NASA Ames Research Center
Historic Preservation Office

NETS CRM FY2016
Heritage Tourism Summary

This year, the public had a variety of opportunities to experience historic properties at NASA Ames Research Center at Moffett Field, California. Highlights included the arrival of *Destination Station,* NASA's traveling International Space Station exhibit, the Special Olympics torch run route passing through the Shenandoah Plaza National Historic District, cohorts of student interns, and the ongoing, vibrant presence of educational institutions and aerospace ventures in the NASA Research Park (NRP). These and other activities in and around the center's historic buildings were attended by nearly 37,000 visitors during fiscal year 2016.

Special Olympics Torch Run
Shenandoah Plaza National Historic District
NASA image ACD16-0097-001

Year-round Activities

NASA Research Park, Moffett Museum, and Moffett Chapel. In addition to scheduled events, the Shenandoah Plaza National Historic District is used year-round by the NRP, a thriving research and education community comprised of academic institutions, non-profit outfits, and Silicon Valley aerospace and technology companies. These organizations occupy 31 historic buildings in the historic district and provide the means for students and professionals to visit, study, and work in the district year round. The area is also open to the general public every day for unguided walks, visits to the Moffett Field Historical Society Museum, and religious services at Moffett Chapel.

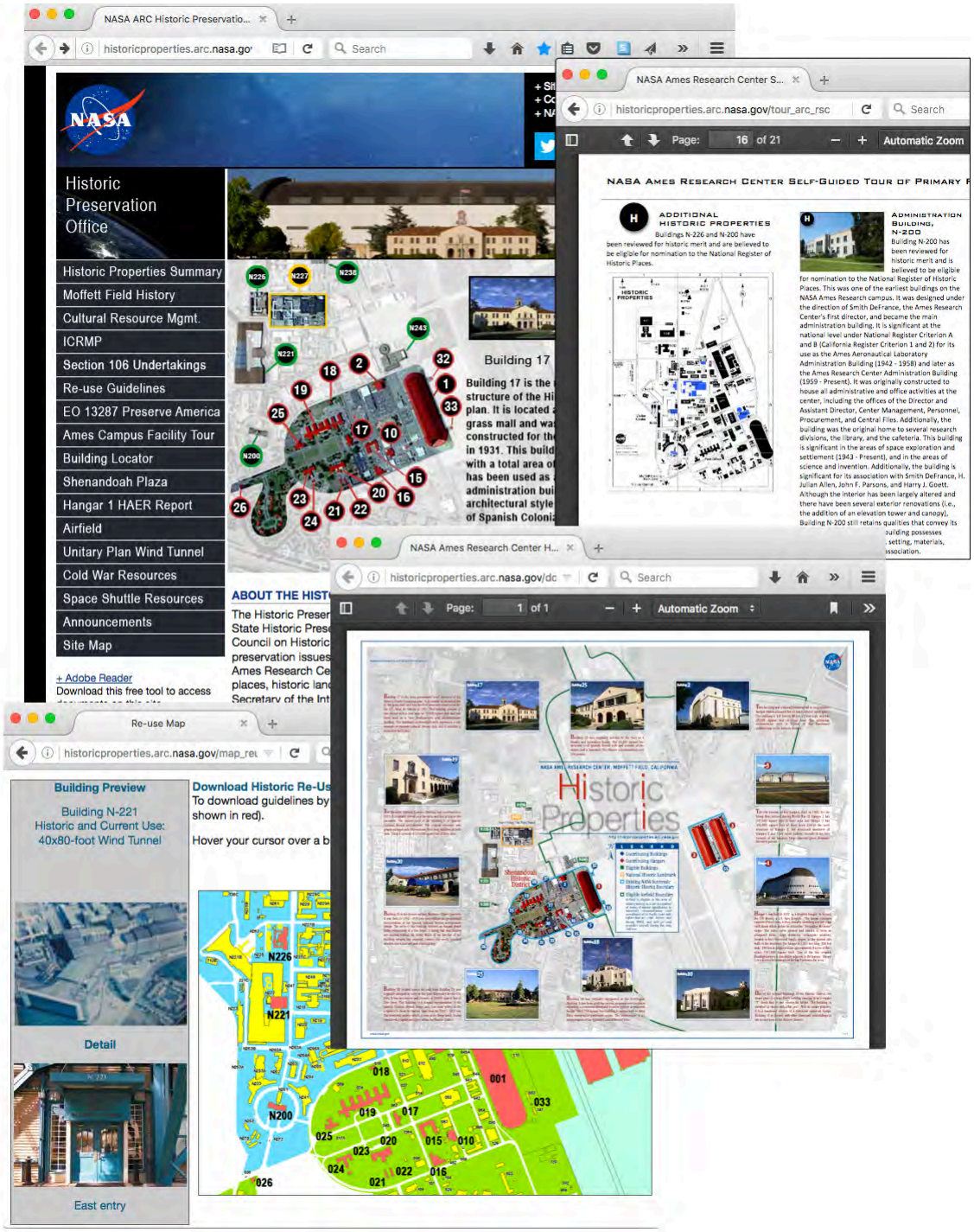
The Moffett Field Historical Society Museum, which is located in front of Hangar 1, is open year round for the purpose of educating the public about the history of Moffett Field, including NASA's contributions to aviation. Visitors have access to museum exhibits, a library, speakers, docent tours, and special events. Moffett Chapel holds Sunday services, weddings, memorials, and special events such as a National Day of Prayer ceremony for the public followed by a free luncheon.

Guided Tours. Public events in and around historic properties on the Ames campus are not commonly held, owing to the security requirements for entry, so Ames regularly organizes guided tours of these less-accessible areas. Throughout fiscal year 2016, staff led tours of historic facilities such as the Arc Jet Laboratory, Unitary Plan Wind Tunnel Complex, Flight and Guidance Simulation Laboratory, and the 40-by-80-foot wind tunnel in the National Full-Scale Aerodynamics Complex. Nearly 10,000 people attended guided tours of historic properties on the Ames campus.

Year-round tours of the National Full-Scale Aerodynamics Complex (Building N221) 80 x 120-foot Test Section

Image credit: Carolina Rudisel

Walking Tours. The Historic Preservation Office maintains online resources such as self-guided walking tours through the Shenandoah Plaza National Historic District to educate visitors about historic properties. For those who have access, self-guided walking tours are available for the Ames campus as well. These resources, which include maps linked to photographs and building descriptions, also serve as virtual tours for those who are unable to visit the center in person.



Downloadable and interactive maps, photographs, reports, and other resources on the Historic Preservation Office website accommodate self-guided or virtual tours of historic properties on the Ames Campus and in Shenandoah Plaza.

Science, Technology, Engineering, Art, and Mathematics Educational Activities

Astrobiology Institute Director Dr. Penelope Boston lectured about subsurface astrobiology in cave habitats on Earth and Mars Summer Student Lecture Series, Historic Administration Building N200, Ames Campus and Shenandoah Plaza National Historic District (Bldg. 3)

NASA image ACD16-0136-017

In addition to small groups of students who participated in internship programs at Ames in the fall and spring, a large cohort of 728 student interns from a range of educational levels were trained and mentored over the summer. They worked in and around historic properties and were led on tours of historic facilities. To inspire students, the center organized a lecture series of eighteen presentations by distinguished scientists, engineers, authors, and other inspiring individuals on wide-ranging topics such as planetary exploration, astrobiology, aerostructures, and synthetic biology. Many of these presentations were followed by social gatherings in the historic administration building.

At summer's end, students presented their research projects at a public poster session on the parade grounds in the heart of the Shenandoah Plaza National Historic District. The center combined this session with its annual Diversity and Inclusion Day and summer picnic events. After enjoying a barbecue lunch with their families and Ames personnel, the students presented their research to NASA colleagues and the public, and explored various cultural exhibits representing the diversity of the Ames workforce as well as Ames-led space biosciences investigations conducted on the International Space Station (ISS).

Summer student intern class
Shenandoah Plaza National Historic District

NASA image ACD16-0138-010

Ames also hosted nearly 4,000 K-12 students in fiscal year 2016. Year-round activities were organized for them in the Ames Exploration Encounter (AEE) in the historic 6-by-6-foot Supersonic Wind Tunnel. AEE is a unique educational program for 4th- through 6th-graders that is designed to teach basic concepts and inspire positive attitudes about science, technology, engineering and mathematics. Guided by educators and community volunteers, students are led through four hands-on educational stations built around themes of exploring physics, flight, space, and earth. Student groups attended AEE events during spring and summer. Scheduling, which is usually year-round, was truncated this fiscal year due to a facility closure from October to January.

Summer student picnic and poster session
Shenandoah Plaza National Historic District

NASA image ACD16-0138-076

Selected Recreational and Educational Activities, Science Forums, Military Ceremonies, and Other Events in the Shenandoah Plaza National Historic District

Numerous functions were held in the Shenandoah Plaza National Historic District, which is a popular locale for holding public events of all sizes.

Destination Station International Space Station exhibit and event Shenandoah Plaza National Historic District

NASA image ACD16-0092-011

Ames hosted a public event featuring NASA's traveling International Space Station exhibit, the *Destination Station* trailer. The mobile, multi-media exhibit, which immerses visitors in the story of NASA and the ISS, featured a touchable moon rock returned to Earth by the Apollo 17 mission. The public event also included presentations by astronaut Stephen Bowen and Ames experts about the past, present and future of ISS. Also on display were exhibits about Ames-led space station research and technology projects. Bowen also signed free photographs for the public.

Attendees enjoying speaker presentations at the ISS event Shenandoah Plaza National Historic District

NASA image ACD16-0092-023

NASA's Solar System Exploration Research Virtual Institute (SSERVI) hosted its third annual Exploration Science Forum in Shenandoah Plaza in July. The three-day forum featured scientific discussions of exploration targets of interest, such as the moon, near-Earth asteroids, and moons of Mars, as well as science sessions about recent mission results and related studies. The event also incorporated side conferences, such as a gathering for graduate students and young professionals to address the same topics. Public engagement discussions were interwoven throughout the conference talks.

Ames Center Director Eugene Tu addresses attendees of SSERVI's Third Annual Exploration Science Forum Shenandoah Plaza National Historic District

NASA image ACD16-0127-003

In concert with the Exploration Science Forum, Ames hosted the Third International Conference on the Exploration of Phobos and Deimos, subtitled The Science, Robotic Reconnaissance and Human Exploration of the Two Moons of Mars. This public event included student poster presentation, lectures focused on Phobos and Deimos, and on how exploration of these bodies relates to that of other small bodies, Mars, and the rest of the solar system, and a space art exhibition entitled *Near-Earth Worlds*. The event was organized by the Mars Institute, SETI Institute, and SSERVI.

Mars Institute Director Pascal Lee addresses attendees of the Third International Conference on the Exploration of Phobos and Deimos Shenandoah Plaza National Historic District

NASA image ACD16-0125-006

A graduate student intern staffs the Space Art Exhibit Shenandoah Plaza National Historic District

NASA image ACD16-0125-006

Artists' conceptions of scenes on asteroids and Martian moons were on public display at the space art exhibition, which was organized by Pascal Lee of the Mars Institute. Of note was *Pittsburgh at L-2* by Chesley Bonestell on loan from the History Office Archives at Ames, as well as works loaned from private collections of Ames scientists.

Memorial Day flag raising ceremony
Parade Grounds, Shenandoah Plaza National Historic District

NASA image ACD16-0079-001

Military-focused events held on the Shenandoah Plaza National Historic District parade grounds included change of command and retirement ceremonies for US Army and Marine personnel, and a flag raising ceremony was held on the to celebrate Memorial Day.

Aeronautics-themed events were also held in the historic district. The 6th Annual International Forum for Aviation Research Summit was held in the fall, to promote information exchange among aviation research organizations worldwide as well as among young scientists and engineers. Participants included NASA, the Japan Aerospace Exploration Agency (JAXA), German Aerospace Center (DLR), and Netherlands Aerospace Center (NLR). Attendees toured facilities at Ames, including the historic National Full-Scale Aerodynamics Complex. In the summer, Dr. Mark B. Tischler, senior technologist and senior scientist for the US Army Aviation Development Directorate presented *Aircraft and Rotorcraft Flight Control Technologies and Challenges* at an American Helicopter Society seminar sponsored by the American Helicopter Society, the American Institute of Aeronautics and Astronautics, and the Institute of Electrical and Electronics Engineers.

The NASA Research Park hosted a Global Entrepreneurship Panel, which featured Dr. Dan Rasky, Chief, Space Portal Office at NASA Ames; Grant Bonin, Chief Engineer, Deep Space Industries, NRP; and Dr. Anshu Roy, President and CEO of Rhombus Power, NRP. The speakers discussed how the NRP's public-private partnership model helped their teams achieve success in the global arena.

IFAR Summit attendees
Shenandoah Plaza National Historic District

NASA image ACD15-0180-038

The Ames Earth Science Division presented a poster session to inform the public about topics they presented at the annual American Geophysical Union meeting. Their presentations addressed a wide range of topics, including climate change, atmospheric and ocean processes, Earth system modeling, new technology developments, and supercomputing methods and applications. The session opened with a talk by Dr. Ray Wells of the U.S. Geologic Survey entitled *Subduction Zones in the 21st Century: Giant Earthquakes and Global Opportunities for Hazard Mitigation*.

Understanding Climate Change poster session
Historic Administration Building N200, Ames Campus

NASA image ACD16-0029-006

Dr. Ray Wells, US Geologic Survey, presenting
Understanding Climate Change and Other Global Processes
Summer Student Lecture Series, Historic Administration Building N200, Ames Campus

NASA image ACD16-0029-006

Additional Photos

Year-round tours of the historic Arc Jet Laboratory (Building N238)

NASA image ACD16-0031-183

Diversity and Inclusion Day
Parade Grounds, Shenandoah Plaza National Historic District

NASA image ACD16-0138-010

Children trick or treating on Halloween
Historic Administration Building (N200)

NASA image ACD15-0198-004

NACA and NASA retirees, "Owls" tour the center
Historic Administration Building N200, Ames Campus

NASA image ACD16-0050-002