

# **NASA HISTORY: CALENDAR YEAR 2003 IN REVIEW**

## **Introduction**

During 2003 the efforts of the NASA History Office continued to focus on its core goals of conducting a high quality, academically sound program of research pertinent to NASA leadership's concerns; effectively acquiring, preserving, and making available documentary information in the NASA Historical Reference Collection; and disseminating historical information and understanding to the widest practicable audience. In accomplishing this mission the NASA History Office pursues multiple objectives:

1. Conduct an active, high-quality history publication program.
2. Provide prompt and accurate responses to all requestors of NASA historical information.
3. Aggressively disseminate historical information and understanding to the broadest possible audience.
4. Facilitate scholarly research on NASA's historical achievements by academic experts outside NASA, to enhance understanding of this key aspect of U.S. history.
5. Comply with legislation requiring NASA to prepare the multi-agency, consolidated report summarizing the Government's aeronautics and space activities for the year.
6. Focus on applied historical research efforts of interest and use to NASA executive leadership.
7. Aggressively acquire, preserve, and make available documentary information in the NASA Historical Reference Collection.
8. Use technology to collect, preserve, and disseminate NASA history.
9. Achieve agency-wide involvement in the preservation and dissemination of history.

## **I. NASA Historical Publication Program**

An important element of the NASA history program continued with the preparation of solid, well-researched works on the history of the U.S. civil space program.

### **NASA Special Publications**

Anderson, Seth B. *Memoirs of an Aeronautical Engineer: Flight Tests at Ames Research Center, 1940-1970* (NASA SP-2003-4526).

Chambers, Joseph R. *Concept to Reality: Contributions of the Langley Research Center to the U.S. Civil Aircraft of the 1990s* (NASA SP-2002-4529, 2002).

Garber, Stephen J. *Looking Backward, Looking Forward: Forty Years of U.S. Human Spaceflight Symposium* (NASA SP-2002-4107).

Jenkins, Dennis and Tony Landis, and Jay Miller. *American X-Vehicles: An Inventory- X-1 to X-50* (NASA SP-2003-4531).

Peebles, Curtis. *The Spoken Word: Recollections of Dryden History, The Early Years* (NASA SP-2003-4530).

Springer, Tony. *Celebrating a Century of Flight* (NASA SP-2002-09-511-HQ).

### **NASA History Office Books from Other Publishers**

Bilstein, Roger E. *Testing Aircraft, Exploring Space: An Illustrated History of NACA and NASA* (Baltimore: Johns Hopkins New Series in NASA History, 2003).

Jenkins, Dennis R., and Roger D. Launius. *To Reach The High Frontier: A History of U.S. Launch Vehicles* (Lexington: The University Press of Kentucky, 2002).

Lambright, W. Henry. *Space Policy in the 21st Century* (Baltimore: Johns Hopkins New Series in NASA History, 2002).

### **Other Publications**

*Thinking About NASA History* (Folder, 2003)

### **Nearing Publication**

NASA historians worked toward the publication of several other histories on a wide diversity of subjects, including those below.

Bowles, Mark. *NASA's Nuclear Frontier: the Plum Brook Research Reactor* (NASA SP-2003-4532). This will be a short, heavily illustrated monograph about this unique Glenn Research Center facility. It is scheduled to appear in April 2004.

Dawson, Virginia P., and Mark D. Bowles, *Taming Liquid Hydrogen: the Centaur Upper Stage Rocket, 1958-2002* (NASA SP-2003-4230, 2003): This project history uses the Centaur as a case study in how technological knowledge has been advanced, over the history of NASA, discussing the nature and development of technological R&D, and analyzing the role of technology transfer in the aerospace arena. This particular book also features an accompanying CD, full of interesting and relevant media on the Centaur. This book should be published in April 2004.

Logsdon, John M. General Editor. *Exploring the Unknown: Selected Documents in the History of the U.S. Civil Space Program, Volume VI, Exploring the Sun and Earth* (NASA SP-2003-4407, 2003). This sixth volume in the space history documentary series is scheduled to appear in April 2004.

## **NASA History Award Winners**

*Expanding the Envelope: Flight Research at NACA and NASA* by Michael H. Gorn, won the American Institute of Aeronautics and Astronautics (AIAA) 2004 Gardner-Lasser Aerospace History Literature Award. The book, published in 2001 by the University Press of Kentucky, explores flight from kite and glider experiments to present day aeronautical research. Information on purchasing the book is located at: [http://www.kentuckypress.com/viewbook.cfm?Category\\_ID=12&Group=17&ID=1004](http://www.kentuckypress.com/viewbook.cfm?Category_ID=12&Group=17&ID=1004) on the Web. The Gardner-Lasser award is presented annually by the AIAA for the best original contribution to the field of aeronautical or astronautical non-fiction historical literature published in the last five years that deals with the science, technology or impact of aeronautics and astronautics on society.

Two NASA History projects are co-winners of the American Institute for Astronautics and Aeronautics (AIAA) History Manuscript award for 2004. Erik M. Conway's *High Speed Dreams: A History of NASA's Supersonic Transport* is a comprehensive history of NASA's supersonic commercial aircraft program. This history documents the programmatic, institutional and technological history of NASA's research related to commercial high-speed research which has been done over the past four decades. It is in process to be published in the Johns Hopkins University New Series in NASA History.

Virginia P. Dawson and Mark D. Bowles' *Taming Liquid Hydrogen: the Centaur Upper Stage Rocket, 1958-2002* is the other co-winner. This project history on the Centaur uses it as a case study in how technological knowledge has been advanced, discussing the nature and development of technological R&D, and analyzing the role of technology transfer in the aerospace arena. It will be published in the spring of 2004 in the NASA History Series and include a CD-ROM with movies, images, and supporting information.

## II. Reference Collection and Research Support

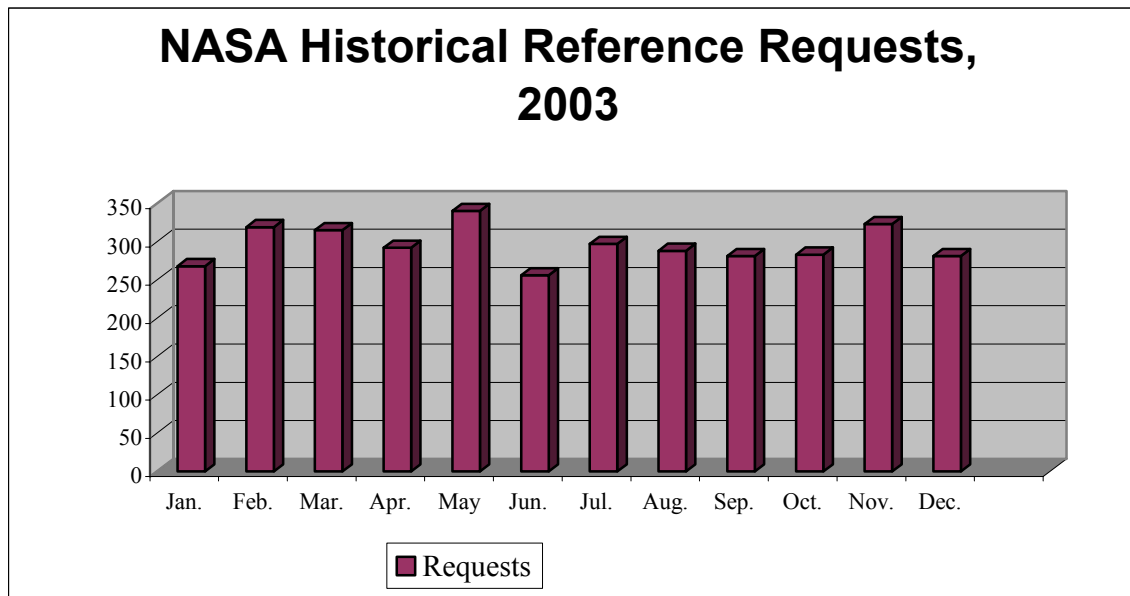
### Information Requests

During calendar year 2003 NASA History Office personnel answered a total number of 3,543 research requests from government, educational, and private organizations on all manner of divergent research interests. Also during the year, the History Office provided research services to approximately 374 on-site researchers using its collections. Table 1 displays the number of information requests handled by NASA history personnel during calendar year 2003.

With the advance of e-mail technology, querying the History Office has become easier than ever, and such queries represent a growing workload that must be met. 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 Office has been able to reduce the amount of time given to each information request through greater efficiency, the annual workload for information requests requires more than two full-time equivalent personnel. Since the History Office 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.

TABLE 1



## Research Visits

Beyond headquarters staff, the History Office hosted researchers from Glenn Research Center, Marshall Space Flight Center, Ames Research Center, Johnson Space Center, Langley Research Center, and the Return to Flight Task Group. We had local visitors from Air and Space Magazine, UPI News Syndicate, Library of Congress, National Air and Space Museum, National Research Council, State Department, National Archives, Center for Naval Analysis, Unisys Corporation, American University, The George Washington University, and University of Maryland. Our out of town visitors came from Harvard, University of Pennsylvania, Auburn, Yale, Syracuse, University of North Florida, MIT, Kansas State University, University of Massachusetts, Barnard College, Florida International University, LeMoyne College, Lockheed Martin, History Associates, Inc., and Rand Corporation. Our foreign national visitors came from The University of Tsukuba in Japan, CG Publishing Inc. in Ontario, Canada, Le Monde newspaper in Paris, France, and the Caritas Association of the Archdiocese of Cologne, Germany.

## Acquisitions

The NASA History Office staff received approximately 57 boxes of material from various sources during 2003. Archivists appraised the material for historical value and arranged and filed those items that were retained.

- 2 large 3-ring binders, one documenting the relationship between JPL, Caltech, USAF, and NASA, 1978-82; another the Human Subject Radiation Experimentation Review Briefing Book, Jul. 1994, from Code G.
- 2 cubic feet of Chron files, 1995-2000, of Peggy Wilhide and Laurie Boeder, and Weekly Reports, 1994-1997, from Code P.
- 5 cubic feet of Chron files, reports, and other documents, ca. 1993-99 from Code M.
- 10 VHS tapes from NASA TV on the Columbia Shuttle tragedy, including recordings of the memorial services and accident briefings.
- 1 large folder of trip reports compiled when NASA was seeking international views on potential cooperation in the space exploration or human exploration initiative in 1989, from Lynn Cline.
- 4 cubic feet of info on Space Agency Forum on International Space Year, SEI International Cooperation, and UN/COPUOS Briefing Books from Lynn Cline.
- 5 videotapes on space exploration from Code M.
- A dozen videotapes on Shuttle press activities at KSC and a transcript of Admiral

Gehman's testimony before the House Science Committee, from Debbie Rahn.

- 4 cubic feet of subject files on Spacehab and Shuttle, ca. 1975-94, from Code U.
- 24 VHS tapes of CAIB press conferences, briefings, and other activities; Stafford Covey briefing; and the Administrator's briefings, press conferences, and congressional testimony, from NASA TV
- 10 cubic feet of aeronautical materials and training documents from Emory Riddle University in Florida.
- .5 cubic feet of Annual and Semi-Annual Reports of the IG, 1978-2003; and annual plans, strategic plans, and performance plans of the IG, various years, donated by the Inspector General's Office.
- 6 cubic feet of material on space shuttle from Code M.
- 10 interviews conducted for the forthcoming History of Atmospheric Sciences book from contract Historian Erik Conway.
- An interview with NAC member Charles Kennel, former HQ official Wes Huntress, Ames biologist Bonnie Dalton, and various individuals from the Columbia Recovery Project, from JSC Oral Historian Rebecca Wright.
- A variety of VHS tapes from NASA TV: NASA's 45<sup>th</sup> Anniversary, NASA Update with Sean O'Keefe and Gene Krantz, NBC Nightly News segment on Barbara Morgan, "One NASA Leader-Led Workshop" held at NASA HQ, and "Similarities and Differences in the Creation of Two Executive Branch Departments: NASA and Homeland Security," by Jim Leusner and Paul Dembling,"
- 5 cubic feet of Chron Files, 1992-97, from Code U
- 2 cubic feet of NACA Reunion Files, 1986-2003, from Reunion Committee member Dick Geye.
- 1 cubic foot of early Russian Space history documents from H. Ross Perot.
- 1 cubic foot of files on mars Sample Return and Search for Extraterrestrial Life, 1992-2001, from Steve Dick.

### **Other Processing Activities**

During 2003 the History Office staff were busy processing (arranging, describing, cataloging) a number of collections, some from our backlog, others that were received recently. These included:

- The White House Collection
- Propulsion Files
- HQ and Center newsletters and press releases
- Files of the Task Force on the Scientific Uses of the Space Station, ca. 1982-87
- Files on Space Station, ca. 1993-97
- Code M Advanced Programs files
- Code A chronological correspondence files
- Roger Launius History Collection

In total, the History Office staff processed 64 cubic feet of files, making these materials more accessible to our visitors. Since work is ongoing on the White House Collection and Code M files those processing statistics are not included here.

### **Preservation**

On July 31 we discovered a significant water leak in our office. A clogged AC drain line in the ceiling caused the leak, and water leaked into one of the Lektriever file cabinets. The water affected approximately 22 file drawers of material containing textual materials and photographs. The materials damaged included Administrator/Deputy Administrator files, files on HQ and the Field Centers, files on aeronautical and astronautical societies, and the oversize newspaper collection.

The damaged materials were placed in front of an industrial fan to dry, thus minimizing our losses. A few photos stuck together and a glossy report had pages that stuck together, but it was salvaged. Boston Properties promptly repaired the air conditioning system.

### **NASA History Office Online Catalog (Database)**

The current database began operating in May 1998 and has begun to alleviate the press of space in the NASA History Office as we image and store electronically discreet parts of the NASA Historical Reference Collection. Planning began the previous year on a long-term effort to scan and create in an electronic format a database of historically significant, one-of-a-kind documents from a paper collection maintained 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 Office 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 (online or on CD-ROM) several major collections as candidates for placement in electronic form. Some of the significant scanning efforts the NASA History Office has completed to date include:

- 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 the originals have now been transferred to the National Archives. The electronic version is available for research through the History Office Online Catalog.
- NASA Human Space flight "Air-to-Ground" Mission Transcripts, 1961-72, 12 cubic feet. A CD-ROM has recently been prepared that contains electronic versions of the Mercury/Gemini/Apollo transcripts.
- Selected NASA Oral Histories, 1951-97. The electronic version is available for research through the History Office Online Catalog.
- NASA Political Cartoon Collection, 1957-2000. Originals have been retired to the National Archives. The electronic version is available for research through the History Office Online Catalog.
- Administrator Goldin's Speeches, 1989-2001, 15 cubic feet. Originals are part of the Administrator's Collection that will go to National Archives. Electronic versions are available for research through the History Office Online Catalog and on CD.
- Code I Chronological Files, 1994-97, 4 cubic feet. The electronic version is available for research through the History Office Online Catalog.
- HQ and Center Telephone Directories, 1958-2002, 10 cubic feet. The electronic version is available for research through the History Office Online Catalog.
- Code Q Aerospace Safety Advisory Panel reports, 1971-2002, 2 cubic feet. These are available in-house through our database and on Code Q's web site with a link from our history web site.
- Headquarters Press Releases, 1958-61, 1977-2002, 6 cubic feet. Note: History Office copies of releases for 1962-76 are microforms and therefore were not candidates for scanning.
- Headquarters and Center Newsletters, 1960-2002.

At the end of 2003, the NASA History Office has underway the following scanning efforts:

- Administrators' Chronological Correspondence Files, 1978-99, 19 cubic feet. The files from 1962-77 will be maintained in hardcopy form since they did not lend themselves well to scanning.

More specifically, during this year we scanned and checked into the DMS 54,551 items, creating 491 cataloging records describing these documents. Just over 640 database records



describing our non-scanned holdings were updated, and 243 new cataloging records were created as materials and were subsequently added to the reference collection. Through these efforts we have succeeded in making NASA historical materials more widely available to NASA staff and visitors who come from outside the agency.

### **III. 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. NASA Historical Reference Collection holds over 2,000 oral histories on a widely divergent set of individuals. They include oral histories focusing on all the major projects of the agency, organizational culture, engineering practice, program management, aerospace medicine, and other specialized topics.

Other NASA centers also have large collections of oral histories. The Johnson Space Center, for example, has a collection of over 2,000 oral histories. While the majority of the oral histories available from NASA have been conducted during the course of writing specific historical works, increasingly so as time progresses, the agency has undertaken oral history for its own sake as a means of preserving knowledge. Often supporters of this effort have been motivated by the realization that the first generation of agency officials are passing from the scene, and that it is important to capture as much of their knowledge as possible. Accordingly, several discrete projects have been undertaken, and some are still in progress, recording the recollections of key officials.

Often these oral history efforts record the entire careers of individuals covering a broad spectrum of activities. They have a similarity to the oral histories of Columbia University's Oral History Research Office; and to the senior officer oral history programs of the various armed services. In every case these works are transcribed, edited, and placed in the history collections of the agency. They often also are copied and find permanent retention in various presidential libraries and university special collections departments.

## **Herstories**

Started in 1999, this effort was completed in 2002 and has resulted in collecting oral histories with women whose contributions range from involvement with the inception of NASA to providing direction for the Agency. Participants included luminaries such as:

Eilene Galloway -- involved in the legislative process leading to the National Aeronautics and Space Act of 1958 and has continued to support NASA's efforts through the decades and still today, serving as a consultant and/or on a number of advisory boards

Dr. Nancy Grace Roman -- senior woman at NASA HQ in the 1960s, when she served as an astronomer in the Office of Space Science and Applications, and later as administrator of astronomical programs

Dr. Donna Shirley – started as an aerodynamic analyst in 1966 at NASA's Jet Propulsion Lab and in 1991 served as the chief engineer of a \$1.6 billion project to explore asteroids, a comet, and Saturn, as well as started a low-cost program that continues to send missions to Mars when she was a director of the Mars Exploration Program.

Dr. Carolyn Huntoon – Director of the NASA Johnson Space Center from 1994-94, she served in a number of research and management roles, as well as was the Deputy Chief for Personnel Development, Astronaut Office and a member of the Astronaut Selection Boards. For NASA Headquarters, she served as the Assistant Secretary of Environmental Management, U.S. Department of Energy Executive in Residence, George Washington University Project Management Program while on assignment as Special Assistant to NASA Administrator and Office of Science and Technology Policy, White House.

Dr. Laurel L. Wilkening – served as the Vice Chairman, National Commission on Space, 1985 & Advisory Committee on the Future of the U.S. Space Program (Augustine Committee) in 1990; as a member, Vice President Quayle's Space Policy Advisory Board, and was the Head, Department of Planetary Sciences/ Director Lunar and Planetary Laboratory, University of Arizona.

Bonnie Dalton--started her career at NASA Ames in 1963 as a bacteriologist. She has made significant contributions to the life sciences program in several capacities, as payload manager for Spacelab missions, branch chief for the Science Payload Operations Branch, and deputy division chief and division chief (acting) for the Life Sciences Division. She has played a key role in the development of requirements and budgets for Ames' participation in the International Space Station. She is the deputy director for the Astrobiology and Space Research Directorate and recently served as acting chief of the NASA Ames Life Sciences Division.

Annie Easley – began as a Computer (Mathematician) at the NACA Lewis Flight Propulsion Laboratory in 1955. Her career that spanned 34 years continued to evolve and included computer programming that analyzed alternative power technologies, supported Centaur, determined solar, wind, and energy projects for NASA; identified energy conversion systems and alternative systems to solve energy problems.

A number of interviews were conducted with women who worked at the NACA / NASA Flight Research Center in Edwards, CA. These include: Beverly Swanson Cothren, a computer (mathematician) at NACA Langley Laboratory, VA, and at the Dryden Flight Research Center, (DFRC); Constance Eaton Harney, who began as a programmer at Edwards and retired as the DFRC Deputy Chief, Computer Systems, Flight Control Rooms, & Information Networks; Mary (Tut) Hedgepeth, a computer at NACA Langley and at DFRC, later worked for the USAF; Betty Scott Love, first a computer, then became a DFRC engineer; Sheryll Goecke Powers, a DFRC engineer who began as a co-op student engineer; Bertha Ryan, a DFRC engineer who participated in the research on lifting bodies and later worked for the US Navy; Harriet DeVries Smith, a DFRC engineering aide, promoted to engineer, and later worked as a Congressional aide.

### **Administrators Oral History Project:**

Started in 2001, this effort gathers information and knowledge from individuals who have served in major administrative roles for the Agency regarding organizational culture, methodology, program management, decision-making rationales, and details of events that occurred during that person's tenure. An ongoing project, the following oral histories have been completed.

**James Beggs** – NASA Administrator, 1981-1985; **Arnold Frutkin** – NASA Assistant Administrator for International Affairs; **J. R. Thompson** – NASA Deputy Administrator, and Director Marshall Space Flight Center, Alabama, 1986-1989; **Harold Finger** – NACA Engineer; Director, Nuclear Systems, NASA Headquarters, 1958-1967.

Among those completed or in progress in 2003 are interviews with **Dr. Wesley Huntress**, Associate Administrator of the Office of Space Science, 1993 – 1998; Dr. **Charles Kennel**, NASA Associate Administrator for Mission to Planet Earth, 1994-1996, and current Chair of the NASA Advisory Committee; and **Courtney Stadd**, former NASA Chief of Staff and White House Liaison, regarding his involvement in the commercialization of space, the transition of administrators, and the *Columbia* tragedy.

## **Oral History Projects at Johnson Space Center:**

The Johnson Space Center has an exemplary oral history program led by Rebecca Wright of InDyne, Inc. Ms. Wright's team has conducted the above Herstories and Administrator oral histories.

At the end of 2003, the Johnson Space Center had a collection of over 2000 oral histories, including those conducted in the early 1960s through present. This collection is housed at the University of Houston-Clear Lake, located near the NASA Center. The materials were moved from the NASA site in the summer of 2002 and are now accessible to the public at the University's Library. The University provides a full-time archivist and part-time assistant dedicated to responding to inquiries, accessioning the contents, helping researchers, and maintaining records of usage and additions to the collection.

Assisting in accessibility is a the JSC History Portal Website provided by the NASA Johnson Space Center as of September 1, 2002. The website contains links to the history database that contain the contents in the JSC History Collection. Also included on the website are transcripts of all the oral histories conducted for the JSC Oral History Project, as well as the following oral history projects sponsored by the NASA Headquarters History Office (*Administrators; Herstory; Aviatix Pioneers; Ballistic Missile Development Pioneers*). This website is updated on a quarterly basis with additional oral history transcripts.

Available on the site are numerous links to NASA sites from throughout the agency regarding the history of the Agency, the Centers, and the programs. Site address is: [www.jsc.nasa.gov/history](http://www.jsc.nasa.gov/history)

## **NASA Career Oral History Project:**

Beginning in 1994, the NASA History Office supported the conducting of a set of more than one hundred oral histories, amounting to more than 500 hours of interviews documenting significant aspects of NASA's spaceflight and other major programs. Among the interviewees were: Jimmy Carter, Aaron Cohen, Charles Donlan, Lennard Fisk, James Fletcher, Gerald Ford, Robert Frosch, Noel Hinnens, John Hodge, George Low, Hans Mark, Story Musgrave, Dale Myers, Thomas Paine, Frank Press, Robert Seamans, James Webb, and Caspar Weinberger.

## **Columbia Disaster Recover Oral History Project**

This oral history project began in mid-March 2003 and concluded in September 2003 with the purpose of documenting the organization and operation of the *Columbia* (STS-107) recovery efforts for historical purposes and other purposes deemed relevant by NASA. Information was collected primarily by conversing with individuals involved with the various

aspects of the recovery efforts and recording their experiences on audiotape.

Interviews were conducted at the recovery sites, at facilities of the specific agencies, in the communities, and by telephone. The project gathered as much data as possible from representatives of the numerous agencies and organizations associated with the three-month recovery effort, and attempted to cover as many of the various aspects involved with the recovery efforts.

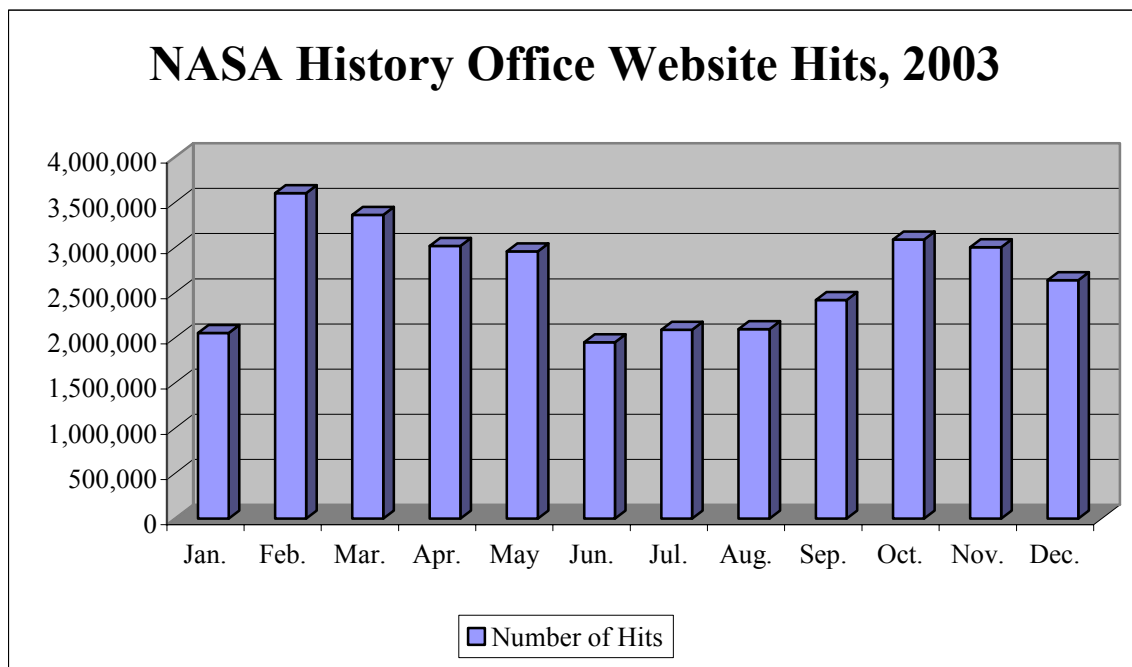
*Housed currently at the NASA JSC, this oral history project is not yet processed for accessibility by the public.*

Additionally, during the course of this project, team members collected resource and reference materials that include printed materials, videotapes, CDs, source data, maps, graphics, newspaper articles, etc. Prior to beginning the interviews, the team conducted online research to gather information about the recovery efforts. This information was used to develop the project methodology and interview questions. These materials were saved, organized topically by folder, compiled, and archived on a resourced CD-ROM archived at NASA JSC. These folders contain information about the recovery activities affecting East Texas city governments, the work of the various Federal Agencies in East Texas and Louisiana, the involvement of nonprofit organizations, state agencies, as well as the work of state universities related to the *Columbia* recovery. Media resources also figure prominently in the collection of materials. CNN articles, newspaper reports from the Texas towns of Corsicana, Longview, Lufkin, Nacogdoches, and Palestine, and *space.com* articles highlight the recovery efforts in East Texas and Louisiana.

#### IV. NASA History Web Site

For the last several years the NASA History Office 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 2003, the NASA History Office substantially increased its electronic resources, especially on the World Wide Web. Our main page has continued to be <http://history.nasa.gov> and the generic history office e-mail account for public information requests is [hinfo@hq.nasa.gov](mailto:hinfo@hq.nasa.gov). In addition to being one of the largest NASA Web sites, the NASA History site continues to be one of the most popular NASA Headquarters sites, as seen from Table 2, which shows the number of hits to the History Website per month.

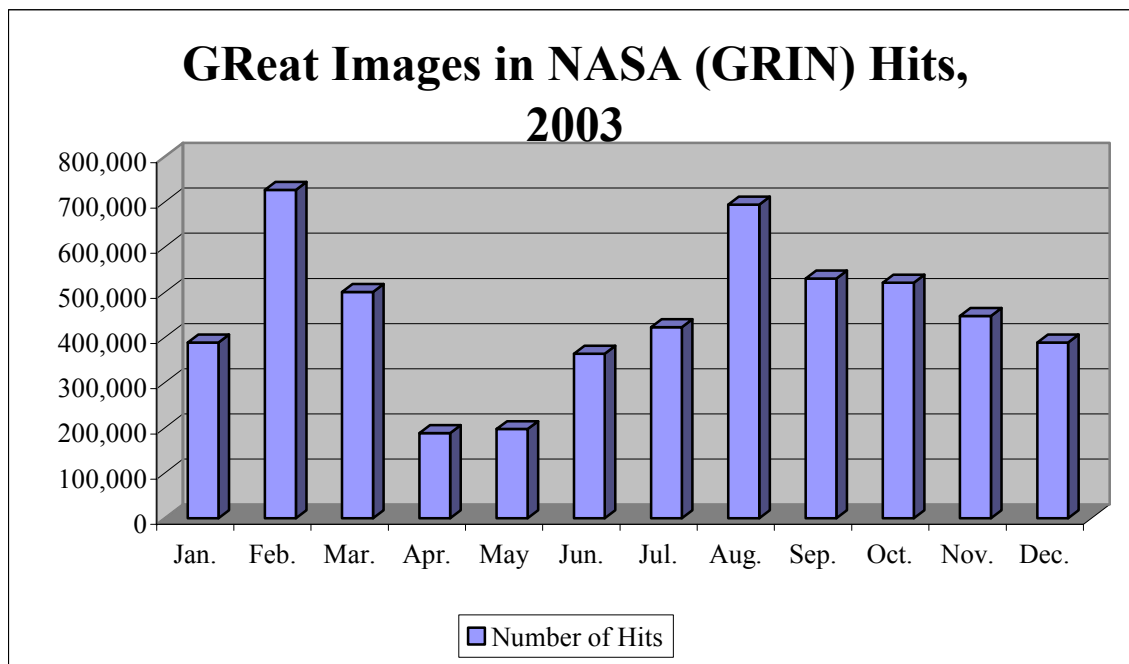
TABLE 2



Throughout the year there were 32,289,489 hits on the NASA History Web site. During the last year, we added thirteen significant, new Web pages or sites. While some of these were put together and/or hosted at field centers or other NASA offices, outside volunteers take the credit for most of these new sites. These volunteers have scanned and formatted for the Web a number of book-length publications that are typically out of print and thus not easily found in hard copy elsewhere. NASA History interns and the NASA Headquarters printing and design office also made significant contributions to our Web presence.

The NASA History Office is also pleased to have a special new on-line resource for historical photos. GReat Images in NASA (GRIN) is now on-line at <http://grin.hq.nasa.gov> and features over 1,000 historically significant black and white and color images in four resolutions ranging from thumbnail to a high resolution that is suitable for publishing. Public users may download any of these images without charge. While other somewhat similar photo databases are on-line, the specific format of this one is rather unique and has been well received, receiving 5,373,489 hits this year. We hope to add many more images to GRIN in the future. Table 3 illustrates the monthly GRIN hit breakdown for 2003.

TABLE 3



- *Biomedical Results of Apollo* (SP-368, 1975) is now on-line at <http://history.nasa.gov/SP-368/sp368.htm> and *What Made Apollo a Success?* (NASA SP-287, 1971) is on-line at <http://history.nasa.gov/SP-287/sp287.htm> on the Web. The former was edited by Richard S. Johnston, Lawrence F. Dietlein, M.D., and Charles A. Berry, M.D. The latter is a collection of eight articles by various authors reprinted from the March 1970 issue of *Astronautics & Aeronautics*. Special thanks to volunteer Chris Gamble for formatting these publications for the Web.
- After being approved by the White House, *The Aeronautics and Space Report of the President, Fiscal Year 2001 Activities*, was sent to the printers. In addition, it is available on-line at <http://history.nasa.gov/presrep01/home.html> or in a single pdf file at <http://history.nasa.gov/presrep01/2001report.pdf> on the Web.

- *Exploring Space with a Camera* (SP-168, 1968) by Edgar M. Cortright is now available on-line at <http://history.nasa.gov/SP-168/sp168.htm> on the Web. *Beyond the Ionosphere: Fifty Years of Satellite Communication* (SP-4217, 1997), edited by Andrew J. Butrica, is now available on-line at <http://history.nasa.gov/SP-4217/sp4217.htm> on the Web. *Before This Decade is Out: Personal Reflections on the Apollo Program*, (SP-4223, 1999) edited by Glen E. Swanson, is now available on-line at <http://history.nasa.gov/SP-4223/sp4223.htm> on the Web. Special thanks to volunteer Chris Gamble for formatting these publications for the Web.
- *Exploring Space with a Camera* (SP-168, 1968) by Edgar M. Cortright is now available on-line at <http://history.nasa.gov/SP-168/sp168.htm> on the Web. *Beyond the Ionosphere: Fifty Years of Satellite Communication* (SP-4217, 1997), edited by Andrew J. Butrica, is now available on-line at <http://history.nasa.gov/SP-4217/sp4217.htm> on the Web. *Before This Decade is Out: Personal Reflections on the Apollo Program*, (SP-4223, 1999) edited by Glen E. Swanson, is now available on-line at <http://history.nasa.gov/SP-4223/sp4223.htm> on the Web. Special thanks to volunteer Chris Gamble for formatting these publications for the Web.
- *Exploring the Unknown: Selected Documents in the history of the U.S. Civil Space Program, Volume III: Using Space* (NASA SP-4407) is now on-line from <http://history.nasa.gov/SP-4407/vol3/cover.pdf> on the Web. This is the third volume in an ongoing series of reference books that are useful for those interested in both space history and space policy. It consists of four chapters of documents with introductory essays. You may also want to see some of the other volumes in this series that are on-line in a similar format by going to <http://history.nasa.gov/SP-4407/sp4407.htm> on the Web.
- *Flight Research at Ames, 1940-1997* (NASA SP-3300, 1998) by Paul F. Borchers, James A. Franklin, and Jay W. Fletcher is now on-line at <http://history.nasa.gov/SP-3300/sp3300.htm> on the Web. A richly illustrated, monograph-length publication, this is a very informative work on aeronautics research in general.
- *The Planetary Quarantine Program: Origins and Achievements, 1956-1973* (NASA SP-4902, 1974) by Charles R. Phillips is now on-line at <http://history.nasa.gov/SP-4902/sp4902.htm> on the Web. A thin, but significant, volume on a topic of considerable interest over the years.
- *Engineer in Charge: A History of the Langley Aeronautical Laboratory, 1917-1958*. (NASA SP-4305, 1987) by James R. Hansen is now on-line at <http://history.nasa.gov/SP-4305/sp4305.htm> on the Web. A well-written, informative Center history of NASA Langley's aeronautical research roots.
- *Spaceflight Revolution: NASA Langley Research Center From Sputnik to Apollo* (SP-4308, 1995) by James R. Hansen is now on-line at <http://history.nasa.gov/SP-4308/sp4308.htm> on



the Web. This volume picks up where Engineer in Charge left off by addressing NASA's forays into spaceflight research. Special thanks to volunteer Chris Gamble for preparing these four publications for the Web.

- The NASA History Office has produced a Web version of its *Thinking About NASA History* folder. It is available at <http://history.nasa.gov/thinking/index.html> on the Web. This site is designed for scientists and engineers who are familiar with NASA, but not history as a profession. This site also describes what the NASA History Office does, in the context of history in general, history of science and technology, and aerospace history for historians who are unfamiliar with these specialties.
- The NASA History Office is pleased to announce a major new Web site, the Apollo 16 Flight Journal, by volunteers David Woods and Tim Brandt. It is now on-line at <http://history.nasa.gov/ap16fj/> on the Web. The Apollo Flight Journal (AFJ) is a companion to Eric Jones' Apollo Lunar Surface Journal and covers the flight portions of the Apollo missions. Two other journals are online; the partially completed Apollo 8 FJ is at <http://history.nasa.gov/ap08fj/> on the Web and the Apollo 15 FJ is at <http://history.nasa.gov/ap15fj/> on the Web.
- The NASA History Office has begun posting listings of selected significant, upcoming anniversaries from <http://history.nasa.gov/annivforecast.htm> on the Web. We hope this information will continue to be useful internally as a planning aide for NASA employees, as well as externally. Special thanks to contract archivist Colin Fries for putting this information together and to Jennifer Troxell for formatting it for the Web.
- The NASA History Office developed a new Web site devoted to NASA's 45<sup>th</sup> anniversary and the creation of the Agency. It is online from <http://history.nasa.gov/45thann/html/45home.htm> on the Web and contains key documents, publications, and audio-visual materials.

## V. Other Activities

### Realizing the Dream of Flight Conference in Cleveland

The NASA History Office, in conjunction with NASA's Glenn Research Center and several other organizations, sponsored a very successful centennial of flight-related conference called "Realizing the Dream of Flight." This conference took place in Cleveland on November 5, 2003, was attended by Steve Dick, Steve Garber, Jane Odom, and Nadine Andreassen. The conference took a biographical approach to approximately a dozen key American aviation and space pioneers. The presenters were very engaging and the conference was very well attended.

It was kicked off with stirring remarks from Dr. Julian Earls, the NASA Glenn Research Center Director and was also Webcast. The NASA History Office is planning on publishing edited versions of the presenters' talks in a conference proceedings book next year.

## **Professional Activities**

Members of the History Office staff were involved at several levels in professional activities germane to aerospace history during 2003. For example:

Steve Garber participated in a ceremony on Tuesday August 19 at NASA Goddard to rename the auditorium there after Harry Goett, GSFC's first director. Center Director Al Diaz, former NASA chief historian Roger Launius, and members of Goett's family spoke and a plaque was unveiled.

Jane Odom attended a Luminary Lectures program offered by the Library of Congress on March 7, 2003 on digital imaging of records. She also attended the Mid-Atlantic Regional Archives Conference meeting in Gettysburg, PA, at the end of October. She attended sessions on using archives after 911, historic site preservation, and researching topics where little information exists.

Jane Odom and Nadine Andreassen represented the History Office at the annual Records Management Conference sponsored by the National Archives. It was held at the Ronald Reagan Building here in Washington on May 13, 2003, and included sessions on information for business needs, records management and information technology, electronic records management, and best practices.

## **NASA History Program Review, April 2003**

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.

The NASA History Office held its annual history program review at the Jet Propulsion Laboratory on April 9-11. Staff from the NASA History Office, history points of contact from the various Field Centers, and informal outside advisers attended this meeting and discussed the various history activities under way and planned throughout the Agency. For the first time, this meeting featured a joint day of presentations and discussions with the NASA records managers to go over common ground between these two groups. The agenda for this program review included:

- Overview of NASA History Program

- History Publication Program Status Review
- New Historical Projects
- Communication Efforts and Staff Support

The two groups, together with the NASA forms managers, also took a tour of JPL on the morning of April 9. Some of the historians also took a tour of the Goldstone deep space tracking facility, led by Douglas Mudgway, author of a NASA History book on the Deep Space Network, on April 8. Representing the History Office on this tour were Steve Garber, Nadine Andreassen, and John Hargenrader. Another small group, including Jane Odom, Nadine Andreassen, and John Hargenrader, toured Dryden Flight Research Center on April 7.

### **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 2003 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 more than 2,690,790. 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.

### **Support to Centennial of Flight Commission**

The History Office 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." This panel has been assigned four major tasks:

1. Develop criteria and oversee process for how events on the Commission's website calendar (located at <http://www.centennialofflight.gov>) should receive recognition of the Commission.
2. Develop criteria and oversee process 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. Provide 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.
4. Develop criteria and oversee process for the designation of Centennial Partners.

## **VI. Personnel**

### **New Chief Historian**

Dr. Steven J. Dick came aboard as the new NASA Chief Historian on November 3, 2003. Steve has worked as an astronomer and historian of science at the U.S. Naval Observatory since 1979. He obtained his Bachelor of Science in astrophysics (1971), Master of Arts and Ph.D. (1977) in history and philosophy of science from Indiana University.

He is a well-known expert in the field of astrobiology and its cultural implications. He spent three years at the Naval Observatory's Southern hemisphere station in New Zealand. Steve served as the first Historian of the Naval Observatory, and has most recently been the Acting Chief of its Nautical Almanac Office.

Steve has authored more than 100 publications, including: *Plurality of Worlds: The Origins of the Extraterrestrial Life Debate from Democritus to Kant* (Cambridge University Press, 1982); *The Biological Universe: The Twentieth Century Extraterrestrial Life Debate and the Limits of Science* (Cambridge University Press, 1996); and *Life on Other Worlds* (1998), the latter translated into four languages. He was also editor of *Many Worlds: The New Universe, Extraterrestrial Life and the Theological Implications* (2000). His most recent publication, *Sky and Ocean Joined: The U. S. Naval Observatory, 1830-2000*, won the Pendelton Prize of the Society for History in the Federal Government.

### **Interns**

During 2003, the NASA History Office was fortunate to have several excellent interns. In the spring, Amber Pezan, a senior at Georgetown University, worked as an unpaid intern in our office. In the summer, she was able to stay on and help with some contract work on our GRIN photo database.

Also in the summer, Jennifer Troxell, a master's student at American University, rejoined the office as a paid intern. Jennifer has been able to continue on in our office as a NASA Stay in School student.

Katrina Thompson, a Ph.D. student in history at the State University of New York at Stony Brook, participated in the National Equal Opportunity in Higher Education (NAFEO) program and worked in our office for the summer. She helped by overseeing the production of several NASA History Series publications, as well as adding a number of images to GRIN.

## *Communicate Knowledge Performance Targets and Indicators*

### **Communicate Knowledge-History FY 2003 Metrics**

Strategic Plan Goal	Strategic Plan Objective	Annual Performance Goal	Indicators
<i>Ensure that NASA's customers receive the information derived from the Agency's research and development efforts that they want, when they want it, for as long as they want it.</i>	Improve the external constituent communities' knowledge, understanding, and use of the results and opportunities associated with NASA's programs	Share the experience of expanding the frontiers of air and space with the public and other stakeholders by meeting 5 of the 6 indicators for this goal.	Produce 10 new historical publications chronicling and placing NASA's activities and achievements in perspective for the American public.
<i>Ensure that NASA's customers receive the information derived from the Agency's research and development efforts that they want, when they want it, for as long as they want it.</i>	Improve the external constituent communities' knowledge, understanding, and use of the results and opportunities associated with NASA's programs	Share the experience of expanding the frontiers of air and space with the public and other stakeholders by meeting 5 of the 6 indicators for this goal.	Produce one new electronic document—CD-ROM—making available to a larger audience documents significant in the history of the Agency.
<i>Ensure that NASA's customers receive information derived from the Agency's efforts in a timely and useful form.</i>	Disseminate scientific information generated by NASA programs to our customers	Inform, provide status, enthuse, and explain results, relevance and benefits of NASA's programs by meeting 3 of the 4 indicators for this goal.	Create one additional on-line exhibit on the NASA History web page.
<i>Ensure that NASA's customers receive information derived from the Agency's efforts in a timely and useful form.</i>	Disseminate scientific information generated by NASA programs to our customers	Inform, provide status, enthuse, and explain results, relevance and benefits of NASA's programs by meeting 3 of the 4 indicators for this goal.	The History Office shall respond to requests for information within fifteen working days 90 percent of the time.

## **Communicate Knowledge Goals and Achievements for FY2003**

### **Metric 1**

NASA's activities and achievements will be chronicled and put into perspective for the American public, through 10 new historical publications.

Data Quality for Metric 1: These publications are fully peer-reviewed and their quality is comparable to that of an academic press' publications. They are analytical and scholarly in their treatment of complex technical and historical issues.

### **Metric 2**

Documents significant in the Agency's history will be made available to a larger audience by producing one, new electronic document- a CD-ROM.

Data Quality for Metric 2: NASA History CD-ROMs are peer reviewed to ensure high quality standards.

### **Metric 3**

The History Office will create one additional online-exhibit on the NASA History Web page.

Data Quality for Metric 3: These new historical sites fall into two categories: electronic versions of previously published materials and totally new materials. The electronic versions of books are faithful to the original hard copies, which were fully peer reviewed, in that they include all the text, images, and even original pagination. New sites that are not versions of existing books are fully peer reviewed for quality before they are placed on the Web.

### **Metric 4**

The History Office will meet the need for a timely and effective response to the public by meeting or exceeding 90% of the time a 15-day response standard.

The History Office has responded to its over 200 monthly email inquiries within 7 days 95 percent of the time.

Data Quality for Metric 4: The NASA History Office responds to these inquiries by using its extensive Historical Reference Collection, consisting of over 2000 cubic feet of key primary and secondary sources on a wide range of aerospace history topics. This Historical Reference Collection has been used by numerous researchers both in and outside of NASA to answer with confidence a wide range of historical queries.

– Steven J. Dick  
NASA Chief Historian  
March 8, 2004