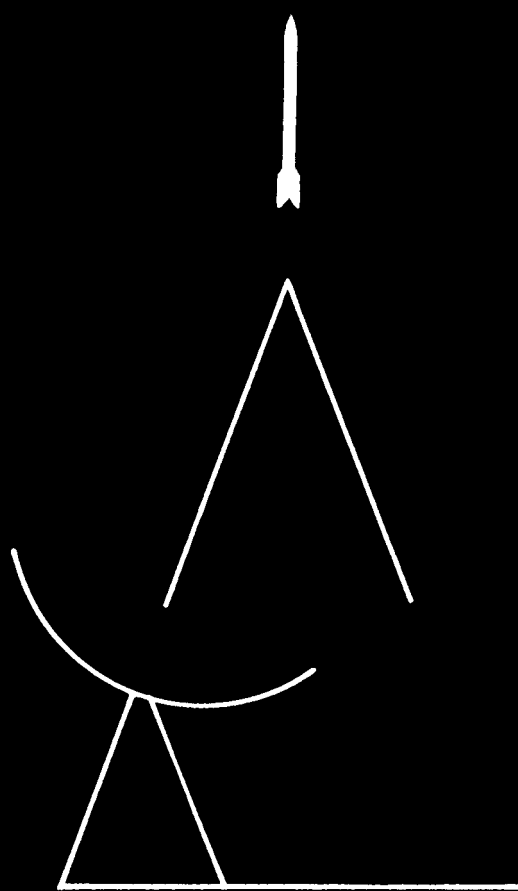


CENTRAL ANTIKVARIATET

SPACE



CATALOGUE 88

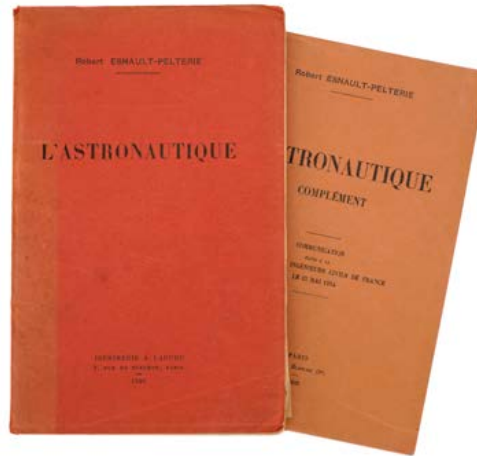
1р. 30к.



11



1, 3, 5



1. **HOHMANN, Walter.** *Die Erreichbarkeit der Himmelskörper. Untersuchungen über das Raumfahrtproblem.* München und Berlin, Druck und Verlag R. Oldenbourg, 1925. 8vo. (8),+ 88 pp. Illustrated. Sewn as issued, uncut and unopened in well-preserved publisher's wrappers. Stamp of Deutschen Raketen- und Raumfahrtmuseum, Stuttgart, on first blank leaf. In a later cloth box.

12000:–

Alicke 181 & 182: "An incunabulum of space flight". Ley p. 506: "One of the classical works of space travel." First edition, second issue in the plain printed wrapper. The first issue has a blue illustrated wrapper. A total of 1500 copies were printed and both issues are rare.

Walter Hohmann (1880–1945) was born in Hardheim, Germany, and lived in South Africa for part of his youth, during which time he developed an interest for astronomy as he studied the southern constellations together with his father. He received his Ph.D. from the RTWH Aachen University in 1920 and spent his career working as a city engineer. In his spare time he revived his interest in astronomy and began to give serious thought to the problem of interplanetary flight. A key element, he discovered, was fuel-efficiency, which eventually led him to calculate and present, in the present work, what is now known as the "Hohmann transfer orbit", an orbital maneuver using only two engine impulses to move a spacecraft between two coplanar orbits.

Perhaps a good measure of the importance of *Die Erreichbarkeit der Himmelskörper* is that an English translation entitled *The attainability of heavenly bodies* was published by NASA in 1960. For many years the "Hohmann transfer orbit" was believed to be the most fuel-efficient way to – for example – move a satellite from a lower to a higher orbit, until a more complicated but even more efficient approach, called the "bielliptic transfer", was developed.

2. **ESNAULT-PELTERIE, Robert.** *L'exploration par fusées de la très haute atmosphère et la possibilité des voyages interplanétaires.* Conférence faite à l'Assemblée Générale de la Société Astronomique de France le 8 Juin 1927. Paris, au siège de la société, Hotel des Sociétés Savantes, 1928. 8vo. VII,+ (1),+ 96 pp. Sewn as issued, in worn and torn printed wrappers, uncut and unopened. (*L'Astronomie. Revue mensuelle d'astronomie, de météorologie et de physique du globe et bulletin de la Société Astronomique de France. 42e année. Supplément au Bulletin de Mars 1928.*)

4000:–

Alicke 113: "one of the earliest and really serious papers on interplanetary travel and on the exploration of the upper atmosphere, by means of rocket." Ley p. 505. First edition, first issue. A second issue with a corrected sheet and a different cover was soon published due to a mistake in an equation on p. 56. This lecture and the publication of it are considered important milestones in fields of rocket science and space exploration. At the same conference, Esnault-Pelterie and his banker friend, André Louis Hirsch, announced an annual prize (and medal) of 5000 francs to be awarded to a person who had made the most important contribution to the field. The first award went to Esnault-Pelterie's German colleague Hermann Oberth and was a factor in giving him broader scientific respect.

3. **ESNAULT-PELTERIE, Robert.** *L'astronautique.* Paris, Imprimerie A. Lahure, 1930. 8vo. Portrait,+ (2),+ 8,+ 248 pp.+ 9 folding tables and diagrams. Illustrated. Uncut in publisher's printed wrappers, partly faded. Inscribed by the author on blank p. 6 and with his signature on the portrait. Together with: **ESNAULT-PELTERIE, Robert.** *L'astronautique. Complément.* Communication faite à la Société des Ingénieurs Civils de France le 25 Mai

Prices are in Swedish Krona (SEK)

1934. Illustrated. Paris, 19, Rue Blanche (9e), 1935. 8vo. 93,+ (blank),+ (8) pp.+ large folding diagram. Publisher's printed wrappers, faded on spine and front cover. **9000:–**

Alicke 116: "one of the classical early works in rocket literature." Ley p. 505. First edition.

Robert Esnault-Pelterie (1881–1957) studied engineering at Sorbonne and soon began experimenting with gliders based on the designs of the Wright brothers. He eventually became a constructor and manufacturer of powered airplanes and aero engines, which led to his invention, among other things, of the "joystick" flight control. Esnault-Pelterie also took an early interest in rocketry and space exploration and treated the rocket equation in a 1912 paper, apparently not knowing of earlier publications on the same subject by Tsiolkovsky and others. In *L'astronautique* he summarizes his knowledge on the subject in what was probably the most comprehensive treatise on the development of rockets and the theory of space travel which had been published up until 1930.

As stated in the title, the *Complément* is a lecture held at the Société des ingénieurs civils de France on May 25 1935, in which Esnault-Pelterie makes additions to each chapter of *L'astronautique*.

- 4. LEY, Willy (Ed.)** *Die Möglichkeit der Welt- raumfahrt. Allgemeinverständliche Beiträge zum Raumschiffahrtsproblem von Professor Hermann Oberth, Dr. Franz v. Hoefft, Dr.-Ing. Walter Hohmann, Dr. Karl Debus, Ingenieur Guido von Pirquet und Ingenieur Fr. W. Sander. Herausgegeben von Willy Ley.* Mit 70 Abbildungen. Leipzig, Verlag von Hachmeister & Thal, 1928. 8vo. VIII,+ 344 pp.+ 2 plates. Illustrated. Light foxing. Publ. decorated cloth, top edge brown. Bookplate and owner's signature on front pastedown. Part of illustrated publisher's jacket (or an advertisement) cut out and loosely inserted. **4000:–**

Alicke 237: "one of the fundamental books in the history of space flight and rocket design." Ley p. 506. First edition of this early collection of papers on various problems within the then still theoretical field of space travel.

The book's publisher Willy Ley (1906–69) was one of the founders of Germany's Verein für Raumschiffahrt in 1927 and soon became an important popularizer of rocketry and spaceflight. He fled Nazi Germany in 1935 and continued his career as a popular science writer in the United States. Hermann Oberth (1894–1989), who, together with Konstantin Tsiolkovsky and Robert Goddard, is considered as one of the pioneers of rocketry, is responsible for two texts in this collection, "Grundprobleme der Raumschiffahrt" and "Stationen in Weltraum".

- 5. SCHERSCHEVSKY, A. B.** *Die Rakete für Fahrt und Flug. Eine allgemeinverständliche Einführung in das Raketenproblem von A. B. Scherschevsky.* Mit 77 Abbildungen. Berlin-Charlottenburg, Verlag C. J. E. Volckmann Nachf, 1929 [but 1928]. 8vo. 134,+ (2) pp. Illustrated. Some notes and underlinings with pencil. Sewn as issued in publisher's wrappers. Spine foot slightly worn. Owner's signature of Werner Hildebrand, dated 1928, on front wrapper. **2500:–**

Alicke 310: "a rare early book on the subject." Ley p. 508. First edition, which, contrary to what is stated in the imprint, was printed in 1928.

Alexander Borisovich Scherschevsky (1894–1937) was born in St. Petersburg, where he studied at the Polytechnic Institute and worked at the Lebedev aircraft factory before moving to Germany in 1919 to study at the Berlin Technical University. During the 1920s he made a threadbare existence as a writer on aviation in the German press and was the first to introduce the Russian rocket pioneer Konstantin Tsiolkovsky's name to a German audience. Scherschevsky returned to the Soviet Union in 1932 and found employment at the Gas Dynamic Laboratory in Leningrad, where he worked alongside Soviet rocket pioneer Valentin Glushko. After a few years of earning a living translating documents at a local library, he was arrested by the NKVD in the autumn of 1936, accused of being a German spy, and executed the following spring. Recent studies suggest that Scherschevsky may have been a double agent, since he regularly reported to the Soviet embassy in Berlin about the developments in German rocketry during his time in that country.

Scherschevsky's *Die Rakete für Fahrt und Flug* is his only book on the subject, and one of the earliest works with the aim to popularize rocketry for a larger audience.

"Although it is true to say Alexander Scherschevsky's odd personal habits and political naivité alienated him from his contemporaries and ultimately led to his death, he still deserves to be remembered as one of the first aviation writers to promote spaceflight to the general public. Unfortunately an anonymous death amongst millions of other victims of the 'Great Terror' has effectively purged his name from the space history books." (Dominic Phelan in *Space Chronicle*, vol. 69, pp. 36–39, 2016.)

- 6. NOORDUNG, Hermann** (pseudonym for Herman Potočnik). *Das Problem der Befahrung des Weltraums. Der Raketen-Motor.* Mit 100 zum Teil farbigen Abbildungen. Berlin, Richard Carl Schmidt & Co, 1929 [i.e. 1928?]. 8vo. 188,+ (4) pp. Illustrated. A few pencil notes. Sketches and notes on rear fly leaf. Publ. decorated cloth. **9500:–**

# DIE MÖGLICHKEIT DER WELTRAUM- FAHRT



GUNDERMANN

ALLGEMEIN-  
VERSTÄNDLICHE  
BEITRÄGE ZUM  
RAUMSCHIFFAHRTS-  
PROBLEM

HERAUSGEGEBEN VON WILLY LEY

Alicke 256: "a pioneering early book in rocket literature". Ley p. 507. Hunley, J. D., "Preface", in *The Problem of Space Travel. The Rocket Motor*, Hermann Noordung (Herman Potočnik), Washington D.C, 1995.

Rare first edition of the author's only published work, "clearly the classic statement of how a space station might be constructed" (J. D. Hunley). Herman Potočnik (1892–1929) was a Slovenian military engineer who served in the Austro-Hungarian army during WW1. The publishing year of this first edition is stated as 1929 on verso of title, but a review of the work appeared already in the October 1928 issue of *Die Rakete*, which makes it likely – unless the reviewer had access to an advance copy of some sort – that the printing was done the same year.

J. D. Hunley writes: "Potočnik's book dealt, as its title suggests, with a broad range of topics relating to space travel, although the rocket motor that forms the book's subtitle was not especially prominent among them. What makes the book important in the early literature about space travel is its extensive treatment of the engineering aspects of a space station." Hunley also points out that the famous science fiction author Arthur C. Clarke later "credited Potočnik with envisioning the use of short waves for communications between the Earth and his space station".

- 7. OBERTH, Hermann.** *Wege zur Raumschiffahrt.* Mit 4 Tafeln und 159 Abbildungen. 3. Auflage von "Die Rakete zu den Planetenräumen". München und Berlin, Verlag von R. Oldenbourg, 1929. 8vo. XII,+ 431,+ (1) pp.+ 4 folding plates, three printed in red and black. Illustrated. Pencilled underlinings and notes. Publ. cloth, with dust jacket somewhat worn and with some loss of paper along the edges, top edge green. In a protective mylar sleeve. Owner's signature of G. de Koningh on front fly leaf. **15000:–**

Alicke 262: "still the most important theoretical work on the subject". Ley p. 507. Third and greatly enlarged edition of Oberth's classic book on rocketry, first published as "Die Rakete zu den Planetenräumen" (1923), and the first work to receive the REP-Hirsch International Astronautics Prize, founded in 1928 by French rocketry pioneer Robert Esnault-Pelterie and André-Louis Hirsch. This third edition is dedicated to Fritz Lang and Thea von Harbou, who directed and wrote the screenplay for the science fiction film *Frau im Mond* (1929), for which Oberth served as a consultant.

In his text, Oberth set out to prove four propositions. Firstly, that there was sufficient technology at the time to build machines that could rise above the earth's atmosphere. Secondly, that these machines could be fast enough to prevent them from falling back to earth and escape the planet's gravitational

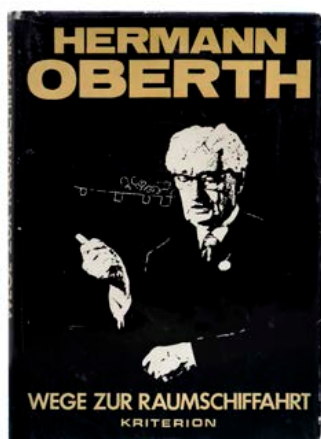
pull. Thirdly, that such machines could be built to carry human beings. And fourthly, that their manufacture could be profitable under certain conditions. Together with the Russian Konstatin Tsiolkovsky and the American Robert Goddard, among others, the Austro-Hungarian born German physicist and engineer Hermann Oberth (1894–1989) is considered one of the true pioneers of rocketry. The signature in this copy possibly belongs to the early-20th-century Dutch instrument maker G. de Koningh in Arnhem.

- 8. OBERTH, Hermann.** *Wege zur Raumschiffahrt.* Mit 4 Tafeln und 159 Abbildungen. Herausgegeben von Hans Barth. Mit einem Vorwort von Elie Carafoli. Bukarest, Kriterion Verlag, 1974. 8vo. 414,+ (1) pp. Illustrated. Publ. boards with somewhat worn dust jacket. Signed by the author on front fly-leaf. **1500:–**  
Reprint of the 1929 third edition.

- 9. MONASTYREVA, B. A. & SEMENOVA, D. S. & SAMOJLOVI A, S. I. (Eds.)** *Konstantin Eduardovi Tsiolkovsky 1857–1932.* Nau no jubilejnyj sbornik, posvja ennij 75-letiju so dnja ro denija K. E. Tsiolkovskogo i 40 letiju so dnja pojavlenija jevo pervikh pe atnych trudov po diri ablestroeniju. [Konstantin Eduardovi Tsiolkovsky 1857–1932. A scientific jubilee anthology dedicated to the 75th birthday of K. E. Tsiolkovsky and the 40-year anniversary of the creation of his first printed work on the construction of airships.] Moscow, Gosudarstvennoe aviatsionnoe i avtotraktornoe izdatel'stvo, 1932. 8:o. 80 pp. Illustrated. Sewn as issued, spine with tears and some loss of paper at top, paper loss also in bottom corner of front cover, dog ears on the first leaves, a few minor tears. **6000:–**

Compiled in the author's home town by "Kalu skaja jubilejnaja komissija po estvovaniju K. E. Tsiolkovskogo" (The Kaluga jubilee committee for the celebration of K. E. Tsiolkovsky) and printed in 2500 copies. This anthology begins with a short autobiography by Tsiolkovsky which is followed by a number of biographical sketches by other authors. Several congratulatory letters are also reprinted here, as well as Tsiolkovsky's jubilee lecture "Zvezdoplovanie" (our translation: A voyage to the stars).

- 10. PEREL'MAN, YA. I.** *Tsiolkovsky. Jevo izn, izobretenija i nau nye trudy. Po povodu 75-letija so dnja ro denija.* [Tsiolkovsky. His life, inventive and scientific work. On the occasion of his 75th birthday.] Moscow, Gosudarstvennoe tekhniko-teoreti eskoe izdatel'stvo, 1932. 8:o. 62,+ (2) pp. Illustrated. Sewn as issued, in printed wrappers. A slightly dog-eared copy with a few minor tears. **4500:–**



A biography of the Russian pioneer in the fields of rocket and space travel theory, Konstantin Tsiolkovsky (1857–1935), by the respected Soviet popular science writer Yakov Perel'man. The latter had written about Tsiolkovsky's work already before the first world war and the two, who apparently shared a mutual respect, were correspondents. In our translation, the main chapter headings are as follows: "The main outlines of Tsiolkovsky's life", "The airships of the future", "How to invent. The work method of Tsiolkovsky", "On the road to the stars", and "Other works by Tsiolkovsky". The illustrations depict, among other things, some of Tsiolkovsky's designs for airplanes and rockets; none of these ideas were of course realized.

- 11. TSIOLKOVSKY, K. E. *Na lune. Grëzy o zemle i nebe.*** Redaktsija i biografi eskij o erk Ja. I. Perel'mana. [On the Moon. Dreams of Earth and Sky. Edited and with biographical notes by Ja. I. Perelman.] Moscow & Leningrad, ONTI, 1935. 8:o. Portrait, 131,+ (1) pp. Illustrated. Publ. illustrated wrappers. Some wear to spine, corners slightly bumped. **4500:–**

Published shortly after the author's death in 1935 and printed in 20000 copies! The volume contains two of Tsiolkovsky's early, didactic science fiction short stories, first published in 1893 and 1895 respectively, edited by his biographer and popularizer J. I. Perel'man, who has also added a short biography of the author.

According to the Encyclopedia of Science Fiction, the protagonists in On the Moon "find themselves on the Moon caught in an educational dream", while Dreams of Earth and Sky "features an encounter with the alien inhabitants of the asteroid belt". Some of the illustrations refer to events in the stories while others are strictly scientific or technical, underlining Tsiolkovsky's ambition to educate his audience. With a lovely front cover depicting two men walking on the moon, one of them carrying a gun, and both dressed in clothes more suitable for a hunting trip!

- 12. GAIL, Otto Willi. *Physik der Weltraumfahrt.*** München, Hanns Reich Verlag, 1948. 8vo. 140,+ (3) pp. Illustrated. Publ. cloth-backed printed boards. (Erforschte Welt Band 2.) **600:–**

Published under US Military Government License Nr. US-E-120. An interesting early popular account of the advances in rocketry and the problems of space travel, factually checked by one of the great German authorities in the field, Hermann Oberth. With a short dictionary on the subject.

- 13. TSIOLKOVSKY, K. E. *Vne zemli. Nau no fantasti eskaja povest'.*** [Izdanie vtoroye.] [Beyond Earth. A scientific-fantastic novel. Second edition.] Moscow, Izdatel'stvo Akademii nauk SSSR, 1958. 8:o. Portrait, 143,+ (1) pp. Illustrated. Publisher's illustrated wrappers. Head and tail of spine with paper losses, minor stains on front cover, minor tear in outer margin on the first leaves. **2500:–**

Second edition, incorporating the corrections made to the manuscript by the author in 1927. The first version of this novel by the great Russian theorist on space flight was published in the journal Priroda i Lyudi (Nature and People) in 1916. An English translation, *Beyond the planet Earth*, appeared in 1960.

According to the Encyclopedia of Science Fiction, it is "... an account of the building and launching of a spaceship by an international group of scientists, who begin the construction of space habitats in high orbit, and who then begin to explore the solar system itself, with a view to its colonization." The illustrations in this edition show two pages with manuscript notes and drawings made by Tsiolkovsky in his youth.

- 14. TSIOLKOVSKY, K. E. *Beyond the Planet Earth.*** Translated from the Russian by Kenneth Syers. Oxford, Pergamon Press, 1960. 8vo. vi,+ 190 pp. Some pencil markings. Publ. cloth with slightly worn dust jacket. **1500:–**

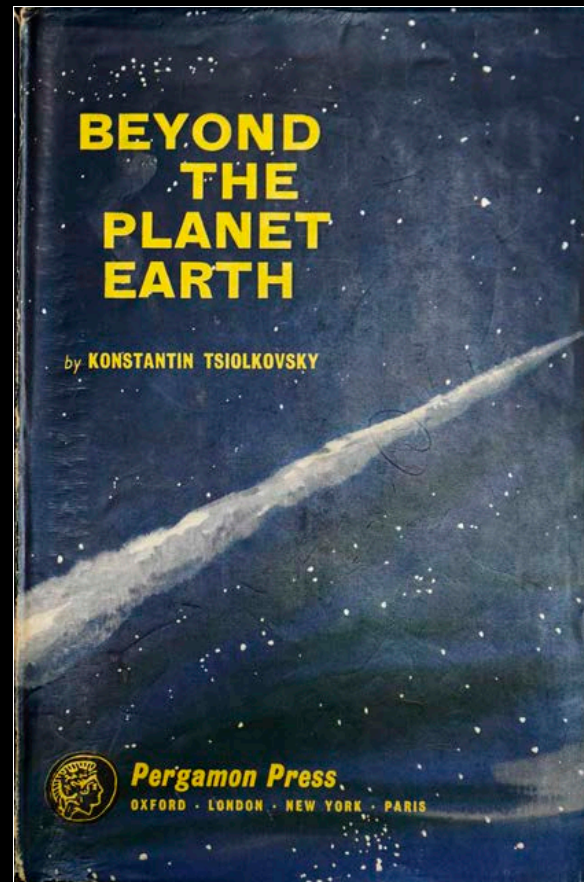
HERMANN OBERTH

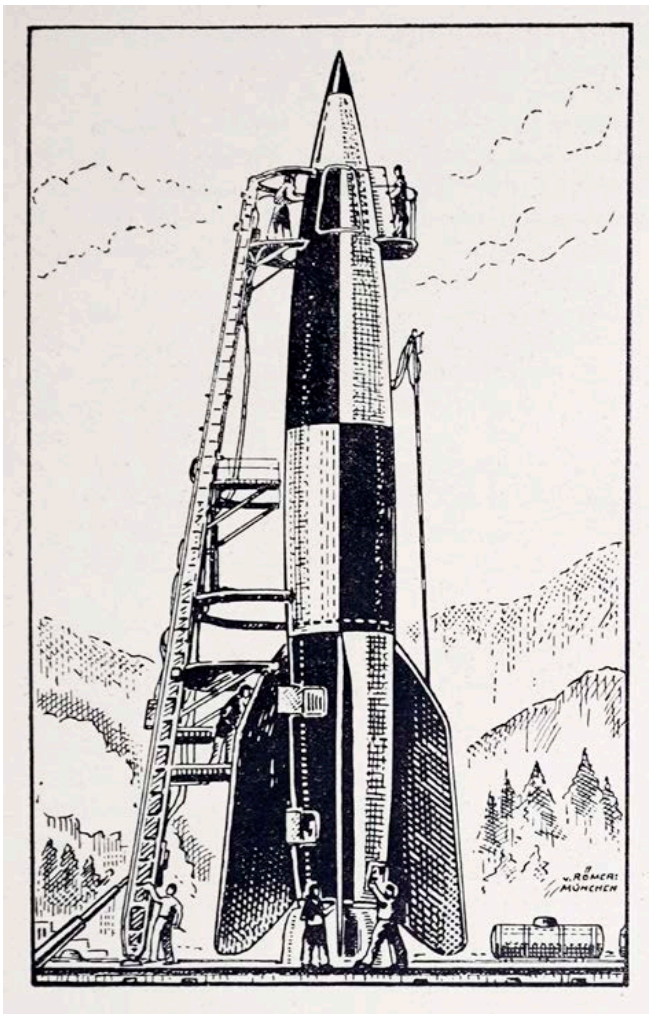
WEGE  
ZUR

RAUM  
SCHAFFAHRT

W. B. OLDENBOURG MÜNCHEN UND BERLIN







12

First English edition of Tsiolkovsky's novel, originally published in the journal *Priroda i Lyudi* (Nature and People) in 1916. "In the light of present knowledge, this is an incredibly ingenious and accurate forecast of the problems being faced and overcome in 1961 in preparing man for interplanetary flight." (Excerpt from an enthusiastic review of this translation by the signature A.S.C.L. in *The Aeronautical Journal*, Vol. 65 (1961), p. 846.)

**15. SÄNGER, Eugen.** *Der Entwicklungsweg der Raketenflugtechnik.* (1-3). Wien, Flug, 1933. 4to. Pp. 4-6; 5-7; 7-8. Article published in *Flug. Zeitschrift für das gesamte Gebiet der Luftfahrt*, folge 5/6, 7/8 and 9/10. Three issues, stapled in printed wrappers. Very fine. **5000:-**

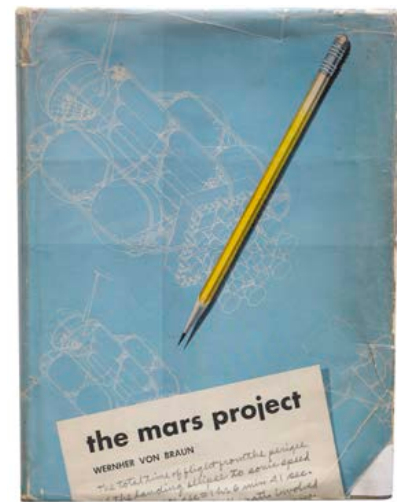
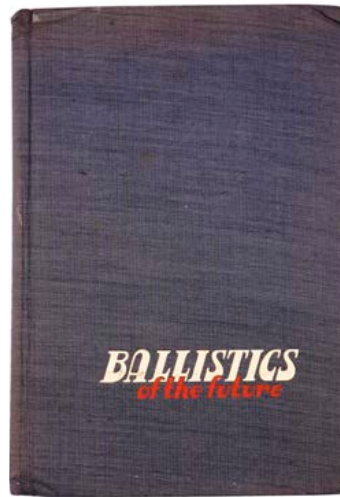
A historical overview of rocketry through the ages by one of the pioneers within the field. The Austrian aerospace engineer Eugen Sänger (1905-64) was inspired by Hermann Oberth's classic book *Die Rakete zu den Planetenräumen* (1923) when he changed from studying conventional civil engineering to aeronautics. Rocket-powered flight eventually became the subject for his thesis, based on a number of comprehensive and systematic rocket-motor tests at the Technical University of Vienna. The thesis was however rejected as being too fanciful by the university, and instead published as this privately printed book in 1933. Before and during WW2, Sänger came to work for the Nazi government in Germany with the development of rocket-powered, sub-orbital bombers, taking with him the idea of using rocket-fuel to cool the rocket, a system he had first tried out during his experiments in Vienna and presented in this work. After the war he was employed by the French government and while in France he founded the *Fédération Astronautique* in 1949. Sänger returned to Germany in 1954, where he worked as a consultant for Junkers and developed theoretical innovations for interstellar spacecraft propulsion, among other things. His early concept for a rocket-powered glider/bomber would later bear fruit in the development of the Space Shuttle.

**16. SÄNGER, Eugen.** *Neuere Ergebnisse der Raketenflugtechnik.* Wien, Flug, 1934. 4to. 23 pp. Illustrated. Stapled as issued, in printed wrappers. (*Flug. Zeitschrift für das gesamte Gebiet der Luftfahrt. Wissenschaftliches Sonderheft. Sonderheft 1.* 1934.) **9500:-**

Alicke 309. Ley p. 507-508. In this important article, Austrian engineer Eugen Sänger (1905-64) further develops his thoughts on a reusable, regeneratively cooled rocket engine that he experimented with at the Technical University of Vienna between 1932 and 1934, and first presented in his book *Raketen-Flugtechnik* (1933). In 1935, he received a patent for this



15



16, 18, 21

technology. Burning mixtures of gas-oil and liquid oxygen, Sänger's engines were cooled by its own fuel circulating around the combustion chamber, an idea that represented a major step towards reusable space vehicles. Here he also outlines his idea for a stratospheric rocket airplane – illustrated with photos of the model airplane – that would burn fuel for about twenty minutes before acting as high-speed glider.

- 17. SÄNGER, Eugen.** *Raketen-Flugtechnik.* Mit 92 Abbildungen. Ann Arbor, J. W. Edwards, 1945. 8vo. X,+ 222 pp. Illustrated. Publ. green cloth.

1500:–

Alicke 308: “[Sänger] was indubitably the first among rocket aircraft engineers who did not grope and hope but attacked the problem systematically.” Ley p. 507 (first edition 1933). Lithoprint of the first German edition (München und Berlin, Verlag von R. Oldenbourg, 1933).

- 18. KOOY, J. M. J. & UYTENBOGAART, J. W. H.** *Ballistics of the Future. With Special Reference to the Dynamical and Physical Theory of the Rocket Weapons.* Haarlem, The Technical Publishing Company H. Stam, (1946). 8vo. 472 pp.+ 8 folding designs,+ 3 folding maps. Tear in lower margin of p. 361. Somewhat worn publ. cloth with titles in gold and red on spine and front board. Bookseller's label on front board inside.

3500:–

A very early practical and theoretical evaluation of the German rocket weapons research, the V1 and the V2, which formed the basis of both Soviet and American postwar rocket development.

- 19. GODDARD, Robert H. || GODDARD, Esther C. & PENDRAY, G. Edward** (Eds.) *Rocket Development. Liquid-Fuel Rocket Research 1929–1941.* New York, Prentice-Hall, 1948. 8vo. xx,+ 291 pp. Illustrated. Slight foxing. Somewhat worn

publ. cloth with gilt titles on spine and front board, dust jacket lacking. **1800:–**

Alicke 153: “The present volume for the first time covers the Goddard data on experiments performed during the fruitful period from 1929 until 1941.” Ley p. 491. First edition, published posthumously by his wife and scientific partner Esther C. Goddard. The rocket experiments were financed by Guggenheim after recommendations by Charles F. Lindberg. Robert H. Goddard (1882–1945) is often called the “Father of Modern Rocketry”.

- 20. BRAUN, Wernher von.** *Das Marsprojekt. Studie einer interplanetarischen Expedition.* Mit 9 Abbildungen und 36 Zahlentafeln. Frankfurt am Main, Umschau Verlag, 1952. 8vo. 82,+ (2) pp. Illustrated. Publisher's wrappers with front cover illustration. Spine torn, small paper loss in upper corner on front cover, light dampstain on rear cover, along top of spine. (Sonderheft der Zeitschrift Weltraumfahrt, Beiträge zur Weltraumforschung und Astronautik. Herausgegeben von Heinz Gartmann.) **15000:–**

Ley p. 505: “The first detailed engineering study of the requirements of an expedition to Mars; also the basis for much of Wernher von Braun's later work.”

Rare first edition of von Braun's famous proposal for a Mars Expedition, with technical specifications and calculations for each part of the mission. The work began as a novel written in German 1948–1949, when von Braun had time to spare after the completion of the US Army V2 test program. The novel was not published at the time but an appendix with engineering diagrams and calculations for the proposed expedition was used when von Braun held a lecture on the subject at the First Symposium on Spaceflight in New York 1951. The appendix was first printed in German in this special edition of the space flight journal *Weltraumfahrt*, which was followed by a hardback edition later that year. In 1953, an English translation, *The Mars Project*, also appeared.

Wernher von Braun

# Das Marsprojekt

Studie einer interplanetarischen Expedition



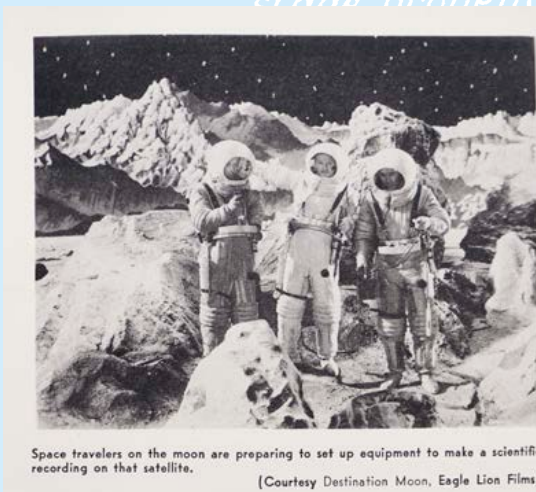
Ein Sonderheft der Zeitschrift „WELTRAUMFAHRT“

21. **BRAUN, Wernher von.** *The Mars Project*. Urbana, The University of Illinois Press, 1953. 8vo. (6),+ 91 pp. Illustrated. Publisher's grey printed boards with somewhat worn blue illustrated dust jacket. In a protective mylar sleeve. **12000:--**
- Ley, *Rockets, Missiles, and Space Travel* (1959), p. 490. Rare first edition in English of von Braun's technical specification for a Mars journey.
22. **RYAN, Cornelius** (Ed.) *Across the Space Frontier*. By Joseph Kaplan, Wernher von Braun, Heinz Haber, Willy Ley, Oscar Schachter, Fred L. Whipple. Illustrated by Chesley Bonestell, Fred Freeman, Rolf Klep. New York, The Viking Press, 1952. 4to. xiv,+ 147 pp. Publ. grey decorated cloth with illustrated endpapers and with dust jacket, the latter in a protective mylar sleeve but with a small tear. **2500:--**
- Ley p. 494. First edition, first printing. "This book is a considerably expanded version of a series of scientific articles which appeared in Collier's under the title 'Man Will Conquer Space Soon.'" (Text on verso of title leaf.) A wonderfully illustrated exposé of ideas from the childhood of space exploration. With the following articles: "This Side of Infinity" by Joseph Kaplan, "Prelude to Space Travel" by Wernher von Braun, "Can we Survive in Space?" by Heinz Haber, "A Station in Space", by Willy Ley and "The Heavens Open" by Fred L. Whipple.
23. **[Congress reports]** *Space-Flight Problems*. Being a Complete Collection of all Lectures Held at the Fourth Astronomical Congress, Zürich, 1953. Probleme der Weltraumforschung. Vollständige Sammlung der am IV. Internationalen Astronautischen Kongress 1953 in Zürich gehaltenen Fachvorträge. Problèmes d'astronautique. Recueil complet des travaux scientifiques présentés lors du IVe Congrès International d'Astronomie 1953 à Zürich. Published by the Swiss Astronautical Society by order of the International Astronautical Federation. Biel-Bienne, Laubscher & Cie, no date. 4to. 224 pp. Illustrated. Publisher's green cloth with gilt titles on spine and front board. Owner's signature on front pastedown. **2500:--**
- Published by the Swiss Astronautical Society by order of the International Astronautical Federation. An interesting collection of scientific lectures from the childhood of space exploration, which, with the exception of a couple of French contributions, were held in English and German. Among the contributions are "Zur Thermodynamik von Arbeitsgasen für Atomraketen", by Irene Sänger-Bredt, "Zum problem der Kühlung von Atomraketen bei Verwendung thermonuklearer Reaktionen", by H. J. Kaeppler,
- "Earth scanning techniques for a small orbital rocket vehicle", by Kurt R. Stehling, "The application of radio interferometry to the guidance of interplanetary rockets", by Marcel J. E. Golay, "Fabrication of the orbital-vehicle", by A. E. Dixon, K. W. Gatland and A. M. Kunesch, "A minimum orbital instrumented satellite - now", by S. F. Singer, "Zur Frage der Orientierung im schwerefreien Zustand", by Siegfried Gerathewohl and "We need a coordinated space program" by Wernher von Braun.
24. **HABER, Heinz.** *Man in Space*. Illustrated by Jerry Milord. London, Sidgwick and Jackson, 1953. 8vo. 291 pp. Some pencil markings in margins. Publ. cloth with dust jacket, torn in spine. **750:--**
- "A pioneer in space medicine analyses the physical and psychological hazards man faces in space" (front dust jacket).
25. **CLARKE, Arthur C.** *The Young Traveller in Space*. With 1 Colour Plate and 31 Monochrome Plates and 6 Diagrams. London, Phoenix House, 1954. Large 8vo. 72 pp.+ plates. Publisher's pictorial boards with slightly worn and price-clipped dust jacket reproducing the imagery on the boards. Front pastedown with library label and duplicate stamp of Nordiska museet, together with bookplate of [Sven] Thureus. Signature of the latter on title page. **1800:--**
- Ley p. 496. First edition. An American edition, *Going into Space*, with some differences in content was published later the same year. A charming example of Clarke's non-fiction, telling the story of space exploration from ancient to the present times in an easy to understand way, suitable for children.
26. **SMITH, R. A. & CLARKE, Arthur C.** *The Exploration of the Moon*. Illustrations by R. A. Smith. Text by Arthur C. Clarke. London, Frederick Muller, 1954. Large 8vo. 112 pp. Illustrated. Publ. cloth with gilt lettering on spine and front board, dust jacket slightly worn with a couple of small paper losses and in a protective mylar sleeve. Some browning on endpapers. **2200:--**
- Ley p. 497. First edition. A wonderfully imaginative step-by-step guide to lunar exploration and colonization, starting with "Assembling Satellite Rocket" and ending rather mysteriously with the caption "The Price .....", on an otherwise empty page. Each opening with text to the left and a full page illustration in colour or black and white to the right. The last illustration, showing an event on what appears to be the lunar surface, contains elements that are reminiscent of that famous scene in Stanley Kubrick's *2001* (with screenplay by Clarke), when the monolith is found.

With a background in engineering, Ralph Andrew Smith (1905–59) was not your typical science fiction and popular science illustrator. He was also active in the British Interplanetary Society (BIS), where he developed a close working relationship with another engineer, Harry Ross. The designs presented by Smith in his artwork were therefore always based on extensive calculations made by himself and other members of BIS. As is stated in the blurb on the wrapper: "The forty-five illustrations (eight in full colour) provide a dramatic survey of the problems and possibilities of space-flight, and are the work of R. A. Smith, who has studied the subject intensively for more than twenty years and has considerable practical experience in modern rocket design. He shows how, by the correct use of science and engineering skill, the Moon may become a valuable in its own right, marking the beginning of an entirely new relation between Man and his universe."

- 27. ROSS, Frank.** *Space Ships and Space Travel. The Scientifically Accurate Story of Man's Attempts and Plans to Travel into Interplanetary Space.* By Frank Ross Jr. London, Museum Press, 1956. 8vo. (8),+ 166 pp. Illustrated. A small ink mark on page one. Publ. cloth with slightly worn dust jacket. **800:–**

First UK edition. First published in US in 1954. The nice illustration on dust jacket by Eric Mudge Marriott.



- 28. LEY, Willy.** *Rockets, Missiles, and Space Travel.* Revised and Enlarged Edition. New York, The Viking Press, 1957. 8vo. xvi,+ 528 pp.+ plates. Publ. cloth, with dustwrapper. **600:–**
- One of several editions of this classic on the early exploration of space. First published as *Rockets* in 1944 it was soon expanded into *Rockets and Space Travel* and in 1951 to the present title. This is the third printing of the 1957 edition, which is expanded with "Sputnik Data".

Willy Ley (1906–69) became the great popularizer of the German rocketry movement in the 1920s, and was one of the founders of the important Verein für Raumschiffahrt in 1928. He moved to the United States in 1935, where he continued his work as an influential popular science writer, taking a special interest in rocketry and space flight.

- 29. OBERTH, Hermann.** *Menschen im Weltraum. Neue Projekte für Raketen- und Raumfahrt.* Düsseldorf, Econ-Verlag, 1957. 8vo. Portrait,+ 259,+ (blank),+ (4) pp.+ plates. Illustrated. The last (4) pp. with advertisements. Publ. decorated cloth with dust jacket. In a protective mylar sleeve. **1500:–**

Second edition, first published in 1954. In this work, rocketry pioneer Oberth (1894–1989) looks forward into Man's conquest of space, discussing rocket technology, astronaut's equipment, space stations, space telescopes, electric spaceships, lunar exploration (including a description of a lunar vehicle) and the colonization of other planets.

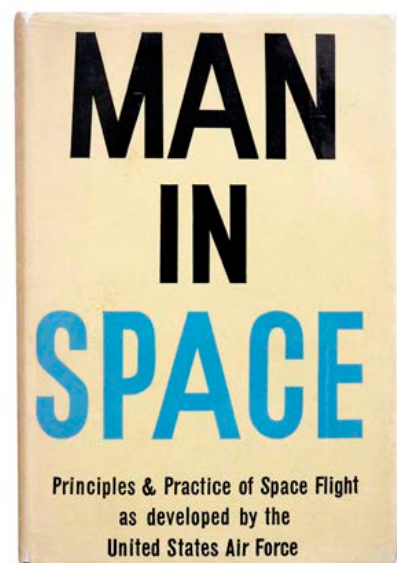
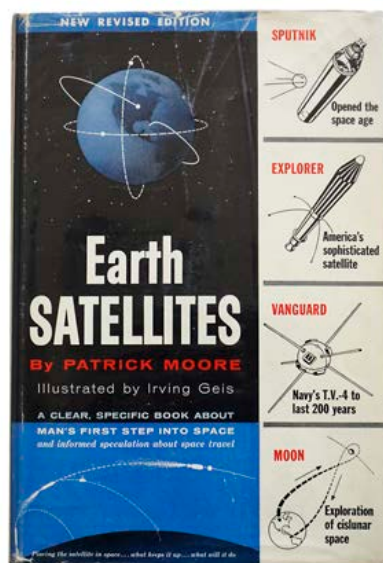
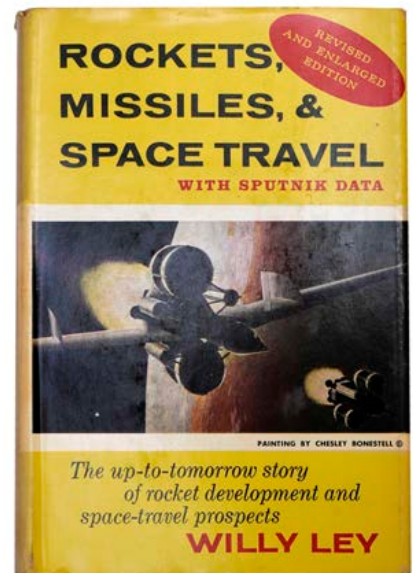
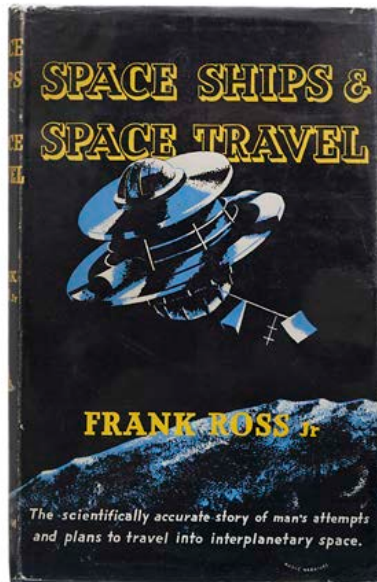
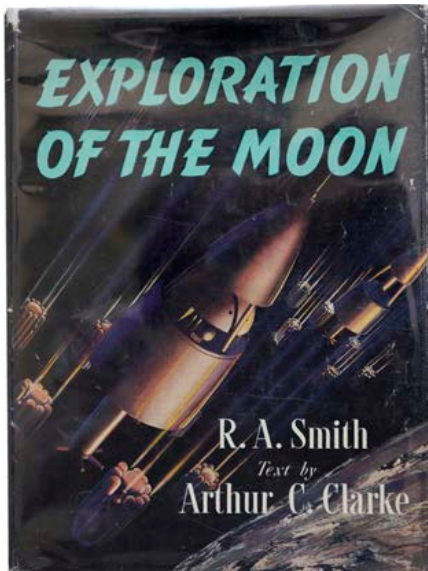
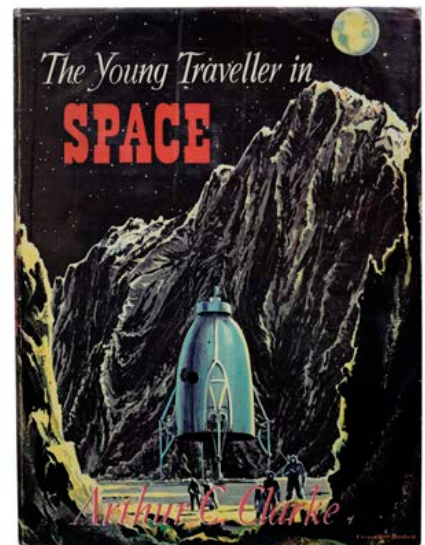
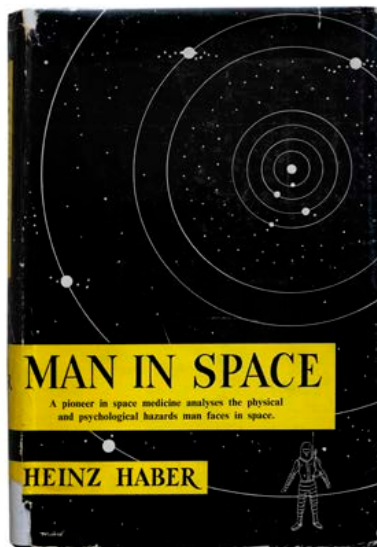
An interesting if perhaps somewhat megalomaniac concept, presented for the first time in *Menschen im Weltraum*, is the gigantic Weltraumspiegel (space mirror), that Oberth envisages being used to influence climate and weather on Earth, by reflecting and directing light from the Sun towards different parts of the planet's surface – a form of climate engineering that points forward to the problems of our own age.

- 30. MOORE, Patrick.** *Earth Satellites.* Illustrations by Irving Geis. New Revised Edition. New York, W. W. Norton & Company, 1958. 8vo. 157 pp. Illustrated. A few pencil notes. Publ. cloth with somewhat worn and price clipped dust jacket. **750:–**

Ley p. 493. Second edition, first published in the UK 1955, with the title *Earth Satellite*. "Man's first step into space and informed speculation about space travel". The author was a member of the British Interplanetary Society, edited the magazine *Spaceflight* and presented the television program *The Sky at Night*.

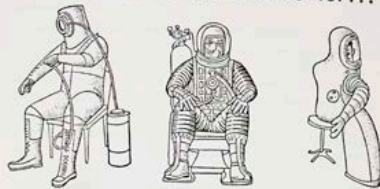
- 31. GANTZ, Kenneth F. (Ed.)** *Man in Space. Principles and Practice of Space Flight as Developed by the United States Air Force.* London, Hollis and Carter, (1959). 8vo. xvi,+ 303 pp.+ plates. Illustrated. Some pencil markings. Publisher's cloth with somewhat worn dust jacket. Owner's label of professor Carl-Johan Clemedson on front fly leaf. **600:–**

UK edition, the first edition published in New York the same year. Carl-Johan Clemedson (1918–90) was a Swedish military physician working for Försvarets

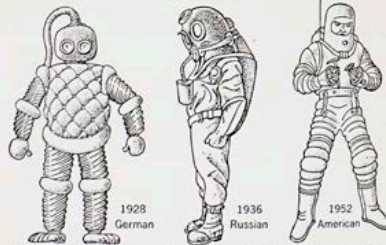


22, 24, 25  
26, 27, 28  
29, 30, 31

## MEN'S FASHIONS for...



**HIGH ALTITUDE SPACE SUITS** above are real... all others on these two pages are imaginary. Left to right: Wiley Post's 1935 "atmosphere suit" used in actual flight up to 8 miles; U. S. Navy 1933 full-pressure flight suit for use up to 13 miles; U. S. Air Force contemporary one-arm experimental suit.

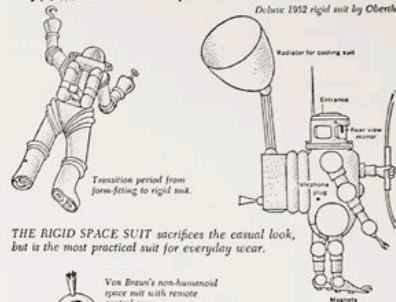


1928 German  
1936 Russian  
1952 American

Metal tubing and quilted chest protector no longer are in style.  
Dumpy, lumpy look typical of most Soviet fashion.  
Designed by famous space artist. Shows superior cut and finish.

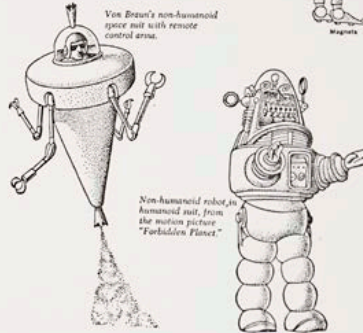
**THE FLEXIBLE SPACE SUIT.** Though impractical for operation in space, they show considerable variation in style appeal.

## ....travel in space



Transition period from form-fitting to rigid suit.

**THE RIGID SPACE SUIT** sacrifices the casual look, but is the most practical suit for everyday wear.



Von Braun's non-humanoid space suit with remote control arms.

Non-humanoid robot, humanoid suit, from the motion picture "Forbidden Planet"

forskningsanstalt (The Swedish Defence Research Agency). Clemedson was one of the first scientists in Sweden to take an interest in space medicine and a member of The International Academy of Astronautics.

- 32. GILZIN, Karl.** *Sputniks and After*. London, MacDonald, 1959. 8vo. xx,+ 23–285,+ (2) pp. plates. Illustrated. Publ. cloth with worn dust jacket, torn at rear top. **600:–**

The title on the wrapper is *Sputniks and After. The Soviet Account of Travel in Space*. Translated from the Russian by Pauline Rose. Supplementary material translated from the Russian by Dmitri Nesteroff. Illustrated by N. Kolchitsky. Karl Gilzin was lecturers at the Moscow Aviation Institute.

- 33. OBERTH, Hermann.** *Das Mondauto*. Düsseldorf, Econ-Verlag, 1959. 8vo. 99,+ (7) pp. Paperback. Minor wear to top of spine and front cover, otherwise a well-preserved copy. **1500:–**

First edition. Hermann Oberth's (1894–1989) wildly eccentric proposal for a lunar vehicle, first described in his book *Menschen im Weltraum* (1954). The vehicle, or moon car, consisted of a spherical compartment for the crew, attached to a single telescopic leg standing on a caterpillar track unit, all, including a gyroscope needed to keep the car moving in a vertical position, powered by electricity. If the car approached a canyon or crevasse that could not be crossed on ground, the telescopic leg could be retracted and then forcefully expanded again with

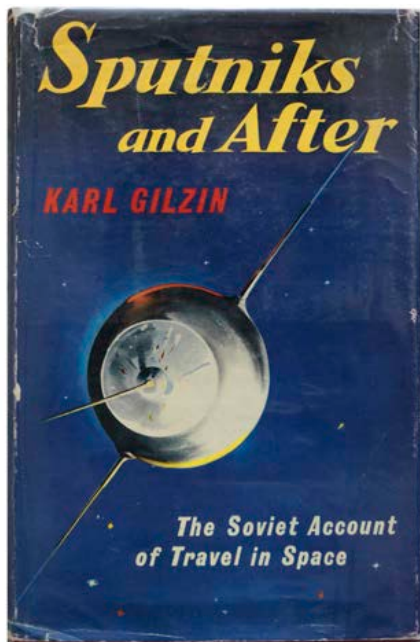
the use of compressed air, causing the car to jump forward up to 125 meters above ground and thereby clearing the obstacle. Needless to say, Oberth's idea was not found practical in any sense, and the lunar vehicles that eventually were developed became much more conventional in their design.

- 34. [Space Law] Space Law.** A Symposium Prepared at the Request of Honorable Lyndon B. Johnson, Chairman Special Committee on Space and Astronautics. United States Senate Eighty-Fifth Congress, Second Session. December 31, 1958. Printed for the Use of the Special Committee on Space and Astronautics. Washington, United States Government Printing Office, 1959. 8vo. VIII,+ 573 pp. Some underlinings and notes with pencil. Stapled, in printed wrappers. Spine faded. (Committee Print.) **900:–**

- 35. STERNFELD, Ari et al.** *Soviet Writings on Earth Satellites and Space Travel*. London, MacGibbon & Kee, 1959. 8vo. 253 pp. Publ. cloth with slightly worn dust jacket. **600:–**

First UK-edition, the US edition was published in 1958. Contains the chapters "From Earth Satellites to Interplanetary Travel" by Ari Sternfeld and "The Sputniks" with essays by V. Ambartsumyan, V. Dobronrarov, Alexander Obukhov, P. Isakov, B. Kukarkin, A. Kasantsev, V. Aleksandrov, G. I. Pokrovsky, V. Grenin, V. Kaznevsky, A. I. Berg and M. S. Sominsky.

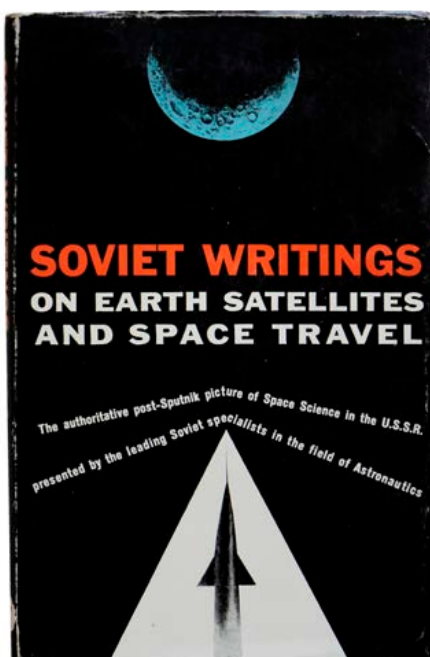




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**36. [Bykovsky]** Signed vintage photographic reprint depicting Soviet cosmonaut Valery Bykovsky. Photographic reprint in black and white, 174 x 106 mm. Horizontal crease mark at the bottom, outside the picture surface. **1500:-**

The military aviator Valery Bykovsky (1934–2019) joined the Soviet cosmonaut program at the age of 26 and first flew into space on Vostok 5 on 14 June 1963. He spent five days in orbit, which still is the endurance record for a solo flight in space. Bykovsky's last space flight was on the Soyuz 31 mission in 1978, where he was joined by the first East German in space, Sigmund Jähn. The photograph shows a rather youngish Bykovsky and is most likely taken in the 1960s.

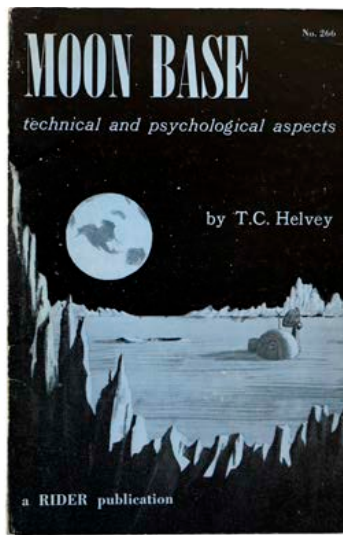
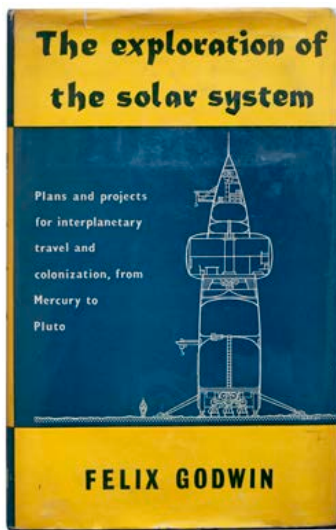
**37. EHRICKE, Krafft A.** *Space Flight. 1. Environment and Celestial Mechanics.* Princeton, D. van Nostrand Company, 1960. 8vo. xiv,+ 513 pp. Illustrated. Notes and markings with pencil. Publ. dec. cloth, with torn dust jacket. (Principles of Guided Missile Design.) Owner's signature of Carl-Johan Clemedson on front fly leaf. **2000:-**

First edition. A second part *Dynamics* was published in 1962. Arnold Ehrlicke Krafft (1917–84) was a German rocket-propulsion engineer and advocate for space colonization. He worked at Peenemünde as a propulsion engineer from 1942 to 1945 with Walter Thiel, and came after the war to the United States with other German rocket scientists and technicians under "Operation Paperclip" in 1947. He worked for a short time with the von Braun's Rocket Team at Huntsville. Between 1959 and 1962 Ehrlicke directed the development of the Centaur booster, the first high-energy upper stage powered by liquid hydrogen. Although Centaur was not successfully launched until 1965, it eventually served as the upper stage for Atlas, Titan, and Delta launch vehicles and was the last stage for the Viking (Mars) and Voyager (Outer Planets) missions.

Carl-Johan Clemedson (1918–90) was a Swedish military physician working for Försvarets forskningsanstalt (The Swedish Defence Research Agency). Clemedson was one of the first scientists in Sweden to take an interest in space medicine and he was a member of The International Academy of Astronautics. An often occurring name in this catalogue!

**38. GODWIN, Felix.** *The Exploration of the Solar System.* London, Chapman & Hall, 1960. 8vo. 200 pp.+ plates. Illustrated. A few pencil underlinings. Publ. dec. cloth with slightly worn dust jacket, top edge yellow. **1200:-**

First edition. "Plans and projects for interplanetary travel and colonization, from Mercury to Pluto". The author Felix Godwin was only 19 when publishing the book.



38, 39, 40

- 39. HELVEY, T. C.** *Moon Base. Technical and Psychological Aspects.* New York, John F. Rider Publisher/ London, Chapman & Hall, 1960. 8vo. iv,+ (3),+ (blank),+ 72 pp. Paperback. Dedication to professor Carl-Johan Clemedson on title.

1500:–

First and only edition. Tibor Charles Helvey (d. 1991) was born in Hungary and educated there and in Germany. He moved to the USA after WW2 and became involved in the emerging research field of cybernetics, and held professorships at the University of South Florida (Tampa) and at the University of Tennessee Space Institute at Tullahoma. "His contributions covered cybernetics, management, space technology, education, artificial intelligence, man-machine interaction, engineering and other fields. (Rose, J., "Obituary (Professor T.C. Helvey)" in *Robotica* (1992) volume 10, p. 91).

Carl-Johan Clemedson (1918–90) was a Swedish military physician working for Försvarets forskning-

sanstalt (The Swedish Defence Research Agency). Clemedson was one of the first scientists in Sweden to take an interest in space medicine and he was a member of The International Academy of Astronautics.

- 40. LEVANTOVSKIJ, V. I.** *Raketoj k lune.* Moscow, Gosudarstvennoe izdatel'stvo fiziko-matematikojskoj literatury, 1960. 8vo. 379 pp.+ plates. Illustrated. Publ. decorated cloth-backed boards with dust jacket, the latter with tears and small paper losses.

3000:–

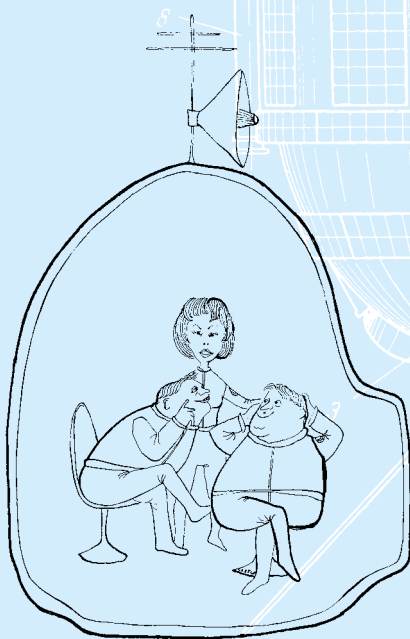
Title in English: "By rocket to the moon". (Our translation.) A popular scientific attempt to describe the challenges associated with lunar travel, published barely a decade before Neil Armstrong became the first man on the moon. It is by no means a strictly Soviet-chauvinistic account and references are therefore made to US-based rocket pioneers such as Robert Goddard and Wernher von Braun as well as to the iconic Russian theorist Konstantin Tsiolkovsky. (A contributing factor to this was surely the strict secrecy which surrounded the Soviet space program and its key figure, Sergej Koroljov.)

A sign of the high degree of speculation that still characterized the literature on lunar travel only a few years before the Apollo program are the references in this book to science fiction writers such as Stanislaw Lem and Arthur C. Clarke.

- 41. [Luna III].** *The Other Side of the Moon.* Translated from the Russian by J. B. Sykes. Issued by the U. S. S. R. Academy of Sciences. Oxford, Pergamon Press, 1960. 4to. 36 pp. Publ. printed boards.

500:–

With a foreword by A. N. Nesmeyanov. In October 1959, the Soviet "Luna III" became the first space probe to transmit television pictures from the far side of the moon, a feat that caused a big sensation at the time.



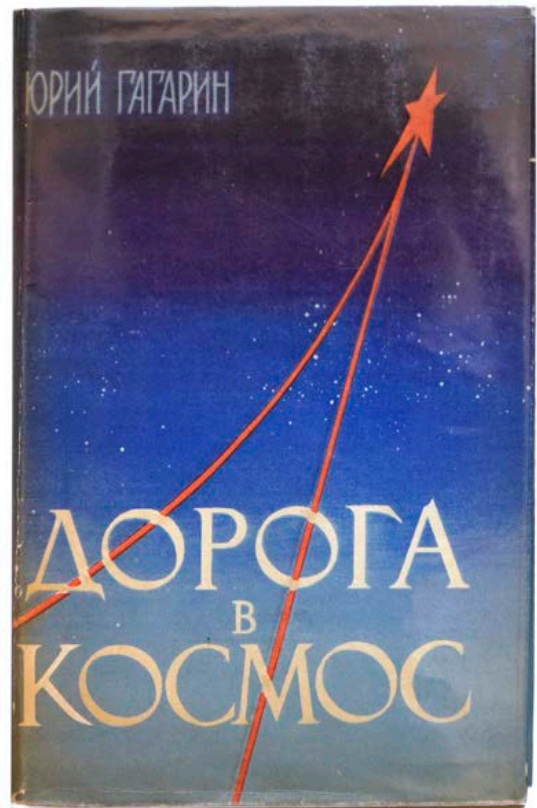
**42. GAGARIN, Jurij.** *Doroga v kosmos. Zapiski let ika-kosmonavta SSSR.* Moscow, Izdatel'stvo "Pravda", 1961. 8vo. Front.+ 223,+ (1) pp. Illustrated. Publ. cloth with dust wrapper. Front fly-leaf with a dedication in Russian from Gagarin to the former Danish traffic minister Alfred Jensen and a typed owner's ticket with the Copenhagen address "Vestersøgade 78 II" of Ragnhild Andersen, with Jensen's name added by hand. **20000:--**

Title in English: "The road to space. Memoirs of of USSR:s pilot-kosmonaut." (Our translation.) Edited by N. Denisov and and S. Borzenko. With a foreword by Nikolaj Kamanin (1908–82), who was the head of cosmonaut training in the Soviet space program and the person who finally selected Gagarin for the first space-flight. Jurij Gagarin's most likely ghost-written "memoirs" were published only a few months after his epochal space-flight on the 12th of April 1961. The story of the modest, charming young man of humble beginnings and his journey from an upbringing in a war-torn Russia to becoming first a mechanic, then an aviator and, finally, the first man in space, was put to effective use by the Soviet propaganda machine, and an English translation, *Road to the Stars*, was published the same year.

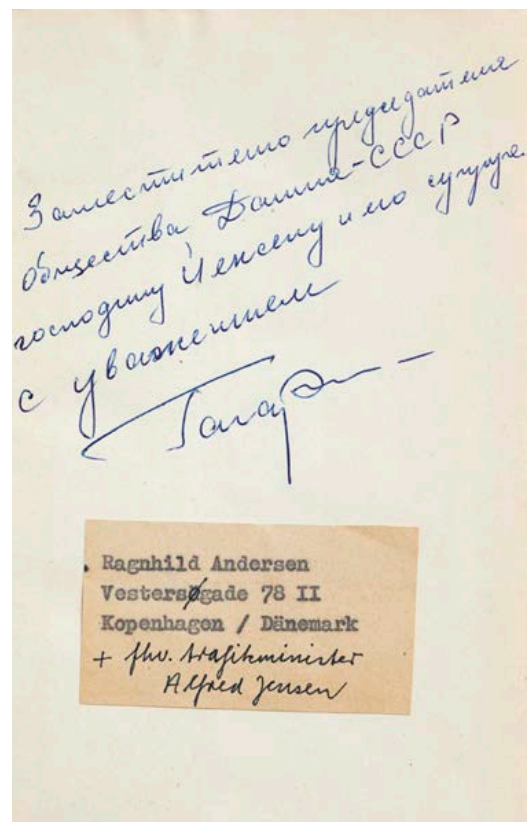
The dedication transcribed: "Zamestitelju predsedatelja obsjestva Danija – SSSR gospodinu Jensenu i jego supruge S uvazjenjem Gagarin" [To the vice chairman in the Denmark-Soviet Union Society Mr Jensen and his wife with respect Gagarin].

Alfred Jensen (1903–88) became a member of Vens-tresocialistisk parti (from 1920 Danmarks kommunistiske parti, DKP) in 1919 and was one of its leaders when the party was forced to move its activities underground during the Nazi occupation of Denmark 1940–45. After the war, he became traffic minister in befrielseregeringen, a broad coalition government representing parties from left to right in Danish politics. In 1952 Jensen married Ragnhild Andersen (1907–90), a fellow communist who had been active in various worker's unions during her youth and had been named "den røde [the red] Jeanne D'Arc" by the Danish press following an appearance at a political demonstration in 1930. The same year she became a member of DKP's central committee and in 1933 she was sent to Moscow to spend a year at a party school.

Jensen and Andersen remained loyal to Moscow when DKP's leader Aksel Larsen chose to dissociate himself from the Soviet Union and its communist party after the Hungarian revolt in 1956. It is therefore perhaps not far-fetched to see their meeting with the Soviet hero Gagarin, who visited Denmark in 1962 and also met with King Frederik IX, as a reward for this loyalty.

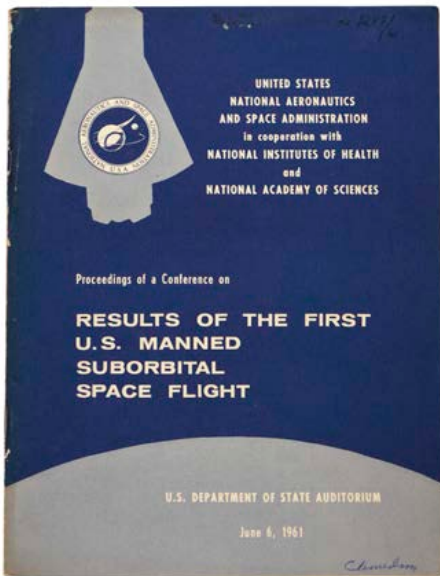


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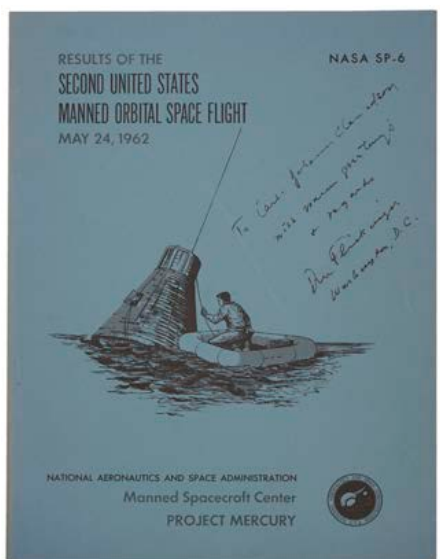
- 43. BRANIGAN, Thomas L. & LATHAM, Marilyn** (Eds.) *Space Log*. Vol. 1, No. 7 December 1961. Redondo Beach, Calif, Space Technology Laboratories, 1961. 8vo. 48 pp. Illustrated. Stapled, in printed wrappers. **350:–**
- Contains descriptions of American space projects and tables comparing different aspects of the American and Soviet space programs, i.e. how much Spacecraft weight the countries have injected into orbit. **4500:–**
- 44. [Congress reports] REUTERSWÄRD, Carl W. P. & HJERTSTRAND, Åke** (Eds.) *Xlth International Astronautical Congress*. Stockholm 1960. XI. internationaler astronautischer Kongress. XIe congrès international d'astronautique. Proceedings. Published by the Organizing Committee of the Congress. With 390 Figures. 1–2. Wien, Springer-Verlag, 1961. 8vo. XII,+ 714 pp.+ folding table; VI,+ 102 pp. Publ. printed cloth. Two volumes. **2500:–**
- Volume I: Main Session (edited by Reuterswärd). Volume II: Small Sounding Rockets Symposium (edited by Hjertstrand). A third volume containing the proceedings from The Third Colloquium on the Law of Outer Space was also published the same year. According to the foreword in volume I, the proceedings of The Astrodynamics Colloquium and The Space Medical Symposium were to be published in forthcoming issues of the Swedish journal Astronautik. The main sessions covered in the first volume contained the inaugural lecture by Sir Harrie Massey, "Scientific Research Using Space Vehicles", and 84 other contributions (some abstract or title only), distributed across ten different sessions: Planetary Atmosphere Environments, Interplanetary Environment, Medicine, Navigation and Space Communications, Guidance and Control, Propulsion, Space Projects Trajectories, Vehicles and Power Supplies, Economics and Miscellaneous. The congress in Stockholm gathered engineers and scientists from all around the world, and among the many contributions can therefore be mentioned "Results of Exploring Meteoric Matter with Instrumentation of Sputnik III and Space Probes" by T. N. Nazarova and "Status Report on the U.S. Space Rocket Program" by Wernher von Braun. The latter mentions, among other things, the development of the Saturn rocket program, which would become instrumental when the United States put astronauts on the Moon less than a decade later.
- 45. [Mercury Project] Proceedings of a Conference on Results of the First U. S. Manned Suborbital Space Flight June 6, 1961.** Washington, United States National Aeronautics and Space Administration in cooperation with National Institutes of Health and National Academy of Sciences, 1961. 4to. iv,+ 76 pp. Illustrated. Stapled as issued, in publisher's wrappers, slightly worn. Pencilled numbering and owner's signature of [Carl-Johan] Clemedson in ink on front cover. **4500:–**
- Rare first edition, published by NASA and one of their first printed reports. Contains ten conference papers on Project Mercury and the first manned American space flight, officially named Mercury-Redstone 3, by Alan Shepard. The papers are divided into three sections, Mercury Program Summary, Biomedical Data and Pilot Performance. The Swedish military physician Carl-Johan Clemedson (1918–90) was working for Försvarets forskningsanstalt (The Swedish Defence Research Agency) and was one of the first scientists in Sweden to take an interest in space medicine. He was a member of The International Academy of Astronautics.
- 46. [Mercury Project] Results of the First U. S. Manned Orbital Space Flight February 20, 1962.** (Washington), Manned Spacecraft Center, National Aeronautics and Space Administration, 1962. 4to. vi,+ 204 pp. Illustrated. Stapled as issued, in printed wrappers. **1200:–**
- With Mercury-Atlas 6, as the mission officially was named, John Glenn became the first American in orbital spaceflight.
- The report contains sections on operation requirements and plans, spacecraft and spacecraft systems, life support systems and biomedical instrumentation, launch-complex checkout and launch-vehicle systems, spacecraft preparation and checkout, flight control and flight plan, recovery operations, aeromedical preparation and results of postflight medical examinations and results of postflight medical examinations, physiological responses of the astronaut, astronaut preparation, pilot performance, pilot's flight report and summary of results.
- 47. [Mercury Project] Results of the Second U. S. Manned Orbital Space Flight May 24, 1962.** (Washington), Manned Spacecraft Center, National Aeronautics and Space Administration, 1962. 4to. vi,+ 107 pp. Illustrated. Stapled as issued, in printed wrappers. (NASA SP-6.) Inscription on front wrapper: "To Carl-Johan Clemedson with warm greetings & regards. Don Flickinger Washington, D.C." **1200:–**
- With Mercury-Atlas 7, as the mission officially was named, Carpenter became the second American astronaut – following John Glenn – to complete an orbital space flight. The report contains sections on spacecraft and launch-vehicle performance, Mercury network performance, mission operations, space science report, aeromedical studies, pilot performance and pilot's flight report. Brigadier



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general Don Davis Flickinger was a US military flight surgeon who served as vice chairman in the NASA Special Committee on Life Sciences, which provided medical guidance for Project Mercury.

The Swedish military physician Carl-Johan Clemenson (1918–90) was working for Försvarets forskningsanstalt (The Swedish Defence Research Agency) and was one of the first scientists in Sweden to take an interest in space medicine. He was a member of The International Academy of Astronautics.

48. [COSPAR] *Life Sciences and Space Research*. 1–3. A Session of the Third [... the Fourth] [... the Fifth] International Space Science Symposium. Amsterdam, North-Holland Publishing Company, 1962–64. 8vo. XIV,+ (1),+ (blank),+ 184 pp.+ plates; VIII,+ (2),+ 439,+ (1) pp.+ plates; XII,+ 257,+ (1) pp.+ plates. Publ. cloth with dust jackets. Three volumes. All volumes with crossed-out library stamp of "Försvarets forskningsanstalt" on front pastedowns. 2000:–

The third conference took place in Washington, April 30–May 9 1962, the fourth in Warsaw, June 3–12, 1963 and the fifth in Florence, 12–16 May, 1964. Sponsored by Committee on Space Research (COSPAR). With an impressive amount of contributors, among others John H. Glenn, Carl Sagan, N. M. Sisakyan, A. A. Imshenetsky. COSPAR was founded in 1958 by the International Council of Scientific Union, ICSU, for continuation of the cooperative programmes of rocket and satellite research undertaken during the "International Geophysical Year" of 1957–58.

49. SISAQYAN, N. M. (Ed.) *Problemy kosmičeskoj biologii*. Tom 1. Moscow, Izdatel'stvo Akademii nauk SSSR, 1962. 8vo. 463 pp. Illustrated. Publ. cloth with dust jacket, the latter dampstained. Stitching somewhat loose. Dedication on front fly leaf "Prof. Clemenson from [illegible signature, possibly beginning with a cyrillic "G"] with compliments". 1200:–

Title in English: "Problems of space biology. Vol. 1. (Our translation.) No. 1 only of at least 6 published volumes, some of which were translated into English as *Problems of space biology*. The editor Norayr Martirosovich Sisakyan (1907–1966) was a prominent Soviet biochemist and member of the USSR Academy of Sciences. The dedicatee Carl-Johan Clemenson (1918–90) was a Swedish military physician working for Försvarets forskningsanstalt (The Swedish Defence Research Agency). Clemenson was one of the first scientists in Sweden to take an interest in space medicine.

50. SISAQYAN, N. M. (Ed.) *Problemy kosmičeskoj biologii*. Tom 4. Moscow, Nauka, 1965. 8vo. 715 pp. Illustrated. Publ. cloth with dust jacket.

33



49, 50, 51

Rather heavy dampstaining throughout, including warped boards and wrappers. Dedication on front fly leaf: "To Dr. Clemedson with best wishes 16/IX-65. Gurjian". **900:–**

Title in English: "Problems of space biology. Vol. 4. (Our translation.) No. 4 only of at least 6 published volumes, some of which were translated into English as *Problems of space biology*. The editor Norayr Martirosovich Sisakyan (1907–66) was a prominent Soviet biochemist and member of the USSR Academy of Sciences. "Gurjian" is most likely Armen A. Gurjian (1924–?), who was a Soviet medical researcher, active in the field of space medicine. The dedicatee Carl-Johan Clemedson (1918–90) was a Swedish military physician working for Försvarets forskningsanstalt (The Swedish Defence Research Agency). Clemedson was one of the first scientists in Sweden to take an interest in space medicine and he was a member of The International Academy of Astronautics.

- 51. SISAQYAN, N. M. & JAZDOVSKIY, V. I.** (Eds.) *Pervye kosmičeskie polety čeloveka*. [Naučnye resul'taty mediko-biologi eskich issledovanij, provedennyh vo vremja orbital'nyh poletov korablej-sputnikov "Vostok" i "Vostok-2".] Moscow, Izdatelstvo Akademii nauk, 1962. 8vo. 203,+ (1) pp.+ plates. Illustrated. Publ. decorated cloth with somewhat worn dust jacket. Owner's signature "Clemedsson" on front fly leaf. **2500:–**

Title in English: "The first space flights of man. Scientific results of medico-biological studies conducted at the time of the orbital flights of the space ships Vostok and Vostok 2." (Our translation.) Clemedson was one of the first scientists in Sweden to take an interest in the field of space medicine, which arguably was founded in connection with the flights of Vostok and Vostok 2 in 1961, although the term was first coined by the German-American physician Hubertus Strughold in 1948.

- 52. SISAQYAN, N. M.** (Ed.) *Vtoroj gruppovoj kosmičeskij polet i nekotorye itogi poletov sovetskikh kosmonavtov na korabljach "Vostok"*. [Naučnye resul'taty mediko-biologičeskich issledovanij, provedennyh vo vremja vtorogo gruppovogo kosmi eskogo poleta ...] Moscow, USSR Academy of Sciences, 1965. 8vo. 228 pp.+ plates. Illustrated. Publ. cloth with dust jacket. **2500:–**

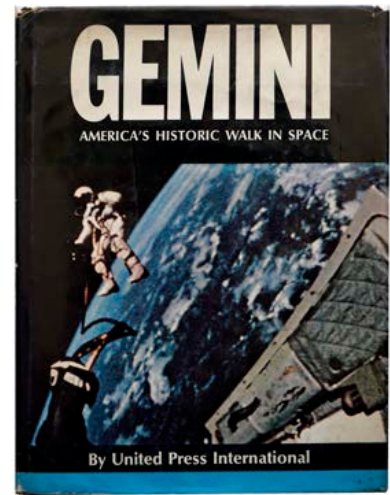
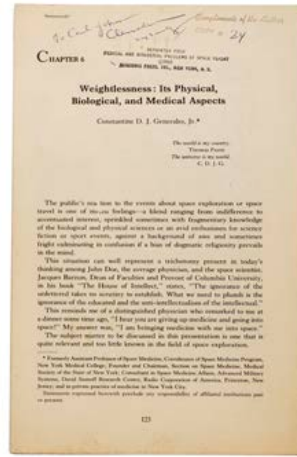
Title in English: "The second group flight in space and some flight results by the Soviet cosmonauts in the "Vostok" spaceships. Scientific results of the medico-biological studies conducted at the time of the second group flight in space ..." (Our translation). The first flight with two spaceships in orbit at the same time was made with Vostok 3 and 4 in 1962. This second group flight involved Vostok 5, piloted by Valerij Bykovskij, and Vostok 6, flown by Valentina Tereshkova, the first woman in space. During this mission, a direct radio link between two spaceships was established for the first time.

- 53. STAPP, John Paul et al.** *Analysis and Biodynamics of Selected Rocket-Sled Experiments*. July 1964. (Prepared under Contract No. AF41(609)–2317 by Northrop Space Laboratories, Hawthorne, California, Authors: J. P. Stapp, Colonel, USAF (MC), J. D. Moseley, Major, USAF (VC), C. F. Lombard, Ph. D., G. A. Nelson, M. E.). 1–2. Brooks Air Force Base, Aerospace Medical Division (AFSC), USAF School of Medicine, 1964. 4to. (4),+ v,+ (blank), + 161; (2),+ ix,+ (blank),+ 148 pp. Sewn as issued, in printed wrappers. Spine worn. **600:–**

Stapp was a pioneer in rocket-sled tests to investigate the effects of acceleration on the human body, using himself as test-object.

- 54. GENERALES, Constantine.** *Weightlessness: Its Physical, Biological, and Medical Aspects*. Reprinted from *Medical and Biological Problems of Space Flight*. New York, Academic Press,

53, 54, 56



1963. 8vo. Pp. 123–87. Illustrated. Stapled. Dedication to Carl-Johan Clemedson and stamp, 'Compliments of the Author COPY #', with copy number 24 added in ink. With some pencilled marginal markings.

3000:–

The Greek-American physician Constantine Generales Jr (d. 1988) was assistant professor of medicine, coordinator of the space medicine program at New York Medical College and one of the true pioneers within the field of space medicine. His own introduction to the field was instigated by no other than Wernher von Braun, a meeting described by Dennis Piskiewicz in *The Nazi Rocketeers. Dreams of Space and Crimes of War* (1995): "Wernher von Braun had experimented with a centrifuge as a means of generating g-forces. In the summer of 1931 he had taken a leave of absence from the Raketenflugplatz to continue his engineering studies at the Institute of Technology at Zurich. While there, he interested an American medical student named Constantine Generales in the physiological consequences of space flight. The two young students decided to conduct the first experiments in space medicine. They built a rudimentary centrifuge to give laboratory mice the experience of rapid acceleration and the high g-forces that accompany it. Not surprisingly, many of the mice expired during their trips. Generales autopsied their remains and discovered that high g-forces caused cerebral hemorrhage, which was the probable cause of death. The observation was confirmed by von Braun's landlady who discovered a ring of mouse blood that circled the room at the height of the centrifuge's rotor." Carl-Johan Clemedson (1918–90) was a Swedish military physician working for Försvarets forskningsanstalt (The Swedish Defence Research Agency). Clemedson was one of the first scientists in Sweden to take an interest in space medicine and he was a member of The International Academy of Astronautics.

**55. TSIOLKOVSKY, K. E.** *Sobranie sočinenij. Tom četvrtij. Estestvoznanie i tehnika.* [Collected works. Volume four. Natural sciences and technology.] Moscow, Izdatel'stvo "Nauka", 1964. 8vo. 459 pp. Illustrated. Publ. cloth. 1200:–

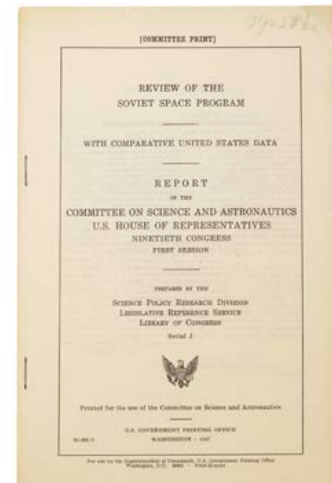
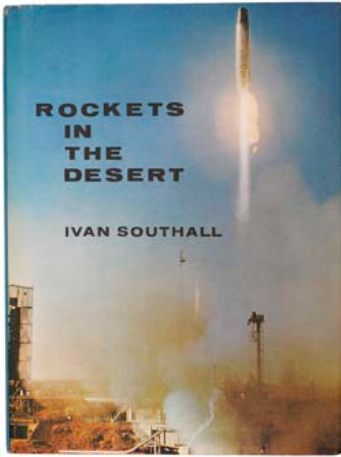
Printed in 2000 copies. The fourth and last volume of the multi-faceted collected works of the Russian pioneer of rocketry and astronautics, Konstantin Tsiolkovsky, containing sections on astronomy, biology and technology. Among the many chapter headings are (in our translation): "Gravity as the source of global energy", "The formation of double stars", "Mechanics and biology (the evolution of life up until Man)", "Air resistance and fast trains" and "The cultivation of hot deserts".

**56. LEARY, Francis T. et al (Eds.)** *Gemini. America's Historic Walk in Space.* Englewood Cliffs, United Press International/ Prentice-Hall, 1965. 4to. (96) pp.+ colour plates. Illustrated. Publ. printed boards with slightly worn dust jacket. 1200:–

Co-editors were: Harold Blemenfeld and Daniel Moses. Text by Alvin B. Webb, Jr., Norman Runnion and H. D. Quigg. Gemini 4 was second manned mission in the Gemini program and is mainly remembered for Edward H. White's 22 minute space walk, the first made by an American.

**57. SOUTHALL, Ivan.** *Rockets in the Desert. The Story of Woomera.* Sydney, Angus and Robertson, 1965. 8vo. (8),+ 79 pp. Illustrated. Publ. cloth with dustwrapper. Library stamp of Carlota Frahm. 450:–

On the Australian rocket research program. The RAAF Woomera Range Complex (WRC) is a major Australian military and civil aerospace facility and operation located in South Australia, approximately 450 km (280 mi) north-west of Adelaide.



57, 58, 62

- 58. [ESRO] *European Space Research Organization*.** General Report 1964–1965. Paris, (1966). 4to. 143,+ (1) pp.+ plates. Folding diagram in pagination. Sewn as issued, in printed wrappers. **2000:–**

A very fine copy of ESRO's first general report. ESRO was founded in 1962 by 10 European nations and Australia, whose launch site at Woomera was used by the organization. In 1975 it merged with ELDO (European Launcher Development Organization) to form ESA.

- 59. KLEE, Ernst & MERK, Otto.** *Damals in Peenemünde*. An der Geburtstätte der Weltraumfahrt. Ein Dokumentarbericht mit einem Vorwort von Dr. Walter R. Dornberger und einem Nachwort von Prof. Dr. Wernher von Braun. Richly illustrated. Oldenburg und Hamburg, Gerhard Stalling Verlag, 1963. 8vo. 120 pp. Publ. cloth. Oldenburg und Hamburg, Gerhard Stalling Verlag, 1963. 8vo. 120 pp. Richly illustrated. Publisher's cloth. Lacks dust jacket. **600:–**

Walter Dornberger (foreword) and Wernher von Braun (afterword) were both key figures in the development of the V2 rocket at Peenemünde and both found employment in the US missile and rocket development programs after the war. Ernst Klee (1942–2013) would later become one of Germany's most important authors and journalists when it came to documenting the crimes committed by the Nazi regime during the Second World War. In this technical and administrative documentation of the development and building of rockets at Peenemünde and its subsequent importance for the US space program, there is however no mention of the extensive use of slave labour by the Nazi rocketeers.

- 60. CLEMEDSON, Carl-Johan.** *Sterilization of Lunar and Planetary Space Vehicles (A Review)*. Reprint from XIIIth International Astronautical

Congress, Varna 1962. Proceedings. Wien and New York, Springer-Verlag, 1964. 8vo. (1),+ 292–313 pp. Stapled. Dedication to Margit Svedberg on first page. **350:–**

Carl-Johan Clemedson (1918–90) was a Swedish military physician working for Försvarets forskningsanstalt (The Swedish Defence Research Agency). Clemedson was one of the first scientists in Sweden to take an interest in space medicine and a member of The International Academy of Astronautics. An often occurring name in this catalogue!

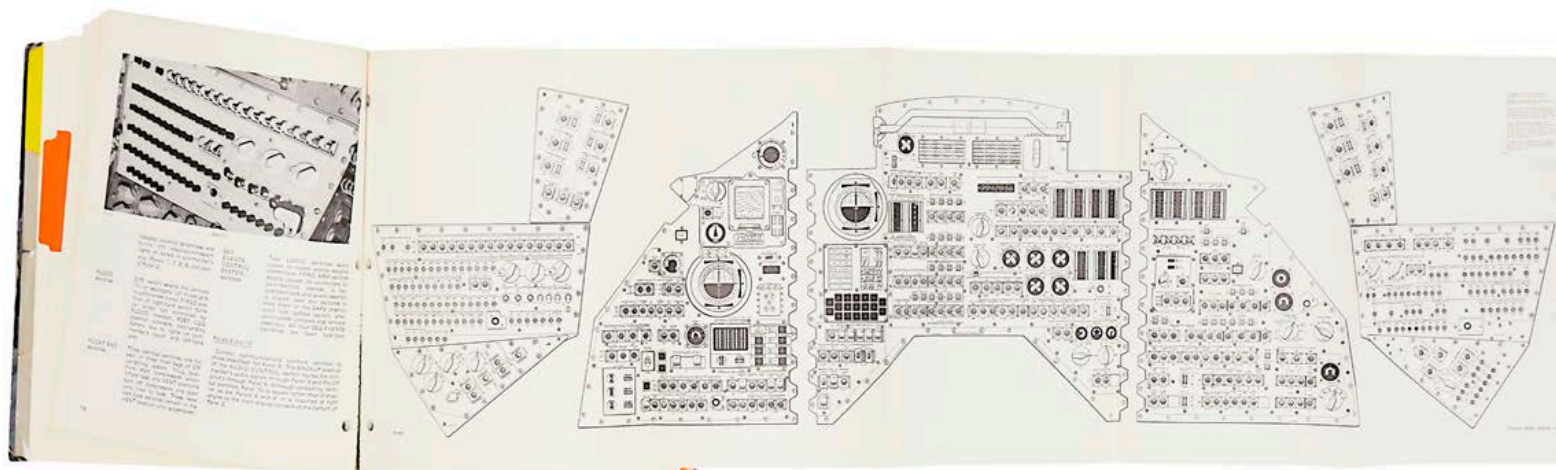
- 61. [Gemini] GILL, Jocelyn R. (Ed.)** *Earth Photographs from Gemini III, IV and V*. Washington, D. C., Scientific and Technical Information Division, Office of Technology Utilization, National Aeronautics and Space Administration, 1967. 4to. x,+ 266 pp. Illustrated. Publ. dec. red cloth. (NASA SP-129.) **450:–**

- 62. SHELDON, Charles S. II.** *Review of the Soviet Space Program*. With Comparative United States Data. Report of the Committee on Science and Astronautics. U. S. House of Representatives, Ninetieth Congress, First Session. Prepared by the Policy Research Division, Legislative Reference Service, Library of Congress. Serial J. Printed for the Use of the Committee on Science and Astronautics. Washington, U. S. Government Printing Office, 1967. 8vo. VI,+ 138 pp. Stapled. (Committee Print.) **2000:–**

First edition. A hardcover edition was published by McGraw-Hill in New York 1968. A fascinating contemporary american account of the early Soviet Space Program, containing, among other things, descriptions of manned and unmanned programs, military satellites, compendiums of official statements and future plans.

- 63. [Apollo 11] *Apollo Spacecraft News Reference*.** [Command and service modules]. Downey





63

Calif., North American Rockwell Corp, 1969. 4to. (280 x 213 mm.). 330 pp. Richly illustrated. Publisher's black wrappers, illustrated on front cover. Coloured plastic tabs attached to outer edge of index leaves. "Carl O Löfman" written in block letters on first page. Some pencil notes and underlinings. **20000:-**

The official news reference to the command and services modules of the Apollo spacecraft, published by the manufacturer North American Rockwell in cooperation with NASA's Manned Spacecraft Center. This issue is revised in July 1969, that is, at the time of Apollo 11. The leaves are punched in the inner margin, since the volume was originally published as a loose-leaf system in a ring-binder, which could be updated as the project evolved. All original issues of this news reference are very rare, and as a consequence, a new edition was published in 2011.

The first part describes the Apollo program in general and ends with a short section on "Post-Apollo programs", including a space station planned for the mid-1970s and early 1980s. The second part describes the command and service modules (the lunar module also gets a brief description), while the third part treats the subsystems, such as displays and controls, docking, launch escape, telecommunications and space suit. The fourth part is dedicated to support, with sections on checkout and final test, reliability and training and Apollo manufacturing. The fifth and final part contains, among other things, sections on the subcontractors for the command and service modules, a list of contracts with costs, biographical summaries (NASA heads, heads of contractors, astronauts etc), an Apollo chronology, a glossary and an index.

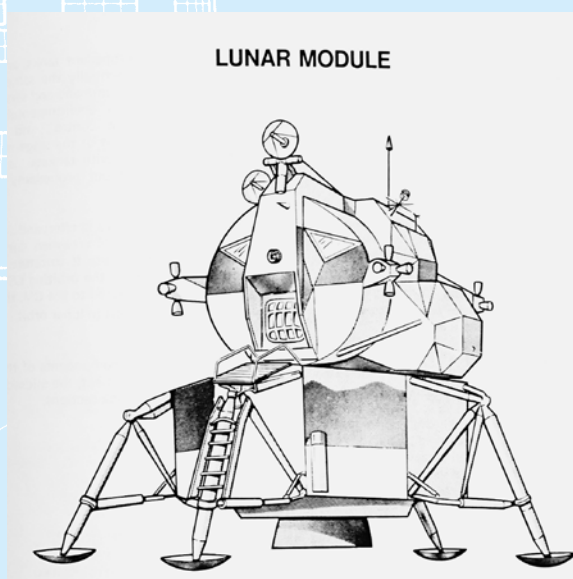
The present copy was bought directly at the NASA press center by the Swedish photographer and Emmy-awarded tv-producer Carl O. Löfman (1938–2016), who covered the launch of Apollo 13 in April 1970.

**64. [Apollo] ILC. Familiarization & operations manual. Model A7L. Apollo block II. Contract end items. NASA. [...] 14 february 1969. Change no. 5 1 october 1969. N.p., 1969. 4to. (186) typed, photocopied leaves. Illustrated. In a black cloth-backed binder. White label on front cover with number of copy and "Uncontrolled copy" written in blue ink and "Carl O Löfman" in black block lettering. A few leaves with some fading due to poor photocopying. (Document no. 8812700149 B. Release date jun 6 1969.)**

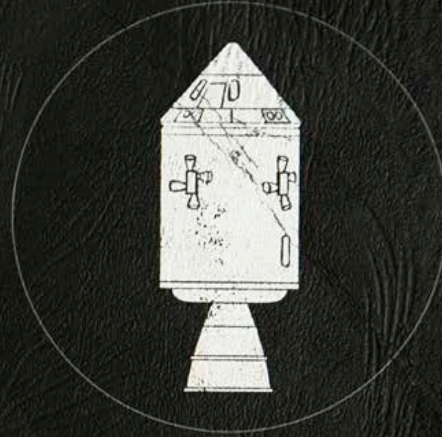
**5000:-**

This manual was intended for use by the Apollo astronauts but perhaps mainly for the many people in various positions within the International Latex Corporation (ILC), Dover, and NASA, involved in the pioneering design and construction of the first Apollo space suit, the A7L. It was first used on the Apollo 7 mission in October 1968 and for the last time on Apollo 14 in January 1971.

Described in this manual is the block II version, which was the first to include support for extra-vehicular activity (EVA). The constant development and



COMMAND AND SERVICE MODULES

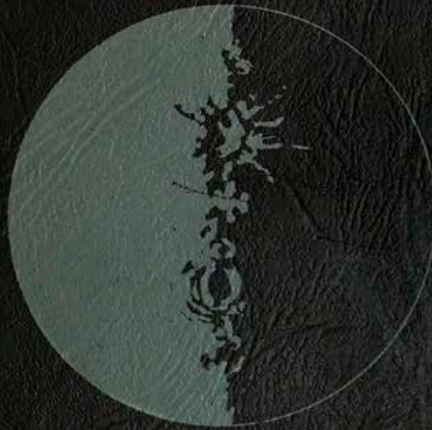


# APOLLO SPACECRAFT NEWS REFERENCE



Space Division  
North American Rockwell

MANNED SPACECRAFT CENTER  
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION



improvement of the space suit - the present copy lists 11 changes from 14 February to 1 October 1969 – necessitated the use of a binder in which leaves with obsolete or inaccurate information easily could be replaced with new ones. Written and designed for professionals, the manual offers an insight into the myriad of details which had to be thought through when the first space suit designed for moonwalks was created, from the iconic EV Pressure Garment Assembly (the outer shell) and the Extravehicular Visor Assembly (the helmet) seen worn by the astronauts on the the pictures from the Moon, to the less visible but obviously essential Fecal Containment Subsystem (yes, it is what it sounds like).

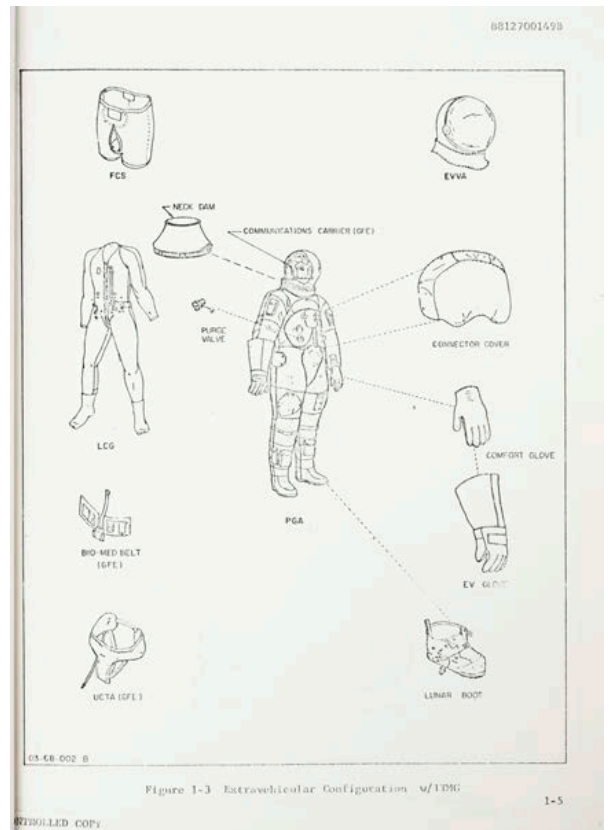
The text is accompanied by a large number of illustrations showing the many components which made up a fully equipped A7L in both extravehicular and intravehicular configuration – the latter used by the astronaut tasked with remaining in orbit around the moon on the command module.

The present copy was bought directly at the NASA press center by the Swedish photographer and Emmy-awarded tv-producer Carl O. Löfman (1938–2016), who covered the launch of Apollo 13 in April 1970. It is, as stated both in handwriting on the cover and in typed letters on the first page, an uncontrolled copy, which meant that it could only be used as part of the information material that was distributed to the press and to others who were not directly involved in the Apollo project.

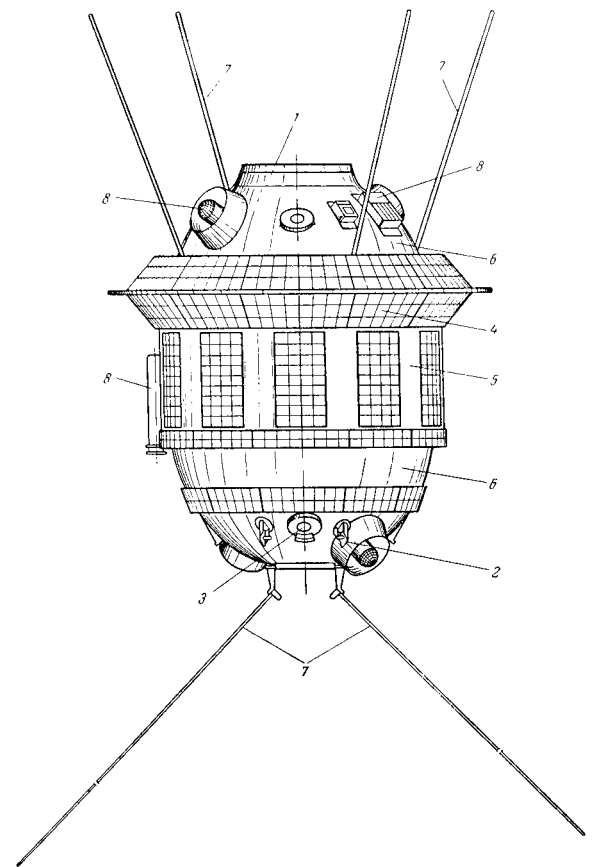
**65. [Apollo 11] Apollo 11 Mission commentary.**

Two typescript and mimeographed transcripts of the recorded communications between the command module Columbia, the lunar module Eagle and NASA's Mission Control Centre in Houston, Texas, during the first lunar landing and the first walk on the moon. Dated 20 July 1969. (Houston, 1969). 27 leaves, numbered 295/2–313/1,+ 26 leaves, numbered 330/2–347/1. In two parts, both stapled in upper left corner. In two blue cloth folding boxes, black labels with gilt lettering on spines, the first with the text "First moon landing", the second with "First steps on moon". **18000:–**

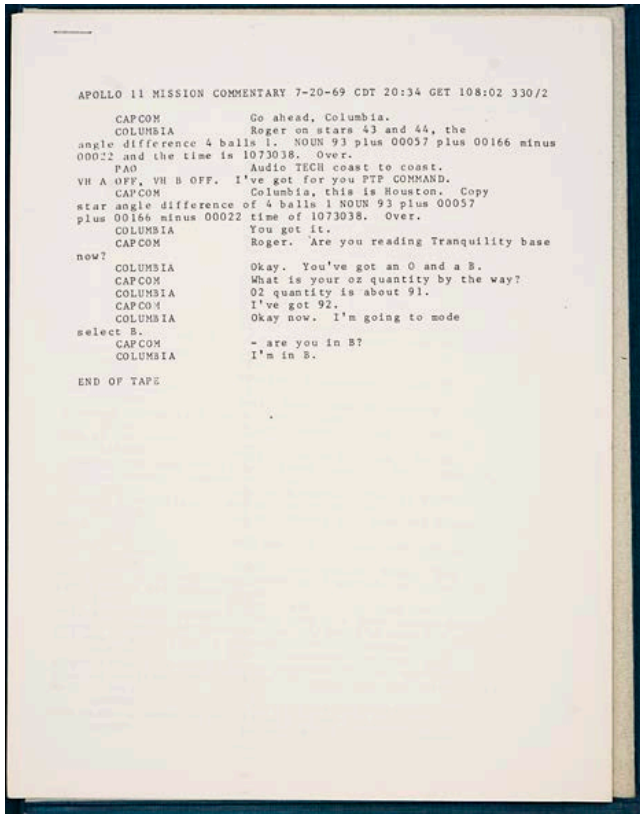
NASA distributed these transcripts to the journalists who were present in Houston to report on the Apollo 11 mission shortly after the moonlanding and the first walk on the moon. The first part covers the flight of the lunar module Eagle from the command module Columbia to the moon and the landing procedure, while the second part continues directly from the first and contains Armstrong's famous words as he steps down on the surface of the moon. The ephemeral character of these stenciled press releases – most were probably discarded of soon after the lunar journey – has contributed to their rarity.



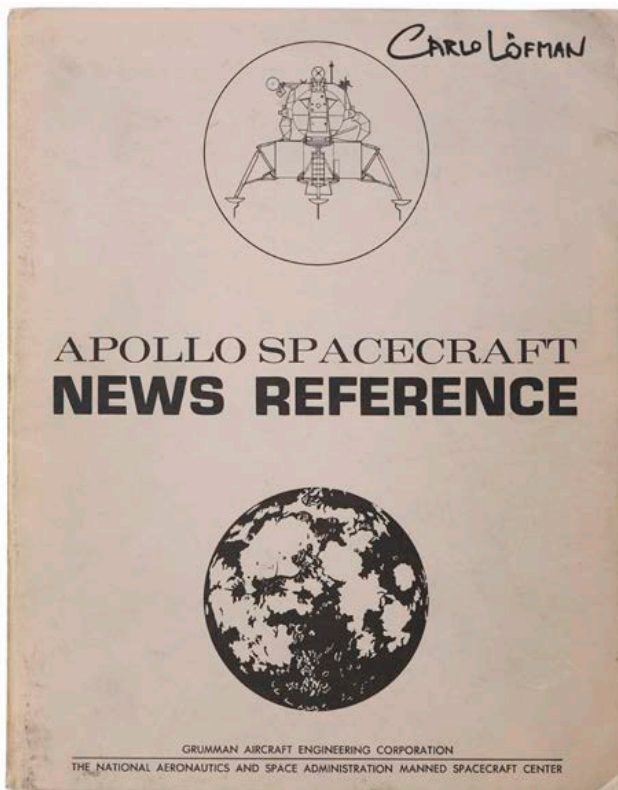
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66. [Apollo 11] (DUNNE, Richard C. Ed.) *Apollo spacecraft news reference*. [Lunar module]. New York, Grumman Aircraft Engineering Corporation, (c. 1970?). 4to. (228) pp. (multiple paginations), one page folded. Richly illustrated in black & white. Publisher's printed wrappers, slightly worn and soiled with some spotting, handwritten title in Swedish, "Månlandare", on spine, front cover with name "Carlo Löfman" written in black block letters. **20000:-**

Prepared by Public Affairs, Space, at Grumman Aircraft Engineering Corporation, Bethpage, New York in cooperation with the National Aeronautics and Space Administration Manned Spacecraft Center.

The official Grumman news reference for the Project Apollo lunar module and the handy guide to all aspects of the lunar module (LM) and its mission.

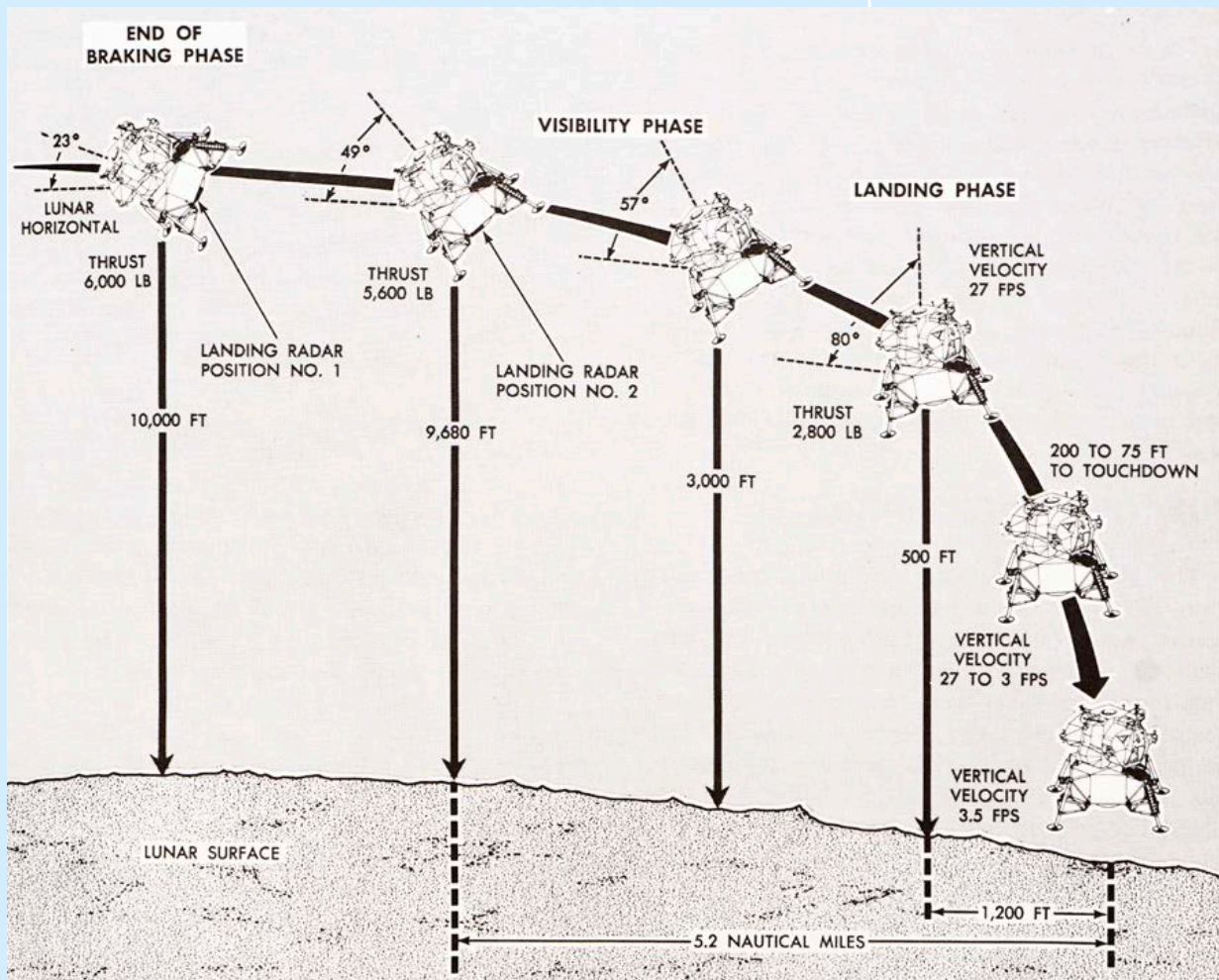
It was distributed, among others, to the journalists covering the Apollo launches. According to an internet posting by the editor of the manual, Richard C. Dunne, who was chief spokesperson for the Grumman corporation at the time, ca 2000 copies were distributed in two formats, a blue-cover version with loose leaves that could be updated during the Apollo program and the present version, which was most likely published when the details of the project had been settled. Whatever the size of the printings, all versions of the original Apollo spacecraft news reference has become increasingly hard to find.

The book contains sections on mission description, the Apollo spacecraft, lunar module, crew personal equipment, environmental control, controls and displays (including foldout of instrumentation), guidance, navigations and control, main propulsion, reaction control, electrical power, communications, instrumentation, lighting and a glossary. The present copy was bought directly at the NASA press center by the Swedish photographer and Emmy-awarded tv-producer Carl O. Löfman (1938–2016), who covered the launch of Apollo 13 in April 1970.

67. [Apollo 13] [Telephoto showing an artist's conception of the damaged service module of Apollo 13] New York, AP, 1970. 1 glossy black and white photograph (ca 238 x 180 mm) with typed text at bottom. Traces of tape on reverse. **400:-**

A contemporary copy of a press photo from the time when a whole world followed the intense work to save the Apollo 13 astronauts after the disastrous explosion on the service module. The photo has rather poor resolution due to the method of transfer.

68. [Apollo 14] [Collection of NASA and IPS press photos presenting the Apollo 14 project] Washington, NASA, 1970–71 & N.p., IPS [International Press Syndicate], 1970. 48 glossy black and



33

white photographs, forty six issued by NASA and with blue carbon copied text on reverses, two issued by IPS with stenciled description taped onto reverses (c. 254 x 203 mm – the IPS photos somewhat smaller in size). A few creases.

16000:-

The photos mainly show various training programs and equipment for the Apollo 14 lunar crew, Alan Shepard and Edgar Mitchell, but also astronaut family portraits, interiors, personnel and visitors at the control center and the launch site, the launch, scenes from the lunar landing site, and the lunar crew posing with rock samples after the return, among other things.

69. [Apollo 15] Apollo 15. Preliminary science report. Prepared by NASA Manned Spacecraft Center. Washington, Scientific and Technical Information Office, National Aeronautics and Space Administration, 1972. 4to. xiv,+ 11,+ (blank),+ 11,+ (blank),+ 32,+ 4,+ 112,+ 25,+ (blank),+ 28,+ 25,+ (blank),+ 16,+ 7,+ (blank),+ 23,+ (blank),+ 10,+ 5,+ (blank),+ 6,+ 7,+ (blank),+

6,+ 17,+ (blank),+ 7,+ (blank),+ 7,+ (blank),+ 6,+ 14,+ 9,+ (blank),+ 10,+ 9,+ (blank),+ 112,+ 3,+ (blank),+ 1,+ (blank),+ 3,+ (2) pp.+ 11 folding panoramic plates. Illustrated. Stapled as issued in publisher's wrappers. Head of spine torn. Inscribed on front wrapper: "To Prof. Clemenson Best Wishes from Crew of Apollo 15", written by James Irwin, and signed by all three, Dave Scott, Al Worden and James Irwin.

15000 :-

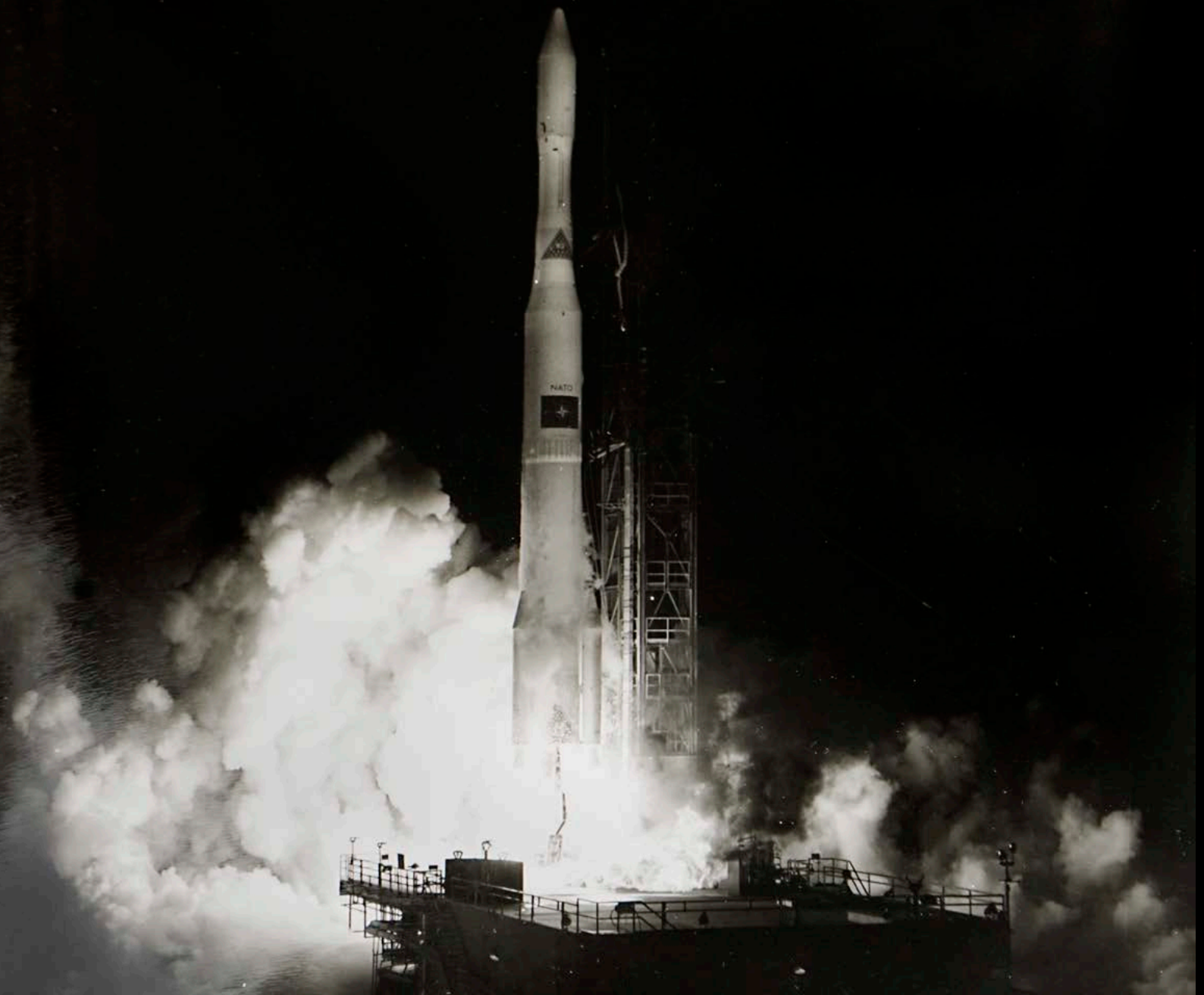
(NASA SP-289.) "In richness of scientific return, the Apollo 15 voyage to the plains at Hadley compares with voyages of Darwin's H.M.S. Beagle, and those of Endeavour and Resolution." (From the foreword by Dr. James C. Fletcher.) This was largely due to the fact that the crew received extensive geological training before the launch. During long excursions with the lunar rover – another novelty with Apollo 15 – Dave Scott and James Irwin collected a total of 77 kilos of surface material which was then brought back to earth. Meanwhile, in his orbit aboard the command module, Al Worden made his own measurements of the moon, using cameras, spectrometers and an altimeter. On the missions return journey to

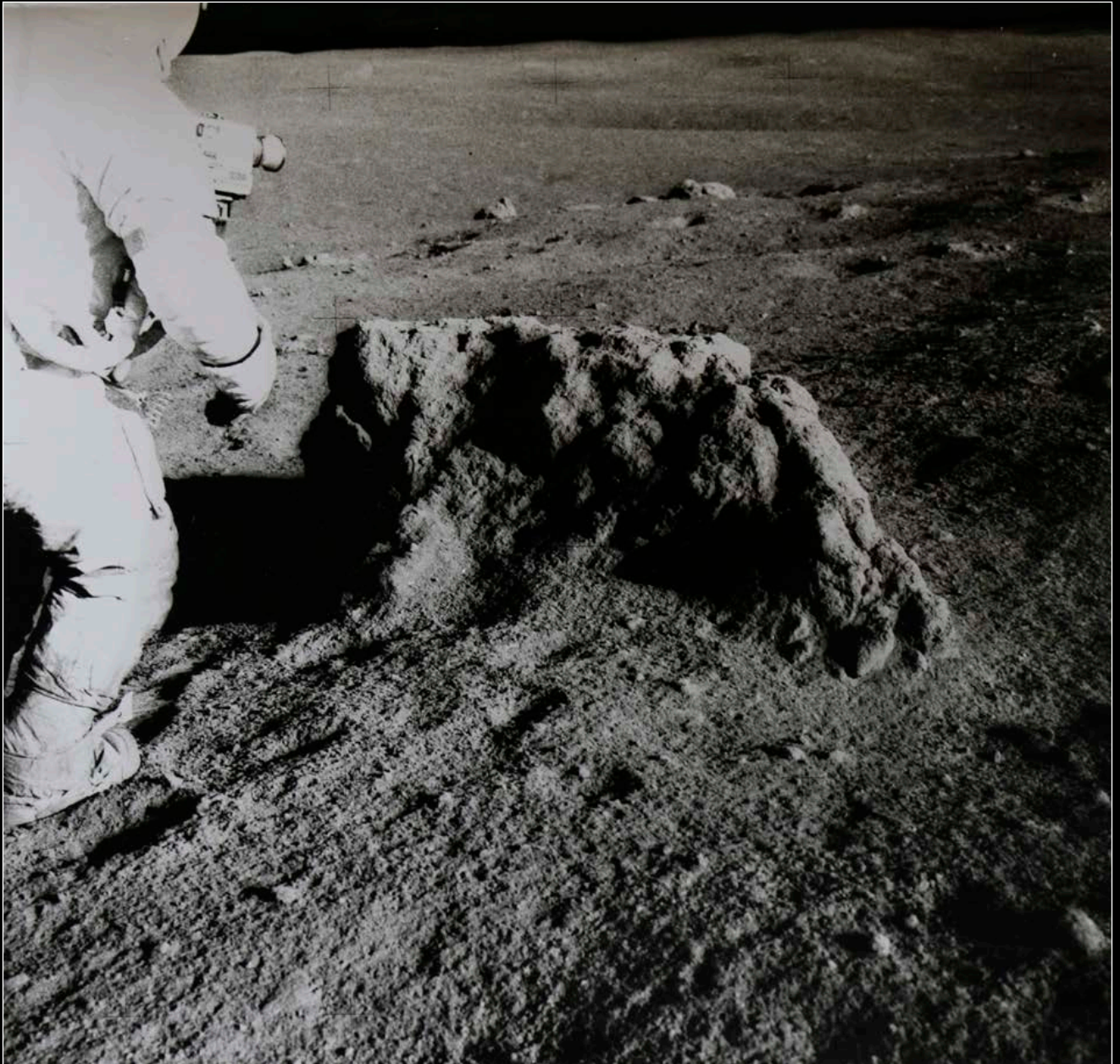
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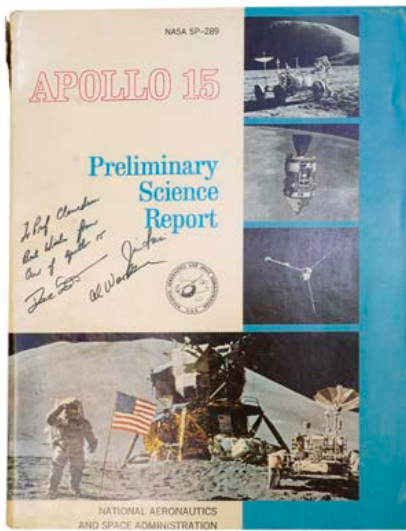


68, 68

68







69, 73

Earth, Worden also made the first spacewalk in deep space.

The dedicatee Carl-Johan Clemedson (1918–1990) was a Swedish military physician working for Försvarets forskningsanstalt (The Swedish Defence Research Agency). Clemedson was one of the first scientists in Sweden to take an interest in space medicine and he was a member of The International Academy of Astronautics.

- 70. [Apollo 17]** [NASA press photo showing the Moon with the landing sites for Apollo 11 and 17, the first and last missions in the program] Washington, NASA, 1972. 1 glossy black and white photograph (ca 254 x 203 mm) with blue carbon copied text on reverse. Creasing and minor tear in upper corner. **500:–**

- 71. [Explorer 45]** [Series of 3 NASA press photos presenting the Small Scientific Satellite program] Washington, NASA, 1970–71. 3 glossy black and white photographs (ca 254 x 203 mm) with blue carbon copied text on reverses. Two of the photos depict technicians working with the satellite before launch, while the third show an artist's concept of the spacecraft in orbit. **1500:–**

Explorer 45, as it eventually was called, became the only spacecraft that was built in NASA's Small Scientific Satellite program. It was designed to perform studies in the magnetosphere using multiple instruments and launched on 15 November 1971 from the Broglia Space Center in Kenya. After having operated successfully for three years it was turned off on 30 September 1974.

- 72. [GEOS Satellite]** [NASA press photo of the Geodetic Earth Orbiting Satellite-2 (GEOS).] Washington D.C., NASA, July 4, 1970. 1 glossy black and white photograph (ca 254 x 203 mm) with blue carbon copied text on reverse. **400:–**

"This is the National Aeronautics and Space Administration's Geodetic Earth Orbiting Satellite-2 (GEOS, designed to conduct measurements with optical, radio and radar beacons; radio transponders; and laser reflectors. It was launched on January 11, 1968, from Cape Kennedy, Florida, into Earth orbit ranging from 671 to 976 miles." (Text on reverse of photo.)

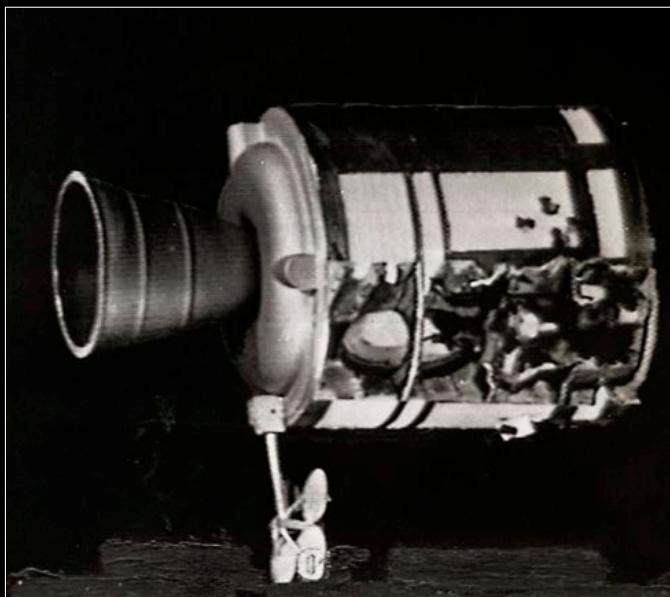
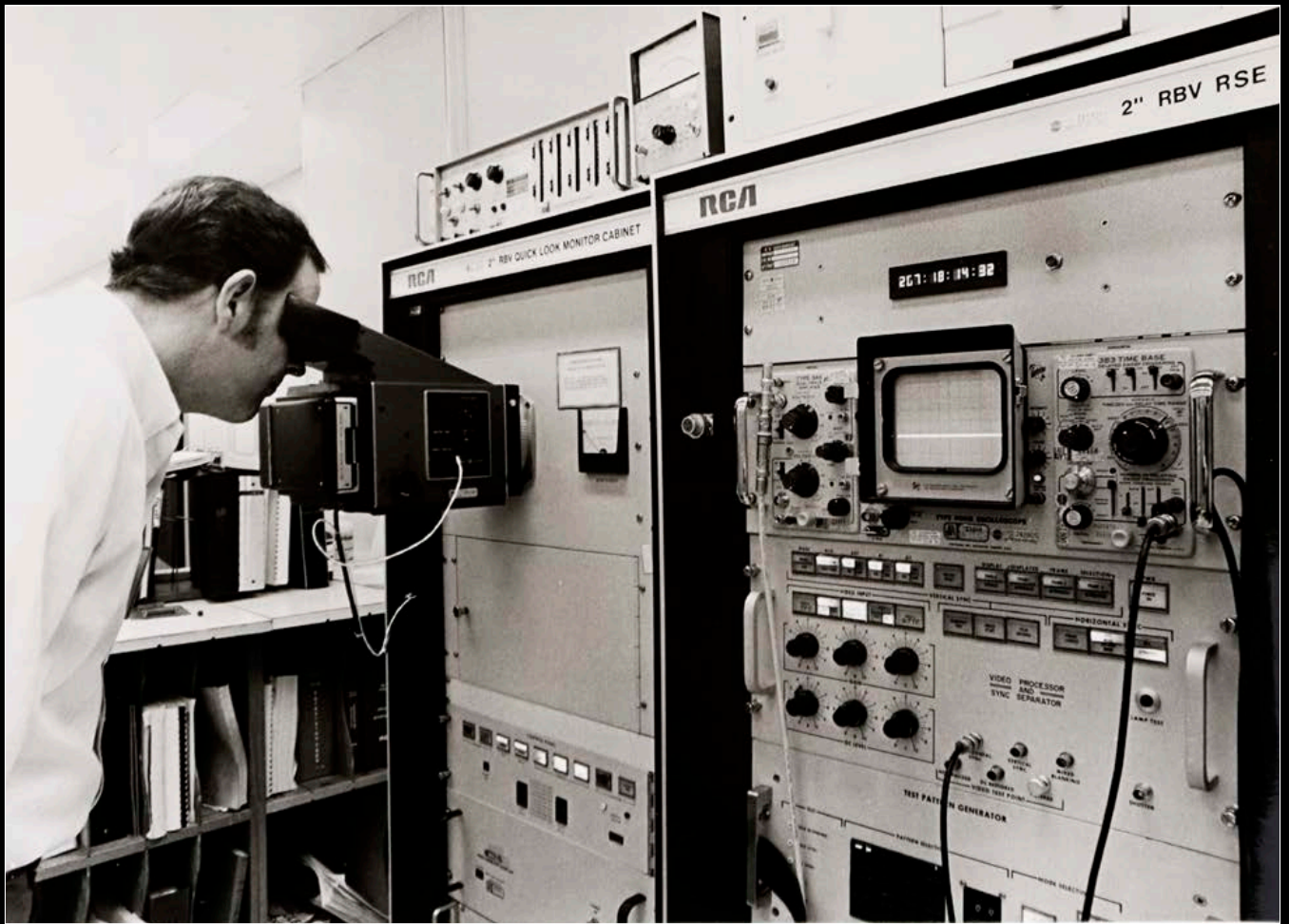
- 73. KOČKUROV, A. M. & FEDOROV, S. M. Počta kosmonavtov.** [The correspondence of the astronauts]. Moscow, Izdatel'stvo Sovyetskaja rossija, 1970. 4to. 117,+ (3) pp.+ plates in black & white. Sewn as issued in printed wrappers. A slightly dog-eared copy. **600:–**

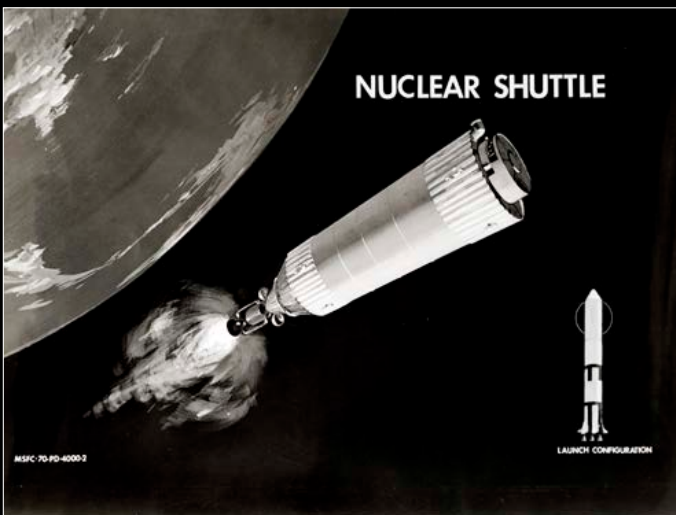
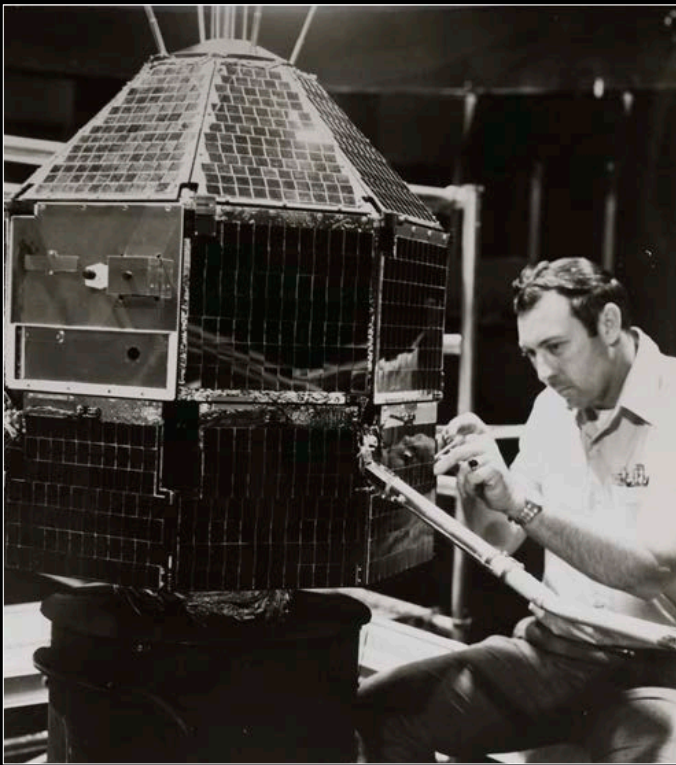
A propagandistic collection of letters to and from the early Soviet cosmonauts, richly illustrated with pictures of the heroes, letters and postcards, medals, monuments and festivities etc.

- 74. [Landsat]** [Series of 8 NASA press photos presenting the ERTS-1 (later renamed Landsat 1, or LS-1) satellite.] Washington, NASA, 1970. 8 glossy black and white photographs (ca 254 x 203 mm) with blue carbon copied text on reverses. One photo with diagonal fold mark. **2000:–**

The development of the Earth Resources Technology Satellite (ERTS) program began in 1967 and the first satellite in the series, ERTS-1, was launched on July 23, 1972. The program, which was renamed Landsat when the second satellite in the series was launched in 1975, became revolutionary when it came to the study and survey of all kinds of Earth resources. Scientists within a wide number of fields – agriculture, forestry, oceanography, geology, meteorology etc – made groundbreaking use of the satellite's two sensors, the return beam vidicon (RBV) and the multispectral scanner (MSS). The latter, which is shown on one of the photos included here, was an experimental sensor and at first considered secon-







dary, but its status was soon upgraded after the data was reviewed. It thereafter became the main source of data from the Landsat satellites. The MSS was designed by Victoria Norwood at Hughes Aircraft Systems, who consequently has been called "The Mother of Landsat". The other pictures in this series show ground personnel working with the systems involved and some early Landsat photos.

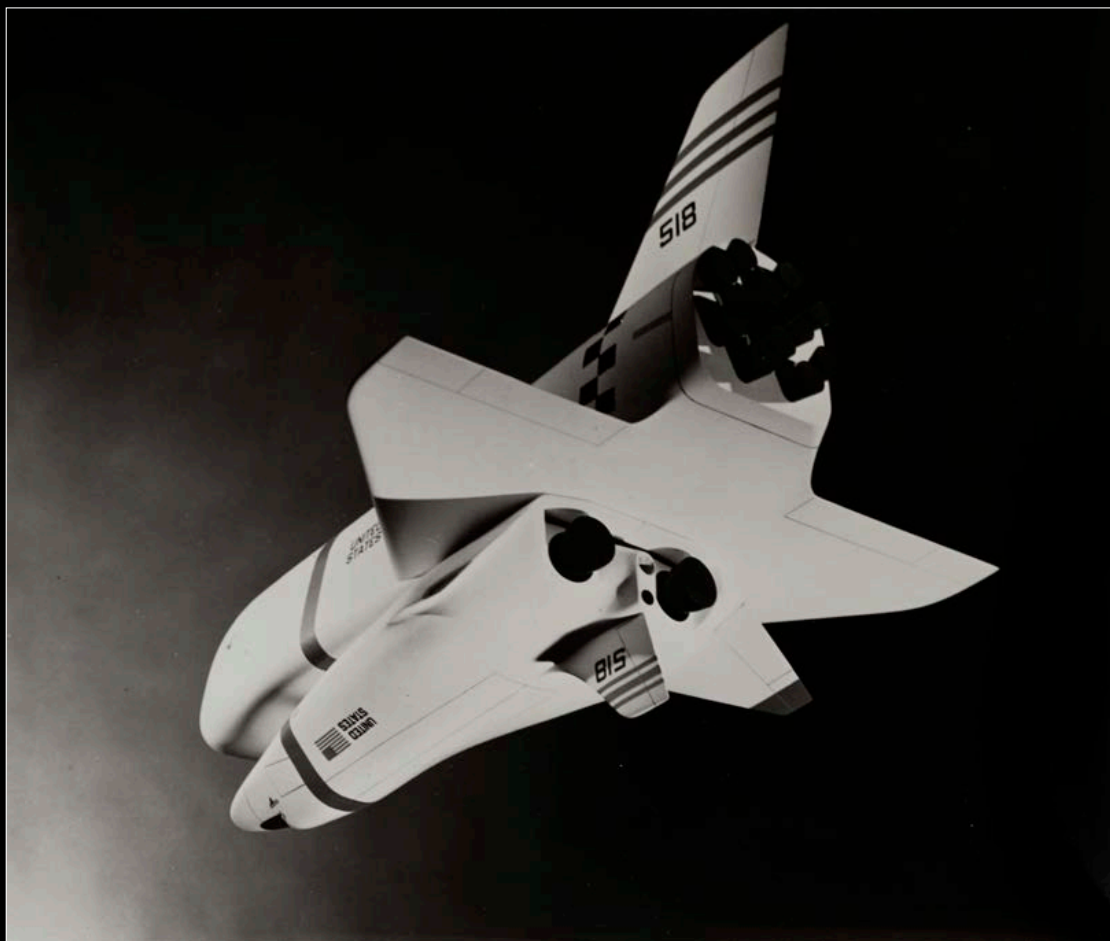
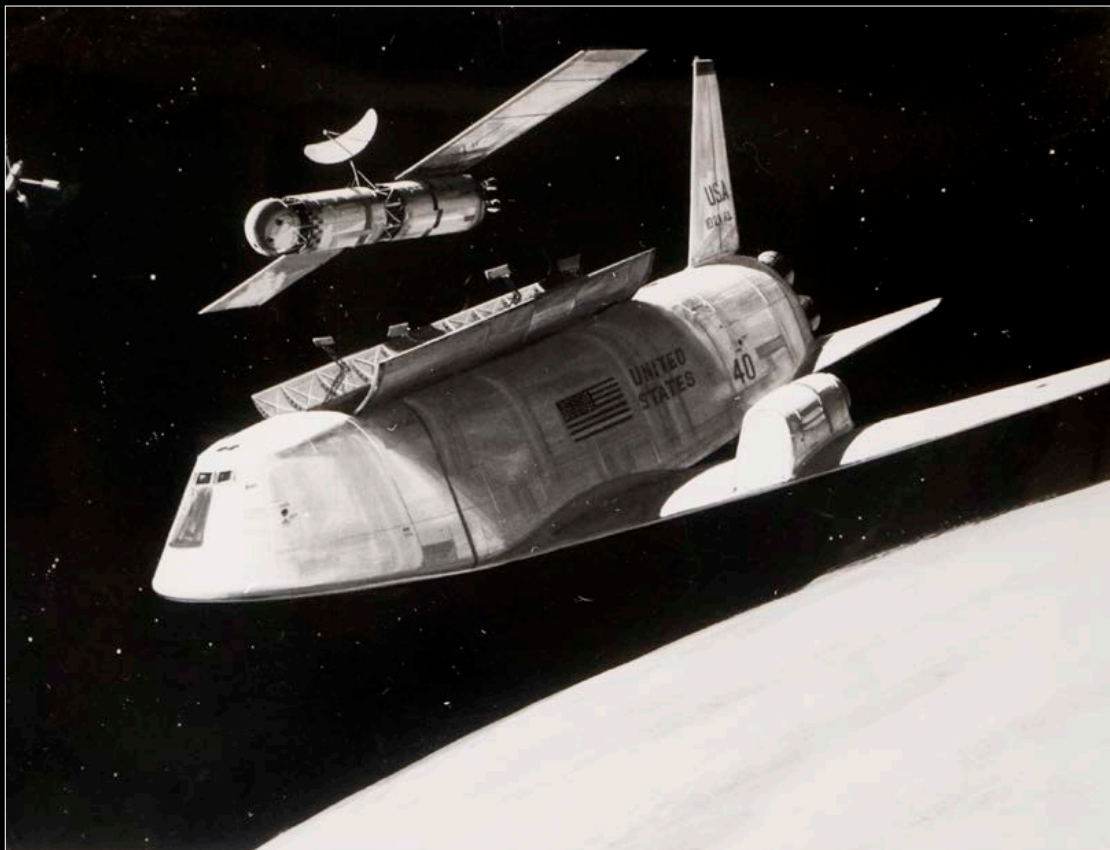
- 75. [Nuclear Shuttle]** [NASA press photo showing an artist's concept for a nuclear shuttle.] Huntsville, NASA, 1970. 1 glossy black and white photograph (ca 254 x 203 mm) with black photocopied text on reverse. **400:-**

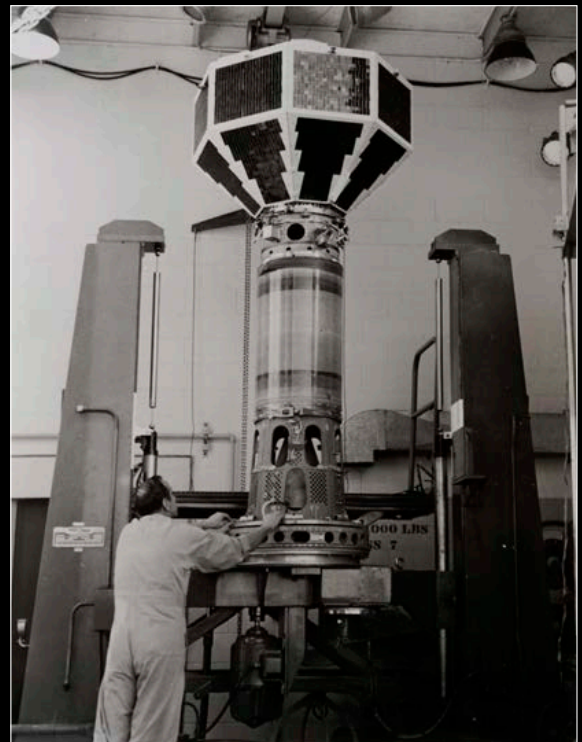
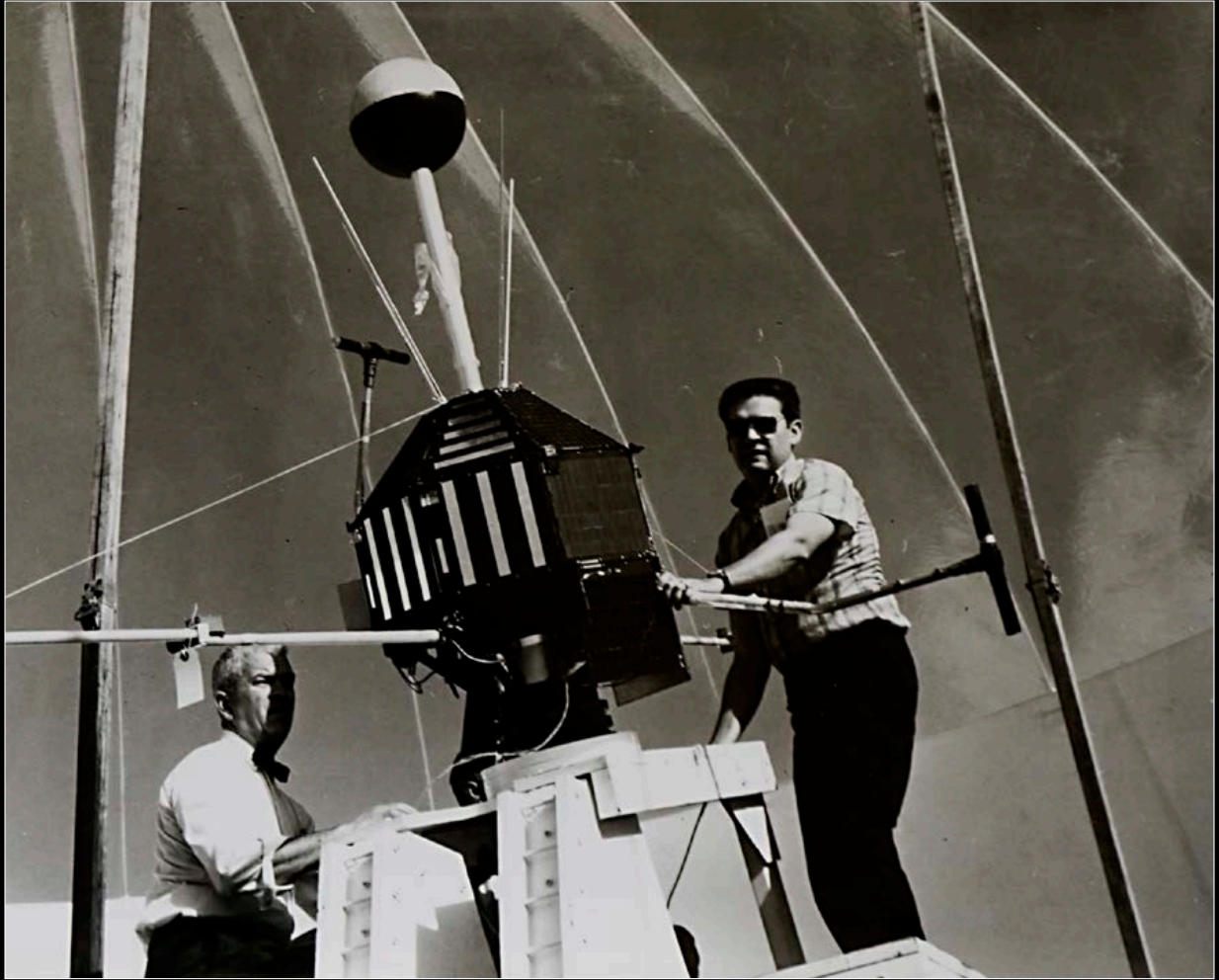
"This artist's concept illustrates the basic configuration of a nuclear powered rocket stage that could be used to make trips back and forth between earth and the moon or be used in conjunction with similar stages on manned Mars exploration missions. In the configuration shown here, the nuclear shuttle would be the third stage of a Saturn V rocket." (Text on reverse of photo.) The American nuclear thermal rocket engine development program, Nuclear Engine for Rocket Vehicle Application (NERVA), ran for about two decades before it was ended in January 1973.

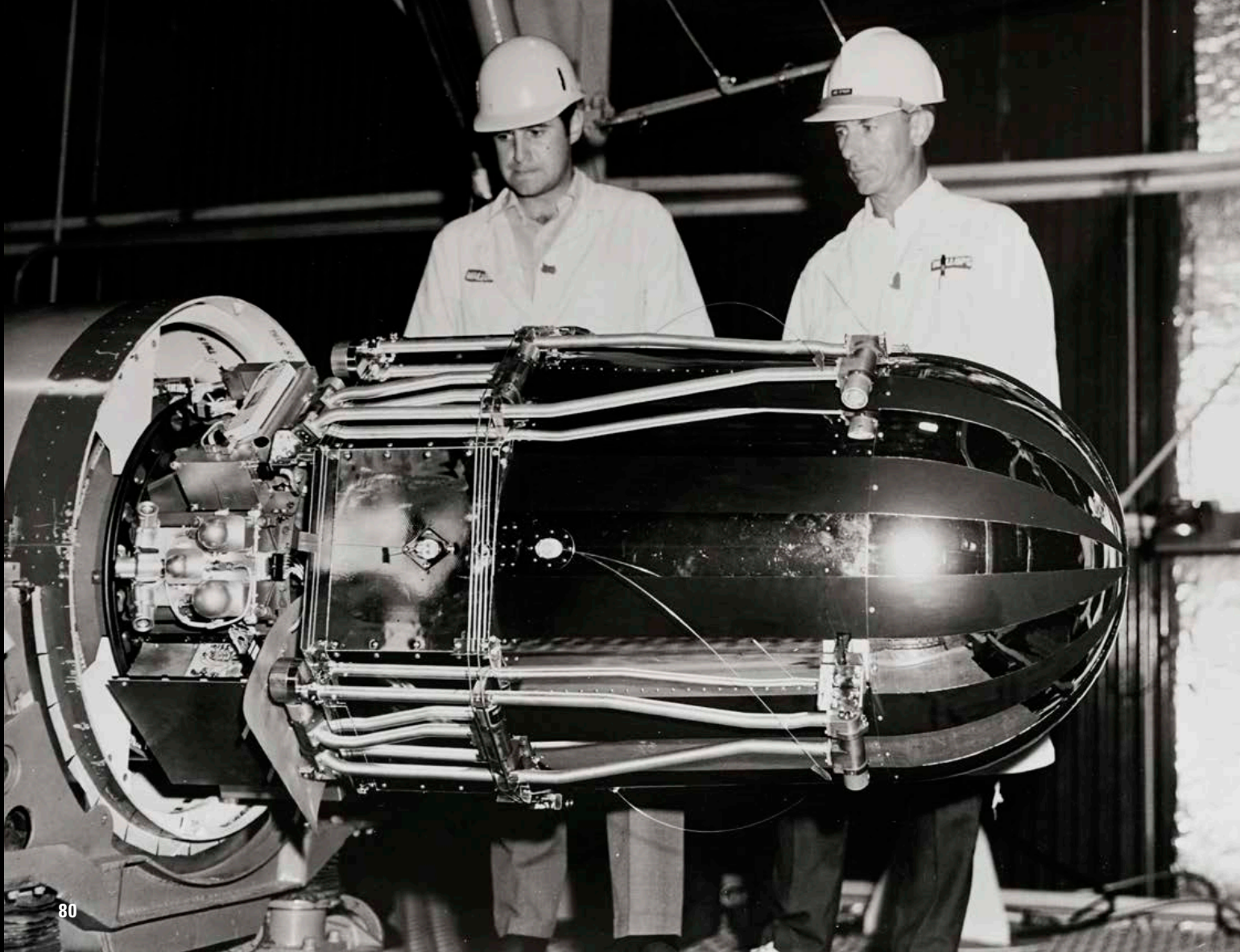
- 76. [Space Shuttle Concept]** Collection of 55 press photos presenting artist's concepts of future space shuttles and space stations. 37 by North American Rockwell Space Division artists and numbered 1-[35] and two unnumbered, + 18 by NASA artists or others. Washington, NASA, 1970-71 & Downey, California, North American Rockwell Space Division, (c. 1970). & N.p., IPS [International Press Syndicate], (c. 1970?). 55 glossy black and white photographs, fifty one issued by NASA and with blue carbon copied text on reverses, two issued by North American Rockwell Space Division with their stamp on reverses and two issued by IPS and with stamp "Pressens Bild AB" on reverses (ca 254 x 203 mm - the IPS photos somewhat smaller in size). A few creases. **9000:-**

An interesting collection giving insight into the early stages of the Space Shuttle project through a number of concept sketches of reusable space vehicles and space stations, both exteriors and interiors. The space shuttles shown here are often of the model first proposed and patented by NASA engineer Max Faget, with a smaller straight-winged (in a few cases delta-winged) orbiter mounted on a larger straight-winged booster. This concept was eventually abandoned for the reusable, delta-winged orbiter, mounted on an expandable propellant tank, that became the final design.

*Mars manned spaceship, landing*







**77. [Space Shuttle]** Series of 8 NASA press photos presenting artist's renderings and models of a Grumman Aerospace Corporation space shuttle concept. Washington, NASA, October 2, 1970. 8 glossy black and white photographs (ca 254 x 203 mm) with blue carbon copied text on reverses. **1500:-**

Having built the Apollo lunar module, Grumman entered the competition to design and build the space shuttle, but lost to Rockwell International. The Grumman space shuttle shown here is in line with the basic concept discussed at the time, which was a smaller winged orbiter mounted on a larger winged booster. It is worth noting that the Grumman booster uses the delta-wing configuration that would later be adopted in the final space shuttle design, while many of Rockwell's concepts at the time still had the original straight-wing configuration that eventually was abandoned. This was due to the fact that such a configuration would not allow the shuttle to withstand the stresses of reentry into the atmosphere. Worth noting is also the vertical delta wings on Grumman's orbiter. A similar wing configuration had earlier been employed on the Martin Marietta X-24 experimental

aircraft – used to try out the concept of unpowered reentry and landing – in the late 1960s.

**78. [Space Shuttle]** Series of 3 NASA press photos presenting the Martin Marietta X-24A experimental rocket aircraft. Washington, NASA, October 27, 1970. 3 glossy black and white photographs (ca 254 x 203 mm) with blue carbon copied text on reverses. **3500:-**

Two of the photos show the aircraft parked on the ground while the third one shows it being drop launched from a B-52 Stratofortress. The X-24 (version A and B) was flown by the NASA Flight Research Center in California between 1969 and 1975 to test lifting body concepts with unpowered reentry and landing that were later used by the Space Shuttle.

**79. [OAO-B]** [NASA press photo showing the OAO-B space telescope at Kennedy Space Center before launch.] Washington, NASA, September 14, 1970. 1 glossy black and white photograph (ca 254 x 203 mm) with blue carbon copied text on reverse. **500:-**

The OAO-B was the third of four satellites in the series Orbiting Astronomical Observatory (OAO). It was launched on 30 November 1970, carrying a large ultraviolet telescope, but failed to make it into orbit.

- 80. [Orbiting Frog]** [Series of 6 NASA press photos presenting the Orbiting Frog Otolith (OFO) satellite program.] Washington D.C., NASA, 1970. 6 glossy black and white photographs (ca 254 x 203 mm) with blue carbon copied text on reverses. **1500:-**

The Orbiting Frog Otolith (OFO) program sent the Frog Otolith Experiment (FOE), designed by Torquato Gualterotti of the University of Milan, into orbit on 9 November 1970. The experiment involved two bullfrogs and was carried out to study the effect of sustained weightlessness on the otolith in the inner ear. The photos here show the experiment, the satellite and the launch.

- 81. [Orbiting Solar Observatory Satellite]** [NASA press photo presenting the Orbiting Solar Observatory Satellite (OSO-H).] Washington D.C., NASA, July 14–15, 1970. Glossy black and white photograph (ca 254 x 203 mm) with blue carbon copied text on reverses. **500:-**

The OSO-H (named OSO-7 after launch) was the seventh in a series of orbiting solar observatory satellites launched by NASA between 1962 and 1975. Among its notable results was the observation of solar flares in the gamma ray spectrum.

- 82. [Space Tug]** NASA press photo showing an artist's concept for a space tug being used to repair a satellite. Huntsville, NASA, 1970. 1 glossy black and white photograph (ca 254 x 203 mm) with black photocopied text on reverse. **400:-**

"Repairing a satellite in earth orbit would be relatively simple using a space tug, as illustrated in this artist's concept. The satellite would be secured to an extension above the crew module and an astronaut could exit easily to work with on the spacecraft" (Text on reverse of photo.)

The space tug was part of NASA's Space Transportation System, first envisioned in 1969. The system also included an earth-to-orbit shuttle, a nuclear ferry and a space station module. Due to cutbacks in NASA's budget in the early 1970s, only the Space Shuttle emerged from the program.

- 83. [USNS Vanguard]** [3 NASA press photos presenting the USNS Vanguard tracking ship.] Washington, NASA, July 4, 1970. 3 glossy black and white photographs (ca 254 x 203 mm) with blue carbon copied text on reverses. **900:-**

Originally built as an oil tanker during WW2 and named Mission San Fernando, the vessel was rebuilt as a seagoing missile tracking station in the 1960s and renamed USNS Vanguard. The ship took part in the Apollo and Skylab programs, among other things, and one of the pictures in this series show art depicting a mission to measure cavity in sea surface using a geodetic satellite. The two other photos show the Vanguard's central control and the space tracking and communications antennae on the deck.

- 84. [Ariel 4]** [2 NASA press photos presenting the British Ariel 4 satellite.] Washington, NASA, November 16, 1971. 2 glossy black and white photographs (ca 254 x 203 mm) with blue carbon copied text on reverses. **800:-**

The Ariel 4 was a British ionosphere research satellite. It was launched on 11 December 1971 from the Vandenberg Air Force Base in California and decayed from orbit on 12 December 1978.

- 85. COLWELL, Robert N. *Monitoring Earth Resources from Aircraft and Space.*** Washington, National Aeronautics and Space Administration, 1971. 4:o (260x195 mm.) vii,+ (blank),+ 170 pp. Publ. blue cloth, corners slightly bumped. Front fly leaf with signature of Carl O. Löfman. **900:-**

(NASA SP-275). Many different applications for surveys from airplanes and from space which are now standard are mentioned in this early overview – agriculture, geology, geology, hydrology, wildland vegetation, land-use patterns and cultural developments etc. This copy was bought directly at the NASA press center by the Swedish photographer and Emmy-awarded tv-producer Carl O. Löfman (1938–2016).

- 86. [Gagarin]** [NASA press photo showing a memorial plaque for Yuri Gagarin, from John H. Glenn (for Mercury astronauts), James A. McDivitt (for Gemini astronauts) and Neil Armstrong (for Apollo astronauts), presented to the USSR on January 21, 1971.] Washington, NASA, September 14, 1970. 1 glossy black and white photograph (ca 254 x 203 mm) with blue carbon copied text on reverse. **400:-**

- 87. [IMP-I]** [NASA press photo showing the IMP-I spacecraft at Kennedy Space Center before launch.] Washington, NASA, March 11, 1971. 1 glossy black and white photograph (ca 254 x 203 mm) with blue carbon copied text on reverse. Slight creasing and minor tear. **1000:-**

The Interplanetary Monitoring Platform (IMP) was part of NASA's Explorer program and used for the investigation of interplanetary plasma and the interplanetary magnetic field.



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 **IN MEMORY OF**   
**YURI GAGARIN**

FIRST MAN IN SPACE, APRIL 12, 1961

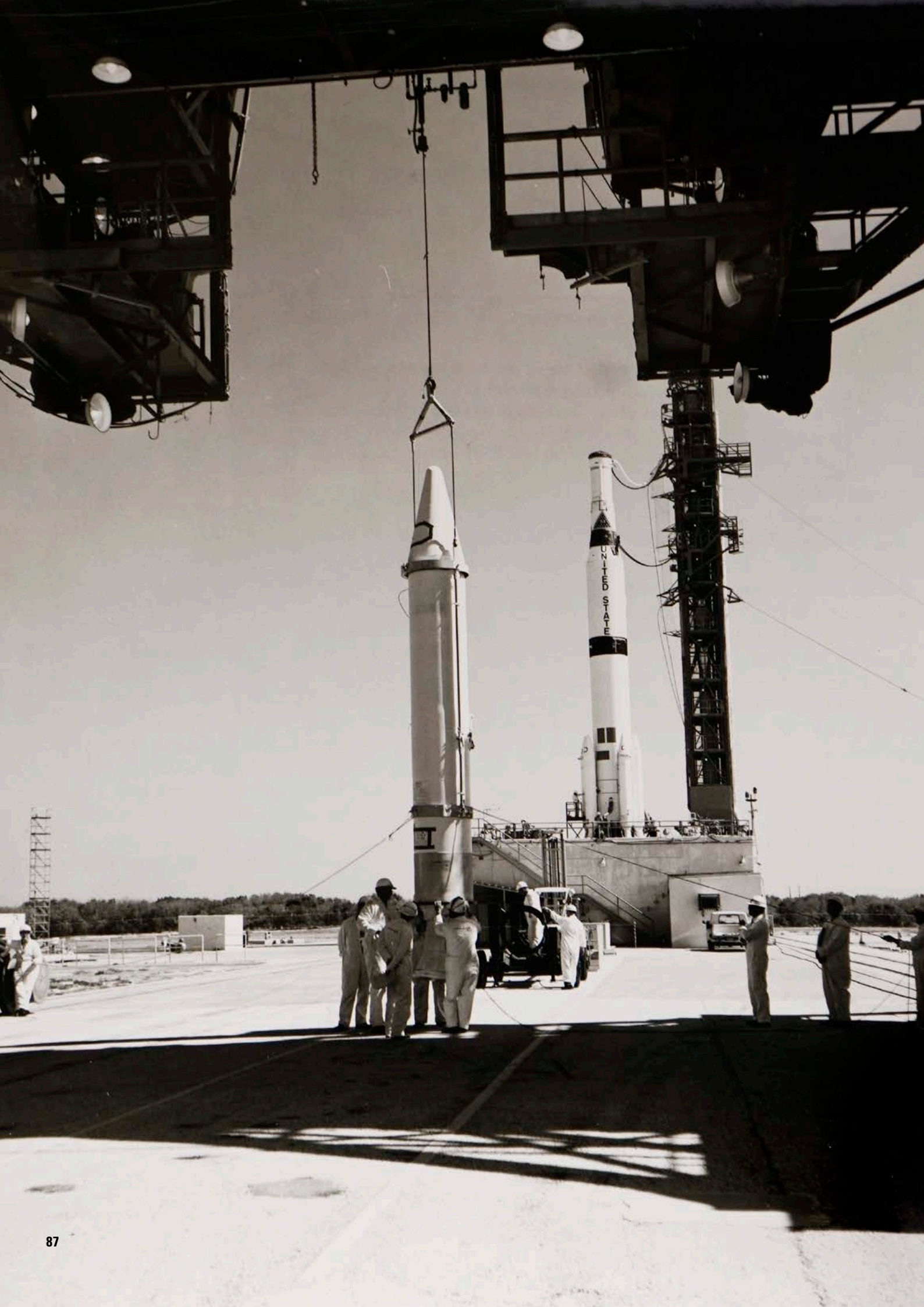
FROM THE ASTRONAUTS OF THE  
UNITED STATES OF AMERICA.

  
JOHN H. GLENN, Jr.  
for  
MERCURY ASTRONAUTS

  
JAMES A. McDIVITT  
for  
GEMINI ASTRONAUTS

  
NEIL ARMSTRONG  
for  
APOLLO ASTRONAUTS

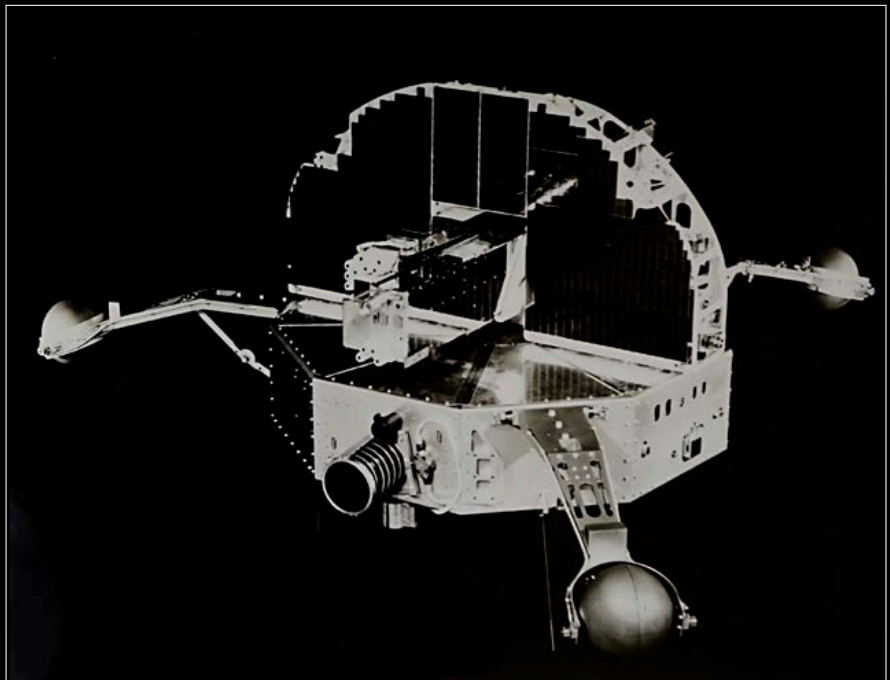
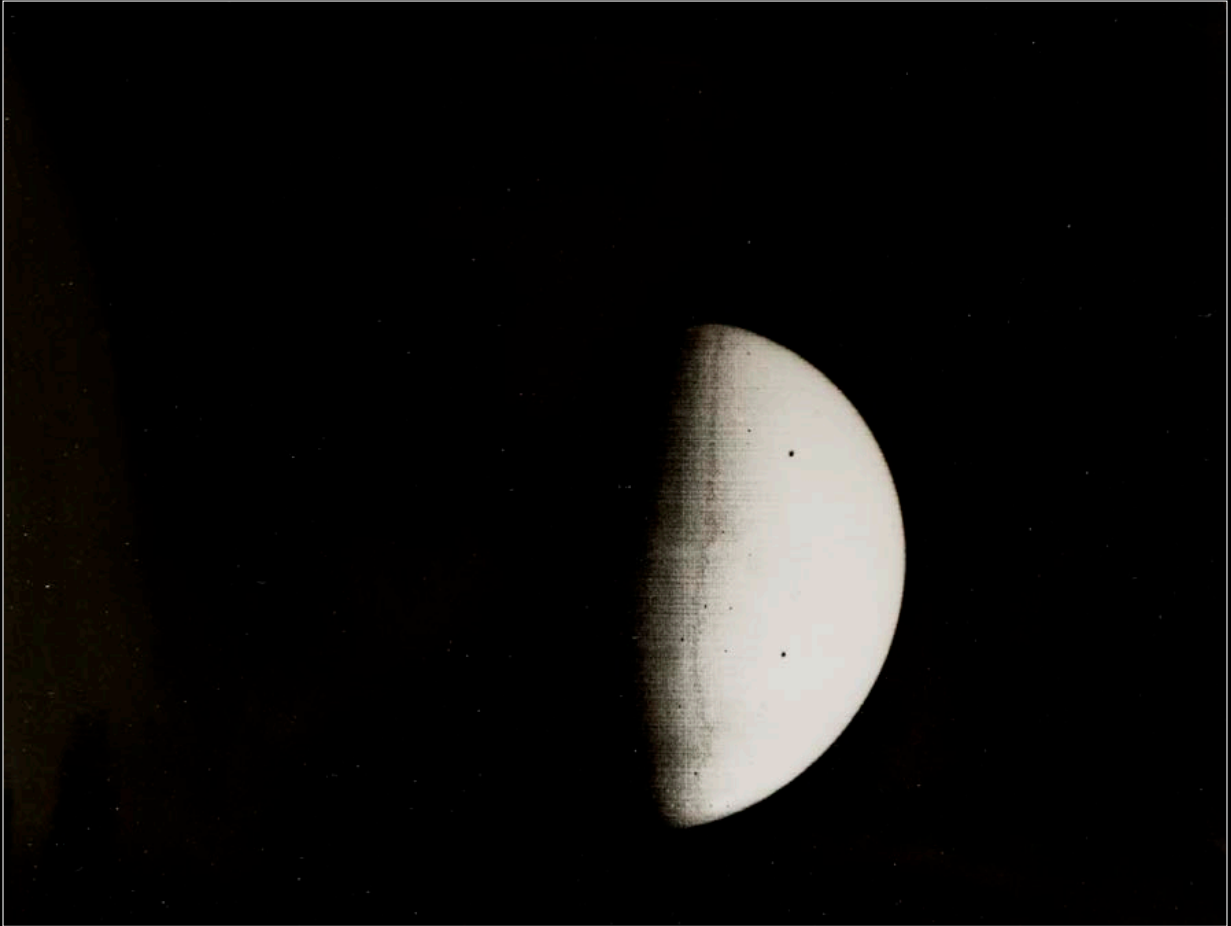
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88. **[Mariner 9 and the first Mars orbiting!]** [Series of NASA and Jet Propulsion Laboratory press photos presenting the Mariner 9 space probe program.] Washington, NASA, 1971-72 & Pasadena, Jet Propulsion Laboratory, 1971. 16 glossy black and white photographs with blue carbon copied text on reverses & 2 colour photographic prints with printed text on reverses (ca 254 x 203 mm – the colour prints somewhat smaller in size). A few creases. **15000:–**
- The photos show the control center, launch, the probe and fourteen views of the Mars surface, among other things. During this successful mission, the Mariner 9 probe became the first spacecraft to orbit another planet.
89. **[Tropical storm Laura]** [NASA press photo showing tropical storm Laura over the Gulf of Mexico on 17 November 1971.] Washington, NASA, November 18, 1971. 1 glossy black and white photograph (ca 254 x 203 mm) with blue carbon copied text on reverse. **300:–**
- Photo taken from the weather satellite Nimbus 4.
90. **[Intelsat]** [NASA press photo of the Intelsat IV-F Satellite atop an Atlas-Centaur Rocket before launch.] Washington, NASA, January 28, 1972. 1 glossy black and white photograph (ca 254 x 203 mm) with blue carbon copied text on reverse. Minor creasing. **1000:–**
- The intergovernmental consortium International Telecommunications Satellite Organization (ITSO, or INTELSAT) operated from 1964 and launched its first satellite, Intelsat I, the same year. Nicknamed Early Bird, it was the first commercial communications satellite in geosynchronous orbit.
91. **[Moon-orbiting satellite]** [NASA press photo showing an artist's concept for a moon-orbiting satellite.] Washington D.C., NASA, 1972. 1 glossy black and white photograph (ca 254 x 203 mm) with blue carbon copied text on reverse. **300:–**
- According to the accompanying text, the satellite was "designed to ride piggyback to the Moon aboard Apollo spacecraft" and would "carry particle detectors and magnetometers to obtain information about the interaction of the Earth's magnetic field with the Moon." It was however never built.
92. **[Skylab] Skylab News Reference.** March 1973. [=cover title]. Washington, National Aeronautics and Space Administration, Office of Public Affairs, 1973. 4to. (2),+ i,+ (blank),+ ii-1-10,+ iii-1-7,+ (blank),+ I-1-48,+ II-1-100,+ III-1-76,+ IV1-28,+ V-1-12,+ VI-120,+ VII-1-6,+ VIII-1-8,+ IX-1-2,+ X-1-10,+ XI-1-2,+ XII-1-6,+ A-1-8,+ B-1-5,+ (9) pp. Richly illustrated in black & white. One folding design in pagination. A few pencil marks. Publisher's printed wrappers, spine extremities worn. Owner's signature of Carl O. Löfman on front cover, title lettered on spine, both with black felt pen. **2500:–**
- The Skylab was the first space station of the United States and pioneered the concept of a laboratory in zero gravity, combined with a orbiting observatory. It was sent into orbit by a Saturn V rocket on May 14 1973 and met with problems during the launch. A micrometeoroid shield was torn off, taking one of the two main solar panel arrays with it and jamming the second one. Repairs, which were largely successful, had to be undertaken by the first crew and after some initial uncertainties Skylab could be put into operation. Between May 1973 and February 1974 three separate crews conducted solar and earth observations and made a large number of experiments. For some time, plans were made to push Skylab into a higher orbit using the Space Shuttle, but delays in the development of the latter made this option impossible. On July 11 1979, Skylab reentered the atmosphere and disintegrated.
- The Skylab News Reference was compiled by NASA to inform the press corps about the mission and contains detailed information on everything from the hardware and systems of the space station to its missions, experiments and crews. In a separate section, various experiments designed by American high school students are presented. A new edition was published in 2012 and this original printing is now getting hard to find.
- The present copy was bought directly at the NASA press center by the Swedish photographer and Emmy-awarded tv-producer Carl O. Löfman (1938–2016).
93. **VASIL'EV, M. P. (Ed.) "Saljut" na orbite.** Osnovy konstruktsii orbital'noj stantsii "Saljut", ètapy ee poleta i materialy naučnykh issledovanij. Moscow, Mashinostroenie, 1973. 8vo. 160 pp. Illustrated. Appendix: Drawing of the space station, folded plate in girdle. Publ. cloth with dust jacket. **1500:–**
- Title in English: "'Saljut' in orbit. On the basic construction of the space station Saljut, its flight stages and material for scientific research." (Our translation.) The first docking attempt between the spacecraft Sojuz 10 and the world's first spacestation Saljut 1 in April 1971 failed. This is an account of the second attempt, made with Sojuz 11, which successfully docked with the space station on June 6 1971. However, the return journey to Earth on June 30 became a tragedy, as all three cosmonauts, Georgij



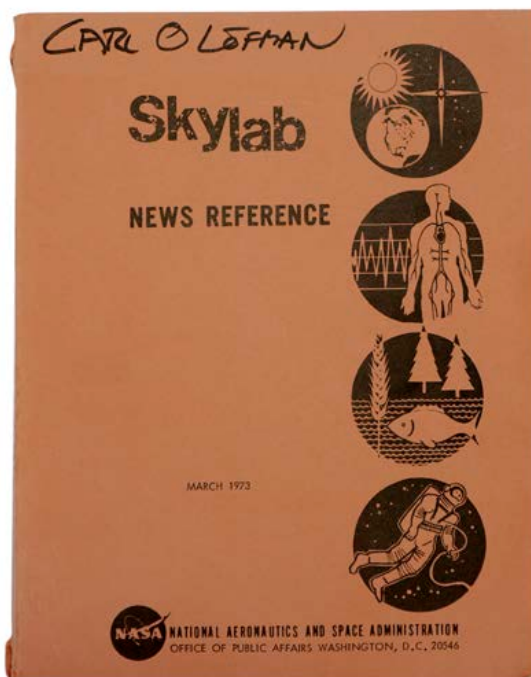


Dobrovolskij, Viktor Patsajev and Vladislav Volkov, was found dead, due to a leak in the hull, when their capsule was opened after the landing. To make it possible to accommodate three cosmonauts in the Sojuz capsule, the crew did not wear spacesuits during take-off and landing, a practice that was soon changed, which meant that all future flights with Sojuz was made with a crew of only two. No more flights were made to Saljut 1, which re-entered the atmosphere on the same day as Sojuz 11. The Saljut program ended with Saljut 7, which, after a successful decade with ten dockings, burned up in the atmosphere on February 7 1991.

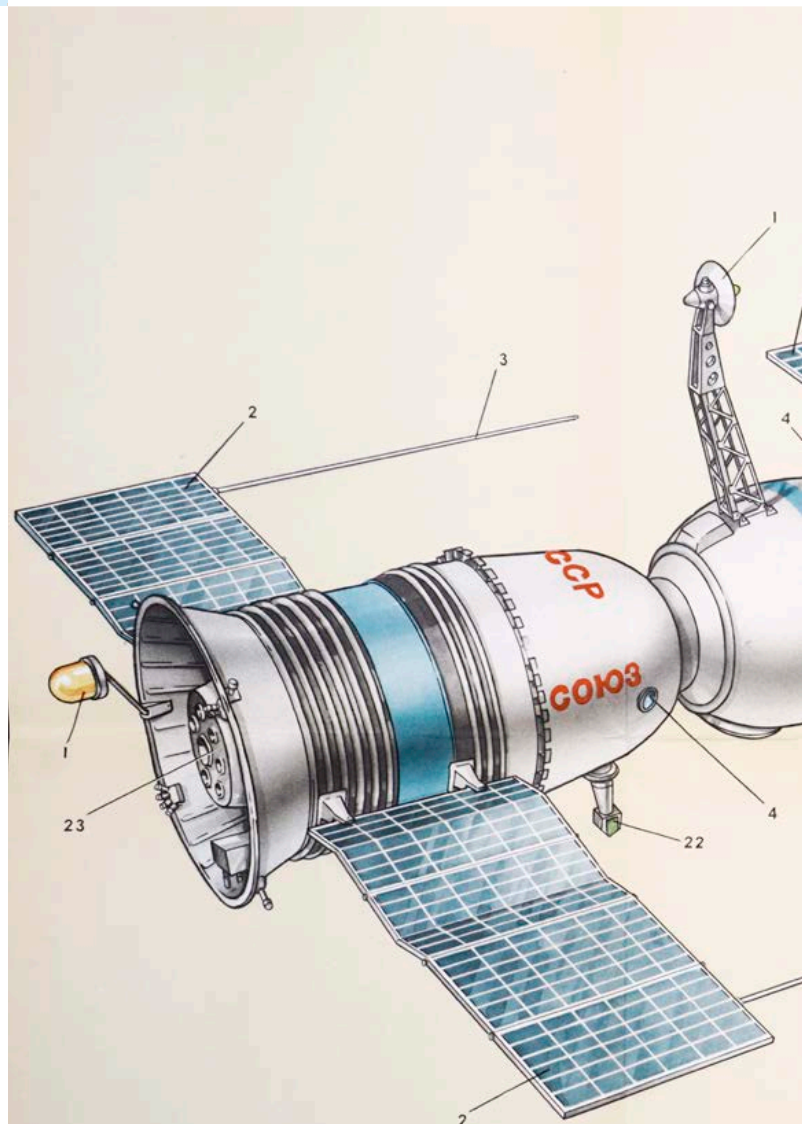
94. **CALVIN, Melvin & GAZENKO, Oleg G.** (Eds.) *Foundations of Space Biology and Medicine.* Joint USA/ USSR Publication in Three Volumes. General Editors Melvin Calvi (USA) and Oleg G. Gazenko (USSR). 1-3. Washington, Scientific and Technical Information Office, National Aeronautics and Space Administration/ Moscow, [The USSR Academy of Sciences], 1975. 4to. XVIII,+ 442 pp.+ plates; X,+ 405; X,+ 407-756; X,+ 542 pp. Illustrated. Occasional pencil markings. Publ. printed cloth with dust jacket. Four volumes. Label of professor Carl-Johan



93



92



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Clemedson on front paste down of first volume.

A fine example of collaboration between the US and the USSR during the Cold War era. Volume I: Space as Habitat. Volume II,1-2: Ecological and Physiological Bases of Space Biology and Medicine. Volume III: Space Medicine and Biotechnology.

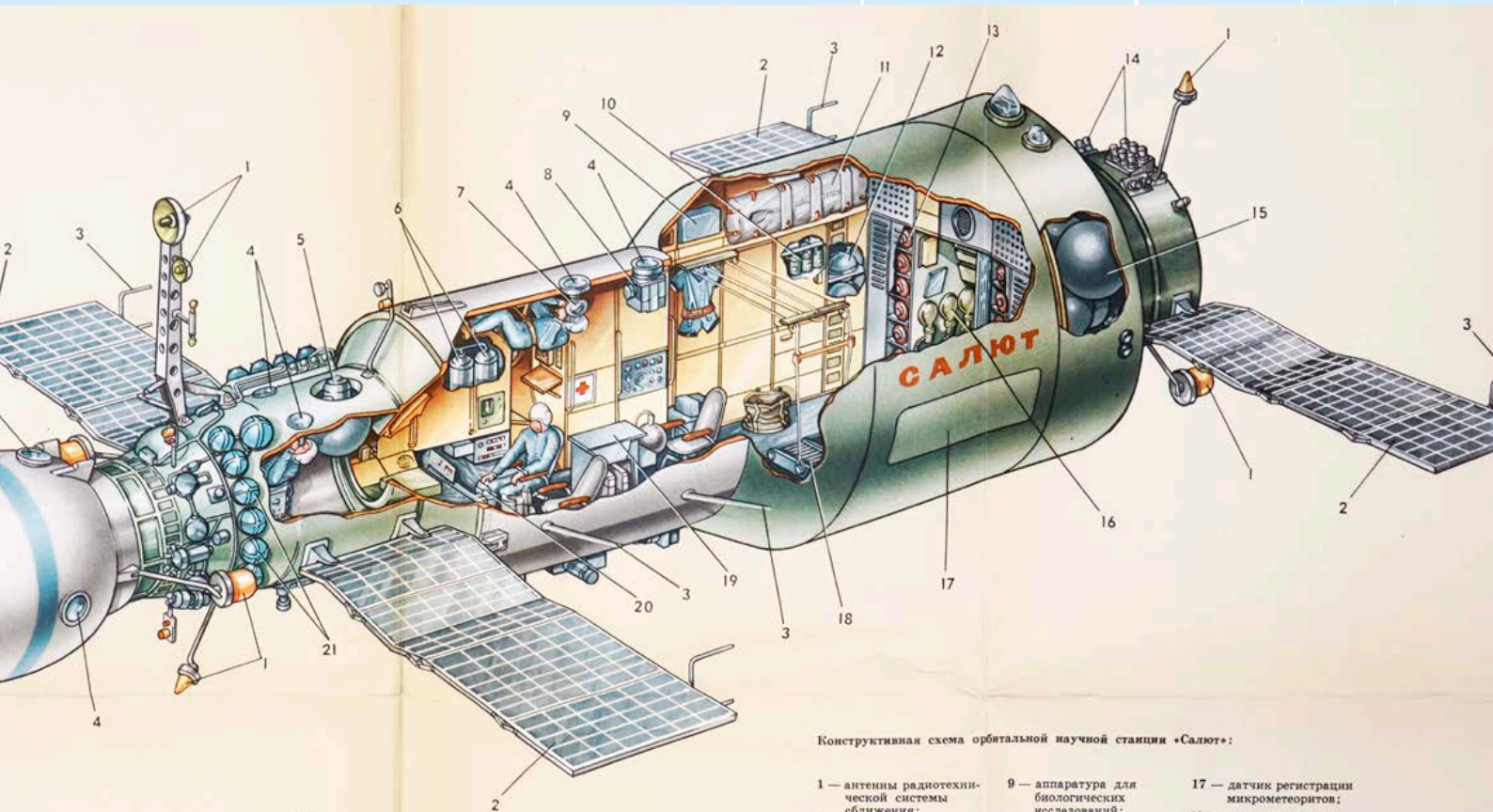
The Swedish military physician Carl-Johan Clemedson (1918-90) was working for Försvarets forskningsanstalt (The Swedish Defence Research Agency) and was one of the first scientists in Sweden to take an interest in space medicine. He was a member of The International Academy of Astronautics.

**95. NICOLSON, Iain.** *The Road to the Stars.* Newton Abbot, Westbridge Books, 1978. 8vo. 224 pp. Illustrated. Publ. cloth with slightly worn dustwrapper. **350:-**

**96. BAKER, David.** *Space Shuttle.* No place, New Cavendish Books, 1979. 4to. 64 pp. Illustrated. Sewn as issued, in somewhat worn printed wrappers. Front cover with folding flap. **300:-**  
Published during the period of in-atmospheric trials.

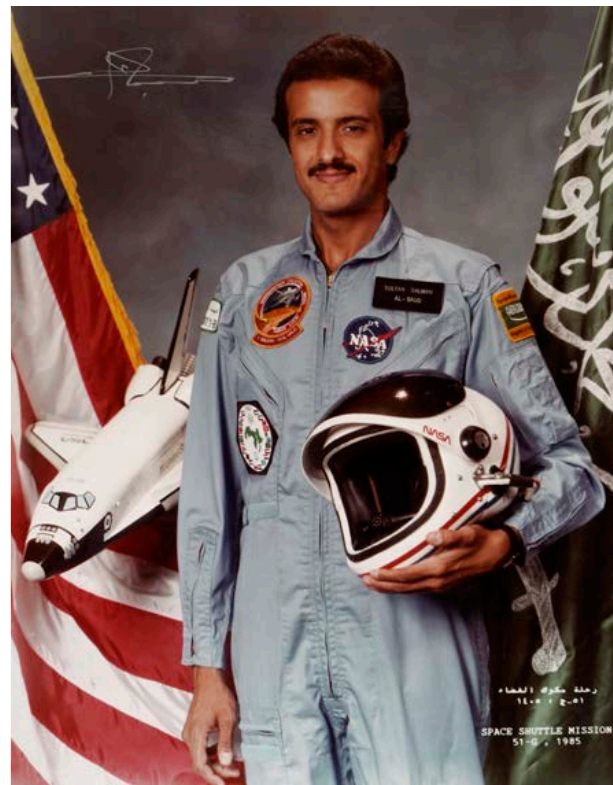
**97. [Astronauts.]** [Official vintage prints of astronaut portraits for press use, with autotyped signatures, 23 from the United States, including Apollo Moon travellers Charles M. Duke, Charles "Pete" Conrad, John W. Young and Alan L. Bean, and one from Saudi Arabia, Sultan bin Salman Al Saud, the first Saudi man in space.] Houston, NASA, 1966 & (Washington), U.S. Government Printing Office, 1973-79 & N.p., 1985. 9 portrait lithographed colour photographs with printed text on reverses. A few creases. **6000:-**

This small collection contains the following signed photographs: "Charles M. Duke, Jr." (released April 1966, NASA photo number: S-66-34847); "Prime crew of First Manned Skylab Mission. Joseph P. Kerwin, Charles Conrad Jr., Paul J. Weitz"; "Prime crew of Second Manned Skylab mission. Owen K. Garriott, Jack R. Lousma, Alan L. Bean"; "Prime crew of Third Manned Skylab mission. Gerland P. Carr, Edward G. Gibson, William R. Pogue"; "Second crew for the Space Shuttle Approach and Landing Tests (alt). [Joe Engle, Richard H. Truly]"; "First crew for the Space Shuttle Orbital Flight Tests (STS-1). [John W. Young, Robert L. Crippen]"; "Crew for the Fifth



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| 7 — кинокамера;                                 | 15 — топливные баки;                           | 23 — двигательная установка корабля «Союз»; |
| 8 — фотоаппарат;                                | 16 — санитарно-гигиенический узел;             |   |



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Space Shuttle Orbital Flight (STS-5). [Joseph P. Allen, Vance DeVoe Brand, Robert F. Overmyer, William B. Lenoir]; "Crew for the Eighth Space Shuttle Orbital Flight (STS-8) [Daniel C. Brandenstein, Dale A. Gardner, Richard H. Truly, William E. Thornton, Guion S. Bluford, Jr.]"; Space Shuttle Mission 51-G, 1985 [Sultan bin Salman Al Saud]".

**98. MURRAY, Bruce.** *Journey into Space. The First Three Decades of Space Exploration.* New York and London, W. W. Norton & Company, 1989. 8vo. 381 pp. Illustrated. Publ. cloth spine with dust jacket. Stamp and library signature of Ingeniörsvetenskapsakademien (Swedish Academy of Engineering, IVA) and its duplicate stamp. **400:-**

The author joined JPL in 1961, participated in most of its unmanned planetary missions as an imaging expert and eventually became its director, thereby getting interesting insights in the problems concerning NASA's Space Shuttle program. He was also a co-founder of the Planetary Society together with Carl Sagan and Louis Friedman.

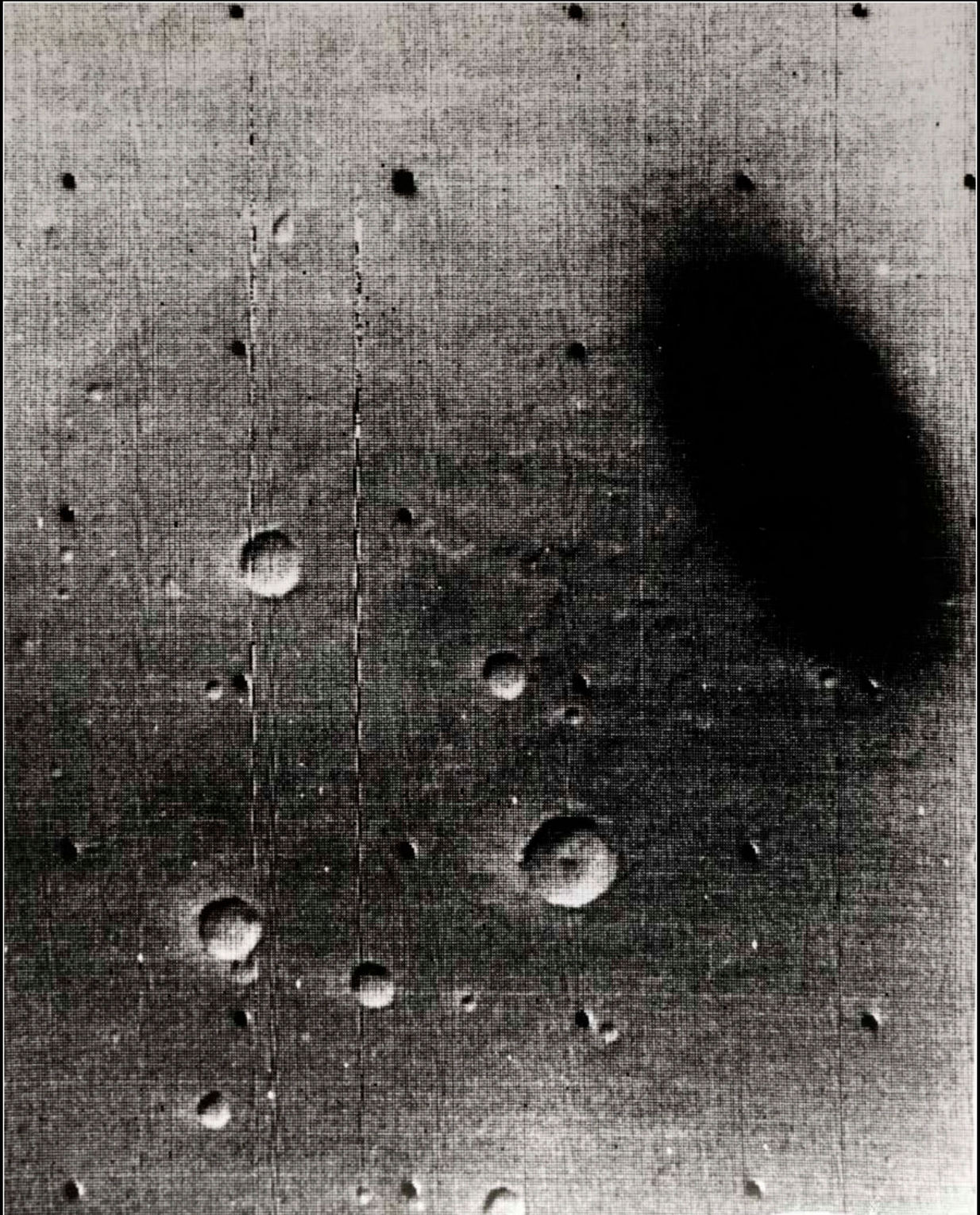
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*Encyclopedia of Science Fiction*

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