

NASA HISTORY: CALENDAR YEAR 2000 IN REVIEW

Introduction:

During 2000 the efforts of the NASA History Division continued to focus on our core goals in accomplishing the collection, preservation, and dissemination of historical knowledge about NASA. These goals include:

- Continue high quality history publication program.
- Focus on applied historical research efforts of interest and use to NASA executive leadership.
- Aggressively acquire, preserve, and make available documentary information in the NASA Historical Reference Collection.
- Aggressively disseminate historical information and understanding to the broadest possible audience.
- Use technology to collect, preserve, and disseminate NASA history.
- Achieve agency-wide involvement in the preservation and dissemination of history.

We accomplish this by developing a significant collection of reference documents for use by both NASA personnel and the public; providing historical perspective and documentary support for agency executives; and researching and writing NASA history for publication in books, monographs, articles, and reports.

Reference Collection and Research Support:

Information Requests

During calendar year 2000 NASA History Division personnel answered a total number of 11,732 research requests from government, educational, and private organizations on all manner of divergent research interests. This required a total number of 4,745 work hours by the office staff. Also during the year, the History Division provided research services to on-site researchers using its collections. Table 1 breaks down the number and type of information requests handled by NASA history personnel during calendar year 2000.

Table 1 also depicts the large percentage of e-mail requests for information that the History Division is receiving. With the advance of this technology, querying the History Division has become easier than ever, and it represents a growing workload that must be met in the future. We remain committed to providing quality, timely service for those seeking information about NASA's history but the challenges of doing so are becoming increasingly difficult as the number of requests continue to rise.

While the History Division has been able to reduce the amount of time given to each information request, demonstrating some efficiencies not previously obvious, the annual workload for information requests is more than two full-time equivalent personnel. Since the History Division does not have these resources in-house, we have relied on student interns for some of this work, but the rise in the workload is a matter that requires continued attention if we

are to meet the requirements of NASA on this score.

TABLE 1

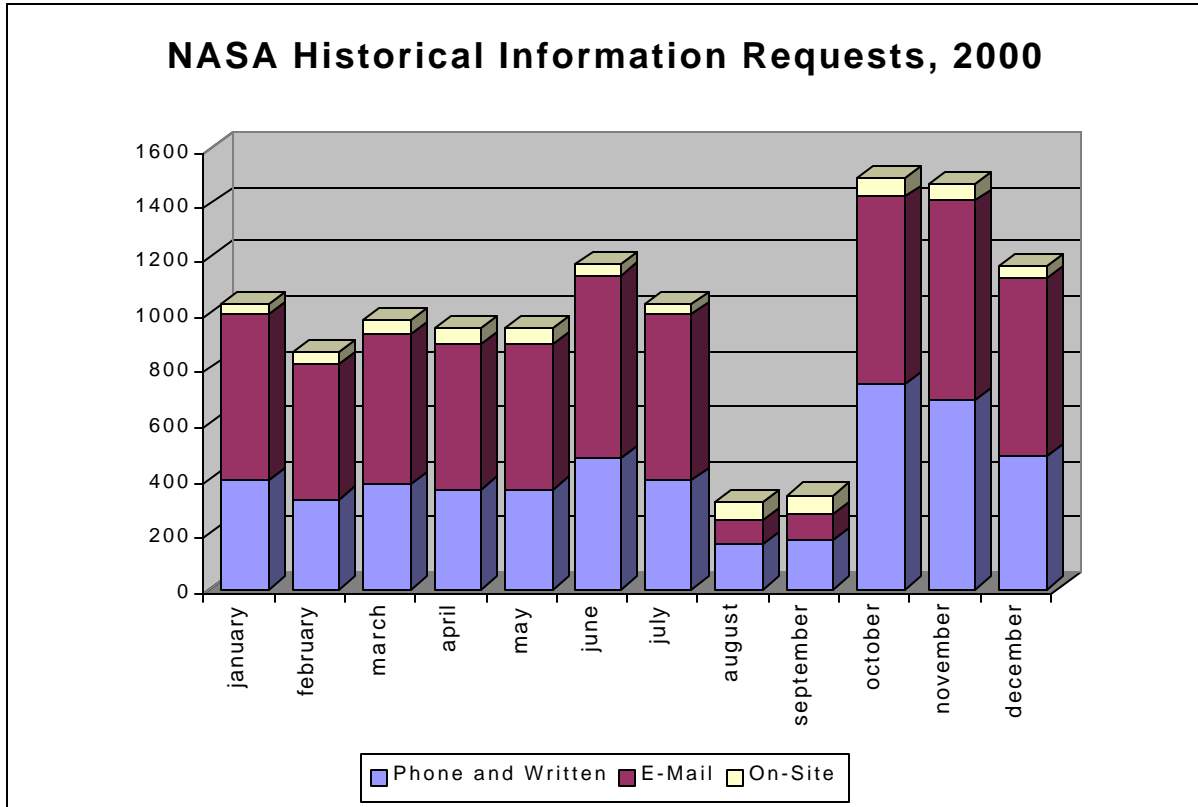
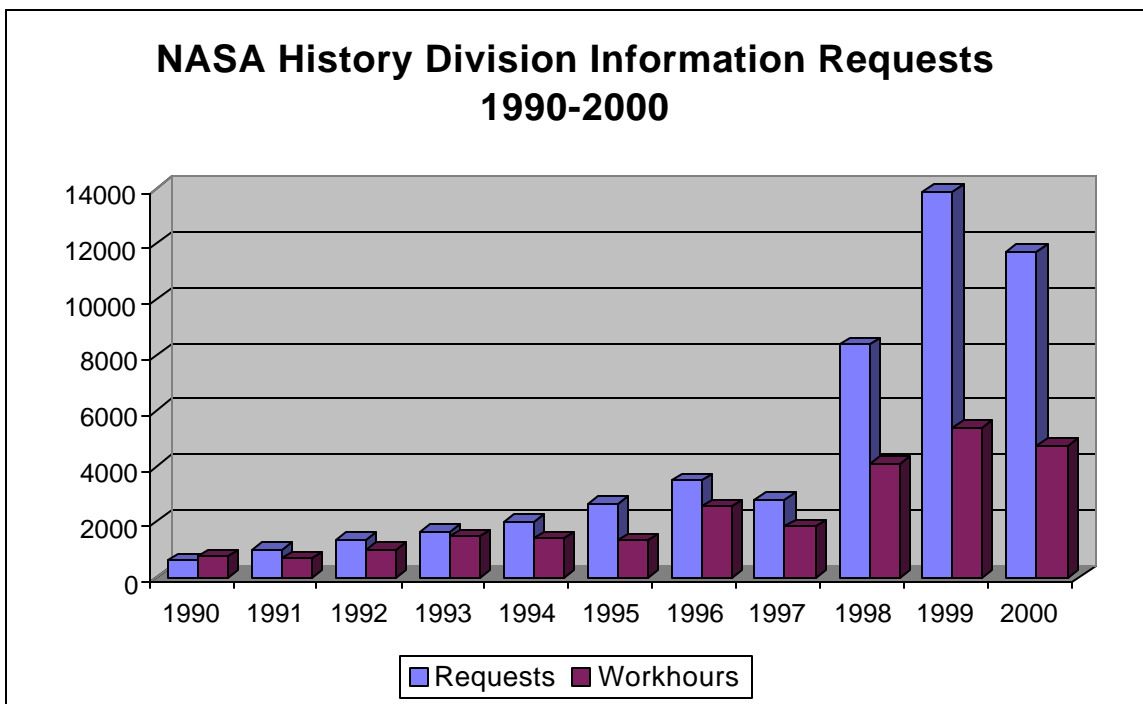


TABLE 2



New Accessions and Ongoing Projects:

The NASA History Division staff appraised approximately 224 boxes of materials from various sources, arranging and filing historically valuable materials in the Historical Reference Collection. A significant part of this activity included evaluating official collections that were made accessible to us before transfer to National Archives and making copies of selected items for our collection. A description follows of the specific collections with which we dealt.

Code A Records Projects

Throughout the year 2000, Archivist Jane Odom organized, coordinated, and carried to completion an effort to develop a comprehensive organizational system for the papers of NASA Administrator Daniel S. Goldin. This project resulted in the cataloging of his papers and the creation of an electronic database. She worked with the Administrator's office to determine specifications for the final product, met with the NASA Headquarters Records Manager to establish document disposition procedures, and coordinated with computer personnel to obtain necessary database support. The collection now comprises 167 boxes and is arranged into seven distinct series or types of material—Trips, Meetings, Town Meetings, Subject Files, Speeches, Hearings, and Tapes. A third accession of nearly 40 boxes is being prepared now and will soon be received for processing by the History Division staff and/or a temporary contractor. The Goldin collection will be housed in a secure records retirement room in the NASA Headquarters pending its transfer to the National Archives and Records Administration. A database containing 1,557 records describes the Goldin collection with this number sure to increase as additional materials are received. The History Division staff continues to make copies of significant items from the Goldin records for inclusion in the NASA Historical Reference Collection. Once the materials associated with Administrator Goldin's tenure are fully organized and processed, they will be opened for researchers. Additionally, 921 speeches given by Goldin over the years have been scanned and placed in the History Office database, available as searchable pdfs. Efforts are underway to create a CD-ROM of Administrator Goldin's speeches.

The official files of Michael I. Mott, Associate Deputy Administrator (Technical), and France A. Cordova, Chief Scientist, have been appraised, packed, inventoried, and transferred to the records retirement room in the NASA Headquarters until their transfer to the National Archives and Records Administration. There were 18 cubic feet of Mott Files, 1994-98, and 8 cubic feet of Cordova Files, 1993-96. During the appraisal process selected documents were copied from both collections and placed in the NASA Historical Reference Collection for research use.

In addition, the official files of Gen. Dailey, 27 cu. ft., were received in the History Office and selected items copied for inclusion in the Historical Reference Collection. The Dailey files are now in temporary storage in the records retirement room at NASA Headquarters awaiting their transfer to the National Archives. Seven cubic feet of Gen. Dailey's "chronological files" (non-record material) were received in the History Division and added to our reference collection.

Other NASA Historical Reference Collection Acquisitions

There were several collections of materials acquired by the NASA History Division during 2000 that have been incorporated into the NASA Historical Reference Collection and are available for use by researchers. These include:

- 19 boxes of duplicate Space Station Freedom materials from 1985-1993 era (original/record copies located at NARA's Fort Worth Records Center in Texas).
- 9 boxes of NASA reports and other documents from Congressional Research Service staff at the Library of Congress.
- 1 box of documentary materials collected on the history of Ames during the writing of the new book, *Atmosphere of Freedom*.
- 6 cubic feet of duplicate Space Station materials collected as a part of the support necessary to respond to congressional inquiries.
- 5 cubic feet of duplicate space flight reports and miscellaneous materials from Code M.
- 1 cubic foot of duplicate policy/downsizing/reinvention materials from Code Z.
- 11 cubic feet of duplicate Space Exploration Files from Code M.
- 9 cubic feet of duplicate "Task Force on the Scientific Uses of the Space Station" files, 1983-87.
- 4 cubic feet of duplicate mission commentary, press briefings, reports from Apollo 10, and Apollo 12 through Apollo 16.

Oral History Projects

Recording, transcribing, and permanently accessioning in the NASA Historical Reference Collection the recollections of NACA/NASA personnel has been one of the most important activities undertaken by the NASA History Office since its inception in 1959. Many NASA oral histories originated when historians interviewed participants to obtain firsthand information to facilitate writing their volumes in the NASA History Series. Other oral histories can be more properly categorized as exit interviews. Collectively, the more than 1,000 oral histories incorporated in the NASA system represent a rich source of information from which detailed knowledge of the Agency may be drawn.

The "NASA 'Herstories' Oral History Project" continues this effort to collect first-hand recollections. This project follows a similar procedure to record the recollections of other NACA, NASA, other government, university, and industry people who were "present at the creation" of the Agency but focuses exclusively on the record of women involved in all aspects

This project is required at the present time in order to preserve for posterity the political, social, technological, and scientific ingredients that led to the formation and conduct of activities by the National Advisory Committee for Aeronautics (NACA) between 1915 and 1958 and of

the National Aeronautics and Space Administration (NASA) thereafter. It is imperative to undertake this work at present because many of those individuals involved in this effort over the years are passing from the scene. The intent is to identify and interview selected women from several key areas beginning with those who are most elderly.

On this project to date we completed interviews with the following women:

- Video oral histories with six Women Army Service Pilots--Helen Wyatt Snapp, Marjorie Popell Sizemore, Doris Elkington Hamaker, Mary Baldner Gordon, Mary Anna "Marty" Martin Wyal, and Teresa D. James.
- "Mercury 13" trainees, Wally Fund, Dawn Seymour, Betty Skelton Frankman.
- Dr. Eilene Galloway (1906-), staffer of the Congressional Research Service (formerly the Legislative Reference Service) Library of Congress, as National Defense Analyst 1951-1966, and from 1966-1975 as Senior Specialist in International Relations (National Security).
- Dr. Nancy Grace Roman (1925-) was the senior woman at NASA Headquarters in the 1960s, when she worked as an astronomer in the Office of Space Science and Applications.

Stephen J. Garber of the NASA History Division has been conducting a series of oral history interviews relating to the design and development of the Space Shuttle. At year's end, he had conducted seven interviews with top Space Shuttle managers and Department of Defense officials, with more planned for 2001.

Because of the fiftieth anniversary of the first launch from Cape Canaveral, as part of Project Bumper in 1950, this last year we undertook with the Kennedy Space Center a series of interviews with participants in the project. Interviews were conducted with the following Bumper veterans:

- Robert Alley, U.S. Army
- Elizabeth Bain, Patrick AFB
- Herman Bank, JPL
- Edward G. Belcher, U.S. Army
- Konrad Dannenberg, Army Ballistic Missile Agency
- Robert Droz, JPL
- Norris Gray, Cape Canaveral
- Dick Jones, White Sands Proving Ground
- William Pickering, JPL

These oral histories have been videotaped, transcribed, edited, and are available for research both in the NASA Historical Reference Collection and at the Kennedy Space Center History Office.

NASA History Division Document Management System (DMS)

The DMS began operating in May 1998, and has begun to alleviate the press of space in the NASA History Division as we image and store electronically discreet parts of the NASA Historical Reference Collection. We embarked during 1997 on a long-term effort to scan and create in an electronic format a database of historically-significant, one-of-a-kind documents currently maintained on paper only in the NASA Historical Reference Collection. This project accomplishes several tasks:

- Preserves unique records of the agency that are critical to understanding the agency and its historical development;
- Allows the disposition of paper originals to the National Archives where they belong in keeping with the Archive's mission of maintaining a record of the activities of the federal government;
- Frees space within the NASA History Division for its continued collection of the historically significant documents of the agency; and
- Makes these historical materials available to a much wider body of researchers from NASA, other government agencies, the academic community, and the public.

To start the process we requested a review of the viability of placing in electronic form (on-line or on CD-ROM) several major collections as candidates for placement in electronic form. These included:

- The Mission Operations Reports of all NASA space flights, 1958-Present. We have the only complete set of these available anywhere in the world. (8 cubic feet of documents).
- The NASA Current News, 1958-Present. We have the only set that is approaching completeness available anywhere in the world. (40 cubic feet of documents).
- The NASA Administrator's Chronological Correspondence Files, 1958-1992. Once again, we have the only inclusive set of these available anywhere in the world. (32 cubic feet of documents).
- The NASA Headquarters and Field Center Telephone Directories, 1958-Present. A uniquely useful set of documents for tracing institutional and personnel changes, the office has the only complete set of these available anywhere in the world. (8 cubic feet of documents).
- NASA Headquarters and Center Newspapers, 1958-Present. Once again, a unique set not duplicated elsewhere. (13 cubic feet of documents).

Through the end of 2000, the NASA History Division had completed the following scanning efforts:

- Mission Operations Reports of NASA space flights, 1958-96, 8 cubic feet. The NASA Historical Reference Collection has the only complete set of these and they originals have now been transferred to the National Archives but an electronic version is available for research in the NASA History Division.

- NASA Human Space flight "Air-to-Ground" Mission Transcripts, 1961-72, 12 cubic feet. Scanning complete. A CD-ROM has recently been prepared that contains electronic versions of the Mercury/Gemini/Apollo transcripts.
- Selected NASA Oral Histories, 1951-97. Scanning complete and electronic version available for research at NASA History Division.
- NASA Political Cartoon Collection, 1957-2000. Scanning complete, originals retired to National Archives, and electronic version available for research at NASA History Division.
- Administrator Goldin Speech Collection, 1989-2001, 15 cubic feet. Scanning completed and available for research. Originals are part of the Administrator's Records Project and shall be retired to the National Archives.
- Code I Chronological Files, 1994-97, 4 cubic feet. Scanning complete and electronic version available for research at NASA History Division.

Through the end of 2000, the NASA History Division has underway the following scanning efforts:

- NASA Mission Press Kits, 1958-2001.
- NASA Headquarters and Centers Telephone Directories, 1958-2001, 10 cubic feet.
- *Report to the President by the Presidential Commission on the Space Shuttle Challenger Accident*, 6 volumes, 1986.
- Selected Space Policies, Studies, Reports, and Assessments, 1959-2001, more than 40 seminal reports to be made available on-line and/or on CD-ROM.

More specifically, during this year we scanned and checked into the DMS nearly 36,000 items, creating 1085 cataloging records describing these documents. Over 206 new database records were created describing our non-scanned holdings, and 250 existing cataloging records were updated as materials were added to the reference collection. Through these efforts we have succeeded in making our historical materials more widely available to NASA personnel and as well as those outside the Agency.

Special Staff Studies

A priority during the year was providing background information and documentary records to aid NASA decision-makers in their work. In so doing, the office prepared several types of historical background papers and staff studies on a variety of subjects:

- Launius, Roger D., "NASA Planetary Probes, 1970-1980," April 19, 2000.
- Launius, Roger D., "Background Paper on NACA and Technology Transfer," May 1, 2000.
- Launius, Roger D., et al., "Background Paper on Galileo Galilei and the Revolution in Understanding about the Universe," May 31, 2000.
- Launius, Roger D., "Post-Apollo Space Policy of Nixon Administration," February 6, 2001.

- Launius, Roger D., "Background Paper on Apollo-Soyuz Test Project," June 28, 2000.
- Launius, Roger D., et al., "Background Paper on the Sabbath Aboard NASA Spacecraft," July 20, 2000.
- Launius, Roger D., et al., "Selected Space Policies, Studies, Reports and Assessments," August 3, 2000.
- Launius, Roger D., "Major NASA History Office Initiatives," August 16, 2000.
- Launius, Roger D., and Jane H. Odom, "Background Paper on NASA Records and Code A Initiatives," August 17, 2000
- Launius, Roger D., "Background Paper on the Charter of NASA," November 29, 2000.
- Launius, Roger D., "Major U.S. Legislation Affecting Aerospace Activities," December 10, 2000.

NASA History Program Review, February 2000:

Since early in the history of NASA, the Agency's History Program began holding periodic meetings with our center history points of contact and with a group of outside scholars and aerospace professionals to assess the state of the program. These annual reviews have been exceptionally important in helping to shape the direction and even the nature of the NASA History Program. It is an important opportunity to draw together the resources working on historical issues at NASA, and to reflect on the nature of the program and plan for the future. We held the program review on 2-3 February 2000, (Wednesday-Thursday) at Ames Research Center in the San Francisco Bay area. The agenda for this program review included:

- Overview of NASA History Program
- History Publication Program Status Review
- New Historical Projects
- New methods of contracting for NASA historical works to reduce costs and improve results
- Communication Efforts and Staff Support

Some of the major issues discussed included those contained in the following paragraphs.

After a welcome by Harry McDonald, Ames' director, the meeting got underway with an overview of the NASA history program, a status review of the NASA History publication program, and some general discussion about the increasing workload of the history offices. David Hounshell, Carnegie Mellon University, suggested the possibility of an automated electronic response system for e-mail information requests. Mack Herring mentioned that the Stennis Space Center had been using volunteers from a local senior citizen group to assist in its routine history efforts. Glen Swanson from JSC suggested packaging a CD-ROM of reference materials with such upcoming book as the volume on the Shuttle-*Mir* program.

On the topic of recording information about events for future historians, Bill Becker asked if NASA had a system of inputting such information monthly. Dill Hunley from DFRC

wondered if NASA could set up an ongoing contract to record such relatively routine data in a chronological fashion.

On the perennial topic of technology transfer, Jonathan suggested holding a scholarly conference to understand this issue better historically. Glen Bugos from ARC proposed that such a conference focus on only one area of technology (i.e.: biotechnology, information technology, etc.).

On the topic of potential future publications, Erik Conway from LaRC suggested publishing a monograph on the GE-90 engine used on the 777 airplane. David Hounshell added that perhaps such a project could be jointly sponsored with GE. Jonathan Coopersmith, Texas A&M University, suggested that a higher priority book project should focus on NASA-DoD relations or on Earth resources monitoring. To fund the latter history, David and Dill suggested that perhaps NASA could tap monies allocated for global change research among NASA, NOAA, NSF, etc. On the topic of history of searching for extraterrestrial life, a member of the group noted that George Basala was close to finishing a book on this topic. Erik and Dill also suggested a case study work on computing's positive and negative influences on various aspects of aerospace research. A member of the group also suggested the IEEE as a potential source of funding for historical works.

To summarize the group's priorities, Roger Launius asked the group that if he had enough funding for one new history publication, what should the topic be? David, Jonathan, and Eric concurred that Earth science was the highest priority, while Glen Bugos thought computing was important also.

After lunch, the group took an informative tour of Ames.

On February 3, 2000, history contacts from the centers gave brief updates of their activities. Jane Odom gave an update on archival activities at Headquarters. Steve Garber discussed intern and volunteer recruitment, and the placing of materials on the Web. After some general discussion, the meeting ended at mid-day.

Historical Symposia and Conference Sessions:

Space Policy in the Twenty-first Century Symposium

On March 23, 2000, the NASA Office of Policy and Plans and the NASA History Division cosponsored with Syracuse University a symposium entitled, "Space Policy in the 21st Century." It took place at Syracuse University's Greenberg House, 2301 Calvert Street, NW, Washington, D.C.

The objective of this workshop was to look at where we are in space policy in the year 2000, how we have gotten there, and especially where we may be going in the new century. The symposium drew about 50 scholars, many new to the field, as well as those who have been in space policy some time to consider new ideas and syntheses. Featured presentations and speakers included:

- "Policy Issues in the Search for Extraterrestrial Life in the 21st Century," Christopher F.

Chyba, SETI Institute and Stanford University

- “Planetary Impacts: Asteroids, Collision Avoidance, and the Space Regime,” Daniel H. Deudney, Johns Hopkins University
- “Unfettered Observation: The Politics of Earth Monitoring from Space” – Ronald J. Diebert, University of Toronto
- “The Future of Space Commerce,” Scott N. Pace, Rand Corporation
- “Humans in Space: From Apollo to Mars,” Debora L. VanNijnatten, University of Windsor, and W. Henry Lambright, Syracuse University
- Discussants’ Reactions, Howard E. McCurdy, American University, and John M. Logsdon, George Washington University

This symposium was limited to 50 participants. The debates were lively, and the discussions most beneficial. We are now preparing the papers for publication as a space policy primer.

NASA History of Human Spaceflight Roundtable

We held a very successful two-part session on the history of human spaceflight on Thursday, November 16, 2000, at the Johnson Space Center. The NASA History Office cosponsored this activity with the Johnson Space Center History Office and the History Committee of the American Astronautical Society (AAS). It coincided with the national meeting of the American Astronautical Society in Houston, Texas, November 14-16, 2000. About 50 people attended this session, and the feedback was excellent.

In the first part of the session, Glen E. Swanson at JSC assembled a session on the history of the Mission Control Center (MCC). The MCC history panel consisted of key individuals that both actively worked in the MCC and or played key roles in its development. The lineup of panelists included Robert Legler, long-time contractor who played a pivotal role in early MCC development; Glynn Lunney, flight director for many of the Gemini and Apollo missions and later chief of the Flight Director’s Office; and Milt Heflin, flight director for many of the shuttle missions.

In the second part of the session, we held an informal roundtable on the history of human spaceflight. It allowed the people working on various projects to present to others what they are working on and to hear any comments others might have to offer. In that respect the workshop served as a data exchange for people working in the area. Several individuals reported on their projects. These included the following book projects:

- Orloff, Richard G. Compiler. *Apollo by the Numbers* (NASA SP-2001-4029, 2001): This work is a documentary collection of key statistical information about each mission of Project Apollo.
- Garber, Stephen J. *The Social Construction of the Space Shuttle* (NASA SP-2003-4236, 2003): This study asks the interesting question, "why does the shuttle have wings?" Although the answer to this question might seem obvious, it is not. It has to do with the unique social perspectives and ideas, priorities in design, sense of elegance, and political and economic

ramifications of the individuals involved in the design work. The study recognizes that technological choices are not made entirely for technological reasons and seeks to explore the nuances of those choices.

- Morgan, Clay. *Shuttle-Mir: The Illustrated History of an International Space Project* (NASA SP-2001-4230, 2001): After an introduction called “History’s Highest Stage,” which talks about U.S.-Russian cooperation in space since Eisenhower and Kennedy, each chapter tells the story chronologically from the perspective of the U.S. astronaut onboard Mir, and each chapter ends with a “Meanwhile, on Earth...” section that tells the story from the ground team’s points-of-view. Since the book is intended for browsing as well as for straight-through reading, the author has used many sidebars and boxes to treat subjects such as communications, MCCs, DORs, etc. An accompanying, searchable CD includes full texts of things like every Status Report, STS press kit, a “Short History of NASA,” “The Ezell and Ezell, and the Inspector General’s report, plus videos and photos and hot links to NASA websites, including NASA Histories.
- Bingham, Jeffrey. *A New Star on the Horizon: A Political History of the International Space Station* (NASA SP-2002-4109, 2002): This work will focus on the decision-making process and political developments associated with the building of the space station between the time of its approval in 1983 and the end of the century.
- Matranga, Gene J., Calvin R. Jarvis, and C. Wayne Ottinger, with Darlene Lister. *History of the Lunar Landing Research Vehicle* (NASA SP-2001-4226, 2001): This work covers the development and flight research of the LLRVs with coverage of the LLTVs and the use of the two LLRVs in a training mode. It will also cover the contributions of the LLRVs to the Lunar Module.
- Launius, Roger D., and Dennis R. Jenkins. Editors. *To Reach the High Frontier: Case Studies in Launch Vehicle History* (NASA SP-2001-4227, 2001): This volume consists of essays by separate authors on the development and operations of the major launchers of the United States from the 1950s to the present.
- Portree, David S.F. *Humans to Mars: Fifty Years of Mission Planning, 1950-2000* (NASA SP-2000-4521, 2001): This will be a study providing an overview of the history of the various plans developed since the dawn of the Space Age for the human exploration of Mars. Each type of mission will be categorized, its originators noted, its main elements detailed, and its legacy traced in the development of subsequent mission elements.
- Swanson, Glen E. Compiler. *Mercury, Gemini, and Apollo Mission Transcripts: The Complete Air-to-Ground Transmissions* (NASA SP-2001-4601, 2001): This CD-ROM will capture in .pdf format all of the voice transmission recordings between Mission Control and the Mercury, Gemini, and Apollo missions in space.
- Launius, Roger D., and Howard E. McCurdy. *Imagining Space: Achievements, Predictions, Possibilities* (Chronicle Books, 2001): In 1949 Willy Ley wrote the classic work, *The Conquest of Space*, describing what he thought would happen in the next fifty years in space exploration, based upon what had already taken place up to that time. This book, in some respects, will be a continuation of that earlier effort. The first part of it will focus on the

predictions made about space exploration over the last fifty years and will analyze what was predicted and achieved, what was achieved but not predicted, and what was predicted but not achieved. The remainder of the book will discuss the prospects for the future, looking out fifty years.

Aerospace History Session at the Organization of American Historians Annual Meeting

The History Division organized and participated in a very well received session at the Organization of American Historians annual meeting in St. Louis, Missouri, on March 31, 2000. Entitled “The Race to the Moon: Mirror Image Twins of the Cold War,” the session was chaired by Janet R. Daly Bednarek, University of Dayton, and include the following presentations:

- “The Other Side of the Moon Race: Perceptions and Decision-Making in the Soviet Space
Asif A. Siddiqi, Carnegie-Mellon University
- “NASA Looks to the East: American Intelligence Estimates of Soviet Capabilities and
Launius, NASA Chief Historian

The comment was offered by Robert W. Smith, University of Alberta.

This session explored the new aspects in the history of the race to the Moon. While the American part of the race has been told and retold in both scholarly and non-academic publications and in film documentaries both sophisticated and mundane, there is considerably more to be said about this subject. This is especially true because of the availability of new documentary materials—many of which had been highly classified as part of Cold War security concerns—coming from both the United States government and the archives of the former Soviet Union. This session explored how the lunar landing programs of both the United States and the Soviet Union reflected each other and to an extent that neither side recognized at the time were “mirror image twins” of the other. Each had similar priorities, approaches, technical capabilities, and timetables for their efforts, and each played off the other for support, resources, and ideas.

Society for History in the Federal Government Annual Meeting Session

At the annual meeting of the Society for History in the Federal Government on March 16, 2000, the History Division sponsored a session on “Science and Technology Investment and the

This session arose from the challenges presently being felt the science and technology arena as a result of reductions in government spending for S&T. Beginning with World War II, the Federal government began a significant expansion in the training of scientists and engineers, and acted as a catalyst for S&T development. In the process, the Federal government became the nation’s primary source of R&D investment. The Cold War provided a political catalyst that created a large infrastructure for basic research that remains a market advantage for the United States within the world economy. Yet future investment in R&D, including basic research, may actually decline in the future. Science and technology policy in the U.S. is once again at a crossroads. Accordingly, it is appropriate for historians to review what has gone before and to offer analyses that might be useful to decision-makers in determining future policy options.

This session included three papers that centered on major components of the S&T investment of the Federal government:

- “The NASA-Industry Cooperative Agreement as a Tool for Reusable Launcher Technology
Butrica, University of Maryland-College Park
- “Space Cadets, Governments, and Markets: Three Examples of Space Commercialization,”
David J. Whalen, Reston, VA
- “Documenting Technology Transfer at NIH,” Victoria A. Harden and Michele Lyons,
National Institutes of Health

Roger D. Launius, NASA Chief Historian and organizer of the session, chaired the session. About 30 people attended this session, held at the Library of Congress.

X-Vehicles Symposium

On June 16, 2000, the History Office co-sponsored a very interesting one day symposium on the various X-planes used for aerospace research. It was held at the Capitol Hill Club, Washington, D.C. Entitled “The X-Vehicles: Advancing the Limits of Technology,” it provided a venue for the aerospace industry and government agencies to exchange and disseminate information regarding past, current, and future experimental X-Vehicle programs. Focusing on the X-Vehicles’ role in the advancement of aerospace technology, the symposium consisted of four panel sessions. The first three sessions provided a historic background of past X-Vehicle research programs, as well as a review of the current aeronautical and astronautical platforms. The symposium culminated with a final session focused on the future of the X-Vehicle programs as forecasted by the leaders in NASA and the U.S. Air Force. The agenda included the following:

08:00–08:15 Introduction/Keynote Presentation
Kevin Peterson, Director, Dryden Flight Research Center

08:15–10:00 Panel #1: X-Vehicle Program Perspective and the Pioneers

Moderator: Roger Launius, NASA Chief Historian

Panelists:

- 1) Richard Hallion, Chief Historian U.S. Air Force
- 2) Johnny Armstrong, Deputy Director, Access to Space Office, Edwards AFB
- 3) Dale Reed, Former Program Manager, NASA Lifting Bodies

10:15–12:05 Panel #2: Aeronautical Vehicles

Moderator: Mr. Albert Piccirillo, ANSER Corporation

Panelists:

- 1) X-31, Michael Francis, Former Program Manager
- 1) 2) X-32, Frank Stratkus, Program Manager, The Boeing Company
- 2) X-35, Frank J. Cappuccio, Program Manager, Lockheed Martin Corporation

- 3) X-36, Laurence A. Walker, Test Pilot, The Boeing Company
- 4) X-43A, Vince Rausch, Hyper-X Project Manager, NASA Langley Research Center

12:05–13:20 Luncheon

13:20–15:00 Panel #3: Astronautical Vehicles

Moderator: Anthony Springer, NASA

Panelists:

- 1) X-33, Cleon Lacefield, Program Manager, Lockheed Martin Corporation
- 2) X-34, G. David Low, Program Manager, Orbital Sciences Corporation
- 3) X-37/X-40A, Dick Cervisi, Program Manager, The Boeing Company
- 4) X-38, John Muratore, Program Manager, NASA Johnson Space Center

15:20–17:00 Panel #4: The Vision of X-Vehicles

Moderator: Don Richardson, SAIC

Panelists:

- 1) Richard Christiansen, NASA
- 2) John London, NASA Pathfinder Program Office
- 3) Christine M. Anderson, Director Space Vehicles, AFRL
- 4) COL Gerald Hasen, Aeronautical Systems Sector Chief, Plans & Programs, AFRL
- 5) Brant Sponberg, Office of Management and Budget

17:00–17:30 Closing Remarks

BG Michael A. Hamel, Director of Requirements, USAF Space Command

The symposium was co-sponsored by NASA, USAF, and the American Institute of Aeronautics and Astronautics.

Support to National History Day:

National History Day is a highly regarded and academically challenging history program. This educational contest fosters academic achievement and intellectual growth. In addition to acquiring useful historical knowledge and perspective during the series of district, state and national competitions, students develop critical thinking and problem solving skills that will help them manage and use information now and in the future. During FY 2000 the theme was "Turning Points in History," and this prompted many students to focus on space exploration as a theme in their project.

During FY 2000 the NASA History Office provided information to National History Day participants through an extensive World Wide Web page, <http://history.nasa.gov>, with an average monthly hit rate of 100,000 users. The History Office also provided to NASA's Teacher Resource Centers package of historical publications and materials that were accessed by teachers around the nation. We also visited six schools in the Washington, D.C., metropolitan area and met with more than 400 students in various classes. We participated in a session at the

Organization of American Historians in which more than 100 high school teachers from around the country were in attendance discussing the History Day event. We also responded to more than 11,500 requests for information from all sources, more than 3,000 of these were from students working on History Day projects. The NASA Chief Historian visited high schools during trips to Missouri, California, Florida, Michigan, Illinois, and Massachusetts, contacting more than 2,000 students. In June 2001 NASA Chief Historian also served as a judge on the finals of National History Day at the University of Maryland where more than 1,000 students participated.

On June 14, 2000, the History Office co-sponsored with Code FE a spotlight on National History Day first place award winners. Seventeen middle and high school students showcased their award-winning National History Day projects, including "How Sputnik Launched the Internet" and "Mercury Program: Turning Point in U.S. Space Exploration." From over half a million students, the top 2,000 sixth- through twelfth-grade students were selected to represent their states this week in the 25th annual National History Day contest at the University of Maryland at College Park. These young historians brought with them the products of months of research: creative presentations in the form of dramatic performances, documentaries, exhibits and papers. Projects cover a range of topics, including the role of robotics in space and the Hubble Space Telescope. The students exhibiting at NASA were contest-winners at the state level. National History Day is a yearlong education program that brings the classroom into the community. The program mission is to promote the study of history by engaging students and teachers in the excitement of historical inquiry, community outreach and creative presentation. National History Day also provides educational services to students and teachers, including a summer internship program, curricular materials and Web resources, and annual teacher workshops and training institutes.

Support to Centennial of Flight Commission:

The History Division has been supporting extensively the activities of the Centennial of Flight Commission. NASA Chief Historian Roger D. Launius was asked by Gen. John R. Dailey, chair of the Commission to serve as co-chair of a "History and Education Panel." We have been assigned three major tasks that need to be worked promptly, to be reported on at the January 17, 2001 meeting of the Commission. These include:

1. Develop criteria for how events on the Commission's website calendar (located at <http://www.centennialofflight.gov>) should receive the endorsement of the Commission.
2. Develop criteria for the use of the Centennial of Flight Commission's logo on various products seeking the Commission's endorsement. These may include educational and historical publications, multimedia activities, and events, as well as commercial items.
3. Subject matter expertise on all manner of products being prepared for the Commission. These include a set of posters underway through Code FE, a major website with a timeline of the history of aeronautics, and brochures and exhibit content.

This has required considerable time on the part of Roger Launius thus far, and it is doubtful that it will abate anytime soon.

NASA Historical Publication Program:

A very important element of the NASA history program continued this last year with the preparation of solid, well-researched works on the history of the U.S. civil space program. During the year 2000 the NASA History Division published several major new books and other publications. These are shown in the list below:

Special Publications

- Rumerman, Judy A. Compiler. *NASA Historical Data Book, Volume VI: NASA Space Applications, Aeronautics and Space Research and Technology, Tracking and Data Acquisition/Space Operations, Commercial Programs, and Resources, 1979-1988* (NASA SP-2000-4012, March 2000).
- Tomayko, James E. *Computers Take Flight: A History of NASA's Pioneering Digital Fly-by-Wire Project*. (NASA SP-2000-4224, April 2000).
- Gawdiak, Ihor Y., and Shetland, Charles. Compilers. *Astronautics and Aeronautics, 1991-1995: Chronology of Science, Technology, and Policy*. (NASA SP-2000-4028, July 2000).
- Siddiqi, Asif A. *Challenge to Apollo: The Soviet Union and the Space Race, 1945-1974*. (NASA SP-2000-4408, August 2000).
- Bugos, Glenn E. *Atmosphere of Freedom: Sixty Years at NASA Ames Research Center*. (NASA SP-2000-4314, September 2000).
- Orloff, Richard G. Compiler. *Apollo by the Numbers: A Statistical Reference*. (NASA SP-2000-4029, December 2000).

Monographs in Aerospace History

- Maisel, Martin D.; Demo J. Giulianetti; and Daniel C. Dugan. *The History of the XV-15 Tilt Rotor Research Aircraft: From Concept to Flight*. (Monographs in Aerospace History #17, NASA SP-2000-4517, February 2000).
- Jenkins, Dennis R. *Hypersonics Before the Shuttle: A Concise History of the X-15 Research Airplane*. (Monographs in Aerospace History #18, NASA SP-2000-4518, May 1999).
- Chambers, Joseph R. *Partners in Freedom: Contributions of the Langley Research Center to U.S. Military Aircraft in the 1990s*. (Monographs in Aerospace History #19, NASA SP-2000-4519, September 2000).
- Waltman, Gene L. *Black Magic and Gremlins: Analog Flight Simulations at NASA's Flight Research Center*. (NASA SP-2000-4520, November 2000).

Other Publications

- Rumerman, Judy A., and Stephen E. Garber. Compilers. *A Chronology of Space Shuttle*

Flights, 1981-2000. (NASA HHR-70, October 2000).

NASA History Division Books from Other Publishers

- Kraemer, Robert S. *Beyond the Moon: A Golden Age of Planetary Exploration, 1971-1978.* (Smithsonian Institution Press, October 2000).
- Launius, Roger D., John M. Logsdon, and Robert W. Smith. Editors. *Reconsidering Sputnik: Forty Years Since the Soviet Satellite.* (Harwood Academic Publishers, October 2000).
- Burrows, William E. *The Infinite Journey: Eyewitness Accounts of NASA and the Age of Space.* (Discovery Publishing, October 2000).

NASA History in the News

Power to Explore: A History of the Marshall Space Flight Center

We are pleased to announce that Andrew J. Dunar and Stephen P. Waring, *Power to Explore: A History of the Marshall Space Flight Center* (NASA SP-4313, 1999), has been awarded the American Institute of Aeronautics and Astronautics (AIAA) 2001 History Book Award. This award will be presented in Reno, NV during January 2001. Our congratulations to the authors for this well-deserved award.

This work analyzes thirty years of history at Marshall from its origins as an Army center where Wernher von Braun presided over the development of the Redstone IRBM through the Saturn rocket development era to its present multifaceted role as the center for excellence in space transportation systems and microgravity research. It traces the evolution of the institution from its origins as an Army missile development organization to its status in 1990 as one of the most diversified of NASA's field Centers.

Among the many insightful sections of this book, the two chapters on the Challenger accident—one on the accident and investigation and another on the recovery—are among the best ever to appear. They discuss at length the evidence to conclude that the Challenger accident had more to do with NASA's organizational patterns and technological decisions that made sense at the time they were enacted—mostly in the austere period of the early 1970s—but that in retrospect turned out to be faulty. Detailed analysis of both documentary evidence and testimony showed that.

They also show that engineers involved in the O-ring question were convinced that the joints were safe, and that there were numerous other problems—especially with the Shuttle main engines—that consumed most of the MSFC propulsion team's attention. Most importantly, there had been little engineering data at the time of the accident to support a correlation between O-ring anomalies and low temperatures. The fact that the seals had always done their jobs before contributed to a sense that they would not cause a major accident.

The authors appropriately discuss how the catastrophic failure was a total shock to the MSFC staff, made all the more painful by their perception that the Rogers Commission had used

the center as a scapegoat to deflect blame away from political leaders in Washington. The authors make a very sophisticated case about this, and then follow it with a fine discussion of activities at MSFC to return to flight.

Challenge to Apollo: The Soviet Race to the Moon, 1945-1974

We are very pleased to note the overwhelmingly warm reception for *Challenge to Apollo: The Soviet Race to the Moon, 1945-1974* (NASA SP-2000-4408), a seminal book appearing in the NASA History Series by Asif A. Siddiqi. A result of 16 years of intense research, *Challenge to Apollo* was described by Glen E. Swanson (NASA JSC Historian) as "The definitive Western record of the Soviet space program." Siddiqi's masterpiece has received rave reviews, praised as "Absolutely mandatory on the bookshelf of anyone interested in space, no matter what the cost" (Mark Wade, Encyclopedia Astronautica), "A major, major addition to our understanding of the former USSR" (Steven Zaloga, Target America: The Soviet Union and the Strategic Arms Race, 1945-1964) and "A must read for all history buffs" (James E. Oberg, *Red Star in Orbit*).

"Before This Decade Is Out...": Personal Reflections on the Apollo Program

We are also pleased to announce that JSC historian Glen E. Swanson, editor of "*Before This Decade Is Out...": Personal Reflections on the Apollo Program* (NASA SP-4223, 1999), received the Pendleton Prize by the Society for History in the Federal Government. This annual award is given for an outstanding major publication on the Federal Government's history produced by or for a Federal history program. The Pendleton Prize commemorates Ohio Senator George H. Pendleton, sponsor of the 1883 civil service reform act that bears his name. Kudos to Glen for assembling this fine collection of oral histories.

NASA History Web Site:

For the last seven years the NASA History Division has been working to place as much information as possible on-line in an easy to navigate World Wide Web site that will be useful to all. During 2000 the following materials were placed on-line:

- *Project Mercury: A Chronology* (NASA SP-4001, 1963) by James M. Grimwood is now on-line at <http://history.nasa.gov/SP-4001/cover.htm> on the Web. We extend a very special thanks to volunteer Malcolm Munro for scanning and formatting this book for the Web.
- For increased ease of Web navigation, the NASA History Office has added a useful and attractive site map at the top level of our Web site. It is accessible directly at <http://history.nasa.gov/site.html> and from our main page as a new hot-linked tab. There are now four different ways to search for information specifically on our NASA History Web site: the A-Z topical index, keyword search, major subject search, and now the site map.
- *Touchdown: The Development of Propulsion Controlled Aircraft at NASA Dryden* by Tom Tucker is now available at <http://www.dfrc.nasa.gov/History/Publications/PCA/> on the Web. This monograph tells the story of how a NASA-industry team led by Frank W. Burcham and C. Gordon Fullerton from NASA's Dryden Flight Research Center developed a way to land

an aircraft safely using only engine thrust to control the airplane. This computerized Propulsion Controlled Aircraft technology offers a viable way to land an airplane when the hydraulic flight controls have become inoperative, as has happened on numerous occasions in the past.

- The Apollo Soyuz Test Project Web site is on-line at <http://history.nasa.gov/astp/index.html> thanks to Amanda and graphics designer Les Lien.
- *Project Gemini Technology and Operations: A Chronology* (NASA SP-4002, 1969) is on-line at <http://history.nasa.gov/SP-4002/cover.htm> thanks to Web volunteer Malcolm Munro.
- *Computers Take Flight: A History of NASA's Pioneering Digital Fly-By-Wire Project* (NASA SP-4224, 2000) is on-line at <http://www.dfrc.nasa.gov/History/Publications/f8ctf/> thanks to Dill Hunley.
- *Women in Flight Research at NASA Dryden Flight Research Center from 1946 to 1995* (Monograph in Aerospace History, No. 6, 1997) is on-line at <http://www.dfrc.nasa.gov/History/Publications/WIFR/> thanks to Dill Hunley.
- *A History of Suction-Type Laminar-Flow Control with Emphasis on Flight Research* (Monograph in Aerospace History, No. 13, 1999) is on-line at <http://www.dfrc.nasa.gov/History/Publications/LFC/> thanks to Dill Hunley.
- We are pleased to announce that *The Martian Landscape* (NASA SP-425, 1978) and *Viking Orbiter Views of Mars* (NASA SP-441, 1980) are now available on-line at <http://history.nasa.gov/SP-425/cover.htm> and <http://history.nasa.gov/SP-441/cover.htm> on the Web. These two excellent "coffee table books" are recommended for all fans of Martian exploration. Very special thanks to volunteer Chris Gamble, who expertly scanned and formatted these publications for the Web.
- We are pleased to announce the addition of three new policy documents to the NASA History Web site. The full Augustine Commission Report is now available at <http://history.nasa.gov/augustine/racful1.htm>, President Reagan's remarks on the Space Station from his State of the Union message on January 25, 1984 are available at <http://history.nasa.gov/reagan84.htm>, and President Nixon's January 5, 1972 announcement on the development of the Space Shuttle is available at <http://history.nasa.gov/stsnixon.htm> on the Web. All of these documents are also available from <http://history.nasa.gov/spdocs.html> on the Web. Our special thanks to Marcus Lindroos, who formatted these documents.
- We have placed on the NASA History Web Page the history of the NASA logo, known to all inside the agency as the "Meatball." We have replicated this site from a similar one located at the Glenn Research Center, where the logo was designed by James Modarelli in 1959. He had been asked by the executive secretary of the National Advisory Committee for Aeronautics (NACA), NASA predecessor agency, to design a logo that could be used to represent the new agency. Mr. Modarelli simplified a more formal NASA seal, used exclusively by the Administrator, leaving only the white stars and orbital path on a round field of blue with a red airfoil. Then he added white N-A-S-A lettering. You may find this information, as well as a link to the NASA logo usage guidelines, at

<http://history.nasa.gov/meatball.htm> on the Web.

- In 1993 NASA published a history of the Johnson Space Center entitled, "*Suddenly, Tomorrow Came...*" (NASA SP-4307), by Henry C. Dethloff. It is now available on-line through the JSC public homepage. The URL for this publication is: <http://www.jsc.nasa.gov/pao/public/history/tomorrow/index.html> The book can be downloaded as searchable PDF files by chapters.
- We also uploaded a complete Web version of SP-4209, the ASTP history, with all the photos, charts, and a special index that refers to the original printed pages in html form (you might want to take a quick look at this to understand), courtesy of Chris Gamble. It is located at: <http://www.hq.nasa.gov/office/pao/History/SP-4209/cover.htm> on the Web.
- *Toward Mach 2: The Douglas D-558 Program* (SP-2000-4222, 2000) was placed on-line at <http://www.dfrc.nasa.gov/History/Publications/D-558> on the Web. This book features the transcript of presentations at a conference honoring the remarkable contributions that the D-559-1 Skystreak and D-558-2 Skyrocket made in the area of transonic research in the 1940s. Thanks go to Monroe Conner and Dill Hunley at Dryden Flight Research Center, who were responsible for posting it to the Web.
- We updated our Web page on Mars exploration during the month. The URL for the Mars exploration chronology is: <http://history.nasa.gov/marschro.htm> on the Web.
- We are pleased to announce that an on-line version of *Introduction to the Aerodynamics of Flight* (NASA SP-367, 1975) is now available at <http://history.nasa.gov/SP-367/cover367.htm> on the Web. While not in the formal NASA History Series, this book by Theodore A. Talay of Langley Research Center is an excellent primer on aerodynamics that includes many useful diagrams and drawings. very special thanks goes to Chris Gamble, who scanned this publication and set up all the jpg and html files for Web viewing.
- We are pleased to announce a new site devoted to the X-15 research aircraft at <http://history.nasa.gov/x15/cover.html> on the Web. This joint program by NASA, the Air Force, the Navy, and North American operated a most remarkable rocket research aircraft. The X-15 had its first, unpowered glide flight on June 8, 1959, while the first powered flight took place on September 17, 1959. Air launched from a B-52 aircraft, the X-15 set a number of speed and altitude records before its final flight on October 24, 1968. The highly successful program helped researchers design the spacecraft for all of NASA's human missions. This site includes a chronology, biographies, bibliography, and links to other Web sites on the X-15. Our special thanks go to Hans-Peter Engel for designing this useful site, as well as formatting other publications on the X-15 for the Web.
- We are also pleased to announce a major updating of the Apollo 15 Flight Journal. Our thanks go out to David Woods and Frank O'Brien who developed and maintain this site at <http://history.nasa.gov/ap15fj/> on the Web.

Historical Publications Nearing Publication:

Also during the year, NASA historians worked toward the publication of several other

histories on a wide diversity of subjects. Here is a list of major projects presently nearing completion, along with projected publication dates. The dates of publication, of course, may slip due to the exigencies of funding.

- Portree, David S.F. *Humans to Mars: Fifty Years of Mission Planning, 1950-2000* (NASA SP-2001-4521, 2001): This will be a study providing an overview of the history of the various plans developed since the dawn of the Space Age for the human exploration of Mars. Each type of mission will be categorized, its originators noted, its main elements detailed, and its legacy traced in the development of subsequent mission elements.
- Swanson, Glen E. Compiler. *Mercury, Gemini, and Apollo Mission Transcripts: The Complete Air-to-Ground Transmissions* (NASA SP-2001-4602, 2001): This CD-ROM will capture in .pdf format all of the voice transmission recordings between Mission Control and the Mercury, Gemini, and Apollo missions in space.
- Logsdon, John M. General Editor. *Exploring the Unknown: Selected Documents in the History of the U.S. Civil Space Program, Volume V, Exploring the Cosmos* (NASA SP-2001-4407, 2001): This work will consist of about 150 key documents relating to the space age grouped by topic and arranged chronologically. Introductions to major sections and headnotes for each document will place the primary source material in context.
- Siddiqi, Asif A. *Robotic Exploration Missions to the Planets* (NASA SP-2001-4520, 2001): This will be a study providing an overview of the missions conducted by the United States, the Soviet Union/Russia, and the other space faring nations of the world to the planets of the Solar System.
- Launius, Roger D., and McCurdy, Howard E. *Conquest of Space: The Last Fifty Years, The Next Fifty Years* (Chronicle Books, 2001): In 1949 Willy Ley wrote the classic work, *The Conquest of Space*, describing what he thought would happen in the next fifty years in space exploration, based upon what had already taken place up to that time. This book, in some respects, will be a continuation of that earlier effort. The first part of it will focus on the predictions made about space exploration over the last fifty years and will analyze what was predicted and achieved, what was achieved but not predicted, and what was predicted but not achieved.
- Matranga, Gene J.; Jarvis, Calvin R.; and Ottinger, C. Wayne; with Lister. Darlene. *History of the Lunar Landing Research Vehicle* (NASA SP-2001-4228, 2001): This work covers the development and flight research of the LLRVs with coverage of the LLTVs and the use of the two LLRVs in a training mode. It will also cover the contributions of the LLRVs to the Lunar Module.
- *Aeronautics and Space Report of the President, Fiscal Year 1999 Activities* (NASA Annual Report, 2001).
- *Aeronautics and Space Report of the President, Fiscal Year 2000 Activities*. (NASA Annual Report, 2001).

Professional Activities:

Members of the History Division staff were involved at several levels in professional activities germane to aerospace history during 2000. The first area was as co-organizers of various professional conferences or symposia. Second, Dr. Roger D. Launius and Stephen J. Garber each participated in conferences and symposia during the year, giving papers and participating in panels. Several staff members also published historical books, articles, and book reviews during the year. Here is a list of NASA History Division public presentations at conferences and other gatherings:

Presentation	Presenter
1/10-13 — “Planes, Trains and Automobiles: Choosing Transportation Modes in the Twentieth Century,” presentation at 38 th Aerospace Sciences Meeting and Exhibit, Reno, NV	Roger Launius
1/19 – National History Day Presentation, Buzz Aldrin Elementary School	Roger Launius
1/25 – “DNA Computing: The Future of Computing?” presentation at the Nanospace Technology 2000 conference, Houston, TX, January 2000	Steve Garber
2/14 – National History Day Presentation, Ann Arundel High School	Roger Launius
2/18 – “Documenting the Space Race: NASA’s History and Electronic Document Programs,” presentation at SHFG Professional Development Seminar, The Pentagon1E801, Room 1, Washington, DC	Roger Launius
2/22 – National History Day Presentation, Crofton Middle School	Roger Launius
2/29 – “The Power of Apollo in the American Consciousness” presentation in Session 26—Space Resources, Economics and History at Space 2000	Roger Launius
3/2 – “Project Apollo in American Memory and Myth,” presentation in Session 63 Plenary—Space History and Law at Space 2000	Roger Launius
3/10 – “Project Apollo in American Memory and Myth,” presentation at Carnegie Mellon University, Pittsburgh, PA	Roger Launius
3/12 – “NASA History on the Lighter Side,” presentation at Port Discovery, Inner Harbor, Baltimore, MD	Roger Launius
3/13 – National History Day Presentation, Annapolis Middle School	Roger Launius
3/16 – “Science and Technology Investment and the Federal Government,” Session at Society for History in the Federal Government Annual Meeting, Jefferson Building, Library of Congress, Washington, D.C.	Roger Launius
3/17 – On-camera interview with Greg Clark, The Learning Channel, for 1 hour documentary on the Space Shuttle for “The	Roger Launius
3/28 – National History Day Presentation, Bridgeton Junior High, Bridgeton, MO	Roger Launius

3/29 – National History Day Presentation, Belleville East High School, Belleville, IL	Roger Launius
3/31 – “NASA Looks to the East: Soviet Intelligence Estimates and the Race to the Moon,” presentation at Organization of American Historians/National Council on Public History Annual Meeting, St. Louis, MO	Roger Launius
4/4 – National History Day Presentation, Dunbar High School	Roger Launius
4/5 – “NASA and Space Access,” presentation at “Space Exploration Seminar,” American University, Washington, DC	Roger Launius
4/5 – “NASA History on the Lighter Side,” presentation at “Wings and Rockets” Speaking Series, Camden County College, Blakewood, NJ	Roger Launius
4/26 – National History Day Presentation, Tropical Elementary School, Merritt Island, FL	Roger Launius
6/16 – Chair, “X-Planes History” Session at X-Vehicles Symposium, Capitol Hill Club, Washington, DC	Roger Launius
6/20 – “NASA History on the Lighter Side,” presentation at NASA Procurement Interns Orientation, Kennedy Space Center	Roger Launius
6/22 – “One Hundred Years of Flight: What the Past May Tell Us About the Future,” presentation to AIAA Orlando Section, Orlando, FL	Roger Launius
7/17-19 – “Between a Rocket and a Hard Place: Legacies and Lessons from Past Launch Vehicle Development Efforts” presentation in Lessons Learned Session of the 36th AIAA Joint Propulsion Conference, Huntsville, AL, sponsored by AIAA Solid Rocket Technical Committee (SRTC)	Roger Launius
7/17-19 – “One Hundred Years of Flight: What the Past May Tell Us About the Future,” presentation in History Session of the 36th AIAA Joint Propulsion Conference, Huntsville, AL, sponsored by AIAA History Technical Committee (SRTC)	Roger Launius
7/23-26 – Oral Histories with Bumper WAC veterans on 50 th anniversary of the first launch from the Cape at Kennedy Space Center	Roger Launius
9/14 – On-camera interview with Zig Zag Productions, Discovery Channel, for 1 hour documentary on Project Apollo, Washington, DC	Roger Launius
9/14 – Earth Awareness 2000 Reception and Presentation, National Air and Space Museum, Washington, DC	Roger Launius
9/19-21 – Chair, “The Military in Space” history session, AIAA Space 2000 Conference, Long Beach, CA	Roger Launius
9/24-25 – Bumper Project Oral Histories, Melbourne, FL	Roger Launius

9/26 – “Historical Introduction” for Eldon Hall, “The Apollo Guidance Computer: A Designer’s View,” at 3 rd Annual Military and Aerospace Applications of Programmable Devices and Technologies International Conference, Applied Physics Laboratory, Johns Hopkins University, Laurel, MD	Roger Launius
9/27 – “Project Apollo in American Memory and Myth,” presentation at Rutgers University, Piscataway, NJ	Roger Launius
10/2-3 – “NASA: Is It Worth It?” on-camera television production of the University of Massachusetts School of Law, Boston, MA	Roger Launius
10/3 – National History Day Presentation, Central Middle School, Quincy, MA	Roger Launius
10/18 – “The Problem of Space Access for the Twenty-first Century,” presentation at American University, Washington, DC	Roger Launius
10/26 – “NASA History on the Lighter Side,” presentation at Florida Institute of Technology, Melbourne, FL	Roger Launius
10/31 – Radio interview with GG, Ironwood Radio Station, Ironwood, MI	Roger Launius
10/31 – National History Day Presentation, Hurley High School, Hurley, WI	Roger Launius
10/31 – “Project Apollo in Myth and Memory,” presentation at Hurley High School, Hurley, WI	Roger Launius
10/31 – “The International Space Station,” presentation at Ironwood High School, Ironwood, MI	Roger Launius
10/31 – National History Day Presentation, Ironwood High School, Ironwood, MI	Roger Launius
11/1 – “NASA History on the Lighter Side,” presentation at Gogebic College, Ironwood, MI, along with two open forums on space history	Roger Launius
11/16 – AAS History Committee-NASA History Division sponsored roundtable on the history of human spaceflight, MCC, Johnson Space Center, Houston, TX	Roger Launius Steve Garber Nadine Andreassen

Personnel Issues:

In Memoriam

Mack R. Herring, a longtime Stennis Space Center employee, passed away on August 16, 2000. The first person hired to work at Stennis, Mack worked in the public affairs and history offices there for a number of years. A gregarious man who seemed to know everyone at Stennis, he also wrote *Way Station to Space: A History of the John C. Stennis Space Center* (NASA SP-4310, 1997). In his dedication to this book, Mack acknowledged the love and support of his family, and his many friends and colleagues at Stennis. About them, he wrote, "I had the honor of sharing a common dream and the history of our part of America's adventure in space." Brian Welch, NASA

Director of Media Services, said of him, "Mack was a genuine character—part poet, part historian, part riverboat gambler, and full of great stories about the early days of the space program. Mack was a warm, colorful, and genteel person who will be missed."

Awards

We are pleased to announce that Jane Odom, the archivist in the NASA History Division, received the prestigious Headquarters Honor Award in October 2000. She received the award for her yeoman efforts to manage the many archival projects under way in the History Division.

Two volunteers who assist the NASA History Division's Web efforts also received Headquarters Honor Awards. Eric Jones, who coordinates a team of other volunteers from his home in Australia, is the author and editor of the Apollo Lunar Surface Journal, on-line at <http://history.nasa.gov/alsj/> on the Web. Chris Gamble, a volunteer who lives in Switzerland, has scanned and formatted in html over 20 full-length books, most out-of-print and with illustrations, for the NASA History Web site. We tip our hats to Eric and Chris - we could not do what we do on the Web without their tremendous dedication and long hours of volunteer work.

Thanks to NASA History Division Volunteers

Our special thanks to interns Amanda Mellies and Regan Newport for all their help in 2000. We also thank Eric Jones, who continues to oversee the extensive "Apollo Lunar Surface Journal," as well as David Woods and Frank O'Brien, the authors of the Apollo 15 Flight Journal. Our thanks also to the following volunteers who prepared other historical information for the World Wide Web, especially Chris Gamble, who has formatted several books; H.P. Engel, who prepared a number of documents relating to the X-15; Kipp Teague who has scanned numerous photographs and diagrams. Our thanks to all these volunteers.

Roger D. Launius
NASA Chief Historian
February 2, 2001