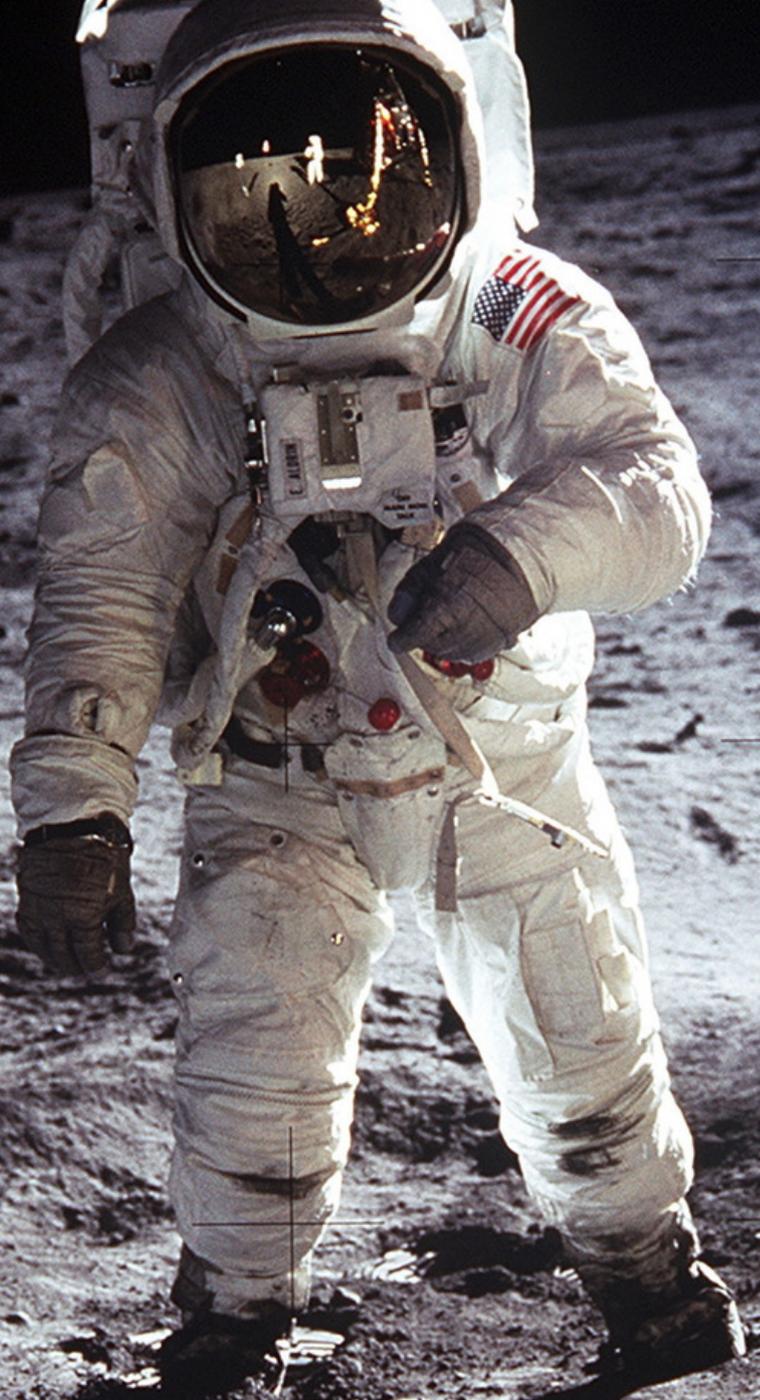




50th
Anniversary
Press Kit



Cradle of Aviation Museum



Contact Frances Cuomo Perpero: fperpero@cradleofaviation.org 516-238-6159

WHAT APOLLO MEANS TO PEOPLE

BUILT BY LONG ISLANDERS

It was on Long Island that Northrup Grumman engineers designed and built the Lunar Module, which safely landed 12 men on the moon and got them off it again. In all, six Lunar Modules were built by Grumman, three of which were used in the ascent and descent stages of missions. The three remaining original Lunar Modules still in existence today are housed at the Smithsonian's Air & Space Museum in Washington D.C., the Kennedy Space Center in Florida and the Cradle of Aviation.

Long Islanders involvement with spaceflight can be traced back to Robert Goddard's earliest, pioneering experiments in rocketry, and it continues through the development of the lunar module, the international space station and beyond.

Long Island's role in Apollo's success cannot be denied and must be underscored to our children. We invite the community to come and celebrate the amazing work accomplished right here on Long Island to make space travel possible.

"There was a dedication & a drive on the Lunar Module program that I haven't seen equaled since. We're talking about thousands of people here that were swept up in the enthusiasm and the historic importance of this endeavor. People who were doing some pretty routine and mundane jobs were doing it with great pride and great enthusiasm. Remember, there are six descent stages today sitting on the moon...with a "Made in Bethpage, New York" nameplate on them. And that's something that thousands of Grummanites take great pride in." - Tom Kelly (Father of the Lunar Module 1929-2002)

"Nobody at Grumman who worked on the LM will ever forget it. Even the 12-and 14-hour weekdays, the frustrating paperwork & the sheer complexity of designing, building & testing the module could not dim our dedication. From the sweeper to the chief engineer, we all knew that we were part of a majestic endeavor, that we were making history happen. Several times I saw work crews in the assembly areas continue with their tasks long after the overtime pay that had been budgeted for them was exhausted. No one cared; the focus was exclusively on getting the job done, and doing it right." - Tom Kelly

"At the Cradle of Aviation Museum, the 50th anniversary of Apollo 11 serves as a watershed event for the museum and for Long Island. We are working diligently to use the anniversary as a tool to inspire a new generation of engineers, technicians and yes, astronauts."

- Andrew Parton, President, Cradle of Aviation

JULY 20, 1969

- 600 mm people around the world watched moon landing
- 94% of US televisions were tuned into the broadcast
- Greatest human & technological achievement of our time
- Universal feeling of pride and sense of accomplishment
- Created optimism and hope for the future
- Shared experience that people remember vividly & with great passion

"It's hard for me to explain the enormous pride we had in being Americans without my eyes welling up with tears. There was no one individual or group taking the credit. It was always "We. We made it! We did it.". Even kids just learning the alphabet and how to count felt that they contributed, because they could kneel next to their beds at night and pray for the astronauts, and that was just as important as designing rockets and computing space vehicle trajectories." - Paul H.

"I've seen lots of great events since Apollo 11, but none as significant or impressive as America's landing on the moon and returning home safely. I feel so lucky to be alive during this time in history, getting to see so many wonders and achievements. I wonder if I'll ever get to see such an incredible accomplishment as Apollo 11." - Steven C.

"The collective effort of those involved, the sense of intelligent, motivated, people pulling together for a common difficult purpose has remained with me ever since, as as source of inspiration for pretty much everything that is important to me." - Andrew J.

"As a lifelong science buff, I can truly say that this was one of the most memorable occasions in my life, and I am extremely glad that there was somewhere I could go to be able to watch it." - Candace U.

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STORY IDEAS

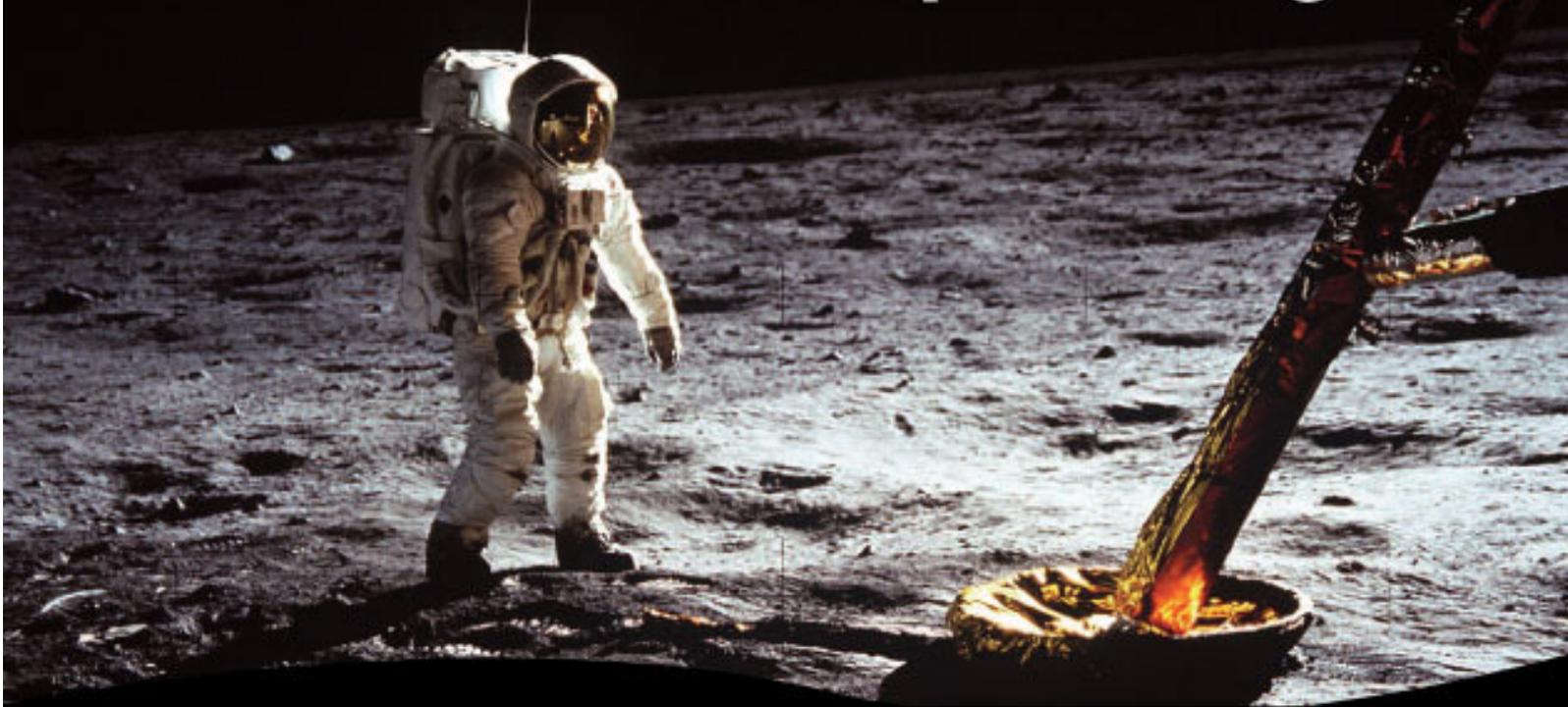
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www.cradleofaviationpr.org

Celebrate Long Island's Role in the Success of the Apollo Program



Apollo at 50 CELEBRATION

Visit cradleofaviation.org/apollo for the latest updates on events, experiences and ticketing.

ANNIVERSARY DINNER

JUNE 6, 2019, 5:30 PM

- Elegant Dinner and Program
- Apollo Astronaut Tribute
- Guests: Walt Cunningham, Apollo 7
Rusty Schweickart, Apollo 9
Fred Haise, Apollo 13
Gerry Griffin, Apollo Flight Director
Plus other invited guests
- Space Memorabilia Auction

MOON FEST!

JULY 20, 2019, 9:30-5:00 PM

- Fun, Family Friendly Festival
- Oculus VR Experiences
- Shuttle Astronaut Encounters
- Model Rocket Launches
- Community Countdown for Landing
- New Apollo 11 IMAX® Movie

COUNTDOWN CELEBRATION

JULY 20, 2019, 7:00-11:00 PM

- Lively Champagne Dinner
- 1960s Music and Dancing
- Photo Op Re-Created 60s Living Room
- Shuttle Astronaut Encounters
- Community Countdown and Screening of Armstrong's First Steps



Cradle of Aviation Museum 

Charles Lindbergh Blvd., Garden City NY

IMPORTANT PRESS DATES

Apollo at 50 Astronaut Event

Thursday, June 6th

Press Passes
Available
for
All Events

9:00 AM

Apollo 11 First Steps Edition IMAX Format Movie Screening

Watch a screening of the critically-acclaimed *Apollo 11 First Steps Edition* (only location in NY Metro/NJ) to show in IMAX Format in our immersive Dome Theater.

11:00 AM

Apollo Astronaut Press Conference

Apollo 7 Lunar Module Pilot, Walt Cunningham, Apollo 9 Lunar Module Pilot, Rusty Schweickart, Apollo 13 Lunar Module Pilot, Fred Haise, Apollo 16 Lunar Pilot, Charlie Duke, Apollo 17 Lunar Module Pilot, Harrison Schmitt, & Apollo Flight Directors Gerry Griffin & Milt Windler will be available for questions and interviews. All press welcome.

1:00 PM

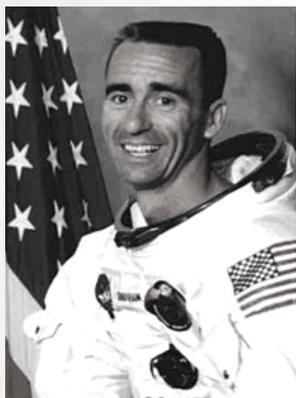
Grumman Employee Reunion

Former Grumman workers will join together to meet with the invited Apollo Astronauts & Flight Directors to reminisce about the missions share stories and catch up. All press welcome can interview workers

5:30 PM

Apollo at 50 Anniversary Dinner - no interviews; can photograph event only

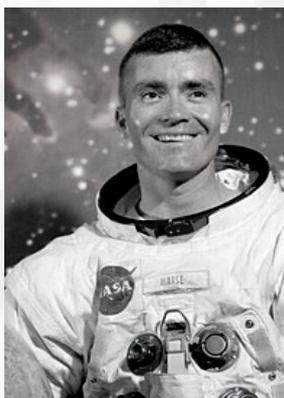
Apollo Astronaut Tribute, Space Memorabilia Auction. A once in a lifetime experience to acknowledge and reflect on the greatest human and technological achievement of our time. \$275 per person



Walt Cunningham



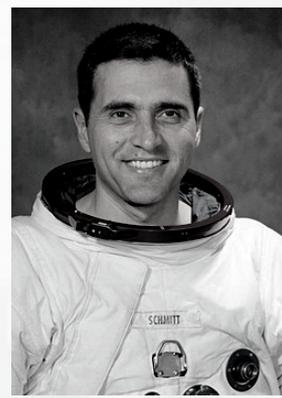
Rusty Schweickart



Fred Haise



Charlie Duke



Harrison Schmitt



Gerry Griffin



Milt Windler



IMPORTANT PRESS DATES

Apollo at 50 Celebrations
Saturday, July 20



MOON FEST

9:30 AM - 5:00 PM



A fun, family-friendly festival at the museum that includes visits from Long Island Space Shuttle Astronauts including Bill Shepherd (Babylon) and Charlie Carmada (Ozone Park). All day activities include virtual reality experiences, model rocket launches, and a countdown at 4:18 pm to collectively watch, re-experience, and honor as a community, the historic "The Eagle has Landed" Lunar Module landing on the moon.

As a special bonus, all museum attendees will get a free showing of the new highly-acclaimed documentary, *Apollo 11 First Steps Edition* in our immersive Dome Theater. Tickets: \$20

COUNTDOWN CELEBRATION

9:30 AM - 5:00 PM



A lively dinner and champagne toast with music and dancing, as the community comes together to watch and re-experience the unforgettable first steps on the moon at 10:56 pm with a special moon landing viewing and countdown. Photo opportunities in our re-created 1969 living room. Opportunities to share stories and learn about Long Island's contributions to advancements in space.

A true celebration of Long Island pride. A dinner ticket automatically gives admission to Apollo Moon Fest events during the day. Tickets: \$125

Tickets can be purchased at www.cradleofaviation.org/apollo or by calling Reservations 516-572-4066 (M-F 10:00am-4:00pm) Grumman Retirees and Museum Members, may call Reservations for discounted tickets.

Proceeds to Benefit Museum Education and Preservation Programs.

www.cradleofaviation.org/apollo

MOON FEST SCHEDULE - DAY EVENTS

All activities subject to change.



HIGHLIGHTS

- Meet with LI's Shuttle Astronauts
- Drive a Moon Buggy
- Launch a Rocket
- See the Apollo 11 First Steps Movie in IMAX (included in price; normally planetarium shows are extra) - only location in NY/NJ to show in immersive dome theater.
- Explore the Lunar Landing with Microsoft's hologram technology using Mixed Reality and HoloLens
- Sit and watch the moon landing on TV in a recreated 1969 living room
- Countdown together with all guests to the moment the Lunar Module landed on the moon at 4:17pm

Time	Activity	Location	Staff
Continuous	60's Living Room	Preview Theater	JS, GM
	Selfie Spots	Facility	FP
	Historic Footage Reel	Museum Galleries?	Projectionists
	Living in Space Cart	Lunar Habitat (Space)	EDU
	Astronaut Glove Challenge	Space Gallery Hallway	EDU
8:30am – 10:00am	Activity Setup and Prep	Atrium, Classrooms, Space Gallery	EDU team
11:00am	Astronomy Organizations, FIRST Lego, College Clubs, Reenactors, Microsoft Arrival	Atrium	KK, CG, IJ
12:00pm	Activities Begin	Facility	EDU team
12:00pm – 4:00pm	Microsoft Oculus Rift – Lunar Landing TBD	Moon Niche	Space Gallery
12:00pm – 12:30pm	Make a Moon Boot	Sperry Niche	P/T EDU
12:00pm – 1:00pm	Reenactors – 60's iconic (hippies/celebs)	Facility	Plaza Theatrical??
12:00pm – 2:00pm	Water Rocket Class / Launch*	Outside (2 lunch tables)	P/T EDU x2
12:00pm – 2:00pm	Solar Telescopes	Outside, weather permitting	AOS?
12:30pm – 1:15pm	Apollo at 50: Race to the Moon Talk	LEM Classroom	P/T EDU
1:00pm – 2:00pm	Moon Buggy Explorers	Space Gallery	
1:00pm – 2:00pm	Reenactors – Presidential	Facility	Plaza Theatrical??
12:30pm-1:00pm	Digitarium Program – Summer Sky	Bellanca Niche	KK + P/T EDU
1:00pm -1:30pm	Make a Moon Boot	Sperry Niche	P/T EDU
1:30pm – 2:00pm	Digitarium Program – Moon Voyagers	Bellanca Niche	KK + P/T EDU
1:30pm – 2:15pm	Apollo at 50: Race to the Moon Talk	LEM Classroom	P/T EDU
2:00pm – 4:00pm	Mars Rover Races	Hangar 2	P/T EDU x2
2:00pm – 3:30pm	Astronaut Landers & Heat Shield Testers	Wing Niche	P/T EDU x 2
2:00pm – 2:30PM	Make a Moon Boot	Sperry Niche	P/T EDU
2:30pm – 3:00pm	Digitarium Program – Summer Sky	Bellanca Niche	KK + P/T EDU
3:00pm – 4:00pm	Moon Buggy Explorers	Space Gallery	
3:00pm – 3:30pm	Make a Moon Boot	Sperry Niche	P/T EDU
3:30pm - 4:00pm	Digitarium Program – Moon Voyagers	Bellanca Niche	KK + P/T EDU
4:30pm	Breakdown	Facility	

MOON FEST

ACTIVITY DESCRIPTIONS

All activities subject to change.

**SUMMER'S
BIGGEST
EVENT**

Astronaut Glove Challenge

- Working in space can be a really hard! There's less gravity which makes everything fly around and you still have to work with expensive tools to get your job done. Participate in this challenge by acting as an astronaut to try and complete several different tasks (like picking up and stacking pennies) while wearing space gloves.

Make a Moon Boot

- Do you know when you go to the beach and your flip flops leave little footprints in the sand? Well when Neil Armstrong and the other astronauts went to the Moon, they left footprints too! Using our mold, make your own moon boot for exploration.

Water Rockets

- Grab your gear and blast off! Make your own bottle water rocket ready for flight right outside the Museum. Decorate your spacecraft with fins and decals before setting it on the launch pad and watching it soar!

Race to the Moon: Apollo at 50

- In 1969 the world watched Neil Armstrong land on the Moon. It was a moment of ingenuity, pride, and the American spirit. Join our educator as they tell the story of Long Island's role in this historic mission and all the Apollo missions.

Moon Buggy Explorers

- Take a ride on the Moon! Move around the Space Gallery in our motorized buggy. As you navigate throughout the space try to collect some lunar 'rocks' to bring back home for a souvenir of your big trip to space!

Digitarium – Summer Sky

- Space is a big place! Astronauts can use the stars to help them navigate and being away from the Earth's atmosphere, they can see them almost all the time! Step into our portable planetarium to learn all about some of the cool stars and their stories that you can find in your backyard tonight.

Digitarium – Moon Voyagers

- If you think you might be the first vacationer to the Moon or the next astronaut there, it's important to know what our neighbor is all about! Learn about the Moon by investigating its surfaces, flashback to the same day as the Apollo 11 landing, and fly to the next astronaut destination – Mars!

Mars Rover Races

- It was a race to get the Moon, but what about Mars? Well, we might not be ready for people yet, but there's robots up there called rovers. Using robotic kits, race your rover over the Mars landscape on our Giant Mars Map – traverse craters, be wary of "sand storms", and beat your friend to the finish.

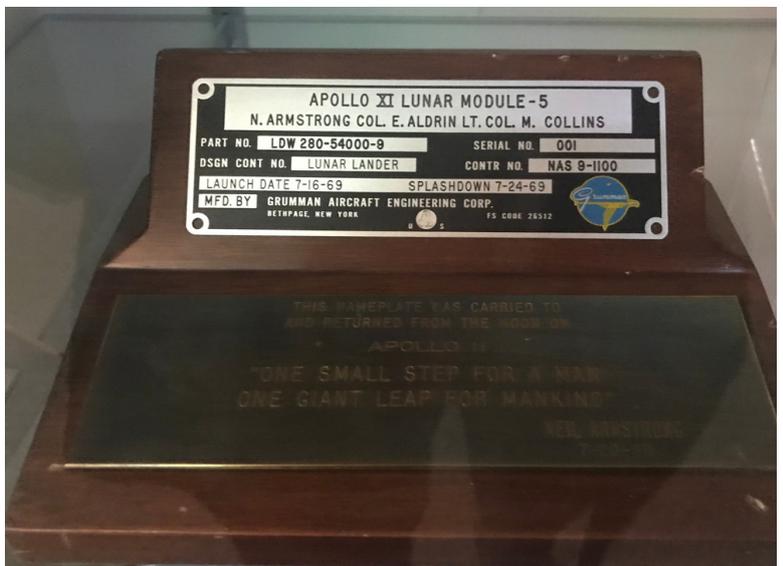
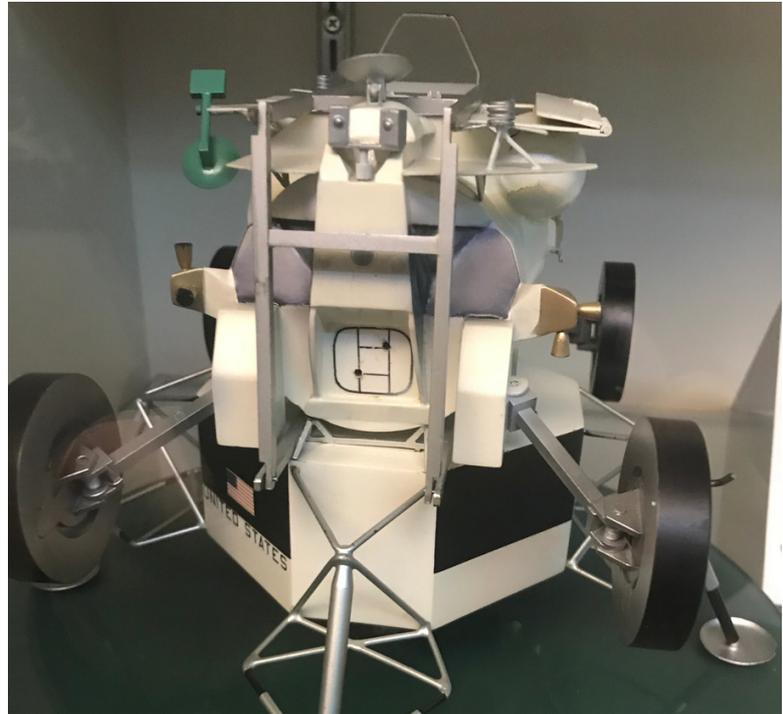
Astronaut Landers & Heat Shield Testers

- Do you have what it takes to land on the Moon? What about getting the astronauts back to Earth?! Test your skills to engineer your own lunar lander and see if your 'astronaut' lands on its target destination. Got that mission complete? Move on to their trip home to design, create, and test your vehicle for astronaut safety. From the Moon to the splashdown your mission will be complete!

ABOUT THE APOLLO EXHIBIT

The Cradle of Aviation has one of the most extensive collections of Apollo and Lunar Module artifacts in the world. The passion and pride the museum has for Apollo is evident throughout the exhibit and throughout the museum.

- Stand next to an original Lunar Module designed and built by Long Island Grumman engineers. (1 of 3 still on earth.)
- Get close to the original Lunar Module Simulator - all Apollo Astronauts trained on at Kennedy Space Center.
- Visit a full scale re-creation of the "Clean Room at Grumman which includes an actual uncompleted Lunar Module with parts waiting to be installed.
- See an Object that "Has Been to the Moon" on every Apollo Mission.
- Look at the largest Collection of Apollo Artifacts on Display.
- Engage with Docents & Volunteers Who Worked on Lunar Module.
- Get up close to the only original Apollo Spacesuit on exhibit in the New York area.
- View one-of-a-kind models showing the complete evolution of the Grumman Lunar Module.
- World's best collection of original Lunar Module Parts.
- Weave the past & future of space together with our immersive new exhibit "Space: A Journey to Our Future" that reflects on the past and looks to the future of space travel.
- See a real Moon Rock.
- Sit in a Gemini Capsule replica.



About the Lunar Module

From 1961 to 1972, Grumman employees, based in Bethpage, NY, designed, assembled and tested the Grumman Lunar Module that successfully landed 12 men on the moon between 1969 and 1972.

In all, six Lunar Modules landed on the moon. Three remaining original Lunar Modules that did not go to the moon, are still in existence today and are prominently housed at the Smithsonian's Air & Space Museum in Washington D.C., the Kennedy Space Center in Florida and the Cradle of Aviation Museum in Garden City.

The "crowned jewel" of the Cradle, the LM-13 was intended for the Apollo 19 mission to Copernicus Crater in 1973, which was ultimately cancelled.

It is presented in a re-created lunar surface scene as part of an exciting multi-media program. A mannequin wearing an actual Apollo spacesuit is about to step off, the spacecraft, so visitors will feel as thy are there as an astronaut makes "one small step". A simulated lunar surface, suspended Earth, and theatrical lighting complete the scene.

Designed solely for the one-sixth gravity and vacuum of the Moon, it had to be a new type of spacecraft, unlike anything that had every been built. The design went through several configurations over the years to save weight and consider unknown Lunar conditions and kept evolving through each successive mission. It had to be small enough to fit inside the Saturn V rocket and light enough to be launched into space. It had four widely-spaced legs so it couldn't tip over and big footpads so it wouldn't sink.





The Cradle
has the world's
best collection of
Lunar Modules,
Lunar Module parts
& Lunar Module
photos &
documentation!

TOP REASONS TO VISIT

Millions of people will be joining together to celebrate the 50th anniversary of Apollo. Whether you want to remember or share the triumphant story of Apollo with a new generation, the Cradle of Aviation is the place to be to reflect, remember, learn, & celebrate, all the wonder, achievement, and pride that is Apollo.

- See the greatest collection of Apollo and Lunar Module artifacts currently on display.
- Participate in ongoing events with Apollo Astronauts, Scientists, and Aerospace Professionals.
- Live Astronomy Shows for all Ages in our Full Dome Planetarium.
- Experience the critically acclaimed *Apollo 11* documentary from CNN Films in our Dome Giant Screen Theater
- Weave the past & future of space together with our immersive new exhibit "Space: A Journey to Our Future" that reflects on the past and looks to the future of space travel.
- Be part of the Community Countdown and Re-Experience the Moon Landing.
- Share your stories with family, neighbors, & museum employees, keep history alive.
- Educate & inspire the next generation with stories of Apollo; perseverance, pride, grit, and teamwork.
- Celebrate pride in NY & pride in Long Island.
- Buy Custom Long Island Apollo merchandise from Museum Gift Shop.
- School Competitions & Contests
- Space Summer Camps
- Countdown Clock in our Main Lobby & Web Site

APOLLO 11 Giant Screen Dome Movie Experience

Timed to the 50th anniversary of NASA's celebrated Apollo 11 mission, APOLLO 11: First Steps Edition is a thrilling cinematic experience that showcases the real-life moments of humankind's first steps on the moon.

In this special giant-screen edition created exclusively for science centers and museum theaters of Todd Douglas Miller's critically acclaimed Apollo 11 documentary, the filmmakers reconstruct the exhilarating final moments of preparation, liftoff, landing and return of this historic mission—one of humanity's greatest achievements and the first to put men on the moon.

With a newly-discovered trove of never-before-seen 70mm footage and audio recordings, APOLLO 11: First Steps Edition joins Neil Armstrong, Buzz Aldrin and Michael Collins, the Mission Control team and millions of spectators around the world, during those momentous days and hours in 1969 when humankind took a giant leap into the future.

Directed by Todd Douglas Miller, APOLLO 11: First Steps Edition is produced by Statement Pictures in partnership with CNN Films and presented by Land Rover. The film is distributed by MacGillivray Freeman Films. Run time: 47 min.



WHY SEE IT AT A DOME THEATER?

- A sensory experience of motion, sound and sight surrounded with images that provide a feeling of "being there".
- 76' wide dome with a 30 degree titled platform.
- Largest film frame in motion picture history
- The large frame and 180 degree fish-eye lens enables superb picture quality on a screen 10x larger than a traditional theater.
- Domes reproduce a more natural looking image with an unlimited number of vanishing points in all directions.
- Domes give you an incredible feeling of immersion (nothing to distract your attention).
- Enhances feeling of motion.
- Only location playing in Giant Screen Dome Theater, playing in IMAX Film Format in the New York Metro/NJ Area! (NY Hall of Science is playing in 3D; different from Dome Theater experience)

<https://macgillivrayfreeman.com/uncategorized/apollo-11-set-for-may-2019-release-in-giant-screen-institutional-theatres/>

THE CLEAN ROOM

Each Lunar Module was built inside a special "Clean Room" at Grumman. This was a white, sterile room where the workers building the LMs wore special white suits. This was so they not get any dirt or dust inside the spacecraft. Unlike aircraft, the LM's were not produced on an assembly line. Each one was handmade, one at a time like a fine violin. Many intricate parts were hand cut from solid blocks. In all, it took 2 1/2 years to build each Lunar Module, and altogether Grumman built 12 operational LMs.

Each completed LM was carefully flown to Cape Kennedy, Florida, loaded inside the giant Saturn V rocket and launched to the moon.

An exciting exhibit, unique to this museum, may be seen in the Spacelight Gallery - a full-scale re-created Bethpage Clean Room, incorporating life-like mannequins of workers and many actual parts waiting to be installed. Thus visitors may see how moon ships were meticulously built, something they cannot see anywhere else on Earth.

On display is the LTA-1, the first fully functional LM, built for testing on Earth, It is displayed without skin and legs, as it appeared while under construction at Grumman.

You can view the skin of aluminum using titanium for the fuel tanks only. the hatch way's original shape was round but was redesigned as a square to accommodate egress and ingress due to the astronauts backpack shape.

The LTA-1 is on loan from, and the LM was donated by, the National Air & Space Museum.



LUNAR MODULE COCKPIT TRAINER

An engineering trainer, identical to the original, used at Grumman in the development of the Lunar Module. This cockpit has been modified into an interactive exhibit. Visitors can see actual films taken during all lunar landings & liftoffs.

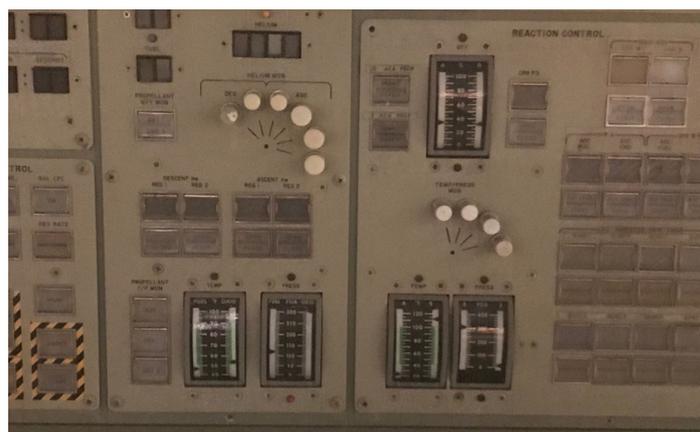
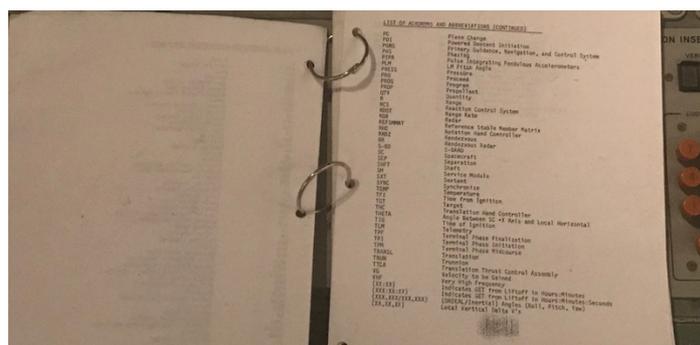


LUNAR MODULE MISSION SIMULATOR

The Lunar Module Mission Simulator, a large, complex device was in operation at the Kennedy Space Center between 1968 and 1972. It was used by all the Apollo Astronauts before their missions to train for landing on the moon. Only one was built, and remarkably, it survived in good condition. This is a very significant artifact, one of the few key pieces remaining from the Apollo program.

The device consists of simulator cabin (LM scent stage with complete original interior), four large rear projectors and screens mounted outside the windows, and operator's console, tape-drive computers, and a simulated lunar surface model and camera. Instructors at the console could introduce malfunctions into the simulated mission the astronauts were running inside. Cameras, filming a model of the lunar surface, projected the image in front of the LM windows so the astronauts would feel as if they were actually maneuvering for a landing on the Moon. Astronauts would even sleep overnight inside this device in preparation for three-day stays on the moon.

The Lunar Module Simulator was produced by Link in conjunction with the Grumman Aircraft Corporation. On loan from the National Air and Space Museum.



Rockwell Command Module

The Command Module was the control center for the Apollo spacecraft and provided the living and working quarters for the three-man crew for the entire lunar flight, except for the period when two crewmen were traveling into the Lunar Module between lunar orbit and the lunar surface. The Command Module consisted of the inner crew compartment (pressure vessel), surrounded by a stainless steel honeycomb and an outer heat shield thickest on the rear, made of heat-dissipating material that burned away during the 25,000 MPH re-entry into the earth's atmosphere. Astronauts entered the docked Lunar Module through the hatch in the nose, while the hatch on the side provided entry and exit to the Command Module. Parachutes for landing were stored in the Command Module's nose for deployment following re-entry. The parachutes seen here were flown to the Moon and back on Apollo 15. The command Module was the only part of the 364-foot tall Saturn rocket that returned to Earth.



On January 20, 1966 Apollo Test Mission 004 was launched with this very CM, number 002, headed toward an altitude of 24 miles. For this test, the launch vehicle started to tumble as planned, and the CM launch escape system sensed trouble and fired its abort rocket, carrying the CM away from impending disaster. The CM was recovered normally by parachute after a hard landing in the desert. All went well, the test successfully proved that the CM launch escape system and earth landing systems could protect the astronauts in either emergency or normal operations. This was the last flight before the Apollo 1 fire.

Mission to the Moon Exhibit

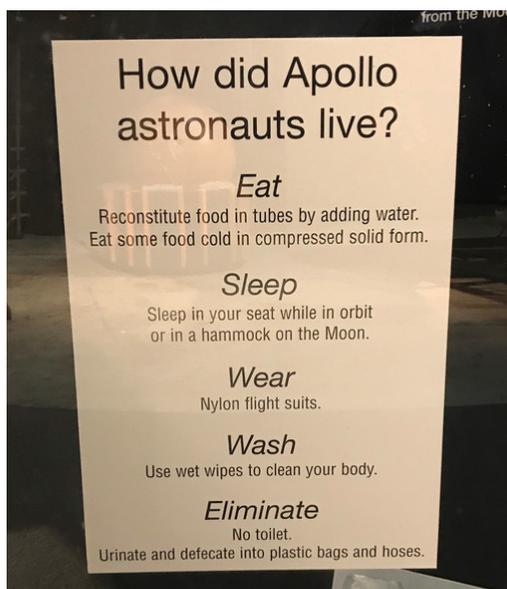
All of the artifacts in this exhibit flew to the Moon on an Apollo Mission! Artifacts from the collections of: Cradle of Aviation Museum, Northrop Grumman Corporation, NASA, National Air & Space Museum, Kansas Cosmosphere

- Apollo 8 (December, 1968) – Flight Data File, used to recognize and know precise coordinates of landmarks on Earth as a backup to navigation
- Apollo 10 (May, 1969) – Mechanical pencil with Velcro for zero-g
- Apollo 11 (July, 1969) – Nameplate from LM-5 'Eagle'
- Apollo 11 (July, 1969) – Protective cover removed from LM-5 thruster rocket once inside the Saturn V prior to liftoff
- Apollo 12 (November, 1969) – Protective cover from Navigation Sextant in Command Module, left in place when not in use
- Apollo 13 (April, 1970) – Armrest from LM-7 'Aquarius', removed upon reaching Earth prior to re-entry. This is the only remaining piece of the Apollo 13 Lunar Module
- Apollo 13 (April, 1970) – Patch and pin flown by the crew and presented to Grumman.
- Apollo 13 – Letter from President Richard Nixon to Grumman President Lew Evans on a job well done
- Apollo 14 (January, 1971) – Patch flown on Apollo 14 and presented to Grumman.
- Apollo 14 (January, 1971) – Windowshade from Apollo 14 Command Module
- Apollo 15 (July, 1971) – LM stowage bag carried to the Lunar surface and removed prior to jettisoning the LM
- Apollo 16 (April, 1972) – Water Dispenser from the LM, used to rehydrate food and to provide drinking water on the Moon
- Apollo 17 (December, 1972) – Film Magazine for 70mm Hasselblad camera used to take photographs on the Moon
- Apollo 17 (December, 1972) – Beta cloth Flag and Patch carried to the Moon and later presented to Grumman
- Apollo 18 (cancelled) – This stowage bag was intended to be filled with trash and would have been thrown out of the Lunar Module prior to liftoff. It was part of the cabin of the Cradle of Aviation's Lunar Module and would have been used on the cancelled Apollo 18 or 19 mission. All other stowage bags of this type are now on the Moon.



Living In Space

As mankind establishes his presence in the Cosmos, the unique conditions of space required new methods of eating, sleeping and waste management. This includes new types of food and clothing. Interestingly, the zero-gravity toilets for both Skylab and the Space Shuttle were built on Long Island. Thus this exhibit includes many unappealing, but interesting, Apollo-era food and hygiene items as well as space-suit components, space underwear and several hygiene items flown on the Space Shuttle. Unusual waste collection devices are also on exhibit and are sure to be of interest to all.



Pop Culture



Executive
Team
Available
for
Interviews &
Quotes



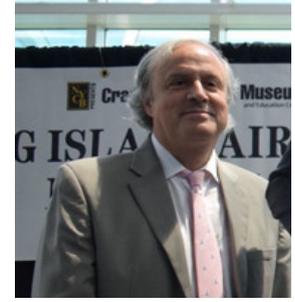
ANDREW PARTON
President

Leader of museum's growth, offerings, investments, and expansion.
14+ years at Museum



JENNIFER BAXMEYER
Executive Director

Leader of day-to-day operations, focused on delivering exceptional experience to museum's guests.
14+ years at Museum



JOSHUA STOFF
Museum Curator

Aviation & space expert and author of several books including *Chariots of Apollo*, *From Airship to Moonship*, & *Building Moon Ships*

aparton@cradleofaviation.org
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"The only spaceship that landed man on the moon was built by Long Islanders"

Museum
Docents &
Former
Grumman
Engineers
Available
for
Interviews
& Quotes



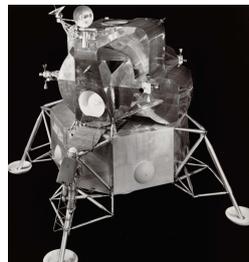
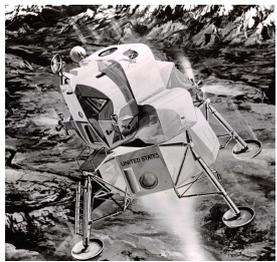
CONTACT: MIKE LISA
Volunteer Coordinator
mlisa@cradleofaviation.org

Mike Lisa - Grumman 36 years. (Environmental Test Engineer)
Worked on the LEM 1963 until the program ended. Was originally hired as an instrumentation engineer on the LEM, and later moved to environmental test and structural test engineering. Directly on the LEM and components.

Al Contessa - Grumman 4+ years (Thermal Insulation Technician)
Al worked on the LEM and was responsible for cabling, and for the most part installation of the gold thermal panels on the LEM. Was on the launch pad at the Cape at one point.

Sam Koppel - Grumman 23 years (Technical Editor)
Sam was one of the leads on the submitted proposal to NASA. He has a wealth of information concerning specs.

Ross Brocco - Grumman 30+ years (Structural Engineer)
Ross was responsible for the mechanical design of the front door hatch on the LEM and various parts.



Exclusive
Photos
from
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Contact:
Julia Lauria Blum,
Museum Archivist
jblum@cradleofaviation.org
516-572-0562



Hundreds of exclusive photos from design, building and testing of Lunar Modules.

Exclusive
Video
Interviews
with
Astronauts
about
Apollo



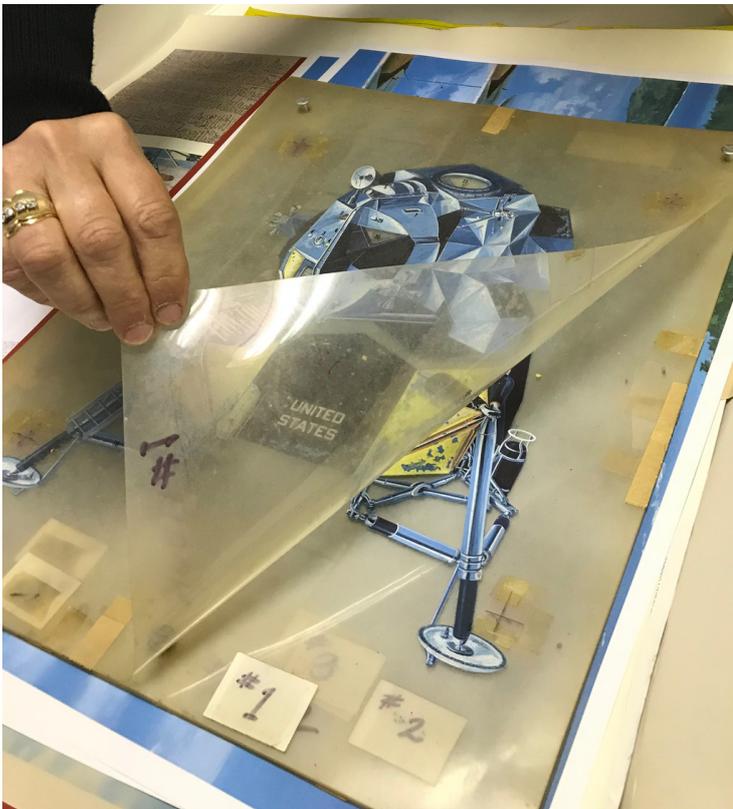
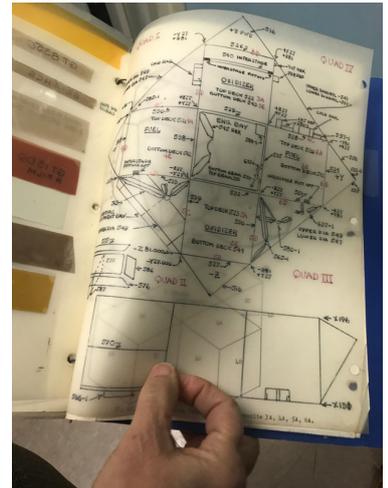
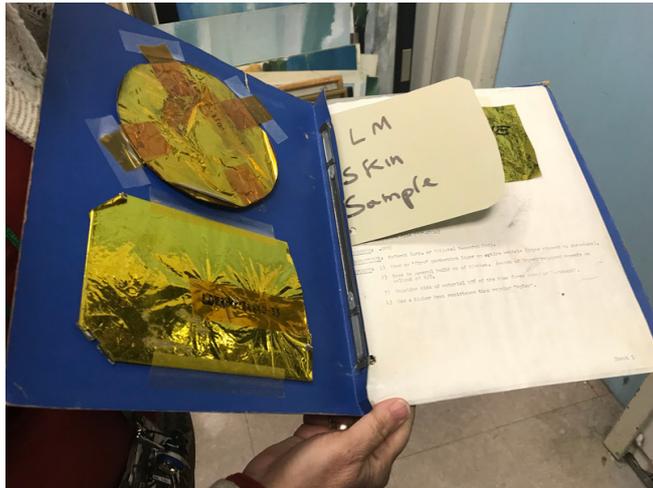
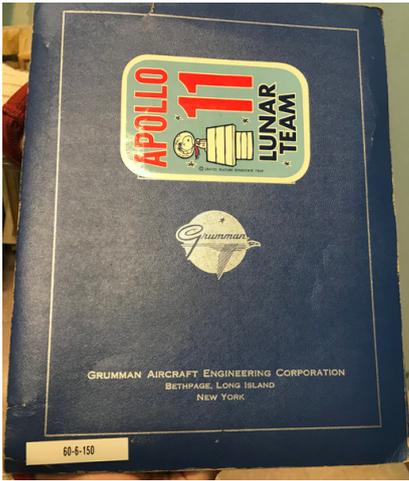
Interview Footage from:
Walt Cunningham, Apollo 7
Al Worden, Apollo 15
Mike Massimino, STS-125 . STS-109
Hoot Gibson STS-27 . STS-41-B . STS-61-C . STS-71 . STS-47)
Bill Shepherd Expedition 1. Soyuz TM-31. STS-102 . STS-27 . STS-41 . STS-52
Bill Nelson, STS-61-C
Bob Cenker, STS-61-C
Nicole Stott, STS-128 and STS-133
Kobie Boykins - NASA Engineer

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<https://www.youtube.com/user/CradleofAviation>

Artifacts from our Archives

We have hundreds of additional artifacts from our archives that can be pulled for exclusive photos and stories. Contact Julia Blum Lauria, Museum Archivist; jblum@cradleofaviation.org 516-572-0562 to go behind the scenes for additional content.



'The friendliest spider'... and how LM got that way

New It's history, and "Spider," the Lunar Module, has its own identity in the public mind. Of some significance, perhaps, is the fact that the LM Program has grown and changed substantially since Nov. 7, 1961, when NASA issued the following news release:

"Grumman Aircraft Engineering Corp. of Bethpage, New York, today, was selected to build Project Apollo's Lunar Excursion Module—a spacecraft in which Americans will land on the moon and return to a moon-orbiting mother craft for the journey back to earth."

NASA Administrator James H. Webb, now retired, emphasized at the time that only about July had NASA committed itself to "lunar orbit rendezvous" using the advanced Saturn booster. It had been a soul-searching, earth-shaking decision. More than a million man-hours had gone into studies of how best to get man to the moon.

Items listed in the news release included:

- A three-stage Saturn C-5 with first stage thrust of 7.5 million pounds
- A Five-ton Command Module (now 6 1/2 tons)
- A 25-ton Service Module (now 37 1/2 tons)
- A 15-ton Lunar Excursion Module (now 16 tons)

Said the NASA release, "... LEM will look something like the tail end of a two-man hot air balloon, measuring 10 feet in diameter and standing about 15 feet tall on its skid-type legs." It's grown up since then. It measures 31 feet, legs extended, and stands 23 feet tall—total.

Joseph G. Gavin Jr., presently director of all Grumman Space Programs, was elected a Company Vice President and given the title of Director of the Lunar Excursion Module Program. By Nov. 19, 1963, a team of engineers was in Houston working with NASA, even though the contract still was being negotiated.

First to be named to the LEM Program (the 9 in LEM standing for "Excursion," was dropped in 1967) were Bob Mallory as Program manager; Bill Babble, Engineering manager; John Sander, Business manager; Tom Kelly, Project engineer; John Costello, Reliability director; Bill Bruning, Manufacturing manager; Joe Kingfish, QC manager. Others in the early planning included Arnold Whittier, Systems project engineer, and Bob Carber, Subsystems project engineer.

Clint Towl, then Grumman President, pointed out that the Company had been runner-up contender on Project Mercury and had been in competition with "nine of the largest aerospace companies" for the LEM contract.

'Most fantastic'

"It was the most fantastic thing you could imagine. There came to my wife's eyes," reported Jerry Michael of Test Operations & Support, Plant 33, describing the launch of Apollo 9. He and three others from Bethpage plants were guests of Grumman and NASA by virtue of their outstanding contributions to the LM Program.

They stayed at the Crossway Inn with guests from other contractors and spent their first day touring the Cape, seeing a film, listening to LM-3 Spacecraft Director Tom Altledge explain docking and rendezvous ("some of the others hadn't been living the LM life we had"), viewing a "spaceport" movie of Apollo 8, and being entertained at a big dinner and reception for Company and NASA executives, astronauts and their wives, and government officials.

"But the real highlight was that blast-off at 11 Monday morning," Michael said. "You saw it igniting in a ball of flame and all the birds flying up, and the vibration. . . . You were THERE. You got all the noise and atmosphere, all the feeling. The day was overcast, and Apollo went through the clouds and that was it. We didn't see it any more."

Besides Michael, those who were chosen for the honor by the Manned Flight Awareness Program were Mary Roy, Program Control, Plant 10; Frank Budny, LM Quality Control, Plant 2; Vince Holder, LM Manufacturing Test, Plant 30—all from Bethpage; Sam Genie, Operations Support engineer, from KSC; Jack Eddy, Safety engineer, and Donald Carson, Inventory Control - Logistics, both MSC; Leo Featherstone, Manufacturing Test Stand chief, White Sands Test Facility.

Evolution. JFK and LEM stand with NASA's mockup of a theoretical Lunar Excursion Module in early '62 at Mass. Later that year Grumman was NASA contract for LM design at right. Today's LM-3, below, was pointed for N.Y. Times Magazine cover by Craig Keseler of Pressphotos from blueprints and photos.

'Study in perseverance'

What Al Munier, asst. director for Space Technology - Product Development, likes to refer to as a study in perseverance" led up to the Lunar Module award. "We started in 1959 to think about manned space programs," he recalls, "and as early as August 1960 we submitted our first, preliminary study on Project Apollo. That was when the theory of a Command-Service Module going straight to the moon was current."

"Then NASA held a competition, and ITAT and Grumman presented a follow-up study of Apollo—in October of 1960. We lost that one."

"By May of '61 we had compiled four volumes on results of in-house studies that we submitted to NASA so that we were still pitching in October there was a competition for hardware for Apollo. We were in that, with General Electric—and again we lost."

"But in early 1962 we started developing the Lunar Orbit Rendezvous concept, and our feasibility study was finished in June. Then NASA decided to hold a competition for LEM. With RCA as prime subcontractor, we submitted our proposal in September. In November we got the contract."

"It took a lot of foresight and a sizeable—for those days—investment. But most of all, I guess you'd say it took perseverance."

Vol. 28, No. 5, Bethpage, N. Y., March 14, 1969

Just some of photos available for reprint.

<https://nyheritage.org/collections/spaceflight>

Eleven Must-Sees

11. Living in Space Exhibit (showcasing food & waste management for Apollo)
10. Pop Culture Exhibit (showing space toys and memorabilia from 1969)
9. Gemini Capsule Replica (you can sit in as seen in First Steps movie)
8. A real Moon Rock
7. Mission to Moon Exhibit (which includes the Apollo 11 LM-5 Eagle Namplate)
6. Tom Stafford's Spacesuit from Apollo 10 Mission
5. Neil Armstrong's Bioharness from Apollo 11
4. Rockwell Command Module w/ Parachute (Apollo 13)
3. Grumman Lunar Module Simulator (used on all Apollo Missions)
2. Grumman Lunar Module Clean Room Display
1. Grumman Lunar Module LM-13 (Apollo 19 - cancelled)



Fast Facts & Figures

To date, 16 Apollo Astronauts have spoken at or visited the museum including:

Walter M. Schirra Jr.
(Mercury 7)

Malcolm Scott Carpenter
(Mercury 7)

Walter Cunningham (Apollo 7)

James A. McDivitt
(Apollo 9)

Rusty Schweickart (Apollo 9)

Thomas P. Stafford (Apollo 10)

Neil Armstrong (Apollo 11)

Buzz Aldrin (Apollo 11)

Alan Bean (Apollo 12)

Jim Lovell (Apollo 13)

Fred Haise (Apollo 13)

Alan B. Shepard Jr.
(Mercury 7, Apollo 14)

Al Worden (Apollo 15)

Charlie Duke (Apollo 16)

Eugene Cernan (Apollo 17)

Harrison Schmitt (Apollo 17)

- In total, 12 astronauts have walked on the moon. Of those, 6 have walked the floors of our museum including Neil Armstrong (Apollo 11), Buzz Aldrin, (Apollo 11), Alan Bean (Apollo 12) Charlie Duke (Apollo 16) , Eugene Cernan (Apollo 17). & Harrison Schmitt (Apollo 17).
- Additionally, 16 Apollo Astronauts have been to our Museum.
- By 1969, up to 9,000 people were working on Project Apollo Lunar Module at Grumman.
- The Lunar Module had four widely-spaced legs so it couldn't tip over on the Moon and big footpads so it wouldn't sink into Moon dust, (if existed).
- It took 2 1/2 years to build each Lunar Module.
- The Lunar Module was often referred to as "the moon bug".
- Grumman's initial contract with NASA was to build six Lunar Modules, but this number was later increased to 18, nine of which were to fly lunar missions. The remainder were used for additional ground testing.
- The Lunar Module was never flight tested because the lunar environment could not be replicated.
- According to Joseph Gavin, VP of Grumman, "The request for bid on the Lunar Module was unique...in that it did not ask for a specific design. It was almost like a game of "Twenty Questions. You answer these questions and if we think you know what you're talking about , well talk to you later."
- The advantage of the Grumman bid was with the engineering and manufacturing facilities, especially its clean room complex for vehicle assembly and testing.
- In November 1962, NASA Awarded Grumman the Lunar Module contract in a competition with eight other bidders.
- At its peak in 1968, about 7000 men and women worked at Grumman on the LM Program. This included approximately 3000 engineers, scientists, mathematicians and supporting technical personnel.
- The LM-13, on display at the Cradle of Aviation Museum, weighs 8,600 lbs.
- In an address to Grumman workers on September 17, 1969, Neil Armstrong said, "We didn't come to make speeches, but just to congratulate you for your excellence and to thank you for giving us one grand spacecraft."
- The hatch way's original shape on the Lunar Module was round but was redesigned as a square to accommodate egress and ingress due to the astronauts' backpack shape.

"It's an honor to be here at one the of what I believe to be one of the better museums we have in the world. My only disappointment is that they never did let me fly that F-11-1 up there,"

- Walt Cunningham

Winning the Bid That Changed History

So well within the time frame set forth by President John F. Kennedy on May 25, 1961 - that of putting a man on the moon and returning him safely "before this decade is out" the job has been done, and the future beckons.

But getting that task accomplished in the first place deserves some attention, for it's been called the single greatest achievement in the history of man. And for Grumman, it has been the finest hour, although it didn't start that way.

In 1960, the Corporation submitted a preliminary study on Project Apollo. It was turned down. A year later, Grumman submitted another proposal to NASA. Again it was rejected. And in 1962- convinced that a lunar orbiting rendezvous was the best approach-the Company did a feasibility study.

By mid-1962 The Grumman engineering team was convinced that the lunar orbit rendezvous was the best method. This approach called for the Lunar Module to orbit the moon attached to the Command and Service module then separate from them, descent to the lunar surface when the mission was complete to ascend and allow the astronauts to rejoin the remaining orbiting modules for the return trip to Earth. Kelly further recalled that the lunar orbit rendezvous approach was selected because it was more economical. One of the main advantages...was that it allowed you to specialize the spacecraft..

Specifically, the Command Module could be specialized for re-entry which was a very demanding environment the Lunar Module was able to be specialized for operation in space and on the moon.

NASA was convinced of this approach, which was originally derived by John Houboldt of NASA, as superior. Requests for proposals were issued by NASA with Grumman submitting its response in September 1962.

According to Joseph Gavin, VP of Grumman, The request for bid on the Lunar Module was unique...in that it did not ask for a specific design. It was almost like a game of "Twenty Questions. You answer these questions and if we think you know what you're talking about, we'll talk to you later."

At 5 pm on Wednesday, Nov 7 word was received at Bethpage that the National Aeronautics and Space Administration is entering into negotiations with Grumman on a \$350 million dollar contract to build Project Apollo's Lunar Excursion Module (LEM) - a spacecraft in which Americans will land on the moon and return to a moon-orbiting mother craft for the journey back to earth." Persistence and a good idea had carried the day.

Grumman President Clint Towle released the following statement. "We are more than pleased to have been selected to negotiate as the contractor to produce the vehicle which will send our astronauts on the moon and return them to their space rendezvous. Full credit for this achievement must be given to the engineering and technical staff who have worked hard on the LEM (particularly known as the 'moon bug') Proposal, and the studies leading up to it. But our initial reaction here is much more than a sense of this accomplishment. Rather it's a sense of the important job that must yet be done.

Grumman News Special Bulletin, Nov 8
The Lunar Module: A National Historic Mechanical Engineering Landmark, 2002

Sam Koeppel, a docent at the museum, was the Technical Editor on the Proposal and has great stories about that time and is available for interviews.

Grumman News Vol 28
No 14 Bethpage, NY July 28, 1969);
The Lunar Module: A National Historic Mechanical Engineering Landmark, 2002

About the Design of the Lunar Module

Designed solely for the one-sixth gravity and vacuum of the Moon, it had to be a new type of spacecraft, unlike anything that had ever been built. The design went through several configurations over the years to save weight and consider unknown Lunar conditions and kept evolving through each successive mission. It had to be small enough to fit inside the Saturn V rocket and light enough to be launched into space. It had four widely-spaced legs so it couldn't tip over and big footpads so it wouldn't sink.

Each LM consisted of an ascent stage and a descent stage, with both stages functioning as a single unit after separation from the Command Module through descent, landing, and stay on the lunar surface. The descent stage then served as the launch platform from which the ascent stage lifted off the moon. Interstage fittings were severed by explosives, so that the ascent stage then operated as an independent spacecraft during liftoff, ascent, rendezvous, and docking with the Command Module in lunar orbit. Thermal and micrometeoroid shields also covered the descent stage. This shield, of aluminized Mylar, gave the craft a fragile, almost flimsy appearance. The ascent stage was the control center of the LM, with position for two astronauts. It contained the systems required for navigation, control, communications, life support, electrical power, and propulsion. The descent stage, the unmanned portion of the LM, carried the scientific equipment and experiments that were used on the lunar surface, as well as the descent propulsion system.

The Lunar Module was the first true spacecraft, performing its mission only in the vacuum of space. Because of this, it could be designed to be purely functional, without streamlining—no aerodynamic qualities were necessary.



About the Apollo Missions

Apollo 1: Apollo 1 was to be the first crewed mission of the Apollo Program. Planned as the first Earth orbital test of the Apollo Command and Service Modules it was to launch on February 21, 1967. However the mission never flew as a cabin fire on January 27 killed all three crew members; Virgil 'Gus' Grissom, Edward White and Roger Chaffee. After the incident all manned Apollo flights were suspended for 20 months while the Command Module was re-designed.

Apollo 7: October 11 – October 22, 1968. Apollo 7 was the first mission in the Apollo Program to carry a crew into space. Apollo 7 fulfilled Apollo 1's mission of testing the Apollo Command and Service Modules in Earth orbit. The crew consisted of Walter Schirra, Donn Eisele and Walter Cunningham. This was the first time a Saturn rocket put a crew in space as well as being the first three-person American space mission. The flight was considered a complete success, validating all spacecraft systems, thus giving NASA the confidence to send Apollo 8 around the Moon but three months later.

Apollo 8: December 21 – December 27, 1968. The second manned Apollo mission became the first manned spacecraft to leave low Earth orbit, reach the Moon, orbit it, and return. The crew of Frank Borman, James Lovell and William Anders were the first humans to witness Earthrise and escape the gravity of the Earth. Apollo 8 was the first crewed launch of the Saturn V rocket and their Christmas Eve television broadcast from Lunar orbit was, at the time, the most watched television program ever.

Apollo 9: March 3 – March 13, 1969. Apollo 9 was the first flight of the Apollo Command and Service Modules with the Grumman lunar Module. The crew of James McDivitt, David Scott and Rusty Schweikart spent 10 days in low Earth orbit testing several aspects critical to Landing on the Moon. These included testing the Lunar Module's engines, life support and navigation systems and performing docking maneuvers. The first manned flight of the LM proved it was spaceworthy and prepared for its ultimate goal of landing on the Moon.

Apollo 10: May 18 – May 26, 1969. Apollo 10 was the second Apollo mission to orbit the Moon. Essentially a 'dress rehearsal' for the first Moon landing, the crew of Thomas Stafford, John Young and Eugene Cernan, tested all of the components and procedures, just short of actually landing. The Lunar Module was flown in a descent orbit within 8 miles of the Lunar surface and then successfully staged. The success of Apollo 10 enabled the first Lunar landing to be attempted but two months later.

Apollo 11: July 16 – July 24, 1969. This mission was the spaceflight that landed the first two humans on another world, Neil Armstrong and 'Buzz' Aldrin, on the Moon's Sea of Tranquility. The two Americans landed in the Long Island built Lunar Module 'Eagle' on July 20, 1969. They spent about 2 ½ hours together outside the spacecraft on the Lunar surface and collected 47.5 pounds of Lunar material to bring back to Earth. Michael Collins remained in the Command Module in Lunar orbit before being rejoined by Armstrong and Aldrin almost a day later. Armstrong's first step onto the Moon was broadcast on live TV to a global audience. It is considered to be one of the greatest achievements of mankind.

About the Apollo Missions

Apollo 12: November 14 – November 20, 1969. Launched just four months after Apollo 11, 'Pete' Conrad and Alan Bean performed just over one day seven hours of Lunar surface activity on the Moon's 'Ocean of Storms', while Richard Gordon remained in Lunar orbit. Unlike Apollo 11, Apollo 12 achieved a precise landing at their expected location, the site of the Surveyor 3 unmanned probe. One moonwalk they visited the old Surveyor and removed some parts for return to Earth for analysis.

Apollo 13: April 11 – April 17, 1970. With the crew of James Lovell, Fred Haise and 'Jack' Swigert, Apollo 13 was intended to be the third manned Lunar landing. However on April 13, fortunately on the way to the Moon, an oxygen tank exploded crippling the Service Module upon which the Command Module depended for power and life support. This led to an immediate abort of the Lunar landing. Thus the Lunar Module was pressed into service as a lifeboat and a tugboat, a role never anticipated for it. Despite great hardship caused by limited power, loss of cabin heat, shortage of cooling water and the critical need to make makeshift repairs to the carbon dioxide removal system, the crew returned safely to Earth six days after launch.

Apollo 14: January 31 – February 9, 1971. Apollo 14 was the third mission to successfully land on the Moon. With the crew of Alan Shepard, Stuart Roosa and Edgar Mitchell, Apollo 14 landed in the Fra Mauro Formation, the destination of Apollo 13. This was the last of the 'H' missions with only a two day stay on the Moon and with only two Lunar EVA's, or Moonwalks. During their two EVA's the crew collected a total of over 94 pounds of rocks and several scientific experiments were performed. Shepard, the only Project Mercury astronaut to make it to the Moon, demonstrated hitting a golfball on the lunar surface with a makeshift club.

Apollo 15: July 26 – August 7, 1971. The first 'J' mission, with a longer stay on the Moon, was crewed by David Scott, James Irwin and Alfred Worden. This mission had a greater focus on science than the earlier landings and it saw the first use of the Lunar Roving Vehicle. They landed near Hadley Rille and explored the area using the Rover, allowing them to travel much further from the Lunar Module than previous missions. Scott and Irwin spent over 19 hours on the Lunar surface over the course of three EVA's while covering over 17 miles.

Apollo 16: April 16 – April 27, 1972. The fifth mission to land on the Moon was crewed by John Young, Charles Duke and Ken Mattingly. It was the first mission to land in the Lunar Highlands, the mountainous Descartes Formation. Young and Duke spent almost three days on the Moon including over 20 hours on Moonwalks. In the process they covered over 16 miles in the Lunar roving Vehicle and collected over 211 pounds of Lunar samples for return to Earth.

Apollo 17: December 7 – December 19, 1972. Apollo 17 was the last mission in which humans traveled to and walked on the Moon. With a crew of Eugene Cernan, Ronald Evans and Harrison Schmitt, it was also the last use of Apollo hardware for its original purpose. This mission was also the first manned night launch and final manned launch of a Saturn V rocket. Three days were spent on the Lunar surface and the mission had extended scientific capability and saw the third use of the Lunar Roving Vehicle. Apollo

Apollo & The Kids

In the summer of 2019, 16,000 libraries across the country will celebrate space exploration in their summer reading programs. The slogan “A Universe of Stories” was chosen by library professionals to help inspire children of all ages to dream big, believe in themselves, and create their own story. This summer learning program will coincide with NASA’s 60 years of achievement and its celebration of the 50th anniversary of the Apollo 11 Moon Landing.

What better way to extend the library experience than with a trip to the Cradle of Aviation Museum?

- See the Apollo Exhibit with the largest collection of Lunar Modules, artifacts and images.
- Experience Mars with our SPACE: A Journey to our Future Exhibit
- Watch the Apollo 11: First Steps Edition IMAX in our giant screen immersive Dome Theater
- Join us for Moon Fest on July 20th, to meet astronauts, experience the moon in virtual reality, and take a ride in a Moon Buggy.
- Countdown with us in our lobby as we celebrate the 50th Anniversary of Man Landing on the Moon .
- Talk to our Docents who helped build the spaceship that landed on moon
- Learn how Long Islanders designed, built and tested the Lunar Modules that brought men to the moon and back.
- Share the story of Apollo: vision, teamwork, commitment, perseverance, and grit; universal pride and optimism.
-



The benefits of summer reading programming for children:

- Children are motivated to read.
- Children develop positive attitudes about reading, books, and the library.
- Children maintain their reading skills during summer vacation.
- Children have access to experiences that further their sense of discovery.
- Children have access to experiences through which they can learn to work cooperatively.

About the Cradle

The Cradle of Aviation Museum and Education Center is home to over 75 planes and spacecraft representing over 100 years of aviation history and Long Island's only Giant Screen Dome Theater. Long Island and Grumman's role in the Apollo program is the focus of the Cradle of Aviation Museum's celebration, "Countdown to Apollo at 50", sponsored by The Robert David Lion Gardiner Foundation and The Jet Blue Foundation.

The museum is a celebration of the evolution and diversity of aircraft and spacecraft and their influence on society. The goal of each exhibit is to educate and entertain and bring the thrill of aviation to everyone. Each technique of communication is used to catch visitors' interest and heighten their understanding.

The Museum was recently recognized and listed on New York State's National Register of Historic Places as a significant part of American history. The museum is located on Museum Row, Charles Lindbergh Blvd., in East Garden City. For more information call (516) 572-4111 or visit www.cradleofaviation.org.

CONTACT: Frances Cuomo Perpero
Director of Marketing & Communications
fperpero@cradleofaviation.org
516-238-6159



The Cradle of Aviation is distinguished from all other Air and Space Museums in that it has a focused collection of significant Long Island artifacts and provides a unique interpretation.

Long Islanders' involvement in aviation and spaceflight is a story of struggle and risk, failure and success, by people who tried to reach as far as their imaginations and abilities would take them. But we are not at the end of our story - the history of aviation and spaceflight - in fact we are probably still somewhere near the future will hold.

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Apollo at 50 

ANNIVERSARY DINNER

JUNE 6, 2019, 6:00 PM

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Project Apollo gave us an incredible amount of new scientific knowledge.

It was also of tremendous inspirational value, and it gave America a great deal of national pride.

Only Americans have walked on the moon. If we can send men to the moon, we can do almost anything we really want to.

In all, twelve astronauts have left their boot prints on the moon, and they brought back nearly a thousand pounds of rocks that proved up to be up to 4.6 billion years old.

But Apollo brought home something else very important to us, a new appreciation for the beauty and fragility of planet earth as it sails through space.

For the first time, we saw our own blue planet through a space traveler's eye and camera- a beautiful oasis in the vast blackness of space. We now realized that only by fully understanding our planet can we learn how to preserve its limited natural resources. We must preserve our island in space for future generations.

- Josh Stoff, Museum Curator

