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PRELIMINARY HISTORY OF NASA

1963 - 1968

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1968

HISTORY OF AERONAUTICS AND ASTRONAUTICS
A PRELIMINARY BIBLIOGRAPHY

(HHR-28)

Compiled by Katherine Murphy Dickson
Science and Technology Division
Library of Congress

Sponsored by NASA Historical Division

National Aeronautics and Space Administration
Washington, D. C.
October, 1968

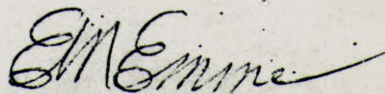
F O R E W O R D

From the Wright brothers into the space age, evolution of a practical technology for flight has been an increasingly prominent influence upon the history of the twentieth century. Little of the antecedent ideas and early steps, much less the full history of aeronautics and astronautics, has yet been of interest to professional historians.

This pioneering preliminary bibliography, sponsored by the NASA Historical Division and prepared by Katherine M. Dickson of the Science and Technology Division of the Library of Congress, was intended to help fill one gap in the historical literature.

There has been no dearth of technical, speculative, or preliminary analyses in the literature of aeronautics and astronautics, as this bibliography makes clear. The many disciplines and interests represented seemed all the more reason why a comprehensive bibliography reaching beyond the technical literature was needed. This bibliography was intended to be a working tool for historians and other serious students of the recent history of science and technology and their impact upon society. Beyond its reference value, it is hoped this volume will serve as a reliable launching pad for sustained interest, scholarship, and reflection.

The NASA Historical Division is presently completing a companion guide to documentary sources and facilities, as well as a suggested list of research topics for academic papers and theses. Readers of this long-needed bibliography may find these compilations useful at a later date. While any worthy bibliography on a dynamic subject becomes dated, Mrs. Dickson's contribution should help enlist the necessary scholarly attention in what has been a neglected area.



Eugene M. Emme
NASA Historian

PREFACE

"By a fiction as remarkable as any to be found in law, what has once been published . . . is usually spoken of as 'known' and it is often forgotten that the rediscovery in the library may be a more difficult and uncertain process than the first discovery in the laboratory." -- Lord Rayleigh, 1884 (Published in his Scientific Papers, New York, Dover, 1964. v. 2, p. 351)

This annotated bibliographical guide to basic sources on the history of aeronautics and astronautics from earliest times to 1967 is designed mainly for historians. It is hoped that it will be of use to scholars, teachers, students, researchers, librarians, and all who require access to the literature of this subject. It was compiled at the Library of Congress, Science and Technology Division, for the NASA Historical Division, which originally sensed the need for such a bibliography in view of the fundamental importance of the subject and the lack of comprehensive bibliographies in the field. Primarily the resources of the NASA Historical Division; the holdings of the Library of Congress; and other libraries such as the NASA Headquarters Library, Federal Aviation Administration Library, Smithsonian Institution Museum of History and Technology Library, and the National Air and Space Museum Library, have been utilized in the preparation of this guide.

The aim of this bibliographical guide is to list the more important published historical sources, in whatever form they appear, in all languages, pertinent to the full history of flight and space exploration and thereby provide access to the literature on which historians and others may base their inquiries. No attempt is made at the comprehensiveness of including everything published; this listing should be considered the result of a partial search of the literature for historical materials. Inclusion of works has been highly selective and determined largely by the nature of the literature itself and the fact that the literature of aeronautics has somewhat different origins

from that of astronautics. For instance, one finds in the historical literature of aeronautics many separately published bibliographies, histories, histories which contain bibliographies, and published catalogs of collections, while the existing historical literature for the more recent space science and technology more usually appears as parts of indexing and abstracting services or else as appendices to books, technical reports, and journal articles. Thus the items listed reflect a wide variety of sources and vary all the way from vast bibliographies to out-of-the-way journal articles.

No attempt has been made to include textbooks, directories, dictionaries, juvenile literature, technical literature, house organs, paperbacks, highly popular works, or fiction. As a rule, guides to the technical literature are not included except when they reflect an all-encompassing comprehensiveness as do Scientific and Technical Aerospace Reports (STAR) or International Aerospace Abstracts. It is hoped that the scope of this bibliography may in time be further widened to more completely include biographies, government and official documents, archives, journal literature, history making works, and other primary sources. The arrangement of materials in the guide is alphabetical by author under broad, representative subject categories. - Author, title, and subject indexes are included. The annotations have been prepared to include, where possible and where pertinent, the following information: scope and purpose of the work, the way in which the work is related to aeronautics and astronautics, the author's affiliation and/or reputation, language in which the work was written, special features, bibliographies, chronologies, limitations, comparisons with similar works, arrangement, content, form, indexes, and time covered.

A preliminary edition which listed only those items having bibliographies was published in May 1967.

October 1968

Katherine Murphy Dickson

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GENERAL: THE MEANING OF SPACE EXPLORATION

1. Abstracts of Selected Articles from Soviet Bloc and Mainland China Technical Journals. Springfield, Va.: Clearinghouse for Federal Scientific and Technical Information, January 1961 to date. Monthly.

Series I: Physics, Geophysics, Astrophysics, Astronomy, Astronautics, and Applied Mathematics. Includes about 2,600 abstracts a year.

2. Adams, Carsbie C., et al., Space Flight: Satellites, Spaceships, Space Stations, and Space Travel. New York: McGraw-Hill, 1958. 373p.

References appended to each chapter. Includes "The History of Astronautics," pp. 1-35, with "Chronology," pp. 22-26, and "Bibliography," pp. 26-35; "The Rocket," pp. 36-66, with "Bibliography," pp. 64-66; and "Sputniks, Prelude to Man in Space," pp. 150-170, with "Bibliography," pp. 169-170.

3. Advances in Space Science and Technology. New York: Academic Press, v.1, 1959 to date. Annual.

Vols. 1-2 entitled Advances in Space Sciences. Each annual volume primarily technical but some of the contributions included may be of historical interest: v.3, "The Role of Geology in Lunar Exploration," by Jack Green and Jack R. Van Lopik; v.4, "On the Possibilities of the Existence of

Extraterrestrial Intelligence," by Roger A. MacGowan; v.6, "Space-Related Technology: Its Commercial Use," by Robert H. Waterman, Jr., and Lloyd G. Marts; v.7, "Progress in Rocket, Missile, and Space Carrier Vehicle Testing, Launching, and Tracking Technology, Part I: Survey of Facilities in the United States," by Mitchell R. Sharpe, Jr., and John M. Lowther; v.7, "Progress in Rockets, Missile, and Space Carrier Vehicle Testing, Launching, and Tracking Technology. Part II: Survey of Facilities Outside the United States," by Mitchell R. Sharpe, Jr., and John M. Lowther. Many of the contributions contain bibliographies.

4. Advances in the Astronautical Sciences. New York:

Plenum Press, 1957 to date. (An American Astronautical Society Publication)

Vols. 1-22 (1957-67) cover the Proceedings of the American Astronautical Society's Annual and West Coast meetings. Title varies: 1957-59, Advances in Astronautical Sciences. Distribution varies. The published proceedings contain technical and some more general papers, each of which usually contains a brief bibliography.

5. The American Heritage History of Flight, by the

Editors of American Heritage. Editor in Charge:

Alvin M. Josephy, Jr. Narrative Arthur Gordon.

With Two Chapters by Marvin W. McFarland. Introd.

by Carl Spaatz and Ira C. Eaker. New York:

American Heritage Publishing Company; book trade

distribution by Simon and Schuster, 1962. 416p.

The story of flight from man's earliest hopes expressed in myths and legends to the beginning of his actual venture beyond the air. Includes many pictures, and quotations and anecdotes from air pioneers and philosophers of the various periods. "Acknowledgments," p. 408.

6. Ananoff, Alexandre, L'Astronautique. Paris: Libraire

Arthème Fayard, 1950. 498p. (Collection "Savoir")

Profuse footnotes are scattered throughout the well-illustrated text of this history by the secretary of the Groupement Astronautique Français of the Société Astronomique de France and an organizer of the First International Congress of Astronautics held in Paris in October 1950: Includes bibliography, pp. 475-476.

7. Anoshchenko, Nikolai D., ed., History of Aviation and

Cosmonautics. Washington: National Aeronautics

and Space Administration, 1967, 1968. 5v. (NASA

Technical Translations TT F-11427-TT F-11430,

TT F-11851)

Translation of Iz Istarii Aviatsii i Kosmonavtiki (Moscow: USSR Academy of Sciences, Soviet National Association of Historians of Natural Science and Technology, 1964, 1965, 1967). Consists of papers presented at the sessions of the Aviation Section of the Soviet National Association of Historians of Natural Science and Technology. All papers deal with various aspects of the history (primarily Soviet) of aviation and astronautics. Some papers include a few footnote references.

8. Atkins, Charles M., comp., List of Academic Theses Since 1961 Related to The History of Aeronautics and Astronautics. Comment Edition. Washington: National Aeronautics and Space Administration, July 1966. 11p. (HHN-61)

A preliminary, selective listing of approximately 100 academic theses (primarily doctoral) prepared by a graduate student at MIT while a member of the NASA Historical Division Summer Seminar on "History, Social Science and Space." The 1961-1965 period is covered. The theses listed cover the following subject areas: history, social science, natural science, and engineering.

9. Bailey, James O., Pilgrims Through Space and Times: Trends and Patterns in Scientific and Utopian Fiction. New York: Argus, 1947. 341p.

Historical and analytical survey of science fiction written during the last three hundred years. Chapter six, "Beyond the Mountains of the Moon," pp. 119-187, deals entirely with science fiction. "Bibliography", pp. 325-333, lists approximately 250 titles.

10. Bates, David R., ed., Space Research and Exploration. Associate Editor: Patrick Moore. Contributors: A. C. Clarke [and others] New York: W. Sloane Associates, 1958. 287p.

An introduction to space exploration by a panel of twelve British experts. Includes

"History", pp. 29-41, by P. E. Cleator which has a brief bibliography of six references.

11. Benton, Mildred C., The Clock Problem (Clock Paradox) in Relativity: Theories, Both Pro and Con, Recorded in the Literature; an Annotated Bibliography. Washington: U.S. Naval Research Laboratory, 1959. 48p. (U.S. Naval Research Laboratory. Bibliography no. 15) (For sale by Clearinghouse for Federal Scientific and Technical Information, Springfield, Va., as report PB 151671)

Theory holds that a precise clock would run more slowly at extreme altitudes; this raises the question of whether extended space travel would lengthen life. Compiled by the librarian of the Laboratory, this is an annotated bibliography of 241 references from 1905 to 1959, including journal articles in all languages. A very few book and report references also included.

12. Benton, Mildred C., The Literature of Space Science and Exploration. Washington: U.S. Naval Research Laboratory, 1958. 264p. (U.S. Naval Research Laboratory. Bibliography No. 13)

An annotated list of 2,274 books, periodical articles, and research reports covering the period 1903 through June 1958. References are listed chronologically with an author and subject index. Emphasizes the progress, development, and scientific uses of instrumented vehicles.

13. Berkner, Lloyd V., and Hugh Odishaw, eds., Science in Space. New York: McGraw-Hill Book Company, Inc., 1961. 458p.

A compilation of 20 papers, some technical, some more general, by participating space scientists on such subjects as Gravity, The Earth, The Moon and Planets, Fields and Particles in Space, The Stars, and The Life Sciences. References follow each paper. An Appendix, pp. 429-436, contains a note on the Space Science Board, National Science Foundation, which generated this volume, lists its subcommittees and its reports.

14. Bernal, John D., Science and History. 3d ed. New York: Hawthorn Books, 1965. 1039p.

Deals with the complex interaction between techniques, science, philosophy, and society from earliest days of human society to the twentieth century. Excellent for historical development of modern science and the space age. Includes bibliography, pp. 934-948.

15. Bleiler, Everett, F., ed., The Checklist of Fantasy Literature: a Bibliography of Fantasy, Weird, and Science Fiction Books Published in the English Language. Chicago: Shasta, 1948. 455p.

Listed by author are approximately 500 titles, only some of which are science fiction. Includes title index. "Annotated List of Critical and Historical Reference Works", pp. 443-448, lists several prime sources for early interplanetary travel and science fiction.

16. Bober, Juraj, Vesmír Čaka na Človeka [Space Waits for Man] V Bratislava: Slovenské vydavateľ'stvo politickej literatúry, 1960. 175p.

Includes bibliography, p. 173, and some historical information.

17. Bretnor, Reginald, ed., Modern Science Fiction: Its Meaning and Its Future. New York: Coward-McCann, 1953. 294p.

Consists of eleven essays by different writers, one of which, by Arthur C. Clarke, is entitled "Science Fiction: Preparation for the Age of Space," pp. 197-220.

18. Bryden, Helena G., ed., Wings: An Anthology of Flight. London: Faber and Faber, 1942. 320p.

Contains selections from world literature as far back as the Bible, ancient Greek, Persian, and Indian sources, and selections on through the centuries to the time of balloons, airships, and the modern airplane in World War II. "Acknowledgements," pp. 317-320, lists the many sources from which the pieces anthologized were taken.

19. Budil, Ivo, ed., Do Blízkeho i Vzdáleného Vesmíru [Into Near and Far Away Space] Praha: Orbis, 1960. 320p.

A series of radio lectures by experts, many of them professors, on various aspects of astronomy and space flight. Bibliography, p. 307, lists a few additional references in Czech and Russian.

20. Butler, Stuart, and Harry Messel, eds., The Universe of Time and Space: a Course of Selected Lectures in Astronomy, Cosmology, and Physics. Oxford: Pergamon Press; New York: Macmillan, 1963. 291p. (The Commonwealth and International Library of Science, Technology, Engineering and Liberal Studies, 174)

Consists of material presented in the lectures of the sixth annual Nuclear Research Foundation Summer Science School held at the University of Sydney, January 7-18, 1963. Includes "The First Five Years of Space Research" by T. Gold, pp. 261-291.

21. Caidin, Martin, The Moon: New World for Men. Indianapolis: Bobbs-Merrill, 1963. 406p.

Describes Project Apollo, the American moon program. Appendix v, "Chronology of the Apollo Program," pp. 361-388, covers the period 1957-1962. Other appendices include a 1959 Soviet report on Lunik III, official accounts of the U.S. Army's lunar construction and mapping program, the lunar charting program of the Air Force, and an account of Ranger IV. Also includes "Military Potential of the Moon" pp. 389-406, by Lt. Col. S.E. Singer, USAF.

22. Canby, Courtlandt, A History of Rockets and Space. New York: Hawthorn Books, 1963. 112p. (The New Illustrated Library of Science and Invention, v. 1)

A concise, beautifully illustrated history of rocketry from its earliest uses by the Chinese, to its use as a military weapon in Europe in the 18th and 19th centuries, to its use in space travel today; also a history of the idea of space travel beyond earth from the earliest fictional accounts of imaginary voyages to its practical possibility today. "Chronology," pp. 106-110, covers the period from 150 B.C. to 1962.

23. Clarke, Arthur C., The Challenge of the Space Ship.

New York: Harper, 1959. 212p.

Consists of 20 articles by the former chairman of the British Interplanetary Society, published 1935-1959, in British and American periodicals. Discusses the implications of the beginning of the space age.

24. Clarke, Arthur C., Interplanetary Flight: an

Introduction to Astronautics. New York: Harper, 1951. 164p.

Deals with rocketry and interplanetary voyages. Chapter one is entitled "Historical Survey." Includes bibliography, pp. 160-161.

25. Clarke, Arthur C., The Promise of Space. New York:

Harper and Row, 1968. 347 pp.

Includes new material on scientific discoveries, technical development, and history and politics of American and British space programs. Four sections summarize scientific and imaginative theory on space potentials: Around the Earth, Around the Moon, Around the Sun, and Around the Universe.

26. Clarke, Arthur C., Voices from the Sky: Previews of the Coming Space Age. New York: Harper and Row, 1965. 241p.

A series of essays, some of which have been published elsewhere, on various aspects of space flight, astronomy, astronautics, artificial satellites in communication, and scientific fiction. Includes brief bibliographies at the end of some of the essays and a few bibliographical references scattered throughout the text.

27. Cox, Donald W., and Michael Stoiko. Spacepower: What it Means to You. Illustrated by N. Stanilla. Philadelphia: Winston, 1958. 262p.

Comprises discussion of rocketry yesterday, today, and tomorrow, satellites and society, the need for U.N. space law, and a U.N. space program. Excerpts from the "Preface" and ch. 2, and ch. 3, "Rocketry Today", also appeared in Smithsonian Institution's Annual Report, 1958 (Washington: 1959), pp. 261-284.

28. Deisch, Noel, "Navigation of Space in Early Speculation," Popular Astronomy, v. 38 (February 1930), pp. 73-88.

An essay on the history of man's interest in space flight from the fictional accounts of Lucian of Samosata to the practical work of Goddard, Oberth, and Esnault-Pelterie. Excellent brief historical survey which includes 24 footnote references.

29. DeLeeuw, Hendrik, From Flying Horse to Man in the Moon: A History of Flight from Its Earliest Beginnings to the Conquest of Space. New York: St. Martin's, 1963. 310p.

Deals with aeronautics and astronautics mainly in the 20th century, although brief coverage is given to the lore and fantasy of flight, balloons, and dirigibles. It is perhaps worth noting that both the history of aeronautics and astronautics are treated here in one book.

30. De Santillana, Giorgio, The Origins of Scientific Thought: from Anaximander to Proclus, 600 B.C. to 300 A.D. Chicago: University of Chicago Press, 1961. 320p. (History of Scientific Thought, v.1)

First of a series of five projected volumes on the history of scientific thought. Deals with the ancient Greek origins of those ideas that, reborn in the seventeenth century, played their part in the rise of modern science. Bibliography, pp. 314-317, lists approximately 30 titles on the history of ancient Greek science.

31. Dein Wunsch war immer—Fliegen! Wien: Manutiuspresse, 1958. 95p.

Brief excerpts from earliest times to the present from world literature showing the history of man's concern with flight. Arranged chronologically and includes statements by such writers as Bacon, Blériot, Bruno, Goethe,

Lilienthal, Lindbergh, Ovid, Rilke, Saint Exupéry, Santos-Dumont, Virgil, Wells, and the Wrights.

32. Department of the Army, Army Library, Space Travel, a Selected List of Titles for Lecturers and Students.

Washington: Army Library, 1956. 11p. (Its

Special Bibliography, no. 2)

Compilation of about one hundred annotated English language books and periodical articles published 1954-56 intended to provide source material for popular lectures and students.

33. Duhem, Pierre M., Le Systeme du Monde; Historie des Doctrines Cosmologiques de Platon à Copernic.

Paris: A. Hermann, 1913-59. 10v.

Consists of the following volumes: 1. La cosmologie hellénique.--2. La cosmologie hellénique (suite) L'astronomie latine au Moyen Age.--3. L'astronomie latine au Moyen Age (suite)--4. L'astronomie latine au Moyen Age (suite) La crue de l'aristotélisme.--5. La crue de l'aristotélisme (suite)--6. Le reflux de l'aristotélisme; les condamnations de 1277.--7-9. La physique parisienne au XIV^e siècle. 10. La cosmologie du XV^e siècle; écoles et universités au XV^e siècle. Each volume contains bibliographical footnotes.

34. Emme, Eugene M., Aeronautics and Astronautics: an American Chronology of Science and Technology in the Exploration of Space, 1915-1960. Foreword by

Hugh L. Dryden. Washington: National Aeronautics and Space Administration, 1961. 240p.

Part II, pp. 89-135, is entitled "The First Three Years of the Space Age, October 1957-December 1960." Appendix A, pp. 139-151, is a chronicle of earth satellites and space probes, 1957-1960. Includes balloon chronology, awards list, and bibliography, pp. 207-212, and a subject-name index. Items in the bibliography include books, journal articles, congressional hearings; mainly for the historian. This work followed by annual NASA chronologies, Astronautics and Aeronautics, 1961 to date (82).

35. Emme, Eugene M., "Early History of the Space Age,"

Aerospace Historian, v. 13 (nos. 2-3, Summer and Fall 1966), pp. 74-78, 127-132.

Lecture at University of Wisconsin on historical development, mainly on the period since 1945. Especially good in indicating the complexities of funding and decision-making for space research within the democratic process.

36. Emme, Eugene M., History of Space Flight. New York:

Holt, Rinehart and Winston, 1965. 224p. (Holt Library of Science)

Pt. I, "Prehistory of the Space Age," covers the history of flight, rocket technology, and man's expanding concept of the universe while Pt. II, "Age of Space Flight," covers the history of the first seven years of the space age. Bibliography, pp. 216-221, cites references used chapter by chapter.

37. Flight, Fantasy, Faith, Fact: a Loan Exhibition

Commemorating the Fifteenth Anniversary of Powered

Flight, 1903-1953. Cosponsored by the Dayton

Chamber of Commerce and the Dayton Art Institute,

Dec. 17, 1953-Feb. 21, 1954. Dayton, 1953. 68p.

Catalog of an art exhibition which illustrates man's preoccupation with flying and traveling in the air for the past 5,000 years up to the 1903 flights of the Wright brothers. Records man's aspirations toward flight in allegory, myth, religion, legend, through the Renaissance, the age of science, to Kitty Hawk. Lists 361 works of art.

38. Franklin, H. Bruce, Future Perfect: American Science

Fiction of the Nineteenth Century. New York:

Oxford University Press, 1966. 402p.

Presents and examines fiction and criticism. The science fiction examined includes selections from Hawthorne, Melville, Poe, and others. The criticism, by a professor of English at Stanford University, is written from the perspective that "science fiction of the past shows just how much an age determines and displays itself through what it sees as remote possibilities."

39. Fry, Bernard M., and Foster E. Mohrhart, eds.,

A Guide to Information Sources in Space Science

and Technology. New York, London: Interscience

Publishers, 1963. 579p. (Guides to Information

Sources in Science and Technology. Vol. 1)

Lists over 3,500 published and 400 nonpublication sources and references, most English-language publications. Arranged in alphabetical order within major and subordinate subject groups. Subjects of the 19 major groups include specialized information centers and sources, Soviet astronautics, space law, International Geophysical Year, U.S. space programs, history, missile men, and space centers. Six appendixes include a summary of satellites and planetoids, a list of U.S. missions utilizing large boosters, and a list of journals published in the space and aeronautics fields. Has detailed subject-author index.

40. Garnett, Christopher B., The Kantian Philosophy of Space. Port Washington, N.Y.: Kennikat Press, 1965. 287p.

Reprint of 1939 edition (New York: Columbia University Press). Examines Kant's views of space as developed between 1747 and 1787. Considers these views in relation to the theories of space of Newton and Leibniz and to those of S. Alexander, C. D. Broad, and A. N. Whitehead. Bibliography, pp. 265-269, lists approximately 100 references to books.

41. Gartmann, Heinz, Rings Around the World: Man's Progress from Steam Engine to Satellite.

Translated by Alan G. Readett. New York: Morrow, 1959. 366p. 1960.

Translation from the German, Sonst stünde die Welt still: das grosse Ringen um das Neue (Düsseldorf, Econ-Verlag, 1957). British edition (London: Hodder & Stoughton, 1960)

published under the title: Science as History: The Story of Man's Technological Progress from Steam Engine to Satellite. A very detailed and comprehensive history of technology which includes several chapters on space exploration and travel. The author investigates the effect of technological development on man and attempts to discover the reason for the hostility toward technology. Bibliography, pp. 337-343, lists many references to space and to technology.

42. Gaul, Albro T., The Complete Book of Space Travel.

Illustrated by Virgil Finlay, and Including an Album of Historical Space Travel Art Prepared by Sam Moskowitz. Cleveland: World, 1956. 149p.

Elementary text but includes "A Portfolio of Early Space Ships, 1638-1929," pp. 141-156. Brief "Bibliography", p. 157, includes 19 items.

43. Godwin, Felix, The Exploration of the Solar System.

New York: Plenum Press, 1960. 200p.

The author discusses the possible developments in space exploration over the next 150 years. Deals with voyages to the Moon and Mars and the establishment of planetary colonies. Brief list of references given at the end of each chapter.

44. Goodwin, Jack, et al., "Current Bibliography in the History of Technology," Technology and Culture, Spring 1964 to date. Annual.

Annual bibliography of approximately 500 current works arranged by broad subject category with author index. History of aircraft

and spacecraft technology covered in the section "Transportation." A list is included of about 200 journal titles from which entries are taken. Compiled by Jack Goodwin, the Librarian of the Smithsonian Institution, Museum of History and Technology, Professor Eugene S. Ferguson, Iowa State University, and others. A detailed cumulative subject index is in progress and planned for publication with the 1965 list in 1967. Compilations have appeared thus far in Winter 1964, pp. 138-148, for 1962; Spring 1965, pp. 346-374, for 1963; and Spring 1966, pp. 268-300, for 1964.

45. Gove, Philip B., The Imaginary Voyage in Prose

Fiction: a History of Its Criticism and a Guide for Its Study, with an Annotated Check List of 215 Imaginary Voyages from 1700 to 1800. New York: Columbia Univ. Press, 1941. 445p. (Columbia University Studies in English and Comparative Literature, 152)

Includes "Bibliography," pp. 403-420, of approximately 200 references to other works about imaginary voyages.

46. Government Data Publications, Space Systems Volume and Directory. Washington: Government Data Publications, 1963. 351p.

A listing of U.S. space projects being planned or already in various stages of development or completion by government and/or industry. Arranged alphabetically by project under the categories: Boosters, Satellites, Space Vehicles, and Others. Technical,

political, and historical information given for each project.

47. Green, Roger L., Into Other Worlds: Space-flight in Fiction, from Lucian to Lewis. London, New York: Abelard-Schuman, 1958. 190p.

Describes journeys to the moon and other planets in the writings of authors from Lucian to C. S. Lewis. Attempts to include all stories of cosmic voyages in English at least up to the beginning of the twentieth century. "A Short Bibliography of Journeys into other Worlds Mentioned in this Book," pp. 187-190, lists approximately 65 titles.

48. Historical Abstracts, 1775-1945. V. 1, March 1955, to date. Santa Barbara, Calif.: Published by Cleo Press for American Bibliographical Center, Quarterly.

The first volume contains 3,577 abstracts from 400-500 periodicals of "articles on political, diplomatic, economic, social, cultural, scientific and technical, and intellectual history appearing in the period 1775-1945 in the periodical literature (including year books) the world over." Abstracting began with issues of periodicals appearing after June 1, 1954. Any journal added in the future will be abstracted retroactively to January 1, 1955. Five-year cumulative author and subject indexes (1955-59 and 1960-64) have been published.

49. International Aerospace Abstracts. New York:

American Institute of Aeronautics and Astronautics,
January 1961 to date. Semimonthly.

Includes 11,000 abstracts a year of published world literature in aeronautics and space science and technology. Materials abstracted include books, periodicals (including Government-sponsored journals), meeting papers and conference proceedings, and translations of journals and journal articles. Subject classification with author, subject, meeting paper, and accession number indexes. Quarterly and annual cumulative indexes are issued. International Aerospace Abstracts and Scientific and Technical Aerospace Reports (STAR) utilize identical subject categories and indexes and thus the two provide comprehensive access to the national and international unclassified report and published literature of current technical significance. Both publications list items under the subject categories "history" and "bibliography".

50. International Series of Monographs in Aeronautics

and Astronautics. Oxford, New York: Pergammon
Press, 1957 to date.

Consists of a technical series of approximately 41 volumes to date of international monographs in the following divisions: I-Solid and Structural Mechanics, II-Aerodynamics, III-Propulsion Systems Including Fuels, IV-Avionics, V-Aviation and Space Medicine, VI-Flight Testing, VII-Astronautics, VIII-Materials Science and Engineering, and IX-Symposia. Most volumes contain bibliographies.

51. IZ Istorii Aviatsii i Kosmonavtiki [From the History of Aviation and Cosmonautics] Moscow: Akademiia Nauk SSSR, Sovetskoe Natsional'noe Ob'edinenie Istorikov Estestvoznaniia i Tekniki, 1964 to date. Irregular.

Russian journal devoted to the history of aeronautics and cosmonautics. Each issue contains several articles, some of which include brief bibliographies. Issued by the Soviet Academy of Sciences, Soviet National Society of Historians of National Science and Technology.

52. Jammer, Max, Concepts of Space: the History of Theories of Space and Physics. Cambridge, Mass.: Harvard University Press, 1954. 196p.

A survey of theories of space in physics from the concepts of space in antiquity to Judeo-Christian ideas about it, to Newton's concept, to the concept of space in modern science from the 18th century to the present time. Abundant footnote references.

53. Joffé, Mark, La Conquista delle Stelle; Astrolatria, Astrologia, Astronomia, Astrofisica. A cura di Giuseppe de Florentiis. Traduzioni di Angelo Bertolotti et al. Milano: A. Mondadori, 1958. 725p.

A comprehensive history of astrology, astronomy, astrophysics, and astronautics from earliest times to 1958. Includes profuse

quotations from all languages and periods translated into Italian. Arrangement is by country or area and includes Chinese, Indian, Pre-Columbian, Babylonian, Hebraic, Greek, Roman, Arabic, etc.

54. Jones, Bessie J., Lighthouse of the Skies: the Smithsonian Astrophysical Observatory; Background and History, 1846-1955. Washington: Smithsonian Institution, 1965. 339p. (Smithsonian Publication, 4612)

History of the SAO which includes the SAO's role in Langley's aerodynamic experiments, pp. 147-171, and Robert H. Goddard's rocket experiments, pp. 241-276. "Notes," pp. 307-334, consists of chapter bibliographies.

55. Journal of the British Interplanetary Society. London: British Interplanetary Society, 1934--July/Aug. 1961. Bimonthly.

Includes special section "Astronautical Abstracts," 1959-1961, containing 2,000 abstracts a year of world literature with subject classification and annual author and subject indexes.

56. Kaiser, Hans K., Rockets and Spaceflight. Translated by Alex Helm. New York: Pitman, 1962. 154p.

Translation (revised and brought up to date) of Zu Fremden Gestirnen; die Weltraumfahrt in Gegenwart und Zukunft, eine kurze Einführung in die Astronautik (Baden-Baden: Signal Verlag Hans Frevert, 1959). Includes bibliography,

pp. 151-152. Excellent first chapter, "Growth of an Idea," traces the history of the idea of space flight and includes throughout the text references to works of historical interest by such people as Lucian, Kepler, Wilkins, Godwin, de Bergerac, de Fontenelle, Huygens, Verne, Lasswitz, and others.

57. Koestler, Arthur, The Sleepwalkers: a History of Man's Changing Vision of the Universe. New York: Macmillan, 1959. 624p.

Essentially a historical study of Copernicus, Galileo, Kepler, and Newton by a nonhistorian. A cultural history of cosmology organized around the relationship between science and religion, the psychological process of discovery, and the workings of the creative mind. Extensive footnote references, pp. 547-610. Includes bibliography, pp. 611-613.

58. Koyré, Alexandre, From the Closed World to the Infinite Universe. Baltimore: Johns Hopkins Press, 1957. 313p.

Covers the period 1450-1700 and traces the replacement of the concept of an eighth sphere of fixed stars by that of an infinite universe and the effect of this on human thought. Extensive quotes from the works of Nicholas of Cusa, Copernicus, Giordano Bruno, Kepler, Galileo, Descartes, Newton and Leibniz. "Notes", pp. 277-304, lists footnote references by chapter.

59. Kramarov, Grigorii M., Na Zare Kosmonavtiki [Dawn of Cosmonautics] Moscow: Znanie, 1965. 94p.

A history of the Society for the Study of Interplanetary Flight, Moscow. Covers period 1924-1964. Includes information on some of the early Soviet interplanetary flight enthusiasts. Includes chronology, pp. 93-95, and a few scattered bibliographical footnotes.

60. Kurliandskaia, S. V., ed., Nashi Kosmicheskie Puti
[Our Cosmic Way] Moscow: Sovetskaia Rossiia,
1962. 306p.

Includes a compilation of statements on the conquest of space from Tass, the Soviet Academy of Sciences, Soviet scientists, foreign sources, etc., arranged in chronological order. A popular anthology.

61. Laufer, Berthold, Prehistory of Aviation. Chicago:
Field Museum of Natural History, 1928. 96p.
(Its Publication 253, Anthropological Series,
v. 18, no. 1)

Discusses the mythological and legendary accounts of flight in the Orient. The author's thesis is that the ideas underlying modern aviation had their root in the Orient and were in full evidence there long before their appearance in Europe. Discusses the Chinese kite as the prototype of the airplane, and Indian, Babylonian, Persian, Greek, and Arab legends. Notes, pp. 88-93, list many background footnote references in running text. Bibliography, p. 94, lists eleven additional references.

62. Lear, John, Kepler's Dream, With the Full Text and
Notes of Somnium, sive Astronomia Lunaris Joannes

Kepleri. Translated by Patricia Frueh Kirkwood.

Berkeley: University of California Press, 1965.

182p.

A "lunar geography" written in 1609 by Kepler, this work is the first complete English translation of the complete text to be published. Lear considers this to be a serious scientific work in which Kepler describes a theoretical voyage to the moon in scientific terms and enumerates the obstacles man would have to overcome. Includes Lear's interpretation of Kepler's manuscript, Kepler's appendix, and extensive footnotes throughout all portions of the text.

63. Lehner, Ernst, and Johanna Lehner. Lore and Lure of

Outer Space. New York: Tudor, 1964. 192p.

Fairly popular history of astrology and astronomy with emphasis on pictorial representations of the universe, the milky way, the planets, constellations, comets, and asteroids. Excellent classical illustrations from all time periods and countries.

64. Leonard, Jonathan N., Flight into Space: the Facts,

Fancies, and Philosophy. Rev. ed. New York:

Random House, 1957. 306p. [Modern Library

Paperbacks, P37]

The author, science editor of Time, states in the foreword to the revised edition (first edition published 1953) that the purpose of this work was "to give the background of space flight, its methods, obstacles, emotives, philosophy and dreams rather than describe current space hardware". Ch. 4 is entitled,

"Daedalus and Newton". Published in French,
Ciel des Hommes [Paris: Arthaud] in 1955.

65. Ley, Willy, et al., The Complete Book of Satellites and Outer Space. 2d ed. New York: Maco Magazine Corp., 1957. 127p. (Maco, 70)

Includes articles by thirteen space experts including "Development of the Space Ships," by Willy Ley, pp. 4-15, and "History of the Rocket Engine," by James H. Wyld, pp. 50-71; first edition published in 1953 under the title, The Complete Book of Outer Space.

66. Ley, Willy, The Conquest of Space. Paintings by Chesley Bonestell. New York: Viking Press, 1949. 160p.

An early popular account of "space travel" by one of the world's early authorities. Describes the geography and atmosphere of the planets and their satellites. Includes 58 reproduced paintings of these descriptions.

67. Ley, Willy, ed., Die Möglichkeit der Weltraumfahrt: Allgemeinverständliche Beiträge zum Raumschifffahrtsproblem, von professor Hermann Oberth, dr. Franz v. Hoefft, dr.-ing. Walter Hohmann, dr. Karl Debus, ingenieur Guido von Pirquet und ingenieur Fr. W. Sander. Leipzig: Hachmeister & Thal, 1928. 344p.

Consists of essays by each of the above contributors. "Die Verfasser," p. vii-viii, provides biographical information for each of the authors. "Literaturverzeichnis und Anmerkungen," pp. 341-344, consists of annotated references to the works of the above contributors and a few others.

68. Ley, Willy, Rockets, Missiles, and Space Travel. Rev. and enl. for the 1960's. New York: Viking Press, 1961. 528p.

One of the first major works in English on space travel. Includes extensive bibliography, pp. 513-548. Earlier versions of this bibliography appeared in all editions of this book, first published in 1944 under title Rockets: the Future of Travel Beyond the Stratosphere. Briefly annotated list of books and pamphlets arranged according to the language in which book was printed. Some British and U.S. Government publications are listed. Section entitled "Historical Works," pp. 537-540, lists 42 references to works published before 1949. Section 3, pp. 542-544, is entitled "Literary History of Imaginative Literature on Space Travel." Revised edition of 1968 published as Rockets, Missile, and Men in Space, with updated bibliography pp. 533-548.

69. Library of Congress, Science and Technology Division, Aeronautical and Space Serial Publications: a World List. Washington: The Library, 1962. 255p. (For sale by U.S. Govt. Print. Off.)

Lists 4,551 current and noncurrent titles originating in 76 countries. Arrangement is by country with a title index. Titles listed

are based primarily on the holdings of the Library of Congress although other sources have been consulted for additional titles. This list is an expansion of Checklist of Aeronautical Periodicals and Serials in the Library of Congress, prepared by Arthur G. Renstrom (Washington: 1948. 129p.). This in turn is an expansion of an even earlier list in two parts, Aeronautical Periodicals and Serials in the Library of Congress (1) United States (1936); (2) British Empire (1938).

70. Lilley, Samuel, Men, Machines and History: the Story of Tools and Machines in Relation to Social Progress. Rev. and enl. ed., 1st U.S. ed.
New York: International Publishers, 1966. 352p.

Ch. 15, "The Conquest of Space," pp. 277-307, discusses the history of space exploration and contrasts U.S. and Soviet space policies. Original edition (London: Cobbett, 1948).

71. McGraw-Hill Basic Bibliography of Science and Technology: Recent Titles on More than 7000 Subjects, Compiled and Annotated by the Editors of the McGraw-Hill Encyclopedia of Science and Technology. New York: McGraw-Hill, 1966. 738p.

Supplements and uses the same subject headings as the McGraw-Hill Encyclopedia of Science and Technology. Includes brief annotated bibliographies on space, space biology, space flight, space navigation and guidance, space power systems, space probe, space technology, and spacecraft structure, pp. 587-589, and on astronautical engineering, astronautics, astronomical geophysics,

astronomical instruments, astronomical photography, astronomical spectroscopy, astronomy and astrophysics, pp. 50-51. References are to English language books which are recent and in print as of 1966.

72. Macvey, John W., Journey to Alpha Centauri. New York: Macmillan, 1965. 256p.

Describes the possibilities of interstellar (as distinct from interplanetary) travel and considers the physical, technical, moral, and sociological aspects. Bibliography, pp. 255-256, consists of 26 references to books and journal articles.

73. Marcus, Abraham, and Rebecca B. Marcus, Tomorrow the Moon! Planes, Missiles, Satellites, Space Travel. Englewood Cliffs, N.J.: Prentice-Hall, 1959. 150p.

Elementary approach but the first three chapters, pp. 1-17, discuss the history of man's attempts to escape gravity from earliest times to the present. "Significant Events in Man's Struggle to Escape from the Bonds of Gravity", pp. 144-146, lists eleven events.

74. May, Roger, Feux Verts pour la Lune. Paris: Bonne, 1959. 238p.

Deals with space flight to the moon, including progress made and future projections to 1972. Fairly popular treatment of the subject.

75. Monastyrev, B. A., comp., K. E. Tsiolokovskii O Mezhpplanetnykh Soobshcheniakh [K. E. Tsiolkovskii on Interplanetary Travel] Kaluga: Kaluzhskoe Knizhnoe izd-vo, 1959. 18p.

Includes quotations from Tsiolkovskii on space travel. Bibliography, p. 20, lists ten books. Includes reprints from the press, Jan. 3-6, 1959, pp. 10-16.

76. Moore, Patrick, Space Exploration. Cambridge, Eng.: Published for the National Book League at the University Press, 1958. 26p. (Reader's Guides, 3d ser.)

An annotated bibliography of approximately 150 references to fairly current works on astronomy and astronautics, mainly for the layman. "Historical and Biographical" works listed, pp. 20-22.

77. Müller, Wolfgang D., Man Among the Stars. New York: Criterion, 1957. 307p.

Translated from Du Wirst die Erde sehen als Stern, published in Germany (Stuttgart: Deutsche Verlags-Anstalt, 1955). Traces the historical development of the concept of man's exploration of space. Bibliography, pp. 303-307, lists approximately 75 references to books.

78. Munitz, Milton K., Theories of the Universe; from Babylonian Myth to Modern Science. Glencoe, Ill.: Free Press, 1957. 437p.

An anthology of writings about the origin and nature of the universe from the Babylonians to the present time. Includes excerpts from the writings of many eminent astronomers. "Selected Bibliography," pp. 430-432, lists approximately 65 English book titles.

79. Murchie, Guy, Music of the Spheres. Boston: Houghton Mifflin, 1961. 644p.

The first half of the book deals with the macrocosm. Beginning with the earth, the author then discusses the facts and fantasies of space travel. The second half of the book deals with the microcosm: the atom, and subatomic particles. In the end he deals with waves, energy, light, radiation, and finally beliefs about the nature and order of the universe. Brief bibliography given in "Acknowledgments," pp. IX-X.

80. National Academy of Sciences, Space Science Board, Bibliography on Space Sciences: United States, 1956 to date, appendix to United States Space Science Program: Report to COSPAR. Washington: National Academy of Sciences, 1956 to date. 12v. Annual.

As a part of its international responsibilities, the Board furnishes COSPAR with an annual report on the United States space science program. These reports contain bibliographies on U.S. work for that year. Bibliographies for 1956-1967 have been issued.

81. National Aeronautics and Space Administration,
Astronautics and Aeronautics: Chronology on
Science, Technology, and Policy. Washington:
NASA, 1961 to date. Annual. (Vols. for 1963 to
date issued as NASA SP-4004, 4005, 4006, and 4007)
(For sale by U.S. Govt. Print. Off.)

An annual chronology of events and statements of the space age, compiled from open public sources as ready reference for current use by space technologists, scholars, students, and writers, as well as for future analysts and historians. Supplements Aeronautics and Astronautics, 1915-1960, by Eugene M. Emme (Washington: NASA, 1961) (34). Each volume includes "Appendix A, Satellites, Space Probes, and Manned Space Flights"; and Appendix B, "Chronology of Major NASA Launchings", prepared by Frank W. Anderson, Jr., Deputy NASA Historian. 1961 and 1962 volumes have title Astronautical and Aeronautical Events and were printed by the House Committee on Science and Astronautics.

82. National Aeronautics and Space Administration,
Bibliographies on Aerospace Science: a Continuing
Bibliography. Springfield, Va.: Clearinghouse for
Federal Scientific and Technical Information (OTS),
January 1962-May 1964 to date. (NASA SP-7006)

A selection of annotated references to unclassified bibliographies introduced into the NASA information system January 1962-May 1964. Prepared by the Scientific and Technical Information Facility operated for the National Aeronautics and Space Administration by

Documentation Incorporated. All references are to bibliographies that have been announced either as reports in Scientific and Technical Aerospace Reports or as journal articles or books in International Aerospace Abstracts. The references are arranged in two major groups: (1) reports and (2) book and journal articles. Subject index but no author index. To be updated periodically by the publication of supplements.

83. National Aeronautics and Space Administration, Index to NASA Tech Briefs. Springfield, Va.: Clearinghouse for Federal Scientific and Technical Information (OTS), January 1965 to date. Semiannual.
(NASA SP-5021)

This index has been prepared as a guide to technological innovations derived from the NASA space program. The publication is arranged in two major sections: (1) a listing of the citations and abstracts of all NASA Tech Briefs published to date and arranged by subject category; (2) three indexes: Subject Index, Originator/Tech Brief Number Index, and Tech Brief/Organator Number Index.

84. National Aeronautics and Space Administration, Space Scientists and Engineers: Selected Biographical Listing, 1957-1961. Washington: U.S. Govt. Print. Off., 1962. 332p. (NASA SP-5)

A listing by country of approximately 1,000 authors of technical papers considered for presentation at a proposed United Nations conference on the peaceful uses of space. For each scientist a brief biography and bibliography is given.

85. National Aerospace Education Council, Aerospace Bibliography. Compiled for National Aeronautics and Space Administration. 3rd ed. Washington: NASA, 1966. 71p.

An annotated, mainly nontechnical bibliography of books, periodicals, teaching aids, pamphlets, reports, films, and film strips arranged by broad subject category under type of material and with reading level indicated. Author and title indexes. Covers literature published from January 1963 through summer 1965 and is a third edition of Aeronautics and Space Bibliography which covered the period 1958 through June 1961 and was published in three parts.

86. Neimark, Paul G., ed., The Race for Space! Chicago: Camerarts Pub. Co., 1957. 66p.

Consists of 15 essays by prominent Americans on various aspects of space flight, U.S. space policy and government, and the U.S.-U.S.S.R. space competition. Includes essays by Willy Ley, James T. Farrell, Nelson Algren, and Isaac Asimov.

87. Nicolson, Marjorie H., Voyages to the Moon. New York: Macmillan, 1948. 297p.

A scholarly work dealing with fictional trips to the moon from classical time to the modern era but with special emphasis on the period before actual flight. Excellent. annotated bibliography, pp. 258-288, includes primary and secondary references to works on the prehistory and history of flight.

88. Nihon Kōkū Gakkai-shi. Journal of Japan Society for Aeronautical and Space Sciences. Tokyo: The Society, 1953 to date. Monthly.

Includes 80-100 abstracts a year on aerospace engineering and aerospace technology from Western literature and papers published by NASA arranged by subject.

89. North, John D., The Measure of the Universe: A History of Modern Cosmology. Oxford: Clarendon Press, 1965. 436p.

Deals with 20th century cosmology. Pt. I is a history of the principal theories of cosmology and Pt. II is a discussion of the conceptual problems which underlie the principal theories. Includes selected bibliography, pp. 425-427.

90. Odishaw, Hugh, ed., The Challenges of Space.

Contributors: Ralph S. Cooper, and others.

Foreword by Eugene Rabinowitch. Chicago:

University of Chicago Press, 1962. 379p.

First published as a special issue of the Bulletin of the Atomic Scientists, May-June, 1961; here expanded and brought up to date. Consists of 23 articles by 25 experts on what is technically within reach in the following subject categories: Applications of Space Research, Space Research, National Space Program, International Space Co-operation, and Space Technology. A few of the essays contain very brief bibliographies.

91. Potts, Rinehart S., Library Service for the Martian Exploration Expedition. Philadelphia: Litton Industries, 1963. v.p.

Basically an annotated bibliography arranged in six subject matter categories with each preceded by narrative comments on aspects of flight: "works likely to be needed by planners, works for both planners and the expedition, abstracting journals intended for the orbital party, works which would be possessed by both the orbital and landing parties, works intended only for the landing party, and general reading for background and further reference." Compiled as part of the requirements for a course under Assoc. Prof. George S. Bonn of the Graduate School of Library Service, Rutgers the State University, New Jersey.

92. Price, Derek J. de Solla, Science Since Babylon. New Haven: Yale University Press, 1961. 149p.

Consists of five essays based on five lectures originally given at Yale University in 1959. Deals with scientific crises of the past which lead to great scientific and technological development -- from the one that made our own civilization begin to become scientific to the probable transition from the present state to a future internal economy of science. Includes scattered footnote references.

93. Ramo, Simon, ed., Peacetime Uses of Outer Space, by Lloyd V. Berkner, and others. New York: McGraw-Hill, 1961. 279p.

Consists of 12 essays by prominent authorities originally presented in a series of lectures organized by the University of California, March-June 1960. Each essay deals with one aspect of space exploration.

94. Referativnyi Zhurnal. Issledovanie Kosmicheskogo Prostranstva [Journal of Abstracts. Investigation of Outer Space] Moscow: Proizvodstvenno-izdatel'skii Kombinat Vsesoiuznogo Instituta Nauchnoi i Tekhnicheskoi Informatsii, 1964 to date. Monthly.

Contains about 4,800 abstracts a year from world literature. Arranged by subject with an author index. Subject categories include history, personalities, international cooperation, space research organization, and bibliography.

95. Revista de Aeronautica y Astronautica. Madrid: Ministerio del Aire, 1932 to date. Monthly.

Section entitled "Bibliografia: Libros, Revistas" includes 300 references a year from English language and European journals.

96. Richardson, Robert S., Man and the Moon. Cleveland: World, 1961. 171p.

Ch. 1, "Imaginary Voyages to the Moon," pp. 17-35, is a very good running text bibliography on imaginary voyages to the moon from Lucian of Samosata to Edgar Rice Burroughs and H. G. Wells. Other chapters in the volume include "The Earth-moon Journey,"

by A. C. Clarke; "Power for a Lunar Colony," by M. O'Day; "Farming on the Moon," by J. W. Sholto Douglas; and "Basic Design for Moon Building," by J. S. Rinehart.

97. Roberts, Joseph B., and Paul L. Briand, eds.,

The Sound of Wings: Readings for the Air Age.

New York: Holt, 1957. 303p.

Selections from world literature dealing with man's flight through the air from Ovid's Fall of Icarus to the present day. Shows that the history of man's efforts to fly is shown in literature -- visions, dreams, legends, poetry, and fiction. Selections are arranged chronologically and include sections on World Wars I and II and the Korean conflict. "Acknowledgments," pp. 295-297, lists approximately 35 sources.

98. Rodman, Selden, ed., The Poetry of Flight, an

Anthology. New York: Duell, Sloan, and Pearce,

1941. 190p.

An anthology mainly of world poetry, although a few prose pieces are included, and representing man's concern with flight from Ovid, Leonardo de Vinci, Shakespeare, Milton, Goethe, to Jung, Yeats, Hopkins, Saint Exupéry, and William Faulkner. "Acknowledgments," pp. vii-ix, lists approximately thirty sources from which some of the items anthologized were taken.

99. Ross, Frank X., Space Ships and Space Travel: the

Scientifically Accurate Story of Man's Attempts

and Plans to Travel into Interplanetary Space. Rev.

ed. New York: Lothrop, Lee & Shepard, 1961.

218p.

Fairly popular historical treatment of subject. Originally appeared in 1954 (New York: Lothrop, Lee & Shepard). May refer to names of some of the early pioneers not mentioned elsewhere.

100. Ryan, Cornelius, ed., Across the Space Frontier,
by Joseph Kaplan and others. Illustrated by
Chesley Bonestell, Fred Freeman, and Rolf Klep.
New York: Viking Press, 1952. 147p.

Based on Physics and Medicine of Outer Space symposium, and originally appeared as a series of articles in Collier's Magazine (1952). A space prospectus which is comprised of articles by seven space experts, including Wernher von Braun, Heinz Haber, Willy Ley, and Fred L. Whipple.

101. Rynin, Nikolai A., Mezhplanetnye Soobshcheniia
[Interplanetary Space Travel] Leningrad:
Kooperativnaia artel' "Pechatnia," etc., 1928-32.
3v. (9 pts.)

This encyclopedic international compilation on interplanetary travel consists of nine parts in three volumes. The first volume covers space travel in dreams, fantasy, and in novels while v.2 covers the theory of jet propulsion and v.3 covers the life and work of K. E. Tsiolkovskii. Volume 3 also includes a bibliography, the most extensive published to that time and virtually a complete list of all articles written about rockets in any

language up to 1931, v.3, pt. 9, pp. 141-189, comprising five sections, each arranged alphabetically by author: (1), Fiction in the Russian language; (2), Fiction in foreign languages; (3), Moving pictures; (4), Scholarly articles in Russian; and (5), Scholarly articles in foreign languages. For a comprehensive review of this work, see G. V. E. Thompson's "A Famous Russian Encyclopedia of Astronautics," in Journal of the British Interplanetary Society, v.13, July 1954, pp. 192-202; Nov., pp. 301-313; and v.15, Mar.-Apr., 1956, pp. 82-91.

102. Sanger, Eugen, and Irene Sanger-Bredt, eds.,

Internationale Tagung uber Staustrahlen und Raketen, in Freudenstadt, Stuttgart

Forschungsinstitut fur Physik der Strahlantriebe, vom 6 -8 Februar 1955. Stuttgart: Verlag Flugtechnik, 1956. 358p. (Its Mitteilungen, 6)

A collection of technical papers presented at one of a series of conferences on various aspects of space technology and published as the Mitteilungen of the Forschungsinstitut from 1954 to date. Some of the papers include bibliographies.

103. Scientific and Technical Aerospace Reports (STAR)

(supersedes Technical Publications Announcements).

Washington: National Aeronautics and Space Administration, January 8, 1963, to date.

Semimonthly. (For sale by U.S. Govt. Print. Off.)

Announces, abstracts, and indexes about 20,000 reports per year issued by the National

Aeronautics and Space Administration, as well as by other government agencies, universities, industry, and research organizations both in the United States and abroad, and scientific and technical articles prepared by NASA contractor authors which appear in learned and technical journals. Separate cumulative indexes are published quarterly, semiannually, and annually.

104. Shapley, Harlow, The View from a Distant Star: Man's Future in the Universe. New York: Basic Books, 1963. 212p.

The author, retired director of the Harvard Observatory, considers mankind's place in space, time, and evolution and in relation to other life on this and other planets.

105. Sharpe, Mitchell R., comp., A Bibliography of Wernher von Braun, 1966. Huntsville, Ala.: Marshall Space Flight Center, 1966. 23p.

A cumulative bibliography of the published writings of von Braun. Revised and enlarged annually. The 1966 edition includes approximately 330 references primarily to journal articles published from 1958 to date.

106. Shternfeld, Ario A., Polet v Mirovye Prostranstvo [Flight into Space] Moscow: Gosudarstvennoe izd-vo Tekhniko-Teoreticheskoi Lit-ry, 1949. 139p.

Early Russian book by the so-called "Willy Ley of Russia" describes historical development and future possibilities of space

flight in a fairly popular manner. Published in French as Le Vol dans l'Espace Cosmique (Paris: Editeurs Francais Réunis, 1954)

107. Singh, Jagjit, Great Ideas and Theories of Modern Cosmology. New York: Dover, 1961. 276p.

Review the fundamental theories of astronomy, astrophysics, and cosmology developed in the first half of the 20th century. Covers Einstein's concepts of relativity and space-time, Milne's a priori world system, Alfven's theory of planet formation, the astrophysical theories of Jeans and Eddington, and Jordan and Dirac's cosmology, and the continuous creation theory of Hoyle.

108. Smith, Dale R., Space Travel: a Bibliography of English-language Titles. Minneapolis: The Author, 1956. 15p.

Lists approximately 100 titles of works dealing with space travel published between 1931 and 1956 which the compiler feels is a complete list of such titles in English. Includes "Chronological Title Listing," pp. 14-15.

109. Sviderskii, V. I., Filosofskoe Znachenie Prostranstvenno-Predstavlenii v Fzike [Philosophical Significance of Space-Time Concepts in Physics]. Leningrad: Leningrad State University, 1956. 307p.

History of space time concepts in physics and philosophy from earliest times to the present from the Soviet point of view. Bibliographical footnotes.

110. Sviderskii, V. I., Prostranstvo i Vremia [Space and Time]. Moscow: State Publishing House of Political Literature, 1958. 199p.

Discusses concepts of space and time which led to modern physics from ancient times to the present. Includes the dialectic materialist concept of space and the Soviet rationale for space exploration. Includes bibliographical footnotes.

111. Syracuse University, Library, Fictional Accounts of Trips to the Moon, 160-1901 (A.D.): A Commentary to Accompany a Lena R. Arents Rare Book Room Exhibit at the Syracuse University Library, November-December 1959. Syracuse, N.Y.: The University, 1959. 14p.

Lists the following eleven references with long annotations: Vera Historia, by Lucian of Samosata; Orlando Furioso, by Lodovico Ariosto; The Man on the Moone, by Bishop Francis Godwin; The Discovery of a World in the Moone, by John Wilkins; Histoire Comique des Etats et Empires de la Lune, by Savinien de Cyrano de Bergerac; The Consolidator: or, Memories of Sundry Transactions from the World in the Moon, by the author of The True-Born English Man; A Voyage to the Moon, by Joseph Atterly (pseudonym of George Tucker); The Unparalleled Adventure of One Hans Pfall, by Edgar Allen Poe; Discoveries in the Moon

Lately Made at Cape of Good Hope, by Sir John Herschel; From the Earth to the Moon, by Jules Verne; and The First Men in the Moon, by H. G. Wells.

112. Thomas, Shirley, Men of Space: Profiles of the Leaders in Space Research, Development, and Exploration. Philadelphia: Chilton Co., Book Division, 1960 to date.

Brief sketches of the leaders in space exploration and a description of the contributions of each in a series by the chairman and organizer of the Space Advisory Committee (Los Angeles). To date seven volumes have been published with the following biographies: v.1, Krafft A. Ehricke, Robert H. Goddard, Bernard A. Schriever, John P. Stapp, Konstantin E. Tsiolkovsky, James A. Van Allen, Wernher von Braun, Theodore von Kármán, John von Neumann, Charles E. Yeager.--v.2, Scott Crossfield, Thomas F. Dixon, Walter R. Dornberger, Hugh L. Dryden, W. Randolph Lovelace II, William H. Pickering, Simon Ramo, Edward Teller, Robert C. Truax, Fred L. Whipple.--v.3, James H. Doolittle, C. Stark Draper, Louis G. Dunn, Don D. Flickinger, Yuri Gagarin, Arthur Kantrowitz, William F. Raborn, Jr., Harold Ritchey, Alan B. Shepard, H. N. Toftoy.--v.4, Jack Armstrong, Robert Gilruth, Samuel Herrick, John R. Pierce, Malcolm Ross, William Shockley, Harrison Storms, Hubertus Strughold.--v.5, John H. Glenn, Jr., Albert Hibbs, Richard B. Kershner, Homer E. Newell, L. Eugene Root, Robert C. Seamans, Jr., Charles Townes, Roger Warner.--v.6, Philip H. Abelson, Melvin Calvin, Frank D. Drake, Sidney W. Fox, John C. Lilly, Orr E. Reynolds, Carl Sagan, Harold C. Urey, Stanley L. Miller, Wolf Vishniac.--v.7, Joseph V. Charyk, Robert F. Freitag, Herbert Friedman, Harry J. Goett,

Virgil I. Grisson, Andrew G. Haley, James P. Henry, Robert J. Parks, Donald L. Putt, Edward C. Welsh.

113. Thompson, Stith, Motif-Index of Folk Literature: a Classification of Narrative Elements in Folktales, Ballads, Myths, Fables, Mediaeval Romances, Exempla, Fableaux, Jest-Books, and Local Legends. Rev. and enl. ed. Bloomington, Ind.: Indiana University Press, 1955-58. 6 v.

Approximately 25 references listed under each of the headings "Flight" and "Flying." References are to works of folk literature in which flight or flying is mentioned.

114. Thor, Janusz, Drugi Glob Czlowieka [Second Globe of Man]. Warszawa: Wiedza Powszechna, 1963. 228p. (Przekroje)

Deals with space flight to the moon and lunar probes including Ranger, Mariner, Mercury, and Lunik projects. Also discusses pre-history of the moon in literature and fantasy.

115. Titova, N. M., and N. M. Killerog, comps., K Zvezdnym Miram [To the World of the Stars]. Kiev: Izd-vo Akademii Nauk UKr. SSR, 1961. 99p.

Includes a compilation of statements and greetings on the occasion of Cosmonaut Yuri Gagarin's flight on April 12, 1961. Excerpts from messages from Premier Khrushchev, The

Central Committee, the Soviet press, and foreign sources.

116. Trinklein, Frederick E., and Charles M. Huffer,
Modern Space Science. New York: Holt, Rinehart,
and Winston, 1961. 550p.

Contents include The composition of the universe; The Physical laws of space, and Man in space. Includes brief bibliography at the end of each unit.

117. Troebst, Cord C., Der Griff nach dem Mond; Amerika
Russland im Kampf um den Weltraum. Berlin:
Deutsche Buch-Gemeinschaft, 1959. 283p.

Deals with space flight to the moon. Early chapters, especially "Mond-Mythen und-Märchen", pp. 12-21, deal with the history of astronautics and interplanetary voyages.

118. U.S. Government Research and Development Reports,
compiled by Clearinghouse for Federal Scientific
and Technical Information, Department of Commerce,
1946 to date. Semimonthly.

Contains about 40,000 abstracts and references a year to reports on all aspects of science and technology, including many relating to missiles and rocket technology, astronomy, and space, from Government-sponsored research made available to industry and the general public. Arranged by subject in two sections: (1) "Technical Abstract Bulletin" (TAB) announces reports released

by the Defense Documentation Center of the Department of Defense and (2) "Other Research Reports and Related Material" announces reports released by civilian agencies and also includes certain older military reports. Various indexes including subject, personal author, and corporate author. Title varies: Jan. 1946-June 1949, Bibliography of Scientific and Industrial Reports; July 1949-Sept. 1954, Bibliography of Technical Reports (varies slightly); Oct. 1954-Dec. 1954, U.S. Government Research Reports; Jan. 1965 to date, U.S. Government Research and Development Reports.

119. Valli, Federigo and Antonino Foschini, comps., Il Volo in Italia; Presentimento Scienza e Pratica nel Pensiero nell' Arte, nella Letteratura e nelle Cronache dagli Antichi Tempi ai Giorni Nostri.

Roma: Editoriale Aeronautica, 1939. 405p.

An anthology of Italian art and literature representing the history of man's concern with flight from earliest times to the present and reflecting the transition of flight from fiction to science.

120. Wallisfurth, Rainer M., Russlands Weg zum Mond.

Düsseldorf: Econ-Verlag, 1964. 434p.

Describes the development of Russia's plans to reach the moon from the 19th century to the present. "Literaturverzeichnis," pp. 409-416, lists approximately 125 German and Russian book titles.

121. Wilks, Willard E., The New Wilderness: What We Know about Space. New York: D. McKay Co., 1963. 170p.

Primarily descriptive although ch. VII, pp. 80-99, is entitled "Why Go into Space?"; ch. VIII, pp. 100-128, "Science in Space"; and ch. IX, pp. 129-138, "The Military in Space".

122. Witkin, Richard, ed., The Challenge of the Sputniks, in the Words of President Eisenhower and others.

New York: Doubleday, 1958. 96p. (Doubleday
Headline Publications)

Documentary summary of the first American response to the Sputniks. Contains a speech by President Eisenhower, statements released by Government officials, scientists, and other authorities on early history of a new age.

123. Young, Louise B., ed., Exploring the Universe.

New York: McGraw-Hill, 1963. 457p.

Prepared for the American Foundation for Continuing Education in its study-discussion program, the volume of readings contains selections from Galileo to the present day. Pt. 10 titled "Why Explore Space?" includes a chronology of space exploration. Suggestions for further reading are given at the end of each section.

124. Young, Pearl, [Aeronautical and Space Technology
Bibliography] 15,000 entries (approximately).

An annotated, unpublished bibliography on cards on space, space propulsion, ionosphere, celestial mechanics, orbits, trajectories, solar energy, and space medicine. Includes meetings of the International Astronautics Congresses, the Institute of Aeronautical Sciences, and the American Rocket Society. Covers the period 1955-1960 approximately.

International in scope but lists Russian papers only if they have English translations, for the most part. Although mainly technical, this bibliography may have some value to the historian because it covers the period just prior to the publication of Scientific and Technical Aerospace Reports. Originally prepared under NASA auspices, the cards at present may be consulted in the Science and Technology Division, Library of Congress.

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125. Aéro-Club de France, Bibliothèque, Catalogue de la Bibliothèque. Aéro-Club de France, Bibliothèque. Paris: 1922. 63p.

Lists about 1,300 titles in the library of the Aéro-Club de France. Arranged by author, with sections for anonymous works, bibliographies, dictionaries, and periodicals. Two small supplements were issued with the same title and arrangement, the first in 1924 and the second in 1930.

126. Aero-Club von Deutschland, Bibliothek, Bücher-verzeichnis. Berlin; Braunbeck-Gutenberg a.g., 1914. 91p.

Lists 1,535 titles by broad subject category. "Geschichte der Luftfahrt," p. 7, lists fifty-eight titles. Covers from late nineteenth century to 1914 and is international in scope. This library united with other libraries in 1926 to form Zentralbibliothek der Deutschen Luftfahrt. In 1930 Moedebeck-Bibliothek was added to the corporate name. This volume bears "Kaiserlicher Aero-club" at head of title.

127. Aero-Club von Deutschland, Von Tshudi-Archiv. Mitteilungen des von Tschudi-Archivs beim Aero-Club von Deutschland, Gegründet durch Stiftung des Daniel Guggenheim Fund. July, 1929-1935. Berlin: 1929-1935. Monthly

Serves as an index to current periodical literature received in the German Aero Club Library. Arranged by subject category with each issue including items under the heading "Geschichtliches".

128. Aeronautical Reader's Guide: Recent Aeronautical

Books, Government Publications, Library

Accessions in the Paul Kollsman Library.

New York: Institute of the Aeronautical Sciences,
Sept. 1940-June 1941. Quarterly.

Each issue contains a few references under the heading "History and Development".

129. Aeroplane Production Year Book and Manual. v.1-2.

London: P. Elek, 1943-45. 2v.

Serves as a historical record of British aircraft production methods and materials during World War II. Vol. I includes "Titles and Abstracts from the Scientific and Technical Press," pp. 439-516. Superseded by Aircraft Development and Production.

130. Aerospace Engineering Index. 1947-1958. New York:

Institute of the Aeronautical Sciences, 1948-1959.

12v.

Title changed from Aeronautical Engineering Index in 1958. Serves as an annual cumulation of the literature reviewed and abstracted in Aeronautical Engineering Review. Lists by subject and abstracts the important technical articles, reports, and books on the subject during the year. Subject heading "Reference Literature" lists histories and biographies.

131. Aerospace Industries Association of America, Library Bulletin. no. 1-215; Jan. 1922-Dec. 15, 1935.

Washington: The Association, 1922-1935.

An index to approximately 20 journals arranged by subject. No indexes. Semimonthly 1922-1932; monthly 1932-1935. Each issue lists a few book titles and numbers 137-215 are accompanied by a supplement: Government Publications. Published by the Association under its earlier name: Aeronautical Chamber of Commerce of America.

132. Air University, Libraries, A Bibliography of Periodical Literature Commemorating 50 Years of Powered Flight, 1903-1953. Maxwell Air Force Base, Ala.: 1954. 27p.

Comprises American and foreign periodical articles listed by author or by periodical title when the whole periodical commemorates the anniversary in a special way. In the latter case, authors and articles are listed under the periodical title.

133. An Account of Count d'Artois and his Friend's Passage to the Moon, in a Flying Machine, Called, an Air Balloon; Which was Constructed in France, and from Which Place They Ascended. Giving an Account of the Things, or Objects, They Had a View of in the Passage; and Likewise the Circumstances of Their Landing in that Planet, and Conversing with

the Inhabitants; - Their Language, Manners,
Religion, etc. - With Many Other Things Very
Entertaining, and Well Worth the Attention of
Those Who Read it. Litchfield: Printed by
 Collier and Copp, 1785. 32p.

The original copy was entered for
 copyright at Hartford, Conn., July 29, 1785,
 by Daniel Moore. Signed: Count d'Artois,
 J. Vogrill. An account of an imaginary
 voyage to the moon and reputed to be the
 first book on aeronautics published in the
 United States.

134. Armijo, Jacobo de., La Aviación en la Guerra. Madrid:
 Ediciones Afrodiseo Aguado, 1942. 303p.

Contains "Historia de la Aviación
 Española," pp. 38-53, which covers the
 period 1910-1942.

135. Aslib, Aeronautical Group, Union List of Periodicals
of Aeronautics and Allied Subjects. [Cranfield,
 Eng.?] 1953. 14p.

A union list of approximately 550
 periodical titles and holdings as of 1953
 in the libraries of 17 Aslib Aeronautical
 Group members.

136. Bacon, John M., The Dominion of the Air, the Story of
Aërial Navigation. Philadelphia: D. McKay, 1903.
 348p.

An American edition of a book first published in London (Cassell, 1902, 348p.) by an English author. A history of ballooning from earliest times to 1900. Emphasizes famous ascents and voyages, the scientific use of the balloon, and the use of the balloon in warfare, especially during the siege of Paris in 1870. Deals primarily with British, French, and American developments.

137. Banaszczyk, Eugeniusz, Najszybsi Ludzie Świata [The Fastest People in the World]. Wyd. 3. Warszawa: Ludowa Spółdzielnia Wydawnicza, 1966. 326p.

First edition published in 1962. A history of flight in the near-space environment and the achievements of test pilots from 1946 to date. Bibliography, pp. 296-297, lists 36 references to books.

138. Banaszczyk, Eugeniusz, Na Podbój Nieba [For the Conquest of the Sky]. Wyd. 1. Warszawa: Wydawn. Ministerstwa Obrony Narodowej, 1957. 620p.

A popular but comprehensive history of flight from fantasy, balloons, powered flight, flight in World War II, flight in the near-space environment, to space travel. About 30 additional references are listed on p. 613 and 615.

139. Beiträge zur Geschichte der Luftfahrtkarte.
Frankfurt A.M.: Verlag des Instituts für Angewandte Geodäsie, 1959. 153p.

Cover title is Festschrift zur Internationalen Ausstellung "50 Jahre

Luftfahrt-Kartographie" München, 19-22.
 9. 1959. This was reprinted from Nachrichten
 aus dem Karten - und Vermessungswesen,
 Reihe I, No. 14, 1959. Consists of two
 contributions by Karl H. Meine: "Zur
 Ausstellung '50 Jahre Luftfahrt - Kartographie' -
 Gedanken über die Luftfahrtkarte in
 Vergangenheit und Gegenwart sowie in ihren
 Beziehungen zur Flugsicherung, Flugnavigation
 und zum Luftverkehr," pp. 15-99, and
 "Internationale Bibliographie des Schriftums
 zur Luftfahrt--Kartographie," pp. 101-153,
 which lists 843 items.

140. Bergman, Jules, Ninety Seconds to Space: The X-15
 Story. Garden City, N.Y.: Hanover House, 1960.
 224p.

Traces the development and construction
 of the X-15 rocket aircraft and includes a
 report of the altitude record flights in
 August 1960.

141. Bihalji-Merin, Oto, Conquest of the Skies: The Story
 of the Idea of Human Flight, by Peter Merin [pseud.].
 London: John Lane, 1938. 312p.

A history of flight from earliest dreams,
 myths, and legends up to 1936. Translated
 from the German edition, Eroberung des Himmels
 [Leipzig: Tal, 1937] by Charles Fullman.
 First published in Yugoslavia under title:
Juris u Vasionu [Belgrade: Nolit, 1937].
 Second Yugoslav edition has title: Osvajanje
 Neba [Belgrade: Prosveta Izdavacko Preduzede
 Srbije, 1949]. Published also in French
 edition Conquête du Ciel [Paris:
 Payot, 1938].

142. Boffito, Giuseppe, Biblioteca Aeronautica Italiana Illustrata. Precede uno Studio sull'Aeronautica nella Letteratura, nell' Arte e nel Folklore.

Firenze: Olschki, 1929. 544p.

----Primo Supplemento Decennale (1927-1936) con Aggiunte all' intera "Biblioteca" e Appendice sui Manifesti Aeronautici del Museo Caproni in Milano Descritti da Paolo Arrigoni.

Firenze: Olschki, 1937. 678p.

A comprehensive bibliography on the history of Italian aeronautics from early to modern works. The 1929 volume includes an introductory text on aeronautics and aviation in literature, art, and folklore. Arranged alphabetically with analytical indexes to names and subjects. Contents are given for many periodicals. The supplement gives biographical notes about many of the authors.

143. Brewer, Griffith, Fifty Years of Flying. London:

Air League of the British Empire, 1946. 170p.

Consists of the reminiscences of the author, past president of the Royal Aeronautical Society, and covers the period 1891-1941. Includes the transition from ballooning to airplanes in Britain and an account of the author's friendship with the Wright brothers.

144. Bristol Aeroplane Company, Ltd., Library, The "Bristol" Library Catalogue. Filton, Eng.: The Company, 1947
209p.

Lists the items held by the library as of 1946. Approximately 100 titles are listed under the heading "History". Kept up to date by annual supplements up to 1956.

145. Brockett, Paul, Bibliography of Aeronautics. Washington: Smithsonian Institution, 1910. 940p. (Smithsonian Miscellaneous Collections, v. 55. Publication 1920)

A comprehensive bibliography of nearly 13,500 references to books, pamphlets, and articles in nearly 200 periodicals on aeronautics up to July 1909. Arranged alphabetically by author or title with cross references under subjects. Designed to render available material in the aeronautical collections of the Smithsonian Institution, nucleus of which was the library of Dr. Samuel Pierpont Langley, its Secretary, from 1887 to 1906. Contains an appendix of references to important papers in the Bulletins of the Aerial Experiment Association and the Beinn Bhreagh Recorder. Continued by Bibliography of Aeronautics, published by the National Advisory Committee for Aeronautics, 1909-1932; the final section, covering 1933-1937, is soon to be published.

146. Brogden, Stanley, First to Fly, from Roger Bacon to Sir Charles Kingsford Smith; a Brief Account of Some of the Men who Pioneered Aviation. Melbourne: Whitecombe & Tombs, 1946. 169p.

Although a rather slight, popular, history of aeronautics, the book is very good for Australian aviation achievements.

147. Bujanj, Viktor, Čovjek u Prostoru; Pregled Historije Letenja, Njegova Tehničkog Razvoja i Primjene u Miru i u Ratu [Man in Space; History of Flying, Technical Development, and Peaceful Uses].
Zagreb: Naprijed, 1960. 272p.

History of aeronautics and rocketry from earliest times to the present. Country by country arrangement. Emphasizes events in Yugoslavia.

148. Buchanan, Lamont, The Flying Years. New York: Putnam, 1953. 188p.

Pictorial history of the first 50 years of flight with brief descriptive text.

149. Bulletin Signalétique. Paris: Service de Documentation et d'Information Technique de l'Aéronautique, 1945 to date. Semimonthly.

Title changed from Bulletin Mensuel de Documentation Scientifique et Technique, June 1945; Bulletin Mensuel de Documentation, July 1949; from Bulletin Mensuel Signalétique, Jan. 1960. Contains about 9,500 primarily technical abstracts a year from world literature (including technical reports, memoranda, and papers) arranged by SDIT classification. Has section "Astronautique" and related topics.

150. Burbidge, William F., From Balloon to Bomber: A Complete History of Aviation from Earliest Times

until the Present Day ... Bognor Regis and

London: J. Crowther, 1946. 238p.

History of aviation from earliest times to the end of World War II. Emphasizes British achievements, especially those of the Royal Air Force, from 1939-1945. A Dutch translation entitled Van Luchtballon tot Bommenwerper was published in 1947 [Amsterdam: A. Blitz]

151. Bureau of Aeronautics (Navy Dept.), Significant American and International Awards in Aviation.

Rev. Washington: The Bureau, 1954. 107p.

(Aer-TD-43)

Lists alphabetically approximately 46 awards and citations and for each one gives such information as origin and purpose of the award, by whom the presentation was made, and the dates and names of recipients. Serves as a chronological pattern of aeronautical achievement. Supersedes brochure originally prepared in 1948 and revised in 1951.

152. Cahisa, Raymond, L'Aviation d'Ader et des Temps

Héroïques. Préf. de Robert Morane. Paris:

Michel, 1950. 342p.

Biography of Clément Ader and an account of the times in which he lived. Emphasizes the development of aeronautics from 1910 to 1920.

153. Caidin, Martin, Wings into Space. New York: Holt, Rinehart and Winston, 1966. 141p. (Holt Library of Science)

Discusses the history and future of winged space flight. The developments leading to winged space flight, from the early planes up to the X-15 are discussed as well as future spacecraft. Bibliography, p. 131, lists ten book references.

154. Canby, Courtlandt, A History of Flight. New York: Hawthorn Books, 1963. 113p. (The New Illustrated Library of Science and Invention, v.3)

Concise history of aeronautics, beautifully illustrated. "Chronology," pp. 113-117, covers the years from 1505 to 1961.

155. Caproni, Timina (Guasti), and Achille Bertarelli, Francesco Zambecari, Aeronauta (Bologna 1752-1812). Milano: Museo Caproni, 1931. 124p.

The life and achievements of the early Italian pioneer aeronaut, Francesco Zambecari, 1752-1812. Emphasizes the balloon ascensions of Zambecari in 1803, 1804, and 1812. "Bibliografia," pp. 55-95, lists 248 works both by Zambecari and contemporary works about him. "Note," pp. 97-114, lists additional footnote references. A beautiful book with many reproductions of Zambecari's inventions.

156. Cavallo, Tiberius, The History and Practice of Aerostation. London: Printed for the Author and Sold by C. Dilly, 1785. 326p.

History of the balloon and balloon experiments and ascensions from 1780 to 1785. Describes the first aerial voyages made in England in August 1784.

157. Chambe, René, Histoire de l'Aviation. Nouv. éd. Paris: Flammarion, 1958. 521p.

A detailed, comprehensive history of aeronautics, the first edition of which was published in 1949. The second edition gives emphasis to air power in World War II. Both editions are profusely illustrated.

158. Crossfield, Albert S., and Clay Blair, Always Another Dawn: the Story of a Rocket Test Pilot. Cleveland: World, 1960. 421p.

An account of the author's experiences as a test pilot of rocket type planes such as the X-1, X-4, X-5, and X-15. Describes the experience of flying 2,000 miles per hour.

159. Cyrus, Allan, På Lätta Vingar; från Flygplan til Helikopter. Stockholm: C. E. Fritze, 1953. 253p.

A popular history of aviation dealing with the military and peaceful uses of aircraft, with special emphasis on the role and development of the helicopter. Includes chapters dealing with the history and development of the Swedish aircraft industry,

commerical aviation, the Swedish Air Force,
and the Royal Swedish Aero Club.

160. Darmon, J. E., Dictionnaire des Estampes & Livres
Illustrés sur les Ballons & Machines Volantes,
des Débuts jusques vers 1880, avec leur Prix.
Nombreuses Illustrations; Bibliographie...
Montellier: H. Barral, 1929. 129p.

Lists alphabetically by title
approximately 100 primarily French prints
separately published, and prints in books,
on balloons and flying machines from earliest
times to 1880. Bibliography, pp. 119-129,
lists approximately 80 illustrated book
titles on the same subject.

161. Davy, Maurice J. B., Interpretive History of Flight:
A Survey of the History and Development of
Aeronautics with Particular Reference to
Contemporary Influences and Conditions. 2d ed.
London: H.M. Stationery Off., 1948. 191p.

Covers the history of aeronautics from
earliest times up to 1948. Pt. I, "The
Origins", deals with flight in nature,
mythology, and early aeronautical devices
developed by man. Pt. II, "History", deals
with the development of balloons, dirigibles,
and the airplane. Pt. III, "The Modern
Phase", includes a discussion of aircraft in
war and the social and economic significance
of flight. Very good for descriptions of
apparatus used in early experiments. The
author credits the National Aeronautical
Collection in the Science Museum as being

his primary source. Bibliography, pp. 181-182 lists approximately 70 references to books and journals. First edition, 207p., published in 1937.

162. Dennis, Willard K., comp., An Aeronautical Reference

Library: A Selected List of Technical Books

Essential to Aeronautical Library. New York:

Special Libraries Association, 1943. 31p.

Lists approximately 800 titles selected for an aeronautical reference library with the help of 18 cooperating librarians. Section entitled, "History" lists 16 books, p. 14. Supplement issued (East St. Louis, Ill.) by W. K. Dennis, 1944, 30p.

163. Deutsche Akademie der Luftfahrtforschung, Bibliothek,

Katalog. Berlin: Deutsche Akademie der

Luftfahrtforschung, 1940. 1 v. (loose-leaf with various paging)

A catalog of the holdings of this library as of 1940 arranged by broad subject category. Most of the works were published in the 1920's and 1930's. Section entitled "Geschichte und Berichte", Pt. E, pp. 1-35, lists about 100 titles.

164. Dollfus, Charles, Les Avions. Paris: R. Delpire,

1962. 108p. (Encyclopédie Essentielle. Série Histoire, no. 14)

Pictorial history of aeronautics from earliest times to the present. The author is Conservateur Honoraire du Musée de l'Air in Paris.

165. Dollfus, Charles, Henry Beaubois, and Camille

Rougeron, L'Homme, l'Air et l'Espace; Aéronautique, Astronautique. Paris: Editions de l'Illustration, 1965. 550p.

Comprehensive and profusely illustrated history of aeronautics and astronautics from earliest times to the present. Includes "Les Origines," by Charles Dollfus, pp. 10-173; "Hostilités et Paix," by Henry Beaubois, pp. 174-325; and "L'Ere Aérospatiale," by Camille Rougeron, pp. 326-536.

166. Dollfus, Charles, and Henri Bouch, Histoire de

l'Aéronautique; Texte et Documentation. Paris: L'Illustration, 1942. 613p.

This history of aeronautics is an excellent source for pictures of all sorts pertinent to the subject. Includes "Chronologie Aéronautique," pp. 589-592, and "Les Cent Premiers Morts de l'aviation," pp. 593-594. A reprint of the 1932 edition, 573p., with the addition of ch. VI, "L'Aéronautique d'aujourd'hui (1938)," pp. 547-588.

167. Dorman, Geoffrey, Fifty Years Fly Past, from Wright

Brothers to Comet. London: Forbes Robertson, 1951. 346p.

Mainly a history of British aviation from 1900 to 1950. Contains many figures and facts of famous flights, records, races, and air shows.

168. Duhem, Jules, Histoire des Idées Aéronautiques avant Montgolfier. Paris: F. Sorlot, 1943. 458p.

Written originally as the author's doctoral thesis at the University of Paris. Covers the history of aeronautics from earliest times to approximately 1780. Scholarly, comprehensive, and includes profuse footnote references throughout the text to original sources in all languages.

169. Duhem, Jules, Musée Aéronautique avant Montgolfier, Recueil de Figures et de Documents pour servir à l'Histoire des Idées Aéronautiques avant l'Invention des Aérostats. Paris: F. Sorlot, 1944. 253p.

Consists of 164 plates covering the period from 990 to 1780 and depicting man's efforts to fly. International in scope. Each plate is an example of aeronautics in art. Includes examples of ancient Chinese, Greek, Roman, Christian art of the Middle Ages, many drawings by Leonardo de Vinci, to more practical 18th century mechanical depictions of flight. Each of the 164 plates accompanied by descriptive text. Comprehensive, scholarly, this was also issued as a thesis at the University of Paris, 1943.

170. Dumont Villares, H., Quem Deu Asas ao Homem: Alberto Santos-Dumont, sua Vida e sua Gloria. Rio de Janeiro: Ministério da Educação e Cultura, Instituto Nacional do Livro, 1957. 422p.

Biography of Alberto Santos-Dumont, 1873-1932, Brazilian air pioneer, emphasizing

his flight achievements. "Conclusão," pp. 374-412, is a year-by-year chronology of Santos-Dumont's and others' flight accomplishments from 1907-1953.

171. Escragnolle Taunay, Affonso de, Bartholomeu de Gusmão e a sua Prioridade Aerostatica. São Paulo: Imprensa Official do Estado, 1938.
544p. (São Paulo, Brazil (City) Museu Paulista. Annaes, t. IX)

Biography of Bartholomeu de Lourenço Gusmão, 1685-1724, Brazilian balloon pioneer whose aerostatic inventions preceded the Montgolfiers' by 70 years. Includes texts of "Documents," pp. 465-470, and bibliographies, pp. 481-507, of works by and about Gusmão. A less complete edition (São Paulo: Escolas Profissionais Salesianas, 293p.) was published in 1935.

172. "Fledgelings," Pioneers in Aviation. Washington: Columbia Historical Society, 1947. 79p.

Reprinted from the Columbia Historical Society Records, 50th anniversary volume 46-47, Washington, D. C., April, 1947. Contains "Aeronautics in the District of Columbia," by N. H. Randers-Pehrson, pp. 3-25, and "Conspectus of Early Powerplane Development," by A. F. Zahm, pp. 27-79.

173. Flight, a Pictorial History of Aviation, by the Editors of Year: the Complete Story of Man's Conquest of the Air from his Earliest Dreams to

the Present Jet Age, Dramatically Portrayed in
over 1,000 Pictures. Foreword by Donald W.

Douglas. New York: Year, 1958, 249p.

Published originally in 1953, this edition has been brought up to 1958 and includes jets, missiles, and space travel.

174. Flury, Arthur, Statistik der Ozeanflüge. Transocean
Flight Attempts 1910-1940. Bern: The Author,
1947. 3 tables.

Consists of three tables of data concerning all attempted transoceanic flights (290) in the years between the two World Wars.

175. Focke-Wulf Flugzeugbau G.m.b.H., Katalog, Focke-Wulf
Bücherei. Bremen: Focke-Wulf Flugzeugbau, [1939?].
194p.

A classified catalog of the holdings of this primarily technical aeronautics library. Consists of approximately 2,000 book and journal article references, mainly from the 1920's and 1930's.

176. Foltmann, John, Flyvningens Eventyr. Ny revid. udg.
København: Danske Forlag, 1946. 215p.

Revised edition of a popular history originally published in 1918. Includes chapter on Danish aviation history. Swedish translation with title Flykt över Jorden (Stockholm: Kooperativa Förbundets Bokforlag, 1945) includes added chapter on Swedish aviation history.

177. Forrester, Larry, Skymen, Heroes of Fifty Years of Flying. London: Collins, 1961. 256p.

Consists of biographies and personal narratives of approximately fifty brave and talented air pilots from various countries from 1903 to 1950. "Acknowledgments," p. 6, lists a few titles which the author used as background material.

178. Fraser, Chelsea C., Heroes of the Air. Revised and Enlarged by Martha Wood . . . New York: Thomas Y. Crowell, 1946. 484p.

Aviation history told in terms of spectacular flights from World War I to 1946. Describes such international feats as the first flight across the Atlantic, across America, across the Continent, the first Polar flight, etc. From 1928 to 1945, flights are discussed chronologically. Present edition is the 20th printing since 1926. Chronology, pp. 455-484, covers period 1783 to 1946.

179. Fraser, Chelsea, The Story of Aircraft. 3rd ed. New York: Thomas Y. Crowell, 1944. 592p.

The first and second editions of this work appeared in 1933 and 1939. A history of aircraft from the invention of the earliest apparatus through the aircraft of 1940.

180. Fritze, C. E., Firm, Booksellers, Stockholm, Katalog över Flyqlitteratur, 1910-1923, med anledning av Internationella Luftfartsutställningen, Göteborg, 1923. Stockholm: C. E. Fritze, 1923. 148p.

Covers primarily technical literature published from 1910-1923 in all languages. Arranged by country under broad subject category. Lists about 2,200 titles and includes the subjects of aerodynamics, airplanes, balloons and airships, military aviation, medicine, law periodicals, and annuals.

181. Gamble, William B., History of Aeronautics: A Selected List of References to Material in the New York Public Library. New York: The New York Public Library, 1938. 325p.

A classified list of 5,574 entries to books and periodicals on the history of aeronautics in many languages, compiled by the Chief of the Science and Technology Division of the New York Public Library. Includes author and subject indexes. Most entries have very brief annotations. The first 36 entries are to bibliographies of the history of aeronautics. Reprinted from the Bulletin of the New York Public Library, January 1936-September 1937.

182. Gantz, Kenneth F., ed., Nuclear Flight: The United States Air Force Programs for Atomic Jets, Missiles, and Rockets. New York: Duell, Sloan and Pearce, n.d. 216p.

Consists of 20 papers written by experts on the USAF-AEC nuclear program as of 1959-1960. Pt. I: The Prospect for Nuclear-Powered Flight; Pt. II: Principles of Nuclear Propulsion; Pt. III: Status of Program; Pt. IV: The Human Element. Papers were originally published in the Air University Quarterly Review.

183. Garibbo, Luigi, Cenni Storici sull'Aeronautica fino alle Recenti Ascensioni Fatte dal sig. Green e Compagni da Londra e da Parigi. Con Appendice fino agli ultimi Voli e Tentativi per la Direzione degli Aerostati. Firenze: Tip. Birindelli, 1838. 175p.

A very early history of aeronautics which covers the years from the legend of Daedalus and Ovid's Metamorphoses to 1830. Very good for 16th and 17th century Italian activities.

184. Gibbs-Smith, Charles H., The Aeroplane: An Historical Survey of its Origins and Development. London: H.M. Stationery Off., 1960. 375p.

Detailed and comprehensive history. Especially good for "firsts" (such as first women to fly, first attempts to fly powered airplanes, etc.). Contains a "Chronology of Aviation," pp. 280-290, and "Bibliography," pp. 306-309.

185. Gibbs-Smith, Charles H., Balloons, with an Introd. and Notes. London: Ariel Press, 1956. 27p.

Consists of 12 color plates of balloon prints from the period 1783-1820 and ten accompanying pages of text.

186. Gibbs-Smith, Charles H., History of Flying. London: Batsford, 1953. 304p.

Beginning with legend and following the centuries of speculation and endeavor that

culminated in balloon flight at the end of the eighteenth century, through airplane flight at the beginning of the twentieth, the author ends his detailed chronicle at the outbreak of World War I. A postscript links aeronautics from 1914 to space flight and interplanetary flight. "Date List", pp. 287-290, is a chronology of events. Bibliography, pp. 291-294, lists mainly English and French works from earliest times to 1951. Published also in an American edition (New York: Praeger, 1954).

187. Gibbs-Smith, Charles H., The History of Flying.

Cambridge, Eng.: Published for the National Book League at the University Press, 1957. 32p.
(National Book League. Reader's Guides, ed. Ser., 9)

This bibliography contains approximately 170 briefly annotated references to books on the history of flight arranged under subjects such as general histories, flights of fancy, lighter-than-air flying, dirigibles, heavier-than-air flying, etc. Written as a guide to the historical literature for the layman, it points out such items as the first book on flying in the English language, and the best 19th century Italian and French histories.

188. Gibbs-Smith, Charles H., The Invention of the

Aeroplane (1799-1909). London: Faber and Faber, 1966. 360p.

A chronological history which concentrates on the decade 1899-1909 which witnessed the development of the practical airplane, prefaced by a survey of its forerunners (mainly the works

of Cayley and Lilienthal), 1799 to 1899. Bibliography, pp. 353-355, lists several books important in the history of flight. Published also in an American edition (New York: Taplinger, 1966).

189. Gibbs-Smith, Charles H., Sir George Cayley's Aeronautics, 1796-1855. London: Her Majesty's Stationery Office, 1962. 269 pp.

Story of Cayley's work with account of his ideas, designs, models, and full-sized machines, including reproduction of many of his sketches. Bibliography, pp. 251-256, lists Cayley's published work (37 items) and 25 works on Cayley.

190. Gidwani, B. S., History of Aviation. Delhi: Metropolitan Book Co., 1953. 24p.

Written for students of the Indian Institute of Aeronautics and Electronics. This slight publication contains little information not included elsewhere. Its primary value to the historian is in the section entitled "Balloon Ascents in India," pp. 6-7.

191. Gilhofer, H., & Ranschburg, H., Firm, Booksellers, Aeronautik: die Sammlungen Eduard von Sigmundt... und dr. Otto Nirenstein... Interessante und Seltene Bücher über das Gesamtgebiet der Aviatik; Wertvolle Kupferstiche und Lithographien...über die Entwicklung des Flugwesens... Porträts und

Autographen von Berühmten Piloten, Erfindern und Gelehrten... Luzern: H. Gilhofer & H. Ranschburg, 1934. 54p.

Catalog of the works sold at auction June 26 and 27, 1934. Includes "Bücher", pp. 1-21, which lists 311 French, German, and English works on aeronautics published from the late 18th century to 1934.

192. Glagolev, Nikolai M., comp., K Zvezdam [Toward the Stars]. S.-Peterburg: Tipografiia T-va "Nash viek", 1912. 119p.

Worldwide history of balloons and dirigibles from 1760 to 1910.

193. Gomá Orduña, José, La Aviación Contada con Sencillez. Madrid: Escelicer, 1952. 386p.

Worldwide history of aeronautics including balloons and dirigibles from earliest times to about 1946. Emphasizes activities in Spain.

194. Gray, George W., Frontiers of Flight: The Story of NACA Research. New York: Alfred A. Knopf, 1948. 371p.

Written for the interested layman, this is still the fullest account of the various types of aeronautical research performed by the National Advisory Committee for Aeronautics during its first 40 years of existence. Appendix, pp. 360-362, lists the complete membership of the NACA and the executives at each of the three research centers as of 1948.

195. Great Britain, Air Ministry, Library, List of Additions. London: Whitehall, 1920? to date. Monthly.

A list of new books added to the library arranged by subject category and including the category "history" in each issue. No cumulative indexes.

196. Gubitz, Myron B., Rocketship X-15, a Bold New Step in Aviation. New York: J. Messner, 1960. 288p.

Traces the development of the X-15 project and chronicles a typical three-day countdown and an actual test flight of the rocket aircraft.

197. Gumuchian & Cie., Booksellers, Early Books on Aeronautics. Paris: Gumuchian, 1935. 24p.

Lists 130 primarily French titles published from the late 18th to the early 20th centuries.

198. Harper, Harry, Ace Air Reporter. London: J. Gifford, 1943. 11 p.

The reminiscences of Britain's first air correspondent. Describes his meetings with such pioneers as the Wrights, Blériot, Latham, Paulhan, and Grahame-White. Emphasizes the birth of British air power and describes the world's first air meet at Rheims in 1909.

199. Harper, Harry, Lords of the Air. With 57 Illustrations. London: R.T.S. - Lutterworth Press, 1940. 216p.

Consists of the personal recollections of a well known British aviation reporter. Serves as a history of British aviation from the early days of powered flight to World War II.

200. Harper, Harry, My Fifty Years in Flying. London:

Associated Newspapers, 1956. 256p.

The reminiscences of "the world's first air reporter" from 1900-1956. Especially good for aviation developments in Britain.

201. Heinmuller, John P. V., Man's Fight to Fly: Famous World-Record Flights and a Chronology of Aviation.

Foreword by Eddie Rickenbacker. Designed and

Illustrated by Adolphe Bernasconi. Rev. ed.

New York: Aero Print Co., 1945. 370p.

Comprehensive chronology of the history of flight from Da Vinci to 1945 by the chief timer of the National Aeronautical Association and Fédération Aéronautique Internationale. Special emphasis on the great record flights of the 1920s and 30s. Includes many illustrations and reproductions of rare airmail covers and stamps. Previous edition published in 1944 (New York and London: Funk and Wagnalls).

202. Heron, S. D., History of the Aircraft Piston Engine:

A Brief Outline. Detroit: Ethyl Corporation,

c. 1961. 130p.

A distinguished aircraft engine and aircraft fuels engineer describes in what is more a series of informal notes than a

narrative history the highpoints in the development of the aircraft piston engine. Begins with the Wright Brothers engine and the Manly engine and comes up through the Wright R-3350 and the Pratt & Whitney 4360, which at 3,500 horsepower were the most powerful piston engines to go into service. Footnotes throughout and "References," pp. 123, 124.

203. Hoorebeeck, Antoine van, L'Épopée de l'Atlantique

Nord. Préf. par Maurice Bellonte. Paris:

Flammarion, 1965. 247p. (L'Aventure Vécue)

Originally published in Brussels (Éditions du Centre de Vulgarisation Aéro Astronautique, 1961). A history of the flights across the North Atlantic from 1910 through the 1930s. Includes "Liste Complète des tentatives et des Traversées de L'Océan Atlantique Nord 1910 à 1939," pp. 223-228. "Bibliographie Sommaire," pp. 243-247, lists approximately 100 French, Italian, German, and English titles.

204. Illing, Walter, Start in den Himmel. Mit 16 zum

Teil farbigen Tafeln sowie Zeichnungen von Edwin

Grune. Leipzig: E. Wunderlich, 1957. 275p.

History of aeronautics with special emphasis on various kinds of aircraft.

205. Illustrierter Beobachter, Flugzeug macht Geschichte.

München: F. Eher Nachf., 1939. 160p.

Pictorial history of German aeronautics from 1870 to 1939.

206. Imperial War Museum, A Bibliography of Aeronautics.

London: The Museum, 1961. 4lp.

Unannotated list of approximately 200 books and pamphlets, predominantly British, arranged chronologically as follows: pt. 1, 1900-1960; pt. 2, First World War era; pt. 3, Second World War and after.

207. Industry Conference on Aeronautical Library Research

Facilities, A Selected List of Published

Aeronautical Bibliographies. New York: Institute of the Aeronautical Sciences, 1946. 28p.

A list of approximately 450 bibliographies in book, pamphlet, or journal form current during the 1940s, prepared for use by participants in the Conference, New York, October 7, 1946. Arranged into such groups as indexes and abstracting services, general bibliographies by country, and subject categories. Many of the references include brief informative notes.

208. International Civil Aviation Organization, Index of

ICAO Documents. Montreal: The Organization,

1948 to date.

An index to ICAO publications, issued monthly with annual December cumulations from 1947 to date. Publications of ICAO comprise the Convention on International Civil Aviation and Annexes thereto; Proceedings of the Assembly and the Council, special records of certain sessions of commissions of the assembly, and various others.

209. International Civil Aviation Organization, Library
Index of PICAQ Documents. Montreal: The
 Organization, 1947. 37p.

A subject index to selected documents of the Provisional International Civil Aviation Organization covering the period August 15, 1945, to April 25, 1947.

210. Ioan, Constantin S., and Eufimie Moisei, Catapultarea
si Parasutarea la Viteze si Înălțimi Mari
 [Ejection Seats and Parachutes] București:
 Editura Militară, 1961. 191p.

History of parachutes, pilot ejection seats, and pressure suits. Bibliography, pp. 189-190, lists 22 Russian and Romanian references.

211. Johnson, Kenneth M., Aerial California: an Account
of Early Flight in Northern & Southern California,
1849 to World War I. Los Angeles: Dawson's Book
 Shop, 1961. 91p.

Covers the efforts of early aviation pioneers who made the later development of California as a center for the aviation industry possible. Includes "Chronology of Flight in California," pp. 85-87.

212. Johnston, Samuel P., Horizons Unlimited: a Graphic
History of Aviation. New York: Duell, Sloan and
 Pearce, 1941. 354p.

A chronological history of aviation from the 18th century to 1940. Introductory chapters entitled "Ocean of Air" and "Aircraft and How they Fly" followed by two parts "Lighter than Air" and "Heavier than Air." Includes numerous illustrations.

213. Karlson, Paul, Der Mensch Fliegt, Geschichte und Technik des Fliegens. Mit einem Geleitwort von Ernst Udet. Mit 177 Zeichnungen von Gerda Becker und 40 Tafeln. Berlin: Im Deutschen Verlag, 1937. 387p.

A history of aeronautics which deals with the aviation pioneers, the theories of flight, and the history of flight technology. Translated from the German into the following four editions: (1) Portuguese, . . . A Conquista dos Ares. [Porto Alegre: Livraria do globo, 1940]; (2) Spanish, El Hombre Vuela. [Barcelona: Editorial Labor, 1941]; (3) Spanish, El Hombre Vuela. [México: Editorial México, 1942]; and (4) Italian, L'Uomo Vola. [Milano: U. Hoepli, 1943].

214. Kasatkin, N. N., Istoriia Aviatsii. i Eia Sovremennoe Sostoianie [History of Aeronautics and its Present Condition] Staritsa: Tipografiia I. P. Krylova, 1912. 49p.

Brief survey of world developments in civil and military aviation. Includes "Data on History of Russian Aviation," pp. 9-13.

215. Koninklijke Luchtvaart Maatschappij, N. V., Literatuur Overzicht. Amsterdam: Documentatie Bureau, Technisch Bedrijf K.L.M., 1935 to date. Weekly.

2,500 references per year to English-language and European literature research and development efforts in aeronautics and air transportation. Subject classification includes aerodynamics, operating costs, panel systems and instruments, navigation, industrial materials, etc. Most references include abstracts.

216. Kruse, Karl A., Über den Wolken; das grosse Buch der Fliegerei: die Geschichte der Luftfahrt vom Schwingenflug zur Mondrakete. München: Sudwest-Verlag, 1962. 425p.

A comprehensive, detailed, profusely illustrated history of aeronautics and astronautics from earliest times to the present. German airplanes are given special emphasis in chapter entitled, "Die Deutschen Flugzeugwerke," pp. 245-285.

217. Kucherov, Bertha, comp., Aeronautical Sciences and Aviation in the Soviet Union, a Bibliography. Washington: Reference Dept., Library of Congress, 1955. 274p.

A bibliography of 3,498 items in classified arrangement with a name index. Russian titles are given in transliteration with an English translation. Both books and periodical articles, as well as a list of pertinent journals, are included. Although

the emphasis is on recent material, many references to noncurrent materials are included because they are of historical interest. Lists 85 items with bibliographies or biobibliographies, pp. 254-260. Based mainly on holdings in the Library of Congress, the Library of the National Aeronautics and Space Administration, and the Library of the Institute of the Aeronautical Sciences.

218. La Landelle, Gabriel de, Dans les Airs; Aérostation, Aviation; Études Aérostatiques; Parachutes, Hélicoptères, Cerf-volants, Aeroplanes, Orthoptères. Paris: F. L. Vivien, 1910. 288p.

Identical, with the exception of the title page, to the first edition, published under title: Dans les Airs; Histoire Elementaire de l'Aéronautique (Paris: 1884). History of flight from earliest times to 1884. Emphasizes French balloon ascensions.

219. Lassalle, Eugène J., Les 100 [i.e. Cent] Premiers Aviateurs Brevetés au Monde et la Naissance de l'Aviation. Paris: Nauticaero, 1962. 159p.

Pt. 1, pp. 9-22, consists of an essay on the birth of aviation in France. Pt. 2, pp. 23-150, consists of one or two page biographies of the first 100 licensed air pilots in the world. A photograph of each pilot is included. Includes a very short list of publications consulted, p. 159.

220. Lauria, Arthur (bookseller), Aérostation (1595-1840). Paris: Imprimerie Coulouma, 1933. 26p. (Its Catalogue no. 32)

A book dealer's catalog of 80 annotated books, mainly French and Italian, published 1595-1840. Annotations give detailed information on the book illustrations, many of which are reproduced in the catalog.

221. Lecornu, Joseph, La Navigation Aérienne; Histoire Documentaire et Anecdote. 6th éd. Paris: Librairie Vuibert, 1913. 439p.

First edition published 1903. Gives emphasis to French achievements, although worldwide in scope and covering from earliest times to the beginning of powered flight. Especially good for French balloon ascensions and balloons used during the siege of Paris.

222. Le Grand, Georges, Les Records Mondiaux de l'Aéronautique . . . Comment Servir dans l'Aéronautique Militaire. 3rd ed. Paris: L'Aérophile, 1917. 63p.

Lists both French and world records for distance, altitude, speed, etc., for balloons, dirigibles, and powered aircraft. Also lists awards and prizes such as those given by the Aero-Club de France. Includes "Comment Servir dans l'Aéronautique Militaire. 3rd ed.," pp. 51-63.

223. Levis Mirepoix, Charles H. de, and Henry Beaubois, Le Siècle de l'Avion. Préf. de Louis Bréguet. Paris: A. Fayard, 1949. 486p. (Collection "Savoir")

History of world aviation, primarily from 1900 to 1949. Bibliography, 481-483, lists approximately 65 French book titles.

224. Levshina, Ol'ga N., Vertolety, ikh Nastoiashchee i Budushchee [Bibliography of Helicopters - Their Present and Future] Moscow: Publichnaia Biblioteka, 1957. 14p.

Rather slight but in addition to a very brief introductory essay on the history of helicopters, includes 14 annotated references.

225. Li, Shu-t'ien, Bibliography on Airport Engineering: a Compilation of Free World Literature Numbering 2,335 Entries Classified into 26 Groups and Arranged Chronologically. New York: American Society of Civil Engineers, 1960. 170p.

Covers the period 1938-1959, one of great development in airport engineering caused by World War II and afterwards the new era of civilian jet transport. Includes book, journal, and report literature.

226. Library of Congress, Division of Aeronautics, The Aeronautical Index . . . A Subject and Author Index to Aeronautical Periodicals and Technical Reports. 1938 and 1939. New York: The Sherman Fairchild Publication Fund, Institute of the Aeronautical Sciences; 1939-1940. 2v.

Indexes periodical literature for the years 1938 and 1939 only. Does not include a list of the periodicals indexed. Contains approximately eight references to articles under "history" and extensive references under "biography". Title changed from Subject Index to Aeronautical Periodical Literature and Reports in 1939.

227. Liebmann, Louis, and Gustav Wahl, Katalog der Historischen Abteilung der Ersten Internationalen Luftschiffahrts-ausstellung, zu Frankfurt a.M., 1909. Frankfurt: Wüsten, 1912. 513p.

Issued in two parts, 1911-1912. "Bilderabteilung", pp. 1-242, consists of a catalog of 639 portraits, illustrations of balloons, and planes, in both fact and fancy. "Bucherabteilung", pp. 245-467, consists of a bibliography of 914 items worldwide in scope and including bibliographies, histories (pp. 247-266), biographies, and the subjects aeronautics, aerodynamics, and aeronautics and poetry. Covers the period from late 18th century to 1909.

228. Loening, Grover C., "Lessons from the History of Flight," in Smithsonian Institution Annual Report, 1959. Washington, 1960. p. 347-359.

The Lester D. Garder lecture, given at the Smithsonian Institution on May 18, 1959. The author, a member of the Advisory Board, National Air and Space Museum, Smithsonian Institution, notes some of what he considers to be mistakes or false starts or unrealized or unappreciated trends in aeronautics and discusses lessons which might be learned from them.

229. London, Science Museum, Science Library, List of the Works on Aeronautics in the Science Library. 2d ed., Including the Works Added to November, 1912.

London: H. M. Stationery Office, 1913. 42p.

Lists approximately 400 English, German, French, and American titles alphabetically by author. Covers primarily the early 20th century.

230. Ludovico, Domenico, L'Aeroplano; Soluzione ed Evoluzione del Problema del Volo. "Quis, Quid, Ubi, Quibus Auxilliis, Cur, Quomodo, Quando?"

3rd ed. Roma: Associazione Culturale

Aeronautica, 1952. 327p.

First edition published in 1949 under title: L'aeroplano Cosa E. Second edition published in 1951. History of aeronautics from earliest times to 1952 in terms of the mechanical and technical problems requiring solution.

231. Lyle, Eugene P., and Charles W. Diffin, The City of Wings; a Narrative of Aviation and its Swift Development as Seen in San Diego from the Earliest Days of Flying to the Present Time.

Illustrated by Aloys Bohnen, George E. Rhone, and Mary Belle Williams. San Diego: The City Schools of San Diego, California, 1938. 103p.

Prepared under the direction of the San Diego City Schools Curriculum Project, Works Progress Administration. Covers the building of the "Spirit of St. Louis" by Donald Hall of the Ryan Aircraft Company, the activities of Glen Curtiss, the development of passenger airlines, airplane factories, and the use of planes by the Navy and Coast Guard. "Foreword," (n.p.) lists 23 items in a San Diego aviation "firsts" chronology.

232. Macmillan, Norman, Great Flights and Air Adventures, from Balloons to Spacecraft. London: G. Bell, 1964; New York: St. Martin's Press, 1965. 236p.

A popular account of some of the less known early air adventures and present-day space flights, from a balloon flight from England to Poland in 1908, the first trans-Alpine glider flight, the first air evacuation, to the space flight of John Glenn in Friendship 7.

233. Maggs Bros., A Descriptive-Catalogue of Books and Engravings Illustrating the Evolution of the Airship and the Aeroplane. Selected from the Stock of Maggs Bros. London: Maggs Bros., 1920-23. 2v. (Its Catalogue no. 387, 435)

Vol. I, catalog no. 387, lists 1,494 references with annotations to books and engravings available from the dealer Maggs at date of issue, 1920. Includes titles dating from the earliest times to the First World War. Comprises five parts; I: "The Problem of Flight: Prior to the Invention of the Montgolfier Balloon in 1783"; II: "Balloons and Airships from 1783-1850";

III: "Evolution of Aircraft from 1851-1899";
 IV: "Aeroplanes and Dirigibles in the
 Twentieth Century"; V: "Portraits of Aeronauts,
 Famous Balloon Ascents, caricatures, etc.

V. II, catalog no. 435, lists 968
 references to books, engravings, and autographs.
 Arrangement is on the same plan as v. I.
 Covers works from the earliest times to 1923.
 Both numbers are very good for references to
 aeronautical engravings.

234. Maggs Bros., A Descriptive Catalog of Books,
 Engravings, and Medals Illustrating the Evolution
 of the Airship and the Aeroplane. London: Maggs
 Bros., 1930. 184p. (Its Catalogue no. 545)

An annotated book dealer's catalog of 677
 references to books, engravings, and medals
 relating to aeronautics. Arranged
 chronologically and covering the period
 from 1493 to 1930. The engravings include
 portraits, balloon ascents, parachute
 descents, and caricatures.

235. Maggs Bros., The History of Flight; a Descriptive
 Catalogue of Books, Engravings and Airmail Stamps
 Illustrating the Evolution of the Airship and the
 Aeroplane . . . London: Maggs Bros., Ltd., 1936.
 232p. (Its Catalogue no. 619)

A selective, annotated book dealer's
 catalog listing 1,684 references to books,
 engravings, and stamps arranged in chronological
 order. The 727 books date from 1480 to 1935.
 References to 21 portraits and 109 engravings
 of famous balloon ascents are arranged in

III: "Evolution of Aircraft from 1851-1899";
 IV: "Aeroplanes and Dirigibles in the
 Twentieth Century"; V: "Portraits of Aeronauts,
 Famous Balloon Ascents, caricatures, etc.

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235. Maggs Bros., The History of Flight: a Descriptive
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A selective, annotated book dealer's
 catalog listing 1,684 references to books,
 engravings, and stamps arranged in chronological
 order. The 727 books date from 1480 to 1935.
 References to 21 portraits and 109 engravings
 of famous balloon ascents are arranged in

239. Meyer, Günter, Luftfahrt: wie der Mensch das
Luftreich eroberte. Leipzig: Urania-Verlag,
1959. 280p.

History of aeronautics from earliest times to the present. "Zeittafel", pp. 279-280, is a brief chronology covering the period from 1782-1957. List of sources, pp. 277-278, cites 17 German references.

240. Millbank, Jeremiah, The First Century of Flight in
America. Princeton: Princeton University Press,
1943. 248p.

Historical survey of flight from 1783-1895. Includes illustrations of pioneer aeronauts and a chronology. Bibliography, pp. 210-218, contains 45 primary works covering the period 1670-1910 and 28 secondary sources.

241. Mormino, Giuseppe, Storia dell'Aeronautica, dai
miti Antichissimi ai Nostri Giorni. 2 ed.,
Rinnovata e aumentata. Milan: A. Corticelli,
1940. 417p.

History of aeronautics from earliest times to 1940. Includes discussion of military aeronautics in Italy prior to World War II and during the Spanish Civil War. Bibliography, pp. 5-7, lists approximately 30 books, primarily in Italian. First edition published in 1939.

242. Napoleão, Aluizio, Santos-Dumont and the Conquest of the Air. Tr. by Luiz Victor le Cocq d'Oliveira. Rio de Janeiro: National Print. Off., 1945. 2v. (Ministry of State for Foreign Affairs of Brazil. Division of Intellectual Co-operation. Brazilian Studies Collection, 1)

Vol. 1 deals with the achievements of Alberto Santos-Dumont (1873-1932), Brazilian pioneer in aeronautics. Vol. 2 contains "Documents and Testimony on the Aeronautical Works of Santos-Dumont" from English, Italian, and Portuguese sources. Tries to prove the claim of the Aero Club of Brazil that priority in the invention of the heavier-than-air flying machine goes to Santos-Dumont rather than to the Wright Brothers. Translated from the Portuguese Santos-Dumont e a Conquista do Air. (Rio de Janeiro: Imprensa Nacional, 1941. 270p.) The second Portuguese edition (São Paulo: Companhia Editora Nacional, 339p.) was published in 1957. The first edition was also published in Spanish translation, Santos-Dumont y la Conquista del Aire, translated by Alarcón Fernández (Rio de Janeiro: Imprensa Nacional, 1942-43, 2v.).

243. National Advisory Committee for Aeronautics,

Bibliography of Aeronautics, 1909-1932.

Washington: NACA, 1921-1936. 14v. (For sale by U.S. Govt. Print. Off.)

A continuation, on the same plan, of Bibliography of Aeronautics by Paul Brockett. Covers the following periods: v. 1, 1909-16; v. 2, 1917-19; v. 3, 1920-21; v. 4-14, annual

volumes, 1922-32. Volumes 1933-37 are soon to be published.

244. National Air and Space Museum, The National Aeronautical Collections, 10th Edition, Edited by Paul E. Garber. Washington: Smithsonian Institution, 1965. (Its Publication, 4255)

A description of the objects in the air and space collections which cover the period from the fantasy of flight, ballooning, aviation pioneers, World War I and II, jets, to very early space flight efforts. "Foreword," pp. 1-9, is a history of the Museum itself. "References," p. 151, lists about ten items. Previous editions go back to the 1920s.

245. Nayler, Joseph L., and Ernest Ower, Aviation: Its Technical Development. London: P. Owen and Philadelphia: Dufour, 1965. 290p.

History of aeronautics and astronautics from 1900 to date in terms of its scientific and technical progress. Covers fighters, racers, bombers, jets, piston engines, sea planes, guided missiles, rockets, satellites, and space travel. Includes "Appendix: Pioneer Flights and Noteworthy Events," pp. 276-280.

246. Oomen, Peter, "History and Development of Aeronautical Telecommunications", ICAO Bulletin, v. 21 (No. 3, 1966), pp. 6-18; v. 21 (No. 4, 1966), pp. 7-18.

The author, Technical Officer, Communications Section, ICAO, examines the history of

aeronautical telecommunications from developments in technical systems, international legislation and regulations, and the relationships between the aeronautical and other international regulations. Bibliographical footnote references throughout the text.

247. Pacific Aerospace Library Checklist of Periodical

Titles. Los Angeles: Pacific Aerospace Library of the American Institute of Aeronautics and Astronautics, 1941 to date. Semiweekly.

Contains 12,000 references a year from 300 world journals, papers, reports, translations, books, and microcards with subject arrangement. Pacific Aerospace Library Uniterm Index to Periodicals serves as an index to the checklist.

248. Palmer, Henry R., This Was Air Travel. Seattle: Superior Pub. Co., 1960. 190p.

Popular pictorial history of balloons, dirigibles, and early airplanes up to World War II. Excellent early photographs of flight. Emphasizes development of commercial aviation.

249. Paris, Centre de Documentation Aéronautique

Internationale, Catalogue Général. Angers:

Editions de l'Ouest, 1944. 284p.

V. I is entitled "Catalogue Alphabetique des Livres-Brochures-Periodiques et Bulletins" and lists about 4,000 books on aeronautics published in the late 19th and early 20th centuries. V. II is entitled "Catalogue

Systematique des Livres et Brochures" and is a classified list of the same 4,000 volumes. Section entitled, "Histoire," pp. 233-249, lists approximately 500 titles.

250. Pearson, Firm, Booksellers, Aeronautica; or, The History of Aviation and Aerostation. Told in Contemporary Autograph Letters, Books, Broad-sides, Drawings, Engravings, Manuscripts, Newspapers, Paintings, Posters, Press Notices, etc., Dating from the year 1557 to 1880. London: J. Pearson & Co. [19--]. 17p.

A running text bibliography by a book dealer on the history of flight. Most of the items cited (approximately 100 books) are in the Pearson Collection.

251. Piccard, Auguste, Between Earth and Sky. Translated from the French by Claude Apcher. With a pref. by Jean Lugeon. London: Falcon Press, 1950. 157p.

Deals with balloon ascensions, interplanetary voyages, and stratospheric meteorology by the leading contemporary ballooning history-maker. Translated from the French Entre Terre et Ciel (Lausanne: Editions d'Ouchy, 1946); Dutch translation with title Tussen Aarde en Hemel (Antwerp: Orion Boekhandel, 1946).

252. Polkehn, Klaus, Kontinente aus der Vogelschau; das Flugzeug entdeckt die Erde. Leipzig: F. A. Brockhaus, 1962. 336p.

Deals with the application of aeronautics to discovering and exploring otherwise-difficult-to-reach places such as the North and South Poles, the Alps, and some areas of Africa. Bibliography, pp. 328-329, lists approximately 56 book and journal titles, mostly in German.

253. Pritchard, John, Sir George Cayley, the Inventor of the Aeroplane. 1st American ed. New York: Horizon, 1962. 277p.

A biography of the man who in 1809 wrote a treatise "On Aerial Navigation" which contains nearly all the basic principles required for airplane design. "Appendixes," pp. 219-264, contain the text of four treatises by Cayley on mechanical flight. "References," pp. 265-269, lists 115 footnote references. British edition published in 1961 (London: M. Parrish, 277p.).

254. Randers-Pehrson, Nils H., and Arthur G. Renstrom, comps., Aeronautic Americana: a Bibliography of Books and Pamphlets on Aeronautics Published in America before 1900. New York: Sherman Fairchild Publication Fund, Institute of the Aeronautical Sciences, 1943. 40p.

An annotated list of references to American aeronautical titles published prior

to the year 1900, beginning with the first, An Account of Count D'Artois and his Friend's Passage to the Moon (Lichfield: Collier, 1785). The list includes only separately published books and pamphlets. One hundred twenty technical books, fiction, juveniles, and books translated from other languages are listed in chronological order. Library locations are given for each title. The list is based primarily on the extensive holdings of the Library of Congress, supplemented by titles from the Institute of Aeronautical Sciences and by scarce and rare titles from other research libraries. Appendix I includes bills and reports of Congress and 17 aeronautical publications from Latin America are listed in Appendix II.

255. Rappaport, C. E., Aerostation (1670-1890) Livres et Gravures. Rome: C. E. Rappaport, 1912. 40p.
(Catalogue 22)

A list of 145 books on aeronautics, primarily French and Italian covering the period from late 18th century to 1912.

256. Recent Aeronautical Literature: a Selective Subject Index. 1943-46. Wichita, Kans.: Beech Aircraft Corporation, 1944-47. 4v. annual (1944: semiannual)

Cumulated annually from monthly issues. Title changed from Recent Periodical Articles (Parks Air College Library) in May 1945. A selective subject index to approximately 68 aeronautics journals. Several references appear in each volume under the headings "history" and "biography". Also "history" is used as a subdivision under many headings.

257. Referativnyi Zhurnal: Vozdushnyi Transport [Journal of Abstracts. Air Transport]. Moscow: Proizvodstvenno-izdatel'skii Kobminat Vsesoiuznogo Instituta Nauchnoi i Tekicheskoi Informatsii, 1962 to date. Monthly.

Contains 3,600 primarily technical abstracts per year from world literature on aeronautics. Annual author and subject indexes. Tables of contents also in English.

258. Renstrom, Arthur G., comp., Aeronautics in Alaska: A List of References. Washington: Library of Congress, 1944. 39p.

Covers the literature on flying in Alaska from 1913 to 1944. Lists 469 book and journal article references chronologically under broad subject categories. Section entitled "History," pp. 3-8, lists 74 references.

259. Ristow, Walter W., Aviation Cartography; a Historico-Bibliographic Study of Aeronautical Charts. 2nd ed., rev. and enl. Washington: Library of Congress, 1960. 245p.

First edition published in 1956 (Washington: 114p.) with 474 references. Present edition lists 784 references and covers the period 1888 to 1959. Shows the growth and development of aeronautical charts as reflected in the literature. Historical summary of aviation cartography, pp. 1-53.

260. Rocamora, Manuel, Historia de la Navegación Aérea en Barcelona, Sequida del Catálogo de la Sección Española de la Colección del 'Auto, desde los Precursores hasta 1914. Barcelona: J. Porter, 1948. 191p.

Pp. 9-91 are a history of flight in Barcelona from 1784-1914. "Catalogo," pp. 97-180, consists of a catalog of 588 Spanish books on flight published 1600-1914. Includes many illustrations.

261. Rosenthal, Ludwig, Luftschiffahrt. Aeronautics. L'Aéronautique. 1503-1913. Muchen: L. Rosenthal's Antiquariat, 1914. 95p. (Its Katalog 152)

This dealer's catalog lists 1,147 historical aeronautical works, mostly German, French, and English, covering the period 1503-1913. Also lists approximately 80 pictures, portraits, autographs, and medals. In each case, information is provided as to whether the particular item is also listed in the bibliographies of Brockett, Tissandier, and Liebmann-Wahl.

262. Royal Aeronautical Society, Publications, Together with a Classified List of Articles from the Journal of the Society, Corrected to June 1936. London: The Society, 1936. 19p.

The "Classified List of Articles from the Journal" lists articles under "History," p. 16, which cover the period from 1919-1936. Earlier editions of this work appeared in 1929 and 1931.

263. Royal Aeronautical Society, Library, A List of the Books, Periodicals, and Pamphlets in the Library of the Royal Aeronautical Society. London: The Society, 1941. 276p.

Pt. I is a listing of books by author, Pt. II is a classified listing of pamphlets, and Pt. III is a classified listing of periodical articles and pamphlets. Historical section comprises a representative collection of English and foreign books -- many of great variety -- dealing with aeronautical ideas and endeavors from the 17th to the 19th century. In addition to books, other historical material in the library includes early aeronautical patents, the extensive collection of news cutting and illustrations formed by Major B. Baden-Powell, and a collection of prints in 12 volumes gathered by Dr. F. J. Poynton, the letter books of Lawrence Hargrave, as well as lantern slides and old photographs. An earlier list, Catalogue of the Books, Periodicals, etc. . . . , was published in 1927.

264. Rynin, Nikolai A., Novieishie Uspiekhii Vozdukhoplavaniia
[The Latest Achievements in Aeronautics].
S. Peterburg: Izdanie Sobraniia Inzhenerov Putei
Soobshcheniia, 1910. 136p.

Detailed description of aeronautics in Russia during the first decade of the 20th century.

265. St. Louis Public Library, Library School,
Aeronautics: a List of Books and Articles,

Compiled by Students of the St. Louis Library
School. St. Louis: The Library, 1928. 26p.

Approximately 700 briefly annotated book and journal article titles on various aspects of aviation arranged by subject. "History and Development", pp.4-12, lists about 270 titles. "Landmarks in the History of Aviation", pp. 18-21, lists about 100 titles. Reprinted from the Monthly Bulletin of the St. Louis Public Library, n.s. v.26 (June 1928), pp. 155-178.

266. Science Museum, Aeronautics, Heavier-than-Aircraft:
a Brief Outline of the History and Development of
Mechanical Flight with Reference to the National
Aeronautical Collection, by M. J. B. Davy.
London: H.M. Stationery Off., 1949. 2v.

Vol. I: Historical Survey; Vol. II: Catalogue of Exhibits with Descriptive Notes. Bibliography, Vol. I, pp. 70-71, lists approximately 50 British book titles. First edition published 1929-1934 under title: Handbook of the Collections Illustrating Aeronautics (London: H.M. Stationery Off., 3v.) Vol. I: Heavier-than-Aircraft; a Brief Outline of the History and Development of Mechanical Flight with Reference to the National Aeronautical Collection, and a Catalogue of the Exhibits, Compiled by M. J. B. Davy, 1929; Vol. II: Lighter-than-Aircraft; a Brief Outline of the History and Development of the Balloon and the Airship with Reference to the National Aeronautical Collection, and a Catalogue of the Exhibits, by M. J. B. Davy assisted by G. Tilghman Richards, 1930. Bibliographical references: Vol. I, pp. 111-112; Vol. II, pp. 108-109; Vol. III, pp. 100-101. Revised edition published in 1935-1936.

267. Saladin, Raymond, Les Temps Héroïques de l'Aviation; Souvenirs. Paris: Éditions Arcadiennes, 1949.
209p.

Essentially a history of French aeronautics from 1900 through World War I told in terms of the men who made the events. Includes many photographs.

268. Scamehorn, Howard L., Balloons to Jets: A Century of Aeronautics in Illinois, 1855-1955. Chicago: H. Regnery Co., 1957. 271p. (Illinois State Historical Society. Occasional Publications, no. 52)

History of flight in Illinois from the balloon to the dirigible to the airplane. Includes the development of amateur, commerical, military, and civil aeronautics and includes a chapter on the role of the state and Federal government in regulating aeronautics from 1926-1955, pp. 233-254.

269. Schlaifer, Robert, Development of Aircraft Engines; Heron, S. D., Development of Aviation Fuels. Boston: Graduate School of Business Administration, Harvard University, 1950.

Two studies, in one volume, of relations between government and business. Schlaifer gives history in some detail of sample episodes to throw light on policy, motives, reasons for success or failure in aircraft engine development and problems of industry-government relations. Heron traces improvement

of fuels and knowledge of their use and parts played by government and industry. Some sources are cited in footnotes.

270. Seattle, Public Library, List of Books on Aeronautics in the Seattle Public Library. Seattle: Public Library, Technology Division, 1931. 60p.

Lists 3,000 volumes by subject with an author index. Section "History", pp. 25-29, lists approximately 70 book titles.

271. Service de Documentation et d'Information Technique de l'Aéronautique, Etudes et Travaux du Service de Documentation et d'Information Technique de l'Aéronautique. Paris: Service de Documentation et d'Information Technique de l'Aéronautique, 1958. 270p.

A bibliography in French of the technical aeronautical publications available from the Service de Documentation et d'Information Technique de l'Aéronautique covering the period 1945 to 1958. Arrangement is by type of publication and includes translations, patents, many items which have appeared in the Bulletin Mensuel Signalétique as well as the publications of S.D.I.T. itself. Most of the S.D.I.T. publications are also abstracted.

272. Society of British Aircraft Constructors, Ltd., International Index to Aeronautical Technical Reports. London: Pitman, 1933-1939. 7v.

Contains references to English language and foreign aeronautical technical reports and journal articles published during the year. Arranged by broad subject category and includes a list of the publications to which references are made. The 1933 volume was published by the Royal Aeronautical Society.

273. Society of British Aerospace Constructors, Ltd.,
Press Summary; Abstracts of Aviation Items in
the World's Journals. London: the Society,
 1939 to date. Weekly.

Includes brief abstracts of aeronautics and astronautics items from mainly British newspapers and a few journals.

274. Spain, Ministerio del Aire, Biblioteca, Catálogo
General de la Biblioteca Central del Ministerio
del Aire, Redactado por Luis de la Cuadra y
 Escrivá de Romani. Madrid: Imp. Góngora, s.l,
 1941. 371p.

Lists approximately 1,700 titles, mainly Spanish, arranged by broad subject category. Includes "Arte Militar," pp. 53-102; "Aeronautica Militar", pp. 103-122; "Aeronautica", pp. 187-319; and "Historia", pp. 314-355.

275. Steenderen, C. van, Mijlpalen. Amsterdam:
 Hollandsche Uitgevershuis, 1947. 244p.

A history of airplanes told in terms of approximately 130 planes, from the machines

of Clément Ader and Otto Lilienthal to those of World War I. Arranged chronologically by plane with each plane accompanied by an engineering drawing as well as a photograph.

276. Stewart, Oliver, comp., Of Flight and Flyers: an Aerospace Anthology. London: Newnes, 1964. 192p.

A history of aeronautics which consists of contemporary comments and descriptions of great moments in flight. Covers the period from the Montgolfier balloon to 1964 space flight achievements. Emphasizes British aviation history.

277. Stillwell, Wendell H., X-15 Research Results with a Selected Bibliography. Washington: National

Aeronautics and Space Administration; 1965.

128p. (NASA SP-60) (For sale by U.S. Govt.

Print. Off.)

Semitechnical summary of the X-15 program, directed toward achievements in scientific research rather than the better publicized and spectacular milestones of flight in the nearspace environment. Includes index and bibliography, pp. 103-116.

278. Straub, Agnes, Firm, Booksellers, Luftschiffahrt,

Aeronautics. Berlin: Antiquariat A. Straub,

1925. (Katalog, nr. 18)

Lists 1,200 18th and 19th century titles, primarily German. "Geschichte der Luftschiffahrt," pp. 12-18, cites 216 items.

279. Strehl, Rolf, Der Himmel Hat Keine Grenzen; das Grosse Abenteuer der Luftfahrt. Düsseldorf: Econ-Verlag, 1962. 479. (Das Moderne Sachbuch, Bd. 4)

Fairly comprehensive history of aeronautics from earliest times to 1962. Worldwide in scope.

280. Supf, Peter, Die Eroberung des Luftreichs. Stuttgart: Konradin-Verlag, 1953. 288p.

Popular history of aeronautics from earliest times to 1953. Emphasizes German achievements.

281. .Tangye, Nigel, Britain in the Air. With 8 Plates in Colour and 25 Illustrations in Black and White. London: W. Collins, 1944. 47p.
(Half-title: Britain in Pictures)

Brief, popular history of aeronautics in the British Isles with numerous color reproductions of early flight watercolors and World War II scenes. "Short Bibliography," p. 6, lists seven British book titles.

282. Taylor, John W. R., A Picture History of Flight. 3rd ed., rev. London: E. Hulton, 1959. 192p.
(Hulton's Picture Histories)

First published 1955, second revised edition 1958. First and second editions also published in the United States (New York:

Pitman, 1956 and 1958). A pictorial history of flight containing 652 illustrations and covering the period from 1903 to 1945.

283. Tilgenkamp, Erich, Schweizer Luftfahrt, von dr.

Erich Tilgenkamp, unter mitarbeit zahlreicher fachleute und pioniere, insbesondere der herren dr. J. Buser, dr. W. Dollfus, ing.A. Haefeli, R. Moser und hptm. E. Wyss, sowie Eidgenössisches Departement des Innern, Eidgenössisches Luftamt, Generaldirektion der Post-, Telegraphen-und Telephonverwaltung [etc.] . . . Herausgegeben vom Aero-Club der Schweiz. Zurich: Aero-Verlag, 1941/42-1943. 3v.

Comprehensive history of flight in Switzerland from earliest times to 1940. Contains many pictures. Includes "Schrifttum und Quellenverzeichnis", Vol. 1, pp. 371-381; Vol. 3, pp. 441-453, lists 1923 references most of which are in German.

284. Tissandier, Gaston, Bibliographie Aéronautique:

Catalogue de Livres d'Histoire, de Science, de Voyages et de Fantaisie, Traitant de la Navigation Aérienne ou des Aérostats. Paris: H. Launette et cie, 1887. 62p.

A selective list in French of 800 references to books and pamphlets arranged by broad subject category, all the publications except

those listed in the foreign works section are French. Includes history, almanacs, dramas, poetry, tales, and music.

285. Toland, John, Ships in the Sky: the Story of the Great Dirigibles. New York: Holt, 1957. 352p.

A history of the gas-borne airships which competed with the airplane for supremacy in the sky for the first thirty years of the 20th century. Published also in England (London: F. Muller, 1957. 260p.).

286. Tregaskis, Richard W., X-15 Diary: the Story of America's First Space Ship. New York: Dutton, 1961. 317p.

Presented in the form of a journal, February 26, 1959, to August 15, 1960, which chronicles the development of the X-15 rocket aircraft. Includes some rocket and missile history and references to X-15 experimentation prior to 1959.

287. U.S. Air Force, USAF Historical Division, A Chronology of American Aviation Events: Historical Data 1903-1953. Prepared in Cooperation with the Office of Information Services, OSAF. Washington: U.S. Air Force, 1955. 114p. (Air Force Pamphlet, no. 210-1-1)

Serves as a record of U.S. air progress in both military and civilian aeronautics. Part one is a chronology by day and part two by year.

288. U.S. Air Force Academy, Library, Current Literature of the Air. Denver: The Academy, 1957. 5p.
(Its Special Bibliography Series, no. 4)

A brief annotated bibliography of 22 American books on aeronautics and space exploration published in the 1950s.

289. U.S. Army Air Forces, Matériel Command, Desk Catalog of German and Japanese Air-Technical Documents. Wright Field, Ohio: U.S. Army Air Forces, 1947-48. 6v. in 7.

The Air Documents Division, Intelligence Department, Air Matériel Command, in close cooperation with the Bureau of Aeronautics, U.S. Navy, processed some 600,000 air technical documents which had been collected by intelligence teams of the Army, Navy, and Air Force in Germany and Japan. Approximately 55,000 of these documents are here listed with annotations in a "Desk Catalog" which includes subject, author or code, and model indexes. V.3-6 prepared by the Air Documents Division. Many of these have been transferred to the Smithsonian's National Air and Space Museum.

290. Vannucci, A. G., and J. C. Dunne, comps., Index to AGARD Publications, 1952-1963. Paris: North Atlantic Treaty Organization, Advisory Group for Aeronautical Research and Development, 1963. 312p.

A complete list of AGARD publications. Cites 2,161 references, most of which are annotated. Includes author and subject

indexes. Many appear to contain historical material. Supersedes Index to AGARD Publications, 1952-1962 (Paris: 1962).

291. Veigelin, Konstantin E., Azbuka Vozdukhoplavaniia

[ABC of Aeronautics]. Izd. 2. S.-Peterburg:

Tipografiia P.P. Soikina, 1912. 166p.

History of the balloon, dirigible, and monoplane. Worldwide in scope. Earlier edition published under the title Zavoevanie Vozdushnogo okeana: Istoriia i Sovremennoe Sostoianie Vozdukhoplavaniia [Conquering the air; History of Aeronautics].

292. Veigelin, Konstantin E., Zanimatel'naia Aviatsiia

[Entertaining Aviation]. Leningrad:

Kooperativnoe Izd-vo "Vremia", 1929. 229p.

Reviews the development of aviation, mainly in the Soviet Union up to the time of the practical airplane. Discusses basic problems and what has been done to solve them.

293. Virginskii, Viktor S., Rozhdenie Vozdukhoplavaniia

[Birth of Aeronautics]. Moscow: Redaktsiia

Tekniko-teoreticheskoi Literatury, 1938. 116p.

History of aeronautics in Russia from earliest times to the end of the 18th century. Primarily a history of ballooning. Includes "First Aeronautic Experiments in Russia," pp. 85-90.

294. Vladimirov, L., Sovremennoe Vozdukhoplavanie i Ego Istoriia [Contemporary Aeronautics and Its History].
Kiev: Sklad Izdatel'stva v Knizhnom Magazine L.
Idzikovskago, 1909. 179p.

History of aeronautics from the time of Galileo to the time of the Graf Zeppelin.
Worldwide in scope.

295. Vozdukhoplavanie i Letanie; Russkie Letuny
[Aeronautics and Flying; Russian Aeronauts].
S.-Peterburg: Tipografiia A. S. Suvorina, 1911.
36p. (Otechestvennaia Biblioteka, no. 7.)

Brief survey of Russian aeronautics from approximately 1730 to 1910. Deals with balloons, dirigibles, and the work of early pioneers.

296. Whitehouse, Arthur G. J., The Early Birds; the Wonders and Heroics of the First Decades of Flight.
Garden City, N. Y.: Doubleday, 1965. 288p.

Fairly popular history of primarily British and American aeronautics. Emphasizes the period 1900-1920.

297. Wiener Flugtechnischer Verein, Bibliothek, Bücherei des Wiener Flugtechnischen Vereines, Abschluss am 15. März 1905. Wien: Verlag des Vereines, 1905. 35p.

A list of approximately 1,000 books and journals in this aeronautics association library as of 1905. Most of the titles cited are late 19th century works in German, French, and English. "Geschichte der Luftschiffart," p. 11, lists 13 titles. Previous edition entitled Bücher und Zeitschriften-Verzeichnis des Wiener Flugtechnischen Verein bis 31 December 1898 [Wien: 1899] lists approximately 100 titles.

298. Wissman, Gerhard, Geschichte der Luftfahrt von IKarus bis zur Gegenwart, eine Darstellung der Entwicklung des Fluggedankens und der Luftfahrttechnik. Berlin: Verlag Technik, 1960. 442p.

A history of flight from earliest times to 1947. Includes "Chronologie der Geschichte der Luftfahrt," pp. 405-414; and "Literaturverzeichnis," pp. 415-430, which lists approximately 375 book titles.

299. Works Projects Administration, Bibliography of Aeronautics. Pt. 1-50. New York: 1936-40.

Published under the sponsorship of the N.Y. City Dept. of Docks with the cooperation of the Institute of Aeronautical Sciences. Prepared by workers under the supervision of the U.S. Works Progress Administration and the Federal Works Agency, Work Projects Administration for the City of New York. Series of fifty aeronautical bibliographies compiled from the Index of Aeronautics of the Institute of the Aeronautical Sciences. Each bibliography is a list of books, pamphlets, and periodical articles arranged chronologically

under broad subject categories with author index. A supplementary volume to each part was issued 1940-1941.

Contents: (1) Air transportation; (2) Meteorology; (3) Insurance; (4) Dynamics of the airplane; (5) Seaplanes; (6) Flying boats; (7) Amphibians; (8) Autogiros; (9) Helicopters; (10) Cyclogiros, Gyroplanes; (11) Medicine; (12) Landing gears; (13) Refueling in flight; (14) Tailless airplanes; (15) Airplane catapults; (16) Airplane carriers; (17) Diesel aircraft engines; (18) Laws and regulations; (19) Control surfaces; (20) Slots and flaps; (21) Blind flight, Automatic pilot, Ice formation; (22) Radio; (23) Airships; (24) Air mail; (25) Air navigation; (26) Flight instruments; (27) Aircraft propellers; (28) Fuels; (29) Lubricants; (30) Aerial photography; (31) Metal construction of aircraft; (32-33) Engines, 2v.; (34) Engines--by manufacturer; (35) Engine parts and accessories; (36) Engine instruments; (37) Airports; (38) Skin friction and boundary flow; (39) Stress analysis; (40) Helium; (41) Comfort in aircraft; (42) Plastic materials; (43) Metals and light alloys; (44) Airways; (45) Wind tunnels and laboratories; (46) Gliding and soaring; (47) Women in aeronautics; (48) Parachutes; (49) Rocket propulsion; (50) Stratospheric flight.

300. Wouwermans, Armand, Contribution à la Bibliographie de la Locomotion Aérienne. Anvers: 1894. 43p.

List of approximately 600 references to books, pamphlets, and periodical articles arranged by country under author. Presented at the Congrès de la Science de l'Atmosphère, Antwerp, August 16-19, 1894, and reprinted from its Compte Rendu.

301. Wright, Wilbur, Papers of Wilbur and Orville Wright, Including the Chanute-Wright Letters and Other Papers of Octave Chanute. Marvin W. McFarland, editor. New York: McGraw-Hill, 1953. 1,278p. in 2v.

Includes annotated bibliography, compiled by Arthur G. Renstrom, pp. 1,221-1,243, which lists published writings of the Wrights, patents in their names, court records and general references to books and journal articles about the Wrights and their wind tunnel, airplane motor, and propeller systems. Bibliography revised, enlarged, and brought up to date by Wilbur and Orville Wright: A Bibliography Commemorating the Hundredth Anniversary of the Birth of Wilbur Wright, April 16, 1867, compiled by Arthur G. Renstrom (Washington: Library of Congress, 1968).

302. Young, Pearl I., Octave Chanute, 1832-1910, the Contributions of an American Civil Engineer to the Improvement of Railroads, Railroad Bridges, Timber Preservation, and Aeronautics; A Bibliography. San Francisco: Edward L. Sterne, 1963. 28p.

Lists chronologically approximately 285 items in the following categories: Writings and Printed Speeches, Notebooks and Diaries Related to Chanute, and Writings (1832-1962) about Chanute. Many of the items cited deal with pioneer aeronautics.