March 2026

TRAJECTORIES

Official Newsletter of the Cape Canaveral Space Force Museum

Quote of the Month:
"Artifacts have the power to connect us to history with an unmatched immediacy." - Alice Greenwald

Rupert's Returned!

Rupert the Space Armadillo is back on Earth, and what a journey it has been.

After 167 days in space with Crew-11, including 165 days aboard the International Space Station, our favorite armored explorer has officially made history as the first museum mascot ever to orbit the planet. During his mission, Rupert circled Earth more than 2,600 times and logged nearly 70 million miles in microgravity.

The flight itself was packed with milestones. It marked the final Crew Dragon mission to launch from historic Launch Complex 39A and the last Falcon 9 booster recovery at Landing Zone-1. The expedition also carried out the first medical evacuation from the ISS, highlighting the growing maturity of human spaceflight operations.

Meanwhile, Crew-11 astronauts completed more than 850 hours of scientific research, advancing knowledge in fields ranging from human health to materials science.

Rupert is now safely back on the Cape, adjusting to gravity and preparing for his next adventure. Stay tuned.

DID YOU KNOW?

Bioflights have long helped scientists understand how life responds to space. On 28 May 1959, alongside famous monkeynauts Able and Baker, two tiny passengers rode inside a Jupiter nose cone: vials of sea urchin egg and sperm. In the weightlessness of their suborbital flight, the material successfully united, marking the first known sexual reproduction in space. This small but remarkable experiment proved that fundamental biological processes could continue beyond Earth's gravity.

Message from the Director

James W. Draper

Outreach remains a cornerstone of our mission at the Cape Canaveral Space Force Museum. While we are widely known for collecting, restoring, preserving, and safeguarding the material history of America's space and missile programs, as well as the heritage of the U.S. Space Force, the work does not stop there. Interpretation is where history truly comes alive.

We "interpret" the Cape's story in many ways: through exhibits, social media, this newsletter, professional briefings, guided tours, and community presentations. Each of these is a form of educational outreach. Our artifacts, archives, and research are more than historical objects. They are storytelling tools that help us convey the depth, complexity, and significance of what has happened here over the past 76 years of launch.

Through these efforts, we aim to provide education, context, and inspiration to audiences that continue to grow in both size and diversity. None of this would be possible without our exceptional team of staff, dedicated volunteers, and committed mission partners. Their energy and professionalism make our outreach efforts both credible and meaningful.

One of my personal favorite aspects of this work is direct community engagement. Throughout the year, I am honored to accept numerous invitations to speak about the Museum and the remarkable history of Cape Canaveral Space Force Station. These presentations reach a wide spectrum of audiences, from local civic groups to national space and military communities.

Recently, I delivered a live virtual presentation to a large audience with the National Space Society, providing a broad historical overview of the Cape. Shortly afterward, I participated in Merritt Island Pioneer Day, where the focus shifted more toward the many space and missile milestones pioneered here on Florida's Space Coast.

Sometimes outreach is simply about showing up and making connections. Sabra and I recently attended the Space Mobility Conference in Orlando, where we spent valuable time engaging with civilians, Guardians, and industry leaders, sharing the Museum's mission and expanding awareness of our work.

To our growing Museum family, I encourage you to keep thinking creatively about how we can expand our outreach even further. Every conversation, presentation, and partnership helps carry the Cape's story forward.

As always, thank you for your continued support.

James W. Draper, Museum Director

The Curator's Corner

with Sabra Gossett

The Tale of Maggie McGrew: A Cape Canaveral Legend

In January of this year, we marked the 70th anniversary of the death of a Cape pioneer — and the beginning of one of Cape Canaveral's most unusual legends.

Margaret "Maggie" Vivian Wood was born on 14 July 1909 in Fairbanks, California, the daughter of George H. Wood and Margaret Jane "Maggie" (née Holley) Wood. Bright and technically gifted, she graduated from Mills College and pursued advanced study in mathematics, engineering, and aerodynamics at the University of California, the University of Alabama, and the University of Washington.

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In 1934, she married Charles "Chuck" Fremont McGrew II (1906–1971), a socialite and heir to a substantial fortune. The couple had two children, Margo and Robert ("Bob"). Side note: Charles McGrew had previously been married to actress Jean Harlow from 1927 to 1929!

Maggie's career took her all over the United States. She worked with Boeing in Seattle and with Parsons Aerojet in Florida, and taught mechanics and stress analysis at the University of California. In 1950, the McGrew family relocated from Alamogordo, New Mexico, to the Cape Canaveral area.

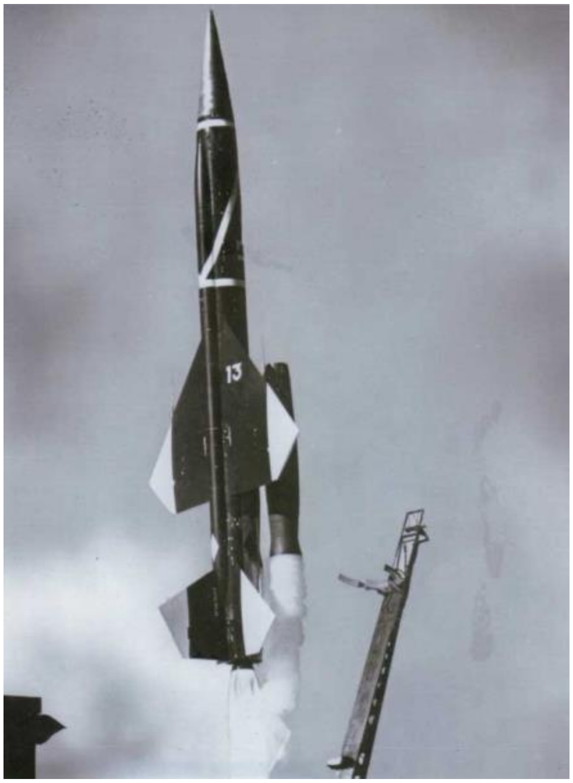
At the Cape, McGrew worked in launch support scheduling for Eastern Test Range resources under contract with RCA Corporation. She had a deep familiarity with

AI enhanced

missile capabilities and the complex operations of range instrumentation and tracking systems. A physicist by training and a self-described "missile buff," McGrew was directly involved in the research and development environment that defined the early Cape. Among the systems under development during this period was the surface-to-air BOMARC missile — an innovative defense weapon of the era.

Despite later being diagnosed with incurable cancer, McGrew continued working. She died on 12 January 1956 at the age of forty-six in

Indialantic, Florida. A quiet funeral was held at Holy Trinity Episcopal Church in Melbourne.



According to accounts that began circulating shortly after her death, McGrew made an unusual final request: that her ashes be flown in a missile. On 2 February 1956, BOMARC "A" model airframe 623-13 (Air Force designation 54-3053) was launched from Launch Complex 4 at Cape Canaveral. Some believe that this missile carried Maggie McGrew's ashes.

Range records indicate that the flight was terminated prematurely by its internal fail-safe system — in other words, it exploded. Official documentation makes no mention of human remains aboard the missile, and no marker or monument commemorates the alleged event.

Despite this, the story of Maggie McGrew has been repeated by several authors, including the late Martin Caidin of Cape Canaveral. Her unusual method of burial was even referenced in the New York Times on 31 August 1956.

If true, hers would be among the earliest known instances of human remains sent aloft by rocket, predating the commercial memorial spaceflights that would come decades later. Legend or fact, Maggie McGrew's life — and the story attached to her death — remains one of the most compelling human tales from the early days of the Cape.

Museum Updates and News

CAP Appreciation

Lt Col Gary Dahlke and Lt Col Deborah Kolos of the Florida Wing, Civil Air Patrol, both dedicated Museum volunteers, recently presented the Museum with a special token of appreciation. The recognition, on behalf of Florida Wing Commander Col David Panzera, honors the Museum's many years of steadfast support to Civil Air Patrol's aerospace education mission. *(To the right Museum Director Jamie Draper accepts on behalf of the Museum the framed photo entitled "Vigilance" taken on the USNS Observation Island in 1985.)*

100% Artifact Inventory

With support from several dedicated volunteers, Sabra recently completed another full, 100% inventory of our growing artifact collections. Every item was successfully accounted for. This mission-essential effort ensures we maintain strong physical and intellectual control of the collection, helping safeguard these irreplaceable pieces of space and missile history for future research, interpretation, and preservation.

Brevard Astronomical Society

On 21 January, the Sands Space History Center hosted the Brevard Astronomical Society's monthly meeting. Guest speaker Ken Verderame, Lt Col, USAF (Ret) and Viking Resident Astronomer, delivered a fascinating presentation titled "Space Telescopes at Work." The well-attended event highlighted another strong community partnership and reinforced the Museum's role as a hub for space education and engagement. *(To the right is a view of the group gathered and conducting their business meeting before the guest speaker's presentation.)*

Museum Updates and News

321 Day Temporary Exhibit

Visitors to the Sands Space History Center can enjoy a special "321 Day" lobby display curated by volunteer Roger McCormick. Using historic objects, photos, and engaging trivia, the exhibit explores the origins of the rocket countdown and the story behind the Space Coast's iconic 321 area code. Special thanks to Chip Sams for generously lending the original countdown clock that anchors the display. *(On the left is an image of a portion of the exhibit currently on view at the Sands Space History Center.)*

Space Coast Day Announced

Speaking of 321, the Brevard County Commission has officially proclaimed 21 March 2026 as "Space Coast Day," a nod to the region's iconic 3-2-1 area code and its unmistakable link to the launch countdown. The resolution honors the Space Coast's historic contributions to America's space programs. A formal copy of the proclamation was presented to the Museum for inclusion in the collection. *(To the right is a representative of the Commission presenting a copy of the proclamation to Jamie Draper and Sabra Gossett.)*

Hilliard Binder Donation

Longtime Museum volunteer John Hilliard devoted years to compiling more than 100 binders of essential historical research on Cape Canaveral SFS, Patrick SFB, Vandenberg SFB, and related programs. His widow recently made the generous decision to donate this remarkable body of work to the Museum. The binders have been added to our reference collection, where they will inform, educate, and inspire future generations of students and scholars. *(To the left is a view of the binders after transportation and before they were staged in filing cabinets for better access.)*

Museum Updates and News

Rocket Cleaning

Airmen from the local Explosive Ordnance Disposal (EOD) flight recently supported another key preservation effort, assisting with the annual surface cleaning of aerospace restorations displayed in Hangar C. This careful, labor-intensive work is essential to preserving and extending the life of these one-of-a-kind examples of Cold War–era hardware tested on the Eastern Range. *(To the right, two Airmen work on a delicate removal of surface debris from the Bomarc missile, giving it a nice shine.)*

Gen Sands Plaque

The U.S. Space Force Historical Foundation, the Museum's supporting nonprofit, recently installed a new bronze plaque outside the Sands Space History Center. The plaque honors the facility's namesake, Maj Gen Harry Sands, a former Cape commander whose leadership was instrumental in establishing the Museum in 1964 and the Foundation in 1989. *(To the left is an image of the bronze plaque soon after installation outside the main entrance to the Sands.)*

Storage Areas Cleaned

During Florida's cooler winter months, Museum staff and volunteers tackled several artifact and other storage areas, sorting, cleaning, and improving overall organization. Numerous artifacts were carefully consolidated and separated from non-collection materials for added protection. This kind of regular behind-the-scenes housekeeping is essential to long-term preservation and ensures our growing collections remain well managed and accessible for future work. *(To the right is a view inside an old generator building turned storage area recently organized.)*

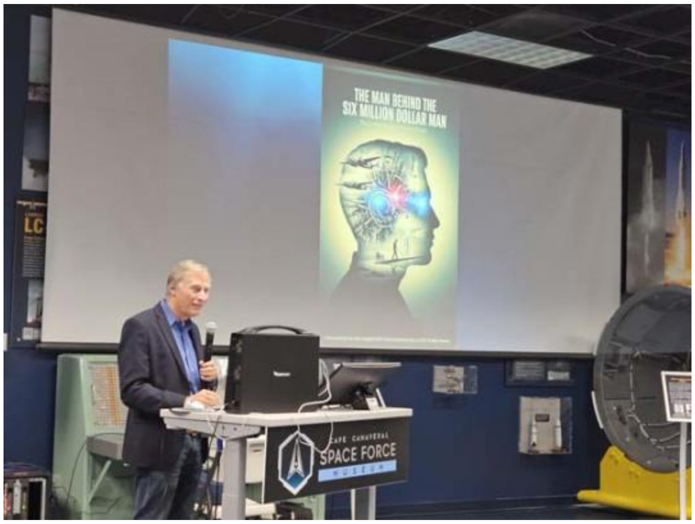
Museum Updates and News

Space Coast Museum Trail

Visit Space Coast has launched a new regional experience: the Space Coast Museum Trail. The [online guide] highlights participating institutions, including the Sands Space History Center. Visitors who make the full circuit earn a special commemorative patch. It's a fun way to explore the rich heritage of Florida's Space Coast while supporting the many museums that preserve it. *(On the left is a rendition of the limited-edition patch created for the new Space Coast Museum Trail program.)*

Lighthouse Ceremony

On 10 February, the Cape Canaveral Lighthouse Foundation held its Keepers' Cottage Groundbreaking Ceremony. Museum Director Jamie Draper delivered the keynote address, emphasizing the importance of historic preservation. His remarks highlighted how the enduring legacy of the Cape Canaveral Lighthouse reinforces that history matters for perspective, meaning, and even national defense. *(To the right is an image that shows Jamie giving the keynote address to the distinguished crowd.)*



Martin Caidin Screening

On 19 February, the Sands Space History Center hosted a screening of *The Man Behind the Six Dollar Man: The Untold Story of Martin Caidin*. Writer and director Jim Lewis introduced the documentary, which explored the remarkable life of the visionary author who often blurred the line between real science and science fiction. The program offered guests an engaging look at Caidin's lasting influence. *(To the left , Jim Lewis introduces Martin Caidin and his documentary project to the gathered crowd.)*

Museum Updates and News

New Storage Taking Shape

As part of ongoing efforts to expand and improve collections care, Sabra Gossett has been coordinating the conversion of the former Blockhouse gift shop into a premier artifact storage area. Recently, a team from the 45th Weather Squadron assembled new steel shelving in the space. Artifact storage cabinetry from the Ready Room will relocate there next, with collection moves planned for later this summer. *(To the right is a view of the weather team assembling the shelving in the Blockhouse.)*

Engineers Week

On 26 February, the Cape Canaveral Technical Societies (CCTS) held an Engineers Week program at the Sands Space History Center. The evening featured dinner and a guest presentation by Jennifer Kennedy of Kennedy Solutions Group, who spoke on a wide range of impactful topics including leadership, collaboration, readiness, and logistics. The well-received event highlighted the Center's role as a gathering place for the technical community. *(To the left is Jennifer Kennedy speaking to the CCTS gathering.)*

Flag Raising at LC-14

On 20 February, Stoke Space held a Flag Raising Ceremony at LC-14, drawing community members along with NASA, U.S. Space Force, and industry leaders. Among the remarks, SLD-45 Commander Col Brian Chatman highlighted LC-14's enduring role in national defense. Once left as "abandoned in place" ruins, the historic complex is now being transformed into a new, active launch site. *(To the right , the crowd gathers around for remarks from several distinguished speakers with a new flag flying over LC-14.)*

Rupert's Launch Pad

10...
9...
8...
7...
6...
5...
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3...
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1...
0...
LIFT OFF!

Home Sweet Home

After 167 days in space, I returned to Earth with my friends Mike, Kimiya, Zena, and Oleg on Jan. 15, 2026, riding in the Dragon Endeavour spacecraft (pictured below). My legs were a little weak as I experienced gravity again, but that went away real fast and now I'm feeling great. Can't wait to share more stories with you real soon!

Word of the Month

"thrust"

[thruhst]

In spaceflight this is the force created by a rocket engine to push the rocket or spacecraft in a specific direction. At launch, the amount of thrust measured in pounds of force must be greater than the weight of the launch vehicle.

Rupert Remembers

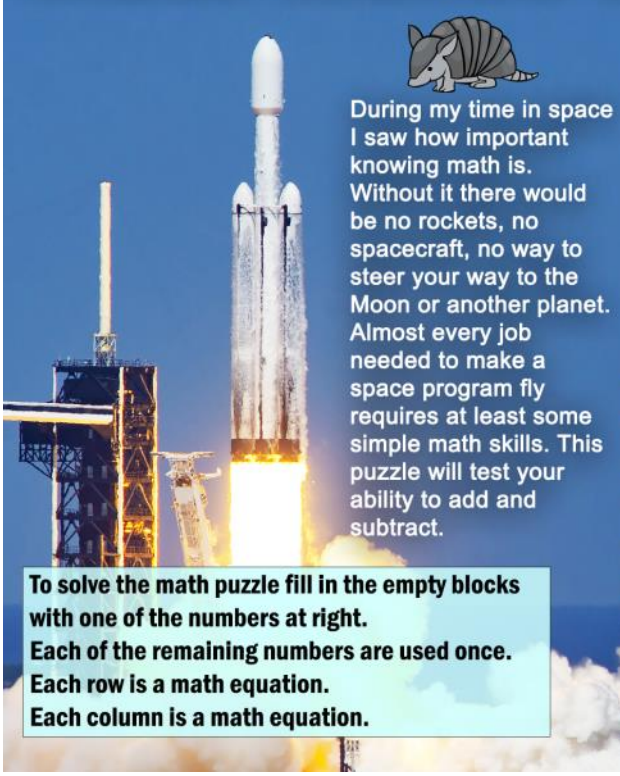
Sixty years ago this month, March 16, 1966 to be exact, this Atlas Agena rocket blasted off from Launch Complex 14 at Cape Canaveral — the same launch pad used by John Glenn when he became the first American to orbit the Earth in his Mercury capsule named Friendship 7. But this launch also would make history. That's because the Agena stage of the rocket and the Gemini 8 spacecraft with astronauts Neil Armstrong and Dave Scott on board (launched separately on a Titan 2 rocket) became the first two vehicles to join together, or dock, in space. The historic moment meant the United States demonstrated one more skill needed to be able to land a crew on the Moon.

CAPE CANAVERAL SPACE FORCE MUSEUM

My Favorite Things

When I became the mascot for the Cape Canaveral Space Force Museum and took my first official tour of the Exhibit Hall at Launch Complex 26, one of the strangest things I saw was the full-sized model of the rocket made famous by Dr. Robert Goddard. Once I figured out how it worked, it became one of my favorite things. Goddard's rocket was the first in history to use liquid propellant — gasoline and liquid oxygen — to make it fly. That first flight was on March 16, 1926 at Auburn, Massachusetts — a century ago! The flight lasted 2.5 seconds and the rocket reached an altitude of about 41 feet. You can see the replica by visiting the museum, and maybe you will be amazed as much as I was when you see how different this rocket is from those that came after.

Math makes the rockets fly!



1	3	-		+		+	13	24
4	+		-		-		-	
7	6	-		-	16	+	8	-13
9	+		+		+		-	
10		-	5	-	12	-		-20
11	-		-		-		+	
14		+		+	2	-		5
15	2		-9		3		10	

To solve the math puzzle fill in the empty blocks with one of the numbers at right.
Each of the remaining numbers are used once.
Each row is a math equation.
Each column is a math equation.

Our Museum Family

Museum Staff:
James Draper, Museum Director
Sabra Gossett, Museum Curator
Rupert the Space Armadillo, Mascot

Museum Volunteer Association:
Bill Jelen, Chairperson
Susan Dabrowski, Vice Chairperson
Jack Kennedy, Secretary

Executive Committee Members:
Raymond Sands, Chairman
Steve Houser, Vice Chairman
Rob Quigg, Treasurer
Roger McCormick, Secretary

Board Members:
Robert VanVonderen
Therrin Protze
Victor Latavish
Tim Oliver
Joey Genovesi
Jim Banke *(Honorary Member)*

Foundation Employees:
Deborah Allison, Foundation Services Manager
Sharon Rodriguez, Executive Assistant

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