

TRAJECTORIES

Official Newsletter for the Cape Canaveral Space Force Museum

Quote of the Month:

"It is the historian's function, not to make us clever for the next time, but to make us wise forever." Jacob Burkhardt, Historian

Spring Break on the Cape



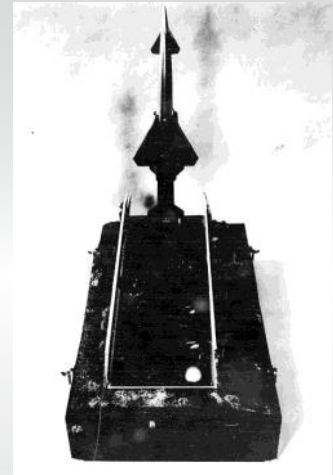
The Cape Canaveral Space Force Museum survived another Spring Break season. Every year over 30 million visitors descend upon Florida from all over the country for Spring Break. Central Florida and Florida's Space Coast are among the most popular destinations. It is the busiest time of the year for the Museum.

There was a dramatic spike in regular and specialty tours throughout the months of March and April, as well. The Cape Canaveral Lighthouse team, SLD-45 Public Affairs Office, and Diane Manahan (who coordinated volunteers for countless tours) did the heavy-lift in tour coordination. Museum Volunteers kept up with the spike and provided memorable tours for many new visitors.

On top of the increased flow of visitors came a series of special events. The annual Descendants Day event went very well in early March. Then came several military ceremonies, events connected to high-profile launches, and two CAPE Series outreach events. All connected new audiences to the exciting history of Cape Canaveral Space Force Station.

The annual Cape Family Day event on 27 April concluded the hectic Spring Break season. Thousands of people toured Museum facilities throughout the Cape. It's the busiest day of the year for the Museum and 2024 was a huge success!

DID YOU KNOW?



The Navaho missile was developed for permanent launching bases and as a mobile platform in the 1950s. The base concept was dubbed the "Navahogan", a combination of Navaho and "hogan", which was a type of earthen dwelling developed by the Navajo people. In this concept, the missile would raise to a vertical launch position from a self-contained underground facility. The Navaho was never deployed and the concept never realized.

Message from the Director

James W. Draper



The voluminous scope of our museum includes 8,000+ launches, through nearly 75 years, from over 30 historic launch complexes, along a 10,000-mile Eastern Range, involving thousands of programs and millions of people! Within all that are countless historical nuggets we can use to educate and inspire current and future generations. To do so, we use all kinds of methods. Social media outreach has become one of our most effective tools.

Have you visited any of our social media channels? If not, I highly recommend it. You can find us on Facebook, Instagram, X (formerly Twitter), LinkedIn, and YouTube. People use social media for different things. For our museum, social media provides so many opportunities to grow our audience, provide virtual tours, market our museum operation, and inspire more people to explore the history of America's space and missile programs.

Social media requires a lot of work and a hefty investment in time. We are churning out content almost daily on artifact highlights, exhibit updates, volunteer news, facility upgrades, wacky holidays, upcoming events, and historical anniversaries. Of course, Rupert the Space Armadillo (#FollowRupert) is also a huge draw. We have experienced a phenomenal return on investment! Our visitor numbers continue to rise as more people discover we exist. We are creating a dialogue with new audiences. New collaboration and outreach opportunities continue to materialize. And, most importantly, we have developed new ways to interact with our audience and motivate them to explore the rich history of the Cape.

These positive impacts through social media also help us with preservation and access. Those who have difficulties accessing our facilities can visit everything virtually on our social media channels and website. Our social media output also creates more awareness for our museum operation, which in turn will help us pursue additional preservation resources.

George Lois once wrote that "Museums are custodians of epiphanies, and these epiphanies enter the central nervous system and deep recesses of the mind." For me, social media is our best tool in sharing our infinite array of epiphanies with the public. Every day is an adventure on the Cape! Volunteers and I chase so many exciting research subjects, many of which result in exciting discoveries that add more context to the Cape's unique historical narrative.

Stay tuned for more exhilarating social media content! This is where history is launched!


James W. Draper, Museum Director



Museum Updates and News



Ais People Presentation

The second Museum Volunteer Association meeting of the year was held at the History Center on 4 March. David McDonald served as the guest speaker. He provided an informative presentation on the history of the Ais people. They inhabited this portion of Florida's eastern coast for thousands of years before European contact. The presentation helped provide museum staff and volunteers with a more in-depth history of the region. Mr. McDonald shared scores of artifacts with the group afterward. *(To the left Mr. McDonald shares artifacts and stories with volunteers at the end of the meeting.)*

Rocket Cleaning

On 6 March, volunteers from the 45th Weather Squadron assisted Museum Volunteers with the annual cleaning of aerospace restorations in Hangar C. This delicate process involved specific tools and solutions to carefully remove surface debris from the rockets and missiles. It is always a daunting task due to the number of restorations and their size. We successfully cleaned more artifacts than last year! Thank you, Weather Squadron, for the assist! *(To the right Museum Volunteer Association President Randy Wehrung lends a hand with the cleaning.)*



Al Crew Awarded

Museum Volunteer Al Crews received the Outstanding Achievement Award from the Museum Volunteer Association and Museum Foundation. He earned the award through many years of service as a docent for the Museum. As a retired aeronautical engineer, test pilot, and U.S. Air Force astronaut, 95-year-old Crews provided firsthand accounts to visitors about his connections with America's early military space programs. *(To the left Mr. Draper presents Al Crews with his Outstanding Achievement Award at the Sands Space History Center.)*

Museum Updates and News

Delta IV Booster Panel

Over the years the Delta IV Common Core booster on display at the museum grounds sat without any interpretation. That has changed. We installed a new outdoor panel on the patio between the Blockhouse and Exhibit Hall. It provides historical photos, content, and a QR code to guide visitors to plenty of information on the booster. The timing could not have been any better, since it recently became the last of its kind in existence! *(To the right Museum Volunteer Roger McCormick completes the installation of the outdoor panel for the Delta IV Common Core Booster.)*



Archaeology at LC-3

The UCF students under the guidance of Cape Archaeologist Tom Penders completed a second season of excavations at the Bumper Blockhouse at historic Launch Complex 3. The project was part of the ongoing Cape Canaveral Archaeological Mitigation Project (CCAMP). It has been the most concise examination ever coordinated of the launch control center for the Cape's first launch in 1950. *(To the left students uncover more of the Marston Matting that ran up to the rear of the original LC-3 Blockhouse structure.)*

Descendants Day 2024

The annual Descendants Day event was held on Saturday, 9 April. The Logistics and Readiness Squadron provided a bus and the Cape Canaveral Lighthouse team handled most of the coordination. Descendants of those who resided on the Cape before the military's arrival in 1950 came out to visit gravesites, tour the lighthouse, and enjoy a nice lunch at Hangar C. This year's guest speaker was Museum Director Jamie Draper. Participants enjoyed beautiful weather and fun company. *(To the right visitors during Descendants Day enjoy a fun lunch around aerospace restorations in Hangar C.)*



Museum Updates and News



Inaugural 321 Day

The Museum Volunteer Association lost a long-time volunteer last year. Robert “Ozzie” Osband passed away in August 2023. Several groups collaborated on a new annual space-themed event in Titusville, called 321 Day, in honor of Ozzie’s success in securing the 321 area code for the region. The inaugural event was held on 21 March, or 3-21. Ozzie also volunteered at the American Space Museum and KSC Amateur Radio Club. He often provided commentary at Space View Park during launches. *(To the left is the promotional graphic of Ozzie, the original “Rocket Hobo”, used for the 321 Day event.)*



Poster Presentations

A CAPE Series event on 6 April highlighted many recent archaeological findings from the Cape. University of Central Florida (UCF) students shared their research during poster presentations at the History Center. They included everything from pre-contact data to recent aerospace historical material. The program continues to unveil more information about the Cape’s past. *(To the right students from UCF present their unique findings to visitors to the Sands Space History Center.)*



Facility Improvements

Maintaining 30 structures on installation as part of the museum operation is a daunting task and team effort. Thankfully, Cape Support meets the challenge. In recent months they have replaced gutters on Hangar C, repaired the roof on the Bomarc Building, re-lamped exhibit galleries, and installed new door-closers for the Exhibit Hall, among other repair and preventive maintenance projects. We are thankful for all the professional support! *(To the left the Cape Support team tackle the difficult task of repairing and replacing gutters at Hangar C.)*

Museum Updates and News

Bob Graveline Honored

The Volunteer Excellence Award (VEA) is a Department of the Air Force-level lifetime achievement award given to someone who performs “outstanding volunteer community service of a sustained, direct and consequential nature.” Museum Volunteer Bob Graveline received the VEA on 26 April during a special ceremony at Patrick SFB. He has served as a docent for 40 years and is often mentioned specifically in many of the Museum’s five-star reviews. Congratulations, Bob! *(To the right Bob Graveline receives his prestigious award from SLD-45 leadership.)*



Lighthouse Diorama

An exciting new display has been added to the Sands Space History Center. This Cape Canaveral Lighthouse diorama provides a bird’s eye view of how the lighthouse looked with the Lighthouse Keeper and Assistant Lighthouse Keeper cottages. It’s a 1:87 scale, similar to HO scale for model trains. We extend many appreciations to the Cape Canaveral Lighthouse Foundation for allowing us to display the diorama. It is already a huge hit with visitors! *(To the left a special delivery of a Cape Canaveral Lighthouse diorama is made to the Sands Space History Center.)*



Titan Computers Shipped

The National Air Force Museum recalled two artifacts for their missile gallery renovations – the Titan Guidance Computer and the Titan Inertial Measurement Unit. One was in storage and the other on display at the Sands Space History Center. The two artifacts were carefully photographed, condition reported, and packed for shipment. Packing involved a moisture barrier wrapping along with many layers of cushioning, all within custom shipping containers. Both arrived safe and sound in Dayton, Ohio. *(To the right is a view of the packing process for the Titan Guidance Computer.)*

Museum Updates and News



Solar Eclipse

A total solar eclipse occurred on 8 April and it created quite a national stir. The rare event drew millions of travelers to the “path of totality” that extended diagonally from Texas to Maine. That path offered the best view and experience. Those of us outside the path still enjoyed a partial view. Even Rupert the Space Armadillo joined the fanfare by donning a special pair of viewing glasses and taking in the spectacular event from the museum grounds. *(To the left Rupert views the Solar Eclipse from the World’s Premier Gateway to Space.)*



New Artifact Storage

We expanded our artifact storage with a brand-new, custom-built cabinet. The new addition enhances the Museum’s preventive conservation capabilities. The steel cabinet is powder-coated to protect against corrosion and wear. It is also lockable, gasketed, and the shelves and drawers are interchangeable with our other cabinets. Several volunteers from the Explosives Ordnance Disposal (EOD) flight helped with unloading and installing. *(To the right is a view of the new artifact storage cabinet in place at LC-26.)*



LEGO League Event

For the second year in a row, the Sands Space History Center hosted a FIRST LEGO League Explore competition and festival as a CAPE Series event. The event on 13 April included four teams of exceptional kids from throughout central Florida who presented their creations. Jamie Draper and Roger McCormick volunteered as reviewers, with a little help from Rupert the Space Armadillo. We look forward to hosting more youth STEAM events in the future. *(To the left is team “From Infinity and Beyond” posing with their creation and poster presentation.)*

Museum Updates and News

Sizzling Lizard

A curious little lizard caused a ruckus. While exploring some transformers outside Hangar C, he crossed some hot lines and knocked out the power to the hangar and some neighboring facilities. He's now added to the coyote, turkey, peahen, beehives, exploding rat, and other wildlife we have contended with in recent years. It's all part of the challenge of operating a sizable and scattered museum operation on 15,000 acres of remote land. The Cape is a wild place! *(To the right is an artistic rendition of what the event most likely resembled in cartoon form.)*



Paper Models Exhibit

Museum Volunteers Roger McCormick, Kevin Cunningham, and Al Hartmann compiled and installed an exciting new Special Exhibit for the Sands Space History Center. It includes information and scores of excellent examples of space-themed paper models. The models include renditions of actual space vehicles, science fiction, pop culture, and even a little Rupert the Space Armadillo. The exhibit is a fascinating glimpse into a fun hobby. Check it out now for a limited time! *(To the left is a view of the Paper Model special exhibit.)*

Last of the Deltas

April saw the last launch of a Delta IV Heavy for NROL-70. It marked the end of the entire Delta program. The Delta family of rockets began with the Thor IRBM on the Cape during the 1950s. The Delta IV was born through the Evolved Expendable Launch Vehicle (EELV) program to assure access to space for the Department of Defense and the U.S. government. This final launch makes the Delta IV Common Core Booster on display at the Museum the last Delta IV left in existence. *(To the right is a view of the last of the Deltas on historic Launch Complex 37.)*



Museum Updates and News



Lt Gen Garrant Visit

On Tuesday, 23 April, Lt Gen Philip A. Garrant toured Cape Canaveral Space Force Station. He currently serves as Commander of Space Systems Command for the U.S. Space Force, overseeing 15,000 personnel and an annual budget of \$15.6 billion. Museum Director Jamie Draper greeted him at the Museum and toured his party through the Exhibit Hall. The tour included a briefing on the Museum's future expansion plans. *(To the left Mr. Draper shares some plans for the future of the Museum within the Space Force Gallery at the Exhibit Hall.)*

New Archival Additions

The Museum receives exciting artifact and archival donations nearly every week on the Cape. Recent months have included scores of illuminating archival materials from many different sources. These new accretions help fill gaps in the historical record for Cape Canaveral Space Force Station. They will help future students and scholars interpret the fascinating history of the Cape. *(To the right is an assortment of archival materials from the Cape Civil Engineers.)*



Jupiter Remains

You never know what discoveries will be made on the Cape. Controlled burns between the Museum grounds and the seashore unveiled a Jupiter missile crash site. On 16 September 1959, a Jupiter missile launch failure occurred from LC-26B. The missile destroyed itself 13 seconds into an erratic lift-off. Tom Penders, the Cape Archaeologist, identified the site in 2011. The recent burns revealed a remaining debris field from the launch attempt. *(To the left Rupert poses with Jupiter IRBM fragments with the survey team congregating in the background.)*

Museum Foundation Updates

Foundation Raymond Sands, Chairman of The United States Space Force Historical Foundation (USSFHF), has confirmed that renowned astronaut and businessman Jared Isaacman will be making a significant donation to the foundation in May 2024. This donation will provide critically needed support for the enhancement and expansion of the Cape Canaveral Space Force Museum and the Sands Space History Center, aligning with the Foundation's mission to preserve and promote the rich heritage of space development, education, and exploration.

Mr. Isaacman's donation will be the largest single private donation to the foundation in its 35-year history, underscoring the vital connection between innovative private

space ventures and the importance of educational missions. Isaacman, celebrated for and committed to leading groundbreaking commercial spaceflights, including **Inspiration4**, the first all-civilian mission to orbit, and commanding the upcoming **Polaris Dawn** mission, is an inspiration to future generations of explorers and innovators.

The US Space Force Historical Foundation is celebrating its 35th year Anniversary this month. The Foundation was established on 9 May 1989 as the US Air Force Space and Missile Foundation and was renamed the US Space Force Historical Foundation in May of 2022.



Views of Launch Complex 36, Blue Origin's "Mile Marker 0" to space, during Cape Family Day on Saturday, April 27. Raymond Sands, Chairman of the USSFHF, is pictured with Sean Graham (on left) and Jim Thomas (on right) from mission partners, Karman Line Inc.

Our Museum Family



CAPE CANAVERAL
SPACE FORCE
MUSEUM

Museum Staff:

James Draper, Museum Director

Museum Volunteer Association:

Randy Wehrung, Chairperson

Lee Kjesbo, Vice Chair

Bill Jelen, Secretary



UNITED STATES
SPACE FORCE
HISTORICAL FOUNDATION

Executive Committee Members:

Raymond Sands, Chairman

Steven Lepper, Major General, USAF (ret.)
Vice Chairman

Rob Quigg, Treasurer

Roger McCormick, Secretary

Board Members:

Robert VanVonderen

Stephen Houser

Therrin Protze

Victor Latavish

Tim Oliver

Foundation Employees:

Deborah Allison, Foundation Services Manager

Sharon Rodriguez, Executive Assistant



Cape Canaveral Space Force Museum

191 Museum Circle

Cape Canaveral SFS, FL 32925

321.853.9171

ccspacemuseum.org



Sands Space History Center

100 Space Port Way, Bldg. 90328

Cape Canaveral, FL 32920

321.853.1919

ccspacemuseum.org