HISTORY NEWSLETTER

Historical Office (AAH)
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For information only; not to be interpreted as an official directive

The year 1971 could be considered a boom year for the troops in the NASA Historical Office. Organizationally our year was highlighted by the Historical Office being relocated to report to Associate Administrator Homer E. Newell. Passing months were neither marred by great tragedy nor exalted by highest laurels of public acclaim or ecological value; nonetheless it was an extremely busy year.

There was the notable arrival, after eight years' gestation, of Constance Green's and Milton Lomask's Vanguard history in three editions. Other publications appeared during 1971: Astronautics and Aeronautics, 1969 (SP-4014), Bill Corliss' NASA Sounding Rockets, 1958-68 (SP-4401), sponsored by Goddard Space Flight Center, Cargill Hall's Ranger Chronology (JPL/HR-2), sponsored by Jet Propulsion Laboratory, Admiral Fred Boone's NASA Office of Defense Affairs (HHR-32) memoir, and the NASA Historian's editing of the Senate Committee Statements by Presidents on International Cooperation in Space. Several translations also were issued; they are cited below in "Recent Readings." NASA Centers published other historical projects locally. From Marshall Space Flight Center came David Akens' updated Saturn Illustrated Chronology, April 1957-April 1968 (MHR-5). From Jet Propulsion Laboratory came N. A. Renzetti (ed.), A History of the Deep Space Network from Inception to January 1, 1969 (Technical Report 32-1533, Vol. I).

Several manuscripts had passed beyond the review cycle and were in the publication pipeline at the end of 1971. Astronautics and Aeronautics, 1970 (SP-4015) was at the printer. The Apollo Spacecraft: A Chronology, Vol. II, November 8, 1962-September 30, 1964 (SP-4013), by Mary Louise Morse and Jean Kernahan Bays, was being readied for the printer, and The NASA Historical Data Book, 1958-1968, Vol. I (SP-4012), by Jane Van Nimmen and Leonard Bruno, was in line behind it.

Of particular interest to academic scholars is progress on NASA histories. The Gemini history by Jim Grimwood (MSC) and Bart Hacker (Iowa State) is about ready to go into its final review leading to publication; as is also Bruce Byers' Lunar Orbiter history. Great attention has been given to enhancing the research and writing effort on the Apollo History Series:

Loyd Swenson and Courtney Brooks (Univ. of Houston) on Lunar Spacecraft; Roger Bilstein and John Beltz (Univ. of Alabama/Huntsville) on the Apollo Saturn; Tom Ray on Apollo Management; and William B. Faherty and Charles B. Benson (Univ. of Florida) on an integrated history of Apollo launch facilities and operations. Robert Merrifield (MSC) has completed revision of his history of the Manned Spacecraft Center, and Frank Jarrett (KSC) has submitted his first draft of the Kennedy Space Center history (KHM-4). Milton Lomask (for GSFC) has delivered "final" manuscript of his interdisciplinary study of what the space age has learned about the sun, as has Bill Corliss for his history of the Manned Space Network, and Helen Wells and Susan Whiteley, "Origins of NACA Names" (HHN-31). Preliminary draft of "A History of Apollo Launch Facilities at the John F. Kennedy Space Center, NASA" (KHM-3), by James W. Frangie and William A. Lockyer, Jr., has been distributed for comment. Stephen Brush (Univ. of Maryland) submitted to GSFC his first cut at his "Relations Between Planetary Science and Pure Science in the 19th Century." Meanwhile, Cargill Hall (JPL) is now drafting the Ranger history and Mae Link (Ohio State) is charging ahead on a NASA Life Sciences historical monograph. Each of these projects has involved the quest for unique documentation and oral history interviews, comments on drafts by key participants, and the inevitable rewriting towards publication. Walter T. Bonney has been interviewing many of the former key people, including Jerome C. Hunsaker, Vannevar Bush, and T. Keith Glennan, as he builds up momentum on the much-needed NACA history. Gleanings of Richard Smith (Johns Hopkins) on collecting the Dryden papers should prove of interest to many historical projects. Still in varying stages of typing are the products of last summer's seminar (previously reported).

Publications are the visible tip of the historical iceberg. Other less obvious activities broadened and strengthened our base for historical research. The Historical Archives inherited a mountain of documents in a year where retirements and shrinking reorganization characterized many parts of NASA. Holdings of the Historical Archives supporting our research have doubled in the past two years, in addition to an even larger selection of documents which we have salvaged for placement in the Federal Records Retirement System. Our Historical Archives screens "surplus" and discarded files and miscellaneous materials. All NASA offices normally place their records into the NASA Records Management Program system, yet we are still retrieving some NACA documents. Our one-man Headquarters system--Lee Saegesser--is augmented by Center archives. The system, in combination with digging in the retired records, seems to serve well on all test-borings to date. Major success has been achieved on declassification of the very small percentage of NASA documents that are classified and in upgrading and adding to our existent holdings with copies of key documents.

The wealth of worthy historical subjects awaiting scholars, for which unused documentary sources still exist, has prompted a need, pointed out by the NASA Historical Advisory Committee, to issue a guide to historical research on NASA. To be prepared and issued this year, it should be of

interest to graduate students casting about for thesis subjects, or to prospective book authors. The depressed market for academic historians has brought many competent and qualified historians to our attention and vice versa. We plan to staff our ninth Summer Seminar and possibly develop several new projects from our limited contract funds. Inquiries are welcome; aspirants for the Summer Seminar 1972 should get their applications in no later than April 15.

NASA HISTORICAL ADVISORY COMMITTEE

Chaired by Louis Morton, the Advisory Committee (members previously reported) met in November and submitted their report to Associate Administrator Homer E. Newell in December. Their critical review of the operations of the NASA Historical Office has been very helpful if not indispensable to NASA during this transition post-Apollo period. They will be meeting again later this year to follow up on their recommendations to the NASA management.

James P. Nolan of the Office of Management Development and Executive Secretary of the Historical Advisory Committee has assisted in the drafting of a revised NASA management instruction to formalize the position of the historical program and its agency-wide functional management responsibilities.

PROFESSIONAL NOTES

Regular non-NASA users of the NASA Historical Office archives have been the following graduate students working on doctoral theses: James Dewar (Kansas State) on nuclear rocket propulsion; Richard Hallion (Univ. of Maryland) on the NACA/NASA rocket research airplanes; Richard Balderston (Syracuse Univ.) on a history of NASA's technological utilization program; Jerry Van Voorhis (Johns Hopkins) on the aerospace industries and technical change; and Bob Hall (American Univ.) on the NASA bioscience program. The NASA Historical Office provides information for over 500 queries a year and is visited each year by some 25-50 scholars and authors.

NASA Historian Emme was designated NASA liaison on a government-wide effort headed by the Interior Department to carry out Executive Order No. 11593, "Protection and Enhancement of the Cultural Environment." First phase is to identify all major historical sites or Federal property at least 50 years old. Some recent NASA sites of major history-making significance, while remaining in use, may be nominated for consideration as a designated historic place.

Several professional programs involved NASA participants or were of special interest to historians of aerospace science and technology. Our previous Newsletter reported on the 13th International Congress for the History of Science meeting in Moscow in August. NASA Historian Emme was invited to submit a paper on "The Historiography of Aeronautics and Astronautics," which was read by Loyd Swenson. Participants were fortunate

in being able to arrange a special visit to the Tsiolkovsky Museum at Kaluga.

R. Cargill Hall, JPL Historian, was co-organizer and presided over the 5th History Symposium of the International Academy of Astronautics held in Brussels in September. Papers included: J. J. Maluquer (Spain), "Astronautics in Space before 1952"; Frank H. Winter of the Smithsonian NASM, "Vincenz von Augustin and His Rakentenbatterien"; I. A. Kolcheko and I. V. Strazheva (U.S.S.R.), "Ideas of Tsiolkovsky on Inhabited Space Stations"; D. S. Dushkin (U.S.S.R.), "Research of Followers of the Tsander School, 1939-44"; Fritz Zwicky (Switzerland), "Memoir: A Stone's Throw into the Universe"; Frank J. Malina, "Memoir: The ORDCIT Project of JPL, Caltech, 1944-46"; R. Carreras (Spain), F. Gomex Areas' Rocket Vehicle Project"; V. N. Sokolsky (U.S.S.R.), "Comparative Analysis of Projects for Jet Planes Constructed Up to the 1940's"; W. Geisler (Poland), "Rocket Developments in Poland before 1939"; Yu A. Pobedonostev (U.S.S.R.), "From the History of Powder Rockets in the U.S.S.R."; and C. Stark Draper, "Memoir: The Evolution of Aerospace Guidance Technology at MIT, 1935-1951." Co-chairman of the IAA History Committee, V. N. Sokolsky and E. M. Emme, are organizing the 6th History Symposium which will be meeting in Vienna in October of this year. Publication of the IAA History Symposia proceedings in English hopefully will appear in the Annals of Flight series of the National Air and Space Museum of the Smithsonian Institution.

A session on "Aerospace Frontiers in Southern History" was chaired by Loyd Swenson at the Southern Historical Association convention meeting in Houston on November 18, 1971. Papers included: George C. Bittle (formerly of Fla. Institute of Technology), "Rural Adjustment to NASA-Related Regional Changes"; Leonard C. Bruno (Library of Congress/NASA), "NASA Impact on the South: A Data Base, 1958-1970"; and John S. Beltz (Univ. of Alabama/Huntsville), "Public Reaction in the South to the U.S. Space Program." Commentators were Charles C. Alexander (Ohio Univ.) and James W. Covington (Univ. of Tampa).

The American Institute of Aeronautics and Astronautics (AIAA) History Committee sponsored a panel discussion at the annual meeting in Washington in November on "Rocketry in the 1950's." Chaired by Wernher von Braun, the session featured the following persons presenting brief memoir papers and participating in the lively discussion: Milton W. Rosen, Samuel Hoffman, Admiral W. F. Raborn, General Bernard A. Schriever, William Lucas, William Pickering, General Samuel C. Phillips, and John L. Sloop. It is hoped that excerpts from this stimulating program will be published in AIAA's Astronautics and Aeronautics. The NASA Historical Office has been preparing an edited transcript for its archives.

At the annual meeting of the Society for the History of Technology (SHOT) in New York in December, the following papers were of interest: Roger Bilstein (Univ. of Alabama/Huntsville), "Aeronautical Technology in the 1920's"; Paul W. Clark (Air Force Academy), "Millikan and the Rice-Webster Gun Controversy"; and Herbert H. Kissling (AEDC), "Arnold Engineering Development Center: Towards New Horizons." Loyd S. Swenson was elected to the Advisory Council of SHOT. At the concurrent American Historical

Association (AHA) meetings, Louis Morton (Dartmouth) appeared on a panel discussing the Pentagon Papers as history and chaired a vigorous session on declassification of Federal records. At its business session, a ten-year rule for Federal declassification of records was passed as a resolution, despite Morton's AHA Committee's recommendation for a 20-year rule.

Interrelated histories are underway on U.S. Navy institutions: (1) Professor Harvey M. Papolsky (Institute of Public Policy, Univ. of Michigan) is preparing a history of the Office of Naval Research through 1966, which will emphasize the formulation of ONR's research program and its impact upon both the development of naval technologies and the growth of science (ONR, Naval Research, July 1971, p. 15); (2) A 50-year history of the Naval Research Laboratory, we understand, is being undertaken by Herbert J. Gimpel of NRL; and (3) Albert B. Christman is preparing a two-volume history on the Naval Ordnance Test Station (NOTS) at China Lake, California.

In May 1971, Dr. John P. Hagen, former director of Project Vanguard, presented the TV-3 payload to the Director of the National Air and Space Museum, Colonel Michael Collins. The TV-3 test launch, on December 6, 1957, was a shot heard around the world when the 1st stage exploded for the first and last time in the Vanguard program. Publication of NASA's Vanguard: A History by Green and Lomask made it an appropriate time for transfer of this historic artifact for possible future display. Herman S. Wolk well observed recently in the Air University Review (Nov-Dec. 1971, p. 80): "History will never be an unbroken story of successes. History is not statistics nor an exercise in piling up facts. Neither is it certitude. History is understanding. It is irony. History is mistakes. It holds no simple lessons." The history of Vanguard would seem to meet this definition.

The Smithsonian Institution has requested authorization from the Congress for the construction of the National Air and Space Museum building. Everyone wishes Mike Collins every success in this important quest to house appropriately the physical history of American aerospace science and technology.

Alfred Waldis, Director of the Swiss Museum of Transport and Communications in Lucerne, has indicated that the new Air and Space Wing will be dedicated in July.

Mr. Robert Sherrod continues on his Apollo book, "Conquest of the Moon," to be published by Macmillan.

National Space Club's Goddard Historical Essay Competition for 1972 is now open. Judging of the 1971 essays is presently underway for the $500 prize. Manuscripts for the 1972 competition are due November 1, 1972; rules may be obtained from the National Space Club, 1629 K Street, N.W., Washington, DC 20006.

The AIAA History Award of $500 for book-length manuscripts making a contribution to the history of aeronautics and astronautics is also open for 1972. Manuscripts should be sent by June 1, 1972, to the Chairman of the Judging Committee, Mr. Max Rosenberg, Hq. USAF(AFCHO), Wash., DC 20314.

Brent: 7 Feb.
Note + return
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RECENT READINGS OF NOTE

. Air Force Academy, Science, Technology and Warfare, Proceedings of the Third Military History Symposium, 1969, Washington, DC: GPO 1971, 221p., $1.25.
Contains papers and commentary by T. Ropp, T. Hughes, B. Brodie, I. B. Holley, R. L. Perry, M. Kranzberg, F. X. Kane, E. M. Emme, E. E. Morison, and others.

. J. D. Bernal, Science in History, 4 volumes, Cambridge, Mass., M.I.T. Press, 1971, paperback edition.
"This book does not claim to be a history of science," the late J. D. Bernal wrote, as "its theme is essentially this interaction between science and society" (p. 55). While his Marxist interpretation is generally self-evident in this massive work, Bernal points out: "I was myself among those who speculated on the subject of space colonization and published a book on it in 1929." (p. 813). The book was The World, The Flesh, and The Devil (1929).

. Col. Sir William Congreve, The Details of the Rocket System..., Ottawa, Canada: Museum Restoration Service, 1970, 85 pp., facsimile edition limited to 850 copies, $10.00.
A systems analysis from the early 19th century.

. William R. Corliss, NASA Sounding Rockets: A Historical Summary, 1958-68, with Foreword by Homer E. Newell, Washington, DC: NASA SP-4401, GPO, 1971, 155p., $1.75.
First of the NASA Historical Report Series, containing complete list of NASA sounding rocket launches; sponsored by the Goddard Space Flight Center.

. M. A. Cresswell and C. Berger (eds.), United States Air Force History: An Annotated Bibliography, Washington, DC: Office of Air Force History, GPO, 1971, indexes, 106p., $.50.
Not fully annotated nor complete but a very welcome contribution.

. Henry M. Dater, Dakotas in the Antarctic: A Study in Versatility, (Monograph No. 1), Washington, DC: U.S. Navy Support Force, Antarctica, 1970, 30p.
Recounts use of DC-3's in Antarctic, 1946-67.

. E. M. Emme (ed.), Statements by Presidents of the United States on International Cooperation in Space 1957-71, U.S. Senate Committee on Aeronautical and Space Sciences (Senate Doc. 92-40), GPO, 1971, 126p., $.55.

. E. M. Emme, "International History of Rocketry and Astronautics Symposium October 1970," Technology and Culture, Vol. 12 (July 1971), pp. 476-96.
Summary of Fourth History Symposium of the International Academy of Astronautics, Constance, W. Germany, October 10, 1970.

. James C. Fletcher, "Space Program: Key to a Better Future," Congressional Record, October 7, 1971, pp. S16110-16112.
NASA Administrator's speech to National Capital Section of AIAA explaining why "we cannot re-enter the world we knew before 1957."

. Constance McL. Green and Milton Lomask, Vanguard: A History, with Foreword by Charles A. Lindbergh, Washington, DC: NASA SP-4201, 1970, GPO, $2.75; also Smithsonian Institution Press (hardcover), 1971, 309p., $12.50.
Reviewed by C. Reynolds in Military Affairs, Vol. 35 (October 1971), p. 120; and W. T. Bonney, Air Force (July 1971), p. 29.

. R. Cargill Hall, Project Ranger: A Chronology, Washington, DC: JPL Historical Report No. 2, 1971, 581p.; (available from NTIS, Springfield, VA 22151, $6.00).

. Edwin P. Hoyt, The Space Dealers: A Hard Look at the Role of American Business in Our Space Effort, New York: John Day, 1971, 244p.
Presents argument for central planning. Industry perspective not elsewhere presented in this general form.

. Thomas P. Hughes, Elmer Sperry--Invention and Engineer, Baltimore: The Johns Hopkins Press, 1971.
Biography of founder (1860-1930) of Sperry Gyroscope Company.

. Francis X. Kane, "Space Age Geopolitics," Orbis, Vol. 14 (Winter 1971), pp. 911-33.
Thoughtful analysis tracing the rise of space technology. Concludes that demobilization of the U.S. space program is an "impairment of vision" but that the U.S. "could still be the nation which contributes most to and benefits most from space."

. V. Kitain (ed.), "Space Marathon," translated from Biblioteka Izvestiy, (Moscow: Izvestiya Press), 1970, pp. 1-239, NASA TT F-13, 786, 1971.
Review of Soyuz 9 mission via collected Izvestiya articles.

. Melvin Kranzberg, Historical Aspects of Technology Assessment, George Washington University, Program of Policy Studies in Science and Technology, Occasional Paper No. 4 (August 1969) 21p.
Stimulating paper given at Engineering Foundation Research Conference, Ardmer, N.H., recently brought to our attention.

. David S. Landes and Charles Tilly (eds.), History as Social Science, Englewood, N.J.: Prentice-Hall, 1971, 152p.
Fourth study of Social Science Research Council of history as a discipline based on questionaires sent to over a thousand historians (60% response). Editors conclude that historians fail to exchange views, not only with social scientists, but even with other members of their own discipline. Graduate research in history has an individualistic characteristic, which is also reflected in a lack of funding. See T. C. Cochran review in AHR, Vol. 76 (December 1971), pp. 1515-16.

. Beirne Lay, Jr., Earthbound Astronauts: The Builders of the Apollo Saturn, New York: Prentice-Hall, 1971, 198p.
Informal narrative on the North American role in the Apollo program (no documentation, bibliography or index) by the author of I Wanted Wings and Twelve O'Clock High; based mostly on interviews.

. George M. Low, "International Aspects of Our Space Program, Congressional Record, January 27, 1971, pp. E198-199.
NASA Deputy Administrator's speech to the National Space Club, January 26, 1971, Washington, DC, reviewing national policy, NASA experience, and on-going deliberations.

. Richard C. Lukas, Eagles East: The Army Air Forces and the Soviet Union, 1941-1945, Tallahassee: Florida State University Press, 1970, 256p.
AIAA History Award, 1971.

. NASA/Library of Congress, Astronautics and Aeronautics: Chronology on Science, Technology and Policy, 1969, with Foreword by George M. Low, Washington, DC: NASA SP-4014, GPO, 1970, 534p., $2.25.
Seventh volume in this series, which appeared in 1971.

. Herbert R. Northrup, The Negro in the Aerospace Industry, Philadelphia: University of Pennsylvania Press, 1968.
Recently noted.

. Herbert R. Northrup and others, The Negro in the Air Transport Industry, Philadelphia: University of Pennsylvania Press, 1971, 146p.

. F. I. Ordway, Carsbie Adams, M. Sharpe, Dividends From Space, New York: Crowell, 1971, 309p., $10.00.
Utilization of space technology, derived largely from non-NASA sources.

. F. K. Pizor and T. A. Comp (eds.), The Man in the Moone and other Lunar Fantasies, with Introduction by Isaac Asimov, New York: Praeger, 1971, 230p., no index.

Excellent reprinting of Goodwin, Wilkins, Brant, de Bergerac, Pic, and others, including "The Great Steam Duck," written by an anomymous "Member of the Louisville Literary Brass Band" in 1841.

. Eugeny Riabchikov, Russians in Space, New York: Doubleday, 1971, $10.00.

Work has "a lyric sweep unknown to space journalism," said Loudon Wainwright in his review in Harper's (November 1971), pp. 138-44.

. N. A. Rynin, Interplanetary Flight and Communication, Vol. II, No. 4, Rockets (Leningrad: 1929; NASA TT F-643, 1971); No. 8, Superaviation and Superartillery (Leningrad: 1929; NASA TT F-645, 1971), and Vol. III, Theory of Space Flight (Leningrad: 1932; NASA TT F-647, 1971).

These, previously cited, and forthcoming volumes of this classic Russian encyclopedia are available for $3.00 each from the National Technical Information Service (NTIS, Springfield, VA 22151). Dock strikes have delayed deliveries of these translations from Israel.

. L. Sayles and M. K. Chandler, Managing Large Systems: Organizations of the Future, with Foreword by James E. Webb, New York: Harper, Row, 1971.

Webb reflects on his NASA administrator experience (1961-68).

. J. W. R. Taylor (ed.), Jane's All the World's Aircraft, 1971-72, New York: McGraw Hill, 1971, 774p., $55.00.

Considered best in 62-year history, basic reference does not include products of Bulgaria and China but includes pilotless recce vehicles, a foreword on worldwide trends in the aerospace industry, and satellite and space launchings prior to July.

. Edgar Ulsamer, "The Shuttle: U.S.'s Airline Into Space," Air Force, September 1971, pp. 53f.

Interview of NASA Administrator James C. Fletcher.

. Wernher von Braun, "Science and Technology: A Positive Outlook," Aerospace (AIA), July 1971, pp. 16-17 (republished in many newspapers).

Excerpts from speech to the Aviation/Space Writers Association, Washington, DC, May 27, 1971. An argument against Lewis Mumford's call to destroy the "megatechnical wasteland." Also an argument for enhancing the quality of human life via technology in the extended intellectual horizons provided by exploring new worlds.

. Wernher von Braun, "Hostility to Technology Is Irrational," Congressional Record, October 14, 1971, pp. E10845-10846.