

TRAJECTORIES

Official Newsletter for the Cape Canaveral Space Force Museum

Quote of the Month:

"The human mind is not meant to be static; we thrive on challenges and constant learning." John Glenn

History Unearthed



A second season of archaeological excavations at historic Launch Complex 3 are coming to a conclusion. Tom Penders, the Cape Archaeologist and Cultural Resources Manager, continues to lead the effort. The team consists of professors and students from the University of Central Florida's anthropology department in a collaboration with SLD-45 known as CCAMP, or the Cape Canaveral Archaeological Mitigation Project. This collaboration extends over many years and many historic and prehistoric sites across the Cape. Their efforts at LC-3 have yielded a lot of data and artifacts related to the first launches from the Cape in 1950, Bumper 8 and Bumper 7.

The Bumpers were modified V2 rockets developed and tested by the Army Ballistic Missile Agency. The excavations have focused on the original blockhouse for the complex. The team has unearthed grommets, nails, and burlap pieces from sandbags; uncovered more of the Marston matting that led to the blockhouse; and determined the thickness of the cement pad foundation. Once they conclude the excavations, a separate team from the Center of

Digital Heritage and Geospatial Information at University of South Florida will document the site with 3D digital mapping technology.

The results will add scores of data and historical perspective for many generations of students and scholars to come.

DID YOU KNOW?



The Burroughs guidance computer on display in the LC26 Blockhouse contains several bit buckets. Look through the glass doors on the Terminal Equipment Unit and you will see little metal drawers under the recorder packages. Those are the bit buckets that collected the bits (or chads) punched out of the paper tape. In computer jargon, the bit bucket is the mysterious place on a computer where lost data goes.

Message from the Director

James W. Draper



This issue of Trajectories contains plenty of exciting new developments from our museum operation but does not include everything from the last two months. That would add many more pages. Not listed are the slew of military ceremonies we hosted, scores of regular and specialty tours, and many creative preservation and outreach initiatives. Thank you to our amazing volunteers for keeping up with it all! One interesting development I would like to highlight is our new relationship with the Cape Canaveral Lighthouse.

Many of you may be familiar with their operation next to Hangar C. The Cape Canaveral Lighthouse Foundation is a private, non-profit organization that supports all their preservation, exhibit, touring, and outreach operations. Their staff and volunteers stay very active. Over the coming months and years, we plan on partnering and collaborating with them on all kinds of exciting new opportunities.

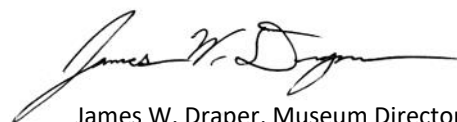
Here are some fun, interesting facts about the Cape Canaveral Lighthouse you may not know. First, the Lighthouse was one of the reasons why the Cape was selected as a missile testing facility in the late 1940s. Because of the Lighthouse, the government already owned land here.

The Lighthouse soon found itself in the midst of some of America's earliest missile testing activity. Dr. Wernher von Braun reputedly worked out of an office next door at Hangar C. Launch Complex 3 was just down the road. On 5 May 1954, he joined Sam Hoffman of Rocketdyne at the top of the Lighthouse to watch a Redstone missile launch on LC-3. It blew up on the pad.

For generations many people have gazed at the Cape from a distance wondering if the Lighthouse was a rocket being readied for launch. A 1960 parody film entitled "The Lighthouse that Never Fails" might have been developed as a result. It features a U.S. Air Force sergeant climbing to the top, only to be launched into space!

The Lighthouse has "photobombed" hundreds of historic launch photographs. With thousands of launches taking place since 1950 from the Cape, it's always fun to see the Lighthouse somewhere in the frame.

Today the Cape Canaveral Lighthouse stands as the only lighthouse owned and operated by the U.S. Space Force (the U.S. Coast Guard maintains the light). It's steeped in history that far precedes the military presence. I look forward to working with the Lighthouse team to help spread the word on the Cape's unique and relevant history. This is where history is launched and where the light shines on!



James W. Draper, Museum Director



Museum Updates and News



Blue Origin Revelations

January's meeting for the Museum Volunteer Association featured a special presentation. Jim Brice, Lead System Engineer for Blue Origin, provided an enthralling overview of Blue Origin's recent developments. Their inaugural New Glenn launch is slated for LC-36 later this year! This new heavy-lift orbital launch vehicle will usher in a new era of exciting commercial space activity on the Cape.

(To the left Mr. Brice shares plenty of revelations on Blue Origin's recent activities with an engaged group of museum volunteers at the Sands Space History Center.)

Fearless Girl Scouts

Museum Director Jamie Draper and Rupert the Space Armadillo spent most of a sunny Saturday with Girl Scouts and Girl Scout leaders on Cape Canaveral. They spent the day touring the historic sites of the Cape and completing a beach cleanup service project. These Citrus Council scouts traveled from troops in Clermont, Satellite Beach, Castleberry, and DeLand for the exciting Cape adventure! We hope to see them all back some day. *(To the right Mr. Draper and Rupert take a selfie with some of the scouts inside the Schriever Gallery.)*



Space Enthusiast Social

On 25 January, the Museum partnered with the Missile, Space and Range Pioneers to throw a Space Enthusiast Social at the Sands Space History Center. The goal of the event was to help aerospace professionals and enthusiasts of all ages to connect and network. There were refreshments, a Museum slide show, and a Rupert selfie station, along with the usual array of engaging exhibits devoted to the rich history of Cape Canaveral Space Force Station. *(To the left Joshua Jones, President of the MSRP Board, addresses the attendees of the Space Enthusiast Social.)*

Museum Updates and News

Let's Go Navaho!

The remnants of Launch Complex 9 include a one-of-kind specimen of early aerospace architecture. A two-story reinforced concrete pedestal remains as a testament to the 11 Navaho missile launches from the site in the 1950s. They launched from the top of the structure. For the first time ever, an outdoor panel was installed by the Museum team to educate visitors to the site. It includes history, photos, and a QR code to the Museum's webpage devoted to the complex. *(To the right Roger McCormick puts on the final touches to secure the outdoor panel firmly to the cement.)*



Clearing Pad 26B

The Cape's talented crane shop moved two gantry segments from Pad 26B to the neighboring inactive parking lot. Each segment weighed over 28,000 pounds! It's the first of a multi-phase effort to clear historic launch pad 26B for improved safety and educational use. Jupiter and Juno II rockets launched from this pad between 1957 and 1961. It set many space milestones, including America's first successful bioflights. *(To the left a gantry segment is loaded for the short move to the nearby abandoned parking area.)*



Fire in the Sky

For the last several years, Hangar C and the Lighthouse have functioned as an official launch viewing site for those with installation access and the proper Eventbrite reservations. Crowds have viewed a variety of launches and landings from the location, including such milestone events as Artemis 1 and the Psyche Mission. Due to safety and security concerns, those opportunities have come to an end. You may still find viewing options elsewhere. *(To the right the landing burn of a returning Falcon9 first stage lights up the cloudy sky around the Cape Canaveral Lighthouse.)*

Museum Updates and News



Mercury Moments

For many years an outdoor kiosk with interpretive panels educated visitors to Launch Complex 14 on the unique history of the site. Time and the elements took its toll on the display. The Museum team recently removed the panels and the kiosk will soon disappear. In its place, nearer to the original Blockhouse, is a brand new outdoor panel with updated information. It includes a new engaging glimpse into the history of this iconic launch complex, which launched America's first ICBM, Mercury astronauts into orbit, and so much more. *(To the left Rupert the Space Armadillo poses with the freshly installed outdoor panel for Launch Complex 14.)*

Service & Honor

The Cape Canaveral Space Force Museum offers its facilities to servicemembers for military ceremonies free of charge. Hangar C provides a comfortable venue this time of year because of the cooler weather. We hosted several reenlistment, promotion, and retirement ceremonies in there over the last two months. It's great to see so many take advantage of the premier historical backdrop and location. *(To the right is a scene from a recent 5th Space Launch Squadron promotion ceremony that filled the center area of the hangar.)*



Explosive Opportunities

Rupert the Space Armadillo and his handler visited the Museum's neighbors recently for training and touring. The local EOD (Explosives Ordnance Disposal) flight has a dangerous yet essential function on the Cape. Unlike most EOD units, their mission includes dealing with rockets and all their explosive components. They are a highly trained and most effective group. The Museum looks forward to future outreach partnerships with them in the future. *(To the left Rupert poses with some EOD headgear in their facility.)*



Museum Updates and News

New Artifact Donation

Among many exciting donations accepted by the Museum over the last two months was an original pad safety light from Launch Complex 13. This traffic light-looking device warned contractors and pad workers of potential hazards during operations at the complex. It was originally located on the ramp to the launch pad. This is a significant addition to the artifact collection, since there isn't much left to the old Atlas launch complex today. It currently functions as a landing zone for SpaceX Falcon9 first stage rockets. *(To the right is a view of the exciting new donation. Museum staff will process it into the artifact collections soon.)*



Power of Place

The remnants of Launch Complex 34 stand as a stark reminder of the historical tragedy and triumph of the site. It's the site of the Apollo 1 incident, but also the successful Apollo 7 launch. It's a common place for visitors to embrace that history and reflect. Two new outdoor panels help them do that. The aging kiosk display has been removed and replaced with all new, updated interpretation honoring the history of the site and the memory of our fallen astronauts. *(To the left is a view of the new panels in place with the launch pedestal in the background.)*



Get into SHAPE

The Museum's number of specialty tours continues to increase. Recent tours have included NASA groups, space logistics professionals, and visitors from the Army War College. Another fun group included members of SHAPE Officers' Association. SHAPE stands for "Supreme Headquarters Allied Powers Europe." Several of them had direct experience with the Cold War-era hardware on display and shared some amazing stories. *(To the right the group poses with the restored Pershing II on its transporter prominently displayed in Hangar C.)*



Museum Updates and News



Wildlife Issues

The Sands Space History Center continues to draw visitors of all shapes and sizes... and species. A recent coyote visit reveals the diversity of wildlife we often must contend with on the Cape. It startled volunteers and visitors as it parked outside the main entrance. A USDA trapper through the environmental office trapped and removed the confused visitor. It can be added to the list of raccoons, peahens, and exploding rats that have descended upon the facility in recent years. *(To the left is a view of the coyote through the front door. Be sure to contact the Museum Director should any confused wildlife visit the History Center.)*

Drop Down

The Cape Canaveral Space Force Museum accepted the LC-14 Blockhouse onto its facility roster in 2022. It came with a few facility issues. One was a defective drop-down projection screen. This is an important element for a facility frequently used for ceremonies, briefings, and other special events. Cape Support recently replaced it with a brand-new unit. It's an example of the continual repairs and upgrades made to Museum facilities. *(To the right is a view of the recently-installed drop down screen for the LC-14 Blockhouse.)*



Space Mobility Conference

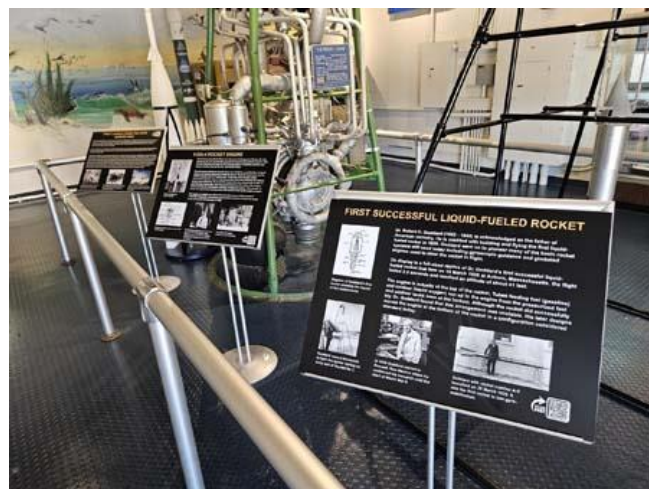
Museum Director Jamie Draper and Museum Mascot Rupert the Space Armadillo attended the second annual Space Mobility Conference in Orlando. The event drew Space Force Guardians, civilian employees, mission partners, and industry leaders from around the nation. Rupert was a celebrity among the crowds and helped spread the word about the Museum and the rich history of Cape Canaveral Space Force Station. *(To the left Mr. Draper and Rupert pose with fellow members of the local Space Florida Association chapter in the exhibitors area.)*



Museum Updates and News

Exhibit Hall Enhancements

Museum staff and volunteers continually find ways to improve the visitor experience at multiple Museum facilities. They recently installed new panels in the “development of modern rocketry” section of the Exhibit Hall. Former Museum Curator Bill Paul researched and designed the panels. These will help volunteers and visitors better understand the significant artifacts on display. *(To the right is a view of the new panels on display. They highlight the history behind the Goddard rocket model, V2 rocket engine, and Bumper model.)*



Archival Improvements

Year end funds from FY23 allowed for the purchase of new archival-quality enclosures for the Museum’s original film and video collection. Previous boxes were damaged years ago from a storm. Museum Volunteer Scott Zamorski and helpers rehoused the films, maintaining the integrity of the organization and finding aids. This will help ensure their preservation and use for generations to come. *(To the left you can see the films in their new acid-free, archival-friendly storage enclosures.)*

Hangar C is the Place to Be

Not everyone who visits Hangar C has the opportunity to enter and take in all the aerospace vehicles and supporting hardware on display. For those passersby, the Museum team installed a new outdoor panel detailing the history of the structure and its use today. It offers information, photos, and a QR code connection to the Museum website. Visitors are still encouraged to visit on Wednesday’s, when the site is open from 10:00 am to 1:00 pm. *(To the right Jamie Draper and Roger McCormick complete the installation of the latest outdoor history panel on the Cape.)*



Museum Updates and News



BSA Scouts in the House

An officer with SLD-45 helped schedule a Saturday Cape tour of 40+ BSA scouts and leaders from Troop 106 out of Lakeland, FL. They camped the weekend at Patrick SFB. Jamie Draper and Museum Volunteers toured them through Museum facilities and historic sites throughout the Cape. The tour serves as an example of the Museum's extensive youth outreach initiatives. Huge thanks to Museum and Lighthouse volunteers for assisting with the tour! *(To the left members of Troop 106 take in the historical displays within the LC-26 Blockhouse.)*

Beach Mice Surveillance

Did you know that the Southeastern beach mouse (*Peromyscus plionotus niveiventris*) inhabits areas of Cape Canaveral Space Force Station? It is a threatened species. The Endangered Species Act requires our environmental office to monitor the area's population. That is why you may see several bucket cameras throughout the Museum grounds. That is also why we stay off the dunes during beach cleanup service projects. We don't want to disturb any burrows. *(To the right is a view of one of the bucket units.)*



Museum Selfie Day

The Cape Canaveral Space Force Museum offered a unique contribution to this year's international "Museum Selfie Day" on social media networks. Jamie Draper provided a tour to some special visitors, including representatives from the Karman Line and the National Space Society, along with Astronaut Teacher Mike Mongo and Inspiration4 Astronaut Sian Proctor. After the tour of Museum facilities on the Cape, the group posed for this selfie in the Sands Space History Center. *(To the left is this year's contribution to Museum Selfie Day. Note Rupert posing on Sian Proctor's shoulder.)*

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
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HISTORICAL FOUNDATION

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Victor Latavish

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Foundation Employees:

Deborah Allison, Foundation Services Manager

Sharon Rodriguez, Executive Assistant



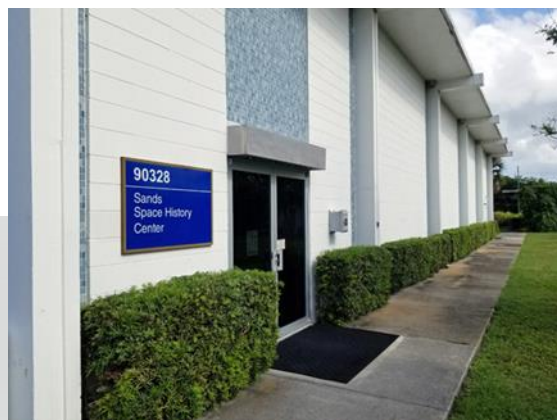
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