

# Americans in Space

In the late 1950s rocket powered aircraft were poised to pierce the veil of outer space. Both the Soviet Union and the United States had lofted man-made satellites into orbit for purposes ranging from scientific inquiry and weather forecasting to communications and military reconnaissance. Russia and America also established programs for humans to ride the missiles and eventually pilot them.



*Postmarked on the Prime Recovery Ship (PRS) for the first American to orbit the Earth.*

Beginning in 1959 the National Aeronautics and Space Administration (NASA) conducted flights that put Americans into space. Project Mercury established that a pilot could orbit the Earth. Project Gemini developed advanced capabilities for long duration flight, docking, and walking in space. Lastly, Project Apollo extended our reach with the exploration of the Moon.

The exhibit traces our nation's path through three periods of manned space exploration. Project Mercury (1959-1963) mixed monkeys, robots and America's first space pilots in a Space Race with the Soviets. Project Gemini (1962-1966) saw the introduction of computers in orbit, fuel cells to generate electricity, docking two spacecraft and walking in space. The exhibit concludes with the triumphant Project Apollo (1960-1975) that fulfilled President Kennedy's goal of "landing a man on the moon and returning him safely to the earth."

In keeping with the Federation Internationale de Philatelie (FIP) regulations for Astrophilately, the cancels in this exhibit conform to the principle that the story of the conquest of space is best told with envelopes postmarked on the date and closest to the entity controlling the event.

# Project Mercury

*“Tossing a man up in the air and letting him come back...is about the same technical value as the circus stunt of shooting a young lady from a cannon...”*

Hugh Dryden, NACA 1958

The 1950s was a golden age of aviation in America. Test pilots at Edwards and elsewhere were constantly expanding the limits of aeronautical science, licking the outside of the envelope, in astrophilatelic parlance. The speed of sound, conquered just a few years before, was now routinely exceeded by production line Air Force fighters. Modified F-104 Starfighters were flying zoom profiles that brought them to the highest reaches of the usable atmosphere. And then came the X-15. An aircraft with the performance characteristics of a V-2 missile, it flirted with outer space at a time when space travel was relegated to science fiction.

In 1957 James McDonnell of McDonnell Aircraft gave a commencement address to an engineering school in which he predicted that the first manned Earth satellite would take place between 1990 and 2005. After the Soviets successfully launched an orbiting satellite a few months later it became clear to both the Eisenhower Administration and the Department of Defense that America would put an American into orbit. In less than 2 years McDonnell would sign a contract worth \$18.3 million to serve as prime contractor for the Mercury spacecraft.

NASA Project A, announcement no. 1, dated December 22, 1958, sought GS-12 to GS-15 pilots for the position of “Research Astronaut-Candidate”. Project Mercury had been announced the previous week. Successful applicants would be college prepared military test pilots with at least 1500 hours of flying time and be qualified in jets. The Pentagon was able to identify more than 100 men who met the criteria.

In the end seven men were selected. Shepard would fly first, be grounded for years, and then return to golf on the moon. Grissom would almost drown, command the first manned Gemini mission, and then die while preparing the first Apollo capsule. Glenn would circle the globe, become a Senator and run for President, and then ride the Space Shuttle



as the oldest human to orbit at 77. Carpenter would have 4 hours in space, leaving as the only American to fly into space only alone. Schirra would

command Mercury, Gemini, and Apollo spacecraft before hanging up his helmet. Cooper would be the last American to venture into space alone. He returned to fly in the follow on program – Project Gemini. Slayton would be grounded before he had a chance to fly. As fate would have it, 13 years later, he got his chance on the final flight of the Apollo program. Ironically, the space race that had been a competition with the Soviet Union ended on his mission with the first joint Soviet/US flight.

When Yuri Gagarin flew in 1961 the flight controls were locked. A code from Mission Control was required if he was needed to pilot the capsule. Similarly, the early Mercury flights could have been successfully flown by autopilot. Robot and astrochimps proved that. By the end of the program, however, not having an astronaut pilot in the loop made mission success impossible. The need for an ape had evolved into the need for a man.

*“Man is the deciding element...As long as Man is able to alter the decision of the machine, we will have a spacecraft that can perform under any known conditions.”*

Chis Kraft, NASA 1963

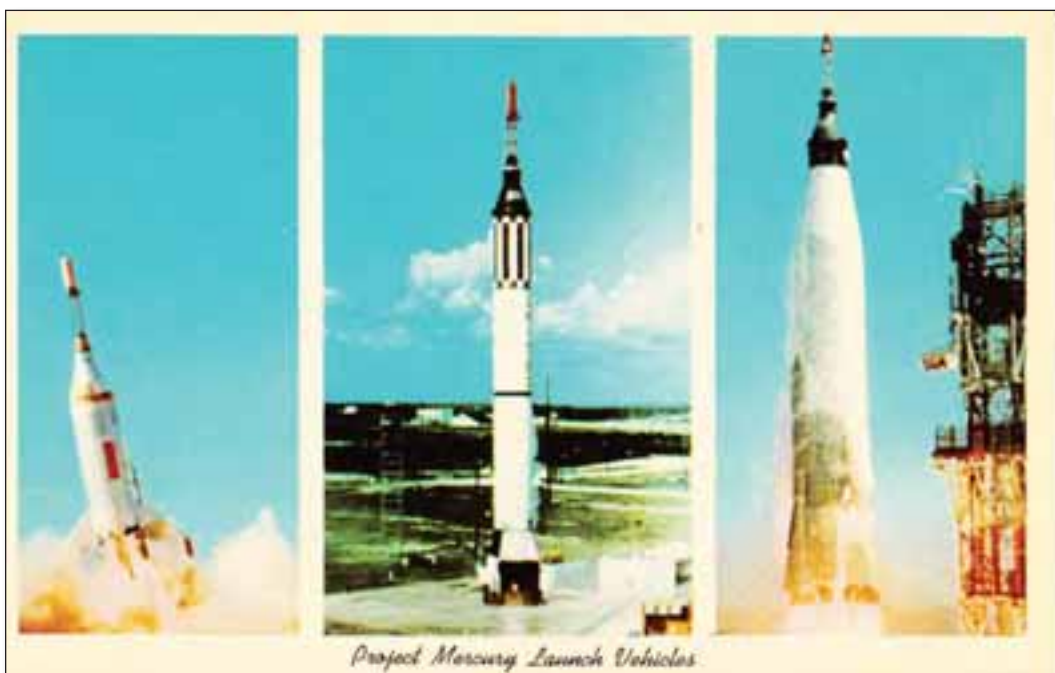
## Americans in Space: Project Mercury

BJ-1 Port Canaveral Hand Cancel 09 Sept 1959



*Little Joe -1 (LJ-1) was a failed attempt launched from Wallops Island on 21 Aug 1959. This was followed on 9 Sept 1959, by a boiler plate Atlas test carrying a letter addressed to Robert Gilruth:*

*This note comes to you after being transported into space during the successful flight of the "Big Joe" capsule, the first full-scale flight operation associated with Project Mercury.*



*Little Joe, Mercury Redstone, and Mercury Atlas launch vehicles.*

# Americans in Space: Project Mercury

LJ-2

Wallops Island Hand Cancel

4 Dec 1959



Following partially successful tests for capsule aerodynamics (LJ-6) and abort at maximum dynamic pressure (LJ-1A) NASA launched "Sam," a primate from the School of Aerospace Medicine.

LJ1-B

Wallops Island Hand Cancel

21 Jan 1960



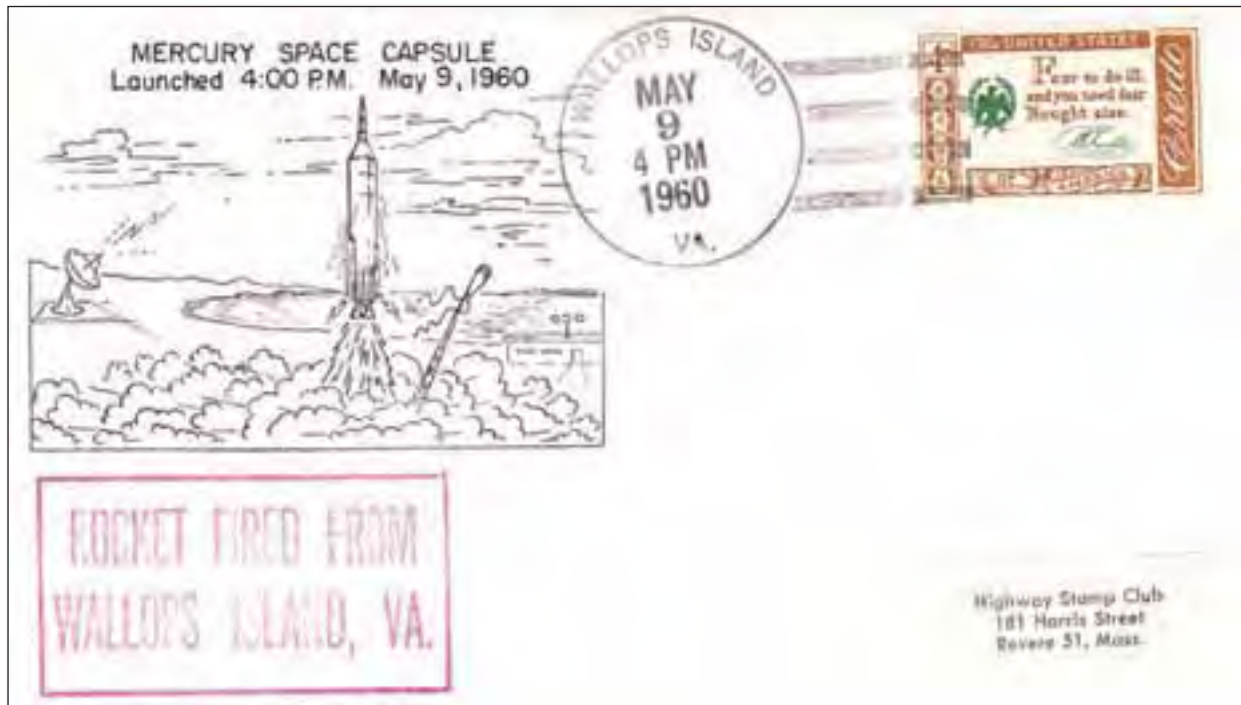
Airbrush artwork by noted artist William Numeroff (1 of 3) heralding the flight of "Miss Sam" used to test escape rocket after simulated booster failure. Capsule returned by Marine helicopter to Wallops Station.

# Americans in Space: Project Mercury

Beach Abort

Wallops Island Hand Cancel

9 May 1960



*The carefully weighed and balanced capsule pointed its pylon towards the sea. The ignition switch closed and the escape rocket jerked the capsule from the ground on its short flight, lasting one minute and 16 seconds, covering half a mile in an arc 2465 feet high. Recovery by a Marine Corps helicopter took only 17 minutes.*

MA-1

Patrick Air Force Base Machine Cancel

29 Jul 1960



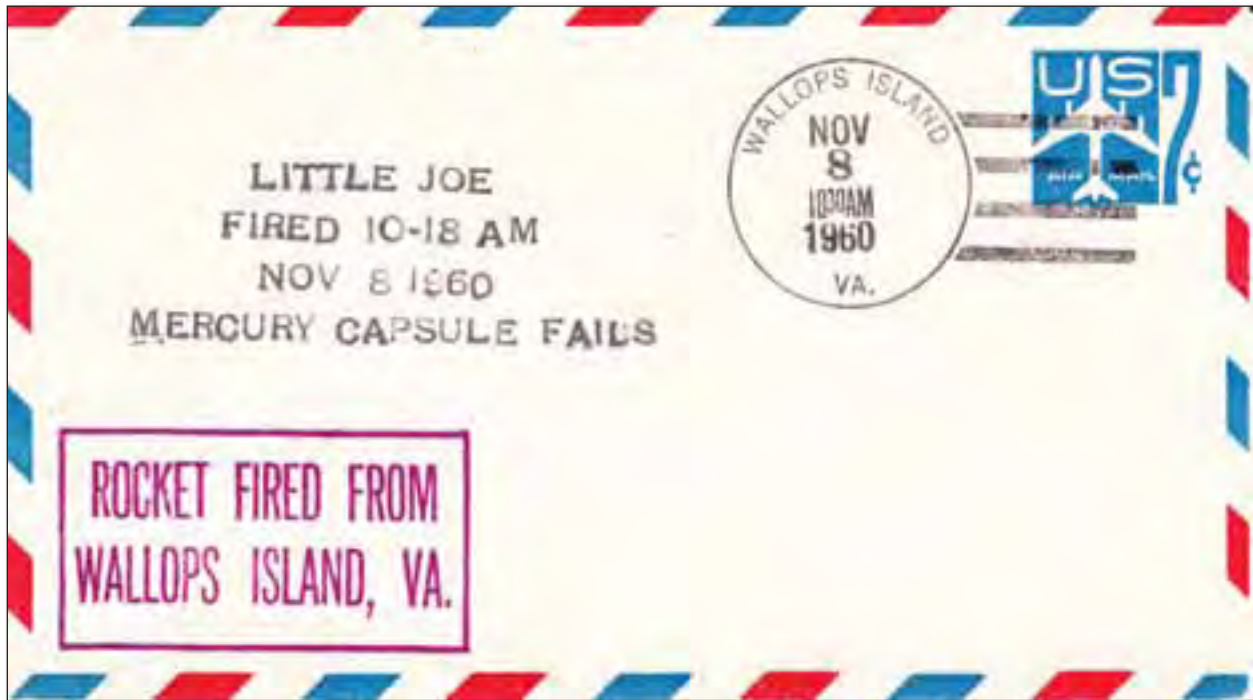
*Following a Beach Abort (BA) success at Wallops Island the Atlas' liquid oxygen boil off valve failed due to vibration induced fatigue. This caused an explosion that destroyed both the booster and Mercury capsule. Ironically, Project Apollo is announced on this day.*

# Americans in Space: Project Mercury

LJ-5

Wallops Island Hand Cancel

8 Nov 1960

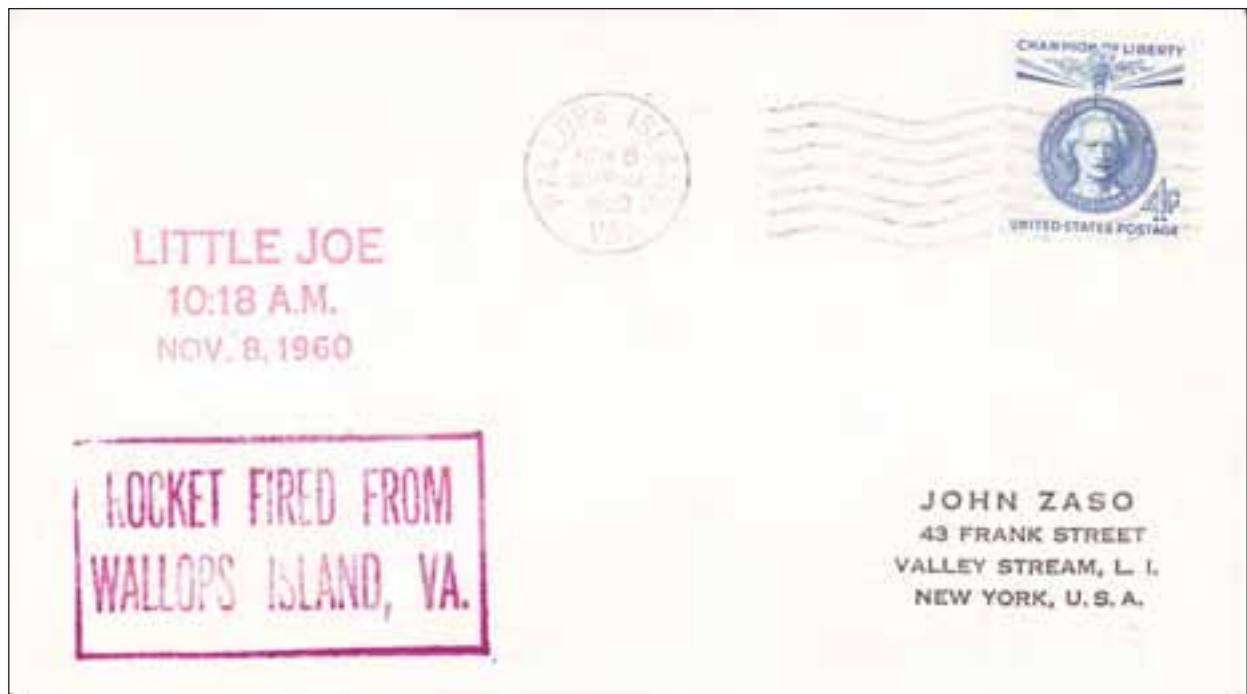


*On Election Day, the first production capsule was sent aloft to evaluate flight qualification of abort conditions at maximum dynamic pressure.*

LJ-5

Wallops Island Machine Cancel

8 Nov 1960



*Escape rocket, tower jettison rocket, and booster all fired at the same time keeping the vehicle mated until impact shattered them into fragments. Only 40 percent of the capsule was found.*

# Americans in Space: Project Mercury

MR-1A

Patrick Air Force Base Machine Cancel

19 Dec 1960

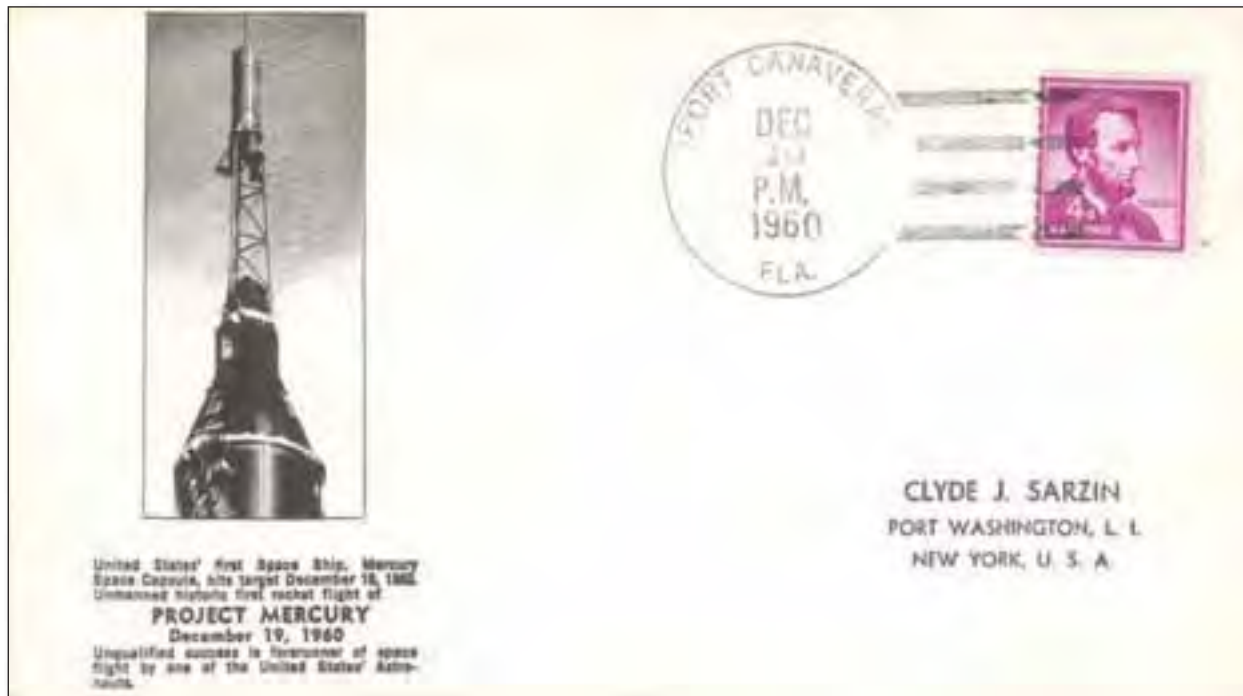


Three weeks later a new embarrassment. Mercury Redstone-1 (MR-1) flew four inches before the engine shut down. After altering the booster tail plug MR-1A produced an unqualified success.

MR-1A

Port Canaveral SUSPECT Hand Cancel

19 Dec 1960



It is believed that early space cover dealers, unhappy with the hard-to-read cancel at Port Canaveral, purchased a rubber stamp and postmarked their own covers.

# Americans in Space: Project Mercury

MR-2

Patrick Air Force Base Machine Cancel

31 Jan 1961



*Supplied by Holloman Aerospace Medical Center "Ham" experienced 17g, loss of cabin pressure, and took on 800 lbs of sea water following splashdown.*

MR-2

Port Canaveral SUSPECT Hand Cancel

31 Jan 1961



*Except for an intensive effort to redesign the landing bag impact attenuation system, the Mercury capsule appeared ready to carry the first American astronaut into space.*



# Americans in Space: Project Mercury

MA-2

Port Canaveral Hand Cancel

21 Feb 1961

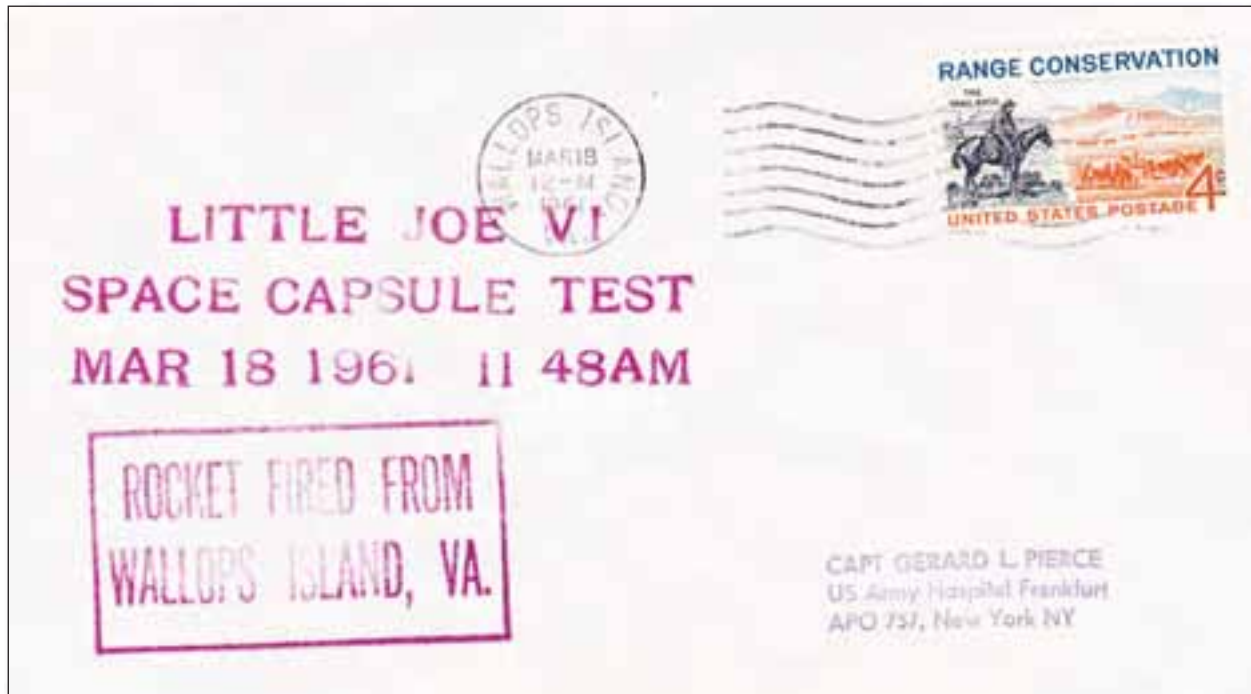


*Strengthened with an eight-inch "belly band" to support the last of the thin skin Atlas boosters, the rocket had a magnificent flight, "nominal in nearly every respect."*

LJ-5A

Wallops Island Machine Cancel

18 Mar 1961



*Again the escape rocket fired early causing the capsule to tumble on separation, narrowly missing the booster as it decelerated. The retro pack and escape tower were inadvertently jettisoned or torn off.*

# Americans in Space: Project Mercury

MR-BD

Patrick Air Force Base Machine Cancel

24 Mar 1961



*While the Mercury 7 pushed to ride the rocket, Werhner von Braun insisted on one more booster development mission to address several key shortcomings from Ham's flight.*

MR-BD

Port Canaveral SUSPECT Hand Cancel

24 Mar 1961



*Telemetry revealed that the Redstone still vibrated a bit but all the "quick-fixes" had worked. Redstone was now trustworthy enough to be called "man-rated."*

# Americans in Space: Project Mercury

MA-3

Patrick Air Force Base Machine Cancel

25 Apr 1961



*A Presidential panel was rumored to recommend at least 50 more chimpanzee runs before lofting a man. Gilruth remarked facetiously that if this were true, the Mercury program ought to move to Africa. The report was released April 12, 1961, on the same day the Soviets put Gagarin in orbit.*

MA-3

Port Canaveral Hand Cancel

25 Apr 1961



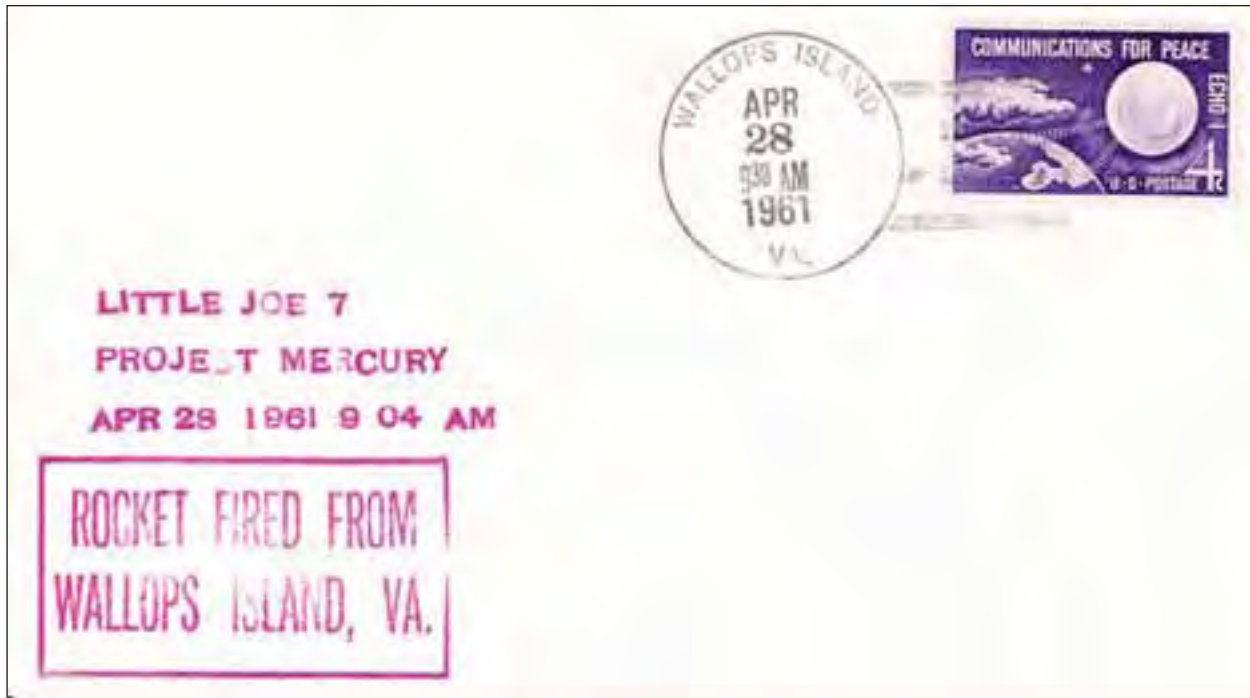
*Upgraded from suborbital to an orbital mission just days before the flight, the “crewman simulator” experienced a successful abort when a failure to roll and pitch towards the horizon required the Range Safety Officer to destroy the booster only 40 seconds into the flight.*

# Americans in Space: Project Mercury

LJ-5B

Wallops Island Hand Cancel

28 Apr 1961



*Despite the failure of one of the Castor rocket motors to ignite for the first five seconds the mission was judged a success. Changes in circuitry resolved the premature ignition of the escape rocket motor.*

LJ-5B

Wallops Island Machine Cancel

28 Apr 1961



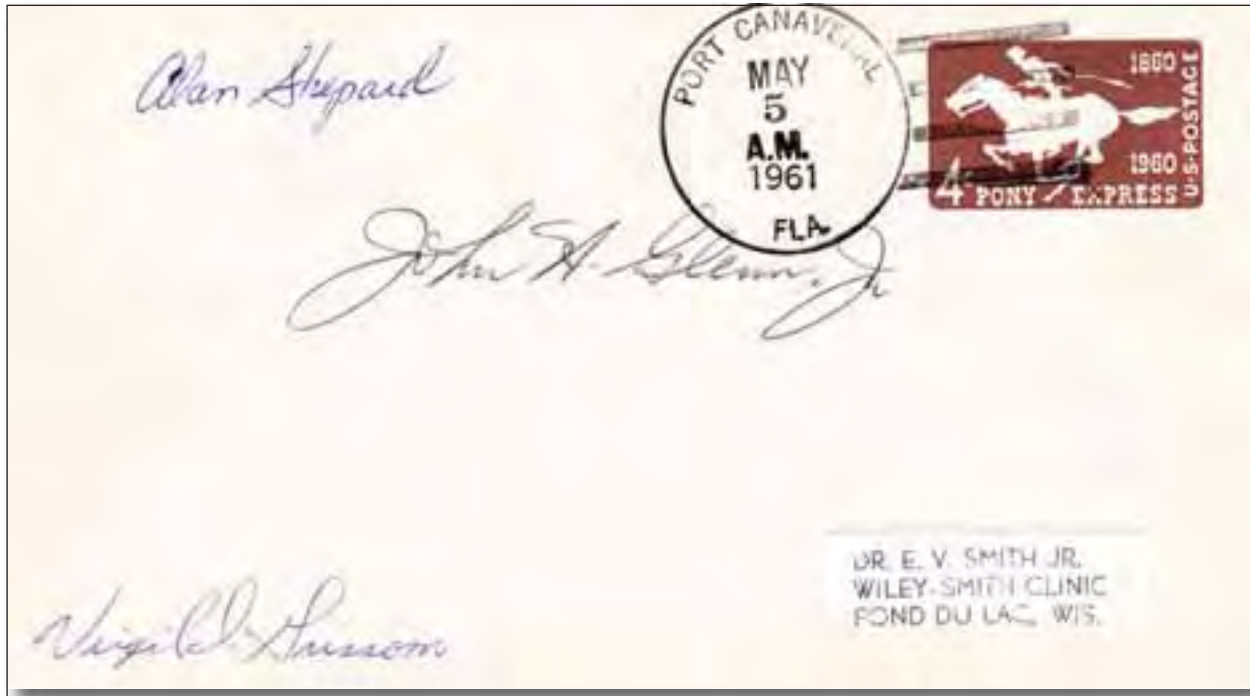
*With the exception of the Atlas booster and the spacecraft's orbital capacities, all Mercury systems were qualified. It was time for the first American in space!*

# Americans in Space: Project Mercury

MR-3

Port Canaveral Hand Cancel

5 May 1961



*Life magazine referred to Shepard, Glenn and Grissom as the Gold Team. On 22 Feb 1961 they were identified by the Space Task Group (STG) as the first to fly.*

MR-3

Patrick Air Force Base Machine Cancel

5 May 1961



*Shepard's suborbital ride lasted 15 minutes and included a mere five minutes of weightlessness.*

# Americans in Space: Project Mercury

MR-3

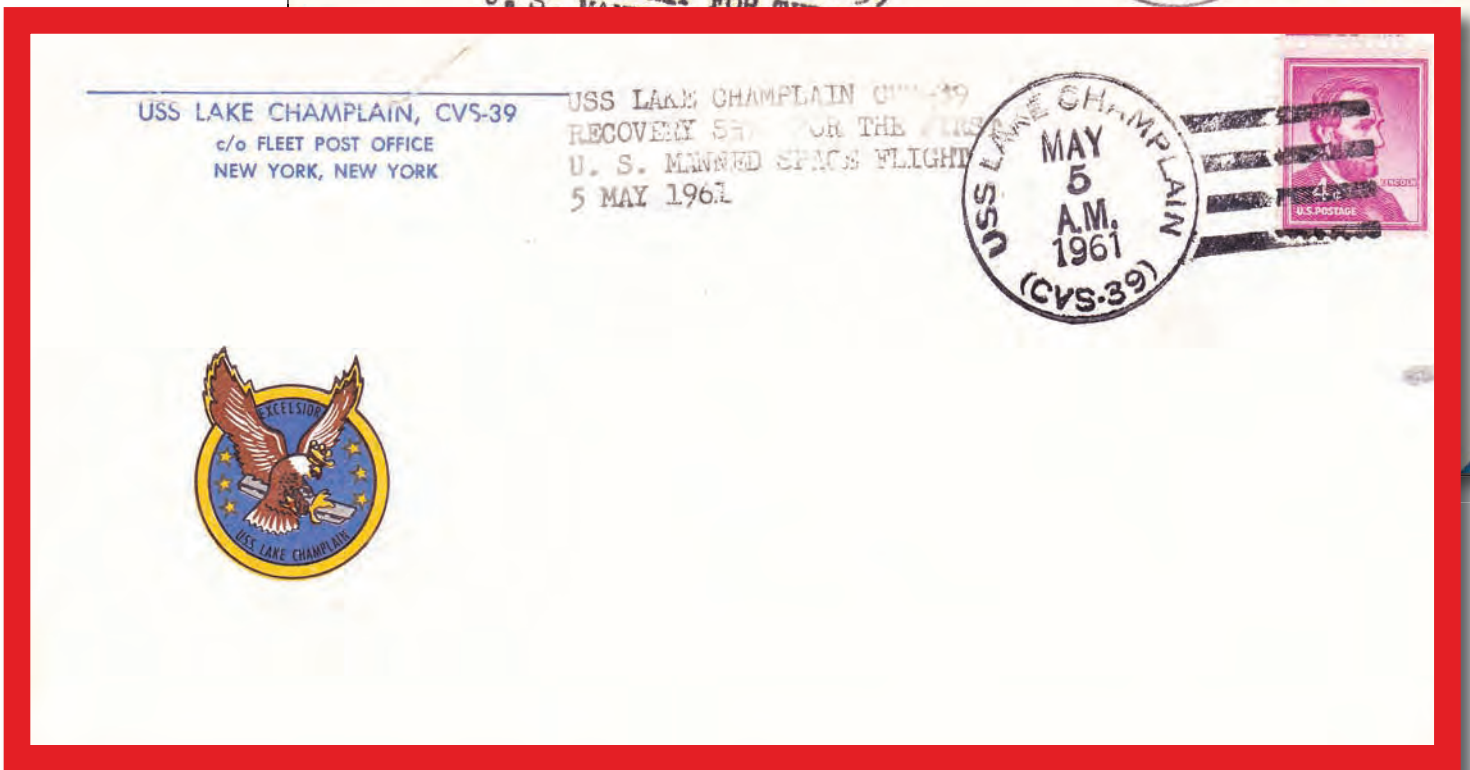
USS Lake Champlain Hand Cancel (Type I)

5 May 1961

Rare crew mail from the Prime Recovery Ship (PRS). The address has been erased.



MR-3  
USS Lake Champlain  
SUSPECT Hand  
Cancel  
5 May 1961



MR-3 Type II

Within three weeks President Kennedy would say, "Now is the time to take longer strides and land a man on the moon." Of the Mercury astronauts only Shepard would take that step.

# Americans in Space: Project Mercury

MR-4

Patrick Air Force Base Machine Cancel

21 Jul 1961



*Recalling Shepard's four-hour hold before his 15 minute flight, Grissom had a urine reservoir installed the day before his mission. Other changes included a trapezoidal window and a hatch with explosive bolts.*

MR-4

Port Canaveral Hand Cancel

21 Jul 1961



*Packed in the Mercury capsule awaiting launch Grissom experienced a wide range of feelings. His heart rate ranged from 64 to 162 beats per minute. At the debrief he admitted he was "a bit scared."*

# Americans in Space: Project Mercury

MR-4

USS Randolph FAKE Hand Cancel (Type I)

21 Jul 1961



Master forger Charles Riser was convicted of fraud for creating rare postmarks including this one. The reverse of this envelope bears a secret mark applied by Postal Investigators. The signatures are probably faked as well.

MR-4

USS Randolph Hand Cancel (Type II)

21 Jul 1961



Following splashdown the hatch "just blew" resulting in loss of the capsule. Bobbing under the waves, Grissom was scared and angry. He was floating or swimming only four or five minutes "although it seemed like an eternity to me."

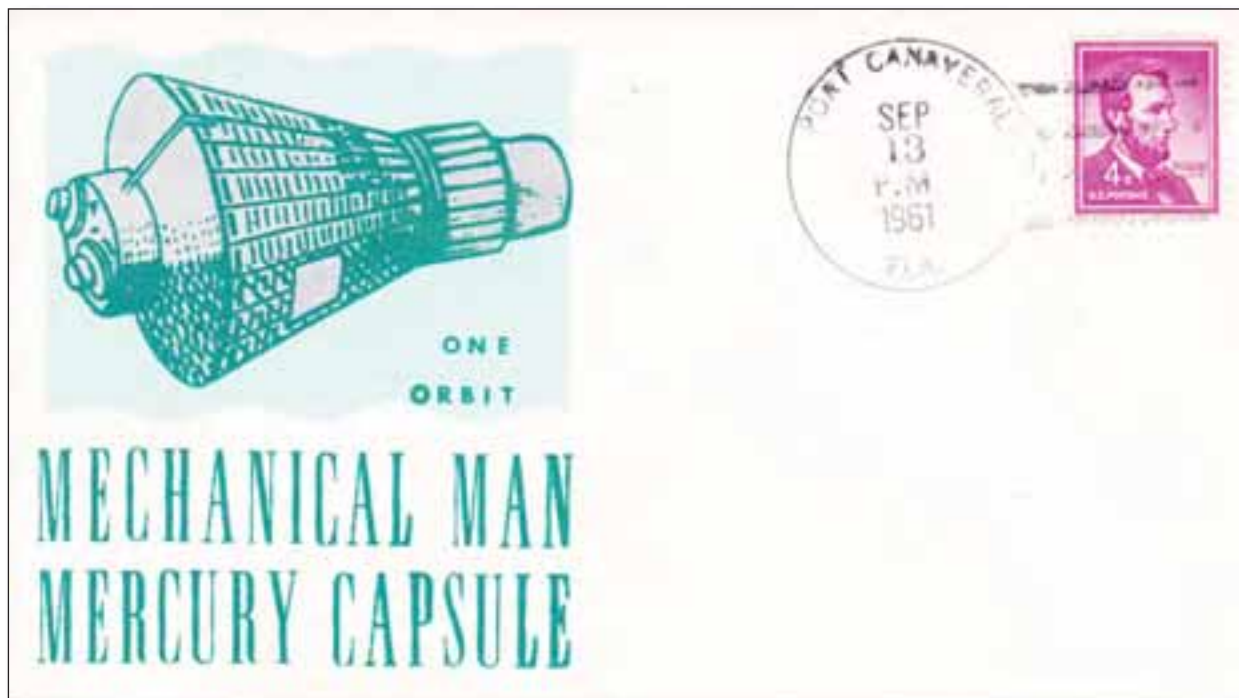


# Americans in Space: Project Mercury

MA-4

Port Canaveral SUSPECT Hand Cancel

13 Sept 1961



*The Mercury-Atlas flight record had produced only one completely successful launch out of four tries: the MA-2 reentry heating test. "MA-4 just had to work."*

MA-4

USS Decatur Hand Cancel

13 Sept 1961



*One of 75 Crew envelopes postmarked for Lt. Felt. The destroyer was serving as a support vessel when the heavily instrumented "talking robot" successfully orbited the Earth and returned. USS Decatur made the recovery.*

## Americans in Space: Project Mercury



*Photograph of MS-1 during one of the 43 seconds before the rocket tore itself apart.*

MS-1

Patrick Air Force Base Machine Cancel

1 Nov 1961



*Fired from the Project Vanguard launch pad, Mercury-Scout was a four-stage, solid-propellant “poor man’s rocket” used to test worldwide tracking. Crossed wiring necessitated destruction by Range Safety Officer after 43 seconds. This was also the first official day of the new Manned Spacecraft Center in Houston, TX.*

# Americans in Space: Project Mercury

MA-5

Port Canaveral Hand Cancel

29 Nov 1961



*For three hours and two of the three planned orbits Enos (Greek for “Man”) pulled levers and flew around the world. The tracking and recovery networks functioned well. Time to orbit a man.*

MA-5

Grand Turk Hand Cancel

29 Nov 1961



*Very early Mercury tracking station cover (six in existence).*

# Americans in Space: Project Mercury

MA-6

Port Canaveral Hand Cancel

20 Feb 1962



*Scheduled to fly on 23 Jan, the flight was delayed to 27 Jan and then to 1 Feb, causing headaches for everyone. When it was pushed back to 13 Feb, the recovery team had decisions to make. The Recovery Task Force had grown to 24 ships, more than 60 aircraft and personnel totaling more than 18,000 around the world.*

MA-6

Patrick Air Force Base Machine and Hand Cancels

20 Feb 1962



*Glenn studied systems until the last possible minute before the flight. Shortly before bed on 19 Feb he read the flight controller's handbook on the automatic stabilization and control system.*

# Americans in Space: Project Mercury

MA-6

USS Noa Hand Cancel

20 Feb 1962

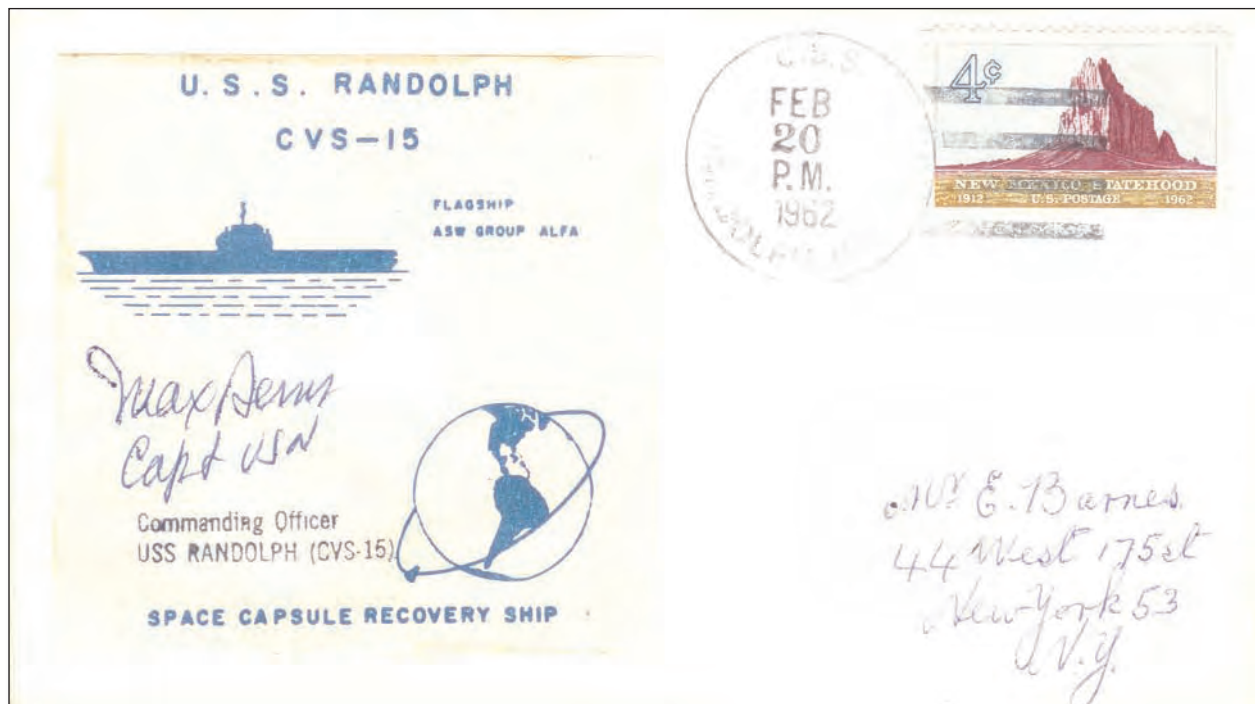


*The pilot formally requested CAPCOM tell General David Shoup, Commandant of the Marine Corps, that three orbits should suffice for his minimal monthly requirement of four hours flight time.*

MA-6

USS Randolph Hand Cancel

20 Feb 1962



*After the excitement of a questionable heat shield Glenn landed 40 miles short of the Prime Recovery Ship (shown here with a Captain's cover created for VIPs and the crew.*

# Americans in Space: Project Mercury

MA-6

USS Noa Backdated Hand Cancel

20 Feb 1962



*Only six miles away was a destroyer code-named Steelhead. With no Project Mercury stamps on board USS Noa made the recovery and backdated 300 covers on return to port.*

MA-6

USS Noa Backdated (?) Hand Cancel

20 Feb 1962



*Previously believed to be genuine (since it had any stamp other than the Project Mercury issue). Perhaps the clerk simply ran out of Mercury stamps.*

# Americans in Space: Project Mercury

MA-7

Port Canaveral Hand Cancel

24 May 1962



*In March NASA announced that Deke Slayton had a heart murmur and would not fly. Since Carpenter had worked so closely as Glenn's back up he got the nod over Slayton's back up, Wally Schirra.*

MA-7

USS Intrepid Hand Cancel

24 May 1962



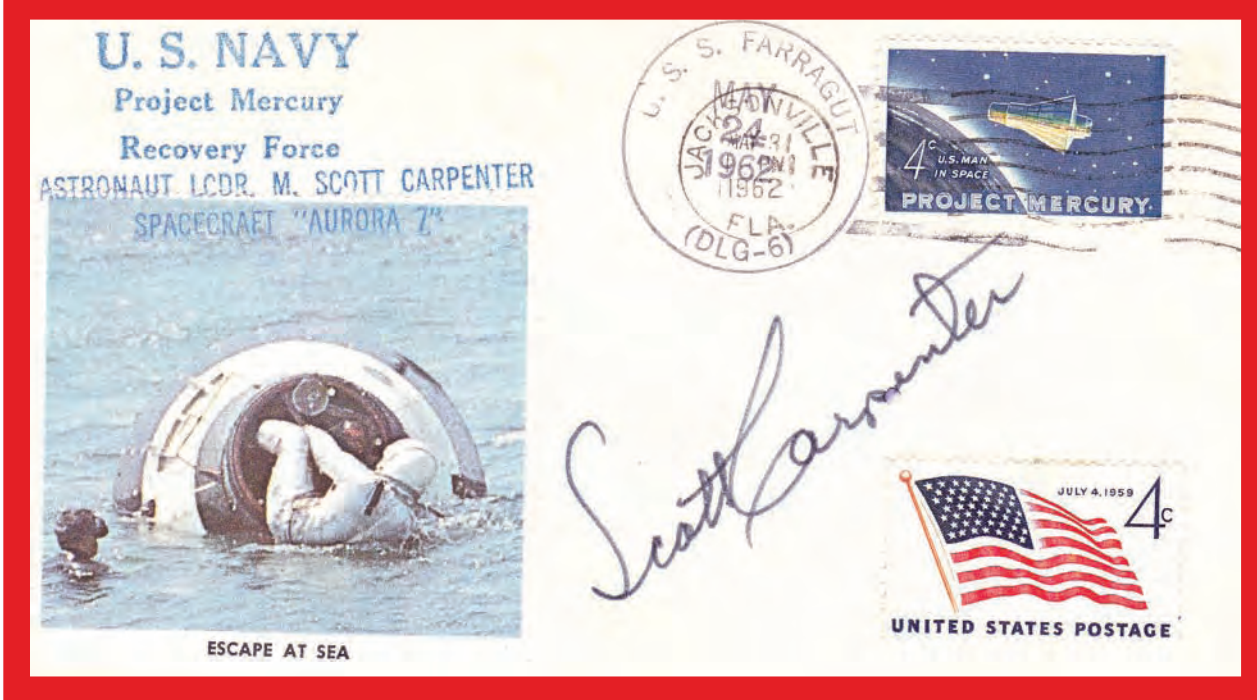
*A Captain's cover from the designated PRS. A 190 mile overshoot gave Carpenter the chance to exercise his water survival skills..*

# Americans in Space: Project Mercury

MA-7

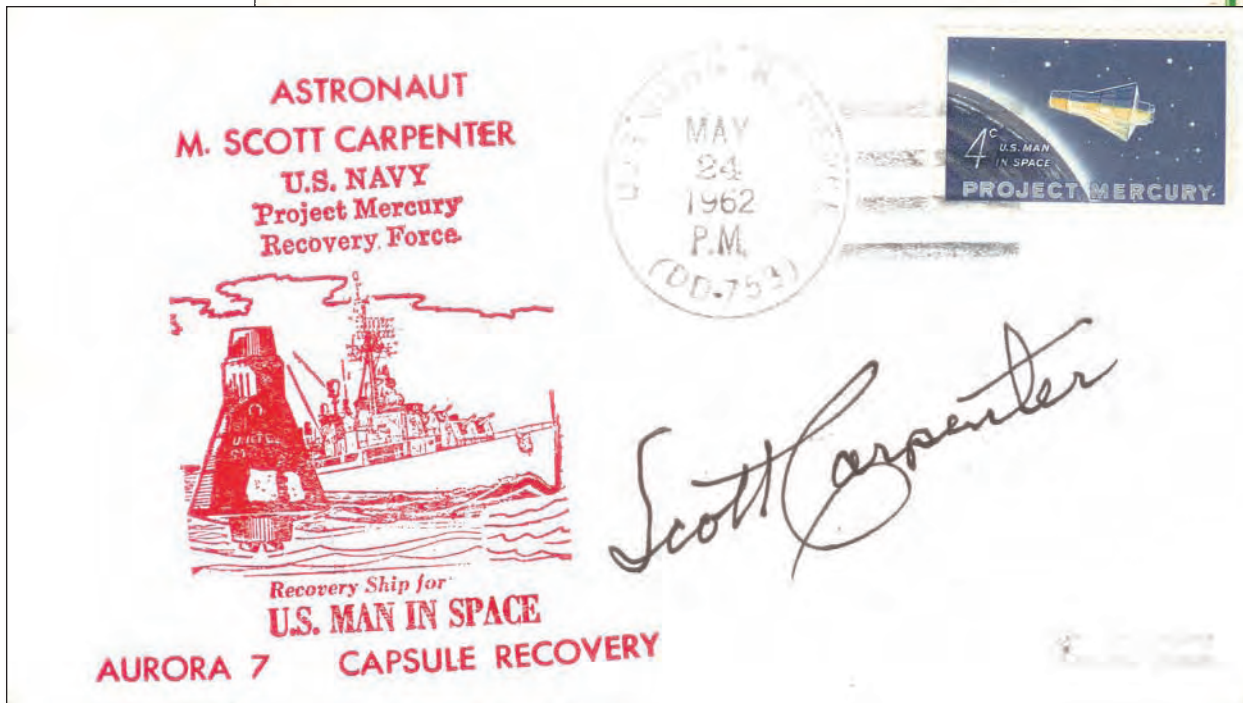
USS Farragut Hand Cancel

24 May 1962



An exceedingly scarce cancel from the destroyer first on the scene. An Air Force seaplane could have affected the rescue but was denied permission to land by Mercury Mission Control.

Charles Riser  
SUSPECT  
Hand Cancel



The pilot was rescued after three hours at sea. It would take 6 1/2 hours before spacecraft recovery equipment enabled USS John R. Pierce could reach the capsule.



# Americans in Space: Project Mercury

MA-8

Patrick Air Force Base Machine Cancel

3 Oct 1962



*Glenn's flight had been exploratory and Carpenter's scientific. Wally Schirra's was an engineering flight with precise test pilot maneuvers with a goal to conserve fuel and electrical power.*

MA-8

Cape Canaveral Hand Cancel

3 Oct 1962



*Schirra slipped into his capsule, buckled himself comfortably in the couch, and smiled when he saw an automobile ignition key hanging from the hand controller safety latch.*

# Americans in Space: Project Mercury

MA-8

USS Kearsarge Machine Cancel (Type I)

3 Oct 1962



*Despite nine hours and six orbits, Schirra still had more than half his fuel remaining after retrofire, compared to the two previous missions of three orbits each when the tanks had been sucked dry.*

MA-8

USS Kearsarge Machine Cancel (Type II)

3 Oct 1962



*Tracking ships often lack their own postal facilities and receive cancels from larger vessels or upon return to port. Here postmarked on the Prime Recovery Ship.*



# Americans in Space: Project Mercury

MA-9

Cape Canaveral Machine Cancel

15 May 1963



*A well-known life insurance company subscribed to Cooper's faith by underwriting the first commercial astronaut policies, including one for Cooper.*

MA-9

Patrick Air Force Base Machine Cancel

15 May 1963



*After Glenn's three-orbit achievement and Schirra's doubling of that accomplishment, the consumables were stretched to an entire day – the limits of the tiny Mercury craft.*

# Americans in Space: Project Mercury

MA-9

Honolulu, HI Machine Cancel

22 May 1963



*This card accompanied the tracking ship, despite being short a penny, and received the postmark on its return to Hawaii later in the week.*

MA-9

Cape Canaveral Machine Cancel

16 May 1963



*Mission Control for Project Mercury was at Cape Canaveral. This was the first and only time in the program a mission extended into the next day.*

# Americans in Space: Project Mercury

MA-9

USS Kearsarge Hand Cancel

16 May 1963



*Hand cancels are uncommon for this flight. Other unusual aspects are the overseas destination, the excessive postage, and the fact that these stamps have inverted backgrounds.*

MA-9

USS Kearsarge Machine Cancel

16 May 1963



*This striking artwork, unfortunately, remains the artist's only space envelope design.*

# Project Gemini

*"I feel red, white and blue all over."*

Edward H. White II, June 1965



Project Gemini was an afterthought. In the late 50s the concept of a man riding a rocket to orbit slowly percolated in both military and civilian aerospace circles. A natural progression from mice to monkeys and on to man can inexorably be traced. These same groups dreamed of flying rings around the moon.

In May 1961, President Kennedy challenged the nation to land a man on the moon and return him safely to the earth. Alan Shepard had strapped on an Army Redstone missile for a 15 minute suborbital ride. He had traveled 302 miles while a trip to the moon would be a quarter of a million miles and take a week.

Moving from the theoretical to reliable hardware would require several important steps. The Russians were way ahead with heavy lift capability. We would need to ramp up booster development. We needed to move from a ballistic capsule to a piloted spacecraft, one that had precise navigation and control features. Another big problem to overcome was consumables – sufficient propellant, oxygen, water, and electricity to last for several days instead of a scant few minutes.

This was an age for new materials, processes and ideas. Real time complex computing, advances in inertial navigation, fuel cells that generate electricity and water all made great leaps. As an alternative to a massive direct ascent moon rocket, NASA created the requirement to control two missions at the same time, conduct extravehicular activities (space walks), and rendezvous and dock in space.

Some technologies would prove premature for the breakneck speed of the Space Race. The Parasail concept of a runway landing using the hang glider designed by Ragallo was shelved in favor of the well-tested and reliable parachute. Ejection seats used at altitude spawned a proposal for a cross between a balloon and a parachute (a ballute). It too would be put aside.

In two productive years Project Gemini flew 10 increasingly demanding manned missions. By its conclusion in 1966, NASA had accomplished long duration flight, deftly handled emergencies on the ground (Gemini VI) and in flight (Gemini VIII), and charted a path for Project Apollo.

# Americans in Space: Project Gemini

## Gemini-related

St Louis Hand Cancel

24 Jun 1963

McDonnell Aircraft built the Mercury spacecraft. When the Gemini program commenced they won the subsequent contract as well. A month after the conclusion of the Mercury flights (and 6 months before he resigned from NASA) John Glenn was in the trainer working on rendezvous and docking procedures.





# Americans in Space: Project Gemini

Gemini-related

Norfolk Machine Cancel

1 Aug 1963

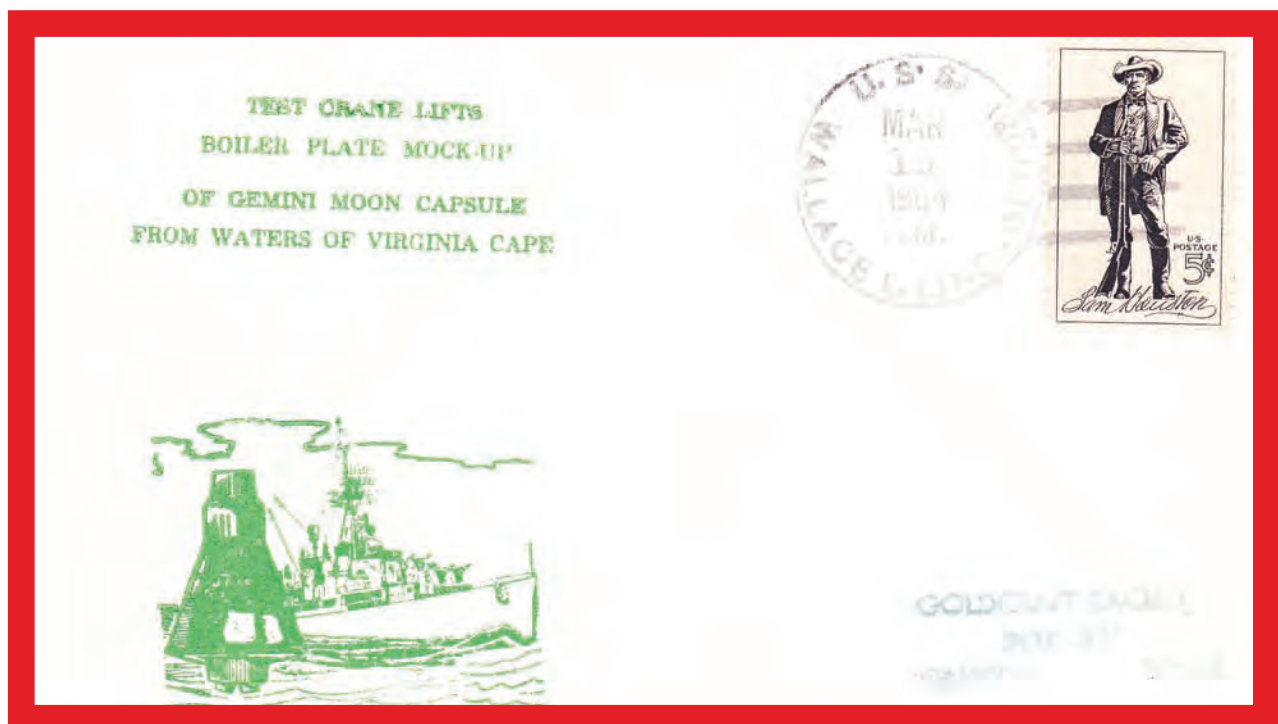


*With the cancellation of plans to land the Gemini spacecraft using an inflatable wing and skids, the US Navy resumed training to rescue and recover at sea. Here conducted aboard the USS Escape and postmarked on return to port at Norfolk.*

Gemini-related

USS Wallace L. Lind Hand Cancel

19 Mar 1964



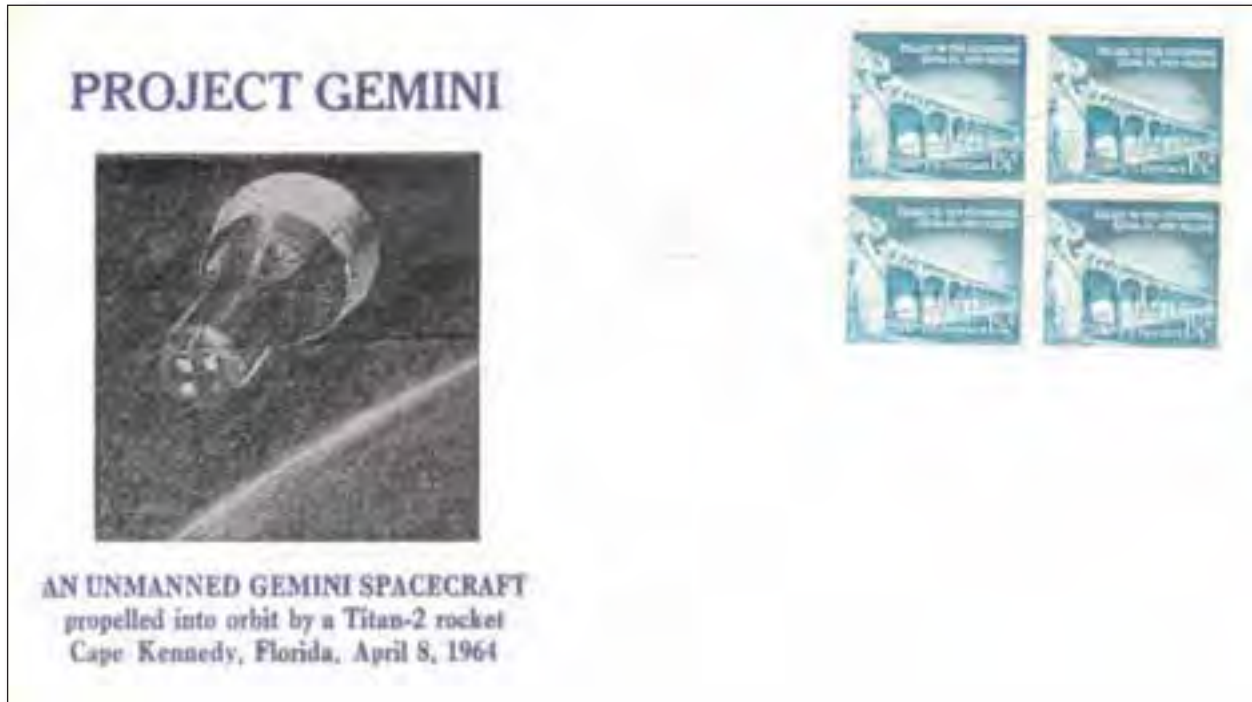
*Hard to find cancel on Goldcraft artwork. A boilerplate is an object of the same size, weight and center of gravity as the actual spacecraft but without any real components. This makes them perfect for training recovery forces. Here the art shows the older Mercury capsule.*

# Americans in Space: Project Gemini

GT-1

Cape Canaveral Machine Cancel

8 Apr 1964



*A main objective of the first Gemini flight was to assess the structural integrity of the new spacecraft with the Titan II missile.*

GT-1

Cape Canaveral Hand Cancel

8 Apr 1964



*The launch vehicle provided a bit too much speed and put the spacecraft into orbit with an apogee of 320 km instead of 299 km. Although it was equipped with a heat shield, the capsule had four large holes drilled into it to ensure it would be destroyed during reentry.*

# Americans in Space: Project Gemini

GT-2

Cape Canaveral Machine Cancel

19 Jan 1965



*After dodging two hurricanes during the second half of 1964 the launch vehicle was scheduled to lift off 9 Dec. The countdown clock reached zero and the engines ignited. A loss of hydraulic pressure shut them down after one second. Finally, on 19 Jan it roared skyward.*

GT-2

USS Lake Champlain Hand Cancel

19 Jan 1965



*Traveling 3,422.4 km downrange on a flight lasting 18 minutes and 16 seconds, the capsule landed 26 km short of the planned impact point and 84 km from the carrier. This is a scarce (25 created) Beck CREW covers (no Beck number) made as a "thank you" to ship personnel.*

# Americans in Space: Project Gemini

U.S.S. LAKE CHAMPLAIN (CVS-39)  
Care of Fleet Post Office  
New York, New York



Miss Sharon Troutman  
62 Rowell Hall  
University of Minnesota  
Minneapolis  
Minnesota

Dear Sharon:

No time to write  
We nickerd up

Save this  
some a

Th

Ensign David B. Johnson  
USS Lake Champlain  
Fleet Post Office  
New York



GT-2

USS Lake Champlain

Machine Cancel

19 Jan 1965

Crew mail from an officer to his girlfriend. In the enclosed letter he refers to recovery of the unmanned Gemini capsule. He also tells her to save the envelope since all the philatelic mail received the Hand Cancel. A very rare Machine Cancel is shown.

# Americans in Space: Project Gemini

GT-3

Cape Canaveral Hand Cancel

23 Mar 1965

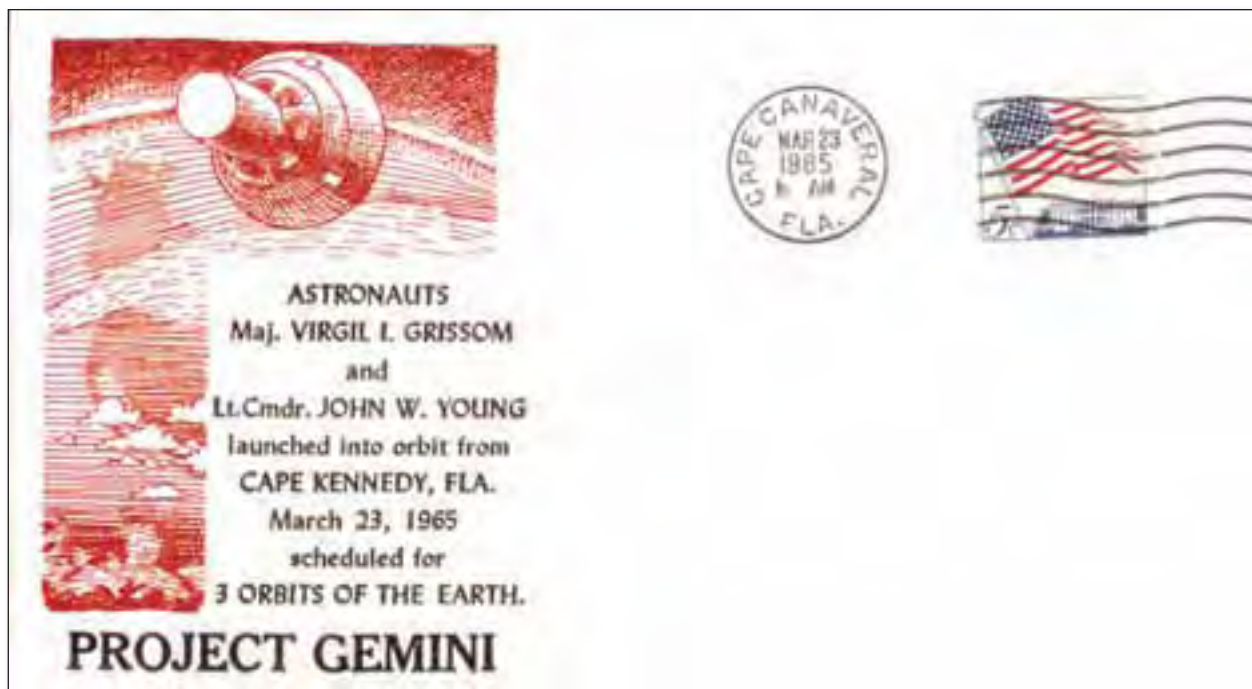


*"Molly Brown" lifted off so smoothly that the crew had to look at the clock to realize the mission had begun. Noise was also noticeably less than in the Dallas-based simulator.*

GT-3

Cape Canaveral Machine Cancel

23 Mar 1965



*Over Corpus Christi, Texas, at the end of the first revolution the astronauts fired engines to change the orbit from 161 km x 224 km to an orbit of 158 km x 169 km. The first such maneuver in history.*

# Americans in Space: Project Gemini

GT-3

St. Johns Hand Cancel

23 Mar 1965



*Antigua – call signal, ANT – was a Department of Defense range station in the British West Indies used mostly for radar and telemetry information.*

GT-3

Canton Island Hand Cancel

23 Mar 1965



*Strategically situated in the middle of the Pacific just below the Equator and south of Hawaii is Canton Island – call signal, CTN. It is a small coral atoll about halfway between Australia and Hawaii with co-dominion status under US and British commissioners.*

# Americans in Space: Project Gemini

GT-3

Webster Hand Cancel

23 Mar 1965



*Rapidly becoming one of NASA's largest and most active, the Manned Spacecraft Center was putting the finishing touches on Mission Control in Houston, from where all future manned missions would take direction.*

GT-3

USS Intrepid Machine Cancel

23 Mar 1965



*Crew mail from the Prime Recovery Ship. Wind tunnel testing incorrectly predicted the craft's ability to compensate for course deviation. This resulted in the spacecraft (with a half-eaten corned beef sandwich) landing 84 km short of the intended splashdown point.*

# Americans in Space: Project Gemini

GT-IV

Cape Canaveral Hand Cancel

3 Jun 1965



*The plan for this four-day, 62-orbit mission was to fly in formation with the spent Titan II second stage. After using up half the fuel thrusting forward only to move farther away, they gave up.*

GT-IV

Cape Canaveral Machine Cancel

3 Jun 1965



*The highlight was the first American spacewalk. Tied to a tether and using a handheld "zip gun," Ed White floated for 22 minutes. At its conclusion, White said, "It's the saddest moment of my life."*



# Americans in Space: Project Gemini

GT-IV

Freeport Machine Cancel

3 Jun 1965



Another first was an international audience watching the launch live. It was broadcast on television to a dozen European nations using the Early Bird satellite. 1,100 journalists requested accreditation to cover the flight.

GT-IV

Houston Hand Cancel

3 Jun 1965



Once the rocket cleared the tower, control of the mission transferred from Florida to Mission Control in Houston, Texas.

# Americans in Space: Project Gemini

GT-IV

USS Wasp Machine Cancel

7 Jun 1965

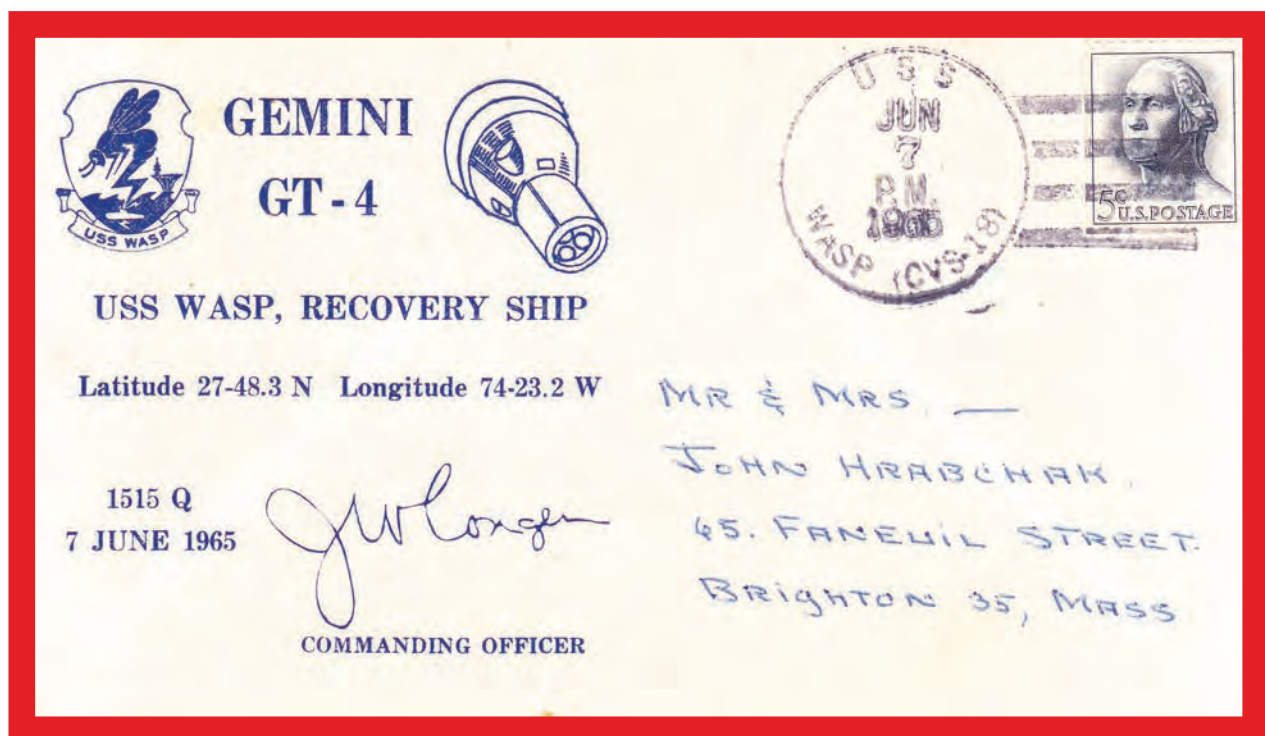


*A rare Beck CREW cover postmarked on the Prime Recovery Ship. All told the Department of Defense (DoD) contributed 10,249 personnel, 134 aircraft and 26 ships.*

GT-IV

USS Wasp Hand Cancel

7 Jun 1965



*A very scarce Hand Cancel on a Captain's cover. The artwork was prepared at the direction of the Commanding Officer to celebrate the honor of leading the rescue effort, and was available only to Distinguished Visitors and the crew.*

# Americans in Space: Project Gemini

GT-V

Kennedy Space Center Machine Cancel

21 Aug 1965



*Beginning with Gemini V, the newly minted Kennedy Space Center began providing KSC Official rubber stamp cachets for manned launches and continued through the end of Apollo.*

GT-V

Cape Canaveral Hand Cancel

21 Aug 1965



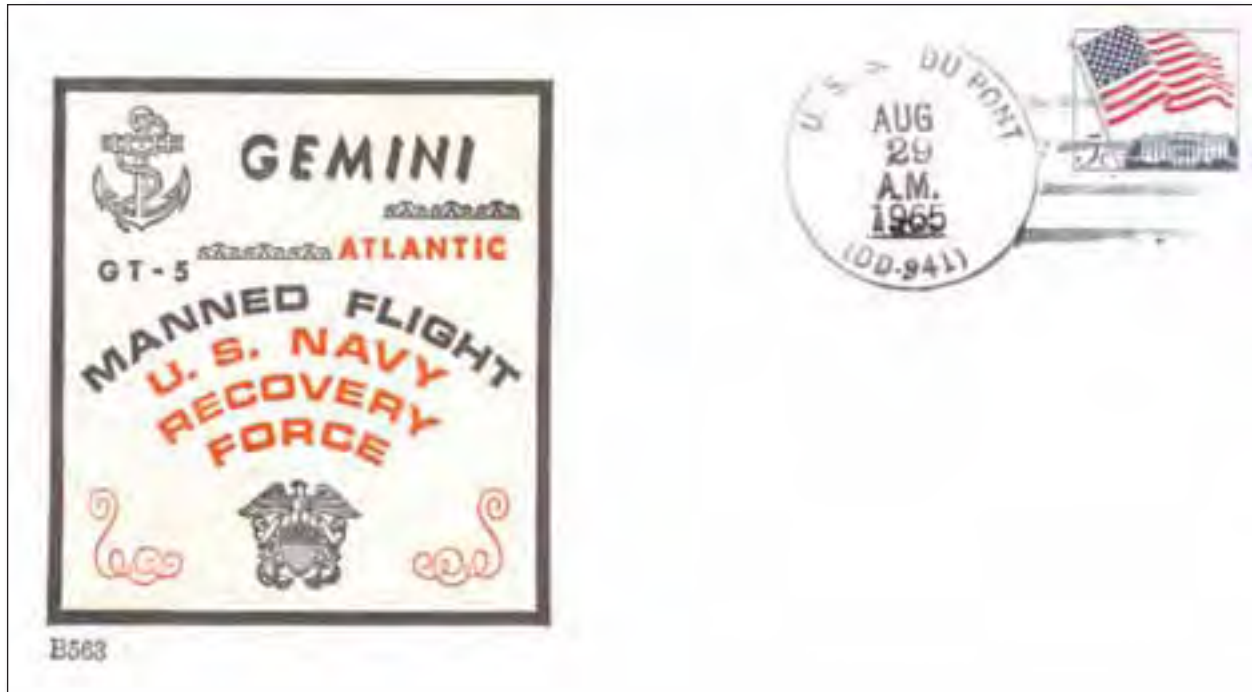
*While fuel cells made an eight-day mission possible they were also temperamental, nixing the planned rendezvous with a deployed pod and leaving the crew adrift and shivering for days. Conrad later lamented that he should have brought a book to read.*

# Americans in Space: Project Gemini

GT-V

USS Du Pont Hand Cancel

29 Aug 1965

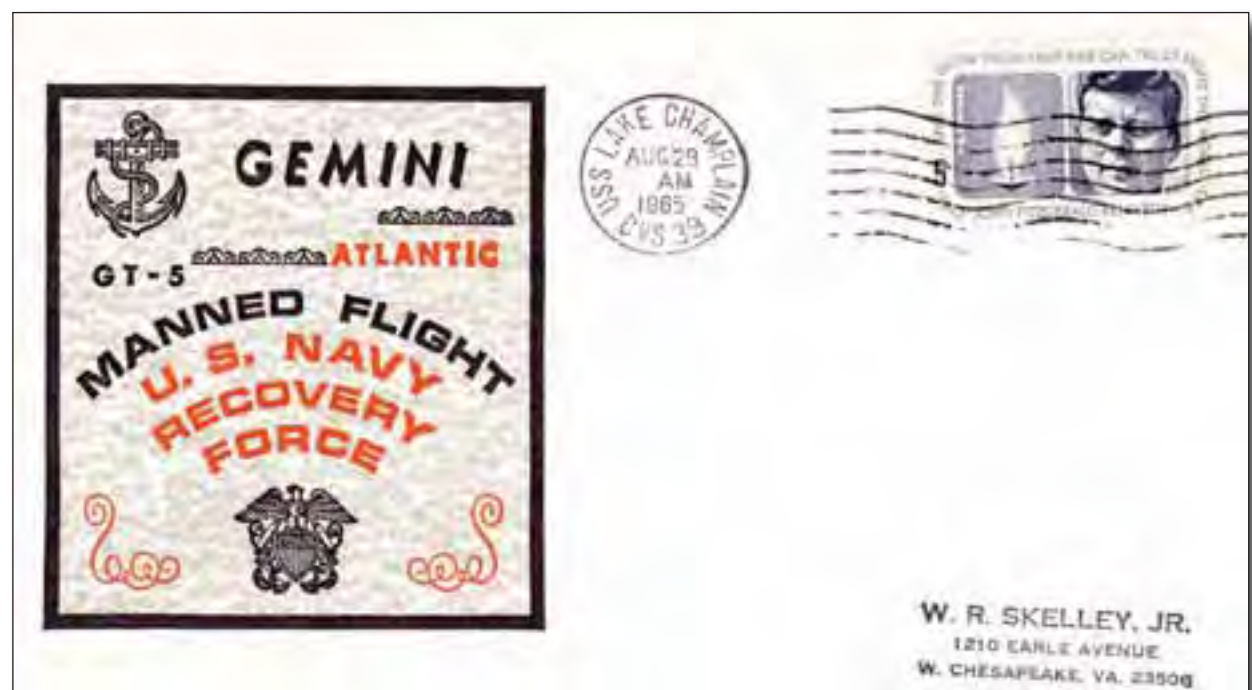


*The crew was rescued by a helicopter from the USS Du Pont. Is the recovery ship the one that retrieves the spacecraft or the crew? Does it matter that the astronauts were flown to the USS Lake Champlain and not the vessel that the aircraft was assigned to?*

GT-V

USS Lake Champlain Machine Cancel

29 Aug 1965



*Rare Beck Crew cover (25 produced) from the Prime recovery ship.*

# Americans in Space: Project Gemini

GT-V

USS Lake Champlain Hand Cancel (Type I)

29 Aug 1965



*The Earth's rotational rate is 360.98 degrees per day. The programmer rounded the value to 360 resulting in an undershoot of 130 km. The error would have been greater but Cooper recognized the mistake and slew the craft 90 degrees instead of 53 to minimize the problem.*

GT-V

USS Lake Champlain Hand Cancel (Type II)

29 Aug 1965



*A larger Hand Cancel (36 mm vs. 33 mm) appears with the Navy rubber stamp cachet. 10,265 personnel, 114 aircraft and 19 ship participated in the recovery efforts.*

# Americans in Space: Project Gemini

GT-VI

Kennedy Space Center Machine Cancel

25 Oct 1965



*Although this was the maiden voyage in Project Gemini, Agena had flown on more than 140 missions since 1959. Here the KSC Official cachet is joined by Goldy artwork.*

GT-VI

Houston Machine Cancel

25 Oct 1965



*Within minutes after the 10 o'clock launch, indications at Mission Control in Houston were that something was wrong with the booster. The Agena seemed to be wobbling, even as its attitude control system labored to keep it stable.*

# Americans in Space: Project Gemini

GT-VI

Patrick Air Force Base Machine Cancel

25 Oct 1965

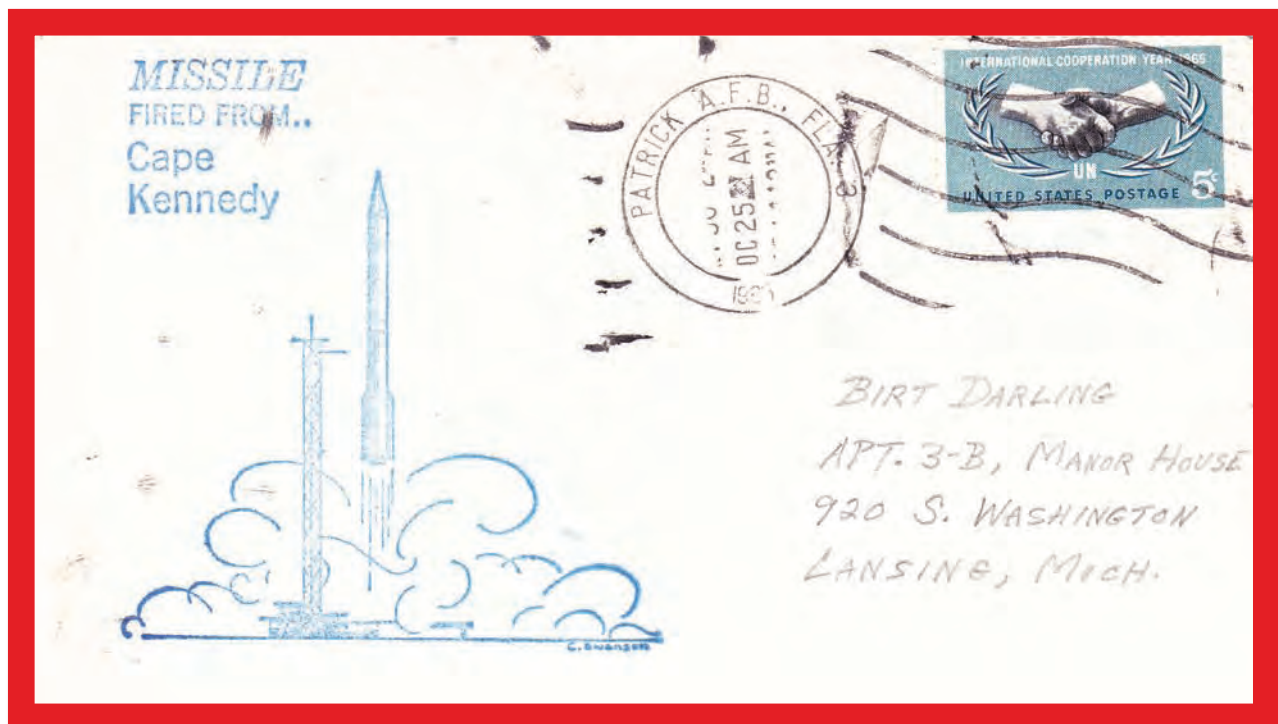


*Despite the fact that the main engine intended to boost Agena into orbit fired exactly on time, that turned out to be the last of the good news. Air Force radar began tracking what seemed to be five pieces of the target vehicle. The Agena had probably exploded.*

GT-VI

Patrick Air Force Base Hand Cancel

25 Oct 1965



*Very scarce Patrick AFB Roller Cancel. Officials responsible for the Eastern Test Range conducted a hasty study of partial telemetry data from the booster. No clear indication of the failure surfaced.*

# Americans in Space: Project Gemini

GT-VI

Cape Canaveral Machine Cancel

25 Oct 1965



*Back at the Cape, Schirra and Stafford sat atop their Titan II missile. Borman and Lovell were at the KSC Launch Control Center listening to an audacious plan by John Yardley to launch GT-VII to meet up with GT-VI in space. "Why couldn't we launch a Gemini as a target instead of an Agena?"*

GT-VI

USS Wasp Hand Cancel

25 Oct 1965



*What appears to be a test impression (no stamp) on what would have been the Prime Recovery Ship. Artwork by Morris Beck is joined by a ship design on aircraft stationary.*



# Americans in Space: Project Gemini

GT-VII

Kennedy Space Center Machine Cancel

4 Dec 1965



*This KSC Official addressed the founder of the KSC Philatelic Society. This grueling flight was designed to test whether man and machine could fly for two weeks. A new, lightweight spacesuit proved critical as did taking books for pleasure to pass the time.*

GT-VII

Freeport Machine and Hand Cancel

4 Dec 1965



*After five days, they had performed four orbital adjustment burns that put them in a circular 300 km orbit. This meant that GT-VII could stay aloft for at least 100 days without the orbit degrading, more than stable enough to serve as the passive rendezvous for GT-VI-A.*

# Americans in Space: Project Gemini

GT-VII

Curacao Hand Cancel

4 Dec 1965



*Having a worldwide tracking network was one thing but handling two spacecraft at the same time was something else entirely. While brainstorming, a Flight Controller suddenly said, "Why don't we handle it as if one of the spacecraft were a Mercury-type and the other a Gemini-type spacecraft?"*

GT-VII

Guaymas Machine and Hand Cancel

4 Dec 1965



*Mercury controllers would summarize data from their consoles and forward it by teletype to the Mercury Control Center in Florida. They could then share the information with Mercury Control in Houston. This GT-VII tracking cover features dual franking.*

# Americans in Space: Project Gemini

GT-VI-A

Cape Canaveral Machine Cancel

15 Dec 1965



On 12 Dec Schirra and Stafford were loaded on Pad 19 and ready to fire. The countdown clock went to zero, the spacecraft clock started and the rocket roared to life. Just 1.2 seconds later the engines shut down. They felt no movement. Schirra said, "We're just sitting here breathing."

GT-VI-A

Ascension Hand Cancel

16 Dec 1965



A loose electrical plug and a engine dust cover left in place caused the failure. Mission rules called for the crew to eject. As veteran test pilots they knew better.

# Americans in Space: Project Gemini

GT 7/6

Kennedy Space Center Machine Cancel

15 Dec 1965



*Five hours after liftoff (third time is a charm) GT-VI-A caught sight of their target. Fittingly, in the terminal stages of rendezvous, the GT-VI-A astronauts saw the stars Castor and Pollux in the Gemini constellation aligned with their sister ship.*

GT 7/6

Kennedy Space Center Machine Cancel

15 Dec 1965



*Following the braking and translation maneuver, VI-A coasted until the two vehicles were 40 meters apart, with no relative motion between them. They flew in formation for five hours, at times within 30 cm of each other. For the first time true rendezvous had been achieved.*

# Americans in Space: Project Gemini

GT-VI-A

USS Wasp Machine Cancel (inverted year)

16 Dec 1965

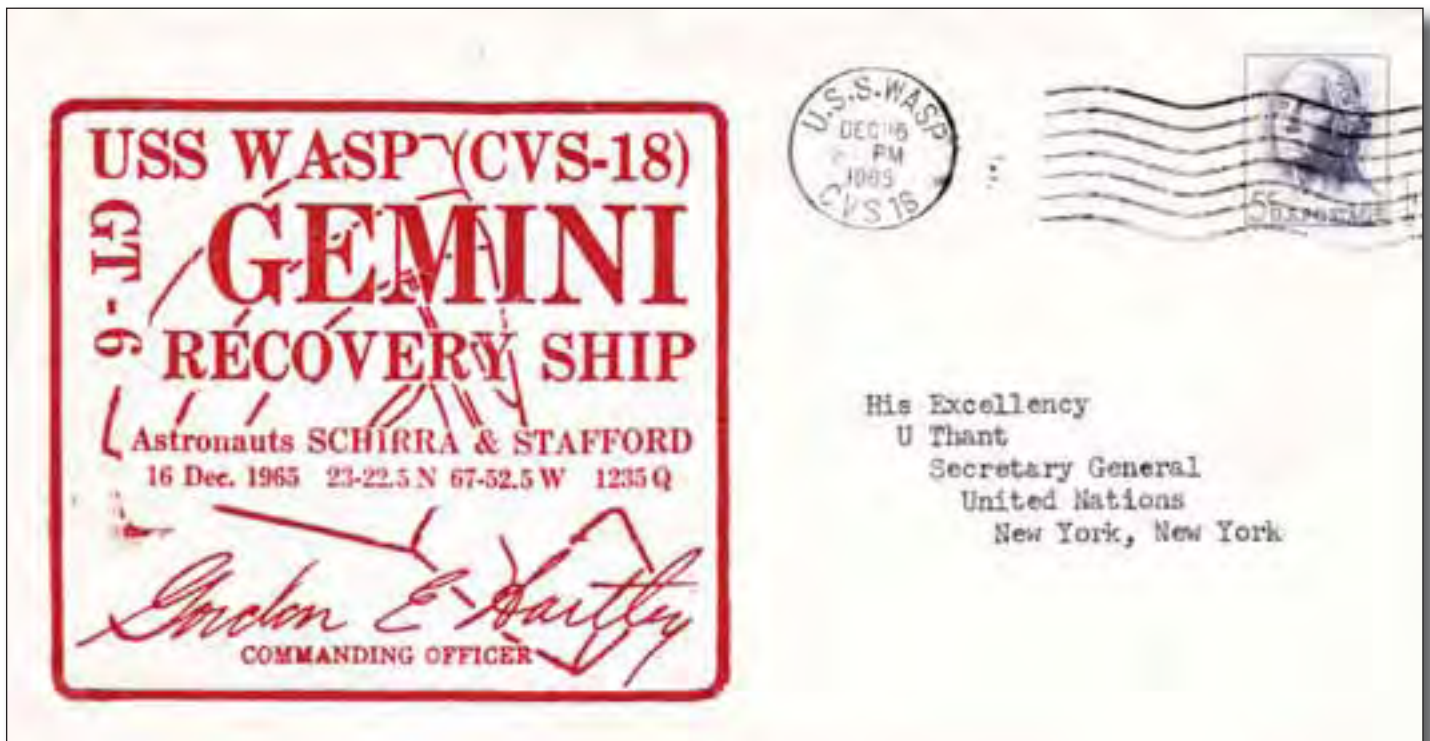


*Schirra said, "Really a good job, Frank and Jim. We'll see you on the beach." He then flipped VI-A blunt-end forward and jettisoned the equipment section, retrofire followed automatically.*

GT-VI-A

USS Wasp Hand Cancel

16 Dec 1965



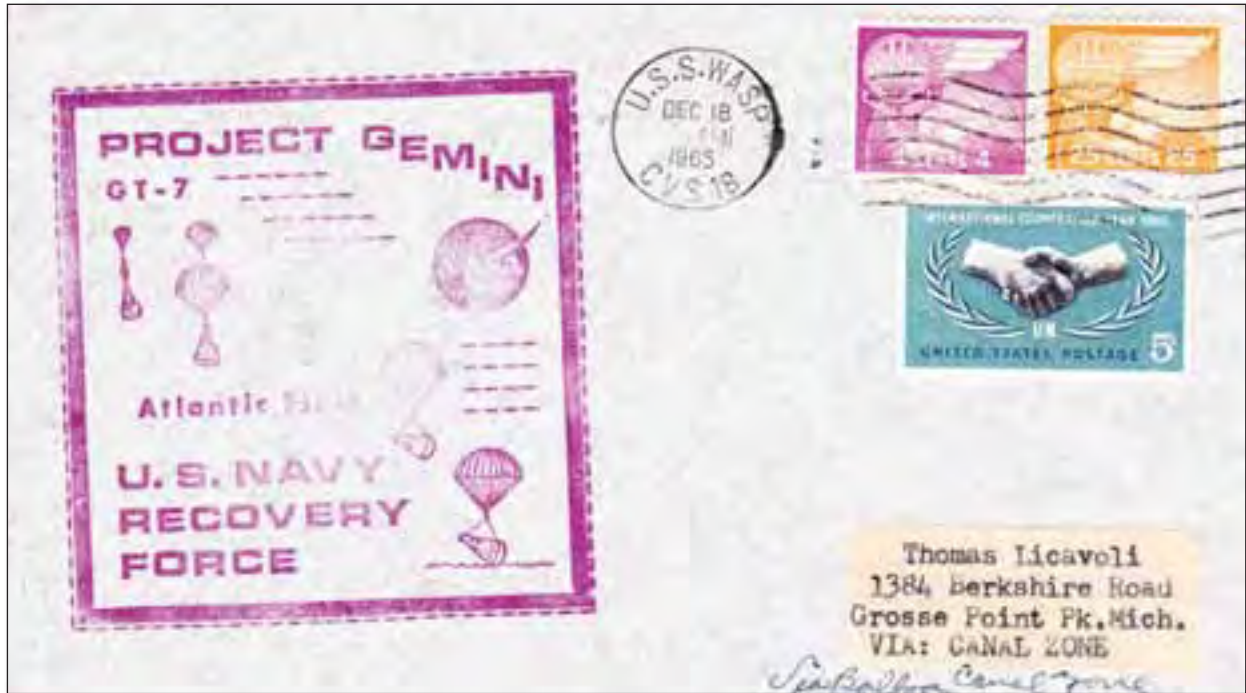
*Landing 13 km from the planned impact point, GT-VI-A recorded the first successful controlled reentry, commemorated here with a Captain's cover addressed to the UN Secretary General.*

# Americans in Space: Project Gemini

GT-VII

USS Wasp Machine Cancel

18 Dec 1965

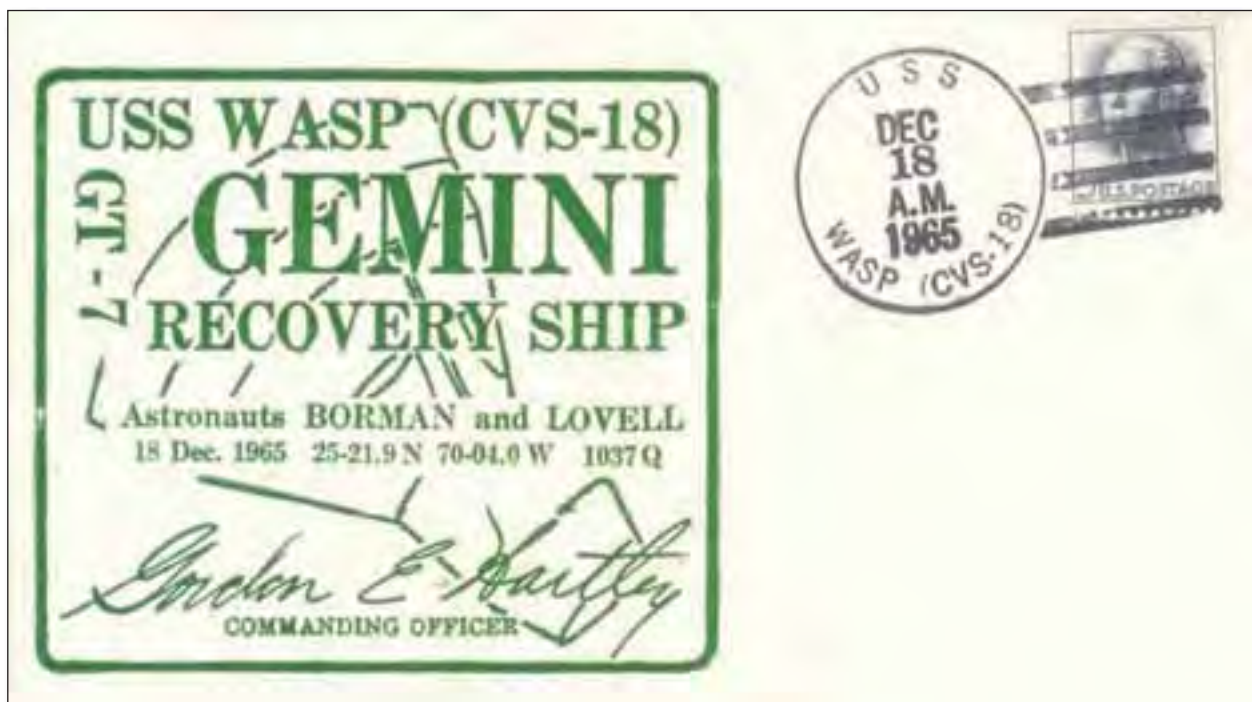


*When the returning spacemen came onto the deck of the carrier, they were tired but happy. They walked slightly stooped and a little gimpy-legged, partly because of their pressure suits and the ship's roll, but mostly because they were just plain weary. Here with contrived mixed franking.*

GT-VII

USS Wasp Hand Cancel

18 Dec 1965



*A Captain's cover for GT-VII. On this day Robert Gilruth held a post-recovery press conference in which he declared "A fabulous year for manned space flight." Since March NASA had put 10 men in orbit, performed EVA, conducted eight- and 14-day flights and accomplished a rendezvous.*

# Americans in Space: Project Gemini

GT-VIII

Kennedy Space Center Machine Cancel

16 Mar 1966



*As the KSC Official artwork illustrates, the two objectives were to dock with the Agena and perform a two-hour spacewalk. This was to be the first orbital docking ever.*

GT-VIII

Houston Machine Cancel

16 Mar 1966



*Easing the last few feet at three inches per second, Neil Armstrong reported his progress through Rose Knot Victor to Mission Control. "Flight, we are docked! It's a real ... really a smoothie – no noticeable oscillations at all." Back slaps, cheers and grins broke out in Houston.*

# Americans in Space: Project Gemini

GT-VIII

Grand Turk Hand Cancel

16 Mar 1966



*Jim Lovell, communicating through a remote station, told the crew, "If you run into trouble and the attitude control system in the Agena goes wild, just ... turn it off and take control of the spacecraft."*

GT-VIII

Quito Meter and Hand Cancel

16 Mar 1966



*While docked with the Agena, GT-VIII began a gentle left roll. Armstrong cancelled it for four minutes until it became clear their propellant was down to 30 percent. After disconnecting from the Agena, the roll increased to a revolution per second. Thruster number 8 was stuck open.*



# Americans in Space: Project Gemini

GT-VIII

USS Boxer Machine Cancel

17 Mar 1966

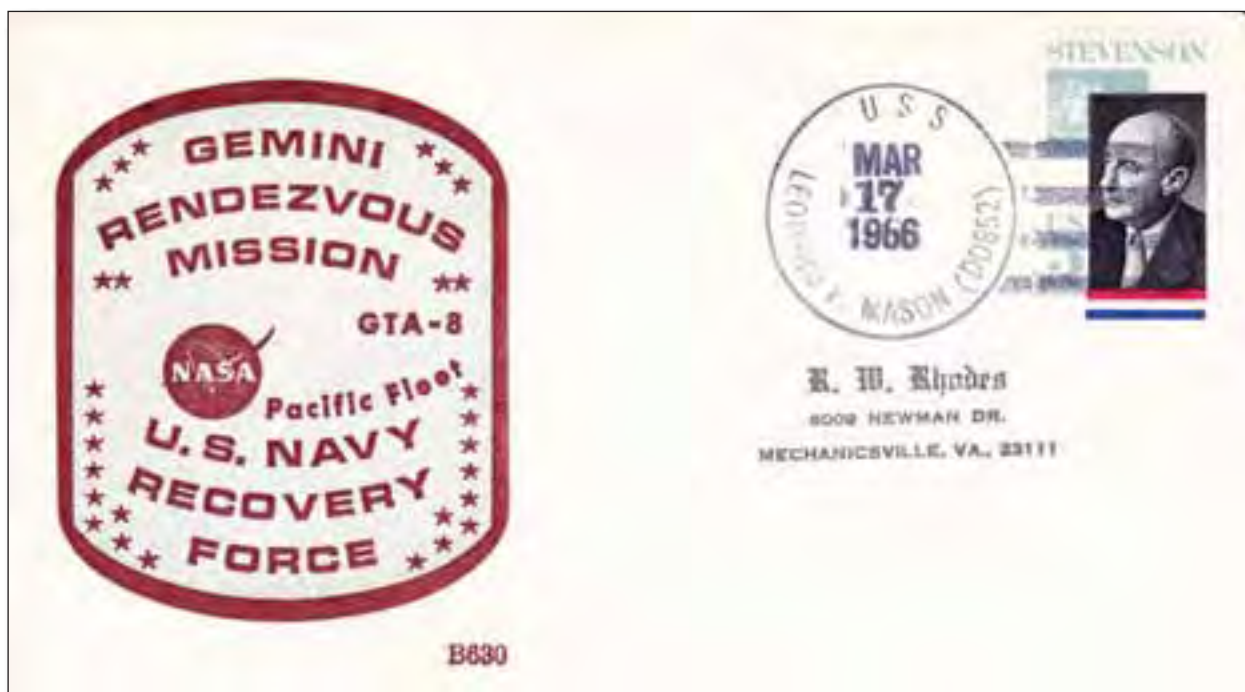


*Over China, GT-VIII slipped into the fringes of the atmosphere. "Do you see water out there?" Armstrong asked. Concern mounted since the capsule might not survive touchdown on land. "Oh, yes, there's water! It's water! LANDING-SAFE," exclaimed pilot David Scott.*

GT-VIII

USS Leonard F. Mason Hand Cancel

17 Mar 1966



*Following the brief 11-hour flight that aborted the planned spacewalk, the crew ditched 800 km east of Okinawa in the Pacific instead of the planned Atlantic recovery. Here an uncommon Beck cachet from the destroyer that made the rescue.*

# Americans in Space: Project Gemini



GT-VIII

USS Boxer Hand Cancel

17 Mar 1966

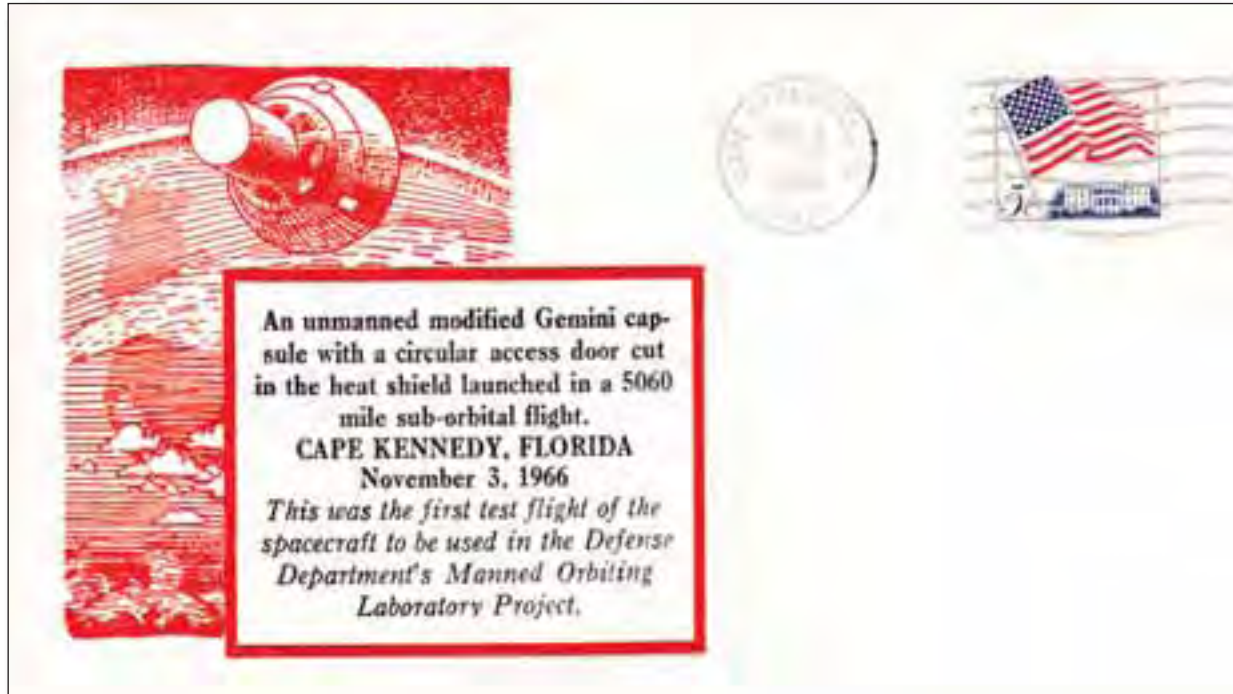
*Crew mail with uncommon Hand Cancel and enclosed letter. USS Boxer was the Designated Prime Recovery Ship (PRS) but a stuck thruster forced Neil Armstrong and David Scott to abort their mission and land in the Pacific Ocean instead. To add insult to injury, the ship returns to Norfolk both empty-handed and in foul weather.*

# Americans in Space: Project Gemini

MOL

Cape Canaveral Machine Cancel

3 Nov 1966



*For years the Air Force had been working to create a military capability in space. Dyna-Soar had morphed into the X-20 which died under Defense Secretary McNamara. In this Blue Gemini plan USAF astronauts would spend 30 days in the attached booster, conducting reconnaissance.*

MOL

USS La Salle SUSPECT Hand Cancel

3 Nov 1966



*Eager to supply the well-paying need for rare postmarks, Charles Riser produced highly accurate forgeries that included autographs. A hallmark is the embossed postage.*



# Americans in Space: Project Gemini

Gemini-related

Cape Canaveral Hand Cancel

17 May 1966

**AGENA TARGET VEHICLE**



Launched from Cape Kennedy, Florida, May 17, 1966 to rendezvous and dock with Gemini-9. An engine swiveled out of control plunging the rocket into the Atlantic.

*For two minutes everything was normal. Then one engine gimbaled and locked in a hardover pitchdown position. The whole combination – Atlas and Agena – flipped over in a nosedive and headed like a runaway torpedo back to the Cape before plunging into the Atlantic.*

Gemini-related

Cape Canaveral Hand Cancel

1 Jun 1966

**AUGMENTED TARGET DOCKING ADAPTER**



Launched into orbit from  
**CAPE KENNEDY FLORIDA**  
June 1, 1966 to dock with the  
**GEMINI—9 FLIGHT**

*GT-IX was eager to meet up with their replacement Agena until they saw the unreleased shroud. "It looks like an angry alligator," Stafford remarked. Lanyards had mistakenly been taped, holding the shroud together after the explosive bolts fired. No docking could occur.*

# Americans in Space: Project Gemini

GT-IX-A

Kennedy Space Center Machine Cancel

3 Jun 1966



*The Prime crew of See and Bassett were killed when bad weather caused their jet to crash into the building constructing their spacecraft. The backup crew of Stafford and Cernan would make the flight.*

GT-IX-A

Webster Machine Cancel

3 Jun 1966



*With no docking possible, Cernan performed his EVA to test the Astronaut Maneuvering Unit (AMU), a jet backpack stowed on the adapter module. His faceplate was fogged, his heart rate soared at 195 beats per minute, and doctors feared Cernan would pass out. With this the EVA ended.*

# Americans in Space: Project Gemini

GT-IX-A

USS Wasp Machine Cancel

6 Jun 1966



*Computer controlled reentry worked perfectly, resulting in splashdown just 700 meters from the planned landing site and close enough to see the Prime Recovery Ship.*

GT-IX-A

USS Wasp Hand Cancel

6 Jun 1966



*With the carrier in view Stafford and Cernan opened both hatches and enjoyed the gentle rolling sea. Then they stuck out their thumbs to hitch a ride home. This Captain's cover artwork is found on various envelope sizes.*

# Americans in Space: Project Gemini

GT-X

Patrick Air Force Base Machine Cancel

18 Jul 1966



*After docking with their Agena and using it to boost them to 763 km, Michael Collins made his way over to the dormant Agena left by the Gemini VIII crew. With no electricity on board, the second Agena the rendezvous was accomplished with eyes only – no radar.*

GT-X

Kennedy Space Center Machine Cancel

18 Jul 1966



*Miscalculations resulted in the use of three times more fuel to reach the Agena than previous missions. Collins retrieved a cosmic dust collecting experiment but found movement a challenge. During his EVA he got tangled in his umbilical cord and lost his Hasselblad.*

# Americans in Space: Project Gemini

GT-X

Cape Canaveral Machine Cancel

18 Jul 1966



*John Young described the Agena ride: "We were thrown forward in our seats. Fire and sparks started coming out the back end of that rascal. The light was something fierce, and the acceleration was pretty good. I never saw anything like that before, sparks and fire and smoke and lights."*

GT-X

USS Guadalcanal Hand Cancel

21 Jul 1966



*Beck Prime Recovery Ship envelope addressed to my father-in-law, William J. O'Donnell. He served NASA as HQ PAO from Schirra's MA-8 flight in 1962 to the return of STS-2 in 1981.*



# Americans in Space: Project Gemini

Gemini-related

Cape Canaveral Hand Cancel

12 Sep 1966



*After two false starts the Atlas-Agena rocketed into space. In order to perform a first orbit docking, the launch windows would be very small. GT-X had 35 seconds and GT-XII had 30 seconds. In contrast, Gemini XI would have only 2 seconds. They made it with 1.5 seconds to spare.*

GT-XI

Cape Canaveral Machine Cancel

12 Sep 1966



*Not only did the crew rendezvous in a single orbit but 56 percent of their fuel still remained. For the spacewalk Conrad pushed Gordon towards the Agena but missed. He pulled on the umbilical to drag him back and pushed again. EVA remained exhausting. Gordon lasted only 33 of the planned 107 minutes.*

# Americans in Space: Project Gemini

GT-XI

Kennedy Space Center Hand Cancel

12 Sep 1966



*The postmaster at KSC created a limited number of cachets in alternate colors, perhaps as favors to friends or as a way of generating a little extra income. The blue, seen here with the uncommon Hand Cancel, is joined by a proof-like version in red.*

GT-XI

St. Johns Hand Cancel

12 Sep 1966



*Joe Frasketti orchestrated tracking station covers from as early as Project Mercury's monkey flights until after the first manned landing on the Moon. The circular rubber stamp is from a set sold by Morris Beck to dealers and collectors.*

# Americans in Space: Project Gemini

GT-XI

USS Guam Hand Cancel

15 Sep 1966

*Previous commanders had used the spacecraft's offset center of gravity to generate lift for changes in direction. This enabled corrections of up to 550 km downrange and 50 km crossrange. For GT-XI, the computer controlled automatic reentry, made the corrections and landed less than 5 km from the USS Guam. The cover shown here has the Captain's artwork (also found on other sized envelopes) and printed signatures.*

*Richard F. Gordon Jr.*  
*Charles Conrad*

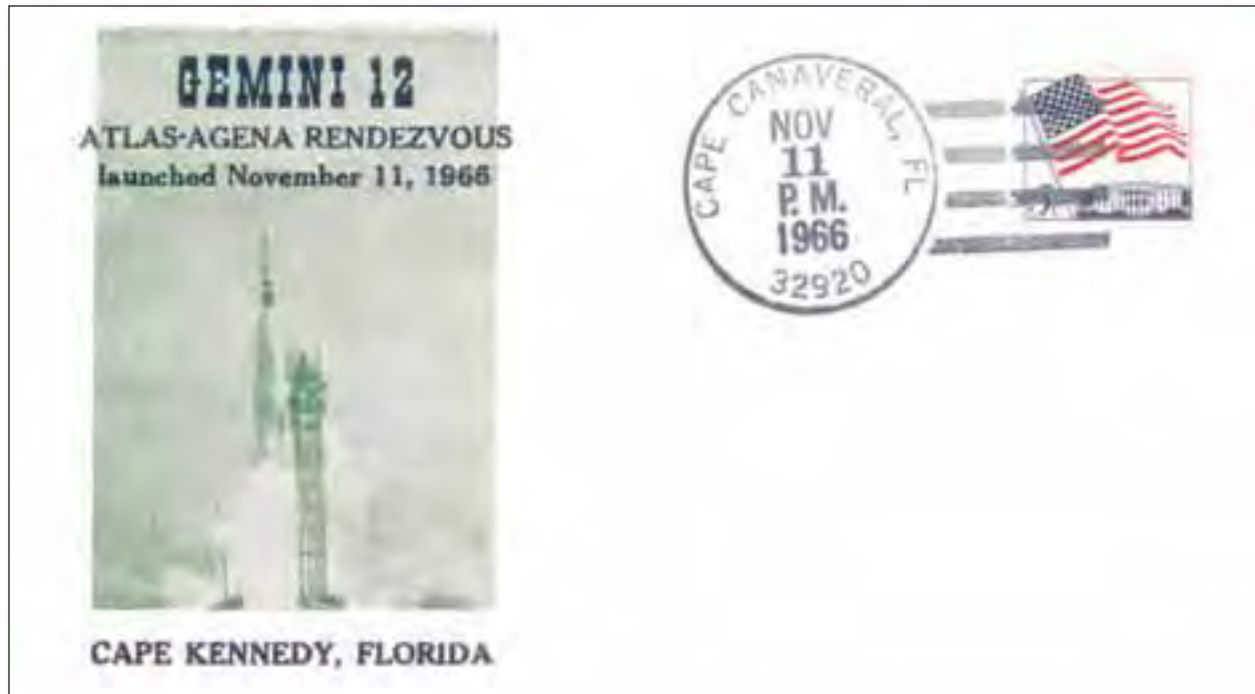


# Americans in Space: Project Gemini

GT-XII

Cape Canaveral Hand Cancel

11 Nov 1966



*With the curtain about to fall on the Gemini program, spare parts were becoming hard to come by. Lockheed's first production model Agena, previously used for testing, was returned to Sunnyvale for refurbishment. Finding a spare Atlas missile was not as easy.*

GT-XII

Kennedy Space Center Machine Cancel

11 Nov 1966



*Radar communication was poor so Buzz Aldrin, who had a PhD in orbital mechanics from MIT, called the shots using a sextant and rendezvous charts. Docking went well, as did the EVA, but a another docking attempt was misaligned, resulting in a latch getting caught. Thrusters rocked them free.*

# Americans in Space: Project Gemini

GT-XII

Houston Machine Cancel

11 Nov 1966



*For the first time a full-time experiments officer manned a console in Mission Control. When the opportunity arose to photograph a solar eclipse, it was quickly working into the schedule. This experience worked out so well that the custom was continued in Apollo.*

GT-XII

Carnarvon Hand Cancel

12 Nov 1966



*Carnarvon – call signal, CRO – was situated in northwestern Australia. Operated by the Weapons Research Establishment (WRE) – Department of Supply, Commonwealth of Australia, it functioned as a primary network station.*

# Americans in Space: Project Gemini

GT-XII

USS Wasp Machine Cancel

15 Nov 1966



*During reentry a pouch containing books, filters, and small pieces of equipment broke free from the Velcro on the sidewall and landed in Lovell's lap. The pilots had unstowed the D-rings that activated the ejection seats and were holding them down between their legs. He squeezed his knees together and hoped the pouch would go no further. It did not.*

GT-XII

USS Wasp Hand Cancel

15 Nov 1966



*This Captain's cover celebrates the successful end of Gemini. Landing only 5.5 km from the carrier, the astronauts were on deck aboard the USS Wasp 28 minutes after touchdown.*

# Project Apollo

*“We choose to go to the moon in this decade and do the other things, not because they are easy, but because they are hard, because that goal will serve to organize and measure the best of our energies and skills, because that challenge is one that we are willing to accept, one we are unwilling to postpone, and one which we intend to win.”*

President John F. Kennedy September 1962



The author was 10 years old when Neil Armstrong and Buzz Aldrin landed on the moon. I distinctly remember thinking that the rest of my life would be divided in two. Those things that happened before men walked on the moon and things that happened after.

Today, the accomplishment remains as unbelievable as it was before it happened. To leave the planet with two spacecrafts, travel a quarter of a million miles, rendezvous in lunar orbit, land and return home safely is remarkable. The historian Arthur Schlesinger declared, “The 20th Century will be remembered, when all else is forgotten, as the century when man burst his terrestrial bonds.”

Apollo represented a departure. It was the first program that had astronauts riding launch vehicles designed for civilian exploration and not military might. Shepard and Grissom rode the Redstone, an Army intermediate range missile. Glenn and other Mercury pilots who followed flew on Atlas missiles. During the Gemini program NASA switched to the Air Force Titan.

To get to the moon, America required more than Army artillery or Air Force ICBMs. In 10 years the Earth-to-orbit weight lifting capability grew by 10

thousand times. It was an age when a single main engine (and there were five) delivered 1.5 million pounds of thrust. In its twilight years Saturn lifted a Skylab module weighing 100 metric tons into orbit not 15 years after our nation have trouble lifting a satellite the size of a grapefruit.

Landing on the moon would be made in a spider-like spacecraft so flimsy it could not bear its own weight on Earth. The sides of the Lunar Module were paper-thin sheets of gold colored foil. The seats were removed for weight due to a strict diet. It required no aerodynamic considerations at all. It was the world’s first true spacecraft.

For all the complexity the Apollo launch vehicles were reliable. The 10 Saturn I, the 9 Saturn IB and the 13 Saturn V rockets all flew successfully. Confidence was so high that after only two unmanned Saturn V missions NASA chose to send Apollo 8 around the moon.

In a scant 70 years America had traveled from Kitty Hawk to the moon. Benjamin Foulois had learned to fly from the Wright Brothers only to pin medals on Mercury astronauts. Edwin Aldrin, Sr., knew the Wrights, Goddard and Lindbergh, and watched his son walk on the moon.

# Americans in Space: Project Apollo

SA-1

Port Canaveral Hand Cancel

27 Oct 1962



*Saturn was three times taller, required six times more fuel and produced ten times more thrust than the Jupiter-C launched just four years before. The first stage and two dummy upper stages flew to a height of 136.5 km and impacted 345.7 km downrange meeting all objectives.*

SA-2

Port Canaveral Hand Cancel

25 Apr 1962



*Project High Water was designed to study the effects of radio transmissions with changes in local weather conditions. The rocket would lift 109,000 liters of water and detonate two minutes after launch creating a large artificial cloud.*



# Americans in Space: Project Apollo

SA-3

Patrick Air Force Base Machine Cancel

16 Nov 1962

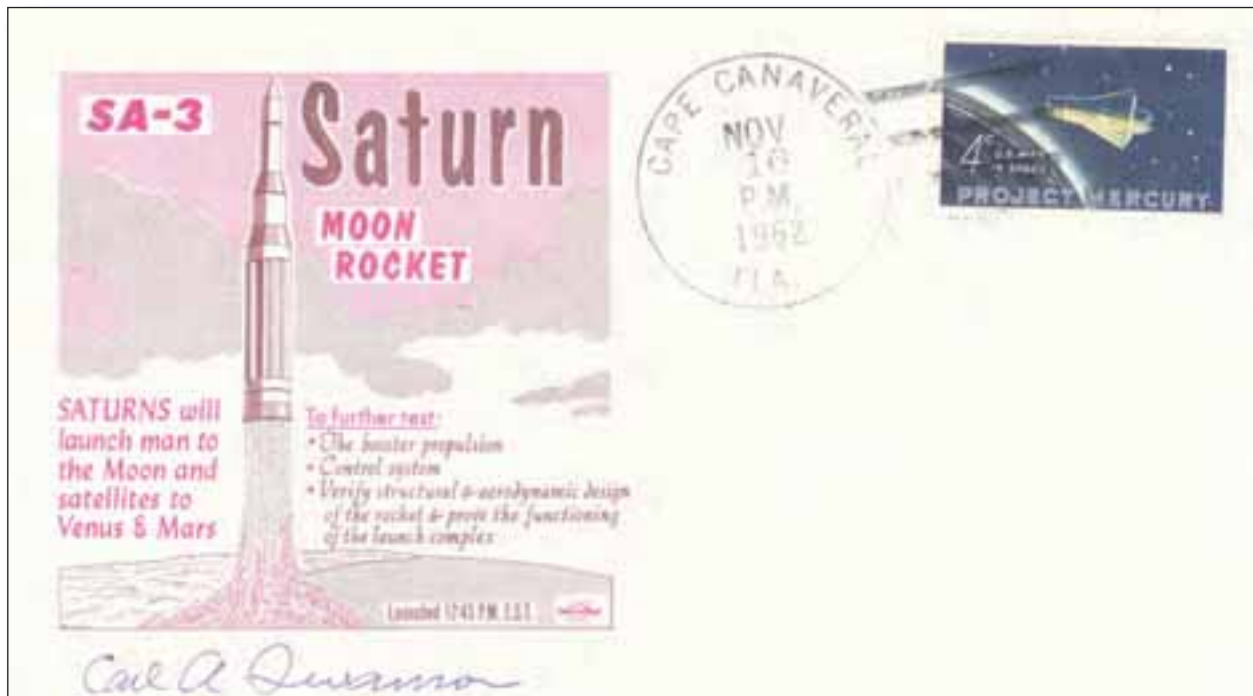


*Instead of 83 percent full, the first stage was now fully loaded. Dummy second and third stages were again ballasted with water to create an artificial cloud. For the first time the rocket had a digital downlink data stream vital to future automatic checking process activities.*

SA-3

Cape Canaveral Hand Cancel

16 Nov 1962



*Carl Swanson, perhaps the most prolific space event cover artist, was the creative element of Space Craft cachets which combined high quality multi-color printing and accurate mission data.*

# Americans in Space: Project Apollo

SA-4

Cape Canaveral Hand Cancel

28 Mar 1963



*Before “all up” integrated testing became the rule, each stage received its own evaluation. This was the final flight to test the first stage alone before moving on to more complex multi-stage tests.*

SA-4

Cape Canaveral Machine Cancel

28 Mar 1963



*This flocked Velvetone cachet celebrates the test to see whether the rocket could reroute fuel and burn longer to compensate for a premature engine shutdown. This came in handy for SA-6 and Ap-13.*

# Americans in Space: Project Apollo

QTV

White Sands Missile Range Machine Cancel

28 Aug 1963



*The objective was to prove the Little Joe II rockets capability as an Apollo CSM test vehicle and to determine base pressures and heating on the rocket. Except for the non-functional destruct system it was a success.*

PA-1

White Sands Missile Range Machine Cancel

7 Nov 1963



*The launch escape system (LES) needs to be capable of pulling the spacecraft from an exploding rocket while it sat on the pad. It then had to gain sufficient altitude to allow parachutes to open. The flight went beautifully. The only snag was soot on the spacecraft exterior.*

# Americans in Space: Project Apollo

SA-5

Patrick Air Force Base Cancel

29 Jan 1964



*This was the first two stage Saturn flight – the S-I first stage and the S-IV second stage. As in earlier flights only a Jupiter-C nose cone instead of a boilerplate capsule was used.*

SA-5

Cape Canaveral Machine Cancel

29 Jan 1964



*The rocket sent back 1,183 separate measurements while being tracked by six telescopes. For the first 1000 meters the rocket was filmed by 13 cameras that looked for pitch, yaw, and roll movements. Eight cameras that filmed the stage separation were recovered in the Atlantic.*

# Americans in Space: Project Apollo

A-001

White Sands Missile Range Machine Cancel

13 May 1964



*Unlike the Pad Abort Test which ignited at ground level, this was flown to show the capability to propel the command module while in a transonic region of flight. Developed to accomplish quick and inexpensive testing of the launch escape system, LJ II was propelled by seven solid-propellant rocket motors – one 42-second Algol sustainer motor, and six 1.5 second Recruit motors.*

SA-6

Cape Canaveral Hand Cancel

28 May 1964



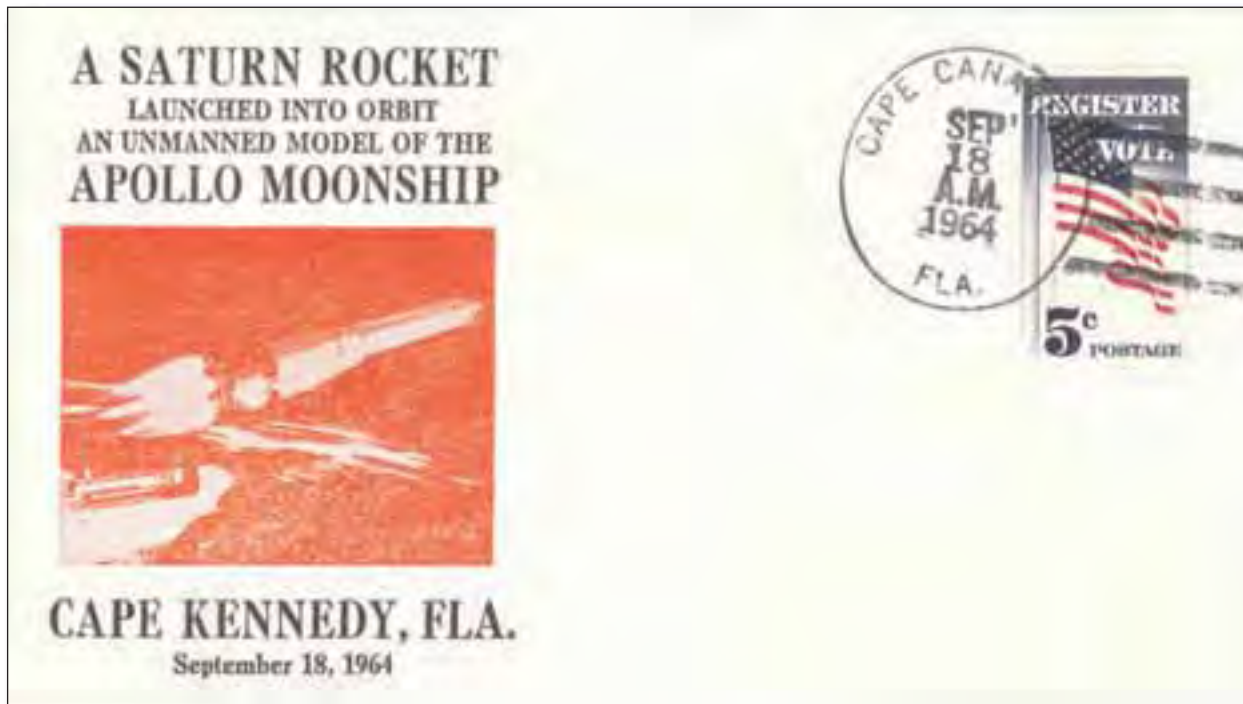
*First to fly an Apollo boilerplate capsule. The first stage burned 2.7 seconds longer to compensate for engine number 8 which shut off early. Postflight cause was quickly located with no further delay.*

# Americans in Space: Project Apollo

SA-7

Cape Canaveral Hand Cancel

18 Sep 1964



*First Saturn flight with a programmable computer. It sent telemetry for five orbits and was tracked for all 59 revolutions until reentry over the Indian Ocean. The eight film camera pods were not immediately recovered although two washed ashore two months later, covered in barnacles but undamaged.*

A-002

White Sands Missile Range Machine Cancel

8 Dec 1964



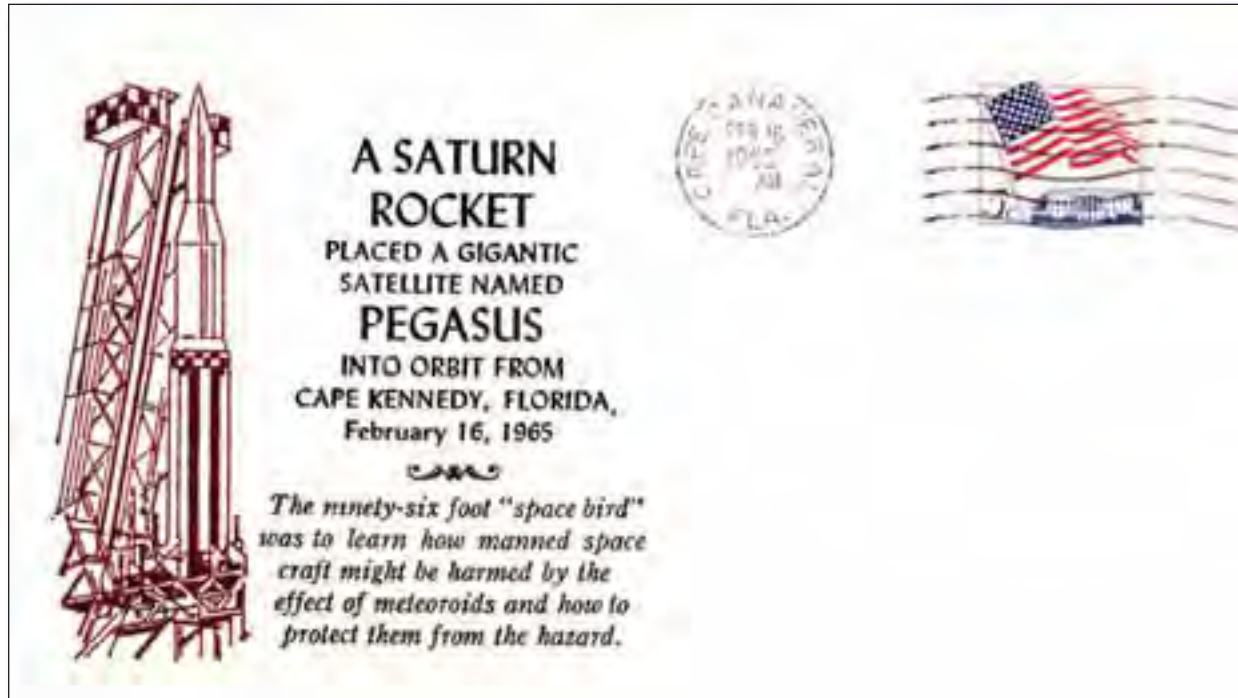
*Testing abort capability of the launch escape vehicle in the maximum dynamic pressure region approximating the altitude limit at which the Saturn emergency detection system would signal an abort was evaluated. Conditions were more than adequate in verifying the abort capability.*

# Americans in Space: Project Apollo

SA-9

Cape Canaveral Machine Cancel

16 Feb 1965



*The eighth unmanned Saturn carried both a boilerplate capsule and a meteoroid technology satellite. All objectives were met and Pegasus A remained in orbit for 1188 days.*

A-003

White Sands Missile Range Machine Cancel

19 May 1965



*Within 2.5 seconds after lift off a launch malfunction caused the vehicle to go nuts. Excessive roll rate broke up the vehicle before second stage ignition. This became a low altitude abort.*

# Americans in Space: Project Apollo

SA-8

Cape Canaveral Machine Cancel

25 May 1965



*The second operational Saturn I. It too carried a boilerplate as well as Pegasus B. This was also the first night launch of the Saturn rocket.*

PA-2

White Sands Missile Range Machine Cancel

29 Jun 1965



*A highly successful second Pad Abort test. The only abnormalities were oily residue on the rendezvous and crew windows and a kinked steel cable parachute riser.*



# Americans in Space: Project Apollo

SA-10

Kennedy Space Center Machine Cancel

30 Jun 1965



*The earliest mission-related KSC Official cachet and a difficult one to find. It commemorates the conclusion of a successful 10 flight Saturn I series.*

SA-10

Cape Canaveral Machine Cancel

30 Jun 1965



*The last operational Saturn I took to the skies with the last meteoroid technology satellite. The Apollo boilerplate capsule would reenter the Earth's atmosphere 22 Nov 1975.*

# Americans in Space: Project Apollo

A-004

White Sands Missile Range Machine Cancel

20 Jan 1966



*First flight of a Block I production-type spacecraft, designed to demonstrate that the launch escape vehicle would orient and stabilize itself after being subjected to a high rate of tumbling during the powered phase and would maintain its structural integrity. The fifth and final Little Joe II flown. The propulsion system consisted of four Algol and five Recruit rocket motors. Passed with high marks.*

Apollo-related

Bay St. Louis Machine Cancel

23 Apr 1966



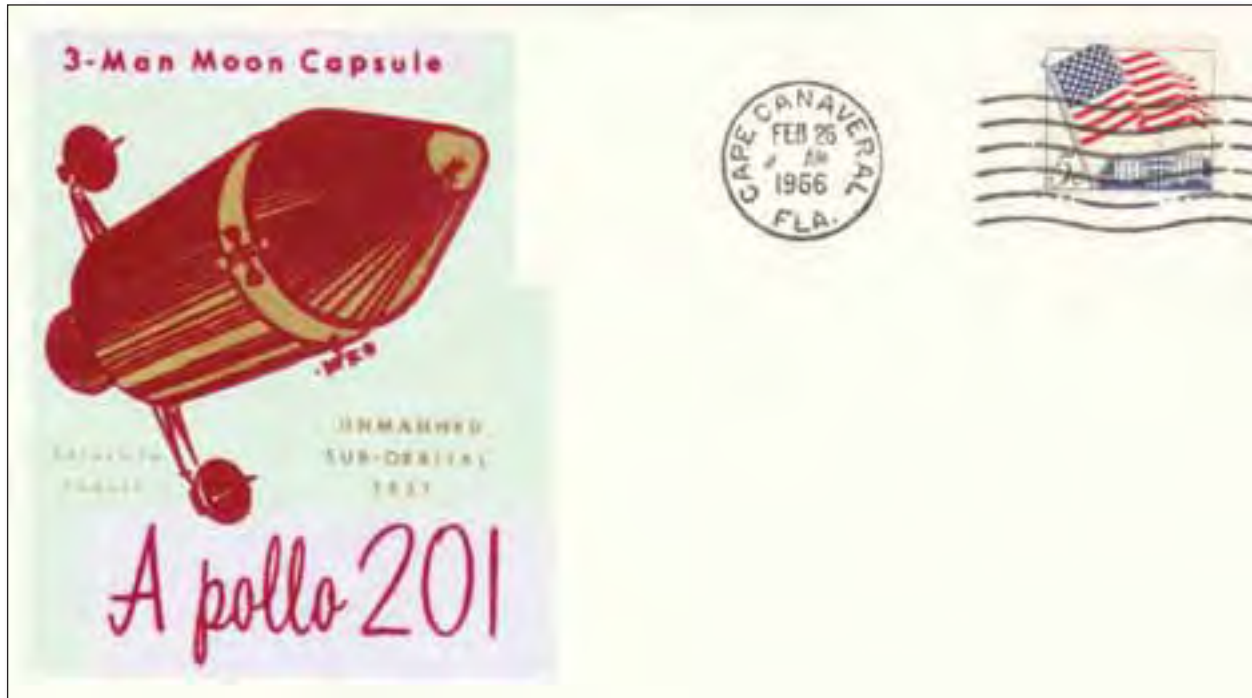
*A rarely seen envelope marking the static fire testing of the second stage.*

# Americans in Space: Project Apollo

AS-201

Cape Canaveral Machine Cancel

26 Feb 1966



*First real Command Service Module (Block I) to ride atop the first Saturn 1B, an uprated version of the Saturn I. With a more powerful first stage and a second stage (S-IVB) that could restart in space, the flight was a leap forward towards a Moon capable launch vehicle.*

AS-201

Cape Canaveral Hand Cancel

26 Feb 1966



*Helium gas in the combustion chamber inhibited performance of the CSM engine after only 80 seconds. Bad wiring marred an otherwise good flight by disrupting reentry control.*

# Americans in Space: Project Apollo

AS-201

USS Boxer Machine Cancel

26 Feb 1966



*Deployed to Vietnam twice, this amphibious assault ship (LPH-4) served as the Prime Recovery Ship for the mission and would have picked up Gemini VIII the following month if they had not made an emergency landing in the Pacific.*

AS-201

USS Boxer Hand Cancel

26 Feb 1966



*A less common Hand Cancel is seen here on a cover that a member of the crew has addressed to himself.*

# Americans in Space: Project Apollo

AS-203

Kennedy Space Center Machine Cancel

5 Jul 1966



*The main purpose of the flight was to investigate the effects of weightlessness on the fuel in the S-IVB. To accomplish this the second stage was equipped with 83 sensors and two video cameras to record what the fuel did in the tank.*

AS-203

Cape Canaveral Machine Cancel

5 Jul 1966



*The test went well. It was found that the stage could restart and the fuel behaved just as predicted.*

# Americans in Space: Project Apollo

AS-202

Kennedy Space Center Machine Cancel

25 Aug 1966

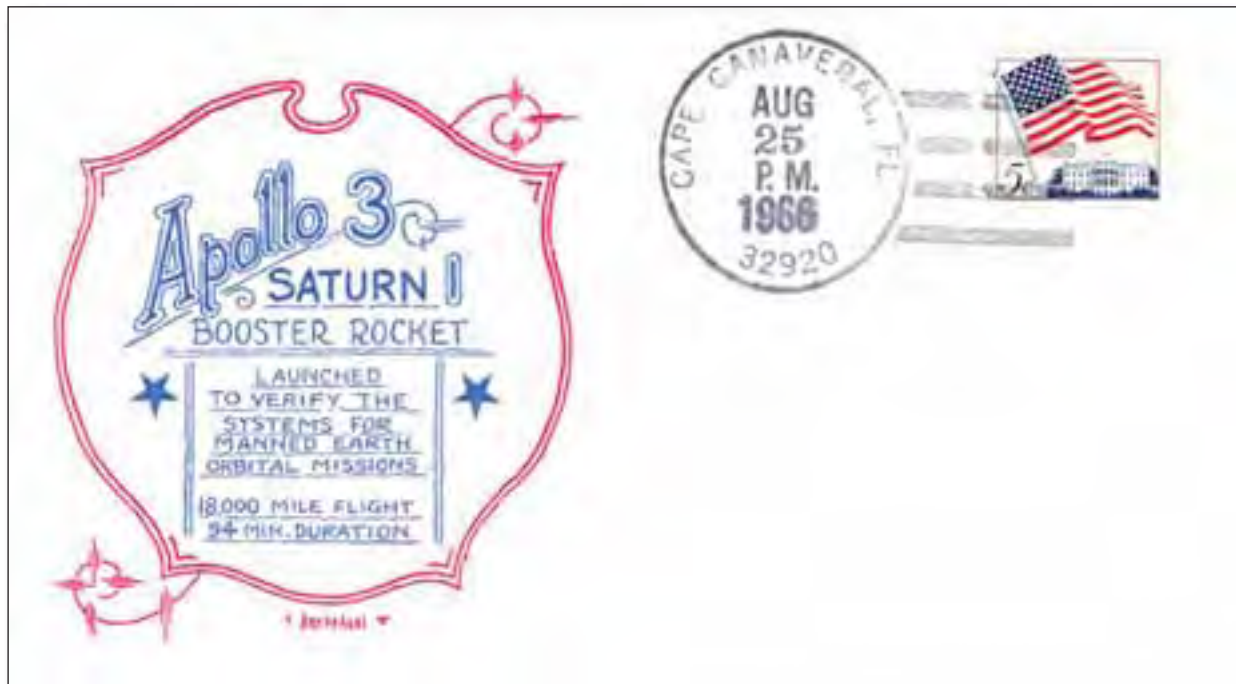


*The second Saturn 1B was more demanding, launching the rocket higher and having a flight that lasted twice as long. It also tested the Command and Service Module by firing the engine four times during the flight.*

AS-202

Cape Canaveral Hand Cancel

25 Aug 1966



*By following a shallower reentry profile and prolonging the travelling time through the atmosphere, the mission provided a more rigorous test of the heat shield.*

# Americans in Space: Project Apollo

AS-202

USS Hornet Machine Cancel (Type I)

25 Aug 1966



*Splashdown was 370 km from the intended landing site.  
It required 8 hours and 30 minutes for the ship to reach the capsule.*

AS-202

USS Hornet Machine Cancel (Type II)

25 Aug 1966



*The artwork on this cachet by Morris Beck has been modified to reflect the flight of AS-202.*

# Americans in Space: Project Apollo

AS-202

USS Hornet Hand Cancel

25 Aug 1966

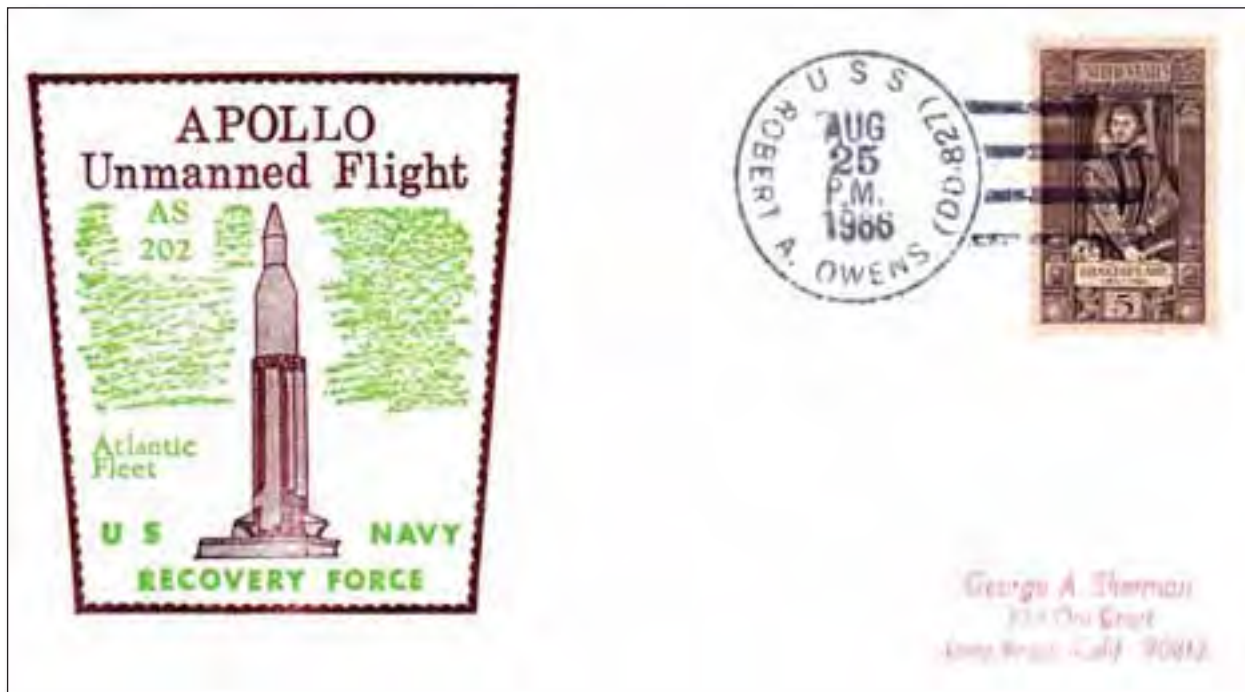


*A hard to find Hand Cancel mailed to a California collector.*

AS-202

USS Robert A. Owens Hand Cancel

25 Aug 1966



*A rare (25 made) Beck CREW cover sent to ships (without a cachet number) to thank Navy personnel for assistance in postmarking envelopes for space event collectors. This Secondary Recovery Ship (SRS) was on stand-by in the Atlantic Ocean.*



# Americans in Space: Project Apollo

Ap-1

Houston Machine Cancel

27 Jan 1967



*A spark somewhere in 30 miles of wiring killed the Apollo 1 crew during a “plugs out” ground test monitored by Mission Control in Houston. The frayed wire ignited glycol vapor fumes from a leak under Gus Grissom’s couch. This led to a fire no one could put out.*

Ap-1

Patrick Air Force Base Machine Cancel

27 Jan 1967



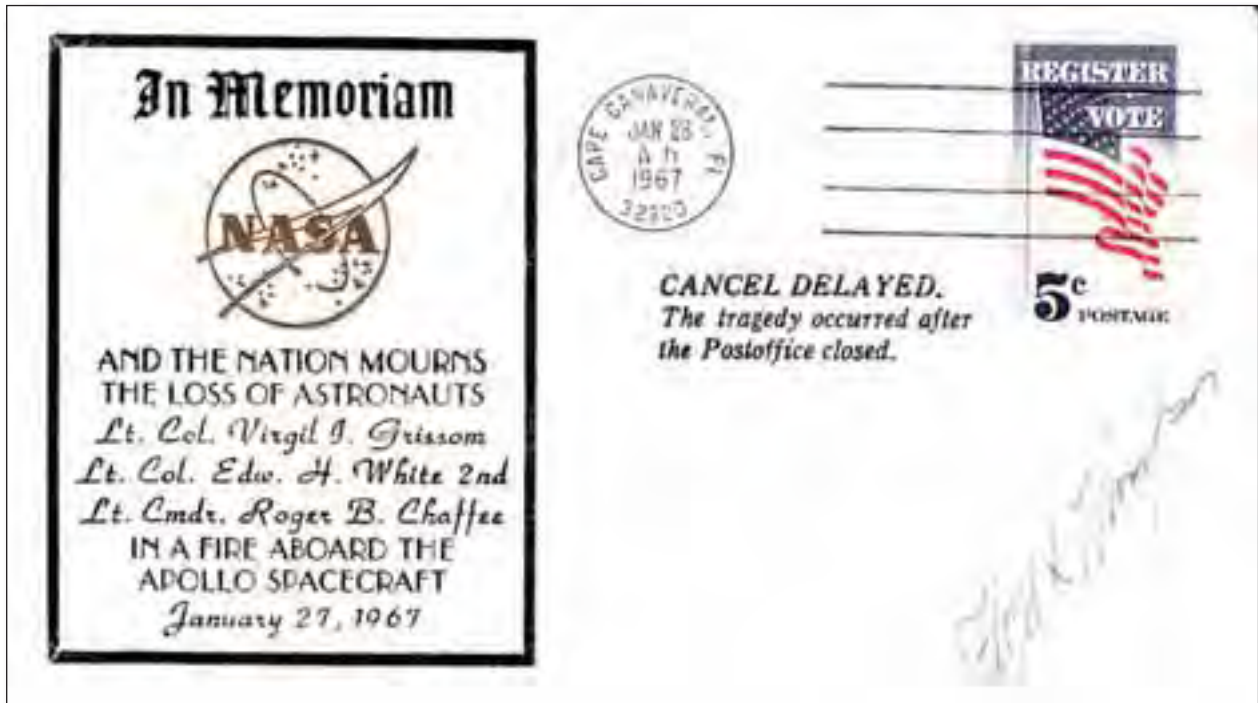
*Postmarks on the day are scarce since the tragedy unfolded after most post offices had closed.*

# Americans in Space: Project Apollo

Ap-1

Cape Canaveral Machine Cancel

28 Jan 1967

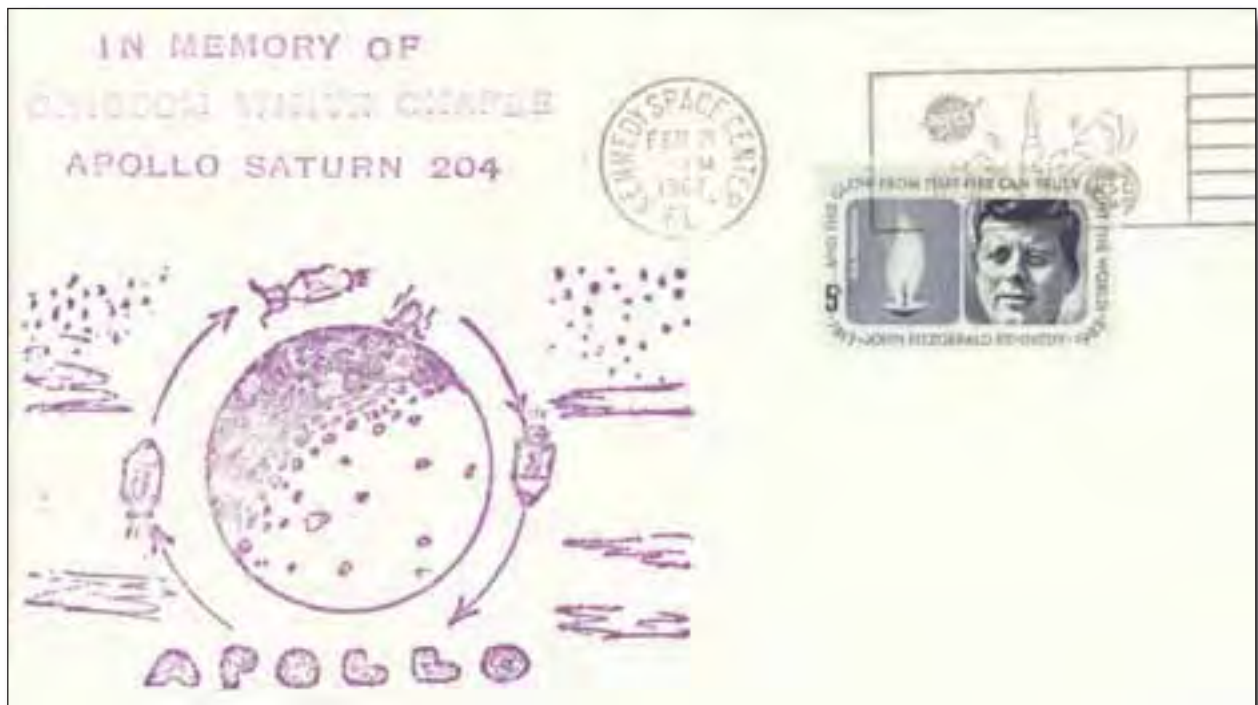


*Floyd Thompson, Director of the Langley Research Center, led the investigation that eventually resulted in a vastly improved spacecraft that three years later would land men on the Moon.*

Ap-1

Kennedy Space Center Machine Cancel

21 Feb 1967



*The day the first manned Apollo had planned to reach orbit.*

# Americans in Space: Project Apollo

Ap-4

Kennedy Space Center Machine Cancel

9 Nov 1967



*The Saturn V was the largest launch vehicle ever constructed and fired from Launch Complex 39, constructed specifically for it at KSC. 4,098 measuring instruments on board the rocket and spacecraft supported the new "all up" doctrine. Everything had to work, and it did.*

Ap-4

US Navy Hand Cancel

9 Nov 1967



*Envelope cancelled at the PACAF ARRC headquarters in Hawaii. The rubber stamp cachet reminiscent of the KSC Officials is a privately produced decoration.*

# Americans in Space: Project Apollo

Ap-4

USS Bennington Machine Cancel

9 Nov 1967



*Seaman on the USS Bennington watched the descending spacecraft with its parachutes in full bloom until it landed 16 km away about nine hours after its launch from Florida.*

Ap-4

USS Bennington Hand Cancel

9 Nov 1967



*It was a successful collection of "firsts": The flight of the first and second stages of the Saturn V; The first Block II heatshield test; First flight from Pad 39; and the first flight after the devastating Apollo 1 fire. General Phillips was upbeat, "Apollo was on the way to the Moon".*

# Americans in Space: Project Apollo

Ap-5

Kennedy Space Center Machine Cancel

22 Jan 1968

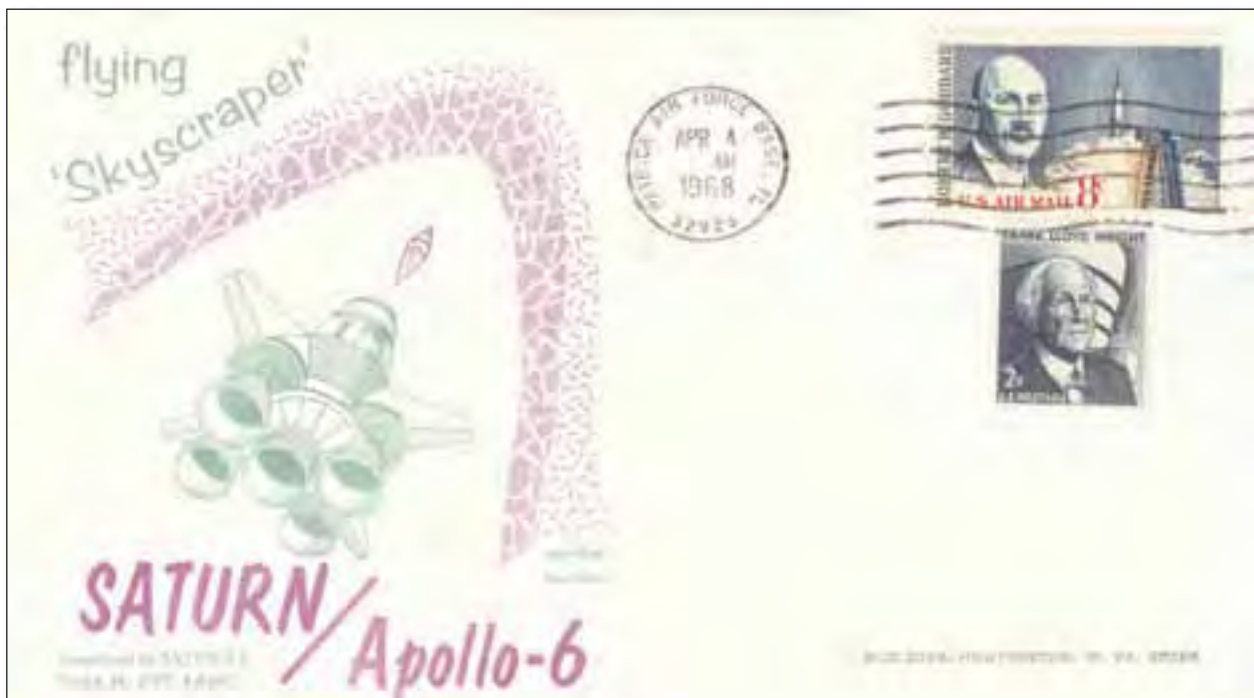


*A legless Lunar Module is put into orbit. After firing the descent engine three times and the ascent engine twice (therefore meeting all test objectives) LM-1 reentered the atmosphere where its fiery remains plunged into the Pacific several hundred kilometers southwest of Guam.*

Ap-6

Patrick Air Force Base Machine Cancel

4 Apr 1968



*Two minutes into the flight thrust fluctuations caused the vehicle to bounce like a giant pogo stick (+/- 0.6g) for 30 seconds far exceeding design criteria (+/- 0.25 was the Gemini limit). Two of the five second-stage engines quit, putting the spacecraft in a 178 x 367 km orbit instead of 160 km circular orbit.*

# Americans in Space: Project Apollo

Ap-6

Kennedy Space Center Machine Cancel

4 Apr 1968



*An unusual KSC Official postmarked in Florida with insufficient Canal Zone postage.*

Ap-6

USS Okinawa Hand Cancel

4 Apr 1968



*Although the spacecraft had sufficient altitude it ran out of gas before reaching its planned reentry velocity of 11,270 meters per second missing the intended impact point by 80 km.*

# Americans in Space: Project Apollo

Ap-7

Kennedy Space Center Machine Cancel

11 Oct 1968



*In an attempt to improve image quality, the Ap-7 and Ap-8 KSC Officials were printed as labels instead of rubber stamps. Crew signed with an AUTOPEN of Walter Cunningham in blue.*

Ap-7

Patrick Air Force Base Hand Cancel

11 Oct 1968



*That "magnificent flying machine" as Cunningham called it, circled the Earth for 11 days. Head colds made the crew testy and caused concern about whether to wear helmets during reentry.*

# Americans in Space: Project Apollo

Ap-7

USS Essex Hand Cancel

22 Oct 1968

21 October 1968

Dear Buzz & Jeanette  
Hello my friend again & give your my  
heartiest of Congratulations on the birth of your  
new daughter. I do hope that everything is  
well at home for the both of you and your  
children. Buzz sorry you will miss this but  
anyhow you wanted out the long wait. This letter  
is just so you will have this envelope keep  
it with my regards it is one of 18 printed  
& designed by me how do you like it  
you when we get home

11 Rudy



A member of the crew designed a limited number (18) of embossed Prime Recovery Ship covers for friends and family. Landing southeast of Bermuda, the spacecraft splashed down less than 2 km from its intended spot.



# Americans in Space: Project Apollo

Ap-8

Kennedy Space Center Machine Cancel

21 Dec 1968

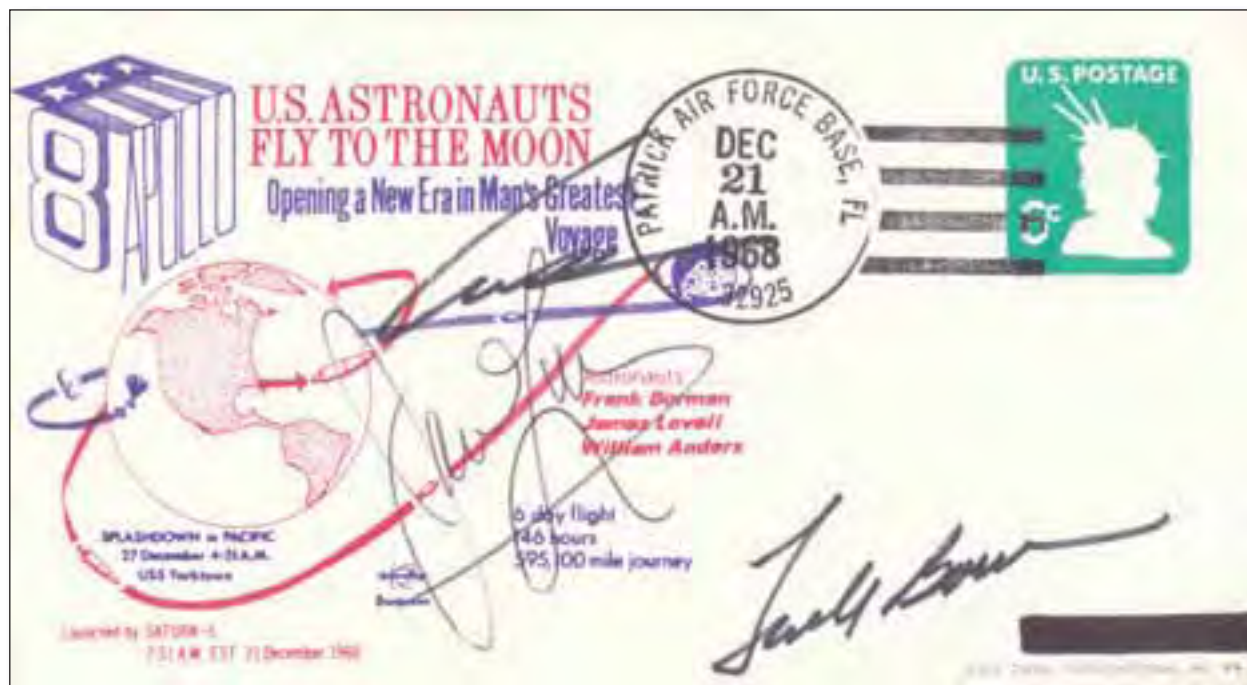


*With the Lunar Module nowhere near ready to test, but a Saturn V prepared and fueled, NASA makes the audacious decision to shoot for the Moon.*

Ap-8

Patrick Air Force Base Hand Cancel

21 Dec 1968



*The Ap-8 crew received a visit from Charles Lindbergh the night before the launch. They talked about how, for his 1927 flight, he had used a piece of string to measure the distance from New York City to Paris on a globe to calculate the fuel needed for the flight. The next day Lindbergh and his wife watched the lift off from nearby dunes.*

# Americans in Space: Project Apollo

Ap-8

Houston Machine Cancel

24 Dec 1968



*On Christmas Eve, as the crew made the ninth of 10 orbits around the Moon, they took turns reading the story of Creation from the Book of Genesis.*

Ap-8

USS Yorktown Machine Cancel

27 Dec 1968



*A mission planner wrote, "The C Prime CM came down right over the carrier and drifted to land away. The consequence of hitting the carrier is truly catastrophic. I seriously recommend relocating the recovery force." Apollo 8 returned 2 km from the target.*

# Americans in Space: Project Apollo

Ap-8

USS Yorktown Hand Cancel

27 Dec 1968

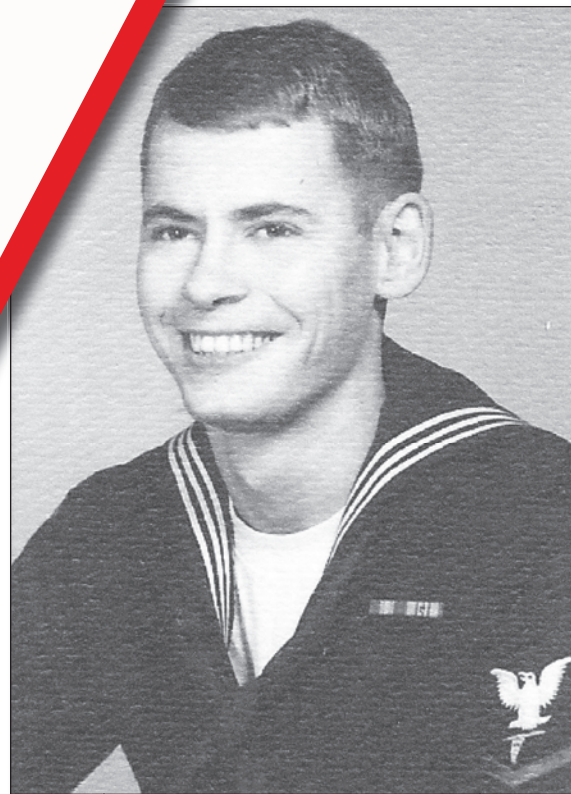
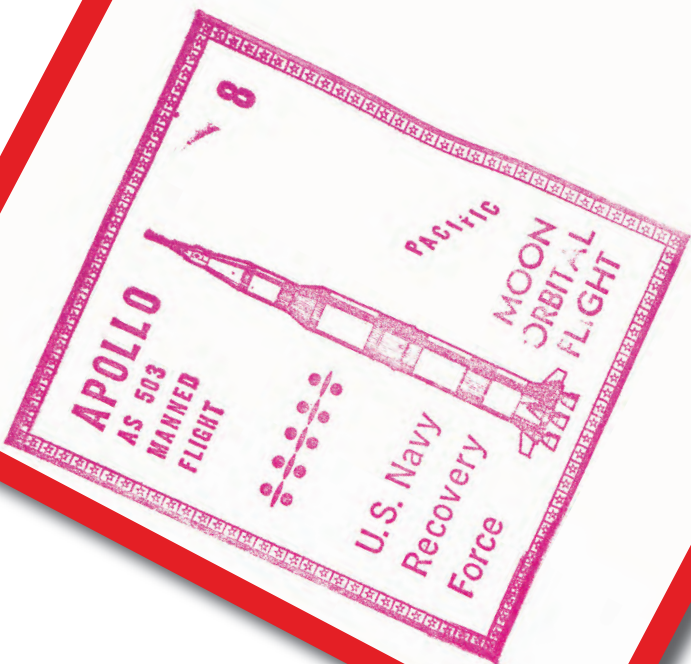
**FREE PRESS**  
Saturday, Dec. 28, 1968-9  
**Mankato sailor aboard  
Apollo recovery ship**

While millions of persons watched the Apollo 8 pickup over television sets Friday, H/NI Richard Korth, 21, son of Mr. and Mrs. Francis Korth of 117 North Sixth St., had a front row seat. Korth has been serving as hospital corpsman on the USS Yorktown since April and was aboard the ship during the flight. According to Yorktown with South Am at Nov

*Richard Korth, a 21-year-old seaman, worked as a hospital corpsman on the USS Yorktown over Christmas in 1968. He had the postal clerk cancel 50 envelopes. Use of the Hand Cancel on this flight is very scarce.*



RICHARD F. KORTH HN  
"H" DIVISION USS YORKTOWN CVS-10  
FPO SAN FRANCISCO 96601



# Americans in Space: Project Apollo

Ap-9

Kennedy Space Center Machine Cancel

3 Mar 1969



*Postally used VIP postcard distributed at the launch site. Visitors could have up to five cards, buy stamps, and have them mailed at the site.*

Ap-9

Patrick Air Force Base Hand Cancel

3 Mar 1969



*By the time McDivitt's crew was finally ready for flight, they had spent 7 hours in training for each of the 241 hours they would spend in space. At a news conference, McDivitt quipped that he hoped all this training did not imply that the crewmen were slow learners.*

# Americans in Space: Project Apollo

Ap-9

Houston Machine Cancel

7 Mar 1969



*The biggest concern before Apollo 9 was the docking maneuver. On several occasions capture latches failed to engage. In other tests latches partially caught raising the specter of “jack-knifing” resulting in sharp edges damaging the Lunar Module. After six hours of LM testing, “I have capture.”*

Ap-9

USS Guadalcanal Hand Cancel

13 Mar 1969



*After 10 days, 1 hour, and 1 minute, Apollo 9 splashed safely down in the Atlantic, northeast of Puerto Rico. Within an hour the crew was aboard the carrier.*

# Americans in Space: Project Apollo

Ap-9

USS Guadalcanal Hand Cancel

13 Mar 1969

*An exceedingly rare Captain's cover that includes crew and Navy rubber stamp art. Sean Marsar bought and resold them from a sailor attending a Tailhook Association gathering in the 1980s. This cover came from an auction sale in 2008.*



# Americans in Space: Project Apollo

Ap-10

Patrick Air Force Base Hand Cancel

18 May 1969



*The lunar landing dress rehearsal was needed to check LM guidance and navigation in the Moon's uneven gravitational field. There were also tracking, communications and site selection reconnaissance needed. The all-veteran crew would be busy.*

Ap-10

Kennedy Space Center Machine Cancel

18 May 1969



*The ride to orbit was rough and the crew considered an abort. The food was pretty bad. Every Apollo crew except Ap-14 lost weight. A wrong switch setting made the LM crazy for three minutes. All in all, however, NASA was ready to land. The trail had been blazed.*

# Americans in Space: Project Apollo

Ap-10

USS Carpenter Hand Cancel

26 May 1969



*Always a bridegroom, never a bride. USS Carpenter accompanied USS Bennington (Ap-4), USS Okinawa (Ap-6), USS Princeton (Ap-10), USS Hornet (Ap-11) and USS New Orleans (Ap-14).*

Ap-10

USS Princeton Machine Cancel

26 May 1969



*A scarce Captain's cover. On 26 May 1969, Apollo 10 streaked through the early morning darkness like a shooting star, splashing down 690 km from Samoa and 6 km from the carrier.*



# Americans in Space: Project Apollo

Ap-11

Kennedy Space Center Machine Cancel

16 Jul 1969



*NASA PAO Julian Scheer wrote George Low that after naming Ap-10 Charlie Brown and Snoopy "something a little more dignified should be picked for Apollo 11." The crew settled on Columbia for the Command Module and for the Lunar Module, Eagle.*

Ap-11

Kennedy Space Center Machine Cancel

16 Jul 1969



*This envelope NASA Exchange mission emblem cover was probably sent from a family member (initials RBM) who worked in the Vehicle Assembly Building (VAB).*

# Americans in Space: Project Apollo

Ap-11

Patrick Air Force Base Hand Cancel

16 Jul 1969



*It was time to go. President Kennedy had set the goal, before the decade was out, to land a man on the Moon and return him safely to the Earth. Six months remained. Now a million crowded the space coast to see the launch.*

Ap-11

Houston Backdated Machine and Hand Cancel

20 Jul 1969



*Europeans consider 21 Jul 1969 the moon landing date (GMT) but the controlling time zone was in Houston. This cover has a Machine Cancel (lost in the black of the stamp) and a Hand Cancel. Both were backdated since the moon landing was on a Sunday.*

# Americans in Space: Project Apollo

Ap-11

USS Hornet Machine Cancel (Type I)

24 Jul 1969



*The vehicle dipped down into the atmospheric layer, zipped up in a roller coaster curve out of the layer, and then came screaming back in. The drogue parachutes opened, and the ship steadied. Below they heard recovery forces trying to talk following the communications blackout.*

Ap-11

USS Hornet Machine Cancel (Type II)

24 Jul 1969



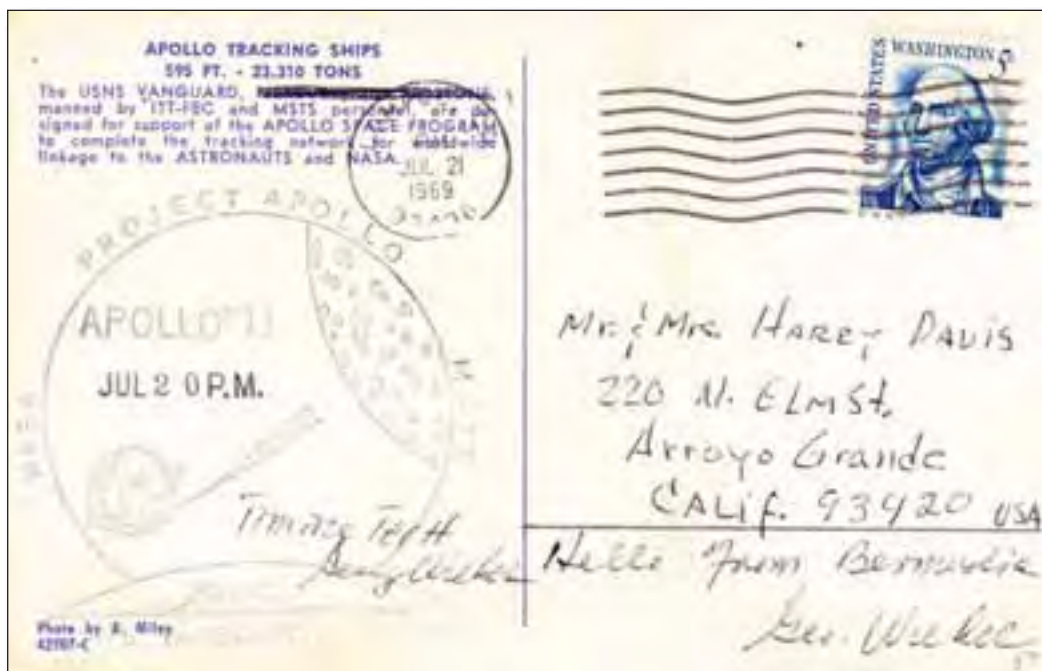
*Columbia landed close to its target and flipped over on its nose in the water, but a flick of a switch inflated the air bags and it soon turned upright.*

# Americans in Space: Project Apollo

Ap-11

Lompoc Machine Cancel

21 Jul 1969

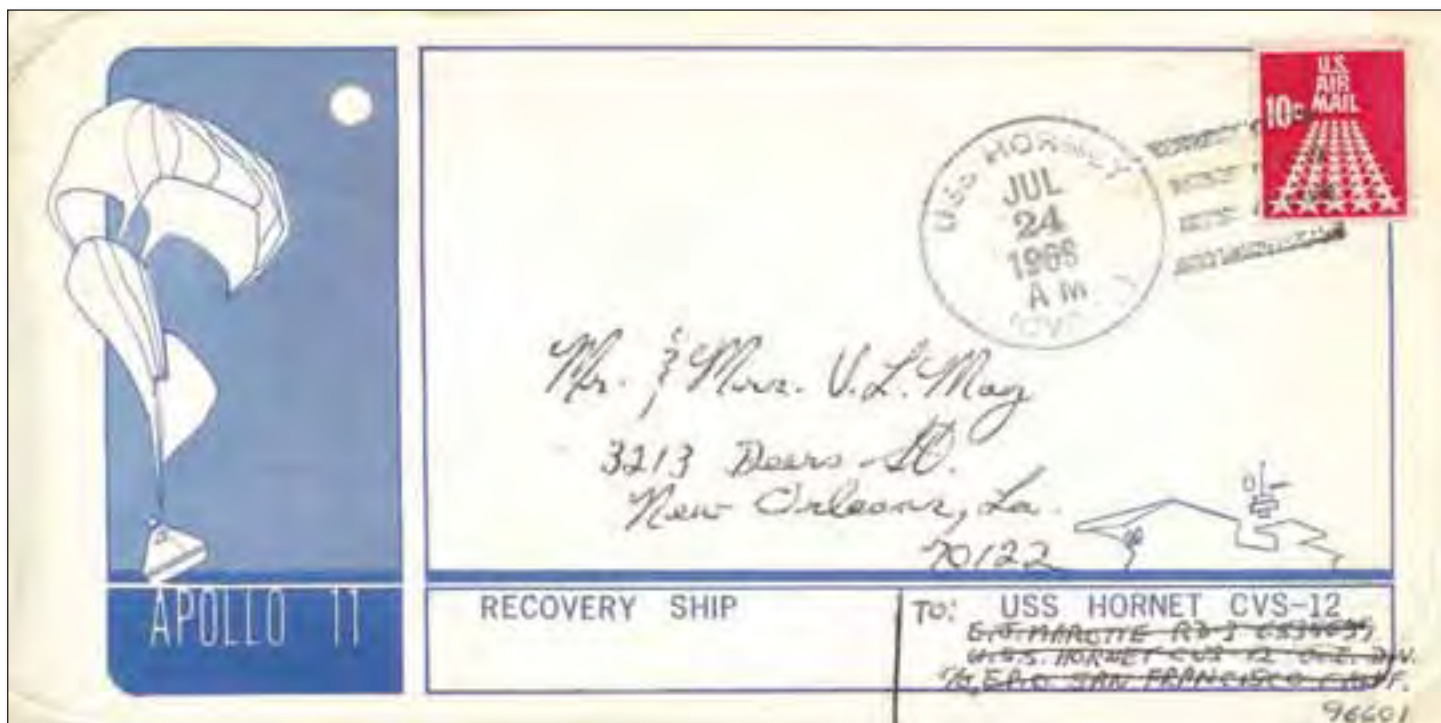


*USNS Vanguard participated as a tracking ship to bridge coverage gaps mid-ocean.*

Ap-11

USS Hornet Machine Cancel

24 Jul 1969



*6000 Captain's covers were created. A few Navy brass and the astronauts received 25 each while members of the crew were given two each. This one entered the mail stream from a crew member.*

# Americans in Space: Project Apollo

Ap-12

Kennedy Space Center Machine Cancel (Open globe)

14 Nov 1969



*Al Bishop created "Insurance" covers (this one for an all-Navy crew) that astronauts could leave with family in the event that they failed to return. Later these were sold or given as gifts.*

Ap-12

Kennedy Space Center Machine Cancel (Closed globe)

14 Nov 1969



*Paul Savko, an employee of Bendix, suggested the contractor publicize the company's participation in the space program. A different cachet was made for each Apollo mission.*

# Americans in Space: Project Apollo

Ap-12

Patrick Air Force Base Hand Cancel

14 Nov 1969



*At the start of the flight that would culminate with a precision landing 182.88 meters from Surveyor 3, Range Officers at Patrick Air Force Base watched as the ascending Saturn V was struck by lightning. A few tense moments ensued while they made sure no damage had occurred.*

Ap-12

Houston Machine Cancel

20 Nov 1969



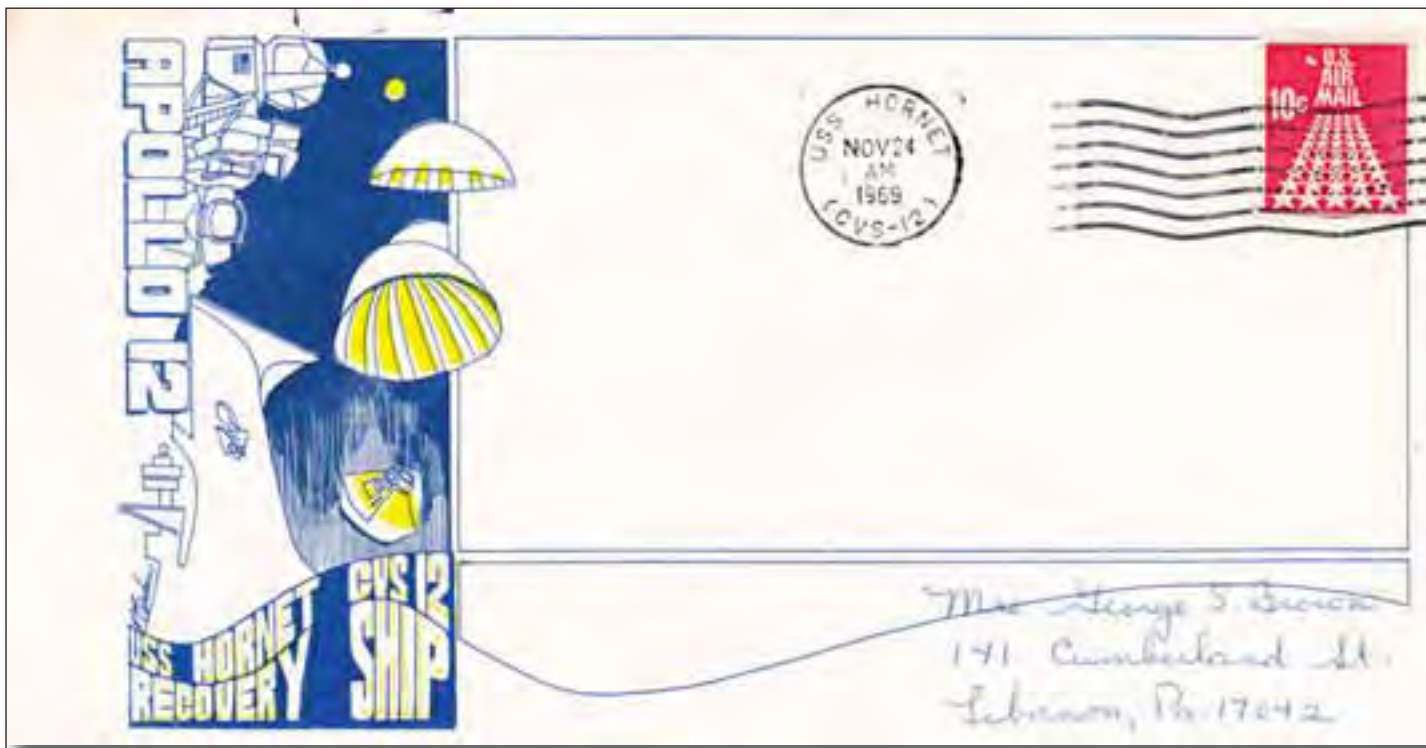
*When Conrad, who was somewhat shorter than Neil Armstrong, stepped onto the lunar surface, his first words were "Whoopie! Man, that may have been a small one for Neil, but that's a long one for me." Conrad had made a \$500 bet with reporter Oriana Fallaci he would say these words, but said he was never able to collect the money.*

# Americans in Space: Project Apollo

Ap-12

USS Hornet Machine Cancel

24 Nov 1969



*A Captain's cover postally used from a member of the crew.*

Ap-12

USS Hornet Hand Cancel

24 Nov 1969



*Yankee Clipper returned to Earth 800 km east of American Samoa on the Pacific Ocean. During splashdown, a 16 mm camera dislodged from storage and struck Bean in the forehead, rendering him briefly unconscious. He suffered a mild concussion and needed six stitches.*

# Americans in Space: Project Apollo

Ap-13

Kennedy Space Center Machine Cancel (Closed globe)

11 Apr 1970



*Two days before launch, Jack Swigert joined the crew replacing Ken Mattingly who had been exposed to German Measles. Fortunately, the mission emblem (with the exception of Ap-11) was the only Apollo patch not to feature the names of the pilots.*

Ap-13

Kennedy Space Center Machine Cancel (Open globe)

11 Apr 1970



*During liftoff the second stage suffered a center engine cut off. This was fortunate since pogo oscillations would have otherwise torn the rocket apart. Later a burst oxygen tank caused Mission Control to abort the landing and use the LM as a lifeboat.*



# Americans in Space: Project Apollo

Ap-13

Houston Machine Cancel

13 Apr 1970



*Grumman, builder of the LM, issued a tongue-in-cheek invoice for \$312,421.24 to North American Rockwell, the builder of the Command Module, for “towing” the crippled ship most of the way to the moon and back. The invoice included a 20% commercial discount, and 2% discount for cash.*

Ap-13

USS Iwo Jima Hand Cancel

17 Apr 1970



*The possibility of heat shield damage from the explosion heightened tensions during the blackout period, which took 33 seconds longer than normal. Odyssey regained radio contact and splashed down safely southeast of American Samoa and 6.5 km from the recovery ship.*

# Americans in Space: Project Apollo

Ap-14

Kennedy Space Center Machine Cancel (Closed globe)

31 Jan 1971



*After regaining flight status, Mercury astronaut Alan Shepard (with 15 minutes of flight time under his belt) jumped to the head of the line and took two rookies to the Moon.*

Ap-14

Kennedy Space Center Machine Cancel (Open globe)

31 Jan 1971



*Mitchell conducted ESP tests on the way to the Moon (with dismal results) and Shepard brought a six iron and two golf balls so he could play during down time. He had several mulligans but did shoot at least one hole in one.*

# Americans in Space: Project Apollo

Ap-14

Kennedy Space Center Permit Cancel

31 Jan 1971



*The LM radar altimeter failed to lock onto the moon's surface. After the landing radar breaker was cycled, the unit successfully acquired a signal. Shepard then manually landed the LM. Mitchell believes Shepard would have continued with the landing attempt anyway but a post-flight review of the descent data showed the inertial system alone would have been inadequate, and the astronauts probably would have been forced to abort the landing as they approached the surface.*

Ap-14

USS New Orleans Hand Cancel

9 Feb 1971



*The impact point was about 0.6 n mi from the target point and 3.8 n mi from the recovery ship USS New Orleans. Estimated distance traveled for the mission was 1,000,279 nautical miles.*

# Americans in Space: Project Apollo

Ap-15

Kennedy Space Center Machine Cancel (Open globe)

26 Jul 1971



*The J missions were far more science-intensive. Most significant was the installation of an instrument module in one of the service module bays for scientific investigations from lunar orbit and a scientific subsatellite to be deployed into lunar orbit. LM modifications permitted a greater payload, a longer stay on the lunar surface, and provision of a lunar rover vehicle (LRV).*

Ap-15

Kennedy Space Center Machine Cancel (Closed globe)

26 Jul 1971



*Widely recognized as a Bishop Insurance cover from the all Air Force crew. Recently Col. Worden claimed that these were signed upon their return and are NOT Insurance covers.*

# Americans in Space: Project Apollo

Ap-15

Kennedy Space Center Machine Cancel (Closed globe)

26 Jul 1971

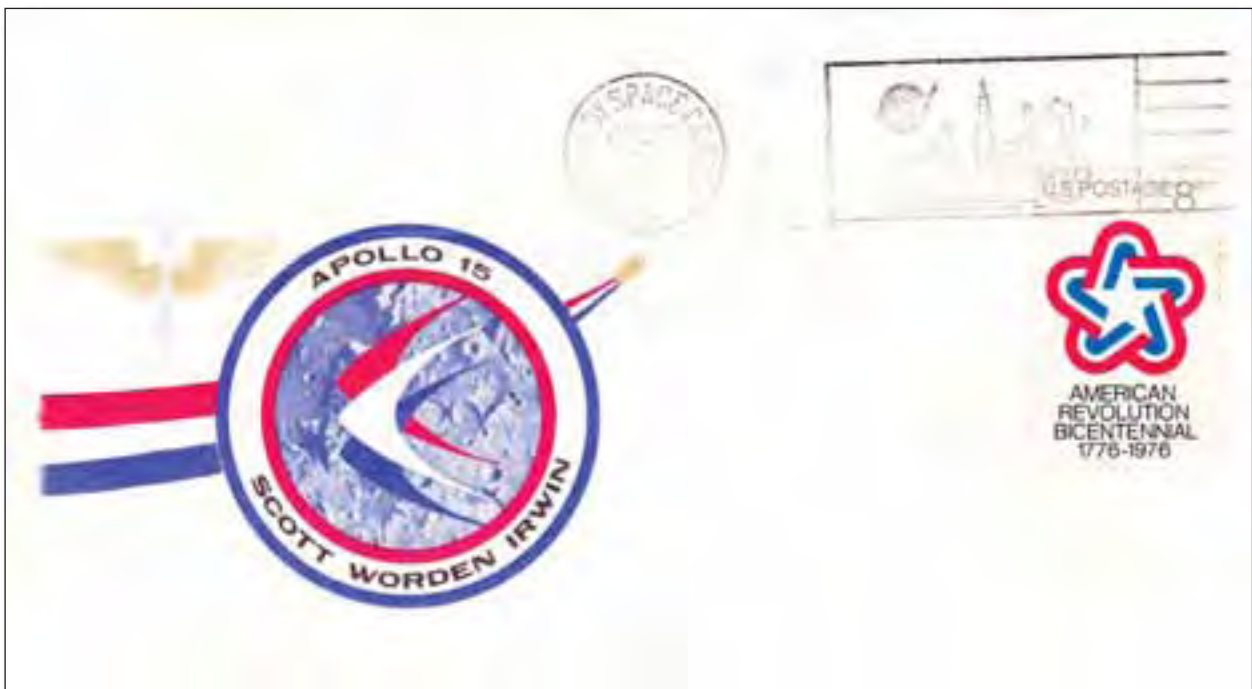


*During checkout of the LRV, it was found that the front steering mechanism was inoperative and there were no readouts on the battery #2 ampere/volt meter. Scott intended to contact AAA but left his membership card in his other spacesuit. This unflown example of the Irwin "lucky" clover came from Ray Burton, the collector who provided them to the astronaut.*

Ap-15

Kennedy Space Center Machine Cancel (Closed globe)

26 Jul 1971



*A unflown onion skin light weight envelope. This type was used for the Apollo 15 moon covers including the infamous Seiger covers. Scott had agreed to carry 100 envelopes in exchange of \$7,000 college fund accounts for the crew's children. A scandal erupted and none ever flew again.*

# Americans in Space: Project Apollo

Ap-15

USS Okinawa Hand Cancel (Type II)

7 Aug 1971



*An innocuous Prime Recovery Ship envelope except for the recently released Decade of Achievement stamps flown out to the USS Okinawa especially for the astronauts and found on all their moon covers.*

Ap-15

USS Okinawa Hand Cancel (Type I)

7 Aug 1971



*A collapsed parachute contributed to the fastest entry time in the Apollo program, just 778.3 seconds from entry to splashdown. The impact point was about 1.0 n mi from the target point and 5 n mi from the recovery ship USS Okinawa.*

# Americans in Space: Project Apollo

Ap-15

USS Okinawa Hand Cancel (Type II)

7 Aug 1971

*Postally used Captain's cover sent by a crew member to send photographs of the recovery home to friends. Reflects new Airmail rate.*



# Americans in Space: Project Apollo

Ap-16

Kennedy Space Center Machine Cancel (Open globe)

16 Apr 1972



*The second of the “J missions” meant three days on the moon and more science.*

Ap-16

Kennedy Space Center Machine Cancel (Closed globe)

16 Apr 1972



*A malfunction in a backup yaw gimbal servo loop in the main propulsion system of the CSM Casper caused concerns about firing the engine to adjust the CSM's lunar orbit, and nearly caused the Moon landing to be aborted. Young and Duke (who were already undocked, and flying LM Orion when the problem occurred) were permitted to land on the Moon.*



# Americans in Space: Project Apollo

Ap-16

Houston, TX Machine Cancel

16 Apr 1972



*The Space Shuttle was approved while John Young was walking on the Moon. He would go on to command STS-1 and STS-9 before retiring, having flown in space six times.*

Ap-16

USS Ticonderoga Hand Cancel

27 Apr 1972



*International Airmail rate applied to an oversized Prime Recovery Ship envelope with a Commander in Chief Pacific corner card addressed in a VIP in the Australian Navy.*

# Americans in Space: Project Apollo

Ap-16

USS Ticonderoga Hand Cancel

27 Apr 1972



U.S.S. TICONDEROGA (CVS-14)



Miss Donna Dooms  
407 Scenic Drive  
Ashland, Oregon  
97520



Postally used Captain's cover with matching stationary.

# Americans in Space: Project Apollo

Ap-17

Kennedy Space Center Machine Cancel (Open globe)

7 Dec 1972



*In a spectacular fireworks display the last manned flight to the Moon was launched at night.*

Ap-17

Kennedy Space Center Machine Cancel (Closed globe)

7 Dec 1972



*A crew-signed KSC Official launch cover. Joe Engle was slated to walk on the Moon with Cernan but the scientific community pressed to have Harrison Schmitt, a geologist, go instead.*

# Americans in Space: Project Apollo

Ap-17

Houston Hand Cancel

6 Dec 1972

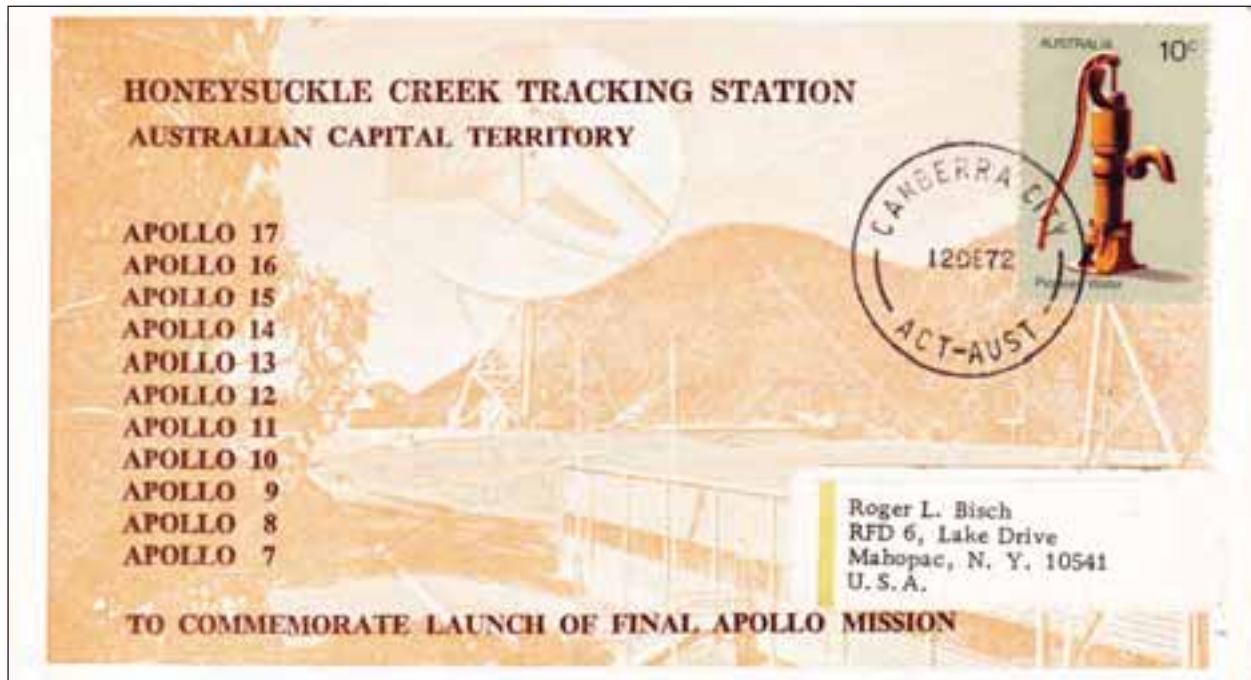


*The launch was just after midnight on 7 Dec from KSC. After clearing the tower control transferred to the Manned Spaceflight Center in Texas where the local time was an hour earlier. For about a half hour it was still 6 Dec.*

Ap-17

Camberra City Hand Cancel

12 Dec 1972



*Since the first manned mission took to the skies in 1968, Honeysuckle had been tracking Apollo flights. The envelope shows the pride the Aussies felt with their contribution.*

# Americans in Space: Project Apollo

Ap-17

USS Ticonderoga Machine Cancel

22 Dec 1972



*A number of envelopes (here overpaying the international airmail rate) were flown as a courtesy for collectors. The scarce ship Machine Cancel was used a few days later.*

AP-17

USS Ticonderoga Hand Cancel

19 Dec 1972



*A postally used Captain's cover for the last manned exploration of the Moon.*

# Americans in Space: Project Apollo

ASTP

Kennedy Space Center Machine Cancel (Closed globe)

15 Jul 1975



*The Space Race was over. The Soviets could claim many impressive “firsts,” but Americans were proud to have been first to walk on the Moon. Now leftover hardware (Ap-18) would be used to meet our former competitors.*

ASTP

Patrick Air Force Base Hand Cancel

15 Jul 1975



*Launch was always the most worrisome part of a mission. An off-the-pad abort would require immediate helicopter support. Here supplied by the Rescue Wing at Patrick Air Force Base.*

# Americans in Space: Project Apollo

ASTP

Patrick Air Force Base Machine Cancel

15 Jul 1975



*In addition to ground stations and stations at sea, airborne range instrumentation aircraft also gathered and disseminated critical flight-related data.*

ASTP

Houston Hand Cancel

17 Jul 1975



*The Manned Spaceflight Center Stamp Club produced this wonderful event cover to mark the link-up day in orbit. The envelope is constructed from an orbital tracking map.*

# Americans in Space: Project Apollo

ASTP

San Francisco Machine Cancel

24 Jul 1975



*A rescue helicopter launched from the Prime Recovery Ship carried this envelope. It is signed Deke Slayton, the grounded Mercury astronaut hired in 1959 who flew on ASTP in 1975.*

ASTP

USS New Orleans Hand Cancel

25 Jul 1975



*With philatelic requests excessive for an operational ship at sea some of the later Apollo mission requests were cancelled in Hawaii. This envelope was onboard and postmarked the day after the mission since the postal unit was closed the previous day.*