0.221	0.215	0.224	0.217	0.201
950	0.229	0.283	0.242	0.251	0.247	0.253	0.238	0.225
900	0.258	0.318	0.277	0.286	0.285	0.286	0.269	0.259
850	0.291	0.357	0.315	0.325	0.327	0.323	0.304	0.298
800	0.329	0.399	0.356	0.366	0.373	0.365	0.344	0.342
750	0.377	0.454	0.405	0.416	0.425	0.415	0.394	0.398
700	0.441	0.521	0.462	0.475	0.489	0.477	0.466	0.466
650	0.519	0.598	0.542	0.551	0.565	0.558	0.553	0.553
600	0.628	0.702	0.647	0.651	0.678	0.666	0.674	0.667
550	0.767	0.856	0.788	0.789	0.828	0.813	0.832	0.823
500	0.976	1.056	0.984	0.987	1.049	1.034	1.067	1.062
450	1.268	1.332	1.254	1.311	1.348	1.337	1.393	1.403
400	1.648	1.716	1.611	1.725	1.736	1.734	1.828	1.872
350	2.149	2.273	2.116	2.276	2.285	2.286	2.408	2.513
300	2.794	3.073	2.810	3.059	3.046	3.072	3.181	3.330
HEIGHT	SCALE HEIGHT, KM							
950	454.2					405.1	479.9	403.6
900	412.8	429.2	384.8	394.2	361.2	405.3	411.2	369.6
850	395.5	415.9	388.9	395.9	366.1	399.7	390.9	353.6
800	378.1	398.2	391.6	394.8	368.7	393.4	370.6	342.2
750	353.9	377.0	366.6	375.9	357.8	371.2	346.7	324.4
700	320.3	355.6	341.4	353.9	337.7	335.3	312.4	305.5
650	288.3	334.2	311.4	323.6	315.5	303.8	278.3	283.0
600	263.0	304.8	279.8	286.2	275.5	274.5	252.3	257.6
550	235.6	264.3	246.0	244.8	236.8	239.1	223.2	223.5
500	199.3	231.4	216.5	205.2	206.3	202.5	194.7	188.7
450	193.8	211.9	208.2	185.4	202.3	197.4	187.2	181.0
400	189.7	187.6	192.8	181.2	188.7	186.5	183.4	171.5
350	191.1	172.0	182.4	177.5	180.8	177.5	181.2	176.2
300	217.0	207.7	190.3	170.0	185.2	175.2	206.1	197.1
LONG	-161.40	-149.57	-140.70	-132.21	-125.77	-120.32	-115.94	-112.45
LAT	80.26	79.77	78.87	77.82	76.42	74.96	73.39	71.73
QUAL	21	21	31	32	33	32	33	32

PASS 3229 AT COLEGE, 63 523

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	205801	205836	205911	205947	210022	210057	210133	210208
1000	0.192	0.182	0.170	0.167	0.164	0.173	0.171	0.178
950	0.216	0.208	0.197	0.189	0.188	0.195	0.194	0.200
900	0.244	0.240	0.224	0.216	0.216	0.223	0.219	0.226
850	0.278	0.276	0.258	0.249	0.249	0.256	0.250	0.258
800	0.317	0.317	0.298	0.287	0.288	0.294	0.288	0.296
750	0.364	0.370	0.343	0.334	0.338	0.345	0.340	0.345
700	0.433	0.441	0.410	0.401	0.401	0.408	0.405	0.408
650	0.518	0.527	0.496	0.482	0.482	0.492	0.487	0.491
600	0.628	0.639	0.608	0.590	0.581	0.593	0.585	0.592
550	0.784	0.790	0.763	0.737	0.732	0.754	0.743	0.747
500	0.986	1.011	0.994	0.955	0.942	0.971	0.965	0.956
450	1.329	1.345	1.316	1.292	1.310	1.332	1.342	1.311
400	1.814	1.828	1.766	1.757	1.803	1.823	1.834	1.796
350	2.439	2.484	2.393	2.386	2.442	2.492	2.484	2.428
300	3.234	3.219	3.214	3.226	3.301	3.379	3.339	3.273
HEIGHT	SCALE HEIGHT, KM							
950	412.5	359.3	358.1	380.4	359.1	384.6	402.6	414.7
900	385.6	354.3	353.2	359.7	353.8	366.9	381.4	385.5
850	367.8	341.3	341.5	343.5	341.7	352.2	357.8	369.0
800	350.0	326.3	329.7	327.5	329.4	337.0	332.7	352.6
750	330.6	310.5	317.9	310.2	303.5	308.6	302.7	314.4
700	303.9	294.0	293.1	289.8	279.6	281.9	277.3	279.0
650	277.2	277.6	265.1	269.4	262.6	261.8	260.7	262.6
600	251.1	254.8	237.1	239.9	245.6	241.8	244.2	246.2
550	226.0	226.1	209.2	208.5	215.2	212.3	211.4	217.0
500	199.9	193.4	182.2	180.0	179.1	183.1	175.9	185.0
450	168.2	172.1	176.9	171.6	160.9	166.9	161.4	165.2
400	164.6	163.1	166.9	160.1	160.5	158.7	162.5	161.4
350	175.1	173.0	168.2	166.8	166.7	163.0	166.8	168.3
300	188.3	286.2	185.6	187.3	196.9	193.4	195.3	190.8
LONG	-109.24	-106.93	-104.79	-102.97	-101.45	-100.08	-98.93	-97.87
LAT	69.98	68.20	66.40	64.52	62.67	60.80	58.86	56.96
QUAL	23	21	21	11	11	12	11	12



PASS 3229 AT COLEGE, 63 523

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)	
	210317	210352
1000	0.187	0.191
950	0.208	0.211
900	0.235	0.237
850	0.267	0.267
800	0.303	0.303
750	0.350	0.353
700	0.409	0.414
650	0.487	0.493
600	0.583	0.586
550	0.736	0.738
500	0.944	0.939
450	1.294	1.284
400	1.760	1.742
350	2.364	2.337
300	3.175	3.150

HEIGHT	SCALE HEIGHT, KM	
950	439.1	454.4
900	400.0	419.6
850	386.9	392.7
800	373.7	364.3
750	335.2	332.1
700	297.1	301.9
650	274.5	278.6
600	252.0	255.3
550	220.2	222.8
500	186.5	189.1
450	166.4	169.4
400	165.5	166.2
350	172.5	172.3
300	186.2	199.4

LONG	-96.18	-95.44
LAT	53.19	51.27
QUAL	12	21

PASS 3229 AT FTMYS, 63 523

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	2109.1	2109.46	2110.22	2110.57	2111.32	2112.08	2113.19	2113.54
1000	0.215	0.219	<b>0.208</b>	0.211	0.233	0.237	0.259	0.276
950	0.244	0.248	<b>0.235</b>	0.241	0.262	0.267	0.296	0.314
900	0.277	0.280	<b>0.265</b>	0.276	0.299	0.301	0.340	0.361
850	0.316	0.319	<b>0.303</b>	0.318	0.343	0.343	0.393	0.419
800	0.360	0.364	<b>0.347</b>	0.367	0.394	0.394	0.457	0.488
750	0.421	0.422	<b>0.413</b>	0.433	0.465	0.466	0.542	0.584
700	0.498	0.498	<b>0.497</b>	0.521	0.560	0.569	0.670	0.720
650	0.604	0.604	<b>0.611</b>	0.645	0.694	0.710	0.838	0.901
600	0.747	0.755	<b>0.764</b>	0.814	0.883	0.912	1.079	1.156
550	0.965	0.982	<b>1.004</b>	1.072	1.167	1.208	1.458	1.590
500	1.294	1.341	<b>1.376</b>	1.488	1.632	1.704	2.100	2.303
450	1.803	1.913	<b>1.993</b>	2.184	2.431	2.576	3.251	3.548
400	2.607	2.885	<b>3.107</b>	3.433	3.914	4.218	5.428	5.871
350	3.908	4.455	<b>5.033</b>	5.653	6.488	7.136	8.771	9.466
300	5.864	6.753	<b>7.461</b>	8.321	9.433	10.354		
HEIGHT	SCALE HEIGHT, KM							
950	394.9	395.8	<b>398.3</b>	368.8	399.8	409.9	361.3	366.7
900	383.1	387.7	<b>386.2</b>	355.9	377.1	382.7	349.9	351.6
850	366.9	371.2	<b>357.1</b>	338.9	354.0	359.6	330.5	330.2
800	350.6	354.3	<b>327.9</b>	320.7	330.6	336.6	302.6	295.9
750	313.8	324.6	<b>295.9</b>	292.1	292.2	286.8	274.3	268.1
700	277.9	287.3	<b>263.7</b>	255.8	253.9	236.1	245.2	244.2
650	250.3	244.8	<b>234.6</b>	229.0	227.1	216.8	216.1	216.3
600	221.6	209.8	<b>206.0</b>	201.2	197.7	193.1	186.4	182.3
550	190.3	183.8	<b>177.8</b>	169.1	167.2	165.6	155.1	148.2
500	164.0	152.4	<b>150.2</b>	145.2	139.5	135.3	127.0	127.9
450	143.2	133.0	<b>124.9</b>	122.0	116.3	111.5	105.8	106.9
400	130.0	117.0	<b>105.1</b>	102.7	98.2	94.8	95.5	95.6
350	120.3	116.1	<b>111.0</b>	103.8	106.3	105.0	118.6	131.0
300	152.2	147.9	<b>194.7</b>	249.8	262.9	356.4		
LONG	-91.09	-90.78	<b>-90.47</b>	-90.18	-89.93	-89.67	-89.19	-88.96
LAT	33.52	31.56	<b>29.54</b>	27.58	25.61	23.59	19.60	17.63
QUAL	32	32	<b>31</b>	32	33	33	33	33

PASS 3229 AT FMYRS, 63 523

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	211429	211505	211540	211615	211651	211727	211802	211837
1000	0.288	0.303	0.321	0.328	0.331	0.357	0.365	0.363
950	0.327	0.340	0.360	0.371	0.379	0.405	0.417	0.418
900	0.376	0.392	0.414	0.425	0.433	0.465	0.484	0.480
850	0.433	0.454	0.479	0.489	0.502	0.538	0.563	0.551
800	0.501	0.526	0.554	0.571	0.592	0.640	0.667	0.633
750	0.596	0.634	0.668	0.685	0.727	0.773	0.802	0.741
700	0.723	0.775	0.814	0.848	0.910	0.953	0.987	0.882
650	0.900	0.977	1.026	1.101	1.153	1.206	1.243	1.106
600	1.152	1.268	1.339	1.501	1.545	1.626	1.665	1.504
550	1.586	1.733	1.866	2.169	2.234	2.317	2.387	2.321
500	2.309	2.521	2.791	3.407	3.505	3.564	3.893	3.890
450	3.569	4.004	4.634	5.683	5.852	5.901	6.922	6.600
400	6.010	6.963	8.222	9.392	9.481	9.662	10.746	9.883
350	9.727	11.200	12.505		12.883			
300								

HEIGHT	SCALE HEIGHT, KM							
950	371.7	391.8	400.8	383.8	365.4	371.0	353.7	354.6
900	356.3	356.8	365.9	363.9	349.9	343.6	332.8	359.1
850	334.4	327.0	332.2	337.3	314.5	314.8	307.6	351.9
800	310.3	298.6	299.4	299.4	279.4	284.4	283.7	336.2
750	282.4	270.9	272.2	255.4	245.3	256.3	260.3	298.9
700	252.8	243.2	245.1	214.0	217.8	234.2	231.1	254.8
650	220.3	211.4	210.0	182.0	196.5	182.4	198.5	204.7
600	184.8	179.5	173.4	153.5	157.6	156.2	159.6	145.8
550	147.2	149.3	139.5	123.0	123.7	130.1	124.9	103.5
500	125.6	122.8	112.1	103.4	102.3	108.4	90.7	94.4
450	106.7	97.6	89.5	95.7	95.6	95.0	92.8	107.6
400	94.1	90.5	95.7	111.2	127.0	115.1	164.8	158.2
350	126.0	145.1	165.5		284.8			
300								

LONG	-88.75	-88.54	-88.34	-88.15	-87.95	-87.76	-87.57	-87.38
LAT	15.66	13.63	11.66	9.68	7.65	5.62	3.65	1.67
QUAL	33	33	33	33	33	33	33	32

PASS 3229 AT FTMYRS, 63 523

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)	
	211913	211947
1000	0.371	0.364
950	0.415	0.404
900	0.467	0.449
850	0.551	0.505
800	0.619	0.596
750	0.746	0.728
700	0.927	0.945
650	1.238	1.320
600	1.769	1.868
550	2.719	2.692
500	4.100	4.051
450	6.453	6.052
400	9.074	8.101
350		
300		
HEIGHT	SCALE HEIGHT, KM	
950	423.6	468.8
900	405.0	448.1
850	358.6	346.8
800	301.1	287.2
750	248.8	237.3
700	206.6	177.8
650	157.4	144.5
600	128.9	143.7
550	118.0	128.6
500	115.2	122.8
450	118.9	139.5
400	207.6	277.3
350		
300		
LONG	-87.19	-87.02
LAT	-0.56	-2.27
QUAL	32	31

PASS 3229 AT QUITOE, 63 523

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)				
	211929	212005	212040	212115	212151
1000	0.346	0.345	0.343	0.334	0.316
950	0.389	0.386	0.384	0.374	0.359
900	0.443	0.440	0.430	0.430	0.416
850	0.513	0.508	0.495	0.526	0.506
800	0.606	0.599	0.586	0.658	0.620
750	0.736	0.737	0.758	0.814	0.755
700	0.908	1.029	0.970	0.990	0.914
650	1.236	1.411	1.224	1.283	1.199
600	1.920	1.842	1.676	1.676	1.602
550	2.763	2.661	2.379	2.370	2.248
500	4.233	3.964	3.475	3.384	3.224
450	6.382	5.832	4.992	4.677	4.458
400	8.523	7.736	6.684	6.178	5.667
350					
300					

HEIGHT	SCALE HEIGHT, KM				
	950	900	850	800	750
950	407.6	419.5	452.1	396.9	357.6
900	364.3	376.2	385.8	302.3	301.5
850	322.1	325.8	317.3	278.8	259.4
800	280.8	265.5	259.3	255.3	241.2
750	242.6	207.5	196.2	236.3	232.2
700	205.5	178.9	192.4	219.5	223.1
650	163.7	164.3	188.6	197.0	199.2
600	125.1	160.3	160.5	174.1	170.6
550	129.3	134.0	140.6	146.8	148.2
500	119.3	127.4	136.3	147.5	146.5
450	138.6	145.9	155.3	167.3	179.1
400	304.9	362.4	250.9	303.6	308.0
350					
300					

LONG	-87.11	-86.92	-86.74	-86.55	-86.36
LAT	-1.26	-3.28	-5.25	-7.22	-9.25
QUAL	23	23	23	13	23

PASS 3229 AT AGASTA, 63 523  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)						
	212419	212450	212530	212605	212640	212716	212751
1000	0.299	0.301	0.286	0.280	0.249	0.242	0.205
950	0.331	0.324	0.310	0.301	0.272	0.256	0.218
900	0.382	0.361	0.334	0.326	0.298	0.279	0.238
850	0.456	0.408	0.371	0.356	0.328	0.310	0.261
800	0.551	0.465	0.419	0.391	0.365	0.349	0.288
750	0.666	0.534	0.480	0.435	0.410	0.396	0.316
700	0.816	0.715	0.552	0.510	0.463	0.450	0.362
650	1.028	0.970	0.748	0.626	0.523	0.512	0.425
600	1.331	1.272	1.075	0.844	0.694	0.746	0.512
550	1.943	1.804	1.527	1.229	0.948	1.073	0.699
500	2.972	2.753	2.450	2.018	1.386	1.468	1.014
450	4.460	4.192	3.977	3.414	2.327	2.035	1.508
400	6.312	5.896	6.078	5.582	4.207	3.418	2.329
350		7.606	8.091	8.034	6.914	5.473	3.593
300						8.796	5.576
HEIGHT	SCALE HEIGHT, KM						
950	391.3	554.5	584.8	627.2	539.6	675.0	627.1
900	349.2	439.5	541.3	593.0	510.9	593.9	593.5
850	305.0	386.5	454.3	546.0	482.2	512.8	559.9
800	275.5	337.3	389.2	475.0	446.2	437.4	502.5
750	259.6	288.1	334.6	400.1	400.9	383.3	428.8
700	234.2	208.0	279.9	305.7	355.7	329.2	364.8
650	198.6	166.0	180.2	222.9	310.5	275.1	302.7
600	168.3	163.0	134.3	169.4	225.0	205.7	238.4
550	132.6	137.2	127.5	124.3	148.0	147.5	157.6
500	121.7	114.7	105.9	97.9	120.6	142.0	135.0
450	133.1	132.0	109.8	98.3	88.5	129.9	124.1
400	160.9	164.3	138.8	116.7	90.0	103.6	117.3
350		265.3	240.8	180.6	126.1	105.2	114.1
300						117.5	135.7
LONG	-85.50	-85.30	-85.04	-84.81	-84.56	-84.28	-84.01
LAT	-17.56	-19.30	-21.54	-23.50	-25.46	-27.47	-29.42
QUAL	23	23	23	23	23	23	23

PASS 3229 AT AGASTA, 63 523

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)	
	212937	213030
1000	0.145	0.120
950	0.153	0.130
900	0.163	0.136
850	0.174	0.144
800	0.188	0.152
750	0.202	0.162
700	0.226	0.180
650	0.264	0.211
600	0.312	0.250
550	0.407	0.305
500	0.551	0.391
450	0.826	0.540
400	1.263	0.891
350	2.078	1.386
300	3.819	2.570

HEIGHT	SCALE HEIGHT, KM	
950	819.3	794.8
900	757.7	925.4
850	689.3	826.8
800	611.3	728.1
750	533.2	629.5
700	449.4	529.5
650	360.4	428.3
600	271.5	327.1
550	204.8	244.3
500	147.4	192.4
450	130.5	148.5
400	112.7	124.5
350	93.8	103.3
300	79.3	68.2

LONG	-83.06	-82.51
LAT	-35.31	-38.24
QUAL	23	23

PASS 3229 AT SOLANT, 63 523  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)						
	212827	212902	213013	213106	213458	213533	213608
1000	0.150	0.117	0.107	0.090	0.065	0.057	0.061
950	0.164	0.126	0.111	0.096	0.070	0.061	0.064
900	0.178	0.135	0.118	0.100	0.075	0.064	0.068
850	0.193	0.148	0.128	0.106	0.079	0.068	0.072
800	0.211	0.162	0.136	0.113	0.084	0.072	0.077
750	0.230	0.179	0.148	0.122	0.091	0.078	0.084
700	0.252	0.208	0.159	0.133	0.102	0.085	0.093
650	0.275	0.245	0.190	0.147	0.116	0.096	0.102
600	0.321	0.289	0.234	0.167	0.135	0.112	0.118
550	0.429	0.348	0.289	0.196	0.157	0.133	0.139
500	0.653	0.463	0.372	0.242	0.182	0.167	0.164
450	0.848	0.659	0.474	0.327	0.222	0.220	0.193
400	1.324	1.038	0.697	0.471	0.323	0.305	0.296
350	2.101	1.595	1.147	0.727	0.508	0.449	0.465
300	3.629	2.578	2.027	1.150	0.730	0.671	
HEIGHT	SCALE HEIGHT, KM						
950	592.5	661.1	1048.7	960.7	770.0	953.4	925.8
900	572.9	592.2	820.2	955.2	856.1	1052.7	838.7
850	540.3	537.6	705.6	821.6	784.7	919.4	722.0
800	507.4	483.1	623.4	723.8	680.0	724.9	656.3
750	474.5	426.8	555.2	631.2	513.1	582.5	590.6
700	441.6	384.2	486.9	543.3	437.3	490.2	525.0
650	408.7	339.6	402.3	451.4	403.1	391.3	459.3
600	356.2	295.1	317.1	363.8	368.9	309.9	400.3
550	231.5	247.1	232.0	285.8	334.7	252.9	344.7
500	154.0	187.6	202.6	202.9	300.5	210.2	289.1
450	144.4	134.1	173.9	152.1	244.4	173.3	233.5
400	105.9	114.2	136.2	129.5	122.4	144.6	115.9
350	102.7	115.1	101.4	114.8	112.8	132.0	92.4
300	83.0	95.8	72.9	89.5	103.1	120.2	
LONG	-83.71	-83.40	-82.70	-82.10	-78.43	-77.61	-76.74
LAT	-31.42	-33.37	-37.30	-40.23	-52.92	-54.81	-56.70
QUAL	23	23	23	23	33	33	33



PASS 3235 AT QUITOE, 63 524  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	84741	84759	84852	84910	85002	85020	85113	85148
1000	0.131	0.130	0.171	0.161	0.132	0.124	0.162	0.151
950	0.138	0.136	0.179	0.170	0.142	0.134	0.169	0.140
900	0.143	0.141	0.186	0.174	0.150	0.144	0.174	0.144
850	0.148	0.146	0.195	0.181	0.156	0.155	0.181	0.148
800	0.153	0.153	0.204	0.193	0.164	0.166	0.190	0.153
750	0.159	0.160	0.213	0.206	0.173	0.178	0.200	0.159
700	0.166	0.168	0.224	0.218	0.183	0.191	0.217	0.169
650	0.176	0.177	0.243	0.232	0.196	0.207	0.252	0.181
600	0.190	0.190	0.275	0.255	0.218	0.231	0.322	0.197
550	0.209	0.207	0.331	0.305	0.261	0.284	0.433	0.252
500	0.249	0.242	0.451	0.415	0.356	0.386	0.634	0.353
450	0.346	0.337	0.666	0.625	0.564	0.649	1.029	0.608
400	0.544	0.567	0.999	1.012	0.871	1.112		1.046
350	1.160	1.021	1.463	1.502				
300								
HEIGHT	SCALE HEIGHT, KM							
900	1371.6	1392.0	1163.6	1781.1	1014.3	685.0	1416.9	1825.0
850	1390.7	1253.7	1159.1	1433.1	1045.6	699.5	1158.7	1688.2
800	1318.5	1152.9	1156.4	1085.0	979.0	716.2	989.0	1352.5
750	1166.8	1067.1	1109.7	913.6	932.3	723.4	805.8	1065.0
700	1005.2	946.6	803.6	828.9	824.8	649.5	485.3	843.9
650	836.3	807.9	523.2	668.7	622.1	521.8	274.0	665.7
600	650.4	653.8	353.0	413.1	391.1	372.0	194.7	431.1
550	443.8	494.6	231.6	224.3	233.9	200.0	155.7	148.9
500	223.4	234.6	147.3	154.5	146.0	142.6	129.2	123.6
450	136.0	128.1	132.7	122.5	107.7	108.9	122.1	94.7
400	96.1	90.5	131.1	119.4	98.8	104.3		95.1
350	82.4	88.4	137.2	137.9				
300								
LONG	-78.92	-78.83	-78.53	-78.42	-78.12	-78.01	-77.67	-77.44
LAT	8.24	9.25	12.24	13.25	16.19	17.21	20.19	22.16
QUAL	23	23	33	23	33	33	33	33

PASS 3235 AT QUITOE, 63 524

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)		
	85224	85241	85317
1000	0.159	0.135	0.126
950	0.166	0.142	0.134
900	0.173	0.149	0.141
850	0.178	0.156	0.147
800	0.184	0.165	0.155
750	0.193	0.173	0.164
700	0.205	0.183	0.174
650	0.223	0.199	0.188
600	0.259	0.225	0.211
550	0.357	0.273	0.256
500	0.572	0.409	0.362
450	0.850	0.684	0.622
400	1.267	1.140	1.053
350			
300			
HEIGHT	SCALE HEIGHT, KM		
900		1008.5	1052.3
850	1975.7	1007.7	1026.2
800	1381.0	1000.4	950.2
750	1017.9	915.8	880.2
700	730.3	756.8	733.1
650	493.6	541.3	548.8
600	257.1	342.6	354.8
550	137.3	206.5	215.1
500	116.9	111.7	125.4
450	121.0	104.6	101.0
400	103.7	95.2	103.8
350			
300			
LONG	-77.18	-77.06	-76.79
LAT	24.19	25.15	27.17
QUAL	33	23	23

PASS 3236 AT OTTAWA, 63 524

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	85317	85351	85553	85611	85704	85739	85832	85907
1000	0.126	0.092	0.048	0.058	0.042	0.048	0.038	0.029
950	0.138	0.102	0.056	0.064	0.048	0.051	0.045	0.036
900	0.147	0.110	0.059	0.067	0.052	0.054	0.051	0.043
850	0.154	0.120	0.062	0.069	0.055	0.057	0.057	0.049
800	0.163	0.130	0.065	0.072	0.059	0.061	0.064	0.056
750	0.173	0.142	0.068	0.075	0.063	0.067	0.073	0.065
700	0.184	0.154	0.072	0.080	0.069	0.076	0.083	0.076
650	0.197	0.163	0.077	0.086	0.079	0.088	0.095	0.088
600	0.215	0.172	0.084	0.097	0.092	0.103	0.111	0.103
550	0.246	0.184	0.096	0.112	0.110	0.126	0.133	0.124
500	0.304	0.212	0.111	0.134	0.137	0.157	0.160	0.151
450	0.432	0.301	0.139	0.168	0.184	0.195	0.207	0.194
400	0.663	0.441	0.178	0.234	0.255	0.239	0.268	0.259
350	1.045	0.797	0.256	0.336	0.376	0.361	0.343	0.341
300		1.332	0.375	0.488	0.531			

HEIGHT	SCALE HEIGHT, KM							
900	871.6	610.9		1349.8	677.4	983.3	395.7	
850	945.0	600.9		1276.2	765.1	759.5	413.6	344.3
800	895.0	607.2		1135.3	719.5	611.1	398.0	342.7
750	834.2	659.5	976.5	903.8	644.7	485.5	380.8	333.9
700	761.6	722.8	817.9	726.2	444.4	426.9	362.9	323.0
650	637.4	929.6	655.2	555.3	367.0	368.2	345.0	311.4
600	496.8	851.0	502.8	453.3	323.6	309.5	312.2	299.8
550	308.7	596.0	395.5	351.3	280.2	274.3	273.4	267.3
500	190.8	196.0	294.8	264.3	234.8	247.7	234.8	227.1
450	136.5	154.4	235.5	191.2	185.4	221.0	198.2	189.8
400	118.8	100.2	178.7	158.9	151.6	193.2	161.7	154.1
350	118.2	85.5	150.5	140.0	147.1	88.3	125.2	118.4
300		120.2	130.4	134.0	155.9			

LONG	-76.79	-76.52	-75.41	-75.22	-74.63	-74.19	-73.47	-72.94
LAT	27.17	29.08	35.94	36.95	39.91	41.86	44.81	46.76
QUAL	23	33	21	33	33	33	33	33

PASS 3236 AT OTTAWA, 63 524								
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)								
HEIGHT	TIME (UT)							
	85943	90000	90036	90111	90146	90222	90258	90315
1000	0.028	0.044	0.048	0.059	0.075	0.086	0.104	0.106
950	0.035	0.053	0.059	0.070	0.087	0.100	0.117	0.117
900	0.043	0.061	0.069	0.081	0.101	0.117	0.133	0.131
850	0.051	0.070	0.080	0.094	0.116	0.135	0.152	0.147
800	0.059	0.080	0.092	0.108	0.133	0.157	0.174	0.166
750	0.068	0.092	0.106	0.125	0.155	0.184	0.199	0.188
700	0.079	0.107	0.124	0.147	0.181	0.216	0.240	0.213
650	0.092	0.124	0.146	0.173	0.210	0.253	0.289	0.242
600	0.108	0.146	0.171	0.203	0.248	0.295	0.348	0.280
550	0.127	0.171	0.202	0.244	0.297	0.347	0.415	0.324
500	0.147	0.200	0.240	0.295	0.353	0.405	0.506	0.375
450	0.186	0.245	0.284	0.355	0.418	0.506	0.614	0.451
400	0.242	0.320	0.361	0.424	0.491	0.639	0.738	0.580
350	0.309			0.528	0.679	0.807	0.934	0.739
300	0.412			0.710	0.917	1.067	1.236	0.970
HEIGHT	SCALE HEIGHT, KM							
950				321.4	334.8	327.6	402.0	467.1
900				326.7	336.2	325.8	382.2	443.6
850	307.8	347.1	316.3	327.4	337.9	324.3	360.2	426.2
800	325.4	352.5	326.9	328.1	339.5	323.2	338.3	409.8
750	323.9	343.0	329.2	324.6	330.8	324.1	317.4	395.9
700	318.4	333.5	323.5	313.8	319.7	325.1	307.5	381.9
650	307.7	322.4	317.8	303.0	308.7	326.0	297.6	366.8
600	297.0	306.2	312.1	292.1	296.4	319.2	287.8	343.6
550	286.3	290.0	296.9	280.8	283.4	292.9	277.9	320.4
500	275.6	273.8	279.0	269.4	270.3	266.6	264.7	297.3
450	253.7	226.2	261.1	257.9	257.2	246.2	251.0	269.8
400	226.7	141.1	157.5	246.5	244.1	226.1	237.2	235.5
350	199.7			226.2	212.1	206.5	219.2	201.2
300	148.7			190.3	179.4	190.9	197.7	187.6
LONG	-72.33	-72.04	-71.32	-70.58	-69.74	-68.75	-67.70	-67.09
LAT	48.76	49.70	51.68	53.60	55.52	57.49	59.44	60.35
QUAL	33	33	33	33	33	22	33	22

PASS 3236 AT OTTAWA, 63 524

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)
	90333
1000	0.096
950	0.108
900	0.123
850	0.140
800	0.159
750	0.184
700	0.215
650	0.251
600	0.294
550	0.351
500	0.418
450	0.495
400	0.581
350	0.768
300	1.001

HEIGHT	SCALE HEIGHT, KM
950	399.9
900	385.3
850	372.3
800	359.2
750	345.3
700	330.9
650	316.6
600	302.7
550	290.5
500	278.3
450	266.2
400	254.0
350	224.5
300	194.8

LONG	-66.44
LAT	61.32
QUAL	33

PASS 3236 AT RESLUT, 63 524

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	90440	90508	90524	90544	90601	90618	90636	90654
1000	0.121	0.144	0.162	0.193	0.186	0.177	0.177	0.211
950	0.137	0.162	0.176	0.216	0.205	0.201	0.199	0.237
900	0.156	0.183	0.196	0.240	0.229	0.227	0.224	0.269
850	0.177	0.208	0.219	0.269	0.256	0.255	0.250	0.306
800	0.200	0.238	0.250	0.308	0.291	0.290	0.286	0.352
750	0.229	0.274	0.289	0.355	0.337	0.335	0.329	0.405
700	0.271	0.317	0.335	0.412	0.391	0.389	0.382	0.475
650	0.323	0.379	0.399	0.502	0.465	0.461	0.450	0.561
600	0.384	0.456	0.477	0.631	0.555	0.549	0.529	0.663
550	0.473	0.546	0.568	0.807	0.660	0.651	0.619	0.918
500	0.562	0.651	0.672	1.039	0.780	0.769	0.761	1.271
450	0.709	0.803	0.857	1.338	1.078	1.026	1.035	1.722
400	0.855	1.142	1.204	1.803	1.483	1.398	1.376	2.272
350	1.166	1.588	1.658	2.642	2.099	1.893	1.857	3.006
300	1.674	2.150	2.174		2.611	2.528	2.530	
HEIGHT	SCALE HEIGHT, KM							
950	390.1	412.4	519.9	455.7	475.8	403.7	428.1	411.1
900	400.2	396.2	463.3	431.8	442.3	401.4	413.4	391.2
850	382.9	380.7	411.6	406.5	407.3	389.9	398.1	371.3
800	359.6	358.9	374.5	380.5	374.6	369.2	371.8	351.8
750	337.1	331.6	341.8	349.6	343.4	341.8	345.4	332.2
700	315.5	304.3	310.1	285.7	312.2	314.4	322.1	301.9
650	293.9	289.5	294.5	252.9	293.1	296.3	303.4	267.6
600	272.3	275.0	279.0	226.1	274.8	279.3	284.7	233.3
550	258.0	260.5	263.4	208.2	256.5	262.3	266.1	203.9
500	244.5	246.0	247.9	197.8	236.2	245.3	242.5	174.7
450	230.9	224.4	221.7	183.9	196.0	215.0	208.8	172.8
400	217.4	175.1	179.7	154.9	155.3	180.4	175.0	180.3
350	177.4	166.4	159.5	572.5	243.9	175.0	158.2	175.5
300	166.0	202.5	313.7		452.9	187.2	204.1	
LONG	-63.61	-62.21	-61.25	-60.04	-59.00	-57.63	-56.18	-54.72
LAT	64.87	66.34	67.16	68.19	69.06	69.90	70.79	71.68
QUAL	33	22	32	32	32	33	32	33

PASS 3236 AT RESLUT, 63 524

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	90711	90728	90746	90803	90821	90839	90856	90914
1000	0.253	0.182	0.198	0.163	0.165	0.157	0.151	0.167
950	0.261	0.205	0.220	0.187	0.181	0.176	0.170	0.186
900	0.289	0.233	0.247	0.213	0.201	0.198	0.192	0.207
850	0.324	0.264	0.278	0.242	0.223	0.225	0.217	0.231
800	0.366	0.300	0.315	0.279	0.249	0.255	0.245	0.260
750	0.417	0.348	0.363	0.321	0.285	0.299	0.285	0.298
700	0.482	0.404	0.428	0.370	0.329	0.353	0.336	0.344
650	0.558	0.470	0.504	0.436	0.380	0.417	0.395	0.398
600	0.644	0.557	0.602	0.514	0.452	0.501	0.474	0.474
550	0.759	0.659	0.727	0.602	0.537	0.605	0.576	0.565
500	1.012	0.776	0.874	0.703	0.636	0.726	0.696	0.671
450	1.329	0.990	1.085	0.913	0.748	0.865	0.834	0.790
400	1.775	1.315	1.456	1.225	0.974	1.098	1.041	1.054
350	2.355	1.757	1.952	1.621	1.391	1.506	1.414	1.443
300	2.979	2.381	2.570	2.146	2.042	2.087	1.908	2.000
HEIGHT	SCALE HEIGHT, KM							
950	460.7	403.2	450.6	376.6	514.2	426.8	422.5	459.6
900	445.7	390.3	420.6	370.3	477.5	400.5	407.5	442.0
850	419.1	376.1	396.4	362.7	442.6	375.0	382.8	418.1
800	387.2	361.6	372.1	350.7	408.8	349.8	358.2	393.9
750	359.6	346.4	348.0	338.6	379.2	330.6	336.3	369.5
700	338.3	331.2	324.0	325.9	349.5	311.4	315.1	345.1
650	317.0	315.1	300.0	310.0	320.7	292.2	293.9	320.9
600	295.7	295.3	279.4	294.2	302.6	278.2	277.8	302.4
550	271.6	275.5	261.4	278.3	284.5	266.0	265.7	284.0
500	231.1	255.7	243.5	262.4	266.4	253.9	253.6	265.5
450	190.6	227.3	220.9	234.8	248.2	241.7	241.6	247.1
400	189.5	194.2	189.1	202.1	211.5	214.8	221.4	206.0
350	201.0	161.0	205.7	186.3	153.6	168.6	185.2	157.3
300	233.0	127.6	281.5	204.0	130.3	150.0	178.8	184.3
LONG	-53.01	-51.12	-49.11	-47.08	-44.23	-41.38	-38.69	-34.91
LAT	72.49	73.28	74.11	74.88	75.63	76.37	77.07	77.70
QUAL	33	22	33	33	33	33	33	32

PASS 3236 AT RESLUT, 63 524

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	90932	90949	91007	91025	91042	91100	91117	91135
1000	0.164	0.191	0.181	0.211	0.209	0.209	0.206	0.185
950	0.182	0.217	0.203	0.234	0.236	0.234	0.234	0.209
900	0.204	0.245	0.227	0.259	0.265	0.261	0.270	0.238
850	0.229	0.277	0.255	0.289	0.295	0.289	0.313	0.273
800	0.260	0.311	0.287	0.330	0.335	0.331	0.363	0.312
750	0.302	0.354	0.331	0.379	0.384	0.381	0.419	0.370
700	0.353	0.406	0.382	0.438	0.442	0.441	0.483	0.448
650	0.414	0.471	0.446	0.516	0.519	0.521	0.566	0.542
600	0.496	0.557	0.531	0.608	0.613	0.615	0.676	0.651
550	0.593	0.660	0.631	0.715	0.723	0.723	0.805	0.799
500	0.706	0.779	0.747	0.837	0.849	0.863	0.955	0.981
450	0.849	0.915	0.907	1.016	1.079	1.172	1.267	1.191
400	1.169	1.256	1.254	1.380	1.439	1.559	1.730	1.552
350	1.591	1.705	1.716	1.866	1.922	2.095	2.331	2.142
300	2.173	2.330	2.370	2.541	2.602	2.794	3.136	3.012

HEIGHT	SCALE HEIGHT, KM							
	90932	90949	91007	91025	91042	91100	91117	91135
950	452.9	403.5	434.6	485.8	425.2	445.3	363.8	394.7
900	423.4	405.5	420.8	446.4	418.9	428.1	353.9	368.8
850	395.6	400.9	405.2	407.6	405.3	410.5	348.8	345.3
800	369.3	396.2	385.1	382.4	383.1	381.0	341.3	321.8
750	345.7	373.6	359.0	357.3	358.7	351.6	330.1	305.9
700	322.0	341.0	332.9	332.1	334.2	324.0	319.0	293.4
650	300.1	315.0	310.5	316.2	315.7	305.3	302.8	280.9
600	284.3	298.9	292.9	300.9	298.2	286.7	283.1	268.4
550	268.5	282.9	275.2	285.6	280.8	268.0	263.4	253.1
500	252.7	266.8	257.6	270.3	263.3	247.2	243.7	236.9
450	233.8	250.7	234.8	245.6	232.3	211.7	205.5	220.7
400	190.7	199.5	189.3	194.0	191.8	176.3	165.1	193.1
350	163.5	167.0	157.2	165.5	172.0	167.4	168.6	155.3
300	166.8	183.5	151.1	194.7	180.0	168.9	153.6	168.6

LONG	-30.86	-27.04	-22.46	-17.07	-11.97	-6.58	-0.85	5.21
LAT	78.29	78.85	79.34	79.68	80.01	80.35	80.35	80.36
QUAL	33	33	32	33	32	33	33	33



PASS 3236 AT RESLUT, 63 524

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)						
	91153	91210	91227	91246	91303	91321	91339
1000	0.163	0.160	0.159	0.160	0.165	0.181	0.169
950	0.168	0.183	0.179	0.182	0.184	0.201	0.191
900	0.216	0.208	0.203	0.207	0.208	0.227	0.217
850	0.247	0.236	0.233	0.236	0.238	0.258	0.248
800	0.267	0.272	0.266	0.271	0.273	0.295	0.287
750	0.354	0.315	0.312	0.313	0.319	0.344	0.334
700	0.389	0.367	0.369	0.367	0.375	0.400	0.389
650	0.466	0.430	0.436	0.433	0.445	0.476	0.466
600	0.559	0.513	0.530	0.509	0.541	0.574	0.559
550	0.667	0.661	0.647	0.616	0.657	0.690	0.667
500	0.790	0.852	0.784	0.818	0.792	0.825	0.790
450	1.059	1.113	0.966	1.072	0.974	1.005	1.070
400	1.486	1.464	1.338	1.423	1.362	1.398	1.436
350	2.073	1.896	1.831	1.869	1.848	1.917	1.916
300	2.855	2.501	2.476	2.504	2.431	2.592	2.459
HEIGHT	SCALE HEIGHT, KM						
950	356.5	379.1	407.2	382.5	422.8	436.8	387.7
900	350.5	372.5	381.0	375.7	393.6	406.3	372.6
850	344.6	365.6	361.0	364.7	370.5	379.2	357.6
800	330.0	351.6	341.1	346.2	347.3	353.5	338.8
750	315.0	337.7	320.7	327.7	323.0	329.4	319.6
700	300.0	312.9	300.1	308.3	298.6	305.2	300.7
650	284.6	282.0	279.5	288.8	277.6	287.5	285.8
600	269.2	252.9	263.8	269.3	263.9	273.8	270.9
550	253.8	229.8	248.8	246.8	250.2	260.1	256.0
500	238.4	206.8	233.8	215.6	236.5	246.5	241.1
450	204.0	194.4	215.2	184.5	219.5	227.5	206.2
400	158.5	192.2	178.3	181.7	186.0	177.7	173.7
350	155.0	189.1	158.5	183.5	169.6	160.2	184.3
300	172.1	178.6	154.6	206.0	175.0	168.5	197.2
LONG	11.27	16.64	21.76	27.48	32.37	36.44	40.51
LAT	80.36	80.17	79.86	79.50	79.14	78.55	77.97
QUAL	33	33	22	33	22	32	33

PASS 3242 AT RESLUT, 63 524  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	194713	194732	194807	194825	194842	194900	194918	194935
1000	0.259	0.269	0.332	0.343	0.375	0.333	0.320	0.350
950	0.289	0.294	0.357	0.368	0.397	0.352	0.346	0.373
900	0.323	0.325	0.393	0.400	0.433	0.379	0.378	0.403
850	0.362	0.362	0.432	0.439	0.478	0.412	0.415	0.439
800	0.406	0.402	0.477	0.484	0.526	0.451	0.457	0.483
750	0.459	0.461	0.532	0.555	0.582	0.525	0.516	0.554
700	0.538	0.541	0.616	0.647	0.657	0.623	0.594	0.658
650	0.637	0.639	0.719	0.759	0.760	0.743	0.687	0.786
600	0.754	0.755	0.840	0.900	0.883	0.870	0.797	0.938
550	0.917	0.917	0.996	1.072	1.051	1.010	0.969	1.111
500	1.155	1.159	1.242	1.270	1.266	1.166	1.181	1.306
450	1.441	1.448	1.539	1.580	1.522	1.390	1.448	1.541
400	1.863	1.867	1.945	2.054	2.031	1.960	1.956	2.139
350	2.442	2.449	2.527	2.686	2.740	2.674	2.733	3.082
300	3.169	3.169	3.329	3.738	3.630	3.680	3.769	4.513
HEIGHT	SCALE HEIGHT, KM							
950	447.9	520.1	607.4	633.7	742.2	795.5	602.5	703.5
900	440.9	484.2	518.8	552.6	602.7	631.5	539.3	589.2
850	423.4	439.1	480.7	492.5	523.3	537.6	492.0	517.1
800	388.5	392.4	442.7	432.3	484.7	443.8	444.6	445.1
750	355.8	361.7	406.7	394.0	446.2	395.6	409.2	396.6
700	331.9	337.9	376.0	358.8	405.4	350.6	377.5	358.2
650	307.9	314.1	345.3	323.5	362.9	310.4	345.7	319.8
600	284.0	290.3	314.5	298.8	320.3	297.2	314.0	291.7
550	261.1	266.5	285.0	279.8	288.1	284.0	281.5	275.6
500	239.5	242.7	259.1	260.7	259.9	270.8	248.8	259.4
450	217.9	219.0	233.3	229.9	231.7	246.3	215.3	239.4
400	199.1	200.7	211.0	191.8	187.5	171.0	175.1	156.1
350	191.4	204.5	192.7	195.4	177.3	159.7	154.7	134.8
300	442.5	376.5	160.3	673.1	197.8	180.9	185.4	174.3
LONG	-113.49	-110.29	-104.75	-102.63	-100.62	-98.49	-96.96	-95.52
LAT	77.10	76.33	74.89	74.07	73.29	72.47	71.59	70.75
QUAL	31	31	31	33	32	32	32	32

PASS 3242 AT RESLUT, 63 524

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	194952	195011	195027	195045	195120	195138	195156	195231
1000	0.234	0.235	0.231	0.203	0.195	0.176	0.175	0.182
950	0.267	0.259	0.257	0.229	0.218	0.196	0.198	0.205
900	0.306	0.290	0.286	0.263	0.247	0.225	0.227	0.232
850	0.351	0.327	0.319	0.302	0.281	0.261	0.261	0.264
800	0.401	0.369	0.357	0.347	0.322	0.302	0.301	0.303
750	0.462	0.429	0.410	0.407	0.373	0.349	0.351	0.349
700	0.539	0.503	0.479	0.484	0.452	0.429	0.421	0.416
650	0.631	0.592	0.563	0.576	0.550	0.529	0.506	0.515
600	0.736	0.717	0.692	0.699	0.674	0.650	0.630	0.626
550	0.933	0.892	0.855	0.876	0.857	0.838	0.800	0.803
500	1.184	1.102	1.049	1.089	1.081	1.073	1.006	1.026
450	1.551	1.467	1.368	1.430	1.436	1.410	1.344	1.321
400	2.128	2.013	1.797	1.912	1.935	1.908	1.800	1.805
350	2.873	2.722	2.437	2.610	2.594	2.541	2.426	2.455
300	3.784	3.632	3.349	3.659	3.291	3.333	3.168	3.474
HEIGHT	SCALE HEIGHT, KM							
950	370.7	480.4	462.4	388.2	417.6	404.7	379.9	403.7
900	370.3	427.3	459.4	362.2	387.1	362.8	362.9	383.7
850	364.0	394.0	428.3	343.6	359.8	333.4	344.2	361.5
800	348.2	361.2	387.7	325.8	333.5	312.1	324.6	336.5
750	331.1	337.2	352.9	308.5	307.8	290.8	303.0	311.5
700	312.9	313.7	319.1	291.3	283.9	269.7	278.1	286.5
650	294.7	290.3	285.3	274.2	260.0	248.5	253.3	261.6
600	276.5	265.4	264.5	255.3	237.3	227.3	234.4	236.8
550	244.0	239.5	244.6	234.0	219.0	212.2	218.4	217.2
500	210.8	213.5	224.6	212.7	200.8	197.3	202.4	202.7
450	183.0	184.0	198.3	188.2	184.0	183.5	185.3	188.1
400	164.8	161.2	175.9	168.0	173.9	171.2	172.1	176.1
350	173.5	165.0	165.6	159.6	195.7	165.0	177.2	155.5
300	411.8	497.6	246.2	284.9	286.4	110.2	302.8	336.8
LONG	-94.08	-92.71	-91.69	-90.56	-88.65	-87.78	-86.91	-85.55
LAT	69.92	68.97	68.15	67.23	65.41	64.46	63.52	61.65
QUAL	33	33	33	33	33	23	23	23

PASS 3242 AT RESLUT, 63 524  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)						
	195248	195306	195341	195359	195417	195435	195452
1000	0.177	0.180	0.187	0.187	0.191	0.185	0.183
950	0.199	0.202	0.212	0.210	0.213	0.207	0.205
900	0.225	0.229	0.239	0.236	0.239	0.234	0.230
850	0.256	0.262	0.270	0.266	0.271	0.268	0.260
800	0.291	0.301	0.308	0.302	0.308	0.309	0.296
750	0.335	0.346	0.351	0.343	0.355	0.357	0.342
700	0.400	0.411	0.422	0.405	0.427	0.444	0.414
650	0.480	0.508	0.511	0.487	0.516	0.567	0.504
600	0.582	0.627	0.619	0.589	0.643	0.721	0.629
550	0.742	0.784	0.781	0.752	0.830	0.952	0.795
500	0.940	1.026	1.015	0.958	1.071	1.244	0.995
450	1.224	1.322	1.310	1.323	1.450	1.699	1.362
400	1.643	1.809	1.768	1.880	1.930	2.327	1.862
350	2.240	2.467	2.373	2.638	2.560	3.181	2.507
300	3.044	3.677	3.197		3.379		3.363

HEIGHT	SCALE HEIGHT, KM						
950	411.8	407.3	414.2	423.9	433.1	421.2	445.2
900	390.9	383.8	402.6	411.4	405.8	373.6	407.9
850	369.5	361.4	382.6	391.2	378.4	346.5	378.6
800	348.1	335.6	350.8	367.4	351.0	319.4	349.5
750	325.3	309.7	319.3	343.7	322.3	292.3	319.3
700	297.8	285.4	295.8	310.7	288.6	262.0	284.1
650	270.3	262.5	272.2	275.5	254.8	230.7	249.0
600	244.5	239.6	248.6	241.4	227.2	200.6	227.5
550	225.7	218.1	226.6	215.2	206.6	188.9	212.6
500	206.9	200.4	205.9	189.1	187.5	177.0	197.7
450	189.4	182.7	186.3	161.5	177.4	163.6	174.7
400	173.2	168.7	173.5	146.4	174.6	162.0	164.0
350	166.0	145.9	170.2	131.8	182.7	164.3	170.8
300	178.0	676.7	160.1		272.5		260.4

LONG	-84.90	-84.27	-83.21	-82.66	-82.21	-81.77	-81.35
LAT	60.74	59.77	57.88	56.90	55.92	54.94	54.02
QUAL	22	22	22	22	23	22	22

PASS 3242 AT OTTAWA, 63 524

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	195417	195453	195528	195603	195655	195730	195806	195841
1000	0.165	0.182	0.186	0.151	0.161	0.159	0.168	0.174
950	0.189	0.205	0.209	0.178	0.186	0.181	0.189	0.196
900	0.215	0.229	0.235	0.202	0.213	0.208	0.214	0.222
850	0.246	0.257	0.265	0.231	0.244	0.238	0.244	0.253
800	0.284	0.291	0.302	0.266	0.280	0.273	0.281	0.289
750	0.331	0.337	0.348	0.310	0.326	0.315	0.327	0.335
700	0.391	0.398	0.408	0.366	0.384	0.371	0.382	0.395
650	0.465	0.480	0.486	0.436	0.460	0.447	0.456	0.476
600	0.571	0.589	0.586	0.533	0.563	0.545	0.561	0.581
550	0.716	0.734	0.738	0.666	0.702	0.684	0.712	0.725
500	0.930	0.934	0.970	0.872	0.920	0.860	0.923	0.957
450	1.208	1.213	1.290	1.148	1.224	1.167	1.236	1.280
400	1.631	1.632	1.711	1.550	1.669	1.606	1.703	1.765
350	2.223	2.225	2.305	2.104	2.302	2.229	2.352	2.438
300	3.025	2.966	3.055	2.900	3.097	3.047	3.210	3.313
HEIGHT	SCALE HEIGHT, KM							
950	375.4	437.7	419.0	347.5	361.1	370.3	407.9	404.5
900	368.8	429.9	416.7	381.9	364.2	362.0	390.1	384.7
850	357.0	405.3	393.4	361.4	354.6	366.3	367.7	371.2
800	338.9	372.3	365.2	339.6	338.8	352.1	348.2	357.8
750	313.8	323.7	332.7	315.9	318.0	330.7	332.5	324.2
700	290.9	289.0	304.1	292.1	294.1	280.3	295.6	286.5
650	268.6	262.9	278.7	268.4	267.2	259.1	258.5	264.0
600	237.4	241.2	248.5	238.3	237.1	237.9	230.6	236.5
550	206.2	222.9	202.1	206.6	206.6	217.4	210.2	202.0
500	195.3	201.9	189.5	192.0	188.2	196.6	189.5	185.1
450	184.3	181.3	183.5	178.5	172.4	171.6	168.1	169.4
400	170.2	167.7	174.0	169.1	161.4	158.5	158.6	156.7
350	164.7	176.2	177.5	162.2	167.7	158.7	158.5	162.8
300	185.6	209.4	210.9	155.2	176.4	168.8	175.6	168.7
LONG	-82.21	-81.32	-80.57	-79.86	-78.96	-78.42	-77.89	-77.44
LAT	55.92	53.96	52.04	50.11	47.24	45.29	43.30	41.35
QUAL	21	21	22	23	23	23	23	23

PASS 3242 AT OTTAWA, 63 524

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	195916	195952	200027	200102	200138	200213	200248	200323
1000	0.189	0.189	0.190	0.224	0.201	0.207	0.213	0.251
950	0.216	0.216	0.214	0.244	0.223	0.238	0.242	0.279
900	0.241	0.240	0.242	0.277	0.255	0.272	0.275	0.310
850	0.274	0.272	0.275	0.314	0.290	0.311	0.314	0.351
800	0.312	0.311	0.317	0.357	0.334	0.357	0.361	0.400
750	0.361	0.364	0.370	0.413	0.388	0.413	0.421	0.463
700	0.425	0.432	0.435	0.486	0.458	0.490	0.501	0.548
650	0.507	0.516	0.518	0.579	0.549	0.599	0.607	0.657
600	0.624	0.633	0.640	0.713	0.686	0.746	0.758	0.811
550	0.783	0.801	0.818	0.909	0.864	0.954	0.979	1.053
500	1.029	1.041	1.069	1.190	1.137	1.270	1.316	1.376
450	1.385	1.420	1.465	1.656	1.547	1.754	1.825	1.846
400	1.885	1.958	2.038	2.333	2.212	2.503	2.570	2.641
350	2.597	2.651	2.868	3.279	3.188	3.709	3.600	4.016
300	3.606	3.599	3.966	4.354	4.476	5.207		5.998
HEIGHT	SCALE HEIGHT, KM							
950	406.7	418.4	412.9	507.5	428.2	366.9	389.0	475.8
900	405.7	411.7	388.1	409.5	385.6	366.7	376.9	421.2
850	388.3	385.4	367.3	393.8	369.0	356.9	364.0	395.3
800	370.9	359.1	343.2	372.8	347.2	344.1	349.7	364.4
750	326.7	317.6	317.2	317.6	318.5	320.2	301.9	314.8
700	289.8	285.2	292.1	292.8	281.3	270.3	273.9	285.3
650	263.4	265.6	263.9	265.8	245.4	244.6	245.3	259.9
600	234.6	231.5	225.8	229.0	226.6	225.7	213.2	229.0
550	205.9	201.1	198.9	198.9	207.7	192.7	185.9	191.1
500	181.6	179.0	178.3	173.4	181.3	166.2	165.2	182.0
450	168.4	160.7	162.2	153.6	152.9	149.7	152.0	156.5
400	161.1	160.8	151.8	146.8	139.6	137.7	145.5	128.0
350	156.3	167.2	149.3	162.3	138.2	134.9	174.2	122.1
300	161.1	164.4	177.8	205.3	175.8	183.5		140.9
LONG	-77.02	-76.62	-76.26	-75.91	-75.59	-75.30	-75.02	-74.75
LAT	39.40	37.39	35.43	33.47	31.45	29.49	27.52	25.56
QUAL	23	23	23	23	23	22	23	22

PASS 3242 AT OTTAWA, 63 524

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)		
	200359	200434	200509
1000	0.199	0.176	0.218
950	0.219	0.199	0.245
900	0.242	0.236	0.276
850	0.272	0.286	0.317
800	0.308	0.346	0.367
750	0.370	0.418	0.438
700	0.455	0.508	0.537
650	0.570	0.627	0.668
600	0.738	0.796	0.838
550	0.990	1.086	1.134
500	1.404	1.552	1.595
450	2.106	2.346	2.484
400	3.461	3.815	4.167
350	5.804	6.377	7.207
300	8.843	9.726	11.208
HEIGHT	SCALE HEIGHT, KM		
950	494.6	352.0	412.6
900	446.7	316.8	375.0
850	399.7	281.6	346.4
800	352.6	273.2	317.9
750	277.0	266.9	283.3
700	231.9	247.3	243.0
650	211.9	220.4	221.2
600	187.1	188.9	199.7
550	158.5	152.1	152.5
500	132.1	133.8	134.4
450	114.9	112.6	106.4
400	102.5	101.9	94.4
350	97.7	100.0	96.3
300	167.9	147.0	152.0
LONG	-74.49	-74.25	-74.01
LAT	23.54	21.57	19.60
QUAL	38	23	23

PASS 3242 AT QUITOE, 63 524  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	200822	200857	200933	201008	201043	201119	201154	201229
1000	0.377	0.409	0.419	0.417	0.419	0.402	0.365	0.378
950	0.435	0.469	0.483	0.478	0.478	0.455	0.418	0.425
900	0.507	0.548	0.561	0.557	0.549	0.526	0.488	0.492
850	0.594	0.645	0.653	0.654	0.633	0.616	0.573	0.603
800	0.715	0.780	0.799	0.779	0.749	0.746	0.689	0.770
750	0.882	0.969	0.992	0.955	0.902	0.944	0.848	0.986
700	1.097	1.208	1.232	1.169	1.116	1.194	1.072	1.266
650	1.391	1.534	1.553	1.476	1.390	1.560	1.411	1.624
600	1.768	1.936	1.979	1.859	1.777	2.080	2.094	2.243
550	2.561	2.748	2.777	2.639	2.655	3.172	3.017	3.143
500	3.892	4.161	4.201	4.071	4.248	4.924	4.473	4.405
450	6.411	6.577	6.787	6.628	7.098	7.551	6.535	5.945
400	10.092	10.291	10.316	10.329	10.737			
350		13.000						
300								
HEIGHT	SCALE HEIGHT, KM							
950	342.1	349.5	344.5	349.4	375.2	378.4	344.8	382.3
900	316.5	315.9	314.3	322.0	351.4	333.6	323.4	301.0
850	288.7	284.6	281.0	297.6	322.0	291.9	302.0	258.4
800	265.1	260.0	263.9	275.1	288.0	258.1	258.2	233.6
750	244.2	241.4	248.1	255.7	252.1	233.4	221.2	210.0
700	223.1	222.8	231.4	236.2	229.1	208.6	197.0	196.5
650	201.6	203.7	208.1	211.3	207.8	182.0	168.5	181.3
600	178.4	184.1	181.4	185.7	178.7	152.1	132.5	155.3
550	134.2	136.2	139.3	137.3	118.8	118.0	133.2	150.1
500	110.4	115.0	112.5	107.5	99.1	113.2	130.1	155.6
450	104.0	109.3	110.3	105.4	105.1	128.0	151.1	216.2
400	117.8	141.8	141.7	139.3	177.2			
350		353.5						
300								
LONG	-72.88	-72.70	-72.50	-72.32	-72.13	-71.94	-71.76	-71.58
LAT	8.72	6.75	4.72	2.75	0.78	-1.24	-3.21	-5.18
QUAL	23	23	23	23	23	23	23	23



PASS 3242 AT QUITGE, 63 524  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	201247	201322	201357	201433	201508	201543	201619	201636
1000	0.347	0.328	0.312	0.305	0.303	0.299	0.276	0.270
950	0.393	0.382	0.370	0.365	0.362	0.357	0.327	0.316
900	0.462	0.458	0.450	0.457	0.446	0.439	0.401	0.385
850	0.578	0.567	0.567	0.581	0.558	0.548	0.503	0.479
800	0.736	0.728	0.720	0.750	0.709	0.702	0.640	0.601
750	0.937	0.932	0.915	0.958	0.893	0.892	0.811	0.757
700	1.181	1.188	1.151	1.218	1.132	1.142	1.041	0.963
650	1.554	1.492	1.483	1.561	1.449	1.475	1.318	1.226
600	2.122	2.005	1.974	1.995	1.850	1.901	1.845	1.734
550	2.944	2.753	2.646	2.612	2.517	2.659	2.609	2.502
500	4.142	3.727	3.431	3.284	3.191	3.548	3.632	3.597
450	5.408		4.200	4.034	4.004	4.499	4.799	4.890
400			4.824	4.821		5.577	5.923	6.219
350				5.428				7.126
300								
HEIGHT	SCALE HEIGHT, KM							
950	350.6	305.1	280.5	269.5	268.1	273.6	284.0	308.9
900	274.1	263.5	242.1	240.7	245.9	247.3	249.8	269.5
850	249.5	234.1	226.0	213.2	225.0	223.5	228.1	238.4
800	224.9	221.0	216.1	211.8	220.1	215.5	217.8	223.4
750	210.2	208.8	209.6	210.4	217.3	209.5	207.2	209.4
700	198.0	202.6	204.5	207.9	211.0	201.0	195.4	196.7
650	180.6	196.4	192.1	203.3	200.5	191.0	183.7	182.0
600	159.7	171.5	175.1	201.5	190.5	180.0	157.1	148.2
550	151.3	167.8	186.9	207.0	187.2	162.9	150.6	139.6
500	168.0	200.7	232.7	230.1	210.8	192.7	167.9	150.1
450	232.0		331.0	281.9	278.2	254.2	212.4	189.8
400			502.5	362.9		325.0	279.3	280.6
350				473.7				
300								493.5
LONG	-71.48	-71.29	-71.10	-70.90	-70.70	-70.49	-70.27	-70.16
LAT	-6.20	-8.17	-10.14	-12.16	-14.13	-16.10	-18.11	-19.07
QUAL	23	23	22	23	23	23	23	23

PASS 3242 AT QUITOE, 63 524  
 ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)			
	201711	201819	201854	201929
1000	0.255	0.234	0.230	0.207
950	0.287	0.257	0.250	0.228
900	0.341	0.281	0.272	0.252
850	0.427	0.306	0.303	0.281
800	0.543	0.347	0.340	0.320
750	0.697	0.428	0.387	0.367
700	0.888	0.539	0.450	0.425
650	1.115	0.681	0.586	0.496
600	1.624	0.853	0.802	0.620
550	2.407	1.394	1.102	0.855
500	3.619	2.338	1.863	1.342
450	5.165	4.105	3.407	2.318
400	6.772	6.510	5.934	4.243
350	7.956	9.295	9.132	7.542
300				11.872

HEIGHT	SCALE HEIGHT, KM			
950	344.1	541.5	564.6	497.0
900	282.2	557.8	507.9	458.3
850	255.0	520.1	467.3	420.4
800	227.8	317.9	427.8	395.2
750	209.6	221.3	365.8	369.9
700	195.6	206.0	262.0	333.6
650	181.5	190.8	185.2	274.0
600	142.8	175.6	153.5	212.0
550	126.2	102.3	134.3	147.5
500	127.9	92.5	86.3	105.6
450	163.1	97.9	84.7	87.1
400	252.9	123.0	103.0	82.2
350	402.0	173.7	135.5	98.5
300				118.9

LONG	-69.94	-69.47	-69.21	-68.94
LAT	-21.03	-24.83	-26.78	-28.73
QUAL	23	23	23	23

PASS 3242 AT AGASTA, 63 524

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)						
	201653	201819	201911	201947	202022	202057	202133
1000	0.252	0.228	0.197	0.184	0.161	0.142	0.114
950	0.287	0.249	0.217	0.197	0.174	0.152	0.124
900	0.336	0.272	0.238	0.214	0.189	0.165	0.135
850	0.396	0.295	0.260	0.235	0.206	0.182	0.148
800	0.503	0.332	0.290	0.263	0.227	0.203	0.163
750	0.650	0.402	0.331	0.295	0.252	0.229	0.180
700	0.842	0.523	0.380	0.335	0.286	0.258	0.202
650	1.137	0.686	0.454	0.393	0.333	0.293	0.229
600	1.599	1.013	0.579	0.491	0.397	0.347	0.269
550	2.350	1.574	0.916	0.632	0.479	0.416	0.334
500	3.509	2.662	1.469	0.920	0.663	0.563	0.430
450	4.946	4.602	2.753	1.666	1.045	0.805	0.604
400	6.440	7.250	5.309	3.310	1.774	1.329	0.920
350				6.471	3.173	2.317	1.428
300				11.780	6.141	4.780	2.304
HEIGHT	SCALE HEIGHT, KM						
950	358.2	569.6	544.8	637.3	619.3	645.8	599.3
900	302.4	587.6	551.8	578.0	586.9	562.4	570.7
850	257.0	491.8	496.4	519.9	553.1	512.9	530.4
800	223.6	364.5	423.4	469.1	512.8	465.6	493.7
750	196.2	250.1	380.0	415.1	434.0	422.6	459.5
700	182.8	191.1	317.6	351.2	364.6	385.3	426.7
650	158.9	158.0	255.1	277.3	299.5	345.9	376.2
600	140.5	122.5	139.3	211.8	281.6	289.4	271.4
550	125.9	108.8	111.8	171.9	218.4	233.0	223.3
500	132.6	86.2	90.5	108.9	129.4	160.9	175.4
450	163.7	99.3	75.6	77.8	99.9	128.1	130.6
400	288.5	135.8	82.8	70.6	93.0	92.3	113.1
350				80.7	80.2	77.5	111.3
300				86.5	74.1	62.2	96.9
LONG	-70.05	-69.47	-69.08	-68.79	-68.50	-68.19	-67.84
LAT	-20.02	-24.83	-27.73	-29.74	-31.68	-33.63	-35.63
QUAL	23	23	33	23	33	23	33

PASS 3242 AT SOLANT, 63 524

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	201854	201912	201947	202058	202133	202208	202243	202301
1000	0.216	0.206	0.184	0.137	0.115	0.134	0.099	0.087
950	0.234	0.227	0.199	0.148	0.123	0.146	0.107	0.095
900	0.256	0.249	0.218	0.161	0.134	0.158	0.115	0.102
850	0.282	0.272	0.239	0.177	0.147	0.171	0.122	0.109
800	0.312	0.301	0.263	0.196	0.165	0.186	0.132	0.117
750	0.348	0.339	0.293	0.219	0.186	0.204	0.143	0.126
700	0.399	0.385	0.331	0.248	0.210	0.229	0.157	0.139
650	0.498	0.455	0.384	0.281	0.241	0.261	0.177	0.155
600	0.661	0.583	0.476	0.329	0.281	0.314	0.204	0.178
550	0.949	0.852	0.594	0.399	0.339	0.392	0.248	0.211
500	1.577	1.402	0.880	0.521	0.431	0.515	0.319	0.266
450	2.832	2.569	1.602	0.745	0.599	0.697	0.448	0.366
400	4.372	5.013	3.090	1.135	0.898	0.961	0.681	0.556
350	8.264		6.113	1.693	1.297	1.359	0.978	0.906
300			11.119	2.850	1.878	1.965	1.421	1.485
HEIGHT	SCALE HEIGHT, KM							
950	585.2	532.2	576.9	605.4	641.5	602.4	700.9	627.8
900	542.6	554.9	561.8	564.4	579.7	647.8	733.0	760.0
850	502.9	513.8	546.8	512.6	503.3	618.6	705.0	745.6
800	477.6	455.6	481.9	462.1	430.5	551.5	623.5	667.9
750	417.9	403.9	436.7	423.4	414.2	480.7	555.7	582.9
700	298.6	354.7	375.9	392.9	391.3	406.0	481.0	503.9
650	191.6	261.7	290.3	362.4	337.9	330.2	398.3	413.6
600	162.3	163.2	226.7	301.0	294.6	264.6	318.6	328.7
550	120.9	117.7	178.2	228.8	245.5	212.6	243.6	262.3
500	92.1	90.1	114.5	165.8	188.9	185.5	182.1	184.2
450	82.2	79.0	78.0	125.6	138.1	166.1	131.7	143.5
400	86.0	81.9	72.4	122.4	131.0	152.6	129.0	111.3
350	122.0		80.8	117.8	138.1	141.0	136.3	106.8
300			83.6	81.4	113.2	128.0	128.2	99.8
LONG	-69.21	-69.07	-68.79	-68.18	-67.84	-67.48	-67.09	-66.89
LAT	-26.78	-27.79	-29.74	-33.69	-35.63	-37.56	-39.50	-40.49
QUAL	23	23	23	13	23	23	33	23

PASS 3242 AT SOLANT, 63 524  
 ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)
	202429
1000	0.055
950	0.060
900	0.066
850	0.072
800	0.079
750	0.086
700	0.095
650	0.107
600	0.121
550	0.140
500	0.170
450	0.223
400	0.313
350	0.460
300	0.734
HEIGHT	SCALE HEIGHT, KM
950	519.1
900	556.3
850	572.5
800	544.4
750	510.7
700	475.0
650	429.0
600	370.6
550	299.2
500	228.2
450	168.4
400	136.4
350	120.3
300	96.7
LONG	-65.71
LAT	-45.33
QUAL	33

PASS 3248 AT QUITOE, 63 525  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)						
	73904	73939	74014	74049	74125	74200	74253
1000	0.098	0.108	0.110	0.115	0.093	0.092	0.096
950	0.108	0.114	0.116	0.120	0.101	0.102	0.103
900	0.118	0.118	0.123	0.124	0.106	0.110	0.107
850	0.127	0.122	0.129	0.128	0.112	0.118	0.113
800	0.138	0.127	0.136	0.134	0.117	0.127	0.120
750	0.148	0.132	0.145	0.142	0.123	0.137	0.126
700	0.159	0.144	0.156	0.152	0.131	0.148	0.138
650	0.171	0.169	0.171	0.165	0.141	0.160	0.160
600	0.184	0.196	0.193	0.186	0.159	0.182	0.213
550	0.203	0.216	0.221	0.224	0.192	0.211	0.286
500	0.231	0.250	0.276	0.289	0.245	0.279	0.398
450	0.280	0.312	0.382	0.425	0.342	0.419	0.639
400	0.388	0.437	0.626	0.710	0.652	0.712	1.070
350	0.651	0.756	1.097	1.236	1.205	1.318	1.702
300	1.176	1.401	1.969	2.071	2.096	2.323	
HEIGHT	SCALE HEIGHT, KM						
950	542.1	1491.3	1054.1	1522.9			1174.8
900	608.3	1316.6	1069.1	1518.1	1006.6	697.9	1086.9
850	634.8	1180.2	965.0	1283.5	1061.3	685.0	941.1
800	660.8	1043.8	848.4	1003.9	959.6	668.1	829.5
750	688.7	907.4	721.0	796.3	847.3	629.5	713.0
700	687.6	734.2	590.7	677.5	734.9	564.2	504.1
650	666.1	515.2	493.2	558.6	588.6	498.8	324.6
600	587.0	395.9	412.1	380.4	354.1	391.4	209.6
550	461.4	380.7	330.9	242.6	261.4	284.1	161.4
500	331.4	308.0	229.2	185.1	186.0	181.1	133.6
450	213.7	200.9	136.9	124.8	121.8	115.2	103.1
400	137.6	122.1	97.7	95.5	81.0	88.9	100.9
350	90.0	88.5	85.0	92.0	79.5	85.7	126.1
300	79.4	74.3	96.2	104.9	112.9	103.4	
LONG	-63.90	-63.71	-63.52	-63.32	-63.11	-62.90	-62.56
LAT	6.71	8.68	10.66	12.64	14.67	16.65	19.64
QUAL	23	23	23	23	23	23	23

PASS 3249 AT FTMYS, 63 525

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)		
	74457	74532	74607
1000	0.084	0.082	0.078
950	0.090	0.088	0.086
900	0.096	0.092	0.090
850	0.100	0.096	0.093
800	0.104	0.101	0.097
750	0.110	0.107	0.103
700	0.118	0.115	0.112
650	0.128	0.128	0.124
600	0.144	0.151	0.142
550	0.187	0.191	0.173
500	0.277	0.288	0.230
450	0.449	0.470	0.381
400	0.799	0.842	0.665
350	1.393	1.475	1.224
300		2.206	
HEIGHT	SCALE HEIGHT, KM		
950	810.6	1055.6	808.2
900	1044.3	1055.0	1190.4
850	1087.1	1034.7	1273.7
800	979.2	925.6	1014.9
750	824.9	795.8	790.4
700	697.5	618.0	592.5
650	540.0	361.8	432.6
600	317.6	286.8	329.3
550	156.9	156.8	215.4
500	108.8	115.8	144.0
450	95.1	90.2	93.5
400	89.9	87.1	82.1
350	98.9	102.1	103.8
300		178.8	
LONG	-61.70	-61.42	-61.14
LAT	26.62	28.59	30.55
QUAL	33	32	33

PASS 3249 AT OTTAWA, 63 525  
 ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)			
	75244	75319	75354	75430
1000	0.060	0.069	0.082	0.100
950	0.070	0.081	0.096	0.119
900	0.079	0.092	0.111	0.136
850	0.091	0.105	0.127	0.155
800	0.106	0.122	0.145	0.178
750	0.124	0.144	0.166	0.205
700	0.146	0.170	0.192	0.237
650	0.174	0.200	0.224	0.278
600	0.206	0.236	0.267	0.328
550	0.251	0.290	0.325	0.400
500	0.313	0.363	0.408	0.492
450	0.416	0.471	0.516	0.630
400	0.558	0.637	0.655	0.807
350	0.765	0.863	0.847	1.056
300	1.059	1.132	1.096	1.354
HEIGHT	SCALE HEIGHT, KM			
950	381.0	374.2		
900	361.9	372.5	356.4	364.5
850	339.9	344.5	364.2	361.3
800	327.8	328.6	362.0	354.5
750	315.8	312.9	354.2	342.7
700	302.9	300.7	333.6	329.8
650	288.4	290.1	307.7	305.5
600	273.8	278.2	270.7	281.1
550	242.7	240.5	243.3	251.3
500	200.3	208.0	225.1	224.4
450	183.9	182.8	213.0	212.4
400	168.2	177.4	204.1	200.5
350	158.9	178.8	197.1	193.7
300	174.7	201.1	193.4	237.6
LONG	-55.78	-54.98	-54.11	-53.05
LAT	52.68	54.60	56.51	58.46
QUAL	33	33	33	33



PASS 3262 AT QUITOE, 63 526  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)					
	81504	81541	81615	81743	81818	81854
1000	0.077	0.082	0.077	0.072	0.096	0.089
950	0.088	0.093	0.086	0.084	0.106	0.100
900	0.098	0.102	0.094	0.092	0.115	0.105
850	0.109	0.113	0.103	0.098	0.124	0.111
800	0.121	0.124	0.114	0.105	0.131	0.118
750	0.134	0.137	0.126	0.114	0.139	0.125
700	0.148	0.151	0.138	0.124	0.147	0.133
650	0.163	0.168	0.150	0.133	0.158	0.143
600	0.180	0.191	0.163	0.143	0.174	0.166
550	0.205	0.222	0.182	0.157	0.217	0.206
500	0.250	0.293	0.225	0.200	0.308	0.274
450	0.357	0.419	0.368	0.302	0.436	0.433
400	0.542	0.693	0.681	0.517	0.725	0.787
350	0.975	1.194	1.174	0.922		
300	1.677	2.163	2.051	1.620		
HEIGHT	SCALE HEIGHT, KM					
900		510.9	540.5	726.7		927.0
850		511.4	521.5	720.5		865.7
800	483.9	502.4	523.6	703.4	851.2	870.0
750	497.1	485.5	547.0	711.7	829.5	858.7
700	509.0	468.6	575.8	720.1	761.8	698.5
650	473.1	425.6	615.4	685.0	611.7	539.2
600	428.3	351.1	510.7	555.8	417.2	334.3
550	327.2	275.0	373.7	409.5	189.6	209.2
500	234.7	189.9	203.6	163.2	144.0	151.3
450	160.9	123.3	90.8	109.1	123.6	102.7
400	104.7	94.4	85.8	91.5	96.8	81.6
350	87.8	87.8	89.9	85.4		
300	92.2	95.1	93.3	101.3		
LONG	-75.70	-75.50	-75.32	-74.83	-74.63	-74.42
LAT	2.10	4.19	6.11	11.08	13.06	15.09
QUAL	33	33	33	33	33	33

PASS 3263 AT OTTAWA, 63 526  
 ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)			
	82909	83020	83112	83205
1000	0.030	0.031	0.035	0.047
950	0.038	0.043	0.045	0.055
900	0.047	0.052	0.053	0.064
850	0.057	0.062	0.063	0.074
800	0.068	0.074	0.073	0.087
750	0.081	0.087	0.086	0.103
700	0.098	0.104	0.103	0.122
650	0.119	0.127	0.125	0.144
600	0.146	0.156	0.153	0.175
550	0.182	0.196	0.186	0.212
500	0.226	0.244	0.236	0.264
450	0.293	0.321	0.301	0.335
400	0.385	0.423	0.400	0.437
350	0.531	0.584	0.542	0.594
300	0.735	0.802	0.763	0.830

HEIGHT	SCALE HEIGHT, KM			
900			299.4	324.8
850	267.9	280.0	304.7	316.0
800	270.5	278.3	303.1	310.3
750	273.0	276.3	296.9	303.8
700	262.9	270.0	267.4	289.7
650	250.6	253.1	252.6	275.6
600	238.4	236.2	245.6	262.9
550	226.2	220.9	238.6	250.3
500	213.9	205.7	216.2	221.1
450	195.0	189.1	191.6	198.2
400	173.8	172.3	174.0	180.6
350	169.6	166.4	159.0	160.6
300	170.6	167.7	147.7	142.9

LONG	-68.26	-66.81	-65.54	-64.02
LAT	49.57	53.48	56.32	59.20
QUAL	33	33	33	33

PASS 3263 AT RESLUT, 63 526

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	83313	83329	83348	83406	83423	83441	83457	83515
1000	0.079	0.062	0.063	0.106	0.077	0.099	0.132	0.123
950	0.094	0.078	0.083	0.127	0.098	0.118	0.151	0.146
900	0.111	0.090	0.099	0.140	0.112	0.128	0.168	0.165
850	0.130	0.102	0.114	0.154	0.128	0.147	0.192	0.190
800	0.155	0.114	0.132	0.169	0.145	0.170	0.221	0.219
750	0.184	0.131	0.151	0.189	0.167	0.199	0.255	0.252
700	0.218	0.151	0.175	0.213	0.193	0.233	0.296	0.290
650	0.256	0.174	0.206	0.240	0.223	0.277	0.341	0.346
600	0.306	0.199	0.240	0.270	0.256	0.329	0.392	0.411
550	0.365	0.235	0.279	0.355	0.318	0.388	0.475	0.486
500	0.451	0.297	0.342	0.462	0.397	0.454	0.582	0.570
450	0.585	0.371	0.443	0.591	0.492	0.603	0.714	0.683
400	0.796	0.480	0.567	0.769	0.659	0.824	0.908	0.915
350	1.097	0.638	0.768	1.015	0.882	1.134	1.147	1.208
300		0.872	1.066	1.350	1.304	1.545	1.507	1.613
HEIGHT	SCALE HEIGHT, KM							
900	285.8	350.6	284.9	476.3	345.3	396.6	392.2	357.2
850	293.1	365.1	317.6	470.4	350.4	376.7	377.3	350.4
800	295.6	371.4	322.7	452.4	355.5	356.9	362.4	341.9
750	297.5	357.9	327.8	419.7	342.6	337.1	348.6	333.5
700	299.3	344.4	321.8	387.1	328.0	317.7	335.6	324.9
650	301.1	330.9	307.5	354.5	313.4	301.0	322.6	311.2
600	280.1	317.4	293.2	321.9	298.8	284.4	309.6	297.5
590	255.0	296.2	278.9	286.4	270.4	267.7	285.2	283.8
500	223.4	258.3	256.8	251.0	239.8	251.0	257.6	270.1
450	186.2	220.5	225.4	215.5	209.2	217.2	231.6	251.6
400	169.0	192.9	194.1	193.3	183.8	176.5	217.9	210.3
350	167.7	173.1	173.4	183.3	159.2	170.3	204.2	177.5
300		150.4	159.3	190.6	112.1	213.2	161.6	170.0
LONG	-61.53	-60.82	-59.99	-59.12	-58.15	-57.12	-56.20	-54.89
LAT	62.85	63.69	64.70	65.64	66.52	67.46	68.28	69.19
QUAL	23	23	23	22	23	22	23	23

PASS 3263 AT RESLUT, 63 526

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	83533	83551	83609	83627	83645	83703	83719	83738
1000	0.135	0.153	0.140	0.151	0.142	0.147	0.106	0.062
950	0.164	0.180	0.162	0.172	0.171	0.172	0.125	0.072
900	0.185	0.201	0.182	0.196	0.197	0.195	0.139	0.085
850	0.206	0.227	0.199	0.225	0.224	0.220	0.157	0.102
800	0.238	0.262	0.232	0.262	0.260	0.259	0.178	0.121
750	0.274	0.305	0.272	0.306	0.302	0.306	0.206	0.146
700	0.316	0.354	0.321	0.357	0.351	0.361	0.239	0.181
650	0.373	0.419	0.382	0.423	0.412	0.430	0.278	0.222
600	0.443	0.501	0.456	0.500	0.482	0.519	0.322	0.272
550	0.525	0.596	0.541	0.630	0.608	0.622	0.381	0.351
500	0.617	0.704	0.638	0.823	0.800	0.740	0.513	0.448
450	0.746	0.826	0.787	1.084	1.055	0.977	0.676	0.562
400	0.964	1.076	1.013	1.408	1.379	1.282	0.891	0.761
350	1.264	1.402	1.314		1.750	1.690	1.205	1.108
300	1.625	1.807	1.705			2.218	1.598	1.601
HEIGHT	SCALE HEIGHT, KM							
900	355.1	366.6	383.1	355.3	326.6	340.2	398.1	281.5
850	365.5	363.9	384.0	342.9	339.7	339.7	379.8	274.3
800	352.7	349.2	359.2	335.1	336.8	326.7	361.6	267.1
750	339.9	334.5	334.3	327.4	333.8	313.7	343.6	258.4
700	327.2	319.8	309.5	316.1	325.7	300.6	325.6	247.8
650	314.5	307.2	294.8	287.1	299.5	286.5	307.6	237.3
600	301.8	295.8	285.3	258.2	273.3	270.9	289.7	226.6
550	289.2	284.3	275.8	224.9	189.5	255.4	269.4	214.8
500	276.5	272.9	266.3	189.5	187.5	239.8	236.3	203.1
450	251.4	261.5	243.0	190.4	187.2	213.4	203.2	191.3
400	200.0	222.6	206.6	196.0	194.4	186.7	178.5	172.5
350	197.7	193.2	195.9		265.2	185.7	170.0	145.5
300	228.6	193.2	194.6			197.0	227.6	166.3
LONG	-33.52	-52.15	-50.53	-48.64	-46.76	-44.75	-42.38	-39.57
LAT	70.08	70.98	71.85	72.70	73.54	74.38	75.06	75.86
QUAL	23	23	23	23	22	22	23	23

PASS 3263 AT RESLUT, 63 526  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	83755	83822	83830	83848	83905	83923	83958	84016
1000	0.114	0.117	0.120	0.214	0.158	0.222	0.221	0.213
950	0.129	0.126	0.139	0.231	0.188	0.246	0.241	0.240
900	0.146	0.142	0.160	0.252	0.214	0.276	0.264	0.272
850	0.166	0.161	0.182	0.277	0.243	0.316	0.291	0.307
800	0.190	0.182	0.207	0.308	0.278	0.358	0.322	0.345
750	0.216	0.209	0.240	0.344	0.323	0.405	0.359	0.391
700	0.252	0.246	0.281	0.411	0.387	0.461	0.417	0.450
650	0.299	0.292	0.331	0.522	0.465	0.548	0.490	0.518
600	0.355	0.346	0.389	0.662	0.556	0.655	0.577	0.596
550	0.442	0.420	0.468	0.826	0.667	0.780	0.690	0.736
500	0.562	0.530	0.598	1.007	0.795	0.924	0.834	0.917
450	0.708	0.661	0.754	1.210	0.939	1.163	1.004	1.134
400	0.881	0.814	0.964	1.512	1.210	1.488	1.281	1.475
350	1.208	1.077	1.328	1.910	1.618	2.064	1.705	1.912
300		1.537	1.829		2.422	3.028	2.373	2.712
HEIGHT	SCALE HEIGHT, KM							
950	408.4	556.9		602.8		483.5	576.1	406.6
900	391.0	449.2	369.0	520.4	382.2	437.8	516.7	409.4
850	374.4	399.0	366.3	470.5	359.8	396.6	477.1	400.0
800	358.7	365.9	343.3	420.7	337.4	376.4	438.6	388.7
750	343.0	339.0	326.5	370.8	319.5	356.1	400.2	370.6
700	318.4	319.1	312.4	330.5	308.9	336.4	369.4	348.4
650	290.3	299.2	298.3	298.1	298.3	319.1	338.9	326.2
600	262.2	279.3	284.2	265.7	287.6	301.8	308.4	303.9
550	244.2	260.7	266.3	242.5	275.5	284.6	282.4	276.9
500	230.5	243.8	240.2	240.2	263.3	267.3	260.1	249.1
450	216.8	227.0	214.2	238.0	251.1	232.2	237.8	221.4
400	202.8	210.1	187.9	259.5	201.1	189.9	209.5	196.5
350	151.6	179.7	160.6	361.9	155.5	153.0	176.7	172.1
300		132.4	131.7		122.3	165.0	282.8	149.4
LONG	-37.06	-31.69	-30.00	-26.21	-22.25	-17.09	-7.05	-1.12
LAT	76.59	77.57	77.84	78.47	79.00	79.40	80.17	80.27
QUAL	33	33	33	33	33	33	33	33

PASS 3263 AT RESLUT, 63 526

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)						
	84033	84051	84109	84126	84144	84202	84220
1000	0.148	0.136	0.151	0.157	0.148	0.152	0.162
950	0.166	0.155	0.172	0.175	0.165	0.171	0.186
900	0.189	0.176	0.196	0.199	0.187	0.195	0.211
850	0.220	0.199	0.225	0.227	0.214	0.223	0.240
800	0.255	0.226	0.258	0.259	0.246	0.257	0.274
750	0.295	0.260	0.297	0.302	0.283	0.300	0.315
700	0.340	0.299	0.354	0.356	0.340	0.359	0.371
650	0.408	0.359	0.424	0.425	0.413	0.430	0.438
600	0.500	0.452	0.506	0.528	0.501	0.523	0.540
550	0.611	0.568	0.617	0.655	0.629	0.651	0.676
500	0.765	0.707	0.774	0.807	0.784	0.804	0.842
450	0.995	0.923	0.960	1.013	0.968	1.001	1.075
400	1.283	1.190	1.241	1.324	1.293	1.331	1.401
350	1.760	1.634	1.651	1.677	1.701	1.744	1.873
300	3.350	2.253	2.186	2.025	2.183	2.243	2.535
HEIGHT	SCALE HEIGHT, KM						
950	397.6	388.5	378.6	424.1	423.5	412.9	383.3
900	369.7	395.9	364.6	391.3	383.8	368.7	382.6
850	341.9	383.7	349.2	366.9	356.7	348.6	369.5
800	329.2	362.2	333.4	345.2	335.1	329.2	353.7
750	316.5	333.5	317.6	317.7	313.5	309.6	332.5
700	303.8	304.8	301.8	288.3	290.5	289.9	301.6
650	285.0	280.2	286.0	262.6	267.3	270.2	270.7
600	263.1	259.9	270.2	252.7	244.5	253.1	252.5
550	241.2	239.5	253.3	242.8	233.5	240.4	238.6
500	220.4	219.1	235.0	232.9	222.5	227.6	224.7
450	200.9	199.2	216.7	225.6	211.5	213.8	206.9
400	179.4	179.3	200.4	222.7	196.4	195.2	185.7
350	132.5	166.9	185.6	264.6	180.8	192.1	172.2
300	2622.9	144.9	185.5	379.3	164.6	201.6	159.2
LONG	4.58	10.61	16.44	21.76	27.39	32.87	37.20
LAT	80.54	80.41	80.31	80.05	79.78	79.47	78.92
QUAL	32	32	33	21	22	22	22

PASS 3269 AT RESLUT, 63 526

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	191211	191229	191246	191304	191323	191339	191357	191415
1000	0.172	0.232	0.216	0.179	0.222	0.243	0.232	0.230
950	0.190	0.248	0.232	0.201	0.248	0.264	0.253	0.249
900	0.216	0.274	0.254	0.229	0.282	0.293	0.283	0.272
850	0.244	0.303	0.280	0.261	0.324	0.327	0.318	0.300
800	0.276	0.339	0.312	0.298	0.372	0.367	0.358	0.334
750	0.317	0.388	0.352	0.345	0.426	0.426	0.410	0.386
700	0.364	0.449	0.416	0.406	0.521	0.505	0.480	0.452
650	0.429	0.529	0.494	0.477	0.645	0.596	0.563	0.534
600	0.517	0.633	0.590	0.565	0.795	0.727	0.683	0.637
550	0.622	0.756	0.713	0.694	0.985	0.861	0.840	0.757
500	0.746	0.898	0.857	0.848	1.278	1.076	1.028	0.896
450	0.979	1.156	1.023	1.057	1.663	1.424	1.330	1.122
400	1.295	1.493	1.300	1.391	2.280	2.003	1.726	1.474
350	1.732	1.902	1.733	1.894			2.209	1.917
300	2.306		2.276	2.557				2.380

HEIGHT	SCALE HEIGHT, KM							
950	452.1	627.9	627.2	409.2	415.8	545.1	536.5	583.6
900	405.1	506.0	516.8	381.2	380.8	465.2	448.1	511.2
850	394.3	455.4	469.5	362.8	352.0	418.9	411.0	462.9
800	382.8	409.4	422.3	345.4	326.1	372.9	382.3	414.7
750	352.0	370.4	378.7	329.4	300.3	343.6	352.7	369.9
700	321.3	331.4	343.2	314.0	281.8	314.2	322.2	325.1
650	298.3	305.9	307.8	298.5	263.7	285.6	291.8	295.8
600	279.5	288.5	279.4	281.8	245.6	265.7	268.8	283.3
550	260.7	271.1	267.4	260.2	226.0	245.8	248.6	270.8
500	241.9	253.7	255.4	238.7	200.6	222.5	228.4	258.4
450	211.8	232.0	243.4	214.2	168.2	178.8	212.4	234.0
400	179.2	209.7	221.3	183.4	113.8	167.3	207.1	199.1
350	176.9	210.3	191.0	161.0			267.3	229.2
300	181.2		242.3	1443.6				481.5

LONG	-173.76	-171.84	-170.03	-167.21	-160.91	-155.00	-149.63	-143.82
LAT	78.88	79.32	79.74	80.11	80.24	80.33	80.47	80.30
QUAL	33	33	21	32	22	22	23	22

PASS 3269 AT RESLUT, 63 526

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	191433	191450	191508	191526	191543	191600	191618	191637
1000	0.195	0.224	0.166	0.149	0.149	0.156	0.191	0.191
950	0.219	0.241	0.181	0.175	0.172	0.175	0.211	0.215
900	0.246	0.273	0.205	0.201	0.196	0.199	0.236	0.244
850	0.280	0.307	0.235	0.232	0.225	0.226	0.266	0.279
800	0.321	0.346	0.271	0.271	0.259	0.258	0.304	0.320
750	0.367	0.402	0.313	0.324	0.305	0.301	0.356	0.381
700	0.442	0.472	0.361	0.390	0.361	0.352	0.419	0.460
650	0.540	0.555	0.443	0.478	0.439	0.415	0.502	0.555
600	0.657	0.671	0.567	0.606	0.541	0.499	0.603	0.684
550	0.823	0.824	0.718	0.764	0.664	0.599	0.722	0.839
500	1.030	1.006	0.900	0.960	0.809	0.715	0.892	1.019
450	1.276	1.265	1.133	1.275	1.089	0.912	1.146	1.312
400	1.709	1.612	1.404	1.696	1.453	1.174	1.471	1.715
350	2.389	1.917	1.841	2.248	1.916	1.512	1.887	
300			2.334		2.411	1.945		
HEIGHT	SCALE HEIGHT, KM							
950	436.4	583.8	485.4	336.3	363.8	414.1	481.3	404.2
900	395.3	441.3	407.8	342.9	364.1	385.8	422.0	373.3
850	367.7	399.2	358.0	320.0	348.5	368.2	385.5	347.9
800	343.2	365.0	337.2	298.0	332.8	350.7	351.7	322.6
750	318.7	340.5	316.4	278.3	303.1	329.7	323.0	300.4
700	294.7	317.0	295.6	258.7	270.4	308.7	294.3	279.1
650	270.9	293.5	276.4	241.9	254.7	290.3	280.2	257.9
600	247.0	274.3	258.5	230.2	244.1	276.8	267.9	248.5
550	232.3	257.7	240.6	218.5	233.5	263.2	255.6	239.5
500	219.8	241.1	224.6	206.0	222.9	249.7	238.1	230.5
450	207.3	238.9	217.0	188.2	196.8	230.6	214.8	197.1
400	174.2	245.6	209.3	170.5	181.9	210.1	202.9	183.5
350	374.7	644.5	212.3	339.7	202.4	197.0	202.4	
300			1215.7		273.2	189.1		
LONG	-138.04	-132.59	-127.36	-122.81	-118.52	-114.23	-110.99	-107.57
LAT	80.08	79.86	79.51	79.00	78.51	78.03	77.33	76.59
QUAL	21	21	21	32	33	22	32	23



PASS 3269 AT RESLUT, 63 526  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	191654	191711	191728	191746	191804	191823	191842	191859
1000	0.214	0.201	0.203	0.233	0.221	0.242	0.240	0.243
950	0.235	0.225	0.223	0.252	0.243	0.264	0.264	0.279
900	0.266	0.253	0.248	0.279	0.271	0.288	0.293	0.304
850	0.302	0.286	0.277	0.308	0.303	0.314	0.324	0.331
800	0.343	0.326	0.310	0.343	0.341	0.343	0.359	0.359
750	0.399	0.374	0.349	0.382	0.384	0.375	0.400	0.394
700	0.464	0.431	0.395	0.429	0.433	0.413	0.452	0.435
650	0.542	0.496	0.450	0.483	0.490	0.456	0.523	0.502
600	0.635	0.569	0.512	0.544	0.552	0.514	0.610	0.590
550	0.741	0.679	0.582	0.638	0.661	0.593	0.711	0.697
500	0.870	0.824	0.705	0.777	0.796	0.687	0.888	0.825
450	1.098	0.996	0.856	0.948	0.963	0.801	1.113	1.001
400	1.386	1.246	1.045	1.200	1.200	0.998	1.318	1.231
350	1.817	1.565	1.361	1.512	1.477	1.239		1.410
300		2.161	1.736	1.796	1.683			
HEIGHT	SCALE HEIGHT, KM							
950	473.9	448.1	490.4	567.7	493.9	567.8	519.5	
900	402.3	411.1	456.6	503.5	452.0	572.4	493.5	566.7
850	381.5	393.6	443.6	484.0	436.2	575.5	481.5	574.2
800	361.2	376.3	427.3	460.0	422.4	554.3	452.6	560.2
750	347.5	359.1	409.0	435.0	407.2	521.3	415.9	484.0
700	333.8	344.0	389.8	409.5	387.1	482.2	381.1	406.6
650	319.8	329.7	369.7	384.0	367.0	443.2	350.4	378.4
600	305.3	315.4	349.6	358.5	346.9	405.4	319.7	353.2
550	290.8	295.5	329.5	322.5	314.7	368.5	288.9	327.9
500	273.5	274.1	296.2	279.3	282.5	331.7	276.3	302.7
450	238.6	252.7	262.9	238.9	260.5	298.1	265.2	307.0
400	210.3	215.9	232.7	234.6	275.7	307.2	721.7	330.1
350	267.8	175.8	225.4	230.2	315.9	325.6		1275.2
300		743.0	412.0	819.7	585.4			
LONG	-104.51	-102.04	-99.90	-97.63	-95.50	-93.78	-92.07	-90.53
LAT	75.93	75.21	74.44	73.64	72.82	71.89	70.97	70.15
QUAL	21	21	22	22	32	23	31	21

PASS 3269 AT RESLUT, 63 526  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)				
	191916	191952	192009	192025	192101
1000	0.251	0.309	0.306	0.233	0.231
950	0.270	0.331	0.338	0.267	0.261
900	0.294	0.367	0.380	0.301	0.303
850	0.322	0.407	0.427	0.341	0.355
800	0.356	0.459	0.479	0.388	0.408
750	0.397	0.528	0.549	0.452	0.473
700	0.444	0.616	0.637	0.531	0.561
650	0.498	0.736	0.742	0.642	0.667
600	0.558	0.881	0.918	0.786	0.792
550	0.668	1.053	1.147	0.961	1.014
500	0.810	1.444	1.455	1.229	1.318
450	0.980	1.969	1.900	1.601	1.724
400	1.164	2.668	2.483	2.103	2.241
350	1.353	3.494	3.237	2.705	2.915
300			3.920		3.536
HEIGHT	SCALE HEIGHT, KM				
950	633.1	622.7	464.9	394.1	367.7
900	569.1	490.6	427.2	395.6	353.3
850	522.4	441.3	406.9	375.8	338.9
800	482.5	393.5	386.7	354.8	324.7
750	445.4	347.1	356.0	321.4	309.1
700	416.8	306.8	321.9	288.0	291.6
650	388.2	281.9	287.8	267.7	274.0
600	359.6	257.1	259.0	251.0	256.5
550	333.0	232.2	230.6	234.2	229.0
500	306.7	189.9	208.5	212.9	198.6
450	290.4	166.9	196.0	189.3	191.8
400	320.4	175.8	192.4	198.3	192.8
350	631.7	255.4	207.9	249.3	197.1
300			1823.0		805.9
LONG	-89.37	-86.97	-85.99	-85.18	-83.37
LAT	69.29	67.46	66.58	65.75	63.87
QUAL	21	23	22	22	22

PASS 3269 AT QUITOE, 63 526								
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)								
HEIGHT	TIME (UT)							
	193719	193754	193829	193905	193940	194015	194050	194126
1000	0.217	0.261	0.338	0.284	0.261	0.354	0.340	0.326
950	0.251	0.296	0.389	0.316	0.300	0.396	0.378	0.363
900	0.295	0.340	0.446	0.358	0.348	0.445	0.423	0.405
850	0.355	0.397	0.514	0.417	0.407	0.504	0.479	0.458
800	0.434	0.480	0.601	0.506	0.487	0.580	0.554	0.527
750	0.535	0.586	0.716	0.613	0.589	0.680	0.653	0.622
700	0.673	0.723	0.860	0.750	0.719	0.823	0.797	0.760
650	0.866	0.917	1.061	0.938	0.906	1.021	0.991	0.958
600	1.134	1.198	1.353	1.195	1.172	1.331	1.322	1.301
550	1.557	1.642	1.850	1.634	1.574	1.861	1.920	1.940
500	2.288	2.399	2.750	2.449	2.429	2.911	3.139	3.180
450	3.757	3.888	4.536	4.079	4.298	4.999	5.337	5.135
400	6.707	6.939	7.567	7.011	7.271	8.434	8.698	7.923
350	11.239	11.388	11.388	10.977	11.395	12.483	12.601	
300								
HEIGHT	SCALE HEIGHT, KM							
950	314.0	373.3	355.5	421.4	342.4	436.8	446.4	450.7
900	288.6	338.7	348.7	363.1	320.8	411.8	421.7	426.3
850	266.9	303.0	337.2	310.6	299.4	377.1	375.3	380.2
800	246.7	263.0	304.0	265.7	278.7	334.9	321.8	330.9
750	228.8	242.9	275.2	251.7	257.0	287.4	274.5	282.0
700	211.7	224.3	256.8	236.4	234.1	253.1	244.5	236.9
650	194.9	201.4	225.5	218.5	209.2	216.9	209.1	193.6
600	170.3	176.3	188.0	184.6	181.6	169.6	152.4	149.5
550	148.0	149.7	146.4	149.5	149.0	133.0	125.1	117.1
500	120.3	122.5	116.2	112.8	100.6	103.0	95.0	99.7
450	91.9	89.1	93.5	103.9	93.5	93.0	95.9	108.1
400	82.1	97.1	113.8	82.7	104.3	100.1	112.4	137.4
350	121.3	117.0	130.0	137.6	138.3	164.0	167.7	
300								
LONG	-69.16	-68.96	-68.78	-68.58	-68.40	-68.22	-68.03	-67.85
LAT	9.56	7.59	5.62	3.59	1.61	-0.36	-2.33	-4.35
QUAL	33	23	23	23	23	13	12	12

PASS 3269 AT QUITOE, 63 526  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	194201	194236	194311	194404	194440	194515	194550	194626
1000	0.310	0.294	0.273	0.273	0.256	0.255	0.251	0.243
950	0.343	0.326	0.299	0.295	0.276	0.273	0.272	0.264
900	0.380	0.361	0.330	0.325	0.303	0.296	0.293	0.290
850	0.430	0.407	0.371	0.371	0.341	0.329	0.323	0.314
800	0.493	0.474	0.440	0.437	0.407	0.383	0.363	0.347
750	0.591	0.574	0.539	0.540	0.506	0.462	0.427	0.397
700	0.732	0.724	0.687	0.693	0.641	0.590	0.541	0.484
650	0.944	0.967	0.937	0.950	0.902	0.811	0.710	0.614
600	1.307	1.397	1.361	1.352	1.302	1.178	1.044	0.870
550	1.943	2.109	2.019	1.978	1.882	1.771	1.580	1.357
500	3.067	3.204	2.986	2.872	2.722	2.626	2.503	2.316
450	4.819	4.692	4.229	4.002	3.837	3.787	3.801	3.919
400	6.895	6.276	5.475	5.270	5.063	5.163	5.264	5.682
350			6.418	6.342	6.315	6.465	6.862	7.442
300								

HEIGHT	SCALE HEIGHT, KM							
950	474.6	486.6	517.0	557.3	585.3	661.3	666.0	573.0
900	430.6	441.5	445.7	443.7	465.7	542.8	587.2	579.3
850	380.6	369.2	368.7	359.2	359.6	413.5	454.8	543.1
800	329.3	305.3	295.7	284.0	275.9	296.8	373.2	438.8
750	270.8	247.4	232.6	224.4	219.0	246.3	285.4	338.4
700	220.8	197.9	184.7	180.8	184.0	188.8	201.0	245.2
650	181.1	161.4	152.6	157.5	153.0	151.2	158.1	183.9
600	140.1	129.1	133.7	140.6	138.4	132.0	129.3	128.3
550	120.7	121.2	127.7	133.0	136.2	125.8	115.2	104.0
500	109.1	120.5	134.0	143.0	139.4	132.4	114.7	91.9
450	124.0	152.3	162.4	163.7	163.7	145.7	134.0	114.5
400	171.8	210.8	256.0	227.7	198.2	190.8	168.2	155.2
350			428.7	377.1	319.6	305.4	242.7	219.9
300								

LONG	-67.66	-67.47	-67.28	-66.99	-66.78	-66.56	-66.34	-66.11
LAT	-6.32	-8.29	-10.26	-13.23	-15.26	-17.22	-19.18	-21.20
QUAL	12	12	11	11	21	23	23	23

PASS 3269 AT QUITOE, 63 526

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)	
	194736	194812
1000	0.191	0.187
950	0.212	0.205
900	0.237	0.227
850	0.267	0.254
800	0.302	0.288
750	0.341	0.328
700	0.391	0.379
650	0.459	0.450
600	0.564	0.548
550	0.761	0.718
500	1.162	1.051
450	2.163	1.719
400	4.174	3.118
350	7.017	5.582
300		9.746
HEIGHT	SCALE HEIGHT, KM	
950	453.7	504.8
900	431.6	461.6
850	414.6	427.5
800	401.9	401.1
750	384.0	364.3
700	340.6	315.2
650	282.3	276.0
600	211.7	227.3
550	147.3	161.9
500	103.7	119.3
450	73.8	95.6
400	87.4	80.4
350	121.1	83.7
300		105.2
LONG	-65.63	-65.37
LAT	-25.11	-27.12
QUAL	33	33

PASS 3269 AT SOLANT, 63 526  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)						
	194721	194754	194829	194905	194940	195033	195126
1000	0.240	0.199	0.188	0.161	0.156	0.125	0.118
950	0.268	0.218	0.205	0.175	0.166	0.136	0.126
900	0.299	0.241	0.225	0.189	0.178	0.146	0.134
850	0.334	0.267	0.250	0.207	0.196	0.158	0.143
800	0.373	0.301	0.280	0.228	0.217	0.170	0.153
750	0.422	0.345	0.324	0.255	0.241	0.186	0.163
700	0.498	0.400	0.377	0.297	0.276	0.208	0.183
650	0.596	0.467	0.443	0.357	0.325	0.236	0.211
600	0.853	0.577	0.543	0.444	0.390	0.273	0.245
550	1.383	0.793	0.718	0.573	0.510	0.371	0.310
500	2.610	1.185	1.022	0.820	0.711	0.506	0.394
450	4.862	2.036	1.601	1.233	1.074	0.707	0.545
400	7.510	3.817	2.701	1.982	1.598	1.040	0.793
350		6.979	4.676	3.320	2.484	1.519	1.195
300		11.109	8.050	5.849	4.208	2.438	1.952
HEIGHT	SCALE HEIGHT, KM						
950	450.3	504.4	518.7	609.8	715.7		761.6
900	449.9	477.0	484.4	566.7	618.2	658.6	764.1
850	450.6	449.5	450.1	526.7	558.7	647.2	717.4
800	408.2	411.8	414.0	486.7	493.2	599.2	646.5
750	345.0	359.9	371.1	405.7	402.7	473.6	575.5
700	284.9	320.2	325.0	306.1	348.6	413.1	484.3
650	224.9	284.7	269.8	254.1	300.4	352.6	386.3
600	135.0	201.6	220.4	212.5	250.8	290.1	288.4
550	90.6	150.5	173.9	166.8	191.3	202.3	239.7
500	75.8	111.3	131.6	135.7	138.1	156.5	191.5
450	97.6	85.2	104.5	114.8	125.0	142.0	147.2
400	153.6	77.6	91.7	103.9	124.7	133.4	130.8
350		95.0	91.6	91.9	102.2	121.1	113.5
300		145.0	94.0	83.9	95.6	95.6	99.2
LONG	-65.74	-65.50	-65.23	-64.95	-64.64	-64.15	-63.60
LAT	-24.27	-26.11	-28.06	-30.07	-32.02	-34.96	-37.89
QUAL	23	33	33	33	33	33	33

PASS 3283 AT RESLUT, 63 527  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	195013	195030	195048	195106	195123	195140	195158	195216
1000	0.172	0.199	0.204	0.200	0.196	0.183	0.203	0.197
950	0.204	0.235	0.251	0.243	0.232	0.222	0.244	0.236
900	0.230	0.262	0.289	0.281	0.263	0.252	0.276	0.272
850	0.268	0.299	0.332	0.326	0.300	0.290	0.312	0.307
800	0.314	0.344	0.392	0.375	0.342	0.334	0.359	0.351
750	0.368	0.395	0.464	0.430	0.397	0.384	0.412	0.413
700	0.439	0.463	0.549	0.506	0.461	0.442	0.475	0.486
650	0.520	0.542	0.663	0.596	0.536	0.522	0.558	0.570
600	0.614	0.632	0.797	0.698	0.619	0.614	0.655	0.680
550	0.767	0.759	0.951	0.854	0.777	0.719	0.766	0.813
500	0.973	0.978	1.171	1.095	0.987	0.837	0.928	0.967
450	1.229	1.247	1.547	1.401	1.253	1.098	1.181	1.186
400	1.544	1.600	2.036	1.799	1.598	1.430	1.492	1.512
350	1.957	2.006	2.673	2.373	2.061	1.859	1.872	1.939
300	2.428	2.408		2.966	2.657	2.416	2.390	2.489
HEIGHT	SCALE HEIGHT, KM							
900	342.5	377.6	305.9	323.9	366.8	345.8	355.1	330.9
850	330.4	365.6	312.9	326.2	357.6	344.7	359.7	339.2
800	318.4	353.7	304.1	328.6	347.9	341.2	352.2	338.2
750	306.1	341.1	295.3	328.4	333.4	337.6	344.7	327.5
700	292.1	322.4	286.2	311.3	318.8	331.4	334.5	316.8
650	278.2	303.7	274.3	294.1	304.3	314.9	317.9	306.2
600	264.3	285.0	262.5	277.0	289.7	298.5	301.3	292.6
550	246.6	263.4	250.7	253.5	261.8	282.0	284.7	277.8
500	227.7	235.9	231.9	223.5	230.5	265.6	263.0	263.0
450	218.0	208.8	198.6	202.1	209.8	234.0	234.6	241.8
400	216.8	217.4	185.6	193.5	204.2	201.8	217.3	213.9
350	227.1	247.1	183.3	196.5	200.3	191.5	213.3	203.4
300	276.6	313.5		260.8	217.7	190.1	195.0	204.9
LONG	177.79	-176.81	-171.08	-165.27	-159.60	-153.93	-147.93	-142.78
LAT	79.84	80.07	80.32	80.44	80.35	80.25	80.14	79.76
QUAL	32	32	32	33	33	33	33	33

PASS 3283 AT RESLUT, 63 527								
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)								
HEIGHT	TIME (UT)							
	195233	195250	195308	195326	195344	195404	195420	195436
1000	0.188	0.180	0.190	0.196	0.205	0.248	0.252	0.311
950	0.220	0.225	0.219	0.230	0.247	0.304	0.308	0.357
900	0.254	0.263	0.241	0.261	0.284	0.349	0.355	0.388
850	0.290	0.296	0.275	0.295	0.317	0.384	0.397	0.428
800	0.342	0.350	0.318	0.341	0.367	0.443	0.437	0.472
750	0.404	0.415	0.369	0.396	0.426	0.515	0.496	0.529
700	0.478	0.492	0.431	0.459	0.492	0.600	0.567	0.598
650	0.566	0.579	0.502	0.549	0.580	0.703	0.650	0.679
600	0.676	0.699	0.583	0.655	0.688	0.840	0.746	0.771
550	0.802	0.843	0.707	0.777	0.812	1.001	0.964	0.874
500	0.948	1.007	0.905	0.916	0.981	1.226	1.266	1.085
450	1.205	1.192	1.146	1.186	1.276	1.626	1.643	1.395
400	1.531	1.541	1.457	1.566	1.658	2.153	2.124	1.834
350	1.938	1.981	1.831	2.103	2.147	2.868	2.808	2.532
300	2.496	2.523	2.397	2.764	2.745	3.899		3.666
HEIGHT	SCALE HEIGHT, KM							
900	328.1		405.7	357.1	336.2	334.2	392.3	515.9
850	322.6	314.1	382.3	355.8	354.3	358.7	410.3	482.6
800	316.8	308.9	358.9	341.5	344.5	349.4	413.1	449.3
750	310.9	303.7	337.7	327.3	334.8	336.5	384.5	423.2
700	305.1	298.5	320.8	313.0	325.0	323.7	355.9	399.5
650	297.4	293.3	304.0	298.7	308.6	307.6	327.3	375.9
600	285.2	283.4	287.2	284.5	289.7	282.7	298.7	352.2
550	273.1	272.8	266.8	270.2	270.9	257.9	254.5	328.6
500	260.1	262.1	242.2	256.0	247.5	230.6	206.8	278.0
450	229.8	251.5	217.6	218.6	211.5	198.0	192.5	214.6
400	210.2	225.4	210.0	176.9	195.0	177.0	188.5	172.1
350	205.9	205.8	204.3	178.3	199.7	169.5	183.7	142.4
300	194.8	257.6	191.6	258.3	216.5	209.2		219.6
LONG	-138.02	-133.26	-128.83	-125.15	-121.48	-117.64	-115.35	-113.06
LAT	79.36	78.96	78.44	77.80	77.16	76.42	75.73	75.04
QUAL	33	32	33	32	33	33	32	33



PASS 3283 AT RESLUT, 63 527  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	195454	195512	195530	195548	195604	195622	195640	195658
1000	0.272	0.321	0.354	0.358	0.301	0.314	0.212	0.182
950	0.328	0.368	0.396	0.413	0.355	0.355	0.261	0.223
900	0.360	0.408	0.433	0.455	0.392	0.393	0.303	0.261
850	0.391	0.441	0.465	0.506	0.430	0.428	0.337	0.303
800	0.442	0.500	0.523	0.577	0.490	0.480	0.388	0.355
750	0.503	0.580	0.600	0.662	0.566	0.556	0.453	0.415
700	0.574	0.679	0.693	0.763	0.656	0.648	0.530	0.490
650	0.668	0.794	0.803	0.895	0.772	0.757	0.629	0.585
600	0.777	0.946	0.941	1.047	0.913	0.893	0.756	0.696
550	0.903	1.139	1.106	1.221	1.075	1.061	0.906	0.822
500	1.043	1.362	1.296	1.557	1.259	1.253	1.077	1.061
450	1.301	1.744	1.573	2.065	1.622	1.523	1.378	1.373
400	1.699	2.285	1.993	2.934	2.123	2.028	1.829	1.771
350	2.326	2.959	2.495	3.833	2.805	2.798	2.449	2.273
300	3.430					3.596	3.211	2.930
HEIGHT	SCALE HEIGHT, KM							
950		431.7	508.2		422.2	462.2		
900	422.2	429.9	494.0	423.3	442.3	449.5		
850	431.1	428.1	479.9	413.9	434.5	436.8	350.5	310.9
800	408.0	405.5	449.7	391.4	405.1	414.8	340.6	307.0
750	384.9	378.4	418.4	369.0	375.7	388.4	324.3	303.2
700	362.0	351.3	387.2	346.1	346.3	362.0	308.0	294.2
650	343.2	324.1	356.0	320.7	323.2	335.7	292.5	280.7
600	324.5	297.6	330.4	295.3	303.5	311.3	277.8	267.2
550	305.7	271.6	307.5	269.9	283.7	288.4	263.1	253.7
500	287.0	245.5	284.6	220.3	264.0	265.6	248.4	228.1
450	246.6	211.6	258.0	163.8	222.9	233.1	216.6	201.0
400	191.3	193.1	227.8	160.8	185.8	174.9	176.9	200.7
350	138.9	214.3	252.9	270.2	187.9	181.4	177.9	199.9
300	199.2					244.9	209.1	223.0
LONG	-110.49	-108.41	-106.58	-104.76	-103.24	-101.91	-100.58	-99.25
LAT	74.26	73.43	72.58	71.73	70.96	70.06	69.15	68.25
QUAL	33	33	33	33	33	32	33	33

PASS 3283 AT RESLUT, 63 527  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	195715	195732	195750	195808	195826	195842	195900	195919
1000	0.182	0.192	0.146	0.157	0.137	0.136	0.127	0.145
950	0.218	0.228	0.179	0.186	0.162	0.162	0.152	0.171
900	0.250	0.259	0.211	0.215	0.189	0.189	0.179	0.199
850	0.287	0.294	0.250	0.243	0.219	0.221	0.208	0.228
800	0.338	0.348	0.296	0.290	0.259	0.261	0.245	0.268
750	0.398	0.414	0.349	0.350	0.308	0.307	0.292	0.317
700	0.472	0.493	0.418	0.423	0.365	0.367	0.347	0.375
650	0.568	0.596	0.503	0.511	0.443	0.440	0.422	0.454
600	0.681	0.717	0.602	0.626	0.537	0.526	0.514	0.548
550	0.809	0.857	0.721	0.761	0.646	0.635	0.621	0.657
500	1.021	1.078	0.945	0.944	0.833	0.849	0.777	0.857
450	1.328	1.387	1.222	1.242	1.084	1.118	1.066	1.166
400	1.730	1.796	1.597	1.640	1.437	1.479	1.448	1.556
350	2.263	2.326	2.106	2.153	1.921	1.981	1.956	2.064
300	2.943	3.027	2.738	2.762	2.531	2.624	2.632	2.741
HEIGHT	SCALE HEIGHT, KM							
900	323.0	337.9	285.2	313.4	307.1	304.1	293.7	321.1
850	321.9	333.6	287.0	313.1	308.5	302.9	301.2	321.6
800	310.5	319.1	287.0	301.6	299.5	297.6	294.4	309.9
750	299.0	304.5	286.9	289.4	288.3	292.2	283.9	297.4
700	287.4	289.9	278.4	277.3	277.0	280.2	273.3	284.9
650	275.6	276.1	266.4	264.7	264.1	265.6	259.9	267.8
600	263.8	262.5	254.4	251.0	251.1	251.0	246.2	250.3
550	251.9	248.8	241.5	237.4	238.1	234.8	232.5	232.7
500	231.1	228.7	220.4	219.0	212.5	210.0	213.2	205.3
450	205.2	205.3	199.4	191.1	185.9	185.2	180.4	171.9
400	191.3	195.7	187.3	185.1	179.1	176.4	165.9	175.9
350	190.5	193.7	185.8	195.3	179.3	179.8	169.7	177.6
300	210.8	241.8	213.9	226.7	201.4	205.5	191.7	196.2
LONG	-98.26	-97.32	-96.32	-95.42	-94.64	-93.95	-93.18	-92.53
LAT	67.37	66.50	65.57	64.63	63.67	62.82	61.87	60.85
QUAL	32	33	33	32	33	33	33	32

PASS 3283 AT OTTAWA, 63 527  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	200016	200051	200126	200201	200237	200312	200347	200422
1000	0.153	0.154	0.149	0.163	0.168	0.171	0.178	0.172
950	0.172	0.173	0.172	0.187	0.191	0.197	0.196	0.192
900	0.200	0.200	0.201	0.213	0.215	0.221	0.223	0.220
850	0.231	0.230	0.233	0.245	0.245	0.250	0.253	0.252
800	0.267	0.267	0.271	0.283	0.281	0.287	0.288	0.293
750	0.312	0.312	0.316	0.331	0.326	0.335	0.336	0.344
700	0.369	0.370	0.375	0.392	0.383	0.394	0.398	0.408
650	0.444	0.442	0.450	0.469	0.458	0.465	0.477	0.491
600	0.542	0.545	0.556	0.574	0.564	0.566	0.592	0.606
550	0.684	0.687	0.702	0.724	0.713	0.709	0.752	0.777
500	0.889	0.888	0.910	0.948	0.919	0.914	0.976	1.014
450	1.181	1.201	1.213	1.286	1.250	1.225	1.325	1.399
400	1.583	1.656	1.629	1.754	1.706	1.648	1.852	1.955
350	2.134	2.269	2.227	2.368	2.309	2.219	2.580	2.702
300	2.837	3.005	2.998	3.135	3.074	3.029	3.507	3.748
HEIGHT	SCALE HEIGHT, KM							
950	376.9	380.6	335.1	378.4	392.3	393.4	450.0	408.7
900	346.0	352.5	329.0	363.0	385.1	406.6	398.8	367.6
850	339.7	340.8	331.2	350.6	372.2	378.3	378.7	350.3
800	330.3	325.7	325.8	332.3	359.3	352.4	354.7	328.6
750	307.8	310.1	302.7	306.4	326.3	328.6	318.1	303.5
700	286.2	287.4	280.7	286.3	292.5	303.5	285.7	280.1
650	265.9	262.4	257.9	268.2	264.1	277.4	256.2	253.5
600	237.3	232.0	230.6	235.0	230.3	241.5	225.6	221.1
550	201.4	205.8	207.0	201.5	203.5	212.1	200.5	197.3
500	186.8	185.1	187.8	179.2	183.1	188.9	179.9	175.7
450	176.8	167.0	176.2	169.0	169.8	175.7	161.2	160.3
400	172.0	160.5	168.0	166.3	164.8	169.1	152.8	154.2
350	173.4	170.1	165.8	172.4	171.0	165.5	156.3	153.7
300	204.6	194.8	190.6	216.3	199.5	179.9	185.2	180.8
LONG	-90.69	-89.73	-88.89	-88.09	-87.41	-86.78	-86.21	-85.70
LAT	57.77	55.87	53.96	52.04	50.06	48.13	46.19	44.25
QUAL	21	23	21	21	33	33	21	23

PASS 3283 AT OTTAWA, 63 527

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)						
	200458	200533	200608	200644	200719	200754	200905
1000	0.168	0.184	0.202	0.211	0.229	0.237	0.237
950	0.190	0.214	0.226	0.238	0.253	0.263	0.266
900	0.221	0.246	0.261	0.275	0.292	0.298	0.304
850	0.254	0.285	0.300	0.316	0.336	0.340	0.349
800	0.296	0.328	0.347	0.366	0.388	0.391	0.405
750	0.346	0.385	0.409	0.428	0.463	0.459	0.478
700	0.414	0.461	0.487	0.511	0.556	0.553	0.570
650	0.500	0.556	0.591	0.620	0.676	0.680	0.701
600	0.623	0.690	0.729	0.773	0.841		0.896
550	0.800	0.881	0.927	0.992	1.088		1.181
500	1.042	1.170	1.235	1.338	1.469		1.615
450	1.437	1.624	1.711	1.859	2.089		2.369
400	2.051	2.307	2.429	2.641	2.963		3.658
350	2.912	3.219	3.393	3.732	4.065		5.586
300	4.119	4.343					7.926
HEIGHT	SCALE HEIGHT, KM						
950	393.3	340.5	392.2	375.2	424.6	432.6	395.2
900	347.8	345.0	352.7	352.8	359.8	391.7	367.7
850	341.1	341.2	339.1	348.4	338.7	363.9	353.1
800	320.2	337.5	325.5	327.0	317.1	338.0	319.3
750	298.9	284.9	302.5	300.6	290.7	296.9	289.2
700	275.1	270.8	276.6	276.9	265.8	253.3	263.2
650	249.7	256.6	252.3	245.3	244.9	232.2	225.4
600	217.4	222.8	223.8	211.2	214.1		197.1
550	195.1	192.8	190.1	185.0	180.7		171.8
500	177.0	170.4	169.5	165.8	158.2		147.5
450	152.9	150.2	153.8	151.6	146.0		128.9
400	143.7	146.9	148.9	144.7	149.7		114.2
350	153.4	159.5	163.4	153.8	174.5		117.5
300	109.0	170.9					224.6
LONG	-85.20	-84.77	-84.35	-83.97	-83.62	-83.30	-82.69
LAT	42.25	40.30	38.34	36.33	34.38	32.42	28.44
QUAL	23	23	23	23	23	22	22

PASS 3283 AT QUITOE, 63 527  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	201318	201353	201430	201505	201540	201615	201708	201744
1000	0.318	0.343	0.365	0.383	0.384	0.374	0.373	0.353
950	0.369	0.397	0.416	0.435	0.433	0.425	0.415	0.395
900	0.431	0.458	0.476	0.493	0.491	0.482	0.463	0.442
850	0.504	0.531	0.549	0.565	0.558	0.549	0.526	0.501
800	0.595	0.621	0.641	0.659	0.646	0.630	0.605	0.574
750	0.712	0.735	0.764	0.782	0.764	0.735	0.704	0.671
700	0.870	0.892	0.919	0.940	0.916	0.871	0.832	0.804
650	1.083	1.107	1.146	1.185	1.124	1.061	1.018	1.026
600	1.400	1.431	1.483	1.530	1.435	1.369	1.312	1.460
550	1.905	1.964	2.002	2.070	1.908	1.868	1.827	2.306
500	2.814	2.888	2.932	3.020	2.783	2.795	2.866	
450	4.458	4.621	4.666	4.805	4.449	4.385	5.007	
400	7.417	7.860	7.873	7.927	7.253	7.076	8.598	
350	11.843		11.936	11.861	11.097	10.645	12.626	
300								
HEIGHT	SCALE HEIGHT, KM							
950	329.6	350.8	376.9	386.2	402.2	391.7	469.3	442.6
900	319.6	340.9	357.6	370.8	386.3	386.2	430.8	415.4
850	306.8	328.7	334.9	344.6	365.1	365.7	382.1	387.7
800	288.8	306.1	301.7	312.6	319.3	338.1	342.0	348.2
750	263.9	277.5	278.7	279.3	291.3	309.6	310.1	293.1
700	238.6	249.5	252.8	245.3	267.2	280.3	274.2	239.7
650	212.8	216.4	209.9	215.5	223.0	232.9	228.1	185.6
600	186.1	179.1	185.8	184.9	196.0	178.5	178.9	133.4
550	149.8	144.7	149.0	152.3	157.8	147.3	136.0	102.5
500	116.1	119.6	121.0	122.1	121.1	119.7	97.7	
450	106.9	99.6	100.7	99.6	101.4	105.9	86.6	
400	97.6	96.5	100.1	107.1	111.3	109.5	105.7	
350	127.6		148.5	149.1	124.5	142.4	171.8	
300								
LONG	-80.98	-80.78	-80.57	-80.38	-80.20	-80.01	-79.73	-79.54
LAT	14.22	12.24	10.16	8.19	6.22	4.24	1.26	-0.77
QUAL	33	23	23	23	23	22	23	23

PASS 3283 AT QUITOE, 63 527  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	201819	201853	201930	202004	202039	202114	202207	202319
1000	0.351	0.323	0.303	0.300	0.300	0.279	0.253	0.267
950	0.388	0.356	0.331	0.325	0.329	0.305	0.279	0.283
900	0.430	0.392	0.366	0.368	0.377	0.352	0.312	0.301
850	0.483	0.437	0.423	0.440	0.463	0.428	0.367	0.330
800	0.549	0.511	0.518	0.544	0.582	0.524	0.454	0.397
750	0.646	0.635	0.682	0.727	0.755	0.689	0.581	0.468
700	0.812	0.844	0.930	0.981	1.004	0.938	0.785	0.638
650	1.115	1.194	1.302	1.329	1.313	1.250	1.074	0.864
600	1.722	1.724	1.799	1.777	1.726	1.670	1.478	1.176
550	2.710	2.481	2.526	2.432	2.303	2.243	2.038	1.769
500	4.174	3.619	3.575	3.313	3.024	2.946	2.826	2.641
450	6.087	5.145	4.828	4.326	3.900	3.742	3.730	3.933
400		6.713	5.913			4.529	4.664	5.477
350							5.509	7.127
300								
HEIGHT	SCALE HEIGHT, KM							
950	485.5	517.9	529.8	511.6	445.3	456.3	471.6	763.0
900	452.5	484.4	409.3	362.3	332.0	325.4	377.3	637.6
850	421.3	396.7	312.0	263.9	240.1	248.3	291.2	476.4
800	344.8	274.0	230.1	210.1	212.4	222.7	225.9	282.2
750	256.8	206.0	175.0	169.3	181.2	165.5	184.5	234.7
700	197.1	156.6	157.2	168.0	178.9	170.7	164.4	180.0
650	135.4	142.7	151.7	166.8	183.6	173.7	160.7	160.6
600	113.1	138.9	152.8	168.1	180.4	172.1	155.1	145.4
550	112.7	136.3	146.5	160.9	178.3	175.8	155.9	125.1
500	123.6	132.2	149.5	169.6	189.8	196.5	167.1	125.6
450	143.0	157.8	195.3	231.1	227.2	233.8	199.8	133.6
400		292.4	340.9			313.5	261.5	166.4
350							355.9	243.1
300								
LONG	-79.36	-79.18	-78.98	-78.80	-78.61	-78.41	-78.10	-77.66
LAT	-2.74	-4.65	-6.73	-8.64	-10.61	-12.58	-15.55	-19.58
QUAL	23	22	22	22	22	22	22	22

PASS 3283 AT QUITOE, 63 527

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)				
	202354	202429	202504	202540	202633
1000	0.207	0.256	0.224	0.199	0.218
950	0.283	0.278	0.246	0.217	0.230
900	0.305	0.297	0.272	0.240	0.245
850	0.337	0.320	0.298	0.267	0.262
800	0.369	0.352	0.326	0.297	0.287
750	0.435	0.397	0.359	0.332	0.327
700	0.530	0.453	0.403	0.374	0.371
650	0.691	0.577	0.472	0.431	0.420
600	0.949	0.766	0.589	0.508	0.475
550	1.452	1.077	0.808	0.642	0.577
500	2.423	1.816	1.215	0.899	0.796
450	3.952	3.325	2.197	1.490	1.141
400	5.710	5.555	4.213	2.738	1.735
350	7.790	7.988	7.372	5.232	2.772
300				9.454	4.782

HEIGHT	SCALE HEIGHT, KM				
	950	773.1	666.1	518.9	520.0
900	603.9	679.1	526.7	487.8	727.3
850	491.8	615.1	533.8	466.3	634.1
800	429.7	447.4	522.8	454.1	512.5
750	271.5	378.5	459.3	430.0	384.7
700	225.2	309.6	373.5	380.4	361.4
650	168.6	220.6	291.8	326.9	338.2
600	142.9	165.7	208.4	271.2	314.9
550	112.1	124.8	143.2	197.8	246.4
500	97.1	86.2	106.8	128.5	148.3
450	118.0	86.2	81.2	89.9	128.6
400	146.7	110.0	78.5	79.1	115.5
350	179.3	157.3	120.9	75.3	97.3
300				103.1	94.6

LONG	-77.43	-77.19	-76.94	-76.67	-76.24
LAT	-21.54	-23.50	-25.46	-27.47	-30.42
QUAL	23	23	23	23	23

PASS 3283 AT SOLANT, 63 527

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)					
	202615	202650	202726	202801	202836	202911
1000	0.214	0.185	0.158	0.146	0.130	0.112
950	0.229	0.198	0.169	0.157	0.138	0.121
900	0.248	0.215	0.183	0.169	0.147	0.131
850	0.272	0.236	0.200	0.183	0.158	0.141
800	0.304	0.263	0.221	0.201	0.172	0.153
750	0.344	0.296	0.247	0.224	0.202	0.168
700	0.392	0.334	0.286	0.253	0.244	0.185
650	0.462	0.399	0.341	0.303	0.298	0.214
600	0.560	0.486	0.409	0.366	0.368	0.249
550	0.721	0.612	0.532	0.451	0.455	0.319
500	1.011	0.872	0.705	0.630	0.601	0.445
450	1.549	1.291	1.046	0.947	0.864	0.651
400	2.469	1.946	1.565	1.403	1.257	0.978
350	4.255	3.082	2.395	2.119	1.910	1.545
300	7.708	4.995	3.958	3.325	3.204	2.620
HEIGHT	SCALE HEIGHT, KM					
950	637.8	634.3	666.5	680.4	854.2	662.2
900	578.0	574.1	614.0	631.8	756.8	640.1
850	511.5	516.8	539.7	565.2	604.4	611.2
800	438.6	461.3	460.4	496.0	461.3	559.3
750	387.8	399.7	385.2	425.2	402.1	501.1
700	342.9	334.5	335.7	355.6	342.9	438.3
650	293.0	289.8	292.1	309.8	283.6	361.5
600	240.9	246.6	248.5	264.0	246.1	284.8
550	179.8	198.7	204.2	213.7	215.6	181.5
500	130.4	136.0	158.5	137.3	154.7	143.4
450	113.7	126.9	125.5	125.8	137.4	130.0
400	102.3	116.1	123.4	125.6	128.6	118.8
350	86.2	106.4	111.1	113.9	109.3	102.7
300	82.7	97.9	95.2	118.1	95.5	92.4
LONG	-76.39	-76.10	-75.78	-75.45	-75.09	-74.71
LAT	-29.41	-31.36	-33.36	-35.31	-37.24	-39.18
QUAL	33	33	32	23	23	23



PASS 3296 AT OTTAWA, 63 528

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	185632	185707	185743	185818	185853	190004	190039	190110
1000	0.108	0.111	0.111	0.121	0.141	0.160	0.151	0.188
950	0.129	0.129	0.131	0.143	0.166	0.177	0.174	0.211
900	0.151	0.149	0.153	0.163	0.190	0.201	0.200	0.239
850	0.174	0.172	0.177	0.188	0.218	0.229	0.231	0.273
800	0.202	0.199	0.205	0.217	0.250	0.264	0.272	0.311
750	0.236	0.235	0.242	0.255	0.291	0.311	0.320	0.364
700	0.274	0.277	0.287	0.301	0.341	0.370	0.382	0.431
650	0.329	0.334	0.342	0.359	0.404	0.443	0.457	0.518
600	0.398	0.406	0.418	0.440	0.490	0.546	0.565	0.636
550	0.495	0.508	0.529	0.553	0.622	0.694	0.719	0.809
500	0.621	0.656	0.684	0.719	0.813	0.911	0.943	1.056
450	0.791	0.869	0.909	0.957	1.100	1.230	1.291	1.439
400	1.021	1.164	1.228	1.305	1.516	1.677	1.802	2.038
350	1.332	1.550	1.663	1.782	2.063	2.264	2.549	2.994
300		2.049	2.249	2.431	2.786		3.584	4.240
HEIGHT	SCALE HEIGHT, KM							
950	305.5	347.7	312.4	329.9	337.8	441.1	346.4	406.4
900	325.6	348.6	327.8	353.0	359.7	388.0	339.7	388.0
850	328.5	333.4	321.8	342.9	353.4	359.6	324.7	369.5
800	323.3	318.3	315.2	331.6	344.2	332.6	311.6	351.0
750	313.0	303.3	303.0	313.1	329.1	307.4	298.6	315.2
700	302.7	288.3	290.3	291.9	309.9	282.7	280.3	285.3
650	279.0	267.8	270.3	265.0	273.0	258.7	260.2	262.9
600	251.5	245.6	234.1	232.1	234.8	228.7	225.7	225.8
550	231.2	215.3	208.7	206.0	204.6	198.2	196.0	198.6
500	214.4	187.6	187.9	189.6	179.9	179.3	176.4	177.9
450	204.6	175.9	174.4	175.6	165.3	169.7	160.3	156.5
400	196.2	176.9	168.9	164.8	160.1	165.6	150.2	141.4
350	193.0	178.1	168.3	161.9	165.8	165.2	148.6	135.2
300		180.0	177.4	171.8	182.8		149.8	148.5
LONG	-70.27	-69.81	-69.38	-68.99	-68.62	-67.97	-67.67	-67.42
LAT	43.13	41.19	39.18	37.22	35.27	31.30	29.34	27.60
QUAL	33	23	22	22	22	33	33	23

PASS 3296 AT QUITOE, 63 528

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	190619	190654	190730	190805	190840	190915	190951	191026
1000	0.232	0.267	0.270	0.286	0.279	0.275	0.289	0.270
950	0.267	0.302	0.312	0.325	0.315	0.309	0.325	0.305
900	0.312	0.348	0.363	0.371	0.360	0.352	0.371	0.348
850	0.366	0.405	0.424	0.427	0.414	0.405	0.426	0.400
800	0.430	0.475	0.496	0.493	0.477	0.469	0.490	0.458
750	0.507	0.556	0.578	0.570	0.560	0.542	0.582	0.543
700	0.638	0.707	0.718	0.702	0.708	0.691	0.706	0.652
650	0.803	0.918	0.907	0.900	0.898	0.890	0.875	0.823
600	1.043	1.199	1.142	1.147	1.190	1.181	1.150	1.149
550	1.408	1.604	1.602	1.614	1.656	1.629	1.785	2.004
500	2.081	2.239	2.313	2.425	2.582	2.549	3.198	3.637
450	3.370	3.622	3.832	3.977	4.160	4.261	5.547	6.490
400	5.679	6.198	6.639	6.621	6.639	7.400	9.089	9.477
350	9.653	10.353	10.792	10.264	10.324	11.427	11.746	
300					13.355			
HEIGHT	SCALE HEIGHT, KM							
950	336.9	368.8	333.8	376.8	391.2	395.4	399.7	393.1
900	318.7	340.0	324.5	362.2	360.0	364.7	378.7	375.3
850	300.5	313.6	310.0	341.1	333.4	335.6	352.4	352.2
800	282.3	288.7	292.0	314.5	306.8	307.1	323.5	326.9
750	263.7	263.7	274.0	287.8	278.4	278.5	281.7	288.1
700	238.3	236.3	247.4	255.5	243.8	242.1	246.2	247.1
650	212.9	208.3	219.3	220.3	209.1	205.1	209.6	196.6
600	185.8	182.8	191.0	185.0	174.2	171.1	149.3	113.3
550	156.4	163.3	157.7	147.6	138.8	141.1	105.2	89.2
500	123.6	133.5	122.9	114.8	110.3	108.9	88.7	83.4
450	101.9	99.5	94.4	96.9	106.4	92.6	92.7	100.6
400	92.2	92.7	96.3	107.7	108.7	99.6	123.4	226.9
350	103.3	109.2	108.1	125.3	136.6	174.0	354.6	
300					386.0			
LONG	-65.43	-65.23	-65.04	-64.85	-64.67	-64.49	-64.31	-64.12
LAT	10.22	8.25	6.22	4.25	2.28	0.31	-1.71	-3.68
QUAL	23	23	23	23	23	23	23	23

PASS 3296 AT QUITOE, 63 528

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	191101	191136	191212	191247	191322	191357	191433	191508
1000	0.265	0.271	0.249	0.242	0.237	0.240	0.233	0.212
950	0.299	0.299	0.273	0.263	0.258	0.260	0.251	0.232
900	0.336	0.334	0.303	0.289	0.284	0.285	0.273	0.253
850	0.361	0.373	0.341	0.327	0.324	0.315	0.304	0.277
800	0.437	0.431	0.399	0.389	0.388	0.369	0.352	0.313
750	0.516	0.524	0.499	0.489	0.493	0.492	0.435	0.372
700	0.659	0.669	0.669	0.660	0.675	0.622	0.566	0.480
650	0.807	0.992	0.797	0.979	0.990	0.764	0.809	0.645
600	1.348	1.618	1.620	1.568	1.522	1.463	1.231	0.926
550	2.478	2.651	2.597	2.493	2.451	2.231	2.030	1.572
500	4.201	4.351	4.127	3.945	3.711	3.445	3.265	2.727
450	6.864	6.584	5.913	5.400	5.213	4.923	4.773	4.297
400	8.908	8.036	7.360	6.635	6.256	6.449	6.418	6.173
350								8.157
300								

HEIGHT	SCALE HEIGHT, KM							
	191101	191136	191212	191247	191322	191357	191433	191508
950	422.8	471.6	505.9	550.1	536.5	581.5	644.6	560.5
900	415.7	444.5	444.4	465.0	451.8	498.7	512.6	569.9
850	382.5	400.3	370.6	360.1	350.3	404.2	417.8	468.6
800	332.3	311.9	282.0	260.2	249.6	291.4	302.4	370.3
750	271.2	211.6	203.1	196.4	187.8	183.8	213.2	237.1
700	204.4	164.3	151.1	150.4	140.6	171.4	176.2	200.5
650	142.5	117.8	112.7	117.4	123.3	159.0	142.1	173.6
600	93.5	104.6	107.0	109.3	114.4	93.0	113.1	119.7
550	89.2	102.8	107.6	112.1	114.4	114.5	103.5	93.9
500	94.4	107.9	122.9	130.9	132.2	122.1	118.9	101.2
450	128.5	169.8	172.2	187.5	190.7	163.2	149.6	123.9
400	355.5	560.8	384.1	413.1	684.6	256.4	205.8	157.5
350								243.0
300								

LONG	-63.93	-63.75	-63.55	-63.36	-63.16	-62.96	-62.74	-62.52
LAT	-5.65	-7.62	-9.64	-11.61	-13.58	-15.54	-17.56	-19.52
QUAL	23	23	23	23	22	23	23	23

PASS 3296 AT QUITUE, 63 528

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)
	1915.6
1000	0.209
950	0.250
900	0.253
850	0.278
800	0.310
750	0.363
700	0.453
650	0.590
600	0.870
550	1.501
500	2.645
450	4.329
400	6.243
350	8.367
300	
HEIGHT	SCALE HEIGHT, KM
950	525.7
900	529.0
850	489.0
800	388.6
750	279.3
700	210.4
650	165.6
600	113.7
550	92.6
500	93.8
450	120.1
400	152.3
350	203.3
300	
LONG	-62.40
LAT	-20.53
QUAL	23

PASS 3296 AT AGASTA, 63 528  
 ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)					
	191304	191357	191432	191508	191814	191852
1000	0.264	0.256	0.246	0.252	0.172	0.131
950	0.283	0.272	0.264	0.271	0.182	0.143
900	0.314	0.301	0.287	0.293	0.193	0.156
850	0.358	0.340	0.326	0.323	0.208	0.172
800	0.416	0.390	0.384	0.370	0.228	0.191
750	0.531	0.477	0.470	0.438	0.259	0.213
700	0.742	0.675	0.620	0.569	0.297	0.237
650	1.101	0.922	0.871	0.778	0.345	0.268
600	1.697	1.460	1.343	1.167	0.413	0.312
550	2.662	2.330	2.159	1.893	0.546	0.415
500	3.990	3.582	3.370	3.110	0.786	0.562
450	5.453	5.064	4.874	4.643	1.223	0.843
400	6.514	6.615	6.516	6.457	1.920	1.317
350				8.449	3.247	2.190
300					5.905	3.976
HEIGHT	SCALE HEIGHT, KM					
950	595.5	647.5	656.8	654.3	855.5	557.9
900	405.0	425.8	447.1	551.0	757.2	525.9
850	347.4	374.8	382.1	446.3	583.9	502.4
800	289.9	323.8	317.2	362.4	462.8	488.2
750	189.2	178.2	234.8	271.8	417.5	469.3
700	136.1	144.2	155.4	174.1	372.1	428.9
650	124.0	136.7	135.1	142.7	326.7	359.6
600	111.8	107.7	108.9	120.5	271.7	256.7
550	114.6	108.8	106.2	99.3	186.5	171.0
500	139.9	130.0	122.3	109.2	129.4	147.0
450	196.5	163.1	154.0	143.7	112.8	120.9
400	566.2	271.9	209.2	164.8	105.6	107.3
350				221.5	87.4	92.5
300					82.9	76.9
LONG	-63.27	-62.96	-62.74	-62.52	-61.18	-60.86
LAT	-12.56	-15.54	-17.50	-19.52	-29.90	-32.01
QUAL	21	22	22	23	23	23

PASS 3296 AT SOLANT, 63 528  
 ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)			
	191831	191906	191959	192017
1000	0.154	0.145	0.129	0.139
950	0.167	0.156	0.137	0.145
900	0.181	0.170	0.146	0.153
850	0.198	0.188	0.154	0.161
800	0.217	0.210	0.163	0.174
750	0.238	0.235	0.176	0.189
700	0.267	0.263	0.205	0.209
650	0.306	0.294	0.267	0.246
600	0.352	0.340	0.327	0.310
550	0.480	0.440	0.386	0.388
500	0.701	0.643	0.543	0.545
450	1.003	0.881	0.749	0.754
400	1.593	1.296	1.014	1.038
350	2.601	1.998	1.508	1.520
300	4.850	3.516	2.430	2.289
HEIGHT	SCALE HEIGHT, KM			
950	602.5	630.3	808.8	1039.3
900	579.7	547.1	838.8	887.7
850	559.3	499.5	850.9	793.3
800	518.0	455.3	751.2	691.6
750	459.0	431.9	535.8	589.9
700	400.1	408.5	310.7	425.8
650	341.1	385.1	246.1	288.9
600	282.1	295.3	229.1	214.1
550	196.1	178.8	217.2	186.2
500	135.2	145.0	167.5	159.4
450	124.7	145.3	155.2	153.7
400	107.2	123.0	147.2	145.2
350	92.7	105.5	119.0	128.2
300	73.1	74.0	90.5	111.5
LONG	-61.04	-60.73	-60.23	-60.04
LAT	-30.85	-32.79	-35.73	-36.73
QUAL	23	23	33	33

PASS 3303 AT QUITOE, 63 529

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)		
	82012	82049	82124
1000	0.102	0.105	0.098
950	0.112	0.114	0.108
900	0.122	0.122	0.116
850	0.131	0.129	0.124
800	0.140	0.136	0.133
750	0.150	0.146	0.145
700	0.163	0.159	0.159
650	0.161	0.175	0.173
600	0.212	0.198	0.194
550	0.275	0.236	0.233
500	0.390	0.337	0.299
450	0.508	0.556	0.454
400	0.584	0.943	0.849
350	1.292	1.436	1.276
300	1.469		
HEIGHT	SCALE HEIGHT, KM		
950	554.4	683.8	637.1
900	681.7	816.0	712.3
850	736.0	858.6	685.0
800	693.8	769.1	630.5
750	647.6	661.0	606.6
700	538.7	565.7	569.8
650	407.8	473.8	499.9
600	269.2	362.1	355.9
550	172.8	231.9	232.1
500	214.6	121.1	177.4
450	246.4	98.6	103.1
400	271.2	110.6	99.4
350	76.3	188.7	172.2
300	287.7		
LONG	-83.71	-83.52	-83.33
LAT	-2.71	-0.62	1.36
QUAL	23	23	23

PASS 3304 AT RESLUT, 63 529

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	84116	84132	84150	84208	84226	84244	84300	84318
1000	0.105	0.084	0.072	0.050	0.089	0.091	0.076	0.090
950	0.134	0.109	0.092	0.069	0.111	0.116	0.095	0.112
900	0.158	0.132	0.110	0.087	0.132	0.136	0.113	0.133
850	0.184	0.153	0.129	0.105	0.153	0.154	0.129	0.154
800	0.212	0.176	0.152	0.123	0.174	0.182	0.151	0.181
750	0.243	0.206	0.177	0.144	0.205	0.214	0.176	0.211
700	0.282	0.240	0.204	0.179	0.241	0.252	0.205	0.245
650	0.326	0.280	0.243	0.219	0.283	0.297	0.243	0.291
600	0.379	0.334	0.288	0.266	0.336	0.348	0.294	0.348
550	0.456	0.397	0.340	0.325	0.400	0.413	0.355	0.413
500	0.549	0.469	0.418	0.397	0.489	0.505	0.425	0.488
450	0.670	0.597	0.526	0.480	0.613	0.617	0.549	0.635
400	0.831	0.759	0.668	0.601	0.770	0.771	0.702	0.819
350	1.029	0.968	0.845	0.770	0.964	0.964	0.886	1.045
300	1.323	1.245	1.092	0.986	1.232	1.231	1.138	1.327
HEIGHT	SCALE HEIGHT, KM							
	850					316.5	312.7	306.5
800	336.0	317.5	301.7	253.8	322.5	315.0	312.4	306.7
750	343.2	314.4	307.6	265.1	317.6	313.4	305.9	306.8
700	331.4	311.2	313.4	262.8	312.7	310.5	299.4	306.9
650	319.6	304.9	300.0	260.4	307.9	301.2	288.6	295.3
600	305.7	289.7	285.8	258.0	288.9	292.0	274.2	280.9
550	286.3	274.5	271.6	253.0	265.5	279.1	259.9	266.5
500	266.9	259.3	248.5	246.4	247.6	259.5	245.4	252.2
450	249.9	233.0	220.8	239.8	233.0	240.7	225.2	235.9
400	235.9	208.8	211.8	227.0	222.5	229.3	209.2	219.6
350	221.4	204.0	207.8	210.5	215.9	218.6	207.4	210.4
300	201.4	199.6	201.5	211.7	211.3	217.5	217.5	212.2
LONG	-64.55	-63.52	-62.35	-61.00	-59.42	-57.85	-56.45	-54.25
LAT	67.57	68.38	69.30	70.20	71.08	71.96	72.74	73.55
QUAL	33	33	33	33	33	32	33	33



PASS 3304 AT RESLUT, 63 529  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	84336	84354	84412	84429	84446	84504	84522	84540
1000	0.069	0.073	0.071	0.123	0.152	0.159	0.142	0.192
950	0.085	0.097	0.092	0.148	0.181	0.186	0.177	0.231
900	0.101	0.116	0.112	0.165	0.205	0.213	0.206	0.267
850	0.115	0.135	0.131	0.189	0.231	0.242	0.238	0.300
800	0.136	0.163	0.159	0.219	0.264	0.278	0.273	0.344
750	0.166	0.196	0.193	0.253	0.303	0.319	0.312	0.394
700	0.202	0.234	0.234	0.295	0.350	0.365	0.356	0.453
650	0.245	0.282	0.281	0.342	0.411	0.427	0.405	0.529
600	0.294	0.342	0.341	0.396	0.482	0.503	0.480	0.618
550	0.350	0.411	0.415	0.488	0.563	0.592	0.572	0.720
500	0.413	0.494	0.501	0.605	0.654	0.693	0.680	0.915
450	0.482	0.616	0.609	0.749	0.856	0.862	0.873	1.180
400	0.608	0.765	0.762	0.945	1.112	1.097	1.127	1.490
350	0.775	0.946	0.957	1.192	1.431	1.390	1.398	1.809
300	0.986	1.173	1.203	1.470	1.836	1.693	1.667	2.058
HEIGHT	SCALE HEIGHT, KM							
900				362.3	376.7	354.4		341.8
850	286.9	274.4	261.3	355.2	375.7	361.9	348.5	369.3
800	288.9	274.7	265.1	348.2	362.8	353.9	362.1	360.8
750	288.7	275.0	266.5	339.5	349.9	346.0	360.5	350.4
700	288.4	275.3	268.0	323.4	335.6	338.0	346.8	336.9
650	288.1	272.9	269.4	307.3	319.3	324.8	333.0	315.6
600	286.2	268.0	267.0	291.2	303.0	309.3	306.4	294.3
550	281.3	263.1	262.7	271.3	286.8	293.8	279.8	273.0
500	276.5	256.3	258.4	251.1	270.5	278.3	253.1	252.4
450	271.2	242.5	245.3	232.5	242.2	248.1	239.1	231.9
400	223.1	233.6	220.4	220.4	213.2	212.7	226.4	241.7
350	216.9	233.9	220.8	238.6	200.9	227.1	260.1	322.0
300	233.4	231.9	221.3	287.9	226.8	448.7	318.5	590.1
LONG	-52.06	-49.86	-47.04	-44.09	-41.13	-37.72	-33.31	-28.91
LAT	74.37	75.18	75.93	76.60	77.27	77.95	78.48	79.02
QUAL	33	33	33	32	33	33	32	33

PASS 3304 AT RESLUT, 63 529  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	84556	84614	84632	84650	84708	84726	84744	84802
1000	0.192	0.198	0.217	0.220	0.266	0.165	0.228	0.259
950	0.230	0.247	0.267	0.265	0.310	0.206	0.268	0.307
900	0.263	0.281	0.313	0.299	0.347	0.236	0.304	0.352
850	0.295	0.323	0.357	0.340	0.389	0.265	0.337	0.400
800	0.338	0.370	0.403	0.389	0.440	0.309	0.388	0.474
750	0.387	0.429	0.456	0.446	0.498	0.360	0.450	0.564
700	0.448	0.498	0.527	0.515	0.574	0.426	0.523	0.669
650	0.524	0.577	0.610	0.593	0.662	0.505	0.614	0.805
600	0.613	0.666	0.705	0.682	0.782	0.597	0.725	0.971
550	0.715	0.815	0.828	0.830	0.959	0.712	0.852	1.177
500	0.899	1.006	1.034	1.012	1.180	0.901	1.006	1.490
450	1.123	1.259	1.286	1.243	1.451	1.146	1.266	1.905
400	1.364	1.575	1.604	1.530	1.789	1.466	1.583	2.397
350	1.615	1.878	1.990	1.825	2.212	1.818	1.962	
300			2.436		2.664	2.187	2.402	
HEIGHT	SCALE HEIGHT, KM							
900	359.4	347.9		370.0	405.9	331.9	368.9	321.8
850	375.7	345.5	360.7	372.0	404.3	344.0	377.5	322.6
800	361.6	343.1	365.1	365.9	392.3	328.1	362.2	312.4
750	347.5	333.7	360.6	358.1	378.3	312.2	346.5	302.2
700	331.9	323.6	345.3	342.0	349.8	300.1	330.8	292.0
650	315.5	313.6	330.1	325.9	321.3	289.1	315.8	277.3
600	299.0	303.5	314.9	309.4	291.5	278.0	301.3	260.6
550	282.5	274.9	294.7	285.0	260.0	261.7	286.7	241.9
500	262.3	242.8	257.2	260.7	244.4	226.7	271.6	216.4
450	247.5	236.2	231.3	256.9	243.4	214.2	252.7	211.9
400	277.6	257.8	233.0	264.9	241.1	224.0	233.7	229.5
350	332.2	312.2	234.8	348.6	257.3	251.5	243.9	
300			288.7		368.0	293.4	291.5	
LONG	-24.99	-19.59	-13.90	-8.22	-2.39	3.63	9.64	15.55
LAT	79.49	79.81	80.07	80.33	80.43	80.34	80.25	80.12
QUAL	33	33	33	32	32	32	33	32

PASS 3304 AT RESLUT, 63 529  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)			
	84820	84836	84910	84930
1000	0.190	0.172	0.149	0.158
950	0.233	0.211	0.178	0.190
900	0.272	0.250	0.201	0.226
850	0.314	0.289	0.228	0.265
800	0.361	0.336	0.270	0.314
750	0.418	0.387	0.321	0.380
700	0.494	0.456	0.382	0.458
650	0.585	0.542	0.470	0.556
600	0.689	0.644	0.578	0.685
550	0.864	0.771	0.704	0.838
500	1.108	1.027	0.919	1.074
450	1.395	1.354	1.226	1.420
400		1.766	1.610	1.842
350		2.290	2.116	2.395
300			2.821	

HEIGHT	SCALE HEIGHT, KM			
	900	319.3	298.7	339.7
850	328.5	326.4	334.1	282.7
800	323.4	321.3	314.6	280.8
750	314.6	310.9	295.2	272.3
700	299.0	295.8	275.7	263.7
650	283.4	279.8	259.0	253.1
600	267.9	263.8	242.4	239.5
550	245.6	245.5	225.8	225.9
500	220.4	205.8	194.7	206.5
450	225.3	185.9	178.4	186.8
400		191.9	179.2	192.3
350		211.2	179.9	204.6
300			210.7	

LONG	20.64	25.16	34.01	38.14
LAT	79.71	79.35	78.44	77.73
QUAL	32	33	32	33

PASS 3304 AT OTTAWA, 63 529

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)	
	84151	84244
1000	0.064	0.095
950	0.084	0.108
900	0.102	0.120
850	0.120	0.135
800	0.140	0.155
750	0.162	0.178
700	0.189	0.206
650	0.224	0.240
600	0.268	0.287
550	0.327	0.349
500	0.400	0.427
450	0.500	0.531
400	0.639	0.684
350	0.819	0.874
300	1.076	1.132

HEIGHT	SCALE HEIGHT, KM	
950		481.9
900		440.6
850	310.2	404.8
800	327.2	369.7
750	318.7	344.5
700	306.9	328.4
650	287.3	307.1
600	268.0	273.3
550	252.9	251.0
500	237.8	235.8
450	223.6	222.5
400	210.0	213.5
350	201.2	206.4
300	202.5	229.5

LONG	-62.28	-57.85
LAT	69.35	72.03
QUAL	33	33

PASS 3316 AT SOLANT, 63 530

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)	
	65331	65407
1000	0.066	0.127
950	0.070	0.133
900	0.073	0.139
850	0.077	0.144
800	0.080	0.149
750	0.084	0.155
700	0.091	0.164
650	0.100	0.181
600	0.111	0.205
550	0.124	0.237
500	0.152	0.294
450	0.200	0.375
400	0.283	0.493
350	0.390	0.697
300	0.531	0.950
HEIGHT	SCALE HEIGHT, KM	
950		1517.8
900	1149.2	1348.8
850	1256.3	1384.2
800	1011.0	1220.4
750	823.3	1009.3
700	721.7	791.2
650	620.0	566.3
600	518.3	393.2
550	416.6	290.5
500	266.7	225.4
450	169.0	194.1
400	151.7	170.9
350	161.7	155.2
300	225.8	161.3
LONG	-83.70	-82.15
LAT	-64.15	-62.27
QUAL	32	32

PASS 3324 AT COLEGE, 63 530  
 ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	195821	195856	195931	200007	200043	200118	200152	200228
1000	0.167	0.186	0.209	0.220	0.305	0.324	0.216	0.314
950	0.188	0.204	0.236	0.246	0.330	0.352	0.241	0.348
900	0.211	0.226	0.265	0.280	0.367	0.388	0.272	0.390
850	0.236	0.251	0.299	0.320	0.406	0.429	0.307	0.436
800	0.266	0.286	0.337	0.365	0.451	0.478	0.347	0.488
750	0.305	0.332	0.383	0.418	0.506	0.544	0.396	0.556
700	0.352	0.387	0.443	0.489	0.576	0.624	0.453	0.635
650	0.417	0.463	0.524	0.573	0.667	0.728	0.529	0.740
600	0.510	0.559	0.623	0.687	0.782	0.861	0.621	0.872
550	0.622	0.674	0.762	0.835	0.938	1.034	0.738	1.051
500	0.773	0.838	0.940	1.025	1.162	1.278	0.912	1.289
450	0.961	1.048	1.178	1.301	1.455	1.582	1.143	1.598
400	1.219	1.328	1.487	1.665	1.818	1.973	1.435	1.999
350	1.543	1.676	1.899	2.134	2.308	2.479	1.786	2.525
300	1.945	2.094	2.414	2.700	2.957	3.034	2.174	3.217
HEIGHT	SCALE HEIGHT, KM							
950	422.9	509.8	419.5	410.4	561.8	550.2	435.2	460.3
900	430.0	460.7	416.3	383.8	498.2	501.8	409.3	444.4
850	407.9	407.9	409.2	370.1	476.9	461.7	402.2	427.7
800	382.7	375.1	402.2	358.7	445.4	423.1	395.0	411.0
750	352.7	345.9	362.3	343.4	406.5	388.9	369.2	381.6
700	322.8	316.7	316.7	321.0	370.5	354.6	339.2	352.1
650	295.9	294.0	296.7	298.7	337.3	322.2	319.4	322.1
600	272.5	274.8	276.7	277.1	301.1	290.8	299.8	292.0
550	249.0	255.4	255.7	255.9	256.7	265.2	274.8	267.3
500	235.0	234.2	234.3	234.5	238.2	247.1	234.5	246.1
450	222.6	220.7	223.0	212.8	226.3	232.0	227.2	228.8
400	216.1	217.4	211.9	202.9	216.9	224.4	228.7	220.3
350	215.4	219.8	208.5	209.3	207.1	236.8	242.7	211.0
300	224.0	239.0	223.2	231.6	216.2	300.1	293.8	215.3
LONG	-158.95	-147.91	-139.05	-130.72	-124.46	-119.30	-115.16	-111.73
LAT	80.17	79.67	78.69	77.55	76.13	74.64	73.10	71.37
QUAL	33	33	33	33	33	33	31	33

PASS 3324 AT COLEGE, 63 530

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	200303	200338	200413	200448	200523	200559	200634	200709
1000	0.186	0.162	0.165	0.149	0.154	0.158	0.144	0.154
950	0.211	0.186	0.186	0.172	0.174	0.178	0.164	0.174
900	0.236	0.213	0.212	0.198	0.199	0.202	0.187	0.198
850	0.267	0.243	0.242	0.229	0.228	0.230	0.215	0.226
800	0.304	0.280	0.278	0.264	0.262	0.263	0.246	0.258
750	0.354	0.329	0.324	0.309	0.309	0.307	0.289	0.301
700	0.417	0.387	0.387	0.369	0.365	0.362	0.342	0.357
650	0.503	0.473	0.464	0.441	0.437	0.433	0.410	0.428
600	0.607	0.578	0.568	0.543	0.529	0.525	0.502	0.521
550	0.758	0.721	0.702	0.673	0.669	0.658	0.628	0.655
500	0.953	0.913	0.903	0.862	0.868	0.854	0.819	0.848
450	1.213	1.178	1.177	1.125	1.145	1.121	1.078	1.115
400	1.549	1.522	1.530	1.472	1.508	1.472	1.420	1.475
350	2.002	1.982	1.959	1.922	1.980	1.930	1.863	1.948
300	2.568	2.575	2.455	2.533	2.570	2.465	2.437	2.574
HEIGHT	SCALE HEIGHT, KM							
950	412.8	361.5	389.3	347.1	383.2	394.7	373.0	391.1
900	406.9	369.4	367.1	343.4	362.2	378.5	365.3	374.7
850	384.6	349.6	351.4	332.8	347.1	362.4	349.8	359.9
800	362.2	328.5	335.6	322.2	332.0	346.2	334.3	345.0
750	323.5	305.3	316.8	307.3	313.7	323.2	313.3	320.9
700	284.6	282.0	293.6	287.4	295.3	299.2	291.7	293.3
650	267.3	263.0	270.4	267.5	269.5	272.1	267.3	265.4
600	250.1	244.1	245.4	245.0	236.9	241.8	238.3	237.4
550	233.4	225.7	220.3	221.8	214.7	217.3	213.7	216.0
500	216.9	207.7	197.8	198.2	196.6	197.4	195.8	199.0
450	210.1	200.8	193.0	190.1	186.8	189.4	187.1	185.6
400	200.4	192.9	198.1	187.5	183.2	185.6	184.7	179.4
350	200.1	192.3	213.4	184.6	189.4	199.0	188.5	180.9
300	228.1	214.8	234.9	196.5	231.3	251.1	230.7	199.2
LONG	-108.74	-106.47	-104.40	-102.67	-101.19	-99.80	-98.71	-97.68
LAT	69.66	67.88	66.08	64.25	62.39	60.47	58.58	56.69
QUAL	33	23	13	13	11	12	11	21

PASS 3324 AT COLEGE, 63 530  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)	
	200819	200836
1000	0.153	0.159
950	0.173	0.180
900	0.198	0.203
850	0.226	0.230
800	0.260	0.263
750	0.305	0.303
700	0.359	0.358
650	0.429	0.427
600	0.522	0.524
550	0.661	0.653
500	0.853	0.854
450	1.116	1.125
400	1.462	1.484
350	1.917	1.972
300	2.545	2.657
HEIGHT	SCALE HEIGHT, KM	
950	389.5	399.8
900	367.7	385.8
850	350.7	372.7
800	333.7	359.6
750	316.5	338.6
700	299.4	299.3
650	273.2	264.6
600	235.0	239.0
550	214.4	214.8
500	200.4	194.3
450	191.4	184.5
400	185.6	179.1
350	181.1	172.9
300	186.5	176.0
LONG	-95.99	-95.64
LAT	52.86	51.93
QUAL	11	12



PASS 3324 AT FTMYRS, 63 530

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	201411	201447	201522	201557	201632	201834	201907	201946
1000	0.222	0.229	0.249	0.270	0.277	0.305	0.327	0.370
950	0.255	0.270	0.286	0.304	0.312	0.357	0.384	0.429
900	0.294	0.312	0.328	0.347	0.360	0.416	0.450	0.506
850	0.338	0.359	0.377	0.398	0.414	0.486	0.528	0.601
800	0.390	0.413	0.433	0.457	0.478	0.570	0.627	0.715
750	0.457	0.480	0.508	0.539	0.566	0.686	0.759	0.882
700	0.544	0.570	0.605	0.643	0.681	0.839	0.952	1.110
650	0.655	0.684	0.742	0.782	0.844	1.057	1.234	1.437
600	0.819	0.851	0.927	0.988	1.076	1.385	1.688	1.944
550	1.036	1.098	1.201	1.290	1.425	1.901	2.392	2.766
500	1.375	1.448	1.617	1.753	1.959	2.752	3.654	4.194
450	1.860	1.993	2.241	2.532	2.861	4.352	6.104	6.925
400	2.546	2.751	3.121	3.749	4.382	7.586		11.434
350	3.398	3.756	4.327	5.306	6.513			
300	4.220	4.711	5.446					
HEIGHT	SCALE HEIGHT, KM							
950	354.4		361.6	401.8	396.7	319.1	309.9	313.7
900	353.7	342.9	358.0	372.1	361.7	318.2	307.9	303.5
850	346.5	347.1	345.4	353.2	343.2	307.1	300.0	287.8
800	334.6	342.5	330.6	334.3	322.4	289.1	278.5	260.4
750	300.0	304.2	303.9	302.0	291.7	264.7	242.5	236.5
700	272.8	286.0	272.1	269.0	254.7	237.5	207.1	212.3
650	247.1	263.4	243.8	235.8	218.2	205.4	180.3	182.3
600	224.1	211.8	211.7	206.0	195.2	175.5	154.4	154.2
550	201.1	188.8	181.4	179.7	171.7	148.1	133.8	132.1
500	178.2	171.1	163.1	150.8	146.4	123.7	107.8	111.0
450	160.5	157.1	153.3	130.0	121.3	98.3	91.1	94.5
400	166.3	156.3	150.8	134.1	118.6	88.1		117.6
350	191.1	179.9	174.9	170.1	172.9			
300	452.2	351.8	293.9					
LONG	-91.01	-90.69	-90.39	-90.10	-89.85	-89.01	-88.81	-88.58
LAT	33.52	31.31	29.35	27.39	25.42	18.56	16.71	14.52
QUAL	21	22	22	22	23	23	23	23

PASS 3324 AT FTMYS, 63 530

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)					
	202021	202056	202201	202242	202317	202445
1000	0.420	0.472	0.510	0.510	0.503	0.389
950	0.490	0.537	0.587	0.577	0.563	0.441
900	0.579	0.624	0.678	0.667	0.639	0.504
850	0.665	0.731	0.787	0.773	0.728	0.579
800	0.811	0.858	0.927	0.901	0.842	0.699
750	0.985	1.050	1.118	1.077	0.995	0.864
700	1.232	1.314	1.374	1.306	1.214	1.111
650	1.566	1.685	1.740	1.630	1.561	1.496
600	2.132	2.270	2.296	2.138	2.106	2.103
550	3.053	3.211	3.165	2.975	3.106	3.027
500	4.626	4.949	4.647	4.452	4.849	4.473
450	7.535	8.064		7.227	7.635	6.353
400	11.836	12.338		10.934	10.927	7.793
350						
300						

HEIGHT	SCALE HEIGHT, KM					
	310.2	355.8	365.7	373.6	409.6	379.8
950	310.2	355.8	365.7	373.6	409.6	379.8
900	302.3	324.3	342.3	339.3	389.1	366.4
850	293.1	302.7	318.5	325.1	359.7	298.9
800	277.9	281.9	286.7	308.6	322.4	265.3
750	241.2	246.7	254.3	278.4	278.1	233.6
700	208.9	214.4	232.2	245.9	227.0	192.5
650	189.3	190.5	199.2	204.9	190.2	159.9
600	155.8	157.4	171.4	168.9	148.4	142.3
550	130.7	130.7	144.0	138.1	118.5	132.0
500	109.4	105.3	116.1	113.4	110.6	133.8
450	102.9	105.4		104.4	119.3	171.7
400	127.4	140.3		161.5	210.5	416.6
350						
300						

LONG	-88.38	-88.18	-87.82	-87.61	-87.42	-86.97
LAT	12.55	10.58	6.91	4.60	2.63	-2.31
QUAL	33	33	33	33	33	32

PASS 3324 AT QUITOE, 63 530

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	202224	202259	202335	202410	202445	202519	202554	202630
1000	0.461	0.484	0.464	0.402	0.387	0.369	0.354	0.335
950	0.555	0.557	0.517	0.444	0.436	0.409	0.375	0.373
900	0.648	0.625	0.574	0.512	0.494	0.468	0.433	0.420
850	0.763	0.697	0.647	0.601	0.574	0.560	0.523	0.496
800	0.892	0.786	0.736	0.703	0.686	0.686	0.641	0.624
750	1.055	0.888	0.873	0.829	0.855	0.867	0.802	0.786
700	1.247	1.052	1.153	1.071	1.112	1.136	1.065	1.036
650	1.525	1.317	1.530	1.411	1.514	1.513	1.433	1.387
600	1.940	1.778	2.057	1.985	2.120	2.045	1.925	1.897
550	2.757	2.650	3.068	2.966	3.078	2.939	2.736	2.611
500	4.281	4.180	4.803	4.554	4.579	4.209	3.832	3.546
450	6.843	6.927	7.450	6.815	6.530	5.671	4.941	4.566
400	10.651	10.623	10.337	8.931	7.797	6.647	5.704	5.426
350								
300								
HEIGHT	SCALE HEIGHT, KM							
950	332.4	404.0	467.7	429.3	408.7	417.9	375.2	422.6
900	323.8	417.9	424.7	369.5	359.0	329.9	309.8	363.0
850	320.2	412.5	377.1	321.1	313.5	279.3	262.3	264.0
800	306.5	377.5	329.5	289.3	261.9	235.6	229.2	219.9
750	290.9	342.4	279.6	256.1	211.1	203.7	203.7	199.0
700	262.4	289.5	223.9	211.9	172.7	180.4	184.6	175.9
650	231.8	220.0	175.2	169.9	157.3	160.8	169.5	164.2
600	191.6	157.0	151.7	137.6	145.0	155.1	152.4	160.3
550	132.8	119.7	117.5	121.7	131.6	141.2	146.0	163.2
500	108.6	103.0	113.2	119.8	131.5	151.0	170.9	184.5
450	106.2	104.2	125.9	142.7	199.7	239.8	271.4	246.9
400	141.4	154.0	243.2	269.8	458.0	529.0	494.6	396.7
350								
300								
LONG	-87.70	-87.52	-87.33	-87.15	-86.97	-86.79	-86.60	-86.40
LAT	5.62	3.65	1.62	-0.35	-2.31	-4.22	-6.19	-8.21
QUAL	23	23	23	23	22	23	22	22

PASS 3324 AT QUITOE, 63 530  
 ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)	
	202705	202722
1000	0.324	0.309
950	0.366	0.345
900	0.424	0.401
850	0.510	0.508
800	0.625	0.661
750	0.795	0.852
700	1.028	1.077
650	1.365	1.390
600	1.857	1.901
550	2.524	2.546
500	3.340	3.346
450	4.269	4.235
400	5.158	5.134
350		
300		
HEIGHT	SCALE HEIGHT, KM	
950	382.7	375.9
900	309.7	282.4
850	263.8	249.3
800	226.5	216.3
750	201.2	205.2
700	184.0	199.5
650	172.2	184.3
600	166.6	169.7
550	174.0	178.6
500	192.7	200.4
450	236.2	237.8
400	328.1	327.2
350		
300		
LONG	-86.21	-86.12
LAT	-10.18	-11.14
QUAL	22	22

PASS 3524 AT SOLANT, 63 530						
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)						
HEIGHT	TIME (UT)					
	203614	204149	204224	204317	204352	204410
1000	0.066	0.070	0.070	0.058	0.055	0.043
950	0.093	0.073	0.075	0.064	0.062	0.047
900	0.097	0.078	0.081	0.069	0.066	0.051
850	0.103	0.084	0.087	0.074	0.074	0.055
800	0.110	0.089	0.093	0.080	0.081	0.060
750	0.118	0.095	0.100	0.087	0.089	0.066
700	0.127	0.104	0.107	0.095	0.097	0.072
650	0.137	0.113	0.116	0.105	0.106	0.080
600	0.163	0.127	0.136	0.122		0.094
550	0.236	0.149	0.161	0.142		0.111
500	0.290	0.177	0.193	0.166		0.131
450	0.359	0.209	0.229	0.198		0.157
400	0.508	0.247	0.281	0.261		0.199
350	0.726	0.324	0.360	0.387		0.251
300	1.121	0.427	0.457	0.542		0.336
HEIGHT	SCALE HEIGHT, KM					
		896.0		662.2	716.2	
950						616.3
900	936.0	827.9	693.4	678.6	604.6	
850	797.3	764.3	715.8	638.7	493.3	586.4
800	678.2	714.2	680.3	605.7	455.6	541.9
750	611.2	645.7	612.9	548.7	417.8	499.7
700	544.2	565.4	545.5	491.8	380.1	457.6
650	477.2	485.2	478.2	443.0		415.5
600	365.0	423.6	430.9	401.6		377.7
550	193.4	384.2	385.0	360.1		339.8
500	201.9	344.8	339.1	318.6		302.0
450	191.6	305.4	293.2	264.6		264.6
400	150.3	266.0	251.5	156.3		229.2
350	131.7	224.4	216.2	149.1		196.5
300	100.6	182.2	181.9	167.7		191.4
LONG	-91.93	-75.46	-74.28	-72.21	-70.61	-69.66
LAT	-40.76	-59.01	-60.87	-63.66	-65.48	-66.41
QUAL	32	33	32	33	33	32

PASS 3331 AT OTTAWA, 63 531

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	80441	80516	80551	80626	80700	80737	80812	80829
1000	0.026	0.028	0.066	0.067	0.112	0.109	0.119	0.140
950	0.038	0.040	0.084	0.084	0.130	0.124	0.132	0.158
900	0.047	0.049	0.100	0.098	0.149	0.140	0.148	0.176
850	0.056	0.059	0.120	0.114	0.168	0.159	0.165	0.196
800	0.067	0.069	0.143	0.134	0.191	0.181	0.185	0.221
750	0.078	0.082	0.170	0.157	0.224	0.208	0.209	0.253
700	0.096	0.096	0.204	0.186	0.263	0.240	0.237	0.290
650	0.118	0.124	0.246	0.220	0.315	0.281	0.271	0.336
600	0.145	0.160	0.305	0.266	0.378	0.331	0.310	0.392
550	0.183	0.206	0.387	0.324	0.451	0.388	0.354	0.455
500	0.230	0.262	0.497	0.406	0.534	0.452	0.445	0.526
450	0.290	0.345	0.653	0.516	0.667	0.543	0.564	0.613
400	0.378	0.456	0.872	0.658	0.865	0.707	0.707	0.780
350	0.503	0.604	1.178	0.846	1.098	0.906	0.876	0.981
300	0.670	0.798		1.089	1.358	1.152	1.104	1.249
HEIGHT	SCALE HEIGHT, KM							
950						391.1	467.6	434.8
900		262.0	277.7	312.7	376.2	387.0	450.8	431.2
850	274.7	274.7	283.4	316.0	367.8	381.6	434.9	420.4
800	270.8	268.7	284.1	311.4	349.7	364.6	416.7	398.8
750	266.9	262.7	276.7	302.1	321.5	346.4	398.6	374.8
700	256.9	256.8	266.5	291.4	293.2	329.2	376.1	350.8
650	245.6	236.2	251.8	280.5	283.6	317.6	351.1	337.9
600	234.4	214.0	220.7	261.9	275.3	305.9	326.1	326.4
550	226.1	200.7	206.5	240.2	267.1	294.3	301.1	314.9
500	218.0	194.4	193.6	218.8	258.8	282.6	284.4	303.5
450	206.2	186.2	183.1	209.2	245.3	267.6	268.4	289.4
400	184.9	179.9	174.3	206.1	227.3	244.0	252.4	256.7
350	183.1	180.9	229.2	202.4	224.8	220.4	236.4	224.0
300	186.8	190.5		239.3	243.7	209.5	221.3	200.2
LONG	-72.23	-71.57	-70.86	-70.05	-69.22	-68.12	-66.99	-66.36
LAT	48.90	50.83	52.76	54.69	56.55	58.55	60.44	61.36
QUAL	33	33	33	33	33	33	33	33

PASS 3331 AT RESLUT, 63 531

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	81016	81032	81050	81109	81126	81144	81201	81219
1000	0.140	0.101	0.128	0.150	0.229	0.198	0.180	0.180
950	0.175	0.129	0.160	0.173	0.262	0.217	0.210	0.198
900	0.207	0.150	0.189	0.191	0.297	0.249	0.230	0.215
850	0.238	0.173	0.217	0.213	0.335	0.286	0.255	0.237
800	0.271	0.199	0.252	0.237	0.378	0.327	0.285	0.263
750	0.306	0.229	0.293	0.270	0.427	0.378	0.329	0.302
700	0.353	0.264	0.338	0.310	0.487	0.444	0.389	0.351
650	0.408	0.309	0.400	0.356	0.561	0.524	0.462	0.413
600	0.471	0.360	0.476	0.429	0.673	0.640	0.542	0.489
550	0.549	0.419	0.563	0.527	0.812	0.783	0.632	0.578
500	0.664	0.492	0.663	0.644	0.991	0.957	0.742	0.680
450	0.800	0.614	0.844	0.781	1.248	1.169	0.930	0.794
400	0.978	0.762	1.066	0.985	1.551	1.423	1.163	1.042
350	1.194	0.964	1.333	1.263	1.863		1.414	1.370
300	1.467	1.217		1.514			1.598	

HEIGHT	SCALE HEIGHT, KM							
900				473.4	402.2	392.2	499.4	532.8
850	350.8	332.3	322.9	439.3	405.8	361.6	449.4	480.8
800	357.0	334.8	324.2	406.2	401.8	348.9	399.4	428.8
750	362.7	337.3	318.8	376.8	382.1	329.4	365.9	378.1
700	350.7	334.7	313.3	347.3	349.2	303.6	339.8	327.5
650	338.7	323.4	302.6	317.8	318.2	279.5	313.7	302.3
600	326.7	312.1	290.4	297.9	293.8	271.1	301.4	292.8
550	311.3	300.8	278.3	281.3	269.4	262.6	289.2	283.2
500	287.0	285.9	266.2	264.7	250.7	257.2	276.2	273.7
450	262.7	256.2	242.9	248.1	245.8	257.0	259.6	264.2
400	255.7	226.5	224.7	241.5	289.7	287.3	253.8	224.5
350	250.9	220.7	252.0	241.1	468.3		338.2	260.5
300	255.4	233.3		662.1			749.4	

LONG	-61.41	-60.43	-59.32	-57.97	-56.56	-55.07	-53.64	-51.58
LAT	66.99	67.81	68.74	69.69	70.53	71.41	72.25	73.08
QUAL	33	33	32	32	22	32	21	33

PASS 3331 AT RESLUT, 63 531  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	81236	81254	81311	81329	81347	81404	81422	81439
1000	0.140	0.138	0.158	0.211	0.194	0.179	0.185	0.143
950	0.157	0.156	0.174	0.227	0.216	0.200	0.203	0.157
900	0.175	0.175	0.192	0.248	0.238	0.219	0.225	0.179
850	0.198	0.197	0.215	0.273	0.263	0.242	0.248	0.203
800	0.224	0.221	0.241	0.303	0.293	0.270	0.277	0.230
750	0.254	0.251	0.277	0.341	0.333	0.306	0.311	0.264
700	0.294	0.288	0.322	0.386	0.382	0.351	0.351	0.304
650	0.347	0.333	0.375	0.443	0.444	0.405	0.406	0.356
600	0.409	0.404	0.448	0.509	0.532	0.474	0.471	0.424
550	0.506	0.493	0.539	0.585	0.639	0.556	0.568	0.505
500	0.629	0.600	0.646	0.671	0.765	0.649	0.697	0.604
450	0.776	0.725	0.768	0.874	0.970	0.817	0.853	0.771
400	0.947	0.895	1.078	1.204	1.246	1.099	1.039	0.975
350	1.234	1.102	1.321	1.514	1.533	1.328	1.238	1.181
300	1.519	1.292				1.499		1.384
HEIGHT	SCALE HEIGHT, KM							
950	468.5	438.6	502.3	639.6	496.9	518.8	519.7	468.9
900	429.7	428.5	458.9	538.9	488.2	498.7	486.3	402.8
850	402.4	414.8	425.2	504.4	457.7	465.2	465.8	387.3
800	383.8	400.3	391.4	469.8	427.2	431.6	439.7	371.2
750	365.1	374.9	362.7	407.7	388.2	397.6	412.0	350.7
700	337.3	334.6	335.4	365.7	347.2	363.5	381.7	330.1
650	301.5	297.8	308.0	346.3	311.7	332.9	341.0	310.6
600	265.8	290.0	287.1	326.8	292.3	311.5	300.4	292.2
550	256.2	282.2	267.9	307.4	273.0	290.1	285.5	273.8
500	248.0	274.4	248.6	287.9	253.6	268.7	279.5	256.9
450	239.8	266.5	229.4	250.2	241.9	250.9	273.5	249.6
400	231.7	273.3	307.2	201.5	232.5	236.6	289.7	243.5
350	260.8	283.5	690.4	244.4	346.6	348.5	401.6	292.1
300	581.7	337.1				444.4		370.6
LONG	-49.63	-47.58	-45.10	-42.18	-39.25	-36.22	-32.07	-28.16
LAT	73.86	74.69	75.42	76.15	76.89	77.55	78.12	78.66
QUAL	31	21	31	21	22	33	33	33



PASS 3331 AT RESLUT, 63 531  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	81457	81515	81534	81552	81610	81626	81644	81701
1000	0.154	0.184	0.315	0.268	0.304	0.243	0.229	0.211
950	0.171	0.205	0.339	0.304	0.327	0.262	0.253	0.237
900	0.191	0.229	0.370	0.338	0.351	0.290	0.279	0.268
850	0.210	0.256	0.406	0.375	0.381	0.323	0.310	0.303
800	0.233	0.287	0.448	0.416	0.418	0.361	0.347	0.342
750	0.259	0.328	0.509	0.468	0.480	0.416	0.390	0.389
700	0.288	0.378	0.584	0.528	0.582	0.484	0.440	0.442
650	0.352	0.436	0.677	0.614	0.711	0.575	0.495	0.516
600	0.436	0.522	0.804	0.729	0.848	0.694	0.586	0.607
550	0.538	0.631	0.956	0.867	1.002	0.837	0.725	0.715
500	0.662	0.760	1.132	1.079	1.172	1.049	0.901	0.869
450	0.806	0.917	1.449	1.398	1.563	1.434	1.180	1.164
400	0.970	1.262	1.864	1.873	2.102	1.859	1.547	1.549
350	1.221	1.719	2.394	2.486	2.474	2.232	1.869	2.111
300	1.504	2.292						2.604
HEIGHT	SCALE HEIGHT, KM							
950	474.3	462.3	624.1		734.6	577.4	507.4	421.4
900	486.1	445.6	538.6	473.2	622.2	477.6	487.1	407.2
850	476.9	420.8	494.5	462.0	541.7	438.4	458.1	402.1
800	439.2	395.9	450.3	443.4	461.3	399.1	438.3	391.7
750	401.4	369.1	405.2	403.5	392.5	356.7	416.7	369.4
700	363.7	342.3	360.1	363.6	334.9	314.1	379.4	347.1
650	323.4	315.5	323.0	330.0	277.7	285.0	342.1	322.3
600	283.0	293.2	301.8	299.0	266.5	263.4	303.4	297.3
550	246.5	271.7	280.7	268.1	255.3	241.7	263.8	272.2
500	246.6	250.1	259.6	233.0	244.2	219.8	224.2	243.5
450	246.7	227.4	226.3	194.1	209.2	197.1	208.0	204.3
400	246.7	186.7	199.9	185.2	259.3	232.5	232.5	178.5
350	249.5	175.4	1090.8	239.5	747.8	495.2	474.7	207.4
300	468.5	299.6						496.7
LONG	-24.01	-18.75	-12.97	-7.49	-1.68	3.71	9.77	15.46
LAT	79.23	79.59	79.93	80.25	80.38	80.36	80.34	80.30
QUAL	33	33	22	33	21	22	32	22

PASS 3331 AT RESLUT, 63 531  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)				
	81737	81754	81812	81846	81904
1000	0.214	0.191	0.172	0.169	0.149
950	0.241	0.220	0.197	0.193	0.172
900	0.274	0.250	0.227	0.222	0.197
850	0.311	0.287	0.263	0.258	0.226
800	0.350	0.331	0.304	0.299	0.259
750	0.401	0.382	0.363	0.345	0.301
700	0.464	0.474	0.435	0.414	0.358
650	0.539	0.592	0.537	0.503	0.426
600	0.638	0.736	0.672	0.608	0.535
550	0.799	0.945	0.837	0.774	0.674
500	0.995	1.211	1.110	0.992	0.846
450	1.268	1.559	1.475	1.303	1.140
400		2.087	1.964	1.725	1.518
350		2.654	2.575	2.254	2.007
300					2.610
HEIGHT	SCALE HEIGHT, KM				
950	407.6	372.3	354.7	357.8	361.5
900	405.3	363.2	341.9	344.2	361.9
850	393.0	341.8	326.3	330.6	349.3
800	372.4	315.5	310.7	316.9	335.9
750	351.0	289.2	284.9	303.2	315.4
700	329.5	267.8	258.7	283.5	284.9
650	307.9	246.6	239.6	262.6	254.4
600	284.5	225.3	224.3	241.7	236.9
550	256.6	212.5	209.1	220.6	219.8
500	228.6	201.7	193.6	199.5	202.9
450	221.0	196.1	179.2	189.6	188.3
400		203.8	179.1	183.4	178.4
350		243.5	189.7	161.1	184.9
300					260.0
LONG	26.11	31.13	35.56	43.06	46.77
LAT	79.58	79.24	78.72	77.59	76.95
QUAL	33	22	23	23	23

PASS 3337 AT RESLUT, 63 531

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	185213	185230	185306	185323	185341	185359	185417	185435
1000	0.221	0.230	0.214	0.202	0.212	0.363	0.297	0.379
950	0.248	0.255	0.245	0.226	0.236	0.391	0.329	0.415
900	0.286	0.296	0.283	0.251	0.265	0.423	0.365	0.457
850	0.328	0.340	0.322	0.282	0.298	0.470	0.410	0.507
800	0.379	0.391	0.368	0.325	0.340	0.532	0.471	0.572
750	0.446	0.463	0.425	0.380	0.392	0.609	0.548	0.657
700	0.529	0.551	0.509	0.450	0.467	0.714	0.640	0.763
650	0.631	0.677	0.616	0.537	0.564	0.841	0.752	0.894
600	0.784	0.835	0.758	0.641	0.681	0.993	0.923	1.053
550	1.003	1.058	0.951	0.817	0.817	1.182	1.163	1.248
500	1.294	1.270	1.165	1.042	0.978	1.403	1.467	1.478
450	1.559	1.481	1.403	1.271	1.186	1.665	1.748	1.755
400		1.702	1.672	1.527	1.447	1.974	2.059	2.139
350		1.877	1.928		1.836		2.386	2.561
300								
HEIGHT	SCALE HEIGHT, KM							
950	390.5	435.8	361.6	467.4	442.4	650.6	479.8	525.9
900	357.9	358.7	367.4	436.3	416.3	515.4	438.1	485.7
850	346.0	343.9	372.9	395.7	395.2	461.2	388.6	442.4
800	332.0	328.8	345.8	356.0	357.1	411.0	367.0	401.6
750	308.2	296.9	306.8	316.6	318.5	361.6	345.4	362.2
700	283.0	266.6	285.6	289.2	301.4	341.0	314.6	333.8
650	255.8	249.3	264.4	270.2	287.0	320.4	276.8	316.6
600	227.3	234.5	248.3	251.1	275.9	303.5	237.0	305.0
550	207.5	249.2	238.0	229.5	272.7	298.6	235.1	301.5
500	241.8	291.9	257.1	230.5	267.6	295.1	254.4	293.4
450	300.8	337.9	278.9	258.8	253.7	296.6	292.2	273.0
400		417.6	300.8	280.4	236.1	319.9	315.2	265.6
350		825.0	628.5		214.2		494.2	361.5
300								
LONG	-112.61	-109.83	-104.23	-102.27	-100.20	-98.13	-96.60	-95.10
LAT	76.93	76.24	74.74	73.96	73.13	72.31	71.42	70.54
QUAL	33	31	31	33	33	31	21	31

PASS 3337 AT RESLUT, 63 531

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	185452	185510	185527	185545	185602	185620	185638	185655
1000	0.358	0.377	0.371	0.356	0.208	0.211	0.284	0.240
950	0.390	0.405	0.398	0.391	0.234	0.243	0.319	0.275
900	0.423	0.440	0.433	0.431	0.268	0.283	0.361	0.323
850	0.462	0.481	0.479	0.481	0.311	0.330	0.408	0.375
800	0.511	0.527	0.544	0.548	0.362	0.384	0.469	0.436
750	0.568	0.574	0.624	0.633	0.433	0.463	0.545	0.518
700	0.638	0.621	0.716	0.744	0.538	0.562	0.641	0.629
650	0.721	0.682	0.842	0.877	0.667	0.693	0.789	0.818
600	0.847	0.768	1.038	1.080	0.833	0.862	0.978	1.090
550	1.086	0.871	1.357	1.368	1.051	1.097	1.248	1.477
500	1.557	1.062	1.758	1.732	1.368	1.423	1.612	2.005
450	1.952	1.343	2.288	2.109	1.797	1.854	2.150	
400				2.526	2.238	2.264	2.737	
350					2.760	2.793	3.261	
300								
HEIGHT	SCALE HEIGHT, KM							
950	599.8	628.3	608.1	505.8	376.4	335.7	411.3	341.1
900	560.2	594.1	527.8	467.6	343.6	321.7	397.0	330.2
850	529.7	568.5	458.0	427.0	321.7	309.0	370.3	319.4
800	500.7	572.4	412.2	377.2	299.8	296.3	343.1	301.1
750	470.9	548.9	369.3	325.4	278.4	276.1	315.8	268.8
700	416.1	525.5	333.5	300.3	257.7	255.2	287.4	235.2
650	358.5	478.8	278.5	275.2	236.9	238.0	254.6	197.8
600	274.4	412.7	220.3	244.7	221.1	222.7	224.4	174.2
550	192.8	346.6	193.3	217.9	204.5	204.5	207.8	164.1
500	184.5	261.9	193.6	234.6	189.5	197.0	184.6	169.5
450	238.0	255.4	234.1	259.8	205.0	216.9	200.2	
400				276.3	229.8	241.5	253.4	
350					239.5	251.8	303.9	
300								
LONG	-93.69	-92.40	-91.35	-90.24	-89.23	-88.37	-87.52	-86.72
LAT	69.70	68.80	67.93	67.01	66.13	65.19	64.24	63.34
QUAL	33	31	33	33	23	21	33	33

PASS 3337 AT RESLUT, 63 531

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	185747	185803	185822	185840	185933	185950	190008	190026
1000	0.209	0.180	0.162	0.182	0.168	0.156	0.173	0.158
950	0.235	0.209	0.190	0.209	0.194	0.183	0.197	0.184
900	0.272	0.243	0.222	0.239	0.227	0.213	0.228	0.212
850	0.315	0.283	0.260	0.278	0.265	0.250	0.264	0.247
800	0.364	0.332	0.304	0.323	0.310	0.293	0.310	0.288
750	0.444	0.397	0.364	0.387	0.371	0.356	0.371	0.344
700	0.544	0.488	0.441	0.481	0.455	0.434	0.450	0.418
650	0.672	0.605	0.550	0.612	0.569	0.543	0.559	0.524
600	0.853	0.778	0.686	0.783	0.732	0.684	0.710	0.670
550	1.099	1.023	0.903	1.007	0.952	0.905	0.930	0.891
500	1.443	1.371	1.206	1.319	1.294	1.220	1.245	1.202
450	1.868	1.799	1.619	1.742	1.753	1.662	1.676	1.639
400	2.277	2.209	2.091	2.172	2.213	2.136	2.144	2.127
350	2.739	2.662	2.553	2.639	2.681	2.620	2.625	2.609
300			3.067	3.176	3.176	3.209	3.176	3.161
HEIGHT	SCALE HEIGHT, KM							
950	382.3	330.0	309.3	354.4	330.1	316.1	366.6	331.5
900	339.8	321.2	310.9	340.6	320.0	309.1	337.8	326.1
850	317.5	313.8	306.7	326.4	310.8	298.0	318.4	317.1
800	295.3	298.2	302.5	312.1	295.8	286.8	296.9	308.1
750	273.9	257.2	269.3	255.7	264.4	264.6	274.3	274.3
700	252.6	237.7	241.9	222.7	238.1	242.1	250.7	237.2
650	231.3	221.2	227.5	216.2	216.3	222.3	225.3	215.8
600	210.2	199.9	213.0	206.5	197.1	203.1	202.4	195.9
550	196.2	179.9	185.4	192.1	179.3	178.8	182.7	178.8
500	191.2	177.8	174.0	183.2	170.3	166.4	174.6	167.6
450	222.3	214.5	186.6	204.0	193.4	183.2	188.2	179.8
400	258.5	252.3	221.9	237.7	231.8	219.2	222.8	215.0
350	280.2	295.2	258.1	256.9	263.3	239.4	250.0	246.3
300			287.7	374.2	519.1	349.5	349.4	367.9
LONG	-84.73	-84.16	-83.60	-83.06	-81.66	-81.24	-80.84	-80.47
LAT	60.57	59.72	58.69	57.71	54.83	53.90	52.92	51.93
QUAL	21	22	13	21	21	21	21	11

PASS 3337 AT OTTAWA, 63 531

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	185915	185950	190026	190101	190151	190226	190301	190336
1000	0.170	0.165	0.169	0.164	0.163	0.167	0.164	0.161
950	0.193	0.185	0.192	0.186	0.181	0.186	0.184	0.180
900	0.219	0.212	0.218	0.210	0.204	0.210	0.210	0.203
850	0.249	0.242	0.248	0.239	0.231	0.238	0.236	0.230
800	0.266	0.280	0.286	0.277	0.266	0.272	0.269	0.262
750	0.333	0.327	0.334	0.324	0.310	0.315	0.308	0.300
700	0.394	0.387	0.393	0.382	0.364	0.371	0.360	0.349
650	0.474	0.462	0.470	0.456	0.434	0.442	0.423	0.417
600	0.560	0.566	0.572	0.554	0.531	0.544	0.509	0.513
550	0.724	0.706	0.712	0.697	0.658	0.674	0.625	0.636
500	0.916	0.906	0.910	0.891	0.848	0.864	0.799	0.815
450	1.190	1.179	1.186	1.163	1.110	1.124	1.062	1.064
400	1.559	1.540	1.560	1.531	1.474	1.480	1.425	1.432
350	2.048	2.021	2.045	2.013	1.972	1.975	1.919	1.959
300	2.677	2.663	2.648	2.627	2.627	2.651	2.580	2.759
HEIGHT	SCALE HEIGHT, KM							
	950	392.7	400.5	391.6	405.6	439.0	430.9	410.3
900	389.9	371.9	383.1	388.4	407.1	401.2	397.8	402.2
850	370.3	357.0	363.5	361.7	373.9	381.1	392.4	389.9
800	344.2	339.4	335.2	339.5	345.5	354.1	370.6	374.3
750	313.9	311.6	314.9	317.2	318.9	325.3	348.2	349.1
700	284.0	284.6	297.8	294.4	294.9	294.9	320.0	306.9
650	259.8	264.8	269.1	267.5	270.6	266.0	291.5	254.0
600	240.3	241.9	243.3	238.0	245.7	244.3	261.0	239.2
550	222.9	217.7	222.5	218.5	221.7	222.9	228.9	224.3
500	206.6	196.4	196.0	195.0	200.4	202.7	194.3	201.7
450	194.2	191.3	187.9	186.4	184.9	189.1	172.2	181.1
400	184.6	186.5	184.8	184.0	175.3	178.8	171.5	166.5
350	185.9	183.6	190.1	186.0	173.8	174.3	168.7	154.0
300	212.2	201.5	208.8	213.5	187.3	197.6	167.4	148.5
LONG	-82.10	-81.24	-80.47	-79.76	-78.90	-78.34	-77.86	-77.41
LAT	55.81	53.90	51.93	50.00	47.25	45.50	43.36	41.42
QUAL	21	21	21	21	23	21	23	23

PASS 3337 AT OTTAWA, 63 531

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)	
	190853	190928
1000	0.224	0.234
950	0.250	0.263
900	0.263	0.297
850	0.320	0.337
800	0.366	0.385
750	0.426	0.450
700	0.503	0.535
650	0.604	0.647
600	0.747	0.795
550	0.954	1.017
500	1.250	1.350
450	1.688	1.855
400	2.328	2.572
350	3.180	3.567
300	4.104	

HEIGHT	SCALE HEIGHT, KM	
	190853	190928
950	426.7	419.6
900	400.3	401.4
850	380.0	375.7
800	353.5	346.4
750	322.0	309.4
700	290.0	279.1
650	257.2	255.8
600	220.1	229.7
550	198.6	197.2
500	179.5	170.6
450	162.0	154.5
400	158.5	152.7
350	173.5	175.6
300	256.4	

LONG -74.45 -74.21  
 LAT 25.45 22.78  
 QUAL 23 23

PASS 3337 AT QUITOE, 63 531  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	191219	191255	191330	191405	191439	191515	191581	191626
1000	0.297	0.309	0.321	0.328	0.372	0.365	0.366	0.380
950	0.339	0.350	0.370	0.378	0.420	0.414	0.414	0.427
900	0.385	0.403	0.429	0.443	0.488	0.475	0.478	0.479
850	0.450	0.473	0.506	0.516	0.568	0.553	0.546	0.539
800	0.531	0.558	0.601	0.605	0.667	0.649	0.629	0.616
750	0.634	0.667	0.723	0.714	0.794	0.770	0.736	0.707
700	0.761	0.804	0.872	0.840	0.944	0.914	0.861	0.812
650	0.909	0.967	1.046	1.069	1.159	1.154	1.069	1.048
600	1.187	1.215	1.403	1.373	1.559	1.538	1.408	1.372
550	1.620	1.668	1.924	1.884	2.189	2.124	1.911	1.900
500	2.315	2.377	2.824	2.819	3.218	3.145	2.717	2.839
450	3.593	3.543	4.551	4.439	5.066	4.884	4.123	4.361
400	5.936	5.659	7.465	7.311	7.521	7.437	6.521	6.506
350	8.564	8.495						
300								
HEIGHT	SCALE HEIGHT, KM							
	950	361.1	380.2	333.2	344.2	393.9	373.1	405.3
900	344.4	340.8	318.0	326.0	344.2	346.8	371.2	416.2
850	323.2	316.3	299.6	315.0	319.9	322.5	351.5	392.2
800	302.0	294.5	281.3	298.7	296.6	298.6	328.1	357.8
750	280.4	274.4	264.1	279.5	276.0	275.6	301.1	323.3
700	258.7	256.0	247.0	260.3	255.4	252.6	274.1	288.8
650	236.9	237.6	229.9	225.0	224.0	217.8	234.4	229.0
600	198.4	208.9	185.9	188.0	164.9	173.8	182.5	173.5
550	152.8	160.4	148.2	146.6	142.0	145.3	157.4	143.1
500	133.0	137.5	118.6	116.5	119.4	119.0	133.3	121.6
450	105.0	115.3	98.0	103.2	116.5	112.8	110.4	118.9
400	107.3	108.0	120.7	120.3	150.1	161.0	140.2	142.2
350	247.7	183.5						
300								
LONG	-73.17	-72.97	-72.77	-72.58	-72.40	-72.21	-71.87	-71.85
LAT	12.10	10.07	8.10	6.14	4.22	2.20	-1.51	-1.79
QUAL	23	23	23	23	23	23	23	23



PASS 3337 AT OTTAWA, 63 531

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	190412	190447	190522	190557	190632	190707	190743	190818
1000	0.159	0.185	0.189	0.187	0.211	0.211	0.213	0.216
950	0.182	0.201	0.209	0.212	0.229	0.232	0.235	0.241
900	0.205	0.225	0.234	0.237	0.252	0.260	0.262	0.270
850	0.233	0.252	0.265	0.266	0.282	0.291	0.296	0.306
800	0.268	0.286	0.304	0.303	0.321	0.330	0.340	0.351
750	0.310	0.331	0.350	0.353	0.372	0.380	0.395	0.406
700	0.364	0.387	0.407	0.415	0.434	0.445	0.461	0.474
650	0.435	0.463	0.486	0.504	0.527	0.534	0.558	0.573
600	0.538	0.571	0.598	0.625	0.647	0.645	0.686	0.699
550	0.671	0.712	0.745	0.789	0.810	0.808	0.868	0.888
500	0.870	0.924	0.967	1.007	1.042	1.045	1.125	1.155
450	1.154	1.232	1.288	1.352	1.390	1.404	1.520	1.553
400	1.573	1.660	1.745	1.837	1.895	1.909	2.095	2.132
350	2.176	2.265	2.369	2.524	2.599	2.620	2.864	2.931
300	3.005	3.095	3.224	3.469	3.552		3.743	3.780

HEIGHT	SCALE HEIGHT, KM							
950	400.5	517.4	455.6	425.8	537.9	519.9	469.9	437.4
900	395.3	451.9	417.0	431.9	483.3	447.1	429.6	408.2
850	375.2	412.3	388.4	401.7	418.2	415.6	389.9	384.4
800	348.7	373.1	365.5	354.6	356.4	383.8	357.2	363.0
750	323.8	341.6	345.4	331.8	325.0	332.9	322.9	329.5
700	292.6	298.8	299.8	275.4	293.6	291.3	286.6	286.8
650	256.5	254.5	262.4	246.2	268.5	271.7	260.8	263.1
600	235.7	237.0	242.6	233.2	244.2	252.2	236.5	239.4
550	214.7	218.2	220.8	214.4	217.1	222.1	209.0	209.6
500	192.2	189.7	187.5	189.7	187.7	185.0	182.7	182.5
450	172.8	174.5	173.1	170.1	171.3	168.5	163.4	165.6
400	158.9	164.8	162.1	160.9	159.6	161.2	158.4	158.1
350	153.5	160.1	165.8	156.6	159.0	157.7	168.5	168.1
300	169.3	183.4	162.5	179.5	191.5		247.3	292.8

LONG	-76.98	-76.59	-76.22	-75.88	-75.57	-75.26	-74.98	-74.71
LAT	39.41	37.46	35.51	33.55	31.59	29.63	27.61	26.25
QUAL	23	22	33	23	33	33	22	21

PASS 3337 AT QUITOE, 63 531  
 ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)							
	191701	191736	191811	191846	191939	192014	192050	192125
1000	0.343		0.317	0.304	0.278	0.276	0.261	0.257
950	0.376		0.350	0.334	0.303	0.304	0.290	0.281
900	0.425		0.391	0.372	0.338	0.338	0.323	0.312
850	0.490		0.439	0.419	0.380	0.378	0.360	0.345
800	0.572		0.496	0.472	0.431	0.425	0.404	0.383
750	0.672		0.562	0.540	0.490	0.490	0.465	0.445
700	0.790		0.688	0.656	0.610	0.597	0.561	0.526
650	0.925		0.861	0.832	0.798	0.769	0.696	0.656
600	1.249		1.210	1.195	1.157	1.137	1.021	0.900
550	1.856		1.840	1.834	1.787	1.739	1.571	1.315
500	2.982		2.901	2.887	2.807	2.671	2.536	2.084
450	4.706		4.388	4.270	4.208	4.006	3.974	3.492
400	6.905		5.587	5.315	5.465	5.351	5.679	5.585
350						6.425		8.077
300								
HEIGHT	SCALE HEIGHT, KM							
950	452.4		477.7	483.3	511.8	495.8	460.2	522.1
900	406.0		445.3	459.0	456.9	470.8	455.6	477.0
850	365.0		412.8	432.9	406.2	437.4	431.8	438.7
800	326.9		368.6	376.5	360.0	376.2	379.0	400.3
750	301.4		324.4	318.0	313.9	312.6	322.1	340.9
700	275.8		261.6	252.8	247.2	245.9	260.9	277.9
650	250.2		196.5	189.9	171.5	183.6	199.8	217.6
600	177.4		144.8	136.1	133.1	134.7	139.3	162.4
550	114.6		120.7	114.9	114.1	119.3	113.7	125.2
500	107.9		114.3	117.6	114.3	118.8	105.9	99.6
450	114.7		156.5	158.4	157.2	146.5	124.0	101.4
400	202.8		399.9	839.9	260.5	226.2	180.7	116.1
350						362.0		194.2
300								
LONG	-71.66		-71.29	-71.10	-70.80	-70.60	-70.39	-70.17
LAT	-3.77		-7.70	-9.66	-12.64	-14.60	-16.62	-18.58
QUAL	23		23	23	23	23	23	23

PASS 3337 AT QUITOE, 63 531

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)	
	192238	192349
1000	0.243	0.190
950	0.265	0.201
900	0.291	0.215
850	0.322	0.232
800	0.356	0.262
750	0.411	0.307
700	0.497	0.356
650	0.604	0.407
600	0.774	0.494
550	1.048	0.650
500	1.597	0.917
450	2.589	1.419
400	4.180	2.187
350	6.681	3.445
300	10.153	5.360
HEIGHT	SCALE HEIGHT, KM	
950	566.0	762.4
900	512.4	661.7
850	457.1	561.0
800	401.8	461.7
750	350.0	363.2
700	300.6	325.1
650	251.3	301.8
600	202.5	237.8
550	154.6	167.8
500	116.9	130.5
450	102.9	116.4
400	108.0	110.5
350	108.3	111.1
300	154.8	115.5
LONG	-69.70	-69.19
LAT	-22.67	-26.63
QUAL	23	23

PASS 3337 AT AGASTA, 63 531

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)					
	192220	192255	192330	192423	192627	192702
1000	0.247	0.252	0.236	0.205	0.127	0.114
950	0.269	0.274	0.255	0.220	0.136	0.121
900	0.293	0.299	0.277	0.236	0.147	0.128
850	0.322	0.327	0.303	0.257	0.158	0.137
800	0.364	0.364	0.336	0.284	0.172	0.147
750	0.421	0.411	0.380	0.320	0.190	0.163
700	0.491	0.483	0.441	0.370	0.214	0.185
650	0.588	0.591	0.521	0.437	0.248	0.216
600	0.759	0.755	0.652	0.530	0.290	0.261
550	1.052	1.022	0.884	0.671	0.373	0.318
500	1.615	1.449	1.283	0.948	0.502	0.425
450	2.584	2.238	1.906	1.370	0.713	0.607
400	4.164	3.563	2.825	2.044	1.023	0.886
350	6.624	5.623	4.215	3.152	1.511	1.303
300	10.090	8.834	6.460	4.887	2.444	2.070
HEIGHT	SCALE HEIGHT, KM					
950	575.0	574.6	613.0	686.1	685.4	851.7
900	550.0	546.1	582.4	638.5	647.3	770.2
850	478.4	517.6	521.5	564.0	611.9	685.1
800	369.6	451.3	443.5	446.4	576.6	598.7
750	333.2	366.9	369.4	380.0	456.8	481.7
700	309.9	281.7	329.9	322.3	375.8	359.7
650	236.2	230.5	267.3	275.0	327.6	284.7
600	186.7	187.0	200.9	238.0	279.4	256.3
550	142.3	158.9	155.4	194.5	203.9	227.8
500	110.5	130.9	128.5	141.9	154.4	173.9
450	106.9	109.0	127.7	132.5	143.3	130.6
400	102.8	110.7	125.7	120.6	135.8	132.6
350	112.4	108.0	124.8	113.8	117.1	121.5
300	138.2	131.3	114.7	113.2	94.8	101.7
LONG	-69.82	-69.58	-69.33	-68.93	-67.83	-67.48
LAT	-21.66	-23.62	-25.57	-28.52	-35.41	-37.35
QUAL	23	23	23	23	23	23

PASS 3337 AT SOLANT, 63 531  
ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

HEIGHT	TIME (UT)					
	192315	192406	192459	192534	192609	192645
1000	0.221	0.188	0.159	0.143	0.128	0.112
950	0.243	0.200	0.174	0.156	0.136	0.122
900	0.267	0.216	0.188	0.168	0.146	0.130
850	0.294	0.247	0.206	0.184	0.158	0.138
800	0.327	0.292	0.226	0.202	0.173	0.148
750	0.368	0.350	0.249	0.224	0.194	0.160
700	0.418	0.407	0.283	0.252	0.223	0.173
650	0.504	0.465	0.327	0.289	0.258	0.195
600	0.629	0.528	0.389	0.339	0.301	0.235
550	0.862	0.806	0.493	0.418	0.350	0.287
500	1.226	0.886	0.653	0.551	0.462	0.353
450	1.853	1.271	0.918	0.787	0.613	0.510
400	2.851	1.919	1.359	1.142	0.883	0.739
350	4.315	2.920	2.005	1.670	1.278	1.051
300	6.820	4.463	3.079	2.580	1.942	1.603
HEIGHT	SCALE HEIGHT, KM					
950	521.0	669.4	593.2	614.2	737.7	765.5
900	519.1	504.7	506.3	565.7	677.0	747.4
850	490.1	454.8	534.6	534.9	597.8	695.6
800	427.8	405.0	502.9	504.2	460.2	643.7
750	385.3	355.1	467.9	473.5	409.3	591.8
700	341.9	330.5	394.7	428.8	378.8	540.0
650	268.5	311.6	319.3	358.4	348.2	419.6
600	203.2	292.8	247.1	278.6	317.7	248.9
550	163.5	267.2	208.2	213.8	287.2	223.8
500	132.0	146.7	171.1	171.5	222.1	198.7
450	119.6	131.4	139.8	144.4	160.4	148.7
400	118.9	120.9	129.3	133.5	140.5	137.4
350	114.9	120.2	124.7	128.0	128.9	131.6
300	113.3	118.6	108.3	103.9	109.3	108.4
LONG	-69.44	-69.06	-68.64	-68.33	-68.01	-67.65
LAT	-24.73	-27.57	-30.52	-32.47	-34.41	-36.41
QUAL	33	33	33	33	33	33

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