HOW WE GOT MEN TO THE MOON



Flown Rocket Card depicts the first attempt to fly to the moon by Wan Hu (circa 1500 A.D.) He sat in a sedan chair with 2 kites and 47 rockets attached. The rockets were lit simultaneously followed by an explosion and smoke. When the smoke cleared, Wan Hu was no longer on Earth.

This exhibit traces the dreamers, inventors, scientists, technologies and other factors that led to nine astronaut's flights to the moon with the subsequent landings and safe returns by six of those crews. The three United States manned projects leading to these achievements were Mercury (6 flights); Gemini (10 flights); and Apollo (11 flights). But there are many other factors that helped lead to the successes: communications, navigation, animal tests, radiation tests and so on, all of which are characterized here in this chronological, postmarked history of early U.S. space exploration.

There were several ways to begin this exhibit: Eisenhower giving von Braun approval to design the Saturn V rocket; JFK's inauguration speech; the launch of Sputnik 1 or Explorer 1 etc. This collector believes that the imagination of Jules Verne sparked the imaginations of scientists and proves that on page 3 of this exhibit using the words of Wernher von Braun.

Within this Astrophilatelic exhibit are several families of event covers. Included are U.S. stratospheric balloon flights, rocket planes, "Captain's" covers, "Crew" covers Navy Rubber Stamped Cachets (NRSC), Insurance covers, "Fake" and "Suspect" postmarks, important cachet varieties, NASA VIP Cards, Kennedy Space Center (KSC) "Officials", and more. Also it contains the signatures of every American who flew in these programs along with several of the scientists, inventors, managers and others who brought about these tremendous achievements.

Small red dots ● will be seen near an upper corner of many of the *most difficult* to acquire covers. Because of the nature of having to explain historical backgrounds or stories of interest, a red triangle ▼ will be found at the top of those interesting pages which require excess verbiage explaining the consequences of several events.

A single frame of "PRECURSOR" material is needed to explain how the events led up to the first U.S. satellite. It includes imagination, inventions, rocketry experiments, rocket planes, unmanned achievements and politics that came together before manned flight commenced. This is the story of how <u>WE</u> *(the United States of America)* got men to the moon and safely home again!

How We Got Men To The Moon

EXHIBIT PLAN

1.0 *Title & Exhibit Plan Pages – Miscellaneous Pre-Cursors*

2.0 *Project Mercury Precursors*

3.0 *Project Mercury Unmanned Tests*

3.2 *Project Mercury Manned Flights*

4.0 *Project Gemini*

5.0 *Project Apollo Precursors*

6.0 Apollo Saturn V Moon Rocket Events

7.0 *Apollo Saturn V Manned Missions*



The Other World: Comical History of the States and Empires of the Moon **was the first of three satirical novels written by Cyrano de Bergerac. Arthur C Clarke credited this book with being the first example of a rocket-powered space flight, and for inventing the ramjet. It was published after the author's death, in 1657.**

1.1 Kepler's Laws/Verne's Imagination



Johannes Kepler's "Laws of Planetary Motion" accurately described the periods and distances for planetary orbits around the Sun. Vital for projecting flights to the moon.

Monsieur
Marc Thev.
65 Ave Je
F 69

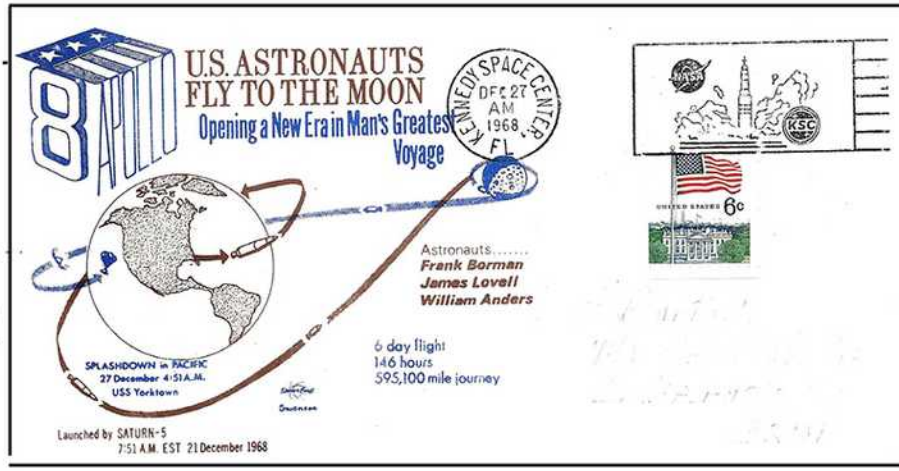
"All of the great pioneers of Space: Tsiolkovsky, Oberth and Goddard – had one thing in common. Imaginations sparked by Jules Verne. He turned scientific minds to space at the turn of the century." **Wernher von Braun — Chicago Tribune. July 16, 1969**

"What one man can imagine – another can accomplish".

Jules Verne

"From The Earth to the Moon" had many parallels to our flight on Apollo 8."

Frank Borman, Commander of the Apollo 8 mission.



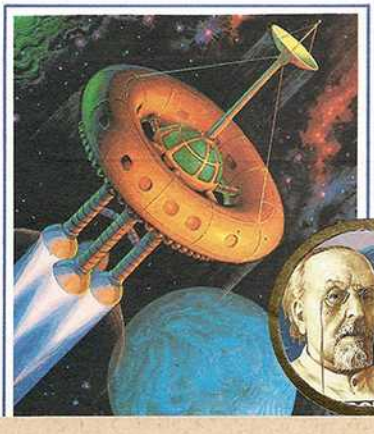
Verne's imaginary moon flight blueprint was followed by Wernher von Braun's Apollo 8 accomplishment.

	Apollo 8 (von Braun's craft)	*Columbiad* (Verne's craft)
Height & Width:	**12 ft. x 12 ft. 10 inches**	**15 ft. x 9 ft.**
Material:	**(Primarily) Aluminum**	**Aluminum**
Shape	**Cylindrical with a conical tip**	**Cylindrical with a conical tip**
Launch Site:	**Florida coast**	**Florida coast**
Date of Launch:	**December 21, 1968**	**December ?, 1868**
Crew & Cost	**3 men - $310 million**	**3men - $173,250 (then year dollars)**
Speed to exceed gravitational pull:	**24,000 mph**	**25,000 mph**
Orbital Distance from Moon:	**100 miles**	**30 miles**
De-orbited using:	**Retro-rockets**	**Retro-rockets**
Splashdown :	**Pacific Ocean**	**Pacific Ocean**
Recovered by:	**U.S. Navy warship**	**U.S. Navy Warship**

1.2 Pioneers of Rocketry

"I do not remember what prompted me to make calculations of a rocket's motions. Probably the first seeds of the idea were sown by that great, fantastic author, Jules Verne. He directed my thought along certain channels. Then came desire – and after that – the work of the mind".

Constantine Tsiolkovsky







"As a child I was fascinated by the stories of Jules Verne".

Hermann Oberth

AU - Hermann Oberth

"There is no stronger force in nature than an idea whose time had come. Thus the journey to the moon already began in 1908, when I bought Jules Verne's book, "The Journey to the Moon."

Rudolph Nebel

AU - Rudolph Nebel

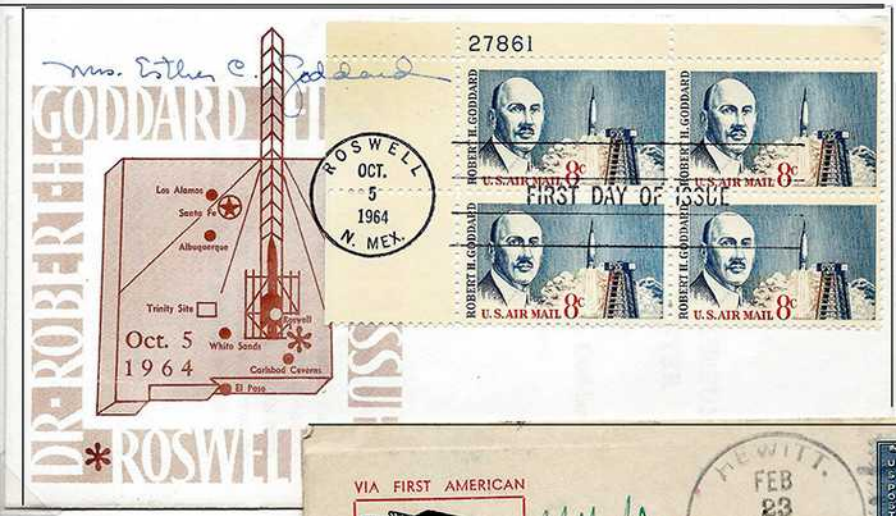


1.2 Pioneers of Rocketry

Robert Goddard, assisted by his wife, Esther, developed using liquid fuel for rockets in 1922. His first flight was on March 26, 1926.

Grew up on the Science Fiction of Jules Verne & wrote of navigation in space while in High School.

AU: Mrs Esther Goddard



Willy Ley launched two 12 foot rocket planes from Greenwood Lake, NY carrying 6,149 cards & letters between them. Rockets slid across lake after short flights, for 1st interstate launch. *First U.S. Rocket Planes.*

AU: Willy Ley





Green labels were applied to the first flight (16c Special Delivery stamp) and red labels were applied to the second. (1c surface rate).

1.3 U.S. Stratospheric Balloon Flights of the 1930s



On May 27, 1931 Auguste Piccard and Paul Kipfer became the first men to safely ascend into the stratosphere, launched from Augsburg, Germany in a pressurized aluminum gondola invented by Professor Piccard. *They reached 51,775 feet.*





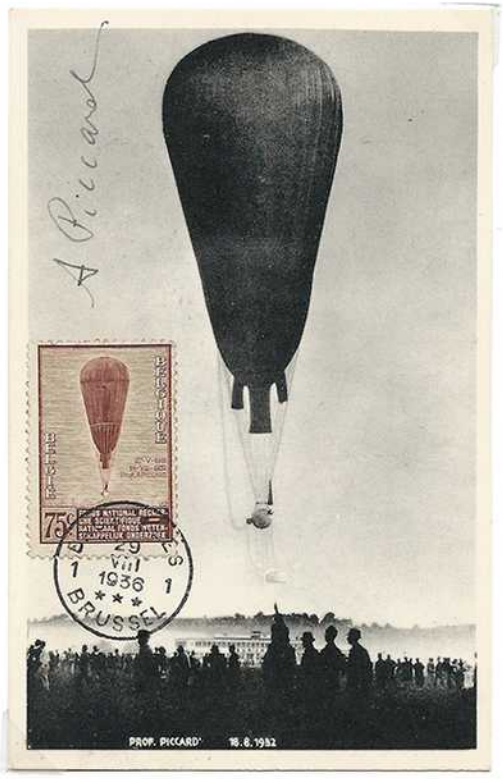
Two of three stamps issued for this maiden flight. One is signed by Piccard.

AU: Auguste Piccard

On August 18, 1932 Piccard and Max Cosyns made a second record-breaking ascent from Dubendorf, Switzerland to 53,153 feet.

Pictured on the post card on the right.

Piccard ultimately made 27 stratospheric flights, however only a very few covers exist from just a few of these mission: and these are very scarce. This buyer has never seen one offered in 50 years of collecting.



AU: Auguste Piccard

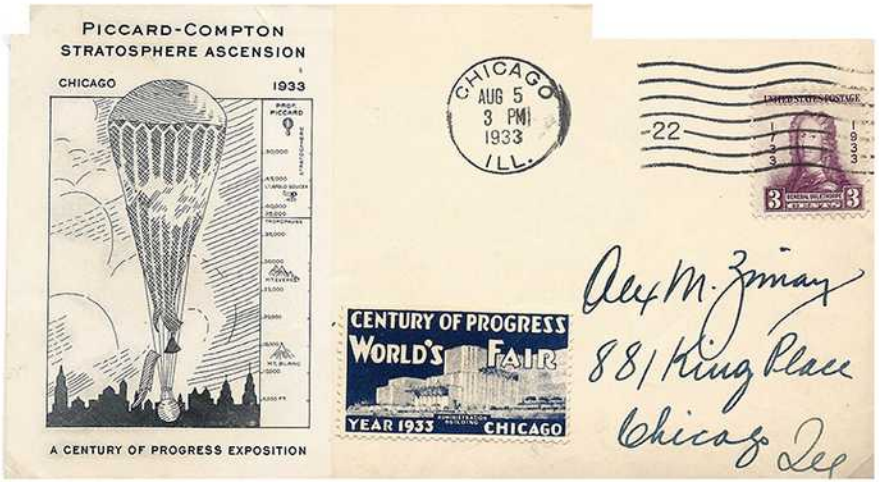
Above, a signed Maxi-card with the third stamp of the trio of Belgium stamps. The stamp pictures his flight of May 27, 1931 while the card pictures this August 18, 1932 balloon launch.

Belgium stamps were issued because Professor Piccard taught at a University in Brussels for several years.

1.3 U.S. Stratospheric Balloon Flights of the 1930s



August 5, 1933: *The Century of Progress* hydrogen gas balloon, the largest in the world at that time, was conceived to be flown by Auguste Piccard to increase attendance at that Chicago World's Fair. However, Auguste was unable to attend, sending his twin brother, Jean. Jean did not have a U. S. pilot's license and was upset. Lt. Cmdr. Thomas (Tex) Settle replaced Jean. Flight lifted off at 2 AM from Soldier's Field.



Flight was aborted shortly after take-off when a gas release valve malfunctioned. Ballon landed on the tracks of the Burlington & Quincy Railroad yards shortly thereafter,(3:00 PM Postmark). An add-on World's Fair sticker is added to this cover.

1.3 Stratospheric Balloon Flights of the 1930s



The stratosphere balloon T. G. W. Settle, U. S. N.,



20 November 1933:
Lt. Cmdr. "Tex" Settle & Maj. Chester Fordney launched from Akron, Ohio.

Set a world record of 61,237 feet. Landed in a swamp & trudged out for help





30,000 people saw this launch of Explorer I. Holes in bag caused an abort when bag tore apart.

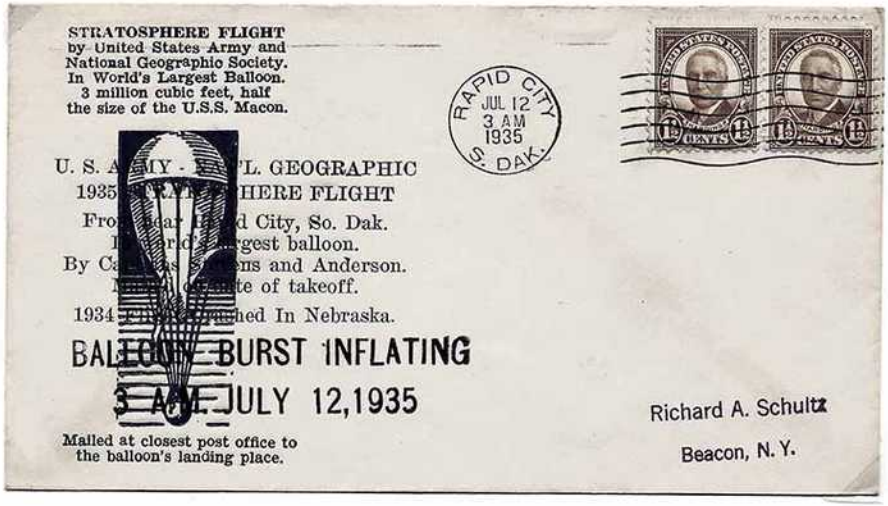
At 5,000 ft. the 3-man crew started to bail out. Last man got out at 500 feet.

1.3 U.S. Stratospheric Balloon Flights of the 1930s



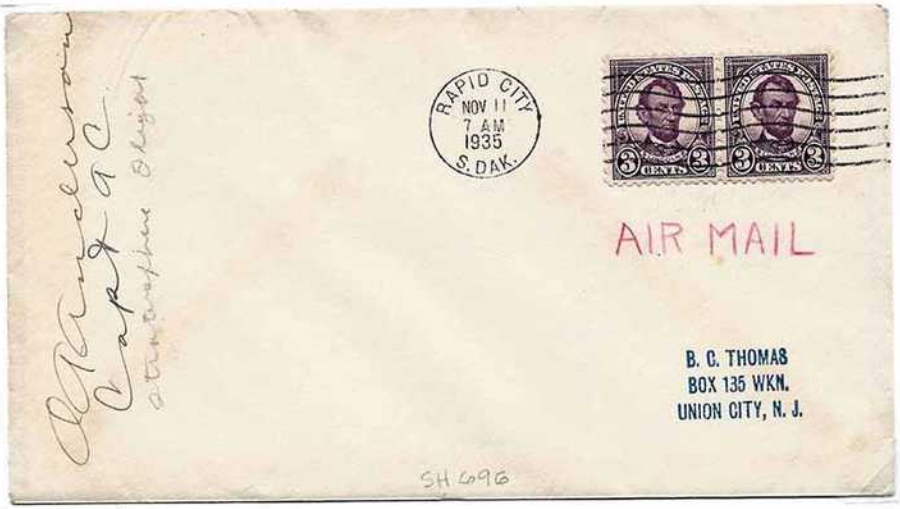
As weak as this cachet is, it is still one of the better ones seen today.

Jean & Jeannette Piccard (as pilot) rose in the *Century of Progress Balloon.* She became the first woman to enter the stratosphere and is in the Aviation Hall of Fame. Altitude reached: 57,579 feet.



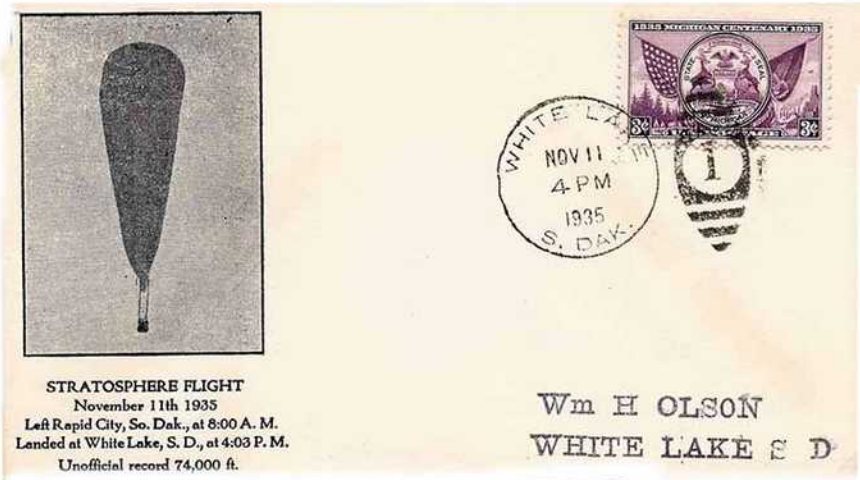
The first attempt to launch Explorer II failed. It was to have held 3 million cubic feet of Hydrogen.

1.3 U.S. Stratospheric Balloon Flights of the 1930s



AU: AU: Orville Anderson

Explorer II. Last high-altitude flight of the 1930s. 1st helium stratospheric balloon held 3,700,000 cubic feet. Set world record 72,395 feet that held for 21 years.



Landing cover of Explorer II. Balloons had reached the limit of rubberized fabric balloon technology. The Great Depression dried up funding.

1.4.1 German Rocketry



FLOWN

Hexentanzplatz flown rocket cover with all 3 varieties of the rocket "stamps"and red Nazi sponsored rubber stamp. The Nazis started their rocket program in 1931 after watching these civilian launches. *Note the etiquette which calls the rocket an "Aerotorpedo". Hexentanzplatz means "witches dance floor" and is a plateau in the Harz Mountains where the launch took place. Stamps are charity labels.*



V-2 rockets terrorized England from September 1944 through April 1945. This cancel is from Friedrichshafen, Germany, where Zeppelin and V-2 rocket building facilities were located at the time of this postmark's application. The purple rubber stamp is a censor marking. *Captured V-2 rockets served as the basis for the US Space programs which is why this page is included in this exhibit.*

1.4.2 German Scientists Come to America

German rocket scientists, led by Wernher von Braun surrendered to Americans and they and their V -2 rockets came to the U.S. to start the U.S. space program.



Wernher von Braun

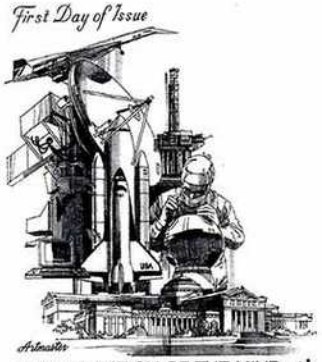






Wernher von Braun

AU: Wernher von Braun







FIRST DAY OF ISSUE

This cover is signed by one of the many scientists who surrendered with von Braun to the U.S. Others also surrendered to the Russians.

Werner Magirius
1943/44 adjutant to the commanders of Peenemünde

AU: Wernher Magirius

These scientists and their families were housed at Ft. Bliss, Texas. Maj. Gen. J.L. Homer was the Commander of the anti aircraft and guided missile center at Ft. Bliss while they were there.

Military Free Mail

AU: Maj. General J.L.Homer

J L Homer 03115

MAJ GEN J. L. HOMER, USA, CG
AA & GUIDED MISSILE CTR
FORT BLISS, TEXAS



Capt H. M. Hennington
27th Tow Target Squadron
Biggs Field, Texas

1.4.3 Rocket Powered X-Planes

AU: Chuck Yeager & Bob Hoover

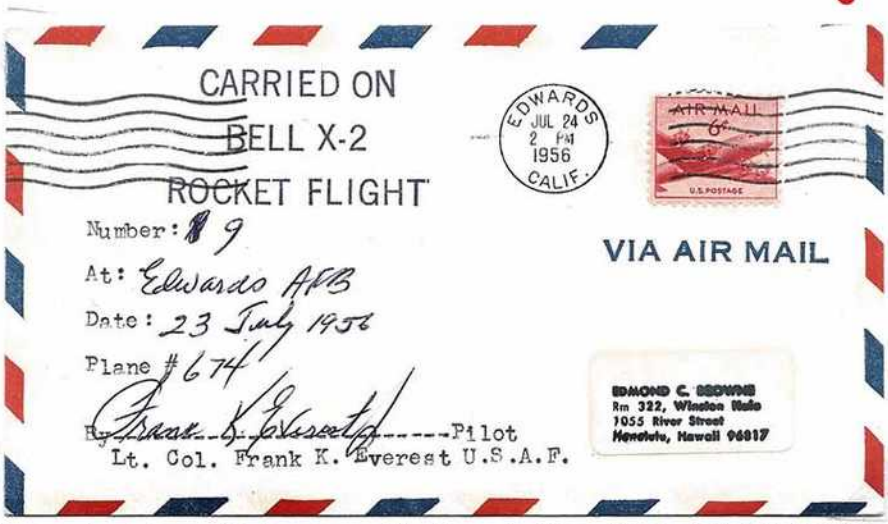


This Limited Edition Signed Cover # 902 of 1000 was flown at ***MACH 1*** on the 50th Anniversary of Supersonic Flight by ***Brig Gen CHARLES E. "Chuck" YEAGER.***

FLOWN cover on an F-15 Eagle, breaking the sound barrier, by Chuck Yeager exactly 50 years to the minute after he first broke the sound barrier on October 14, 1947. Manned rocket plane tests were done in secret. No covers exist for Bell X-1 flights. **Bob Hoover** was the chase pilot.

FLOWN

New World Record set of 1,900 mph!

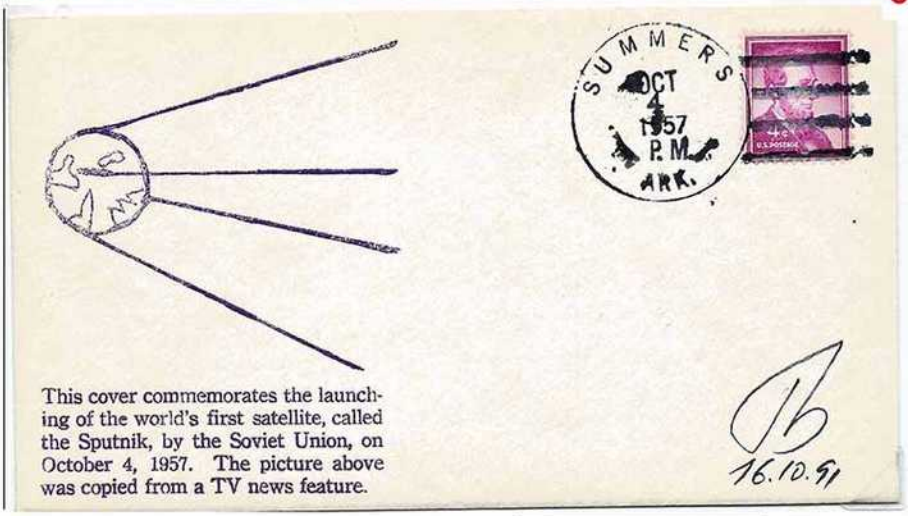


AU: Lt. Col Frank Everest

July 24, 1956: Covers flown on early rocket powered X-planes are very difficult to acquire. This was flown on the Bell X-2 aircraft on one of only six flights for which only 9 or 10 covers were flown on each.

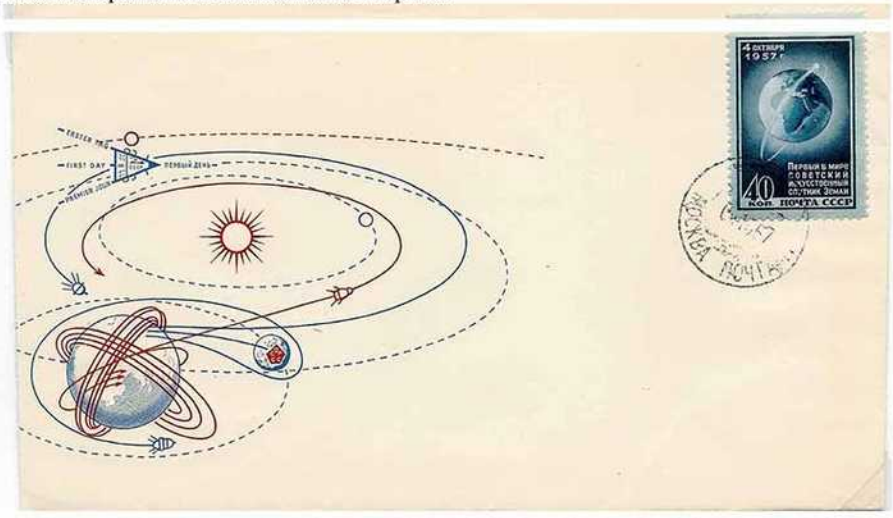
1.4.4 Sputnik Spurs U.S. Entry into Space

World's first space satellite is literally the "shot across the U.S. Bow"



AU: Georgi Gretchko

The first artificial satellite, a 23 inch diameter globe with antennas that broadcast a repeated beeping tone from a radio within, was Sputnik 1. Covers from the Soviet government, below, were not actually cancelled on the date of the event, October 4, 1957. An estimated 25 to 30 covers from Summers, Arkansas are the only covers cancelled date of launch. This is the only known Sputnik 1 cover known to be signed by a member of the launch team. Grechko calculated the orbit of Sputnik 1 and the amount of fuel required.



OFFICIALLY BACKDATED 31 DAYS

The Soviet Union's Kniga was the only source of Soviet covers. They delayed cancelling covers until they could create a postage stamp for Sputnik 1. The stamp was released on November 5, 1957, 31 days after the event, and an October 4th postmark was applied to those stamps with a Moscow cancel. The launch took place from the Baikonur Cosmodrome, 400 miles distant. Per my interview with Grechko, a KGB demand to launch early caused this to be a "cheap" radio, rather than the dog that launched on Sputnik 2.

2.0.1 U.S. "Firsts" in Space

UNITED STATES ENTERS THE SPACE AGE
EXPLORER I EARTH SATELLITE

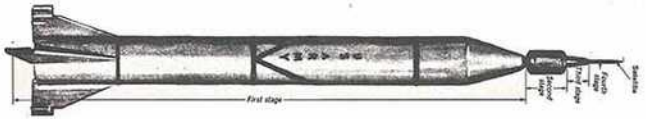


J.A. Van Allen



ON OUR WAY TO THE STARS EXPLORER 1 TODAY
JANUARY 31, 1958 SUCCESSFULLY FIRED INTO
ORBIT DISCOVERED EXISTANCE OF HIGH RADIATION...
VAN ALLEN BELTS IN SPACE

JUPITER C ROCKET 69 feet



EXPLORER 1

1st U.S. satellite launched by a descendant of the V-2 rocket. Made 1st discovery in space: Van Allen belts of radiation.

AU Dr. James van Allen

VANGUARD 1
2nd US Satellite

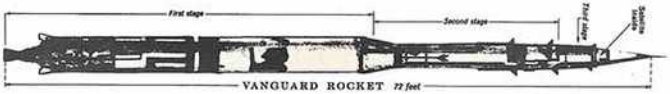
The Vanguard rocket Program of the U.S. Navy had only 3 successes in 14 attempts to place satellites in orbit.

VANGUARD I UNITED STATES ARTIFICAL EARTH SATELLITE





TODAY MARCH 17, 1958 THE UNITED STATES SUCCESSFULLY
FIRED OUR FIRST VANGUARD SATELLITE INTO SPACE PRO-
JECTED BY A 72 FOOT VANGUARD 3 STAGE ROCKET.





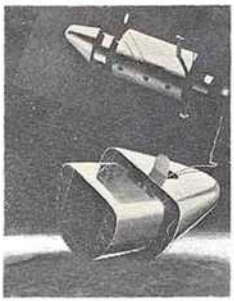
MOUSE-IN-ORBIT

A mouse was the 1st life form to be launched by the U.S. It did not survive. This cover rarely appears for sale.

2.0.1 U.S. "Firsts" in Space

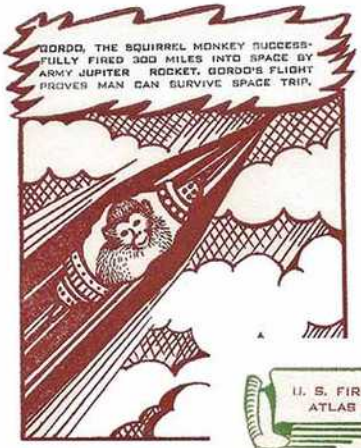
Pioneer 1 became the 1st spacecraft launched by NASA, the newly formed space agency of the U.S. It reached a distance of 70,700 miles before falling back to Earth.

FIRST STEP TO THE MOON
PIONEER I UNITED STATES
DEEP SPACE LUNAR PROBE



OCT. 11, 1958 LUNAR PROBE REACHED OUT 70,700 MILES INTO SPACE. PROVIDES FIRST MEASUREMENTS OF INTER. PLANETARY MAGNETIC FIELD.

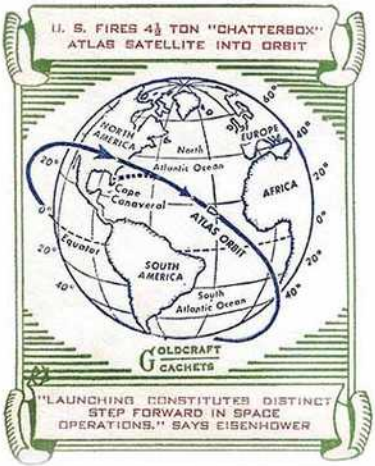






First monkey died when chute failed after flying 1,500 miles. Flight did prove than men could survive a launch into space.

Project SCORE: World's 1st communications satellite provided 1st test of a relay system in space. Broadcast a message from Eisenhower via a tape recording.





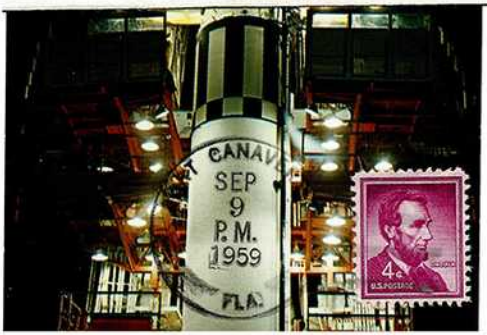
2.1.0. Events Prior to Mercury Launches

The 2017 movie, "Hidden Figures" shows that John Glenn's and all later flights could not have taken place without computers. Electronics were the most timely invention for space travel.

Electronic inventions, such as the transistor by Jack Kilby, brought faster calculations, less heat, and smaller space requirements needed for space flights.

AU: Jack Kilby





Left: Big Joe was the first Project Mercury research and development test. It verified that the Mercury boilerplate could withstand temperatures up to 10,000 degrees F.

The vast majority of postmarks for this launch are found on postcards.



PROJECT SATURN

SUPER ROCKET

Huntsville, Ala.

President Eisenhower transfers Project Saturn — world's most powerful rocket — from the Army to the National Aeronautics and Space Administration under World reknowned missile expert Werhner Von Braun. Saturn Rocket to have a thrust of 1,500,000 pounds . . . powerful enough to land a 10-ton truck on the moon.

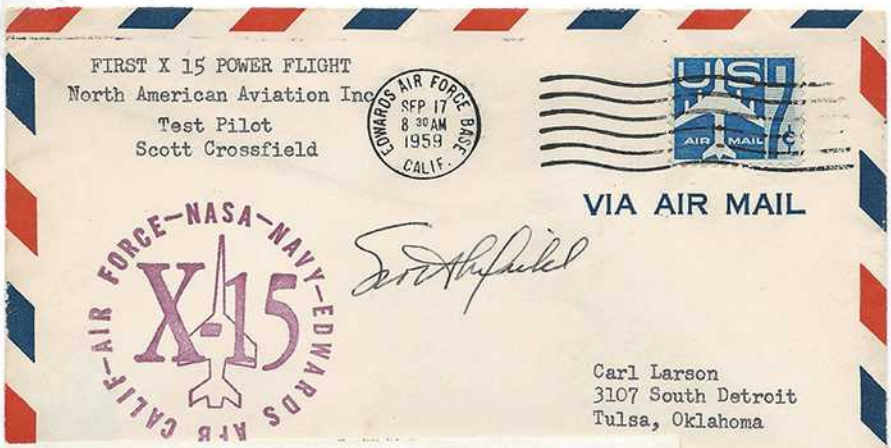




Note text on cover.

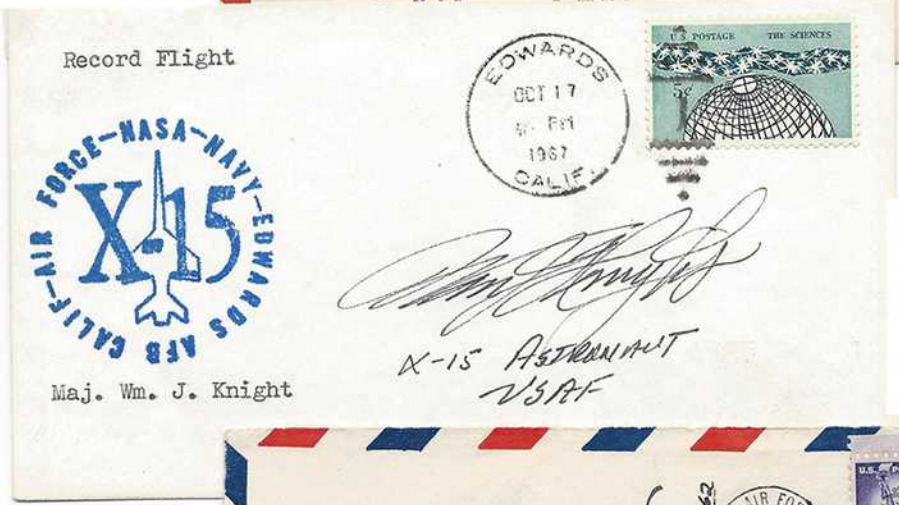
CLYDE J. SARZIN
WESTBURY, LONG ISLAND
NEW YORK, U. S. A.

2.1.0. Events Prior to Mercury Launches



1st powered flight of the X-15 rocket plane by Scott Crossfield who later became the 1st man to fly twice the speed of sound in an X-15.

AU: Scott Crossfield



8 X-15 pilots exceeded 50 miles altitude & were awarded Astronaut titles.

AU : Wm. Knight



Neil Armstrong was an X-15 pilot, later joining NASA. His X-15 experience led to his acceptance into the astronaut corps.

AU: Neil Armstrong

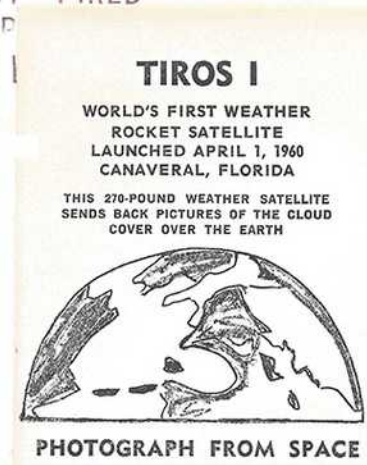
3.0.1. Project Mercury Unmanned Tests



MR SAM
LITTLE JOE 2

ROCKET FIRED
FR
WALLOPS I

Little Joe 1 (LJ-1)series used shorter rockets to test aspects of the Mercury Program. LJ-2 carried a Rhesus monkey named Mr. SAM *(after the School of Aviation Medicine).* He flew 55 miles into space.



Weather satellites were necessary for launches and landings.





MISS SAM
LITTLE JOE 1B

ROCKET FIRED
FROM
WALLOPS ISLAND, VA.

Little Joe 1B carried a Female Rhesus monkey, named Miss SAM. She was recovered by a helicopter after surviving her flight. This was a launch escape test flight that lasted 8 minutes 35 seconds.

3.0.1. Project Mercury Unmanned Tests

Transit 1B : First Navigation satellite. Recovery and tracking ships could now be placed in exact positions for astronaut recoveries.





Project Mercury Beach Abort Test *(Mercury BA)*. The 1st production model of the Mercury capsule was fired to test the escape system. It reached 2,450 feet & then parachuted down,

Mercury-Atlas 1 (MA-1) 1st Mercury configuration test for the Atlas ICBM. Premature 1st stage shut-down caused rocket to crash 80 miles away. Atlas was used for all of the Mercury orbital flights.
This flight was witnessed by Wernher von Braun.



AU: Wernher von Braun.

3.0.1. Project Mercury Unmanned Tests

Black Mice "Sally, Amy & Moe" flew 5,000 miles with a radio on Amy's back sending telemetry info back. Recovered successfully.



"OUR HEROES" AMERICAN SPACE MICE



LYDE J. SARZIN
RT WASHINGTON, L. I.
NEW YORK, U. S. A.



"OUR HEROES," AMERICAN SPACE MICE SALLY, AMY AND MOE FIRED 5,000 MILES TODAY OVER THE ATLANTIC OCEAN — THE FIRST FLIGHT OF AN AIR FORCE ATLAS ROCKET WITH LIVING PASSENGERS. NOSE CONE RECOVERED FROM TARGET AREA IN SOUTH ATLANTIC LESS THAN THREE HOURS AFTER START OF FLIGHT. PILOTS DOING VERY



CLYDE J. SARZIN
PORT WASHINGTON, L. I.
NEW YORK, U. S. A.

FAKED DATE

The year 1961 was changed to 1960 on this cover. The cachet was also changed by 90 degrees.

Mercury Redstone 1 (MR-1a) 2nd attempt at this configuration was a success. The Redstone was used on the first two sub-orbital manned Mercury launches.



United States' first Space Ship, Mercury Space Capsule, hits target December 19, 1960. Unmanned historic first rocket flight of
PROJECT MERCURY
December 19, 1960
Unqualified success is forerunner of space flight by one of the United States' Astronauts.



CLYDE J. SARZIN
PORT WASHINGTON, L. I.
NEW YORK, U. S. A.

3.0.2 Kennedy Inauguration Speech and post-Mercury related speech

KENNEDY'S INAUGURATION SPEECH FORETOLD HIS SPACE GOALS



John F. Kennedy hinted at wanting the U.S. to go to the moon in his inaugural address when he said: **"Together let us explore the stars,---"**

On April 20, 1961 he sent the memo on the right to V.P. Lyndon Johnson and on May 25, 1961 stated: **"I believe that this nation should commit itself to the goal, before this decade is out, of landing a man on the Moon and returning him safely to the earth".**

COPY

The White House

April 20, 1961

MEMORANDUM FOR THE VICE PRESIDENT

In accordance with our conversation I would like for you as Chairman of the Space Council to be in charge of making an overall survey of where we stand in space.

1. Do we have a chance of beating the Soviets by putting a laboratory in space, or by a trip around the moon, or by a rocket to land on the moon, or by a rocket to go to the moon and back with a man. Is there any other space program which promises dramatic results in which we could win?

2. How much additional would it cost?

3. Are we working 24 hours a day on existing programs. If not, why not? If not, will you make recommendations to me as to how work can be speeded up.

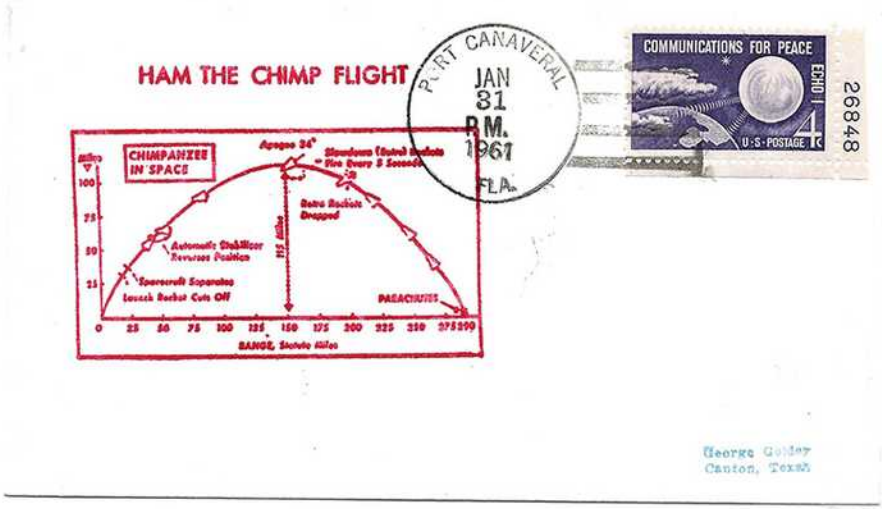
4. In building large boosters should we put out emphasis on nuclear, chemical or liquid fuel, or a combination of these three?

5. Are we making maximum effort? Are we achieving neccssary results?

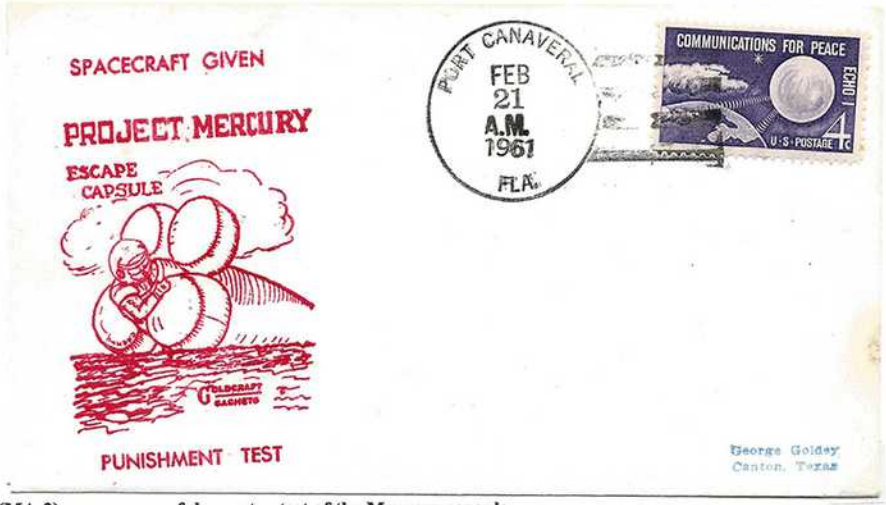
I have asked Jim Webb, Dr. Wiesner, Secretary McNamara and other responsible officials to cooperate with you fully. I would appreciate a report on this at the earliest possible moment.

/s/ John F. Kennedy

3.0.1. Project Mercury Unmanned Tests



Mercury-Redstone 2 (MR-2) Successful appearing launch & recovery of HAM(*Holloman Aerospace Medical)*. The apogee of the flight went one degree higher than planned which put the chimp's life in danger so Wernher von Braun saw it as a failure. The next flight, scheduled for March with Alan Shepard going up, was postponed to May.**AS A RESULT OF THIS DELAY, YURI GAGARIN WAS LAUNCHED ON APRIL 12TH BEATING SHEPARD INTO SPACE BY JUST 23 DAYS!**



Mercury-Atlas 2 (MA-2) was a successful re-entry test of the Mercury capsule.

3.0.1. Project Mercury Unmanned Tests



"BLUE SCOUT ROCKET TEST SUCCESSFUL CANAVERAL, FLORIDA MARCH 3rd, 1961

THE ECONOMY ROCKET PROPELLED 1580 MILES INTO SPACE TO STUDY THE POTENTIAL RADIATION THREAT TO MANNED SPACE FLIGHT."



Human tissue launched to 1,580 miles as part of a 172 pound payload to test reactions of human flesh to deep space radiation.





Mercury Redstone BD (Booster Development)

Redstone Rocket used the Mercury mock-up used earlier on Little Joe 1B.

George Goldey
Canton, [illegible]

Mercury Atlas 3
Robot Failure

Mercury-Atlas 3 failed
Destroyed at 48 seconds



Capsule escape rocket worked lifting capsule to 4.5 miles and parachuting down safely.



CARL A. BLATT
3000 5th St. Road
HUNTINGTON, W. VA.

MA-3 was not to have been a test of the capsule ejection system, but it did work as planned in an unplanned situation.

3.1.1 Project Mercury Space Suit Test in a Stratospheric Balloon



AU: Cdr. Malcolm Ross & Victor Prather

Two U.S. Navy officers were launched into the stratosphere by balloon from the deck of the U.S. Aircraft Carrier, USS Antietam, in the Gulf of Mexico on May 4, 1961, the day before Alan Shepard became the first American to be launched by rocket into space. They were in an open gondola, testing the new Mark IV Project Mercury space suits when they set a new world altitude record of 113,740 feet. While returning slowly back down to the ship, they each signed 361 covers, including the one above. At 7,000 feet they lifted their visors in order to have a cigarette. After they splashed down a helicopter flew overhead and ran a hook and cable down to them. Commander Ross grabbed the cable and stepped on the hook. His foot slipped but his grasp of the cable was strong and he held on and was winched into the hovering helicopter. Lt. Commander Prather then grasped the cable and HIS foot also slipped, but his hold on the cable was not strong enough and he fell into the water, which poured into his suit through the open visor. Before a pararescue man could jump from the helicopter to retrieve him, Prather drowned.

Two months later, Gus Grissom nearly drowned when his hatch popped open and water poured into the capsule. Grissom escaped but his suit did not fill up with water because the manufacturer had added a rubber bladder around the neck of his space suit. This was a direct result of this Strato-Lab High #5 disaster.

3.2.1 Project Mercury Manned Flights

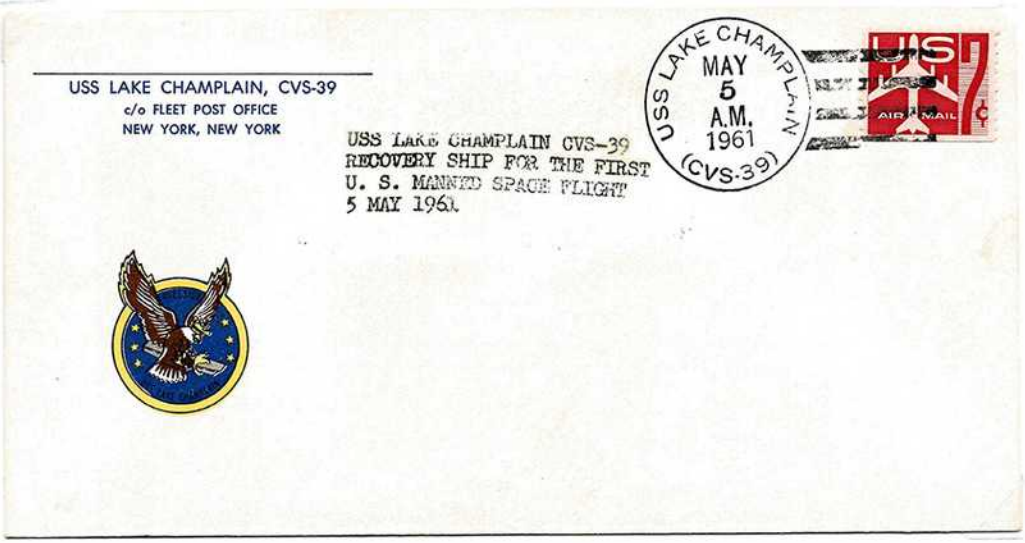
Mercury-Redstone 3 (MR-3)

The launch of Alan B. Shepard, Jr. put the 1st American into space.

Sub-orbital 15-minute flight proved that a man could control a space vehicle during weightlessness.

AU: Alan Shepard





Primary Recovery Ship "Crew" cover from the aircraft carrier, USS Lake Champlain. Printed cover was available only to crew members. 44 covers in all were reported to have been cancelled aboard the USS Lake Champlain on this date of recovery, of which fewer than 20 Crew Covers are thought to have been cancelled.

Mercury-Redstone 4 (MR-4)

This was a 2nd 15-minute sub-orbital hop, this time by Virgil (Gus) Grissom. *This was also the only other manned flight on a Redstone rocket.*

AU: Virgil "Gus" Grissom & wife, Betty

Only 30 covers with the green text under the globe (Second---) were created. This is the most difficult Space Craft Cover to obtain.









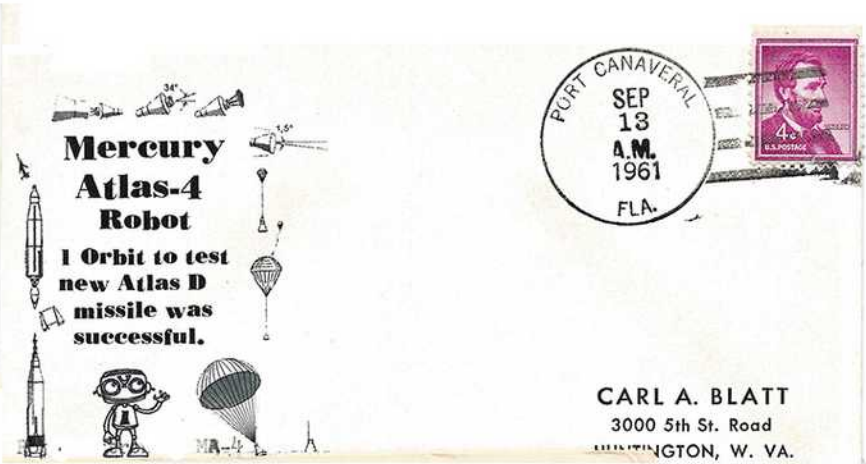


Carl Larson
3107 South Detroit
Tulsa, Oklahoma U.S.A.

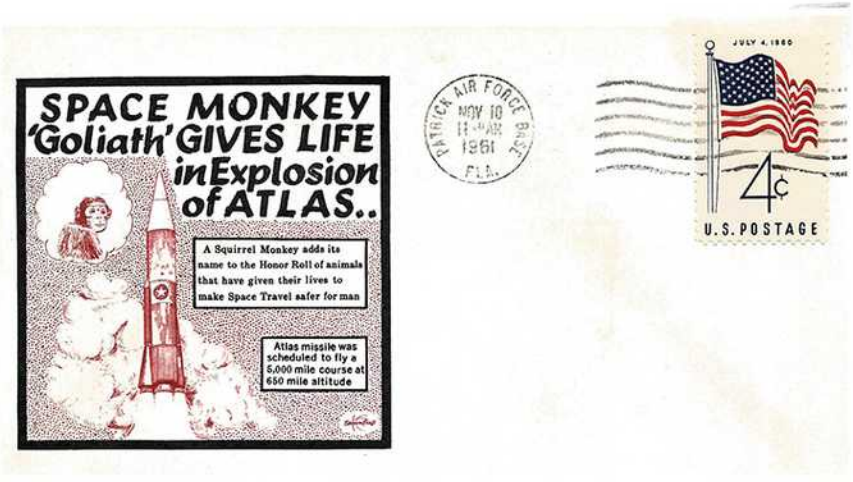
MR-4 Recovery. Primary Recovery Ship (PRS) - USS Randolph. Air Rescue & Recovery Squadron (ARRSq) members, flown by helicopter from this ship, put a cable around the capsule just before the hatch door blew out. The capsule filled with water and Grissom was washed out of it, but a new rubber bladder inside the neck of his suit kept the water from rushing into it. As the capsule filled, the helicopter started being pulled down to the water. The cable was released and the capsule sunk as pararescue men helped Grissom into a sling to bring him to safety. *Only hand cancels have been reported from this ship.*

3.2.2a Project Mercury Interim Flights

Program demonstrated the ability of the Atlas rocket to lift the Mercury capsule into orbit & of the capsule and its systems to operate completely autonomously. It succeeded in obtaining photos of the Earth.



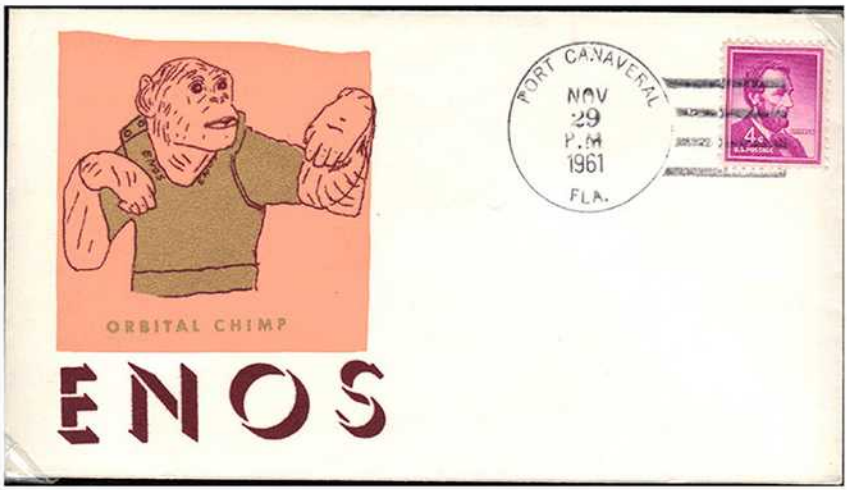
Goliath, a 1 ½ pound squirrel monkey, was launched to test his reactions to weightlessness. The Atlas exploded, killing the primate, just 300 yards offshore.

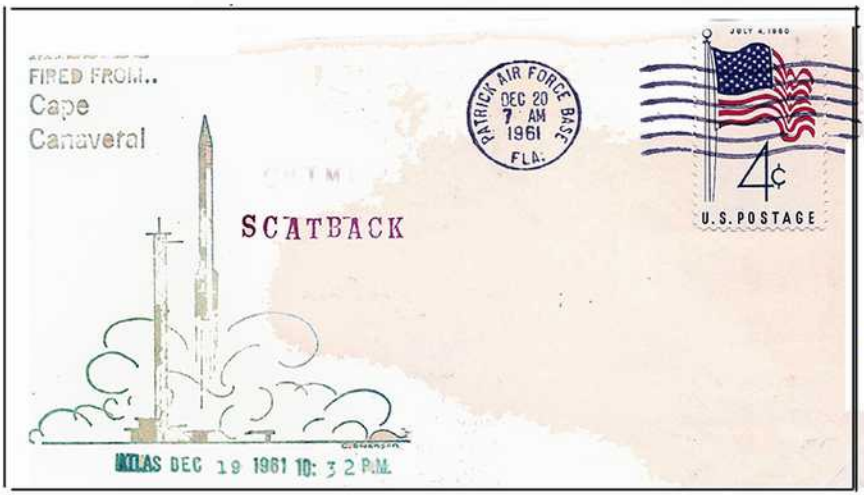


3.2.2b Project Mercury Unmanned Tests

Mercury Atlas 5

ENOS was a full dress rehearsal for the 1st orbital flight of John Glenn. It orbited twice and was safely recovered.





Scatback launched at 10:32 PM on 12/19. PO was closed so 12/20 is ok. Flew 5,000 miles but capsule lost at sea. Covers are difficult to find.

(Most cachets are weak. The Rubber Stamp Cachet (RSC) erroneously calls the animal a chimpanzee).

3.2.3 Project Mercury Manned Flights

Mercury-Atlas 6 (MA-6) The first "orbital" U.S. space flight was John Glenn's 3 orbit launch He was to have gone for more but it appeared that the straps which held his protective heat shield had come loose.







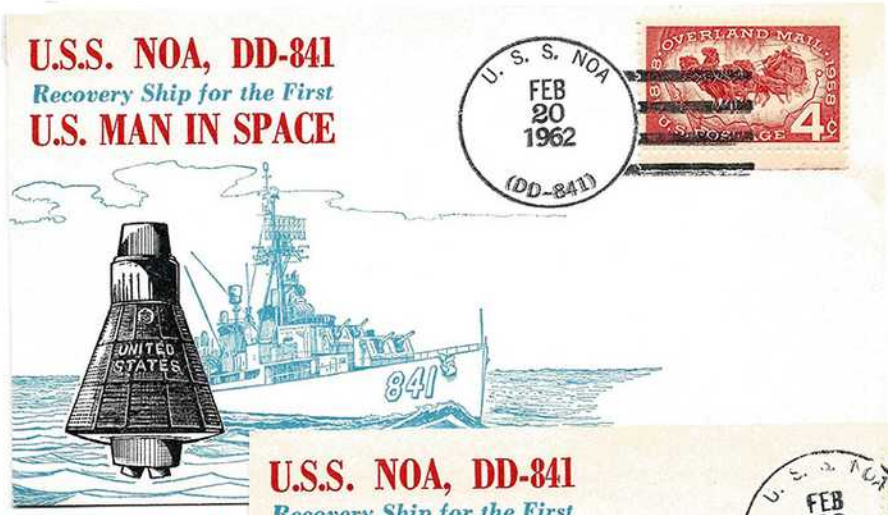
The USS Randolph was Glenn's designated PRS. The stained label was printed on board the Randolph at the Captain's behest. Thus these are called **"Captain's Covers".**

The glue used on board resulted in most of these staining.

FAKE →

Glenn's capsule landed closest to the USS Noa, a destroyer. *(See next pg.)* This is a "Riser Fake" created by a dealer who faked dozens of early space covers, always using U.S. Postal Stationery.



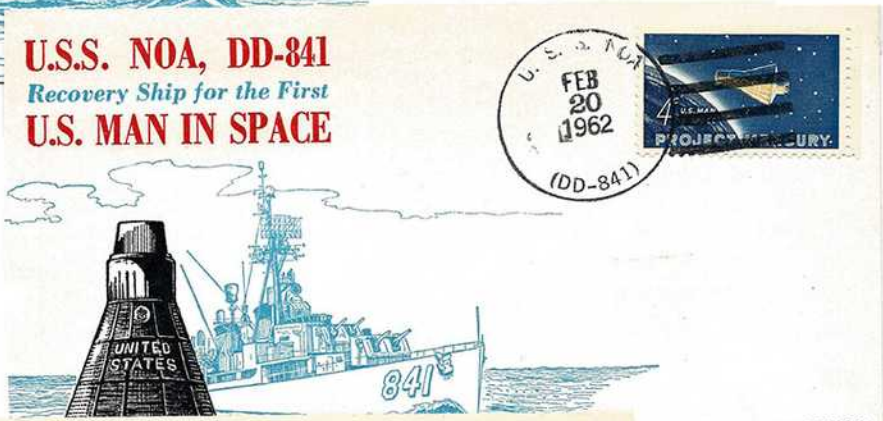


This cover was on board the USS Noa when it recovered John Glenn in his capsule. Only covers not bearing a Project Mercury stamp were actually on the ship & cancelled on that date.

BACKDATED →

MERCURY STAMPS were released after Glenn's return. They were not on the ship!

Upon return to port, the the postal clerk backdated 341 covers with Mercury stamps affixed, to February 20th, for which he was disciplined. This is one of those covers.





PART OF THE FIRST MAIL DISPATCH FOLLOWING RECOVERY OF U.S. LENN, JR., USMC, AND MERCURY RIENDSHIP SEVEN."

"Return to Port" cover is dated February 23,1962 upon the return to port of the USS Noa. The Project Mercury stamp is valid for that event as those stamps were available after the ship docked.

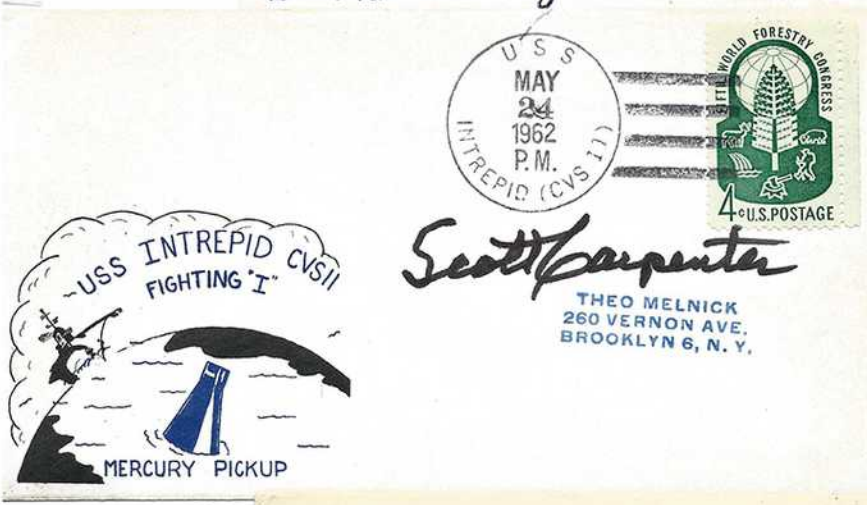
(Note: An interesting printing error that looks like the Noa has picked up the capsule!)

3.2.4 Project Mercury Manned Flights

Launch of Scott Carpenter into Earth orbit. This collector changed the judging requirement that all space covers had to be cancelled at the "nearest" post office to a "nearby" Post Office. Patrick AFB participated in launch duties.

AU: Scott Carpenter





Captain's cover, printed on board the USS Intrepid. Carpenter fired his retro-rockets late, overshooting the landing site by 270 miles. It took helicopters 4 hours to fly to the scene and pick up Carpenter. His capsule was Carpenter never flew in space again.

AU: Scott Carpenter

The SRS, John Pierce, recovered Scott Carpenter's capsule. Being that it was not the Primary Recovery Ship very few covers were on board making it difficult to locate covers from it.

(Reduced cachet from the back of this cover. The image on the front of this cover was offset from the cover that was printed ahead of this one.)





3.2.5 Project Mercury Manned Flights

"Global COMSAT" or Communications Satel-Lite: TELSTAR 1. Ground control and astronauts could now more easily communicate during flight.





Wally Schirra made six Earth orbits. He was, for the first time, able to manually maneuver a spacecraft successfully.

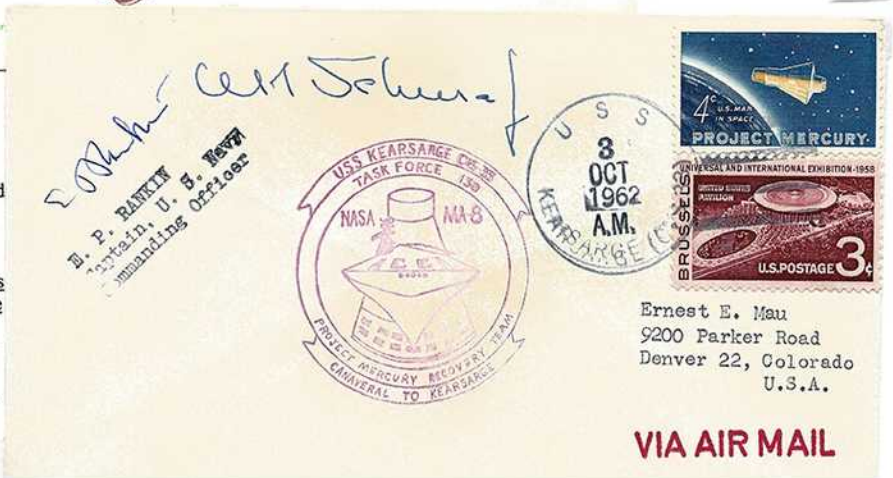
AU: Wally Schirra

(Later version of his signature)

"Captain's Cover". The majority of covers cancelled aboard this ship were machine cancels. Hand cancels are seen much less frequently. Captain's covers are more difficult to acquire in all cases.

AU: Capt. E.P. Rankin & Wally Schirra

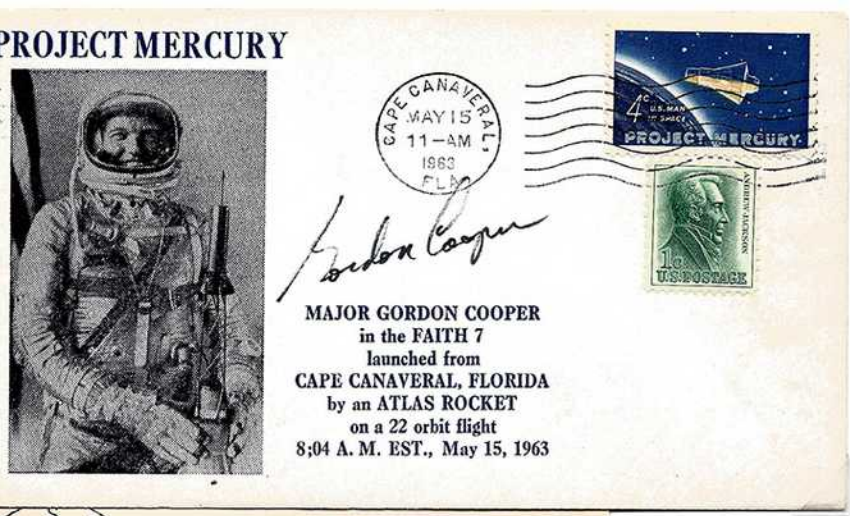
(Earliest version of Schirra's signature)



3.2.6 Project Mercury Manned Flights

Gordon Cooper flew the 1st American spacecraft exceeding 24 hours with 22 orbits of Earth. His automatic controls failed and he landed the craft by hand. This was the last Mercury flight.

AU: Gordon Cooper





Recovery by the USS Kearsarge bearing the more common Hand Cancel (HC).The rubber-stamped cachet (RSC) was created and applied by ship's personnel.



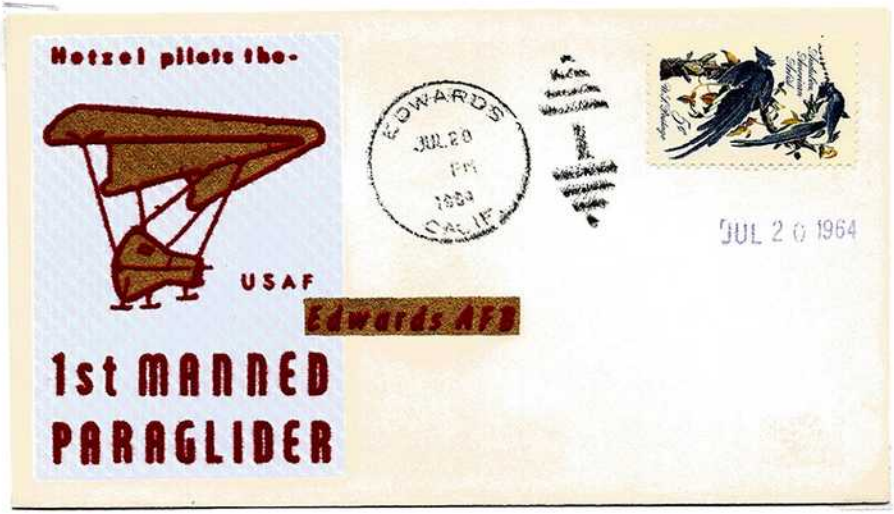
AU: Capt. E.P. Rankin
AP: Gordon Cooper

A Captain's cover for this mission. Cooper's signature is a machine generated "Autopen", legal for checks and other documents. The Captain's signature is authentic on this Machine Cancelled (MC) cover.

4.0.1 Unmanned Gemini Tests

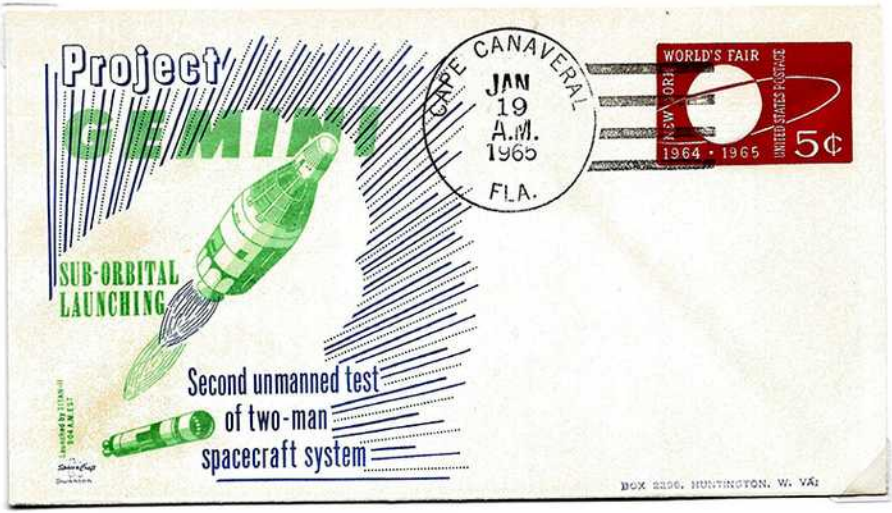


Gemini-Titan 1 (GT-1) 1st test of the Gemini-Titan configuration of rocket & capsule. It orbited the Earth 64 times before burning up during re-entry.

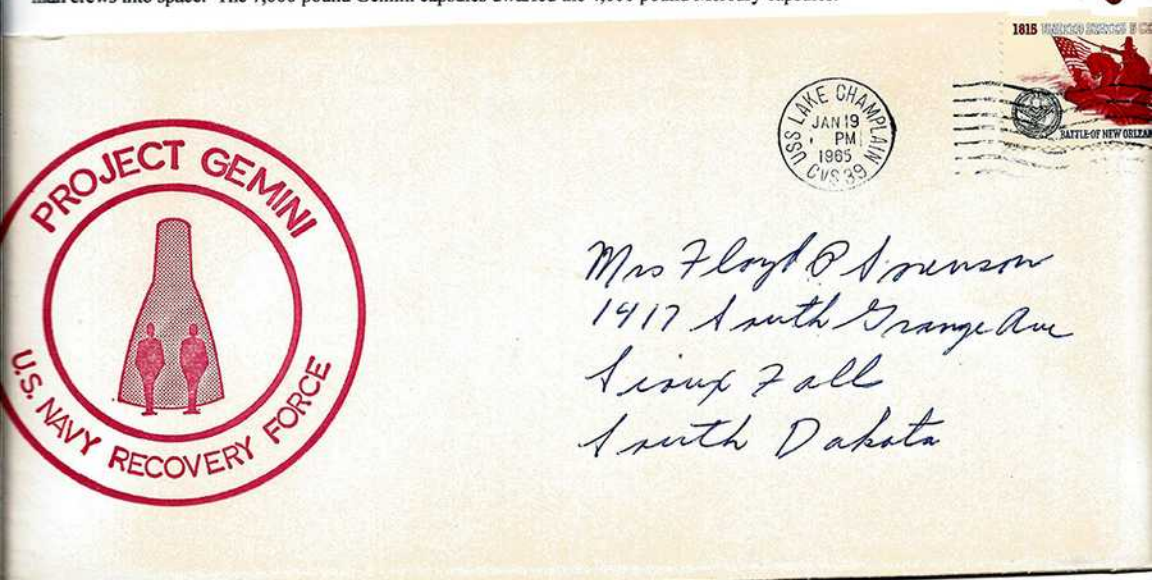


Gemini Para-glider test flight. This was tested as an alternate system to parachutes. Manned Gemini capsules were air dropped but did not work out as had been hoped for. Parachutes were again used for all Gemini & Apollo missions. *(Duplex cancel from Edwards AFB)*

4.0.1 Unmanned Gemini Tests

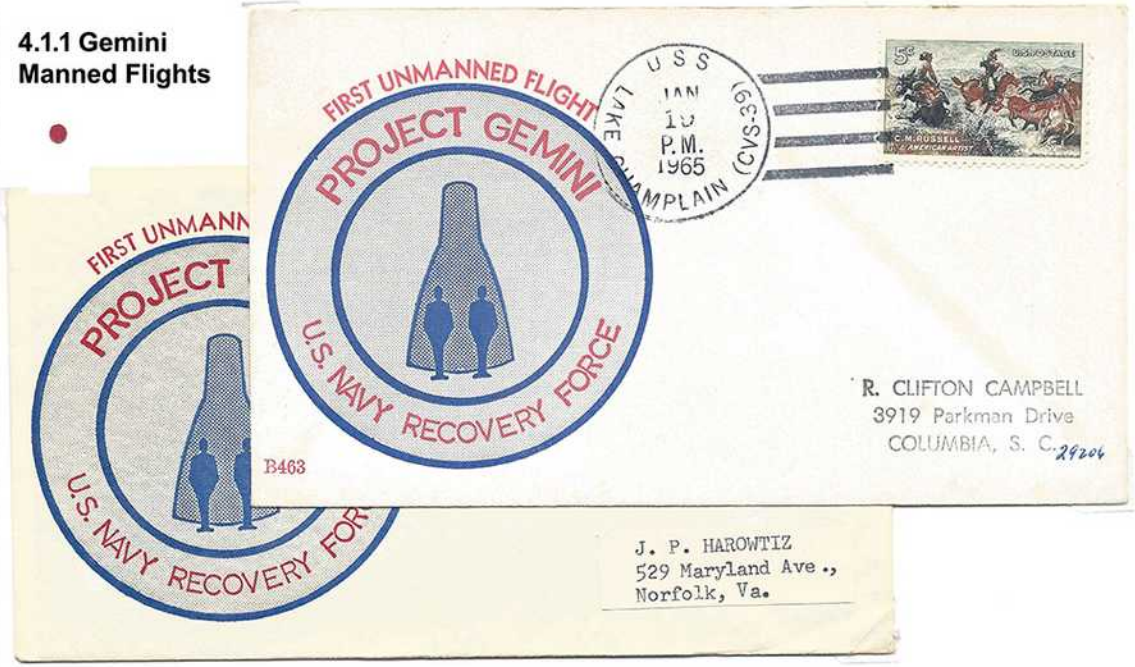


2nd unmanned test of the Gemini-Titan configuration was a long sub-orbital flight for a final verification of systems prior to putting two man crews into space. The 7,000 pound Gemini capsules dwarfed the 4,000 pound Mercury capsules.



Very difficult to obtain Machine Cancel for this recovery from the USS Lake Champlain. All cancels, other than a very few mailed by on-board personnel on #10 envelopes, have been found.

4.1.1 Gemini Manned Flights



Above: Numbered (B463) and Unnumbered Beck Cachets for Gemini 2 Primary Recovery Ship, USS Lake Champlain

Morris Beck created printed recovery ship covers on covers submitted by collectors for only 2c each. He placed a 3-number code on each, preceded by a "B" for Beck. He also gave 25 unnumbered Beck cachets to each ship Captain. Above is a numbered cachet and one of 25 unnumbered Beck cachets for the Primary Recovery Ship for Gemini 2. *Unnumbered Beck cachets are very difficult to obtain.* ***This exhibit includes unnumbered Beck cachets for Gemini 2, 3, 5 and 6.***

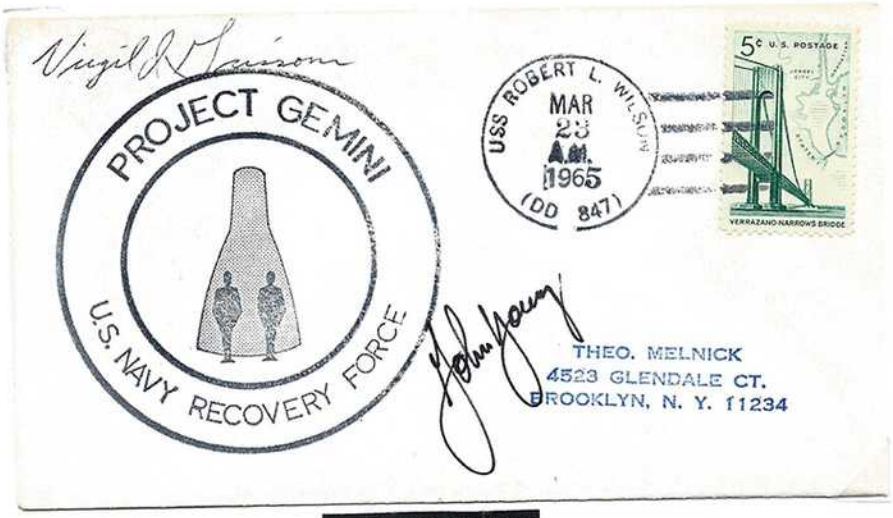


Gemini 3 – First manned Gemini launch cover from Patrick AFB, FL.

4.1.2 Gemini Manned Flights



Un-numbered Beck Cachet from the Primary Recovery Ship, the USS Intrepid. *Note that it was mailed to the District Intelligence Office of the 5th Naval District.*



AU: Virgil (Gus) Grissom
AU: John Young

Dozens of Secondary Recovery Ships (SRS) necklaced the globe for all Gemini flights in the event that a spacecraft had an emergency splashdown. This is an example of an SRS and these exist for every Secondary Ship from every manned mission. When an SRS does make a recovery, as it has on three occasions, it becomes the recovery ship while the Primary Recovery Ship becomes the Designated PRS. This ship was a Destroyer. The signatures on this cover proved to be extremely hard to obtain. Grissom died and Young did, and does not want to sign covers.

4.1.3 Gemini Manned Flights

Gemini Titan –4 (GT4)
This was the longest U.S. flight to date (4 days) and was the first time that an American astronaut *(White)* "walked" in space.



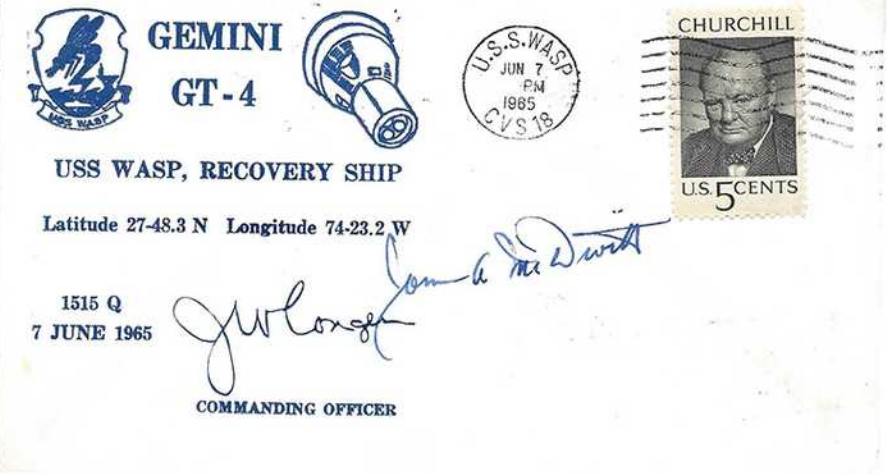






FAKE

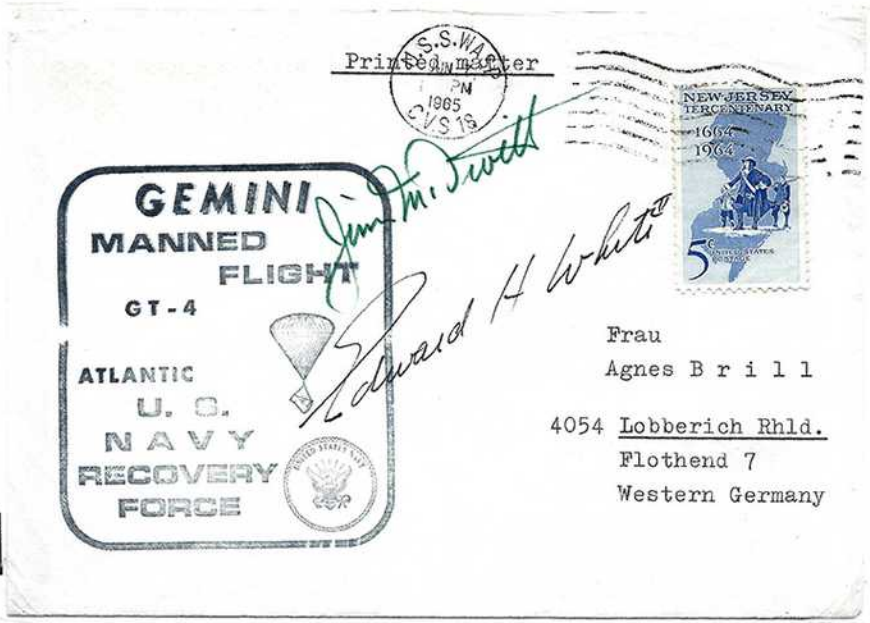
The most common type of FAKE cancels, the "Plugged 9" variety. Orbit cachets have fuzz trapped inside the loop of the "9" of the zip code. The fakes also show a cut in the "C" of Cape which was originally noted by this collector in the Space Unit's journal, *The Astrophile.*



Printed "Captain's Cover from the PRS, the USS Wasp. This is the most easily found Captain's Cover of all those covers which exist.

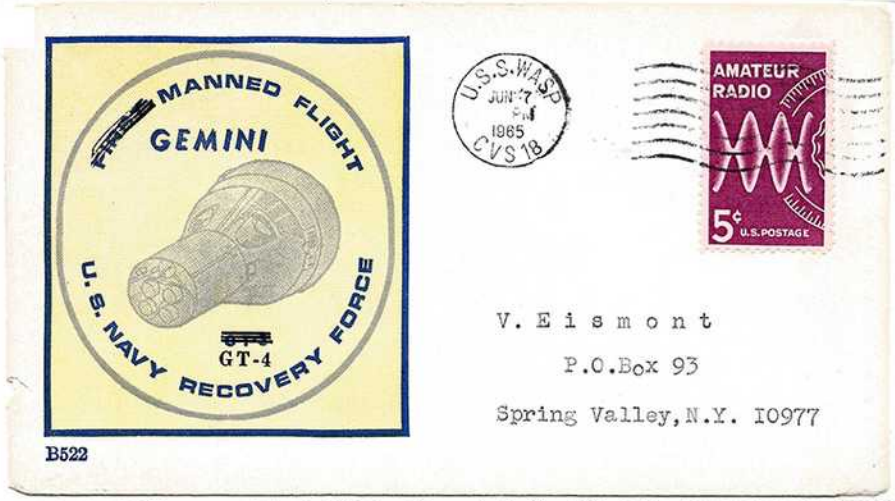
AU: Jim McDivitt

4.1.3 Gemini Manned Flights



AU: Jim McDivitt & Ed White

Gemini-Titan 4 (Gt-4) 5c stamp on this cover was valid for U.S. Surface Mail. There was no Printed Matter rate to Europe. Postage should have been 7c. Navy Rubber Stamp Cachet applied onboard by U.S. Navy Postal Clerks make these "Route Markings"



Beck Cachet #B522 was created for the US Robert Owens for the Gemini 3 mission. It was not processed and was sent to the USS Wasp, the PRS for Gemini 4. On board the Wasp, the "GT-3" was lined out by machine and "GT-4" was added. Also, the word "FIRST" was scratched out by hand as it was written in an arc. An unusual PRS cover for this mission.

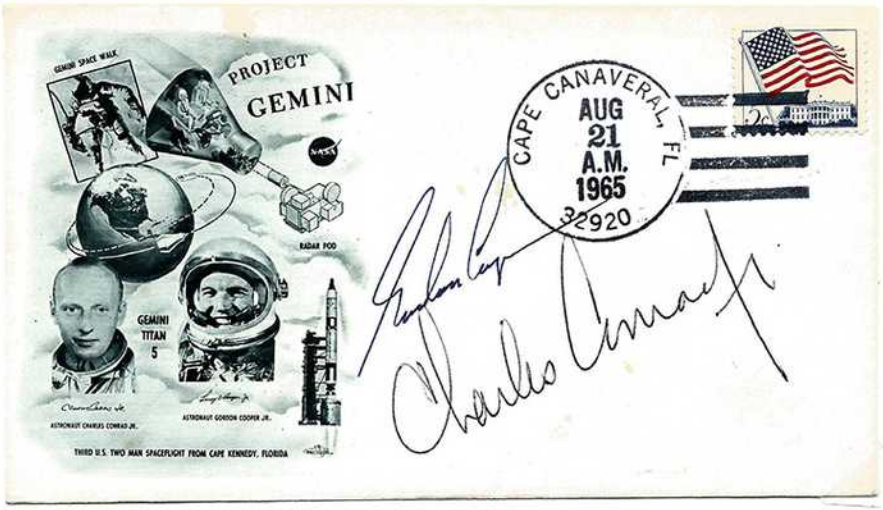
4.1.4 Gemini Manned Flights



AU: "Dusty" Rhodes - 1st KSC Postmaster
AU: George Mueller - Associate Administrator of the Manned Spaceflight Center

FIRST KSC OFFICIAL FOR A MANNED FLIGHT.

The Postmaster of the new Kennedy Space Center Post Office, "Dusty" Rhodes, decided to add cachets for all manned, and a few other launch events, which he continued to do through the Apollo Soyuz Test Mission in 1975. These are sought after by collectors even though all of the manned Gemini flights along with several of the Saturn rocket tests and the manned Apollo 7 flight, were all launched from Cape Canaveral. This factor was used by this collector in getting the Federation Internationale de Philately (FIP) to amend their astrophilatelic rules from reading "all covers should be postmarked from the nearest post office" to a "nearby post office". These rubber stamp cachets are official route markings applied to **all** 5,400 pieces of mail handled at the KSC post office on this date.



AU: Dick Gordon & Charles Conrad

Launch dated cover from Cape Canaveral from where this GT-5 mission was launched.

4.1.4 Gemini Manned Flights



GT-5 Primary Recovery Ship with the seldom seen Hand Cancel (HC) from this PRS. It has a black NRSC (Navy Rubber Stamped Cachet).



Most commonly used Machine Cancel (MC) from this Primary Recovery ship on an unnumbered Beck cachet, of which only 25 were made. The cover behind is a correctly numbered Beck cachet.

4.1.5 Gemini Manned Flights



Atlas rocket to place an Agena target for a near docking by the Gemini crew.was aborted and this mission was scrubbed. The KSC Official had fewer than 3,000 applied and that is the lowest number of these of any mission.

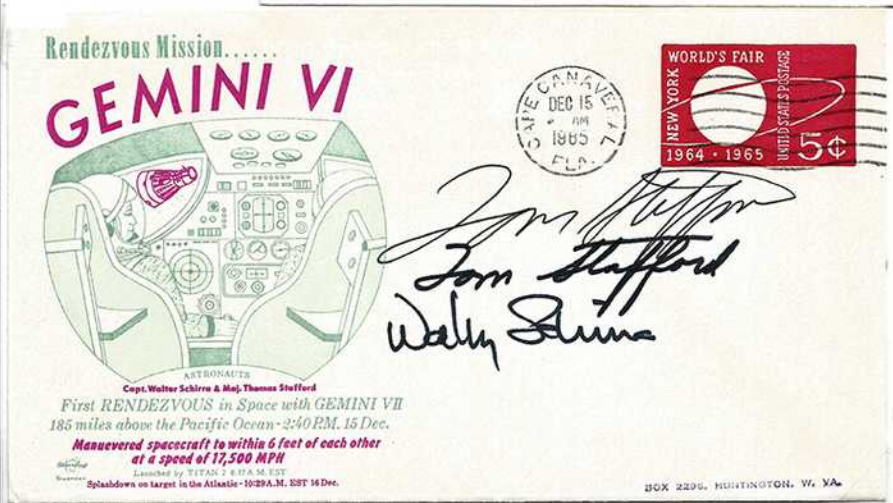






Gemini-Titan 7 (GT7) launch. KSC Official. NASA launched Gemini 7 ahead of the rescheduled Gemini 6 with the Gemini 7 craft to serve as the rendezvous target to within 1 foot. 7,380 cachets applied





Gemini 6 launched 11 days after Gemini 7 & both made the first US rendezvous in space. Test leading up to Apollo moon rendezvous.

AU: Tom Stafford
AP: Tom Stafford
AU: Wally Schirra

4.1.5 & 4.1.6 Gemini Manned Flights

Gemini 6-7
KSC Official (Dark)
A revised Rubber Stamp Cachet was created for the new plan. But it wore out quickly, becoming blurry.





R. J. GUNKEL
1500 WARWICK LANE
NEWPORT BEACH
CALIF.





A revised (Light) KSC Official of the same RSC was created by the postmaster. The combined quantity was11,120 but no breakdown of the dark and light quantities is known.



This is another of the very difficult to find, unnumbered Beck Cachets for this event. This was the cachet made for the GTA6 event, showing a Gemini Capsule and an Agena target.

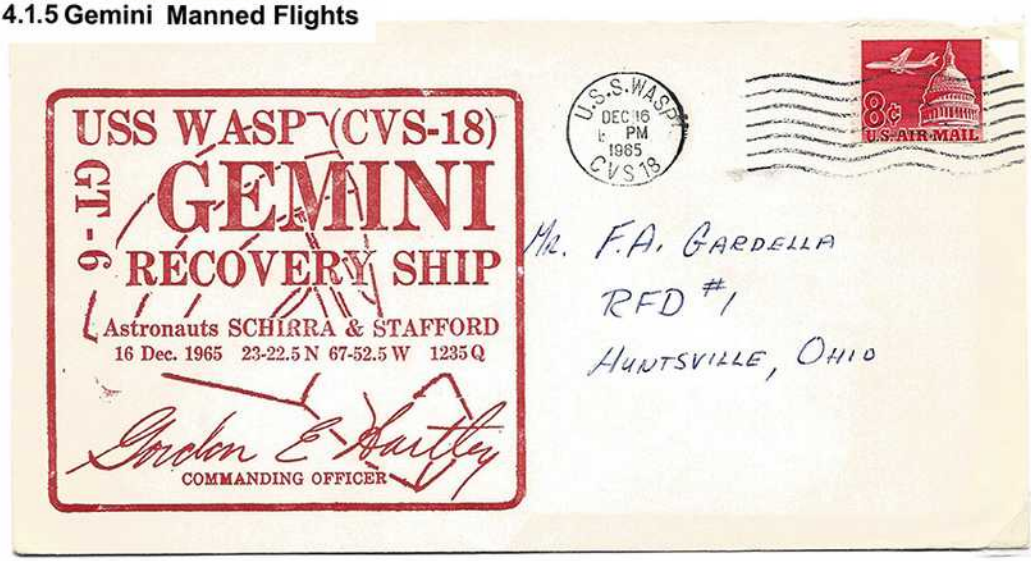






W. G. COPE
616 Graydon Ave.,
Norfolk, Va. 39553

4.1.5 Gemini Manned Flights



Gemini-Titan 6 (GT-6) Recovery Captain's Cover from the USS Wasp. Machine Cancels were the primary cancels applied.

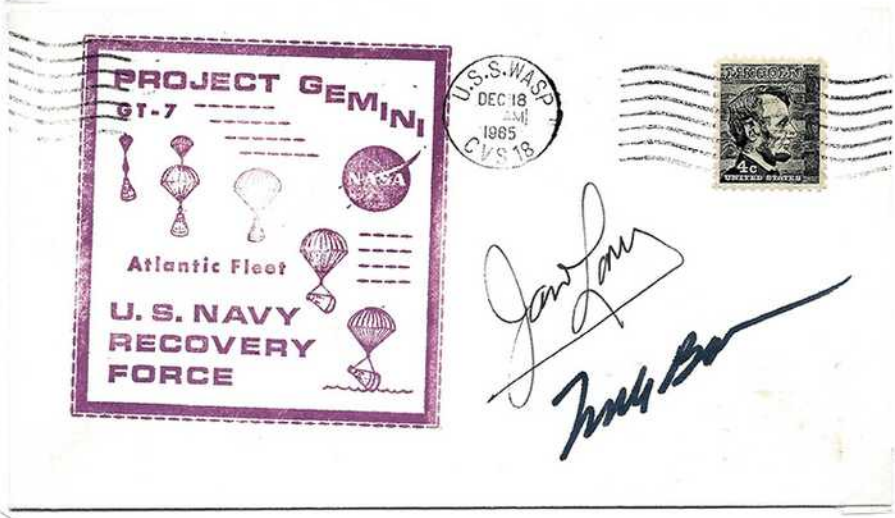
This is one of the original GTA-6 cachets showing the Gemini capsule rendezvousing with the Agena target.





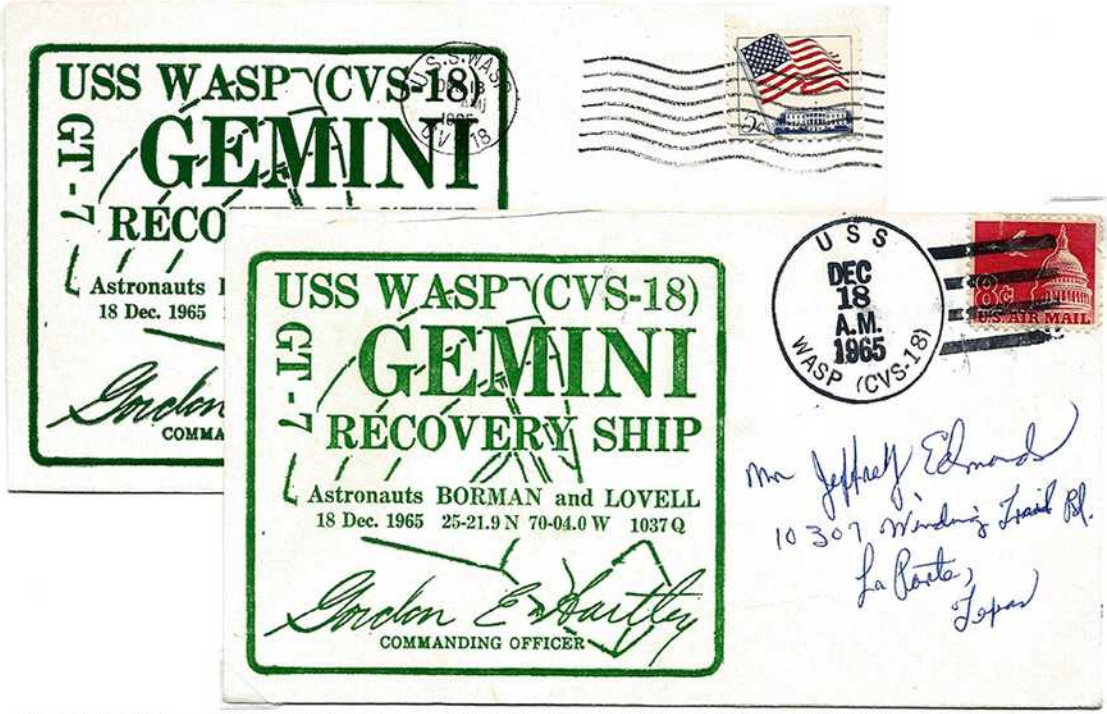
Revised Navy Rubber stamped cachet with two Gemini capsules side by side.

(Note the inverted year in the die hub of the Cancel).



Two days after recovering the GT-6 crew, the USS Wasp recovered the GT-7 crew. A new Navy Rubber Stamp Cachet was created. *(4c Postage did not meet the then current surface rate of 5c.)*

AU: Jim Lovell & Frank Borman



GT-7 Captain's Covers showing both the commonly used Machine Cancel and the occasionally used Hand Cancel. The HC is on a cover with a hand written address by one of the sailors aboard the Wasp. Two shades of green ink may indicate that there were two printings of these covers.

4.1.7 Gemini Manned Flights

Successful launch of an Agena Target by an Atlas rocket. To be docked by the Gemini 8 crew.





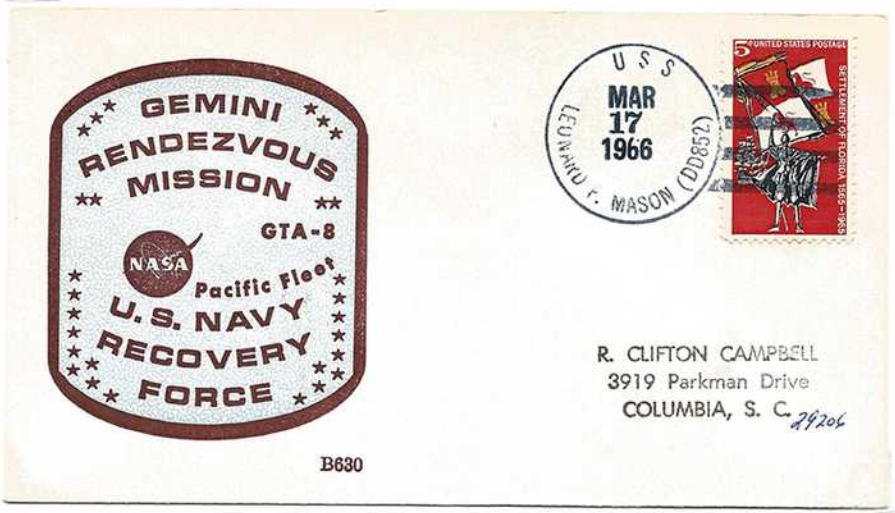
KSC Official Cachet for the Gemini 8 launch from Cape Canaveral. 12,370 cachets were applied to all mail processed that day at KSC.

4.1.7 Gemini Manned Flights



AU: Dave Scott & Neil Armstrong

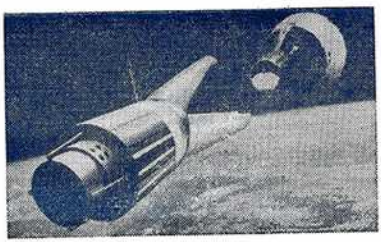
The USS Boxer was the "Designated Primary Recovery Ship", stationed in the Atlantic. However a near disaster occurred when the joined Gemini 8 capsule and the Agena target docked with each other. The joined craft started tumbling up to one revolution per second after a thruster on the Gemini craft jammed. Neil Armstrong was able to throw a switch to stop the tumbling and safely disengaged from the Agena. For safety sake, Houston ordered the Apollo 8 crew to return to Earth immediately and they landed in the Pacific Ocean. *The Navy Rubber Stamped Cachet shows that the USS Boxer was in the Pacific Fleet. Evidently the Rubber Stamp was accidently mixed up with one showing "Atlantic Fleet".*



Gemini 8 splashed down near to a destroyer, the USS Leonard Mason in the Pacific. It safely recovered the two astronauts. The Captain's Covers are in high demand as only a total of 485 covers were available on this Secondary Recovery Ship, and only an unknown few were cancelled on Beck cacheted covers. Armstong's cool handling of the dangerous problems in space on this mission helped NASA decide to make him the Commander of the Apollo 11 moon lander three years later.

4.1.8 Gemini Manned Flights

AUGMENTED TARGET DOCKING ADAPTER



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





Launch ofthe lst Agena target failed. This 2nd Agena had a docking adapter to allow an actual docking by the Gemini 8 crew.







Mr. Max Redlich
3328 Texas Avenue
Baltimore, Md. 21234

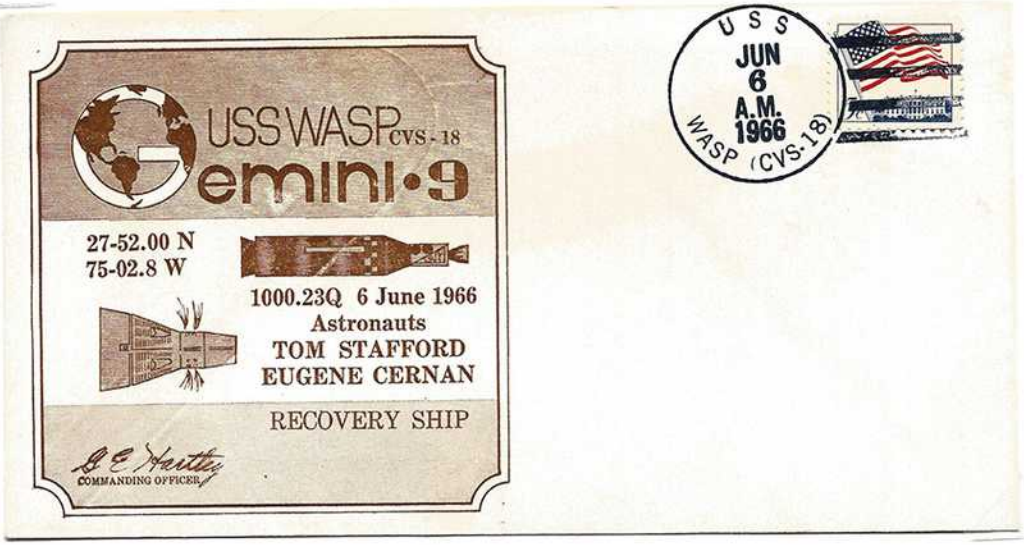
KSC Official for Gemini 9 crew of Tom Stafford and Gene Cernan who were able to dock and undock with the Agena target several times. 14,630 KSC Officials were applied.

4.1.8 Gemini Manned Flights



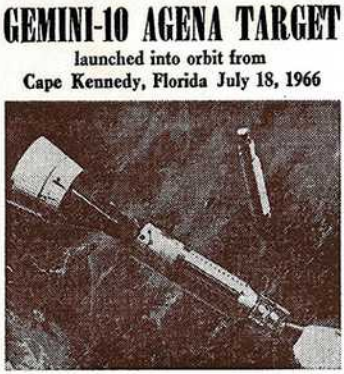
AU: Tom Stafford & Gene Cernan

Beck Cacheted recovery cover bears the most predominant Machine Cancel for this mission. Note that the word "Rendezvous" is misspelled.



Captain's cover with the lesser seen Hand Cancel dated 6/6/66.

4.1.9 Gemini Manned Flights



Gemini 10 docked with Agena target. Gemini 8 Agena still in orbit in the rear. (NASA photo of



Again, the Agena target was successfully launched into orbit.

GODDARD NETWORK LIAISON OFFICE
PATRICK AIR FORCE BASE, FLORIDA 32925





KSC Official for the launch of the Gemini 10 crew of Michael Collins and John Young. Collins made a tethered space walk which is portrayed on the Rubber Stamped Cachet.





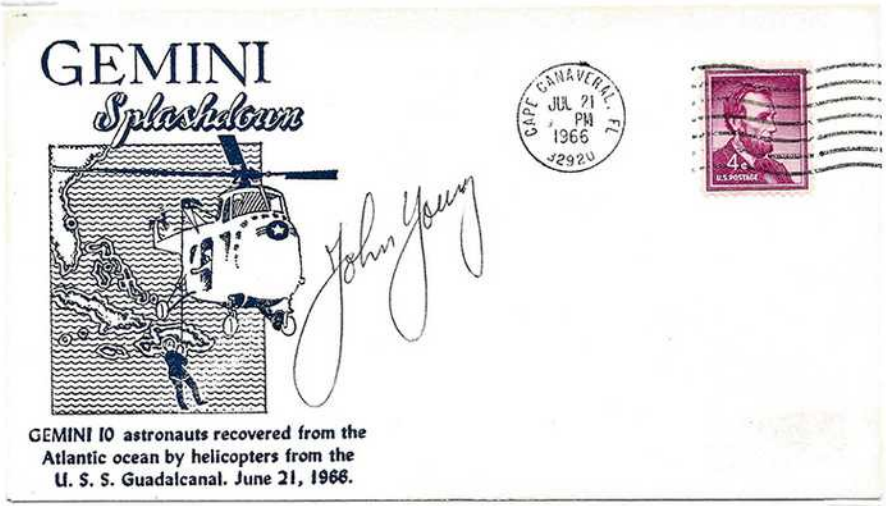




A Cape Canaveral cancel for this launch since this was the actual launch site.

AU: Michael Collins

4.1.9 Gemini Manned Flights



AU: John Young

Gemini 10 established that radiation at high altitude was not a problem. After docking with their Agena booster in low orbit, Young and Collins used it to climb temporarily to 412.4 nautical miles (763.8 km). After leaving the first Agena, they then met with the dead, drifting Agena left over from the aborted Gemini 8 flight—thus executing the program's first double rendezvous. Splashdown occurred in the Atlantic within three miles of the target. *(The 4c postage stamp was underpaid by 1c but was not noticed by postal employees).*



Young and Collins were recovered by the USS Guadalcanal after reaching all established mission goals.

4.1.10 Gemini Manned Flights

Gemini-Titan-Agena 11 KSC Official cachet for this launch from Cape Canaveral.



AU: James Webb
2nd NASA Administrator

Cape Canaveral launch on an Orbit cachet. These cachets are not very popular possibly because of the many "plugged 9" fakes that this dealer created.







AU: Gordon Cooper & Charles Conrad

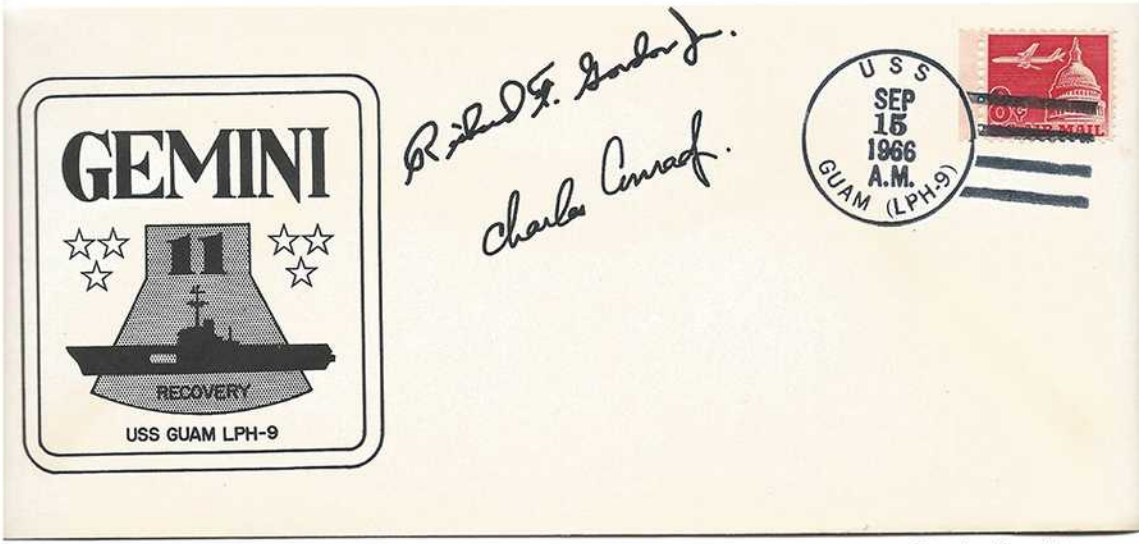




Conversing with a viewer of this exhibit who wore a USS Guam cap, this collector mentioned that most hand cancels were poor.
He replied, "I believe that. I visited them while they were applying them and they were both drunk!"

WEBER
2424 W. NORMANDY
CHICAGO, ILL
60638.

4.1.10 Gemini Manned Flights

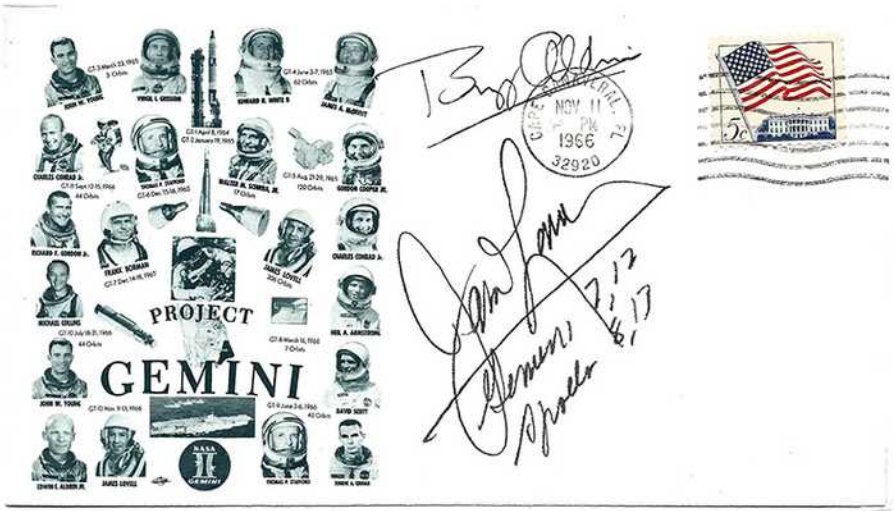


Gemini-Titan-Agena 11 (GTA-11) Captain's cover. Signatures are Printed along with the cachet on these covers. *Note that Captain's covers exist for most, but not all, recovered missions.* Astronauts Charles "Pete" Conrad, Jr. and Richard F. Gordon Jr. performed the first-ever direct-ascent (first orbit) rendezvous with an Agena Target Vehicle, docking with it one hour and thirty-four minutes after launch; used the Agena rocket engine to achieve a world record high-apogee earth orbit; and created a small amount of artificial gravity by spinning the two spacecraft connected by a tether.



US Navy Rubber Stamped Cachet (NRSC). Most of these were in maroon ink. Blue is uncommon. Hand cancels were used on all known covers.

4.1.11 Gemini Manned Flights



AU: Buzz Aldrin & Jim Lovell

This flight had three extravehicular activities (EVAs) by rookie "Buzz" Aldrin, totaling 5 hours 30 minutes. It was fifth rendezvous and fourth docking with an Agena. Gemini XII marked a successful conclusion of the Gemini program, successfully demonstrating that astronauts can effectively work outside of spacecraft. This was instrumental in paving the way for the Apollo program to land a man on the Moon by the end of the 1960s.



GTA-12 KSC Official Cachet. This was the last manned Gemini flight.

4.1.11 Gemini Manned Flights



Unusual in that the cancel is applied to a NASA Penalty envelope for the recovery of the Gemini 12 crew.







Above: **FAKE** cancel on envelope printed in a prison, by a prisoner on a prison printing press.

Right: GTA-11 cachet on a GTA-12 recovery dated cover.

4.1.11 Gemini Manned Flights



GTA-12 **PROOF CAPTAIN'S COVER.** The astronaut's names are typed in and a rubber stamp in the cachet shows the date of the recovery. The gold printing is shifted 1/16 inch to the right. Only two seen in 49 years of collecting.



Actual GTA-12 Captain's Cover. The exact location of the recovery is printed as is the date and the correct latitude and longitude. Also printed are the names of the GTA-12 crew.

5.0 Project Apollo Precursors
5.1.0 Ranger/Saturn Rocket Tests



Ranger 1 – The **Ranger program** objective was to obtain the first close-up images of the surface of the Moon. There were nine attempts and all of the first six Ranger launches failed. Ranger 1 was intended to test the Atlas- Agena launch vehicle and spacecraft equipment without attempting to reach the Moon but it never achieved the needed orbit.



The first of three types of Saturn rocket were designated "Saturn-Apollo" (SA) with the emphasis on the Saturn rocket. Later manned tests were called "Apollo-Saturn (AS) with the emphasis on the Apollo moon landing program. There were three different Saturn Rockets. Saturn C-1 aka Saturn 1 with 1,300,000 pounds of thrust and was 163 ft. tall. / Saturn C-2 aka Saturn 1B had 1,600,000 pounds of thrust and was 139 ft. tall./ The only one powerful enough to get men to the moon was Saturn V (aka Saturn 5) rocket which had 7,500,000 pounds of thrust and stood 363 feet tall.

5.1.0 Saturn Rocket Tests







Saturn-Apollo 2 (SA-2)
Tested the propulsion systems. Upper stages held 95 tons of water which exploded in space to form an ice crystal cloud.

Saturn-Apollo 3 (SA-3)
Additional testing to verify its compatibility with the Cape Canaveral Air Force Station complex handling. But it was primarily a test of the first-stage booster and its engines.











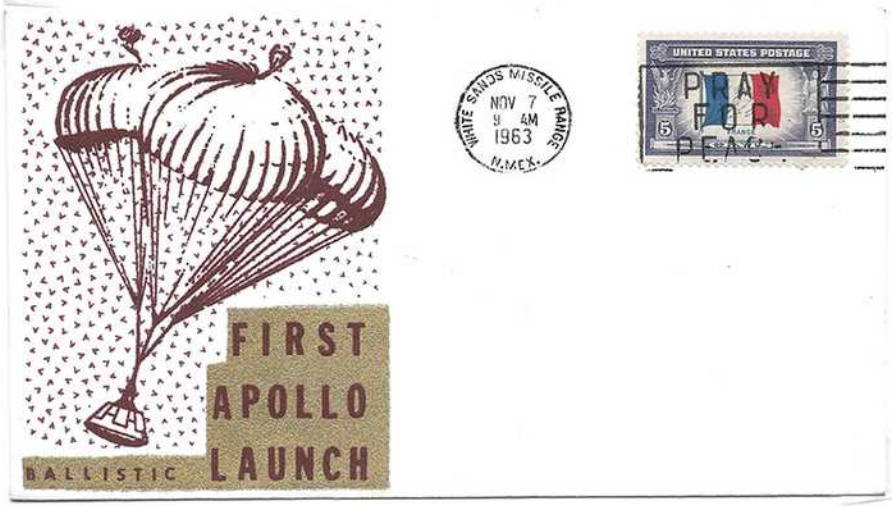
Saturn-Apollo 4 (SA-4)

One engine programmed to shut down 100 seconds after launch. Fuel was re-routed to other engines to let them run longer to compensate. It didn't work.

5.1.0 Saturn Rocket Tests

The Little Joe 2 rockets were just the upper stage of the Saturn rocket tests. Little Joe 2-1 was the 1st of 5 tests of the upper stage of the Saturn rocket used for escape tests and for flying boilerplates (full mock-ups) of an Apollo shaped shell with a Launch Escape System (LES).

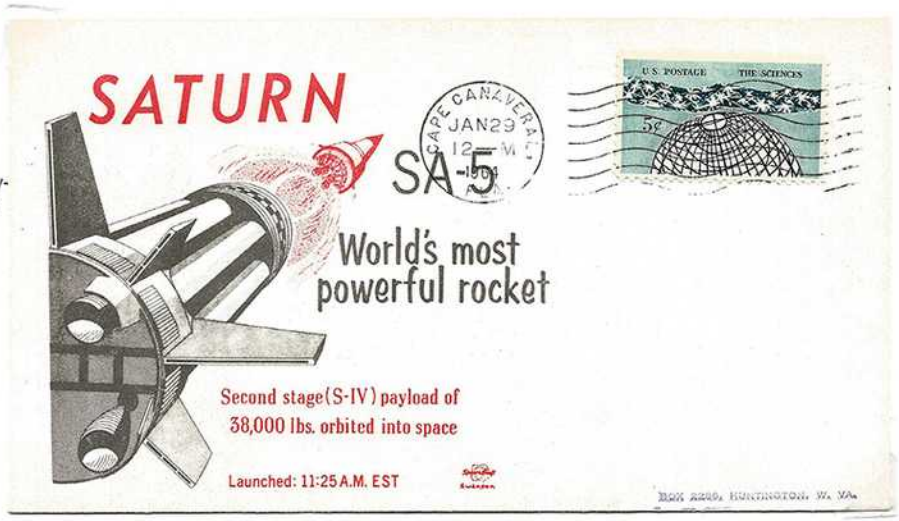




Little Joe 2-2 performed the 1st successful abort test of an Apollo mission. See the cachet.

5.1.0 Saturn Rocket Tests

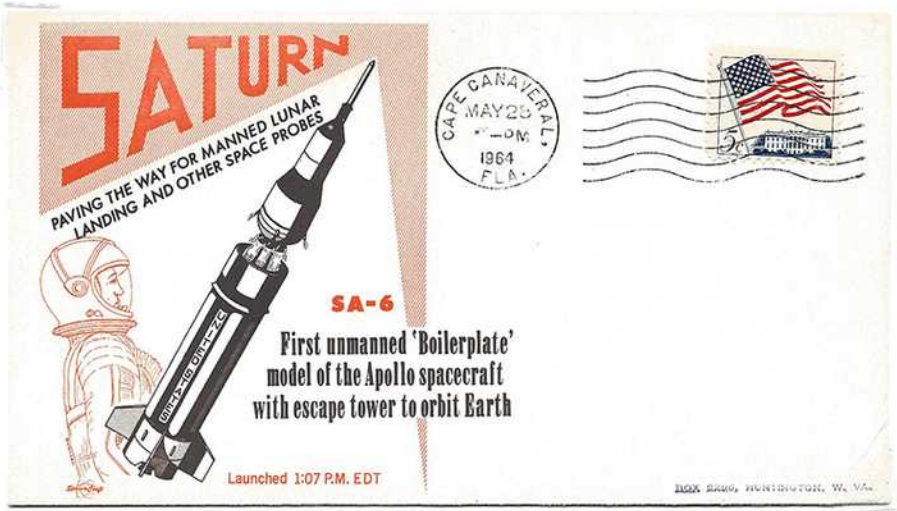
Saturn-Apollo 5 (SA-5) Called "The Flying Junkpile" as the dummy payload held 38,000 pounds of materials to test the 2nd stage capabilities.





FIRE !
An Atlas missile was used to fire an Apollo capsule 5,000 miles to an altitude of 520 miles to test re-entry heating and communications potential problems.

5.1.0 Saturn Rocket Tests



Saturn-Apollo 6 (SA-6) To demonstrate trans-lunar injection capability of the Saturn V with a simulated payload, and to repeat a demonstration of the Command Module's (CM) heat shield capability to withstand a lunar re-entry.

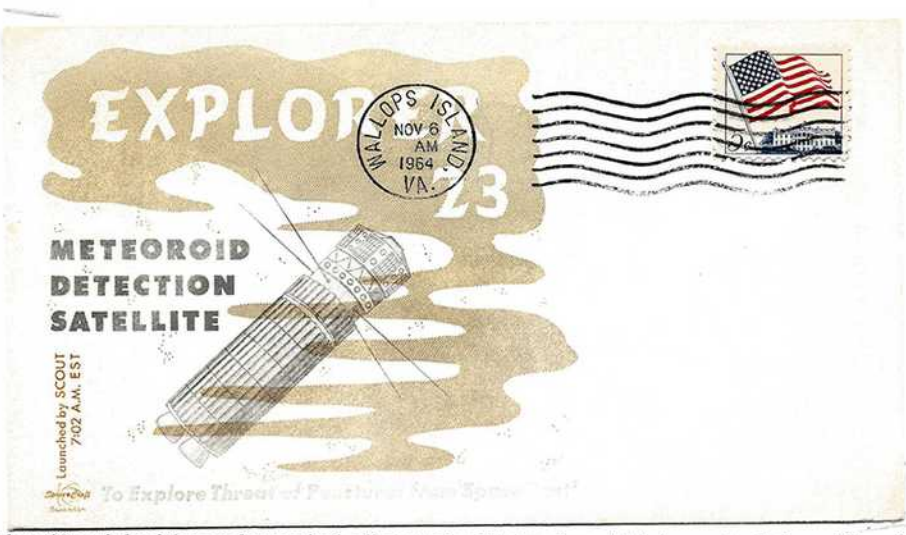


Ranger 7. After six failures Ranger 7 took the first close-up photos of the moon as it approached to crash into it. The first of 3,250 photos started at 125 miles out and the last one clicked at 60 feet.

5.1.0 Saturn Rocket Tests



Saturn-Apollo 7 (SA-7) placed a full scale mock-up of the Apollo capsule into Earth Orbit. It was the first time a Saturn rocket carried a programmable guidance computer. Previous launches had used an onboard "black box" that was preprogrammed. It would now be possible to reprogram the computer during flight so that any anomalous behavior could potentially be corrected.



Explorer 23 carried stainless steel pressurized-cell penetration detectors, impact detectors, and cadmium sulfide cell detectors to obtain data on the size, number, distribution, and momentum of dust particles in the near-earth environment. In addition, the spacecraft was designed to provide data on the effects of the space environment on the operation of capacitor penetration detectors and solar-cell power supplies.

5.1.0 Saturn Rocket Tests



Pegasus 1 was the 8th launch of the Saturn 1 rocket. The "Wings of this satellite expanded to 96 feet as it counted the number of meteoroid hits it received.

Blue Scout rockets were all launched by the United States Air Force. This was another in a series of smaller rocket probes of the van Allen radiation belt surrounding the Earth.





BLUE SCOUT ROCKET PROBING RADIATION BELT DATA OBTAINED TO PROTECT MEN IN SPACE

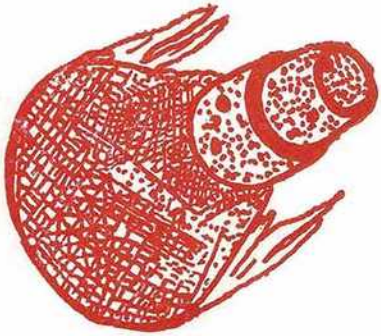
CLYDE J. SARZIN
WASHINGTON, L. I.
W YORK, U.S.A.



Little Joe 5 (LJ2-5) Test of the Apollo capsule ejection at the height of the highest stress of the rocket where it reached its highest speed while still fighting air in the Earth's atmosphere.

5.1.0 Saturn Rocket Tests

2nd and last launch in the series which proved that no changes were needed on the Apollo heat shield.



CAPE CANAVERAL FLA. MAY 22 1 PM 1965



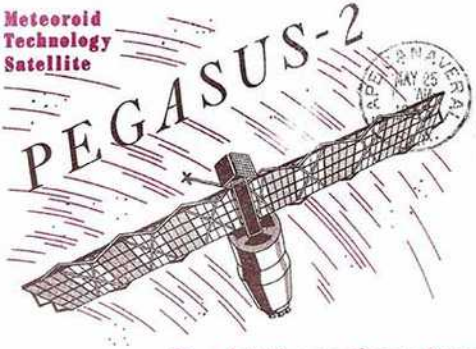
Project Fire 2. Successful, final test of the ablative shield that was to protect the astronauts during their high speed re-entry from lunar travel.

PROJECT FIRE II

Celestial

Pegasus 2 – 9th test of the Saturn C-1 (SA-1) rocket. The 2nd of three meteoroid counts to assure the safety of the Apollo crews.

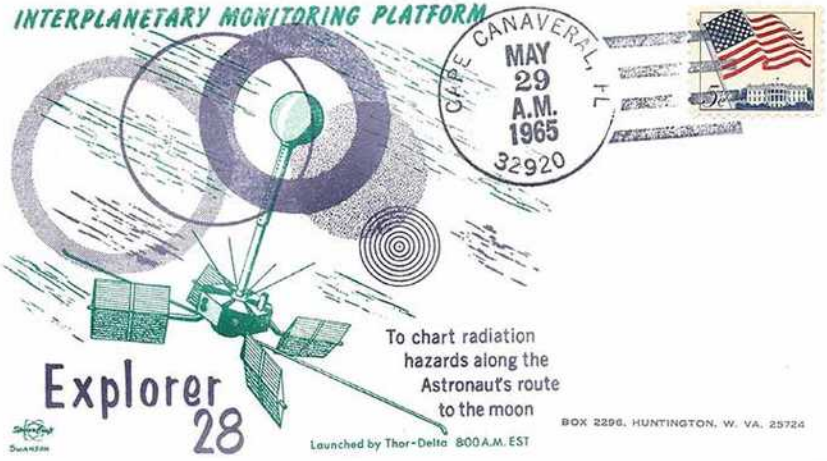
Meteoroid Technology Satellite



To orbit the earth as a target for high-speed meteoroids



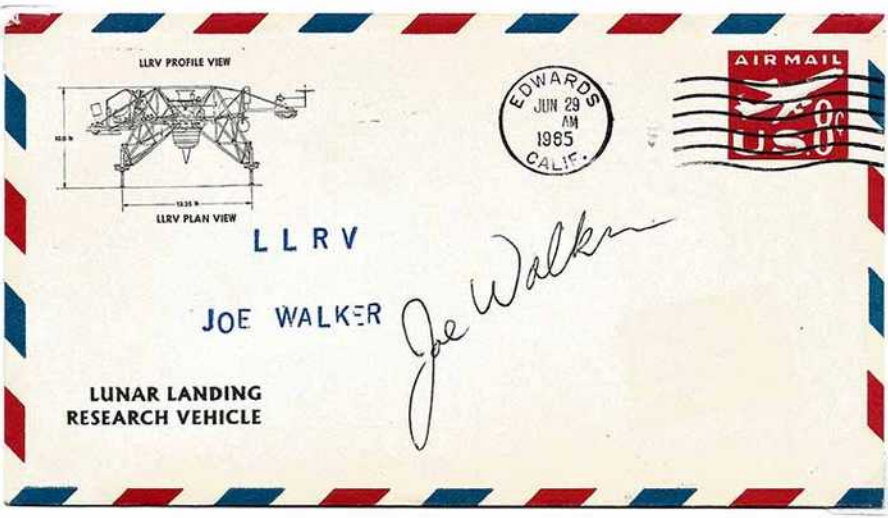
HUNTINGTON, W. VA. 25724



Explorer 28.

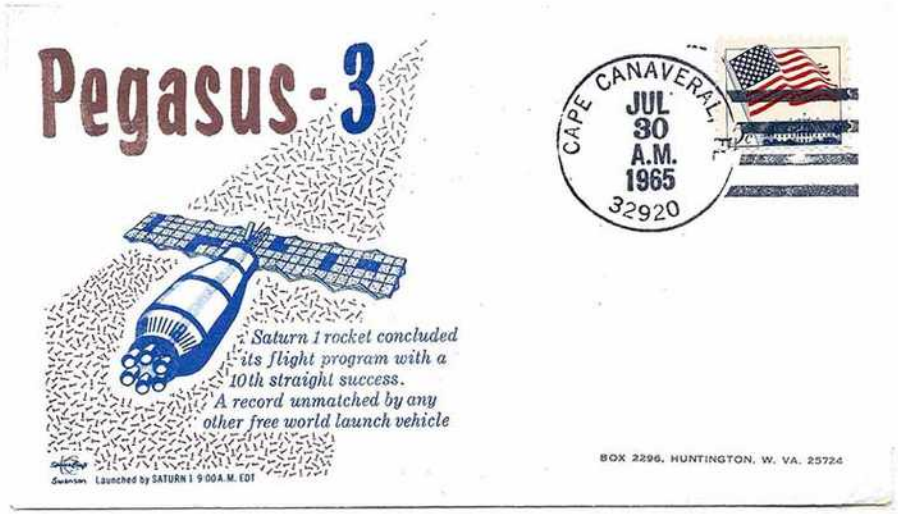
Satellite acquired knowledge of the possible effects of solar flares on the astronauts while in deep space.

5.1.0 Saturn Rocket Tests and Lunar Lander training



AU: Joe Walker

Lunar Landing Research Vehicle (LLRV) flight.was used to train astronauts how to fly the Lunar Lander from space to the moon's surface. Joe Walker, who was awarded astronaut wings due to his flight above 250,0000 feet into space in an X-15 rocket plane, was the first to test the LLRV. Later, Neil Armstrong barely escaped death when his LLRV went out of control.



Pegasus 3 was the 10th and final test of the Saturn 1 rocket in the Apollo series. All 10 flights were successful We were now ready to move to the slightly larger Saturn 1B rocket tests.

5.1.1 Apollo Saturn 1B Rocket Tests

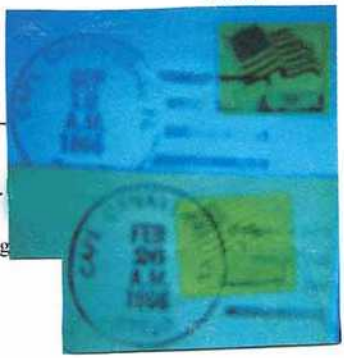


Apollo Saturn 201 (AS-201)
KSC Official for this launch. "AS-201" stands for the 1st flight of the 2nd generation of the Apollo Saturn rockets (Saturn 1B). This rocket could not reach the moon. Only the upcoming Saturn V could do that. 11,080 of these cachets were applied to all mail cancelled at the KSC post office on this date.





Counterfeit cancel was created by Charles Riser, who was found guilty in a court of law. The Space Unit contacted the US Postal Service after finding that the 5c Flag stamp used had a phosphorescent coating which was not released until August 25, 1966, six months after the date on this postmark. Only untagged stamps were available in February 1966. These images (right) show the untagged stamp at the top and the tagged one at the bottom, using an Ultra-Violet light.



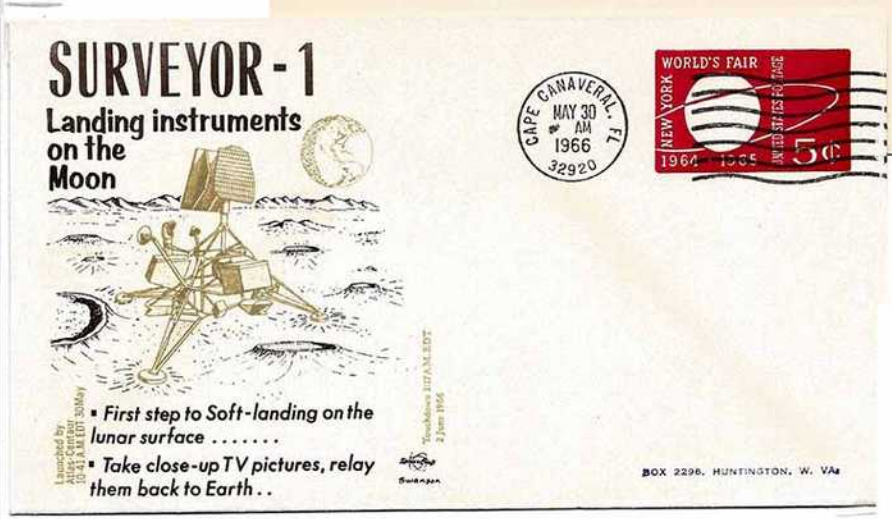
5.1.0 Saturn Rocket Tests & Surveyor Lunar Lander



The USS Boxer recoverd this unmanned AS-201 capsule. Blue cachet is uncommon.



The Marshall Space Flight Center built & tested the Saturn rockets under the supervision of Wernher von Braun

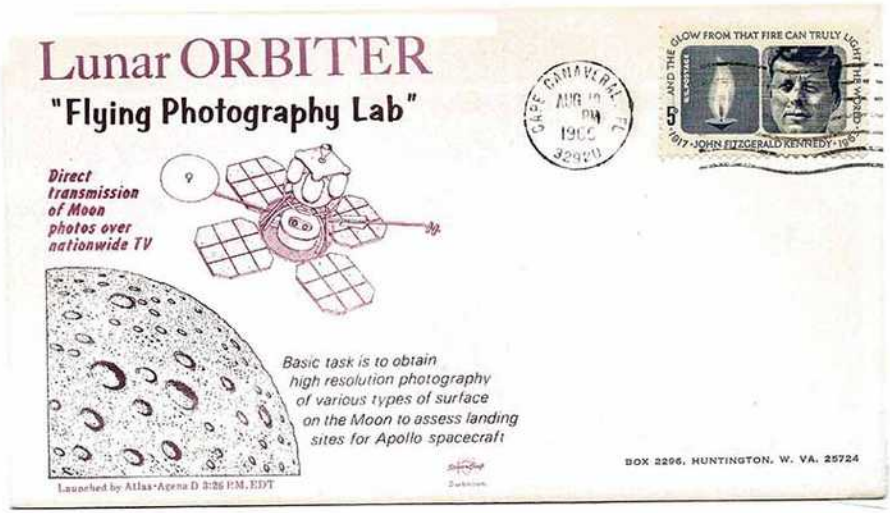


Ist of seven craft sent to soft-land on the moon to ensure the safety of men landing there.

5.1.0 Saturn Rocket Tests & Lunar Orbiter Photo Flight



Apollo Saturn 203 (AS 203) launched before AS 202. KSC Official Cachet had 9,360 cachets applied. Tested the S-IVB stage vent & restart capability using liquid hydrogen. The S-IVB stage of the Saturn V rocket was the last stage of the Saturn to be jettisoned into the moon once the command modules (CMs) and Lunar Excursion Modules (LEMs) were linked in lunar orbit.



1st of five Lunar Orbiters launched to determine future Apollo landing sites by photographing the moon, giving NASA its first Lunar Atlas. Photos were sent through space digitally to processing centers in Corpus Christi, Texas and to the Merritt Island Launch Area on KSC soil which converted images from digital to analog.

5.1.0 Saturn Rocket Tests

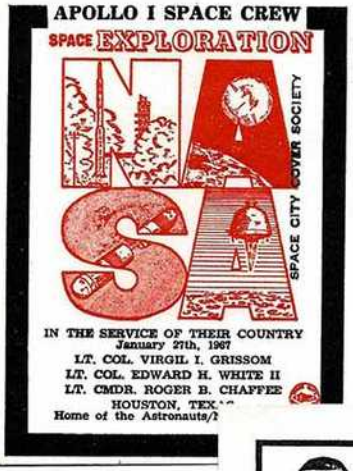
3rd Saturn 1B flight evaluated capsule with a heat shield during a successful, severe heat, long-duration, entry. Launched after AS203. 10,760 KSC Officials.





AS 202 Capsule Recovery which splashed down 192 nautical miles from taking almost 9 hours to recover: too long for a manned flight.

5.1.0 Saturn Rocket Tests
Capsule Test Fire Kills 3





The Apollo 1 Disaster occurred during a manned ground test of the Apollo capsule in an oxygen rich environment. A spark from a wire erupted the interior with flames.

Only 100 covers were created in Houston where controllers were talking to the 3 crewmen who were in Florida

The astronauts were: Gus Grissom, Ed White & rookie Roger Chaffee. Apollo 1 was named that in deference to a request from family members of the crew. Their flight was actually going to be Apollo 7.

KSC & Cape Canaveral Post Offices were closed at the time, but a few cancels were obtained at nearby cities.

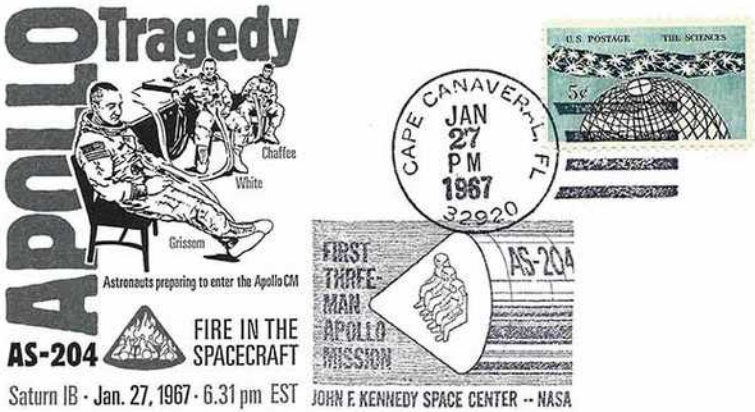












NOT A KSC OFFICIAL

It's an oversized replica of the real one that was to have been applied for this crew's actual launch and would not have been applied to a cover from Cape Canaveral

5.2.0 Apollo Preparations Events

Canary Bird 3 Communications satellite (Comsat).

Geostationary orbiting relay station for messages from and to lunar astronauts.

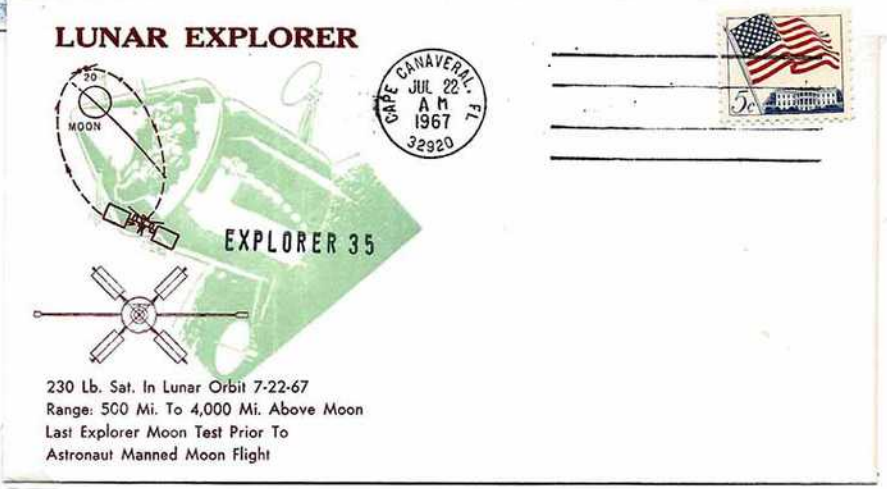




Surveyor 3, 2nd soft lander on the moon. Apollo 12 landed 300 yards away, 5 years later, recovering insulated wire with living bacteria still there!



Lunar Explorer 5 *(aka Explorer 35)* was the 5th & final orbiting lunar platform which studied radiation levels on and around the moon for the safety of the astronauts.



6.0 Saturn 5 Rocket Tests





1st launch from KSC! !st flight of the Saturn V moon rocket with 7 million lbs of thrust 34 stories hight! 9,685 KSC Cachets applied..



AS-501 recovery by the USS Bennington on the same date as the launch. 376 Beck cacheted covers were processed aboard.

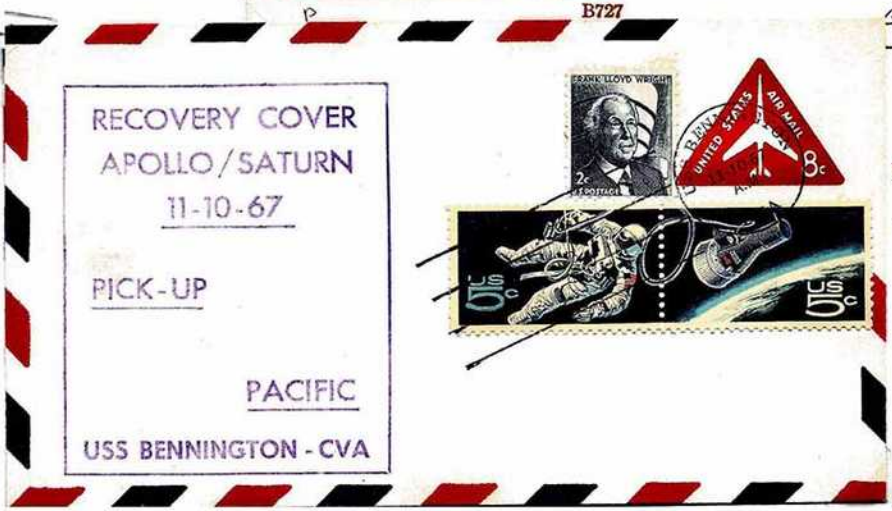






Hugh M. Blackard
P. O. Box 118
Crockett, Calif. 94525

B727



AS 501 Recovery ship **FAKE** cancel printed on a prison printing press by a prisoner. Killer bars run from the left of the hub. 20c in airmail postage exceeded the 8c required.

6.0 Saturn 5 Rocket Tests

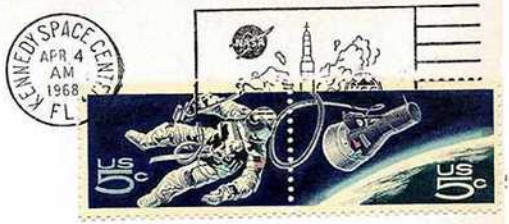
Apollo Saturn 204 placed an unmanned Lunar Excursion Module (LEM) into Earth orbit. There was no recovery. The KSC Official had 8,300 impressions.

Note: 6c was the domestic and not International rate.

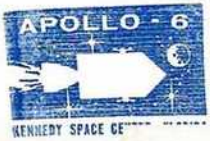




Mr. Adrien Bassin
Charmettes 36
CH 2006 Neuchâtel
Schweiz



Apollo 6 was the 2nd launch of the Saturn V rocket to test the in-flight engine start.



Apollo 6 (AS502) Only Hand Cancels were applied on the Primary Recovery Ship, the USS Okinawa, for this mission. 568 of these Beck cacheted covers were cancelled on board the Okinawa.



B747



Donald H. Wright
5 Brooks St.
New London, Conn.
06320

6.0 Saturn 5 Rocket Tests etc.

Re-entry 6. A Scout sounding rocket measured heat transfer in a slender cone at hypersonic speeds as a re-entry test for Apollo 7.

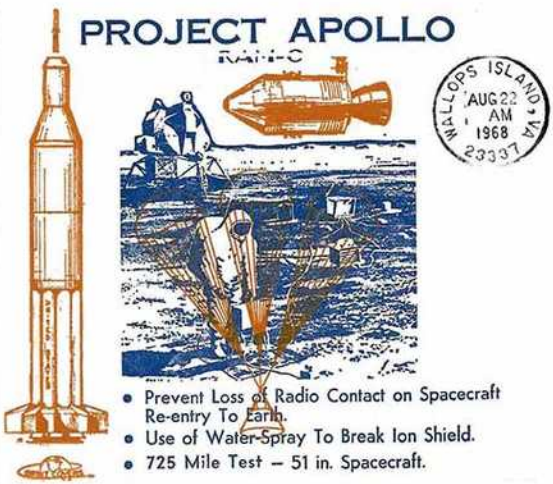






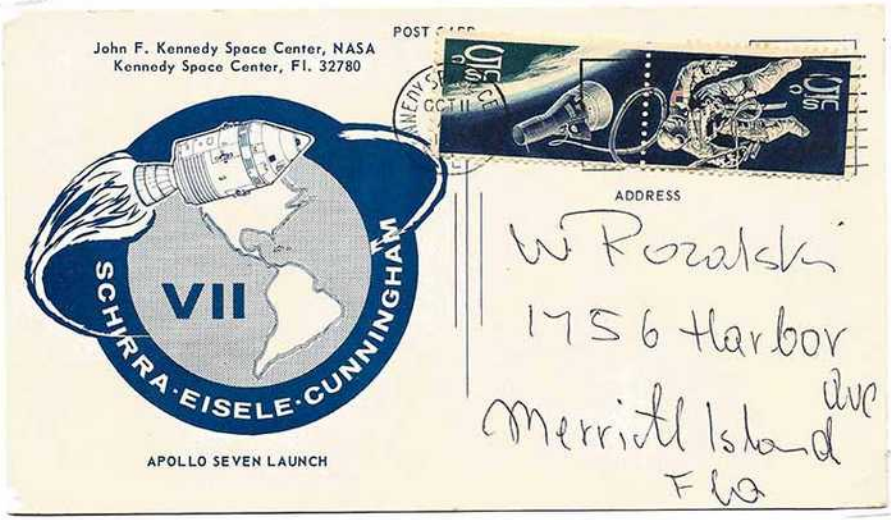
RE-ENTRY 6

MAY 7, 1968 UPPER ATMOSPHERIC TEST FIRING THROUGH BARIUM VAPOR CLOUD FROM U. S. NASA ROCKET PROVING GROUNDS WALLOPS ISLAND, VA.





Radio Access Monitor (RAM). This 3rd & final test prior to the first manned Apollo flight was an attempt to learn how to prevent the loss of signal (LOS) between the Apollo craft and Earthbound stations. It didn't.



APOLLO 7 – The first manned Apollo launch and the only one from Cape Canaveral, not KSC. An Earth orbital test.

This is a NASA VIP CARD Only 5 of these cards were distributed to guests at the VIP Site for the Apollo 7 through 17 flights. Postally used cards with KSC postmarks on the dates of launches are all difficult to locate. NASA sold stamps and had a mail bag. This was before cell phones and people had to know the addresses of friends or offices. The vast majority did not reach collectors hands as postally used. This is the only known exhibit to show them all.



AU: Walter Cunningham

APOLLO 7 KSC Official. Because the KSC Rubber Stamp cachet sample strikes were blurry, NASA opted for labels for this, the Apollo 8 mission and for a third one honoring the 15th Anniversary of NASA in 1973. All other KSC Officials were rubber stamped.

7.0.1 Apollo 7 Earth Orbit

Cape Canaveral (CC) is appropriate as this was the only manned Apollo mission not launched from KSC.



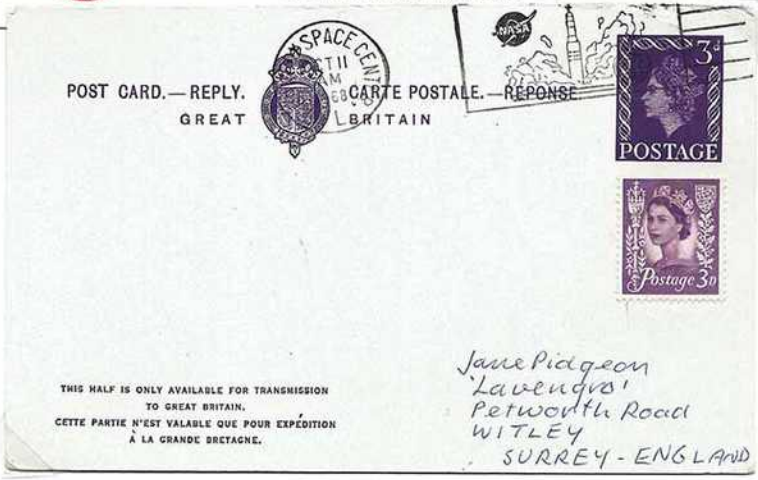






The smaller Saturn 1B carried this crew into Earth orbit to test the Apollo vehicle. Patrick AFB (PAFB) took an active role in all manned launches from the KSC/CC area.

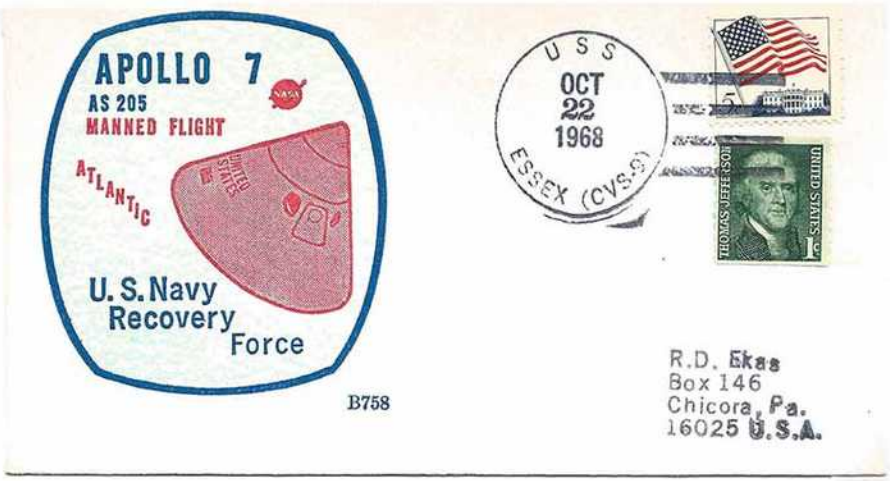
AU: Wally Schirra
Walt Cunningham
Donn Eisele



INAPPROPRIATE POSTAGE

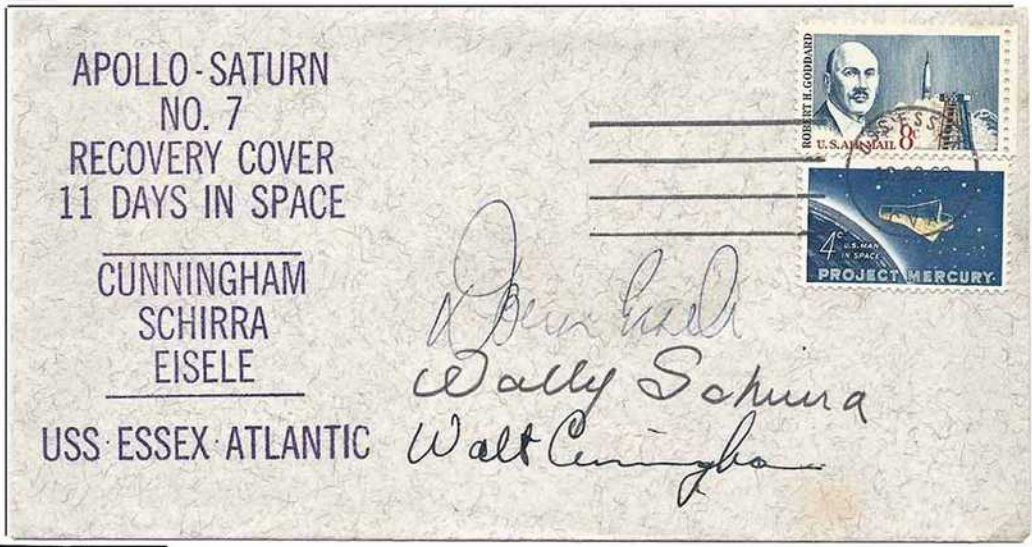
This "reply" half of a British postal card with a 3d indicia, and an added 3d stamp should have used US postage at the international rate.

7.0.1 Apollo 7 Earth Orbit



Primary Recovery Ship, USS Essex. Beck unnumbered cachet. Only 25 exist!

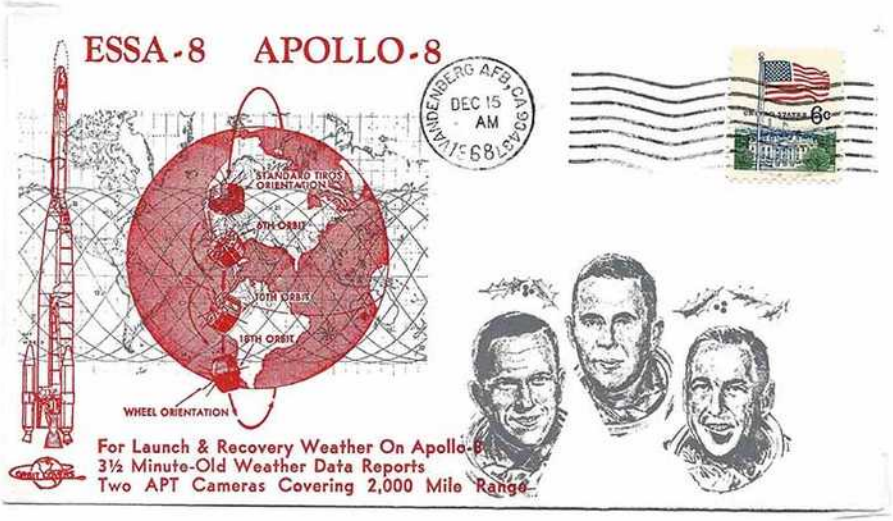
FAKE



AU Donn Eisele
Walter Cunningham
(Secretarial signature of Wally Schirra)

This cover & cancel were created by a prisoner in a prison print shop. The killer bars are on the wrong side of the hub and too thin. Two of the three signatures are real. The third, Wally Schirra's, appears to be signed by a secretary (aka a secretarial signature).

7.0.2 Apollo 8 1st Manned Flight to Moon



Environmental Science Services Administration (ESSA) 8 weather satellite was launched one week prior to the Apollo 8 mission, specifically to give extremely accurate weather updates during the launch and recovery of the Apollo 8 crew.



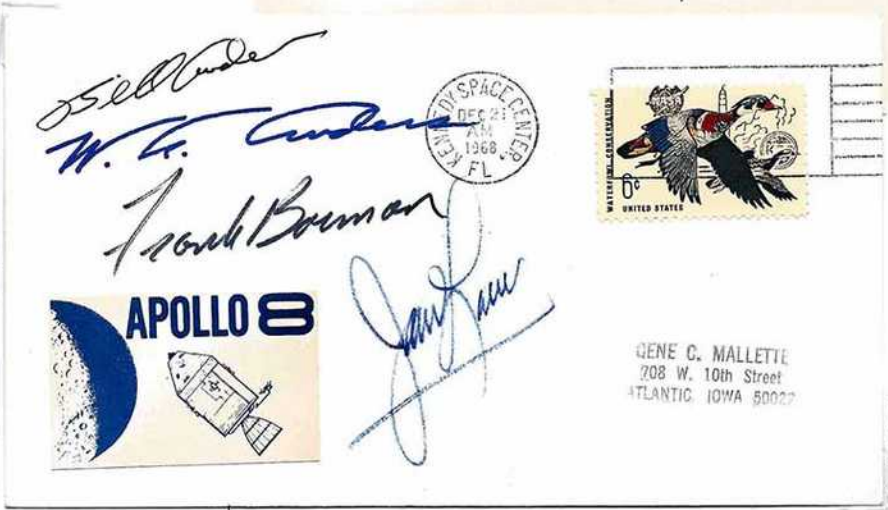
FIP rules and MOJ writings indicated that KSC cancels were invalid for exhibiting following the launch of flights to the moon. In 2011 this collector did not want to see thousands of collector's covers invalidated because of rules created following the actual collecting by Astrophilatelists. He uncovered the fact that the Merritt Island Launch Area was on KSC property and its job was to process film and video from deep space, converting digital to analog images. In a 10 page dissertation this collector also convinced FIP that their restriction of cancels having to be from the "nearest" post office were wrong and they then changed "nearest" to "nearby". This collector was asked to write the Astrophilately section in the new MOJ which now reads the same.

7.0.2 Apollo 8 1st Manned Flight to Moon

Human's 1st flight to the moon as predicted by Jules Verne.
NASA's 2nd VIP Card

(I've not seen a hand addressed Apollo 8 card in 45 years of searching).





KSC Official label cachet used in place of a rubber stamp by the postmaster at KSC, 11,870 had this label affixed or inserted.

AU: Bill Anders
AP: William (Bill) Anders
AU: Frank Borman
AU: Jim Lovell

Apollo 8 crew went into lunar orbit Dec. 24, 1968. They shared a passage from Genesis as live video pictured the moon slipping past their window.

Mailed from the Public Affairs Office at the Johnson Space Center.

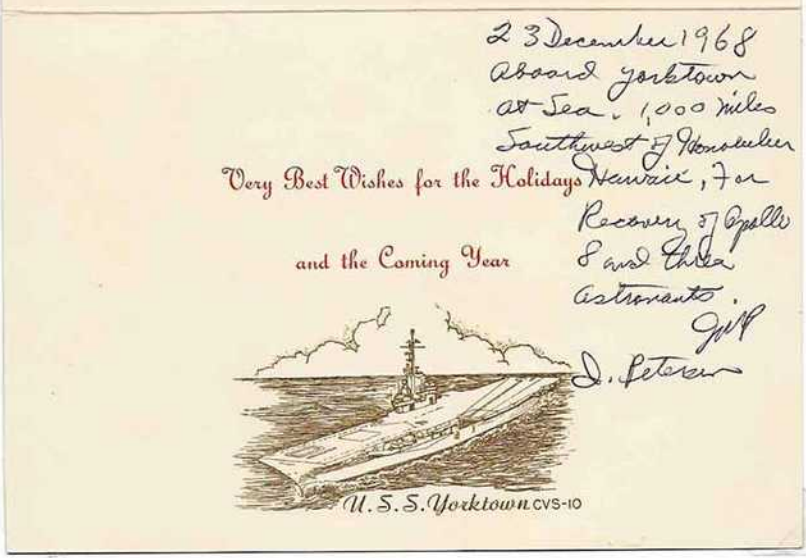


7.0.2 Apollo 8 1st Manned Flight to the Moon

Apollo 8: Just as in Jules Verne's "*From the Earth to the Moon*", the Apollo 8 three-man crew were recovered in the Pacific Ocean by a US Navy warship. Hand Cancels are infrequently found for this mission.

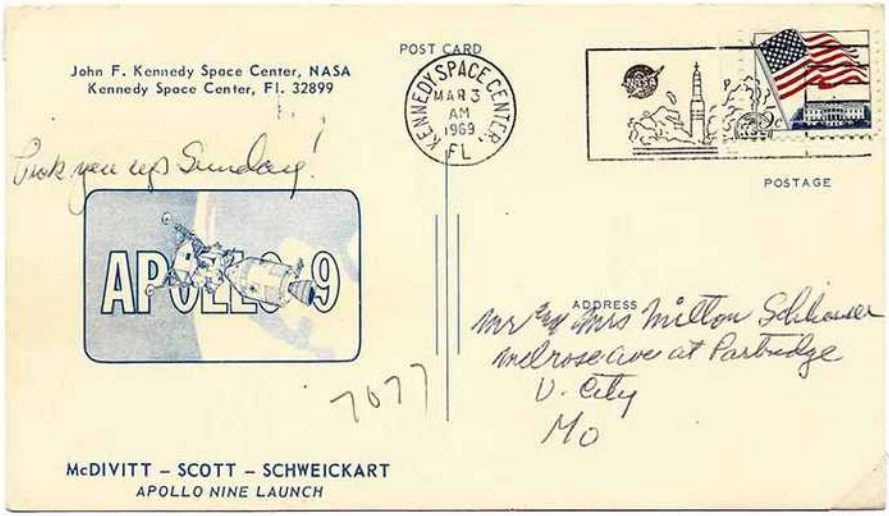






Prime Recovey Ship Machine Cancel on sailor's Christmas Card relating information on the ricovery.

7.0.3 Apollo 9 Earth Orbit



APOLLO 9 NASA VIP Card for the launch. Interesting message on reverse states that the senders were there for a Friday postponed launch and what they did until the Monday, March 3rd, launch from which they were sending this card. Because VIP attendees were not philatelists (with rare exceptions) few of these cards which were mailed from the site are found today. The 5c stamp covered the postcard rate.



AU: Jim Mc Divitt
Rusty Schweikert

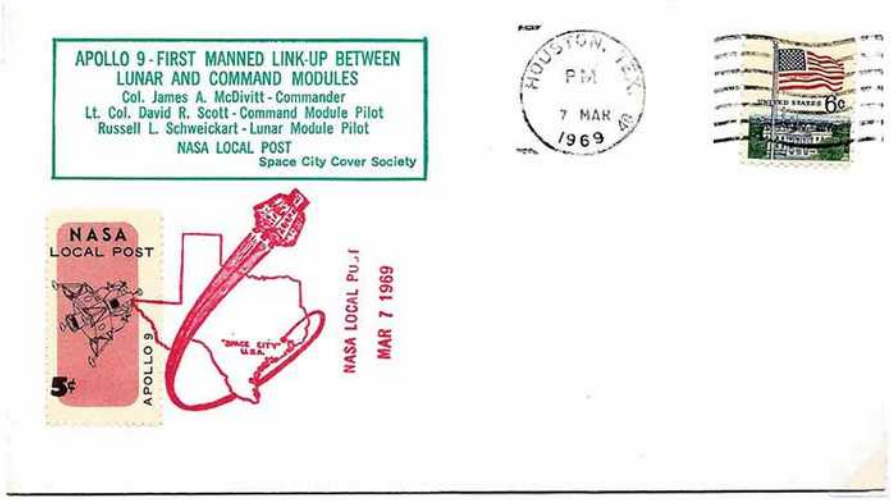
APOLLO 9. Astronauts practiced the steps necessary to test the separation, extraction and docking between the Command Module and the LEM. KSC Official cachet which is one of 15,870 to which it was stamped.

7.0.3 Apollo 9 Earth Orbit



AU: Dave Scott
Jim McDivitt
Rusty Schweikert

Launch cover from KSC with the mission patch as the cachet. The Gemini "Twins" stamps paid the airmail rate.

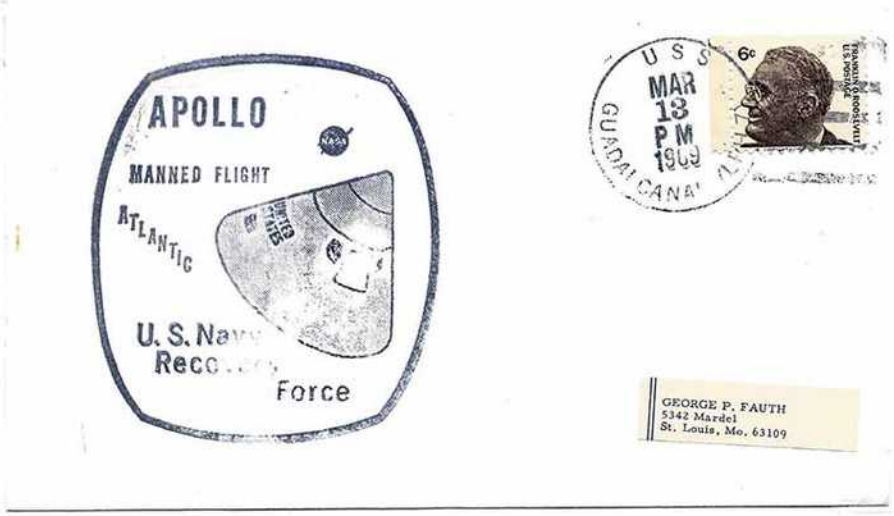


A NASA Local Post (LoPo) created by the Space City Cover Society on the date that the Command Module and Lunar Excursion Module linked-up in Earth orbit. The LoPo is tied to the cover with a privately made cancel. Houston was in communication with the astronauts on this date.

7.0.3 Apollo 9 Earth Orbit

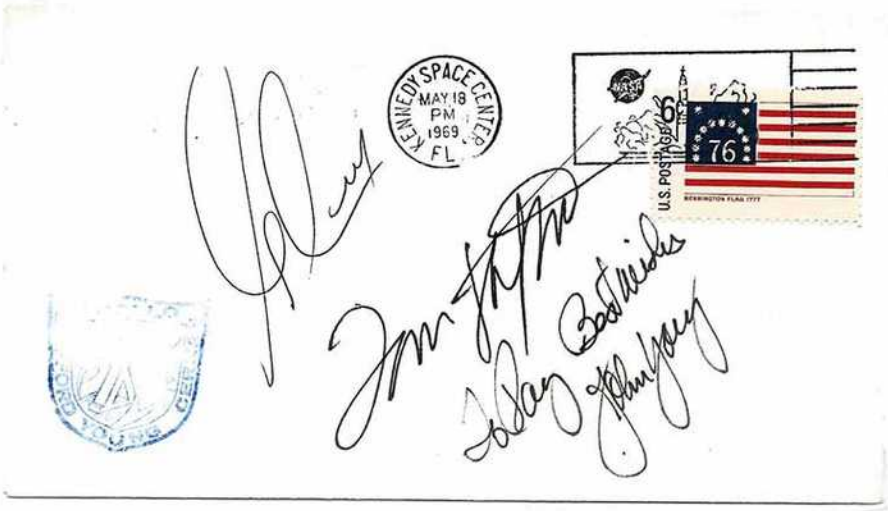


APOLLO 9 Primary Recovery Ship (PRS) with the Navy Rubber Stamp Cachet for this mission. The Type 1 cancel has the words, "USS Guadalcanal" at the top of the die hub.



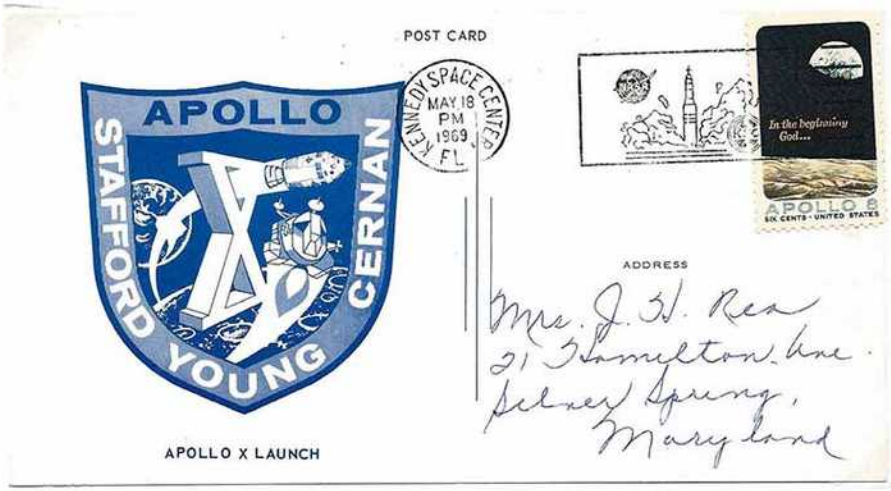
So many people were now sending their own covers to the ships for obtaining the splash down landing dated postmark, that the postal clerk sought help in applying the Navy Rubber Stamp Cachets. (NRSC) There was an Apollo 7 NRSC device on board and the "7" was cut out of the rubber stamp, allowing someone to use that to cachet the overflow. The Type 2 postmark was used and this cover has the words "USS Guadalcanal" at the bottom of the die hub

7.0.4 Apollo Moon Orbit



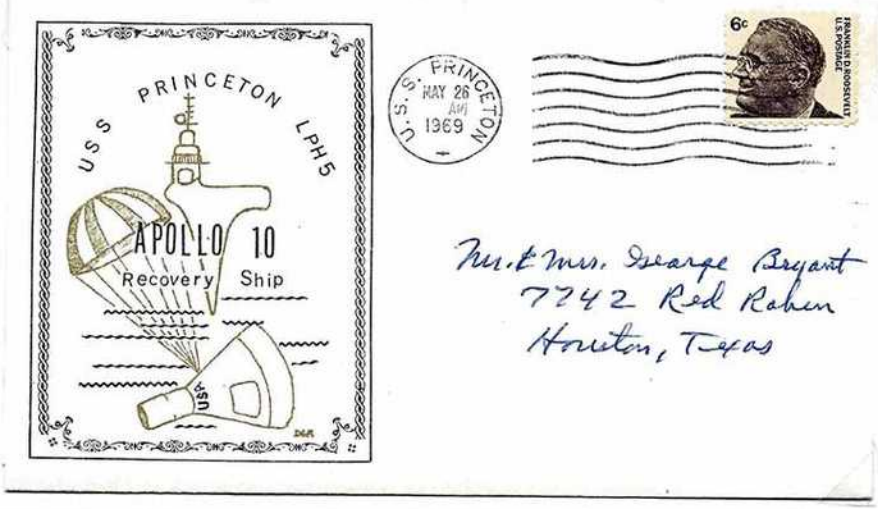
AU Gene Cernan
Tom Stafford
John Young

APOLLO 10 KSC Official for the launch from KSC and the 2nd manned lunar mission. This was a final dress rehearsal for the Apollo moon landing.

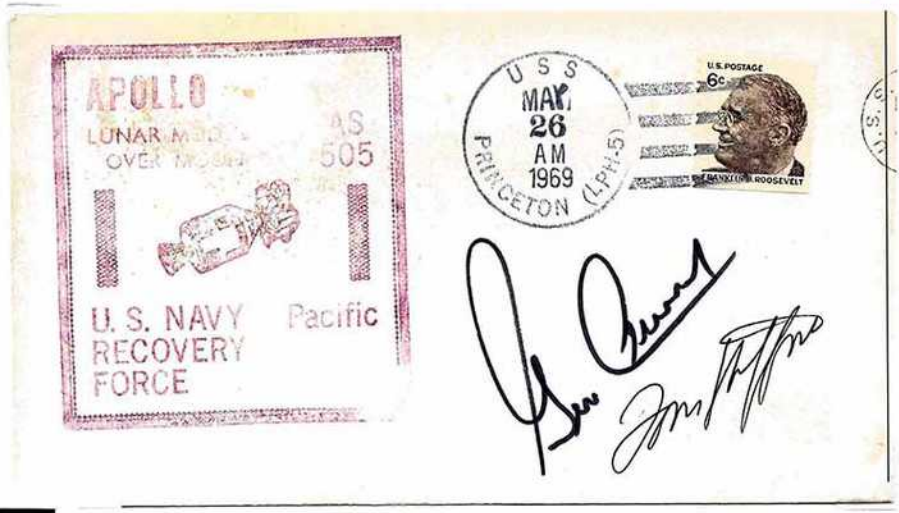


Apollo 10 VIP card sent from the VIP site which sold stamps and had a mailbag and souvenirs.

7.0.4 Apollo 10 Moon Orbit



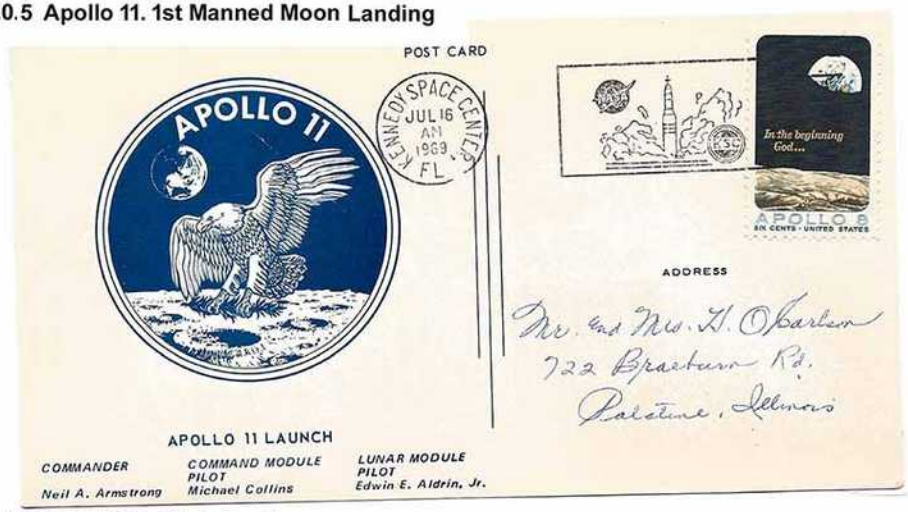
APOLLO 10 Captain's cover and one of the more difficult to locate. Craft was placed in a long elliptical orbit, passing moon at just 8.4 miles. Fastest speed of a manned vehicle at 24,791 mph on May 26, 1969. Recovery by USS Princeton. All cancels were supposed to have been by machine.



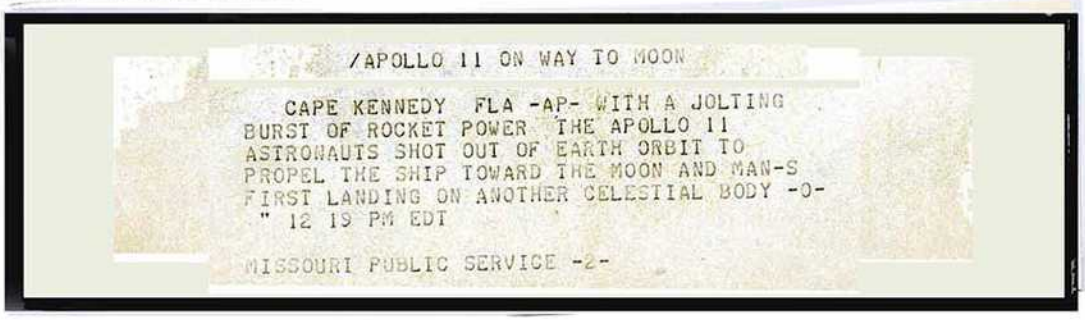
AU: Gene Cernan
Tom Stafford

However, in this case the Machine Cancel only clipped the right edge of this cover and a postal clerk on board the Princeton caught that, applying a Hand Cancel. Only this and one other like it with a Hand Cancel have been reported in the Astrophile or other related journals or articles.

7.0.5 Apollo 11. 1st Manned Moon Landing



APOLLO 11 VIP Card for the launch.



/APOLLO 11 ON WAY TO MOON

CAPE KENNEDY FLA -AP- WITH A JOLTING BURST OF ROCKET POWER THE APOLLO 11 ASTRONAUTS SHOT OUT OF EARTH ORBIT TO PROPEL THE SHIP TOWARD THE MOON AND MAN-S FIRST LANDING ON ANOTHER CELESTIAL BODY -0-
" 12 19 PM EDT

MISSOURI PUBLIC SERVICE -2-

Dow Jones printout notifying users of the successful launch of Apollo 11.







AU: Gene Krantz
A-11 Flight Director

Apollo 11 KSC
Official for the launch

7.0.5 Apollo 11. 1st Manned Moon Landing

CONTRACTOR COVER.
Created by Bendix Corp. to publicize their work in getting men to the moon. Sent to VIPs and others to pass on their pride.

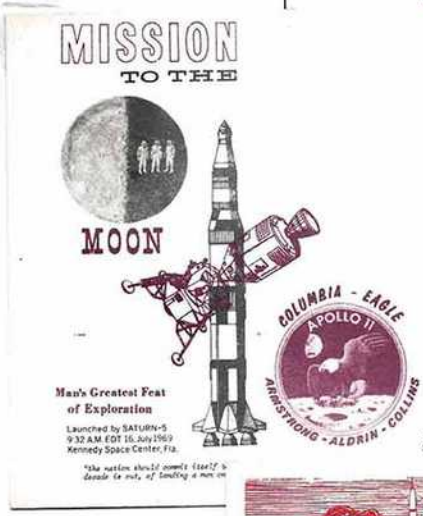
(Several contactors created similar covers.)







Mr. Charles E. Rowett
Vice President & Group Manager
Navigation & Control Division
Teterboro, New Jersey 07608

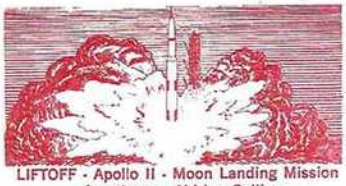






Cape Canaveral (CC) provided launch abort, radar & weather tracking, kept watercraft & aircraft from restricted areas & sent ARIA (Advanced Range Integration Aircraft) out for launch abort & tracking. FIP & the MOJ had originally held CC covers to be invalid, but this collector brought these facts to light, thus changing that rule.

BOX 2295, HUNTINGTON, W. VA. 25724

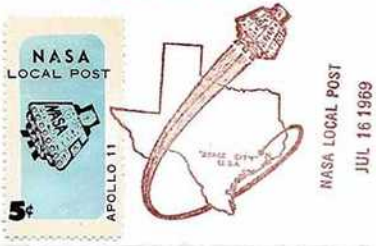






Once rockets cleared the launch tower, control of the missions were handed to the Johnson Space Ctr. in Houston.

(Local Post stamp & cancel by the Space City Cover Society)



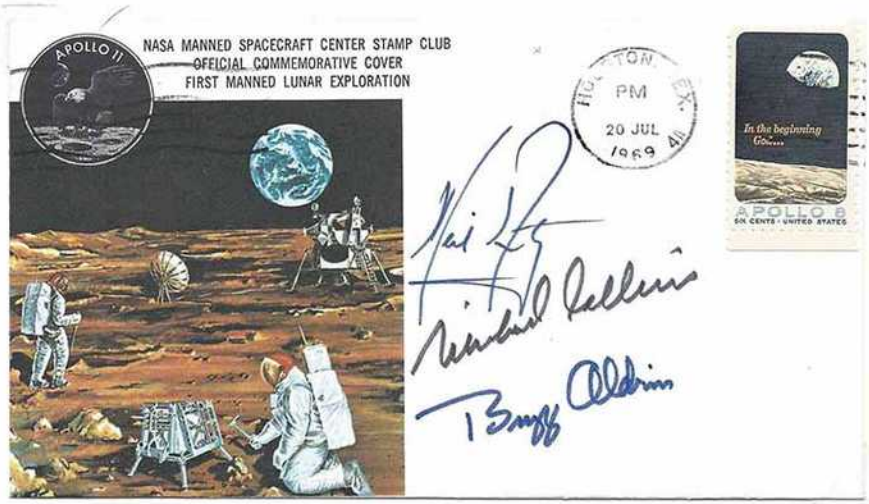
7.0.5 Apollo 11. 1st Manned Moon Landing



The "Deep Space Tracking Network" (DSN) consisted of five deep-space communication station locations. These were: Goldstone in Barstow, California; Canberra in Canberra, Australia; Island Lagoon Station in Woomera, Australia; Parkes Radio Telescope in Australia; and Madrid, Spain. Three of those location covers are shown above. These stations were responsible for all communications between the Earth and the astronauts in orbit and on the moon.

FIRST MANNED LANDING ON THE MOON

"Houston, Tranquility Base here. The Eagle has landed
Astronaut Buzz Aldrin 20 July 1969



AU: Neil Armstrong, Mike Collins, Buzz Aldrin

Houston, Texas "Insurance Cover"

NASA furnished the lunar astronauts both food and lodging. They also added "hazardous duty pay". Until April 2017 astrophilatelists all believed that NASA did not offer supplemental insurance and were told that the astronauts could not afford to pay the insurance rates quoted. However, an engineer who worked for North American Rockwell, aware of this collector's interest, recently sent an e-mail copy a check for $5,000, ostensibly from NASA for insurance from the Traveler's Life Insurance Company in payment of a short term life insurance policy for the Apollo 11 crew.

A NASA engineer had been advised that the Apollo 11 crew did not have a life insurance policy for this mission and printed 1,500 of the above envelopes (3 boxes), giving one box to each of the three astronauts before they went into preflight quarantine. He advised them that if they each signed all 1,500 envelopes he would have them cancelled on the moon landing date and would give a box to each of their wives to sell in the event of a disaster. He estimated that this could help put their children through college. This cover came from the box given to Michael Collins' wife.

7.0.5 Apollo 11. 1st Manned Moon Landing

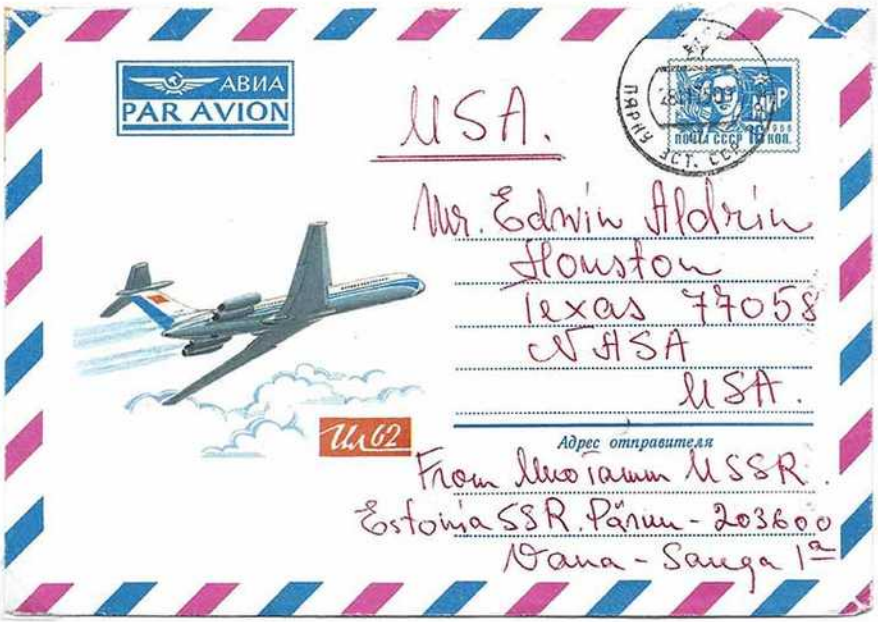




FAKE Cancel

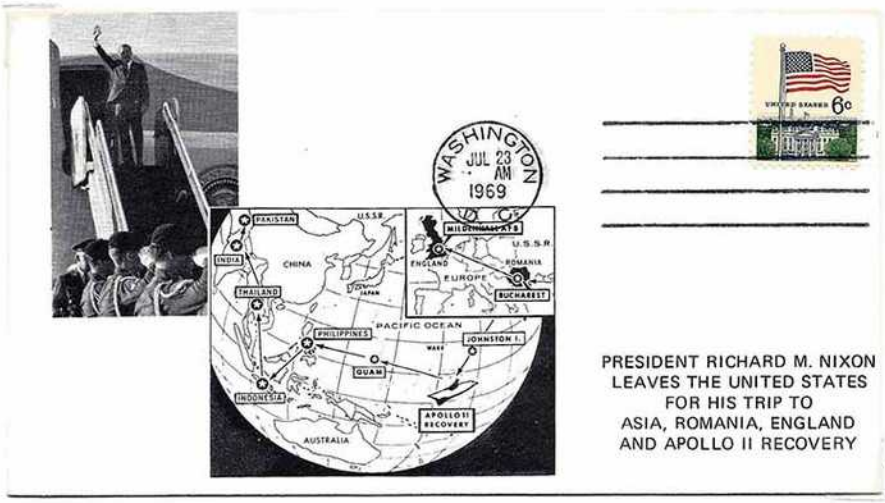
Discovered by this collector. 33 mm die hub forced "Cape Canaveral,FL" to make a tight arc with the 1st "C" & last "L" opposing "1969". **The real 35mm cancel (insert) has "C" & "L" higher.**





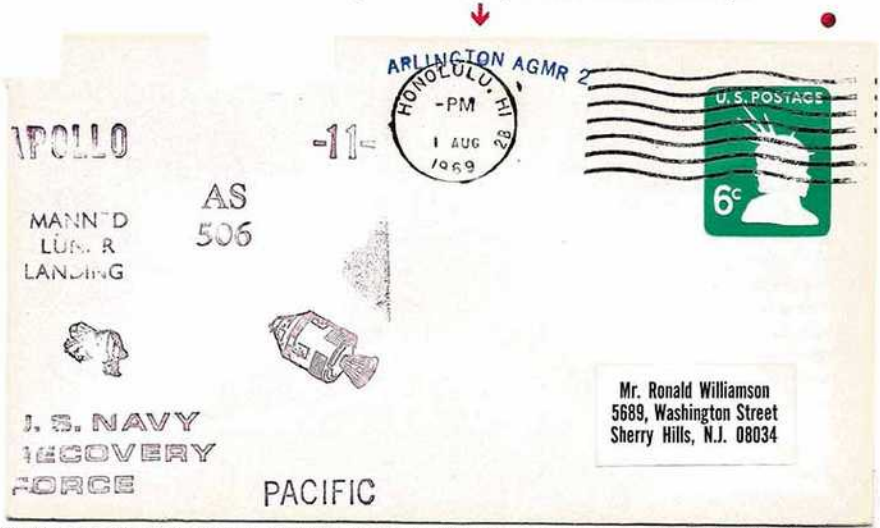
Envelope was sent from a former Soviet Union address, seeking an autograph from Buzz Aldrin.

7.0.5 Apollo 11. 1st Manned Moon Landing



This was the only Apollo mission for which a US President was on board the Primary Recovery Ship to greet the space travelers. President Nixon tied his appearance there with a visit to the People's Republic of China. He flew in Air Force One to Hickam AFB, Hawaii. From there he flew 635 miles to Johnston Island atoll where he and his entourage took two helicopters to the **USS Arlington.** He stayed in the Captain's quarters overnight as the ship sailed toward the USS Hornet. After breakfast he flew the balance of the remaining distance to the USS Hornet in those helicopters.

The USS Arlington was NOT a secondary recovery ship. ONLY A HANDFUL WERE CREATED as its mission was classified. Practically no collectors requested covers from this ship.



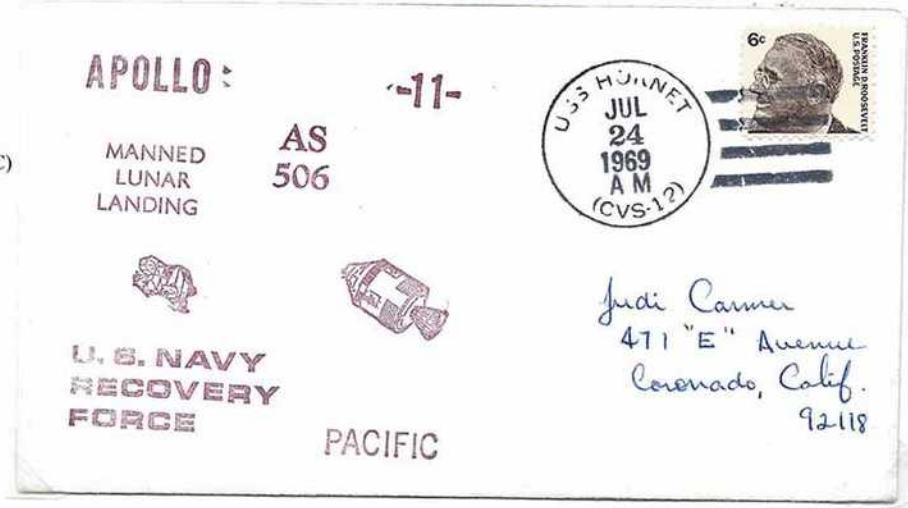
Covers from the **USS Arlington** are <u>very</u> difficult to locate. The above cover was cancelled at Pearl Harbor upon the Arlington's return to port there. **Above the postmark are the blue letters, "Arlington AGMR 2" (See Red Arrow).**

7.0.5 Apollo 11. 1st Manned Moon Landing

Upon splashdown, the Primary Recovery Ship takes over control of the mission from Houston.



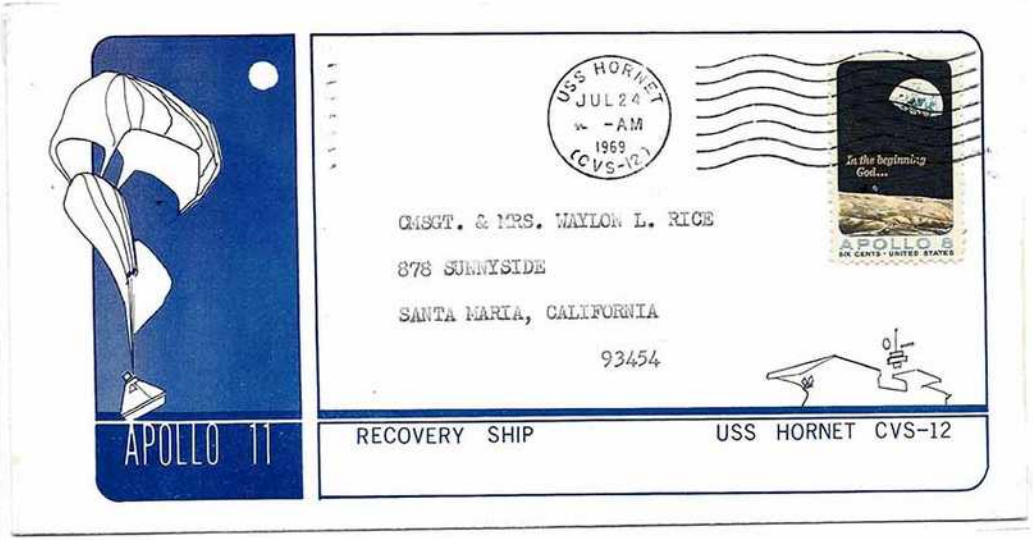
Lettter sent by a member of the band bearing the Type III Hand Cancel (HC) which is the lesser seen of the three HCs used.



7.0.5 Apollo 11. 1st Manned Moon Landing



Apollo 11 Recovery – Primary Recovery Ship – USS Hornet. This Beck cacheted cover bears the most common 21mm hub diameter Machine Cancel. The wavy "killer" lines are close together and start 18mm from the postmark hub. *(This collector assigned Type numbers to the three USS Hornet postmarks in his 1992 work, "Primary Recovery Ship Cover Handbook".*

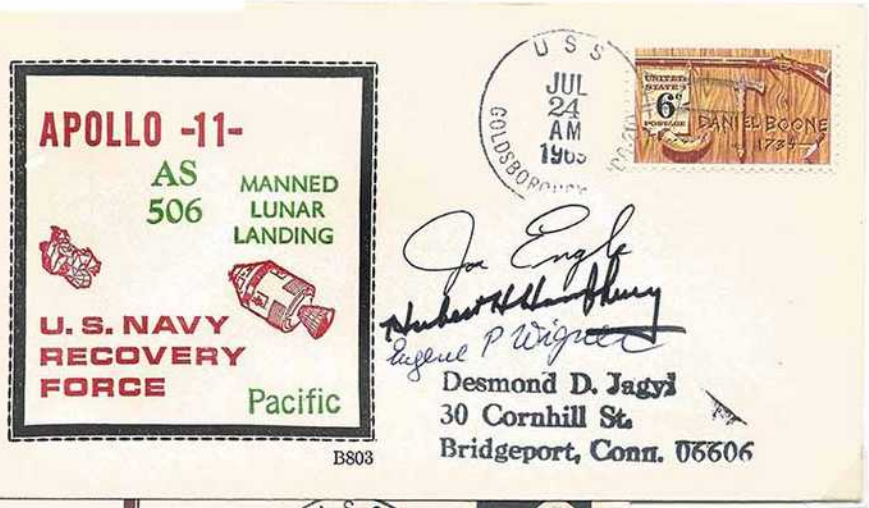


USS Hornet "Captain's Cover". Strong demand for this cover has made it difficult to locate. This bears the Type II machine cancel with a 23mm hub and the wavy "killer" lines start only 5mm from the edge of the postmark hub. All three Types with a few variants of the hand cancels were used on the tens of thousands of covers processed for this recovery

7.0.5 Apollo 11. 1st Manned Moon Landing

Secondary (*or Back up*) Recovery Ships (SRS) covers. 3 of the 4 SRS covers for Apollo 11are shown here. The USS New is very common & would crowd this page. *Beck #B803 for the USS Goldsborough.*

AU: Astronaut Joe Engle
VP Hubert Humphrey
Physics Nobel Prize Winner, Gene Wigner



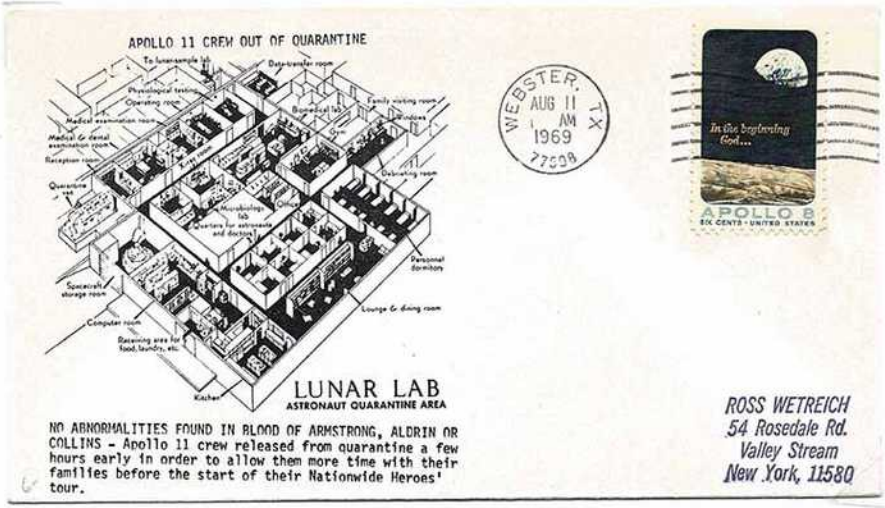


The USS Ozark on an Unnumbered Beck cachet. *(Only 25 exist.)*



Captain's Cover from the USS Salinan. It did not have an onboard post office and the cover was cancelled upon the retrun to port at Jacksonville,FL after the safe recovery of the Apollo 11 crew in the Pacific.

7.0.5 Apollo 11. 1st Manned Moon Landing



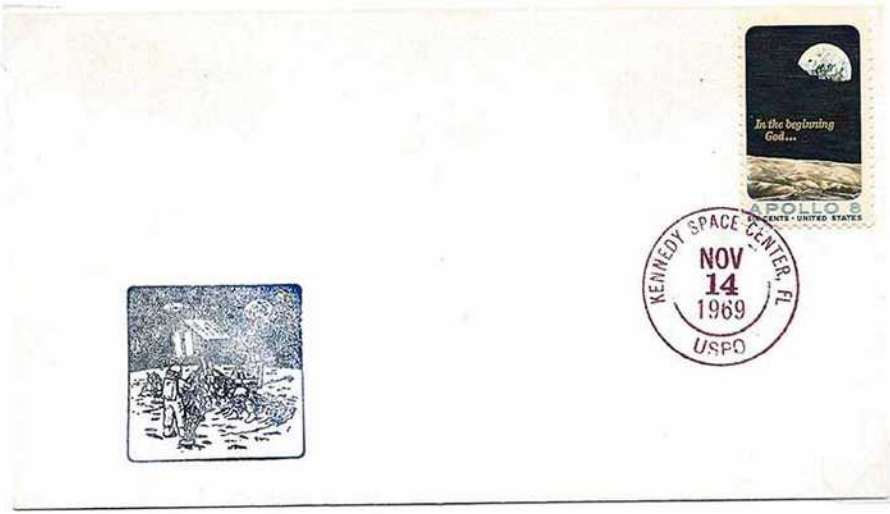
On August 11, 1969 the Apollo 11 crew were released from quarantine. Concerns about the crew being exposed to some form of germs were dismissed after a series of tests. Only the crews of Apollo 11, 12 and 14 were subject to post-flight quarantine.



AU: Preston Clark - NASA scientific analyst

One of the major searches on the moon was a search for some type of bacterial or other life, or evidence that some forms of life once existed. Preston Clark was a scientific analyst at NASA and after reviewing the lunar material that was returned from the moon he was interviewed responding that there was a "Negative result on living or once-living structures on the moon". At the time that was an important result of the Apollo 11 moon rocks investigation.

7.0.6 Apollo 12 2nd Manned Moon Landing



Early Apollo 12 KSC Official strike applied at the Orlando, Florida Post Office, of which the KSC Post Office is a branch. Only badged personnel can use the KSC Post Office. This has a "Counter Cancel". KSC Official is not crisp.



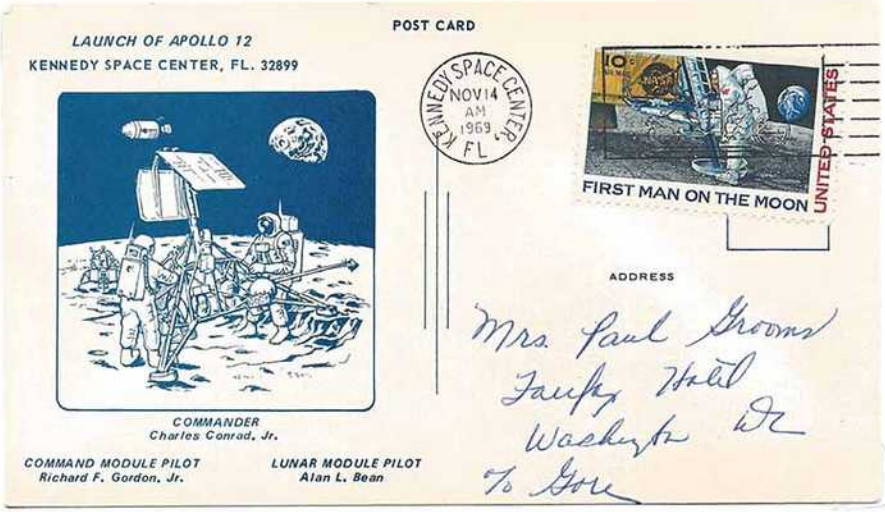
KSC Officials became illegible and usage of them stopped after 3,920 were applied: the fewest of any KSC Official Cachet. The meter cancel shows a dark NASA "meatball". These were later named "Closed Globe" cancels which started with the 1st Saturn I launch.

7.0.6 Apollo 12 2nd Manned Moon Landing



AU: Charles Conrad; Dick Gordon & Alan Bean

Apollo 12 "Wings" Insurance cover, signed in pre-flight quarrantine to be used to put the astronaut's children through college in the event of a fatal incident during the mission. The "Wings" on the cover represent the U.S. Navy as all three astronauts had served in the Navy.



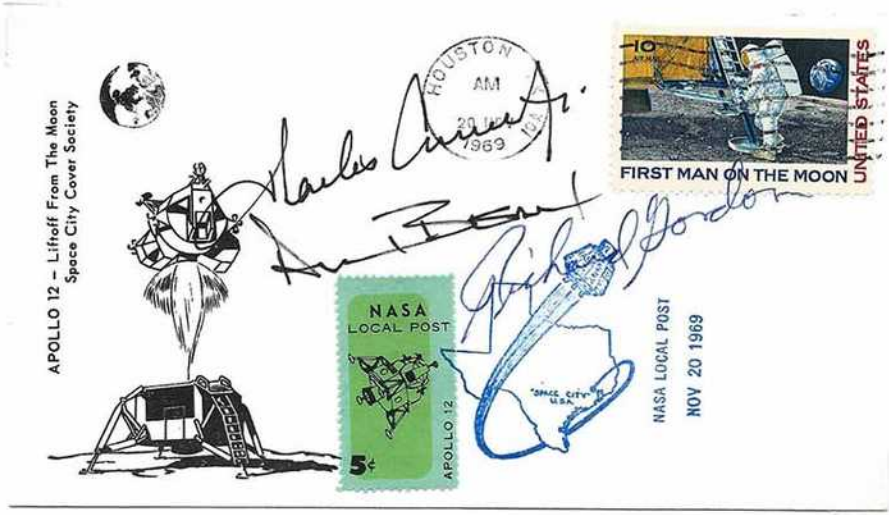
This NASA VIP Card may have been sent to the attention of then Senator Albert Gore of Tennessee, the father of VP Al Gore (*1993-2001)* at the Fairfax hotel on Embassy Row where he lived with his wife and son for many years. Gore would have been asked to give this to Mrs. Grooms.

7.0.6 Apollo 12 2nd Manned Moon Landing



AU: Alan Bean
Dick Gordon
Charles Conrad

Manned Spaceflight Cover Society postmarked for the date on which the Apollo 12 crew landed on the moon.



AU: Conrad
Gordon
Bean

Apollo 12 launch from the lunar surface. Created by the Space City Cover Society along with the NASA Local Post label. Most collectors forgot to obtain signed covers for lunar launches making it very difficult to locate any almost 50 years later.

7.0.6 Apollo 12 2nd Manned Moon Landing



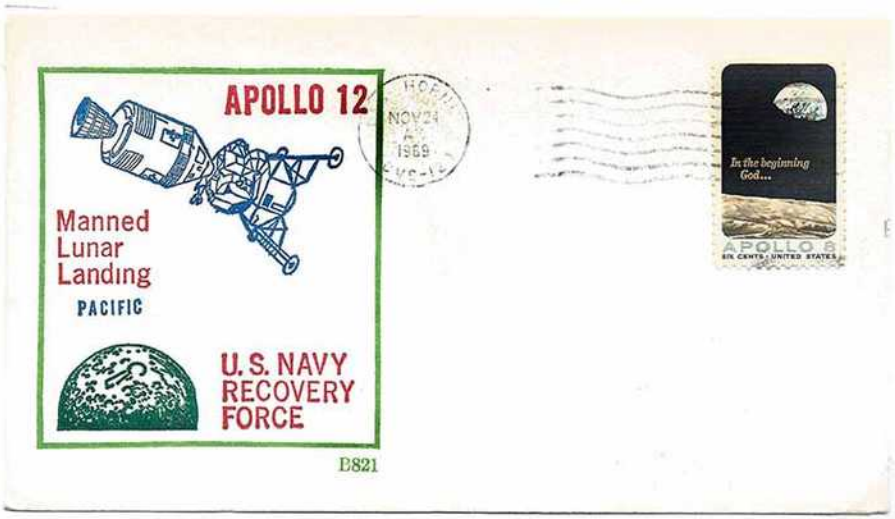




Rocco A Petrone
APOLLO Program Director
NASA

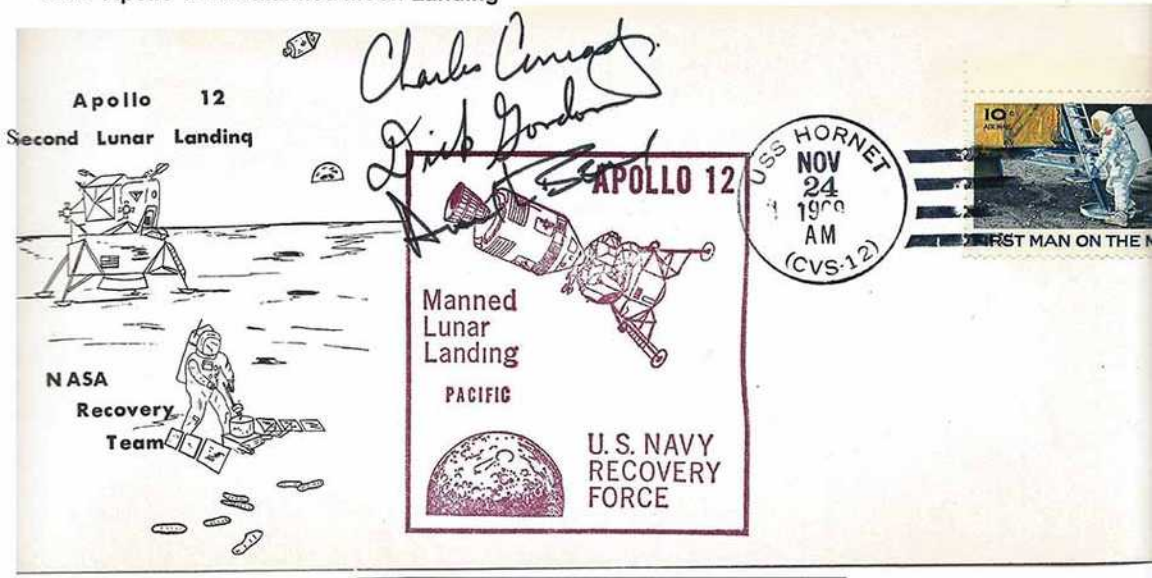
AU: Rocco Petrone - Apollo Program Director

Apollo 12 Splashdown – Houston, TX cancel where mission control resided until splashdown when it transferred to the US Navy.



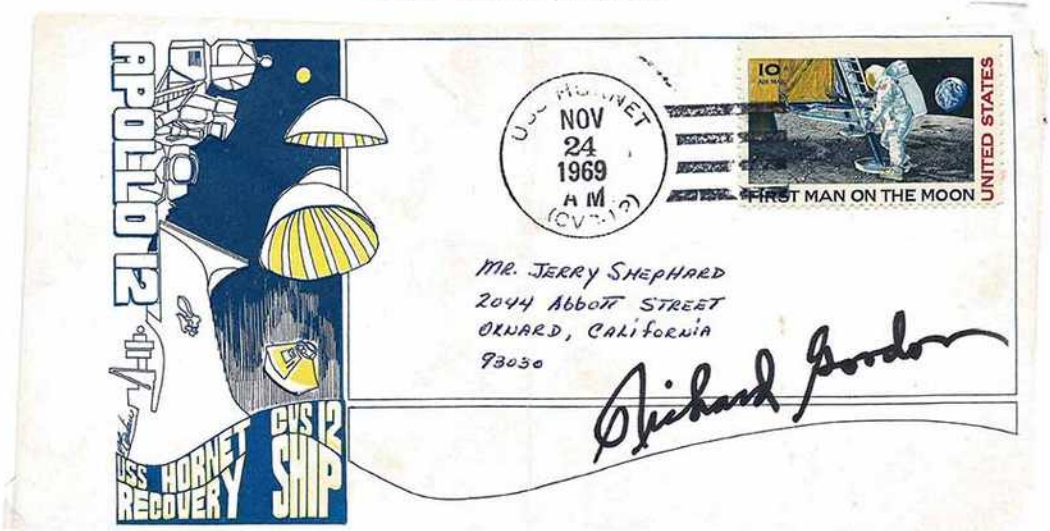
A Beck cachet for the recovery bearing the only machine cancel still aboard the USS Hornet.

7.0.6 Apollo 12 2nd Manned Moon Landing



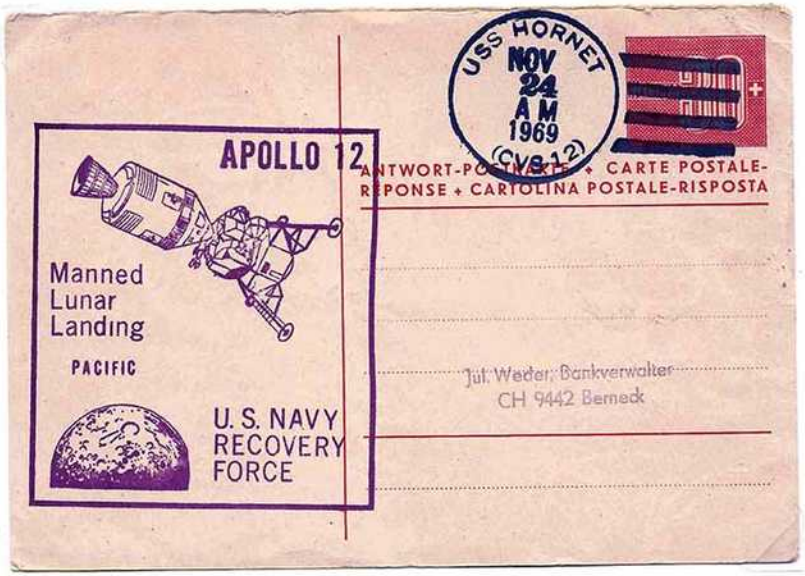
AU: Charles Conrad, Richard Gordon, Alan Bean

Apollo 12 Splashdown – Houston USS Hornet – NASA RECOVERY TEAM COVER – Hand Cancelled.
In addition to a Captain's Cover, below, this Navy Recovery Team Cover was printed aboard the USS Hornet. The quantity made is unknown but it was very, very small.



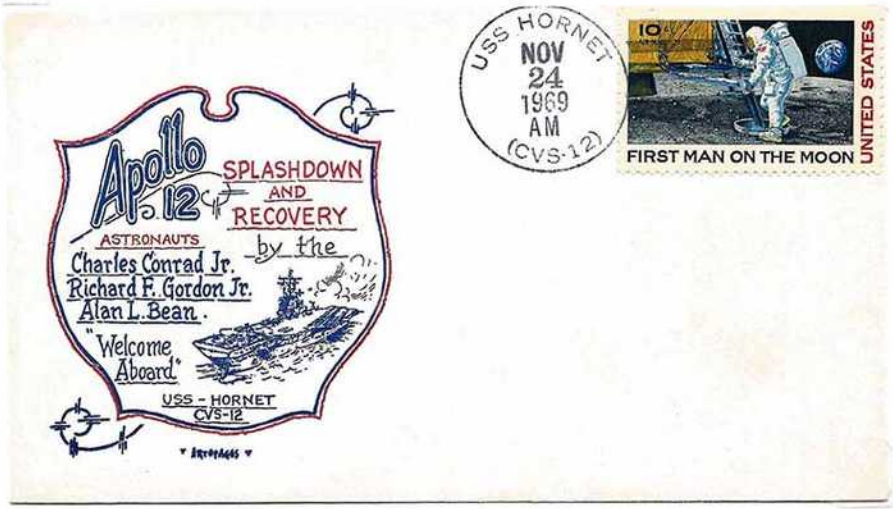
Captain's Cover from the USS Hornet for Apollo 12. While Captain's covers are not available for all missions (es. Apollo 13) they are the most desirable of Primary Recovery Ship covers and very few were created. *(If you tilt your head to look at the left side of this cachet you will see two astronauts on the moon along with the Lunar Excursion Module [LEM])*

7.0.6 Apollo 12 2nd Manned Moon Landing



RIGHT ⇨
Inappropriate use of a foreign domestic reply postal card.

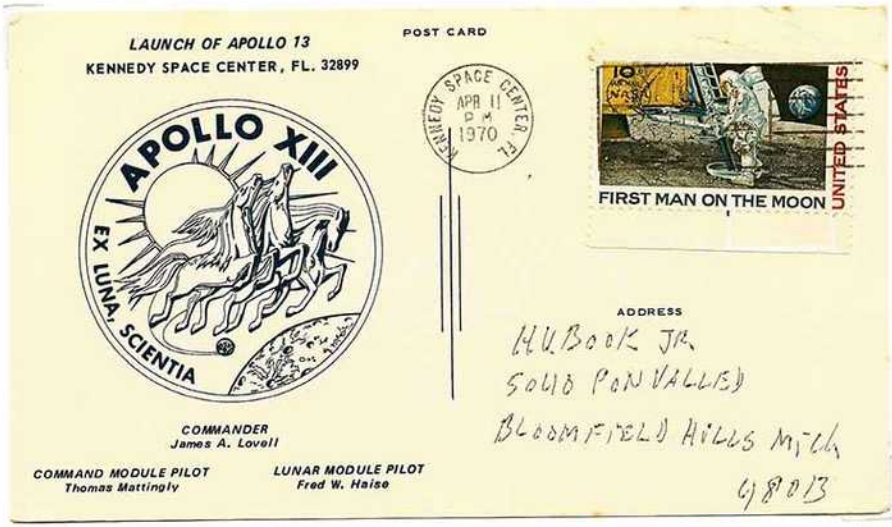
Apollo 12 Splashdown – UPU Article 16 (2) states, ***"Cancels applied in international waters should bear the stamp of the flag vessel."*** Since no sender's name is shown, this domestic reply card should have been destroyed. *(Note this postmark shows "AM" between the "24" and the "1969", and that the postmark below differs with the "AM" below the "1969".*



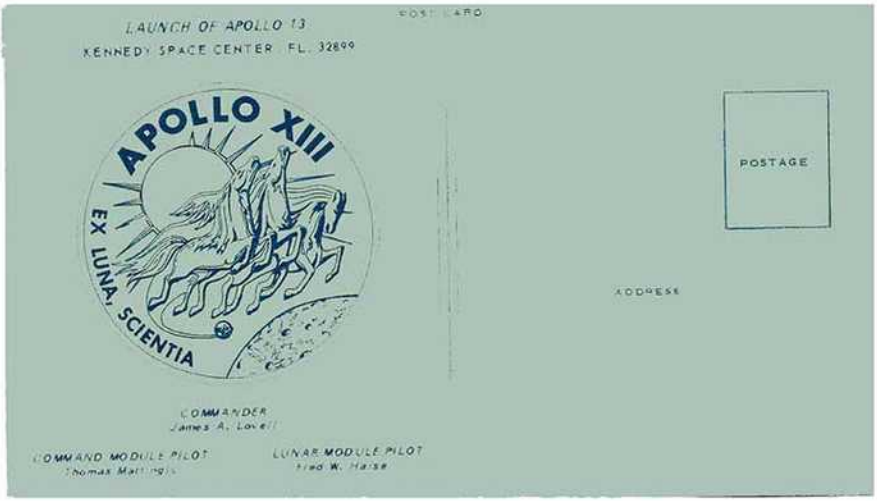
The words **"Welcome Aboard"** in this cachet led this collector to believe that this was a "Crew Cachet", which it turned out to be. Covers bought by a lower ranked officer were sold only to crewmen.

(Another similar cover was created for Apollo 13).

7.0.7 Apollo 13 Moon Landing Aborted



NASA VIP Card, cancelled at the Visitor Information with the "Open Globe" cancel, described in this frame on the 2nd page.
Tom Mattingly later flew on the Apollo 16 mission after being replaced here by Jack Swigert.

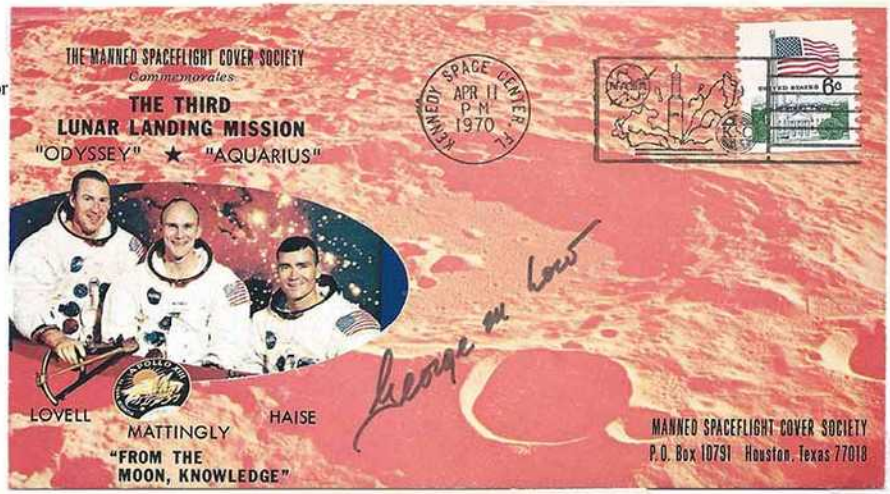


Apollo 13 VIP Card "Printer's Waste". A printer will insert a color sheet between reams of paper to be able to easily check the number of reams printed as the edge of the paper or cardstock is clearly visible from the side of a large stack of paper. This is this collector's opinion of this unusual piece

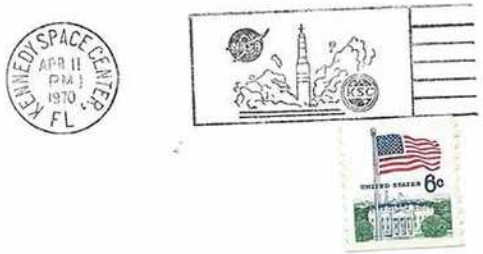
7.0.7 Apollo 13 Moon Landing Aborted

KSC "Open Globe Cancel was used only at the Visitor Information Center (VIC) starting with Apollo 12.

Cachet shows Ken Mattingly who was replaced after being exposed to measles just before the flight.



AU: George Low
NASA Deputy Dir.



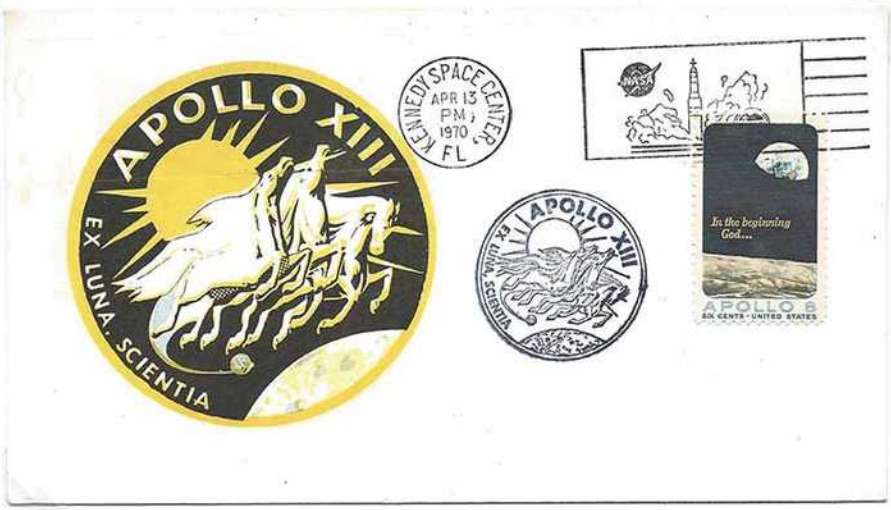
Launch dated KSC Official cachet.

"Closed Globe Cancel" from KSC Post Office.



KSC Official cachets were t0 be used only on launch dates. This was applied on the date of the oxygen tank explosion that crippled the mission.

(Called a "Favored cachet)



7.0.7 Apollo 13 Moon Landing Aborted

NASA MANNED SPACECRAFT CENTER STAMP CLUB



OFFICIAL COMMEM

HOUSTON, TEX. APR 14 AM 1970

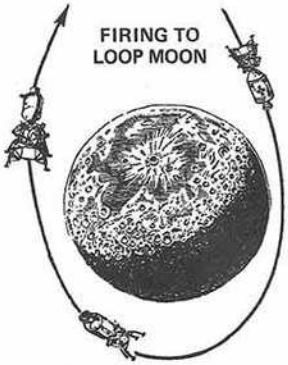


MOON LANDING MISSION ABORTED 4 - 14 - 70
LM ENGINE FIRED 2:43 A. M. HOUSTON TIME
FOR EMERGENCY RETURN FLIGHT TRAJECTORY

7.7 Apollo 13 – Explosion In Space

Apollo 13 – April 14. Moon landing aborted. Power and life support are now limited. The fastest way to bring the crew home is to continue to the moon, then swing around it, picking up speed and racing back to Earth. Astronauts in Houston & at the Cape simulated ways to save the A13 crew.

Apollo 13 Mission Director, Gene Krantz, mobilizes experts to work on bringing the crew home alive with his admonition: "Failure is not an option!" Since the LEM is linked to the CM one man is told to move to the LEM. Lights are doused and the temperatures are reduced to the 30's to conserve electricity.



CAPE CANAVERAL, FL APR 14 PM 1970 32920



Failure is not an option!

CREW OF CRIPPLED APOLLO 13 STARTS BACK AFTER ROUNDING MOON AND FIRING ROCKET; MEN APPEAR CALM DESPITE LOW RESERVES

C. SARZIN

AU: Gene Krantz - Apollo 13 Mission Director

SPACE CENTER HOUSTON -UPI- THE THREE ASTRONAUTS BEGAN DRAWING BREATHING OXYGEN AND ELECTRICAL POWER FROM THEIR LUNAR LANDER THREE HOURS AFTER THE SERVICE MODULE RUPTURED - THE COMMAND SHIP-S OXYGEN TANKS WERE DRAINED 15 MINUTES AFTER THE CREWMEN HAD SWITCHED TO THE LUNAR MODULE

THE PILOTS STILL HAD TO CONSERVE THEIR OXYGEN - AT 7 A M EST THE LUNAR MODULE HAD 50 6-10 POUNDS LEFT - THIS WAS ENOUGH FOR AT LEAST SIX DAYS IN SPACE - - TWO MORE THAN THEY WILL NEED

HAISE WAS IN THE COMMAND MODULE LOVELL AND SWIGERT IN THE LM

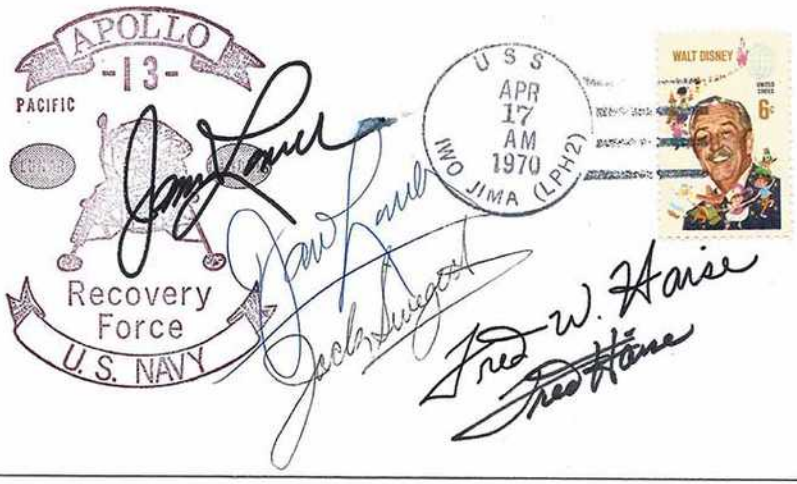
WEATHERMEN SAID CONDITIONS WOULD BE SATISFACTORY IN THE PACIFIC RECOVERY AREA WITH GENTLE SEAS AND MODERATE WINDS - THE PRIME RECOVERY CARRIER IWO JIMA EXPECTED TO REACH THE AREA WITH TIME TO SPARE -0-
" 9 09 A M EST

LONDON METAL MARKETS

IN POUNDS STERLING PER METRIC TON
OPEN PREV CLOSE

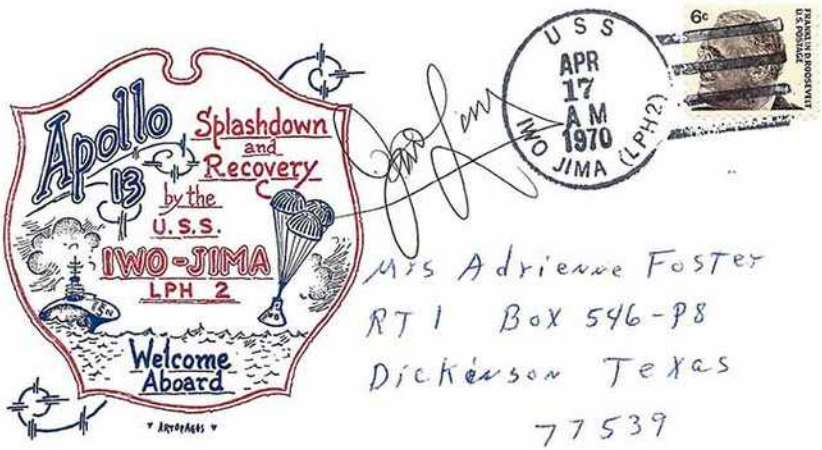
Original Dow Jones teletype: 4/14/70

7.0.7 Apollo 13 Moon Landing Aborted



1st & 4th Signatures are Autopens (AP) 2nd, 3rd & 5th are Jim Lovell, Jack Swigert & Fred Haise

Apollo 13 Recovery by the USS Iwo Jima with Type I postmark having the ship's name at the bottom of the hub as first characterized by this exhibitor in his 1992, *"Primary Recovery Ship Covers* Handbook".



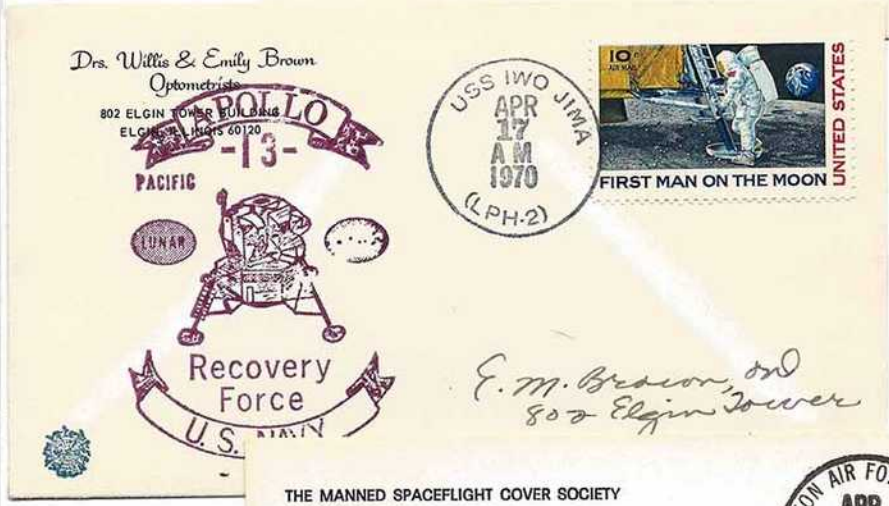
AU:: Lovell

A "Welcome Aboard" crew cover as seen on page 6 of this frame for Apollo 12. The covers were purchased by a lower ranked officer aboard the ship and sold to crew members. The handwriting on this envelope gives credence to it having been sent by a crew member even though there is no return address on the back of the cover. This bears another Type 1 hand cancel.

7.0.7 Apollo 13 Moon Landing Aborted

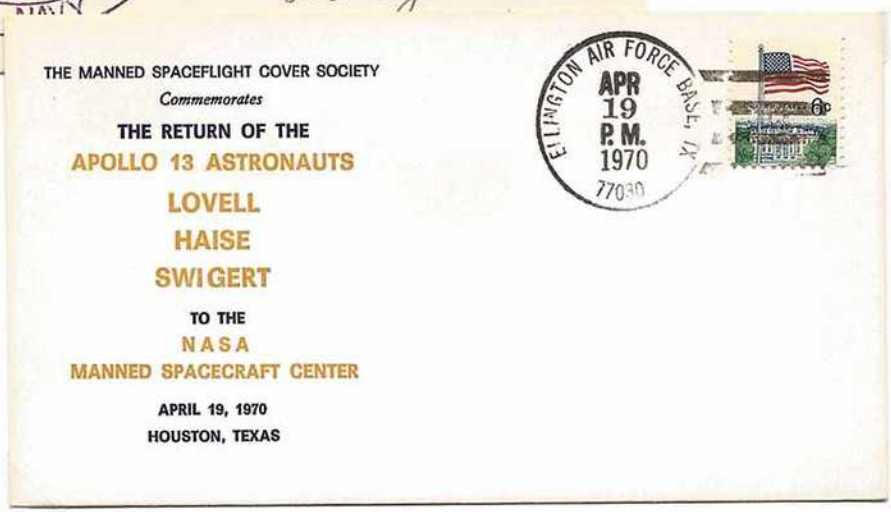


Primary Recovery Ship USS Iwo Jima with Type II postmark having the ship's name at the top of the hub.



FAKE

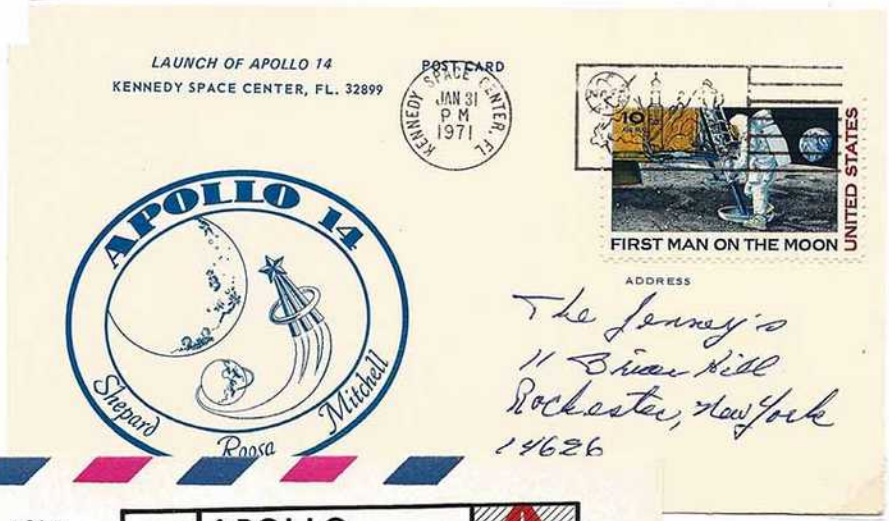
No Killer Bars faked cancels appear only on covers with this corner card. Ist identified by this collector. Also, the ink is grey, not black.



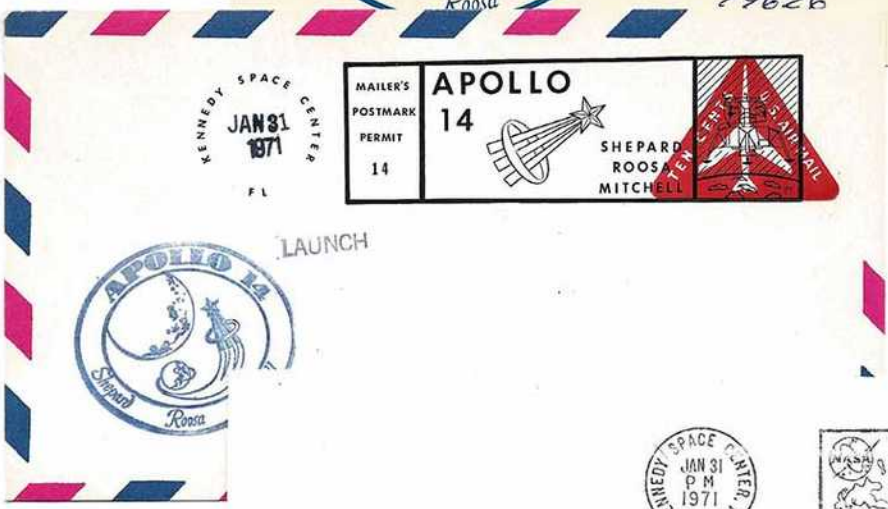
Astronauts were not actually on the moon & did not have to be quarantined upon return Texas.

7.0.8 Apollo 14 3rd Manned Moon Landing

Launch Dated VIP Card.



KSC Mailer's permit on postal stationery with the large KSC Official cachet (*Type 1*) of 4.2 cm wide. This flight marked Alan Shepard's return to space.

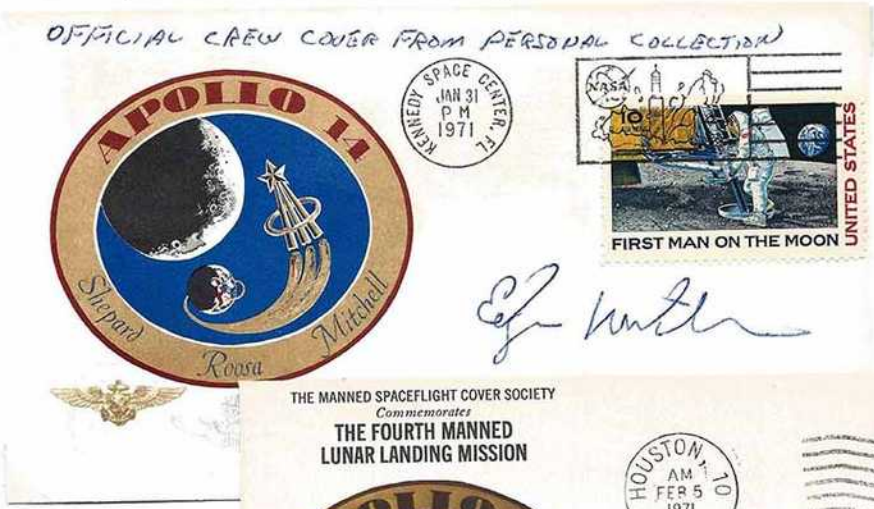




Small , Type II KSC Official rubber stamp cachet 3.8 cm wide.



7.0.8 Apollo 14 3rd Manned Moon Landing



Apollo 14 "Wings" Insurance cover from the personal collection of Ed Mitchell one of the two moon walkers. Postmarked on the day of launch.

AU: Edgar Mitchell



Apollo 14 collected rocks in a cart. Just before lunar lift-off Shepard pulled out the cart handle, now a golf club. He hit 2 balls with it, stating that they went "miles & miles". One ball went about 125 yds. while the 2nd went about 200 yards.

AU: Bill Drummond Fabricated Golf Club



Lunar lift-off and docking with the Command Module. It had been in lunar orbit with Roosa.

AU: Edgar Mitchell

7.0.8 Apollo 14 3rd Manned Moon Landing



AU: Edgar Mitchell, Stuart Roosa, Alan Shepard

Apollo 14 Recovery – Primary Recovery Ship USS New Orleans. Only Hand Cancels were applied to covers for this mission. Navy Rubber Stamped Cachet (NRSC) with Air Mail postage.



Same with a Beck numbered cachet and domestic postage paid. Many collectors submitted covers with peelable labels which is why there are so many unaddressed covers today.

7.0.8 Apollo 14 3rd Manned Moon Landing



U.S.S. NEW ORLEANS (LPH-11)
PRIMARY RECOVERY SHIP
APOLLO 14







Maggie Foster
4814-29th St
Dickinson, Texas 77539

AU: Edgar Mitchell

Apollo 14 Captain's Cover for the Apollo 14 recovery. This was listed in the "Astrophile", the journal of the Space Unit of the ATA & APS, as being the most difficult of the Captain's Covers to obtain.

Apollo 14:
Returning to Houston within the Airstream quarantine trailer, the crew landed at nearby Ellington AFB .



7.0.8 Apollo 14 3rd Manned Moon Landing



Apollo 14 crew transferred from the Airstream trailer to a quarantine lab at the Johnson Space Center, about three miles from Ellington AFB where they had landed while in that trailer.

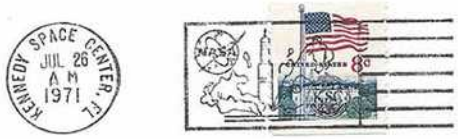


Fourteen days later, the crew was released to return home to their families. This was the third and last time that crews had to endure post-flight quarantine

7.0.9 Apollo 15 4th Manned Moon Landing

Apollo 15 Launch VIP Card cancelled at the visitor's information center at KSC.





KSC Official Cachet for the Apollo 15 mission.



Apollo 15 Lunar Landing date on a Type 2 Insurance Cover.

AU: Dave Scott
Al Worden
Jim Irwin



FLOWN TO THE MOON ON APOLLO 15

Cover traveled 1,274,137 miles. *(Source: Wikipedia)*



AU: Dave Scott
Al Worden
Jim Irwin

APOLLO 15 "Phases of the Moon cover. There were 100 covers with this cachet carried to the moon. An 8c definitive sized stamp was on this cover during its journey. Someone flew 800 of the new "Decades of Achievement" stamps out to the Recovery Ship after the stamps were issued on July 2nd, the date that the crew left the moon for their return to Earth. Astronaut Al Worden applied a pair of these to each of the flown covers which were then cancelled aboard the USS Okinawa.

The Moon, July-August 1971

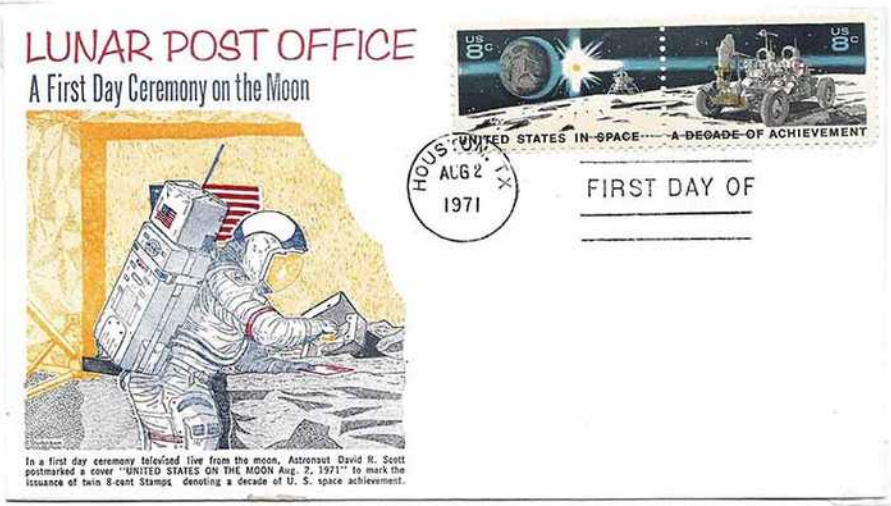
Dear Friend:

We hope this little souvenir of Apollo 15's journey to the Moon will be a welcome addition to your Memoirs. We made it especially for those who have been close to us all during the long period of preparation. Its all we can do short of taking you along . . . and space wouldn't permit that! Instead, we took this letter along and autographed it on the Moon.

Thanks and regards,

David R. Scott, *Commander*
Alfred M. Worden, *Command Module Pilot*
James B. Irwin, *Lunar Module Pilot*

7.0.9 Apollo 15 4th Manned Moon Landing

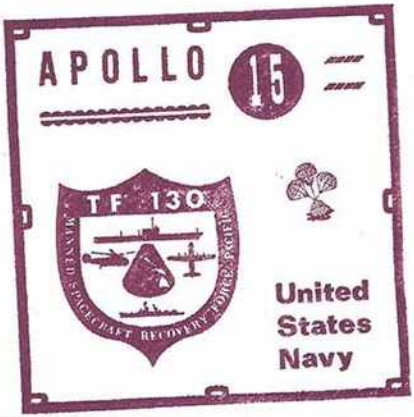


Lunar Launch Day and First Day Cover. Normally FDCs are not supposed to be shown in an astrophilatelic exhibit. The exceptions are if the date and city correspond to a relevant space event on that date. On August 2, 1971 Astronaut David Scott cancelled a proof of these two stamps on the moon's surface before entering the Lunar Excursion Module (LEM) for launching on the return flight to the Earth while communicating with the controllers in Houston, Texas. This is then an "Event Cover". *(An oddity in that the word "Issue on the cancel was applied to another cover that overlapped this one.)*



USS OKINAWA LPH-3
APOLLO 15 RECOVERY SHIP

J. WALTER GREEN
ASSOCIATED PRESS
NASA PHOTO POOL

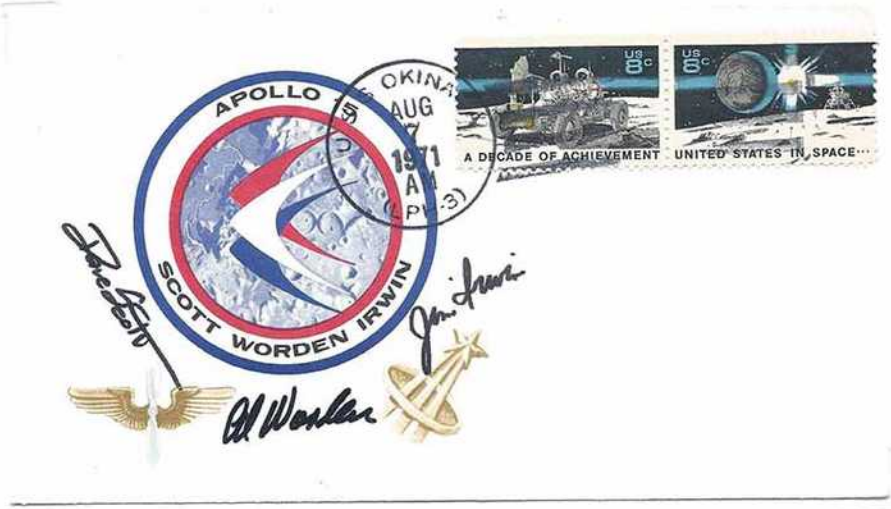




Mr. Charles Schell
48 Ash Street
Braintree, Mass. 02184

Apollo 15 Captain's Cover – PRS USS Okinawa (HC)

"WINGS" INSURANCE COVER, CANCELLED ABOARD THE PRS



AU: Apollo 15 Crew - Dave Scott, Al Worden, Jim Irwin

NO OTHER INSURANCE COVERS CANCELLED ABOARD THE USS OKINAWA ARE KNOWN TO EXIST.

This Insurance cover, given to Astronaut General Jim McDivitt is the only one reported to have been cancelled on the USS Okinawa. The stamps were flown to the ship and applied by Apollo astronaut, Al Worden, who also added the two Decade of Achievement stamps to all of the "flown to the moon" covers from this mission. In reply to an inqiry from this collector, General McDivitt wrote, *"R- -, I was the Apollo Spacecraft Program Manager for Apollo 15 and others. I believe the crew gave me this stamped envelope sometime after the flight. Jim".*

(The Wing in the lower left corner of the cachet indicates that this was an all-Air Force crew. The symbol to the right of that is the NASA logo.)

7.0.10 Apollo 16 5th Manned Moon Landing



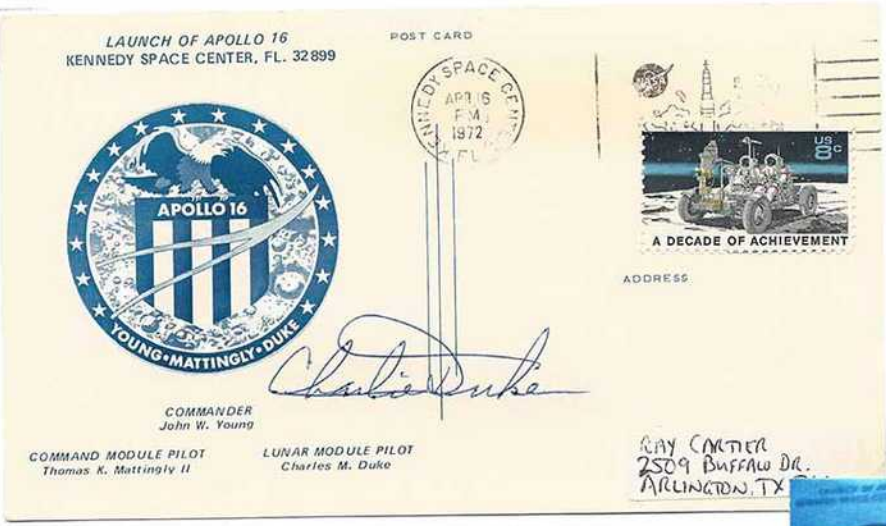
AU: Charles Duke

Apollo 16 launch: Space Craft cachet from the nearby Cape Canaveral complex which participated in all manned launch events. The cachet artist was Carl Swanson, a former artist for the Library of Congress who did the art on all of the preceding Space Craft covers, (aka Swanson cacheted covers) in this exhibit.



KSC Official Cachet for the launch of Apollo 16.

7.0.10 Apollo 16 5th Manned Moon Landing



AU: Charles Duke

Apollo 16 actual NASA VIP Card acquired at the VIP site. Under a UV light this cardstock appears to be bright white. (Back image). Closed globe cancel.



Legitimate card in back. Suspect card in front.



SUSPECT VIP CARD

Apollo 16 launch. The card above was created by two German dealers who were at the VIP site with Press Passes, as was this collector who hitched a ride back with them from the VIP site to the Press site. Approaching them he noted that one of the dealers was closing a briefcase full of hundreds of VIP cards. Since only five cards were given to each person at the VIP site, I wondered how he had acquired them, but did not ask. Later, in May,1973 NASA suspended the issuance of VIP cards due to *"duplicated cards created by overseas dealers"*. In the late 1980s this collector placed legitimate and "suspect" covers under a black light and found that all those that I suspected from Apollo 16 through the second Skylab launch reflected a yellowish cast whilst covers sent from people at the VIP site reflected a bright white. *(I use the word "Suspect" per the Space Unit's attorney.)* I found no suspect covers for Apollo 15 or earlier flights.

7.0.10 Apollo 16 5th Manned Moon Landing





Apollo 16 Launch

Unsigned "Wings" Insurance Cover

65TH ARRSq.
The Best In Rescue
Mission APOLLO 16
Date 16 APR 72
Aircraft HC130/# 695828
Position ALPHA
Pilot CAPT THOMAS STENSTROM

EGLIN AIR FORCE BASE APR 16 AM 1972 FLA.



Cover flown on HC-130 Air Rescue & Recovery mission for protection during the launch of the Apollo 16 crew.

WILLIAM J. MERROX
10810 Archmont Drive
Houston, Texas 77[illegible]

PROBLEMS!



KENNEDY SPACE CENTER APR 17 PM 1972 FL.

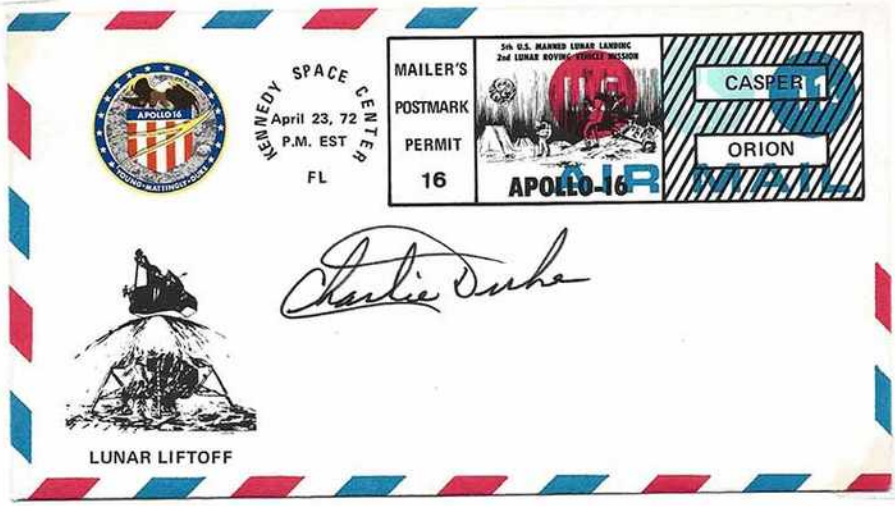


GUIDANCE SYSTEM WARNING LIGHT FLASHES: ANTENNA TROUBLE!

P.O. Box 5401
Arlington, Tex. 76013

Various Apollo craft had issues: Apollo 9 went into wild gyrations; Apollo 11 was beset with warning lights; Apollo 12 was struck twice by lightning; and Apollo 13 had an explosion. Controllers and crews were successful in countering these problems.

7.0.10 Apollo 16 5th Manned Moon Landing



AU: Charles Duke

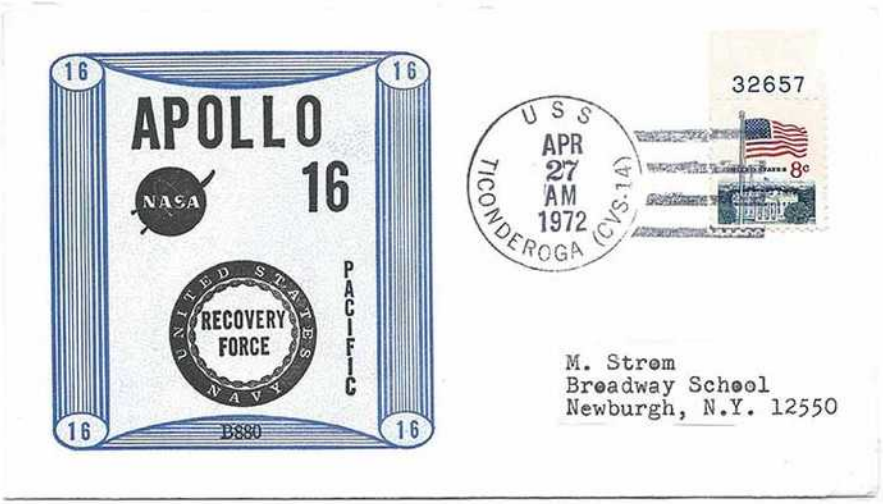
Apollo 16 launch from the lunar surface followed by docking with Charlie Duke in the Command Module. The 11c airmail postal stationery cover bears a KSC printed Mailer Permit with a pictorial image.



AU: Ken Mattingly, John Young, Charles Duke

Splashdown occurred four days later in the Pacific ending their communications with the controllers at the Johnson Space Center in Houston.

7.0.10 Apollo 16 5th Manned Moon Landing

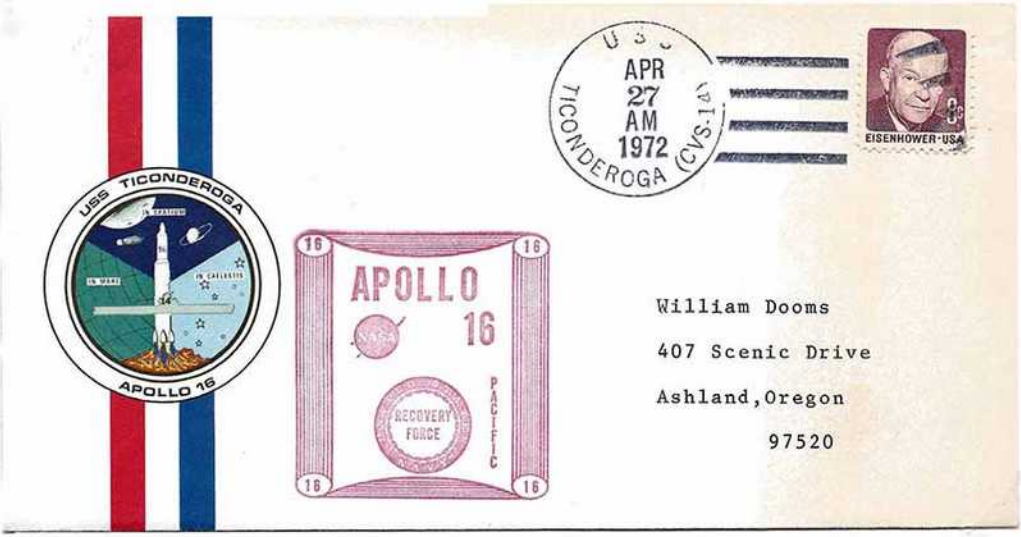


So many thousands of covers were now arriving at the Primary Recovery Ship's that the postal clerks and all mailed in covers were left at Pearl Harbor to cancel covers following the recoveries. This new process existed for Apollo 16 & 17 missions. On-board post offices were all closed on the dates of the recoveries and re-opened the day after.

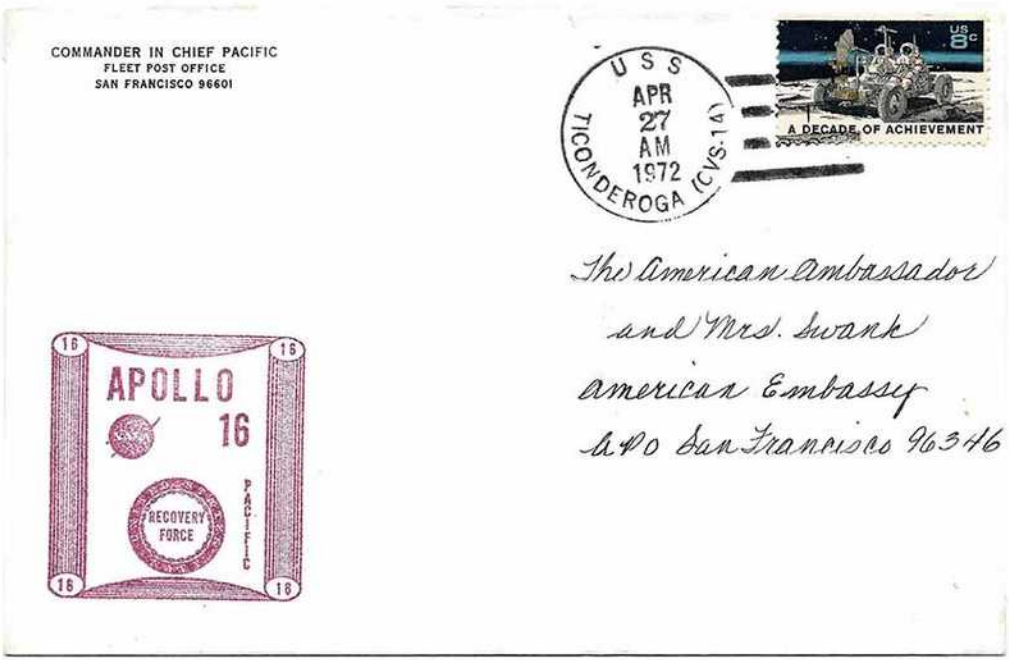


Only the hand cancellers were taken off the ships. The machine cancellers were left aboard. This is one of only four machine cancels ever seen with the actual date of the recovery utilized.

7.0.10 Apollo 16 5th Manned Moon Landing

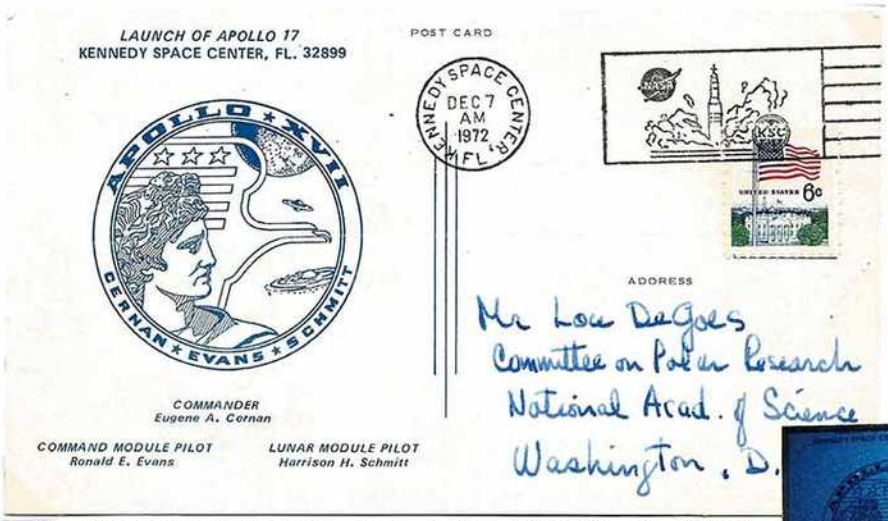


Apollo 16 Captain's Cover from the Primary Recovery Ship, the USS Ticonderoga.



This collector named this a CINCPAC (*Commander-In-Chief-Pacific)* cover as it was sent to dignitaries and others by Admiral John McCain Sr. Collectors have since located a cover from each, Apollo 14 and 15, and this exhibit also has one from Apollo 17. This envelope included a greeting from McCain to the Ambassador to Cambodia. But the APO is from Bangkok, Thailand. Research shows that this was dated during the Cambodian incursion during the war in Viet Nam.

7.0.11 Apollo 17 6th Manned Moon Landing

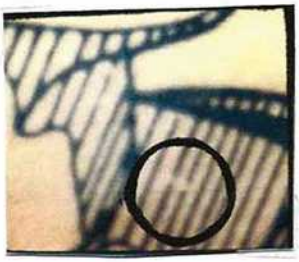




Apollo 17 NASA VIP Card. This legitimate VIP card reflects a bright white under a UV light as shown in the photo at the far right. The card to the right of that and emitting a yellowish reflection is the Suspect cover below, cancelled at Patrick AFB on the date of recovery.

SUSPECT
VIP Card appears yellow under UV lighting.



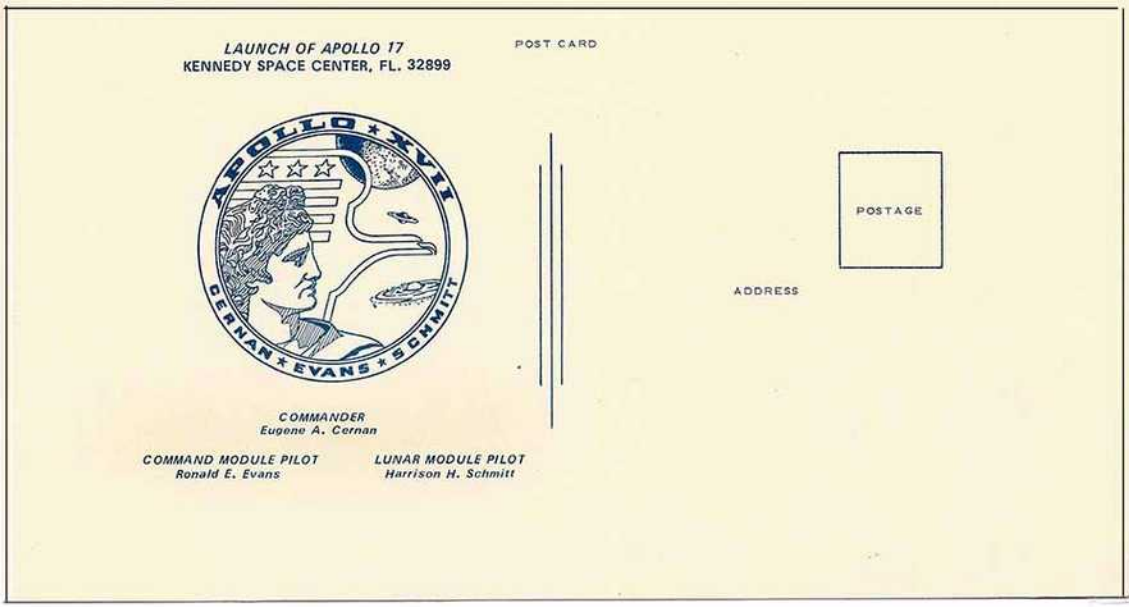


The Suspect cover above, bears the name and P.O. Box of one of the German dealers. This collector also noticed a void in one of the neck lines of Apollo, on the cachet, which appears on all Suspect cards, but not on those cards which are legitimate.

7.0.11 Apollo 17 6th Manned Moon Landing



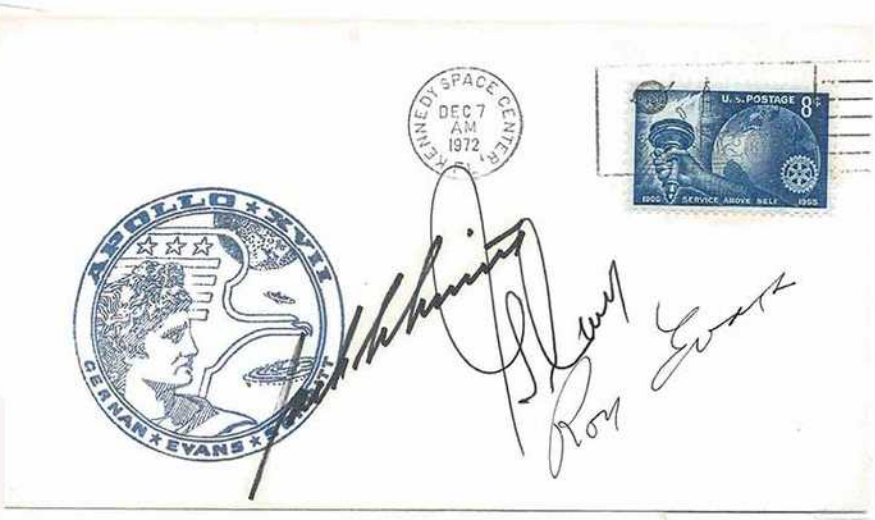
Apollo 17 NASA VIP Card cancelled in Houston, TX on December 6, 1972. Although the launch occurred in Florida on December 7, 1962 it was at 12:30 AM while it was still 11:30 PM in Texas, which is on Central Standard Time. This Texas card shows that the security for these cards was not tight and made it easier for others to obtain a copy beforehand and run off copies.



Oversized card appears to be a **PROOF** as printers would have ganged the cards closely together to be able to cut them apart with a single cut between top and bottom and another between those on either side.

7.0.11 Apollo 17 6th Manned Moon Landing

Apollo 17 launch on a KSC Official cachet.



AU: Harrison Schmitt
Gene Cernan
Ron Evans

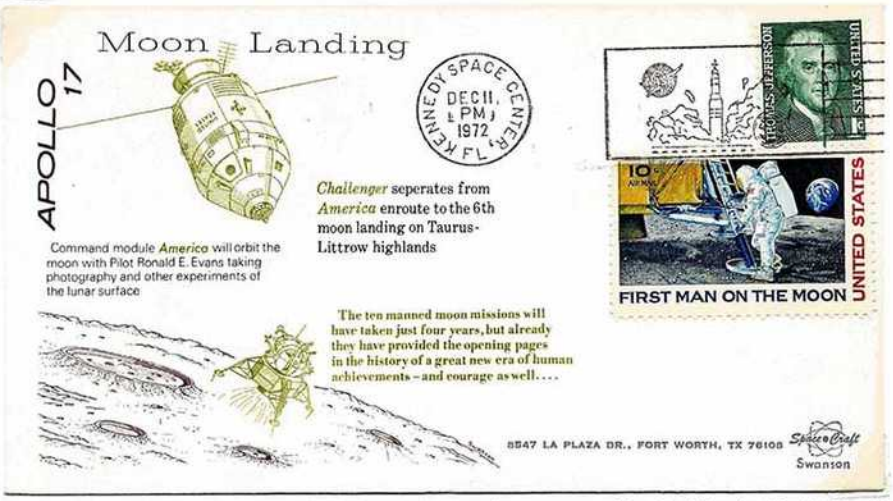


FLOWN on a rescue helicopter during the Apollo 17 Launch Operations. Signed by The Pilot and Co-Pilot.

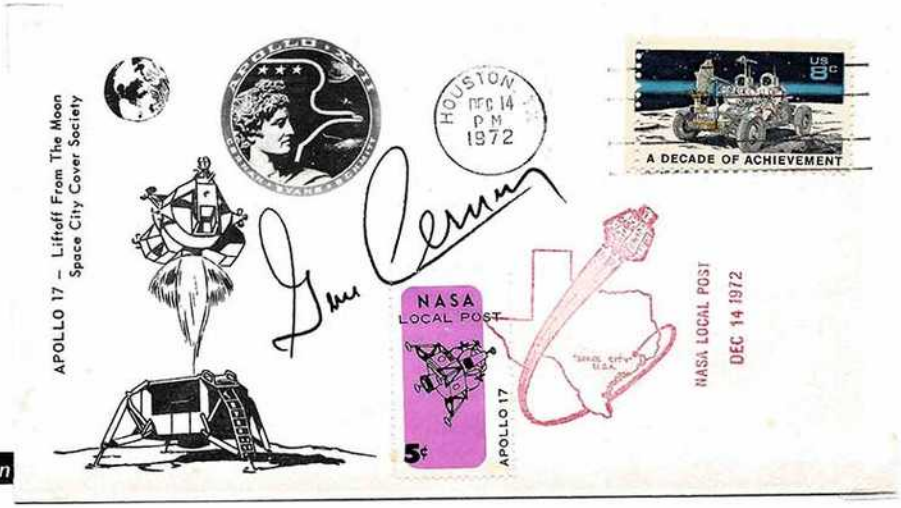
All space covers that were printed on NASA maps were made by Eunice Radnofsky by hand. Her husband was a NASA engineer who brought home discarded maps.



7.0.11 Apollo 17 6th Manned Moon Landing



Apollo 17 Lunar landing dated Space Craft cover. KSC cancels are now considered valid as the Merritt Island Launch Area, which converted digital imaging from the moon to analog, is located on KSC property.



AU: Gene Cernan

Apollo 17 launched from the moon three days after landing. Houston cancel for this event of the last flight from the moon in December 1972.

COMMANDER IN CHIEF PACIFIC
FPO SAN FRANCISCO 96610

USS TICONDEROGA (CVS-14) DEC 19 AM 1972

8c EISENHOWER·USA

APOLLO 17 U. S. NAVY pacific RECOVERY FORCE

Mr. Ed Hyde

P.O. Box 111

Salinas, California 93901

Apollo 17 CINCPAC cover *(See Apollo 16 page 10 on this frame for information on this type of cover). Could not trace the name of the recipient..*

AIR-MAIL

APOLLO 17 RECOVERY
FLOWN VIA HELICOPTER

DATE Dec 19 1972
FROM USS Ticonderoga
TO CVS-14
MODEL SH-3G
LIC. 001
PILOT CDR
REMARKS Recovery Pilot

U S AIR MAIL 11c

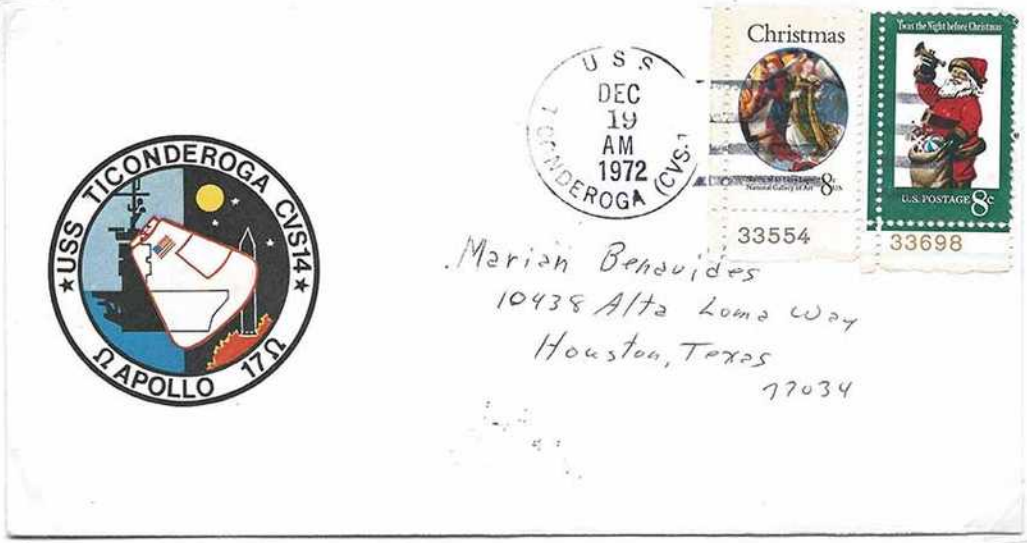
10c FIRST MAN ON THE MOON UNITED STATES

E. Schmidt
54 K O B L E N Z
Hunnenpfad 11
G E R M A N Y

AU: Tom Stafford
Back-up Astronaut

FLOWN on the helicopter as it retrieved the astronauts and flew them to the USS Ticonderoga where the on board Machine Cancel machine was located for use on this cover. All mailed in covers received hand cancels applied by the postal clerks who had been left behind at Pearl Harbor, Hawaii. Signed by the Recovery Pilot to that effect.

7.0.11 Apollo 17 6th Manned Moon Landing



Apollo 17 Recovery Ship Captain's Cover from the USS Ticonderoga.



AU: Medical Team aboard the USS Ticonderoga

Apollo 17 Return to port cover on December 22, 1972, for this final moon landing, to fulfill Kennedy's historical goal of *"Returning them (the lunar astronauts) safely to the Earth"* which occurred when they stepped on to land at Pearl Harbor, Hawaii, thus ending man's greatest adventure.

(Cover signed by the medical crew that was aboard the USS Ticonderoga).