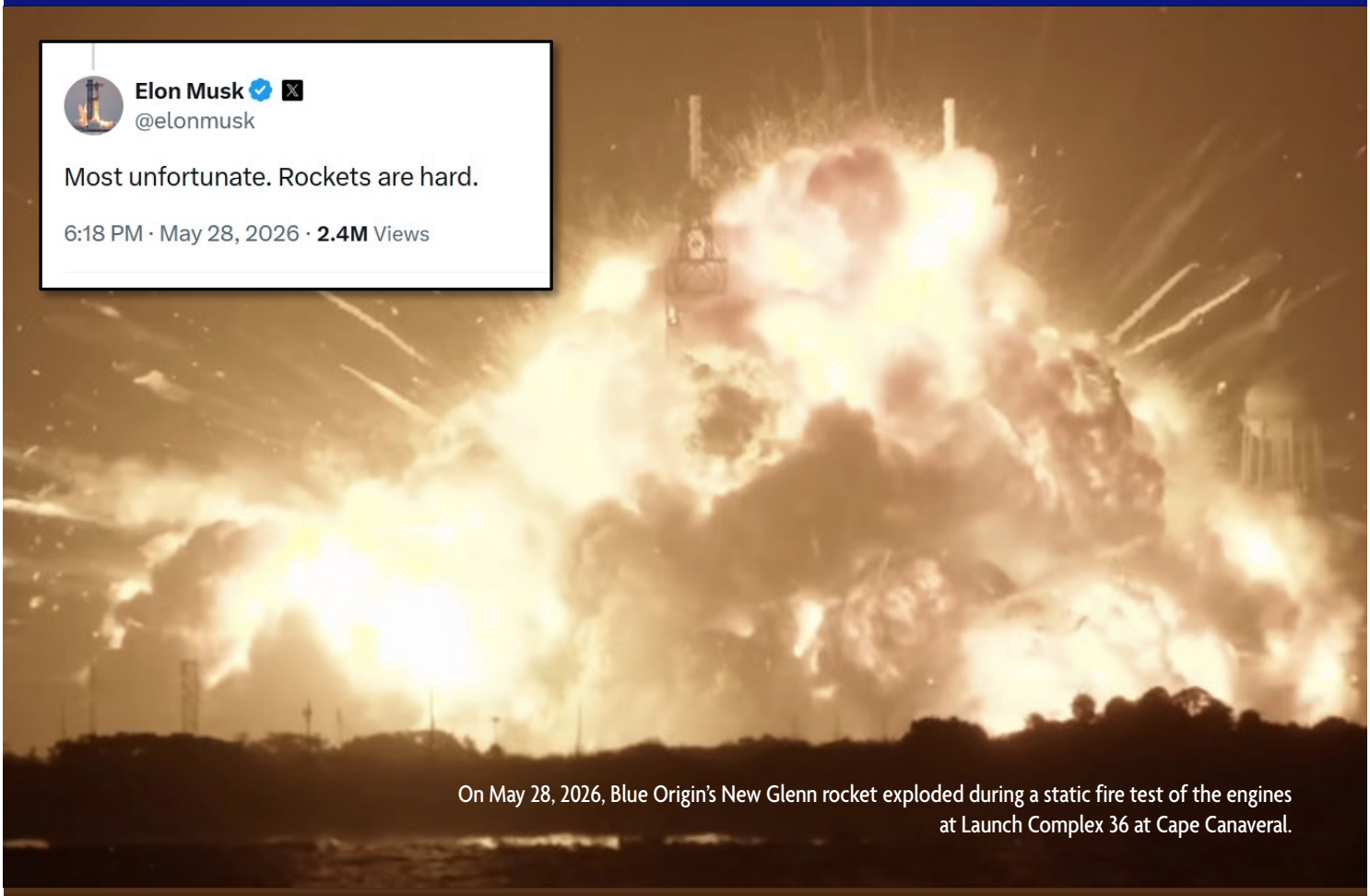
FlightPlan

A VOLUNTEER NEWSLETTER BY VOLUNTEERS



On May 28, 2026, Blue Origin's New Glenn rocket exploded during a static fire test of the engines at Launch Complex 36 at Cape Canaveral.

EVERGREEN AVIATION & SPACE MUSEUM

VOLUME 13
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JUNE 2026

Dawn of the Space Age

BILL KOLB
FLIGHTPLAN EDITOR, MONDAY DOCENT

Welcome to the June edition of the FlightPlan.

This month, we journey back to the thrilling dawn of the Space Age, that electric period from 1957 to 1962 when humanity first broke the bonds of Earth and stepped into the cosmos. From the beep, beep, beep of Sputnik I that shocked the world to John Glenn's triumphant orbits, these five whirlwind years changed everything—igniting the Space Race, transforming geopolitics, and inspiring a generation to reach for the stars.

In this issue, we explore the drama and wonder of those pioneering days. You'll find a sweeping Overview: Dawn of the Space Age, a detailed Timeline Graphic, and in-depth looks at Sputnik I and Sputnik II, America's early efforts with Vanguard and Explorer I, and the daring Discoverer/Corona reconnaissance program. We also examine the intense Cold War backdrop and President Kennedy's stirring call to action. Don't miss the stories of our animal pioneers Ham & Enos, and America's first astronauts: the courageous flights of Alan Shepard, Gus Grissom, and John Glenn.

Whether you lived through this era or are discovering it for the first time, these articles capture the tension, ingenuity, and sheer audacity of humanity's first bold steps into space.

MONTHLY THEMES

JULY.....SEARCH & RESCUE
AUGUST .....AVIATION: INTERWAR PERIOD
SEPTEMBER.....SPACE FLIGHT: EARLY MERCURY THROUGH GEMINI
OCTOBER.....AVIATION: WWII
NOVEMBER.....AVIATION: POST-WWII THROUGH KOREA
DECEMBER .....SPACE FLIGHT: APOLLO

GUIDELINES FOR SUBMITTING ARTICLES TO FLIGHTPLAN

1. The FlightPlan (FP) is published on the 1st of each month
2. Stories for the next issue can be filed up to the 10th of the prior month
3. Articles should be associated with an artifact at the Museum
4. Sources for specific information in the article should be provided
5. Stories should be approximately 500 words long
6. If appropriate, include one or two photos for publication with the article
7. Include name, day, and title at the bottom of each article submitted
8. Email articles to: **flightplan@evergreenmuseum.org**
9. Feedback is encouraged; submit to **flightplan@evergreenmuseum.org**

CAPTAINS CORNER

JERRY SAUTER

TUESDAY DAY CAPTAIN

May 2026 BOC meeting. Topics are presented below; to avoid a multi-page report, anyone with further questions regarding the discussions can contact their Day Captain.

Scot Laney – Chief Executive Officer

- Outreach: VA Veterans Home in Lebanon. It was concluded that the Museum could not participate this year due to time considerations. It is hoped that we can join next year. Preparing a PowerPoint presentation of the Museum was suggested.

Terry Howell – Chief Operating Officer

- Cockpit Tour schedule was sent out in a separate email. Some of the military jet aircraft will not be accessible to sit in, view only. Refer to the list.
- Afterburner event scheduled for Saturday, May 30th in the Titan pavilion. Kick off to "Fighter Town" Fundraiser for the Museum. Refer to the website, Facebook for details

Robby Worley – Restoration Manager

- Restoration needs a Welder and Fabricator
- Bail (Volunteer) will provide training on the proper cleaning of aircraft

Old Business:

- Terry and Dan discussed the latest changes to the Volunteer Handbook. Dan is to schedule a meeting with Terry to finalize the handbook early next week. Thanks to those who contributed to the drafting/review of the document.
- A volunteer skills and knowledge matrix created by Mike Tilrico was passed out and reviewed. The template for the matrix will be sent to each Day Captain and Lead.

New Business:

- The "Beneficial" Suggestion form submitted by Allen H. will not move forward to publication/use. The Comment/Suggestion process is available electronically online through the museum's website.
- Training – Opportunity to work with Section Managers to determine the best placement of a volunteer. Onboarding of a new volunteer should not take 2-3 weeks. Lack of communication = loss of a volunteer opportunity.
- Use of the RADAR online museum information source was reviewed. Continued and expanded use of this tool will be promoted to all volunteers.
- Scheduling of the Galaxy Theater is to be coordinated through the Day Captain with direct communication to Terry/Scot on date/time/purpose.

The meeting was adjourned at 11:16 am.

The Dawn of the Space Age: 1957–1962

BILL KOLB
MONDAY DOCENT

Between October 1957 and February 1962, humanity took its first bold steps beyond Earth. In just five years, a handful of pioneering satellites and a small group of extraordinarily brave pilots shattered old assumptions and opened the final frontier. What began as a technological surprise quickly evolved into a global contest that would define the era.

It started with a simple, rhythmic beep.

On October 4, 1957, the Soviet Union launched Sputnik 1, the world's first artificial satellite. The polished aluminum sphere, roughly the size of a beach ball and weighing just 184 pounds, emitted radio signals that amateur radio operators around the globe could pick up. For the Soviets, it was a triumphant demonstration of their rocket technology. For Americans, it was a national wake-up call. The same intercontinental ballistic missiles capable of launching satellites could also deliver nuclear warheads to U.S. soil. Overnight, the "Sputnik Crisis" gripped the nation, sparking fears of a dangerous "missile gap" and intense political pressure to respond. The Space Age had officially begun, and the United States was behind.

America's answer came swiftly. On January 31, 1958, the United States launched Explorer 1, its first satellite. Though much smaller than Sputnik, Explorer carried scientific instruments that helped discover the Van Allen radiation belts, zones of charged particles trapped by Earth's magnetic field. This success helped restore some confidence and paved the way for the creation of a new civilian space agency. On October 1, 1958, NASA was officially born, absorbing personnel and projects from earlier military efforts.

While the public focused on the glamorous astronaut program, the U.S. government pursued a vital secret effort. Publicly presented as the Discoverer program, a series of scientific and technological test flights, its true identity was Project CORONA. Managed jointly by the CIA and the U.S. Air Force, CORONA developed America's first operational reconnaissance satellites. This spacecraft carried sophisticated cameras that photographed denied territories from orbit. Film canisters were ejected, parachuted back to Earth, and dramatically snagged mid-air by recovery aircraft over the Pacific. The first fully successful CORONA mission in August 1960 returned more imagery of the Soviet Union in a single pass than all previous U-2 spy plane flights combined. This revolutionary capability provided critical intelligence on Soviet missile sites and military capabilities, helping dispel exaggerated fears of a missile gap.

The Soviets continued to press their advantage. In 1959, their Luna probes achieved several lunar firsts, including the first images of the Moon's far side. Then, on April 12, 1961, Soviet cosmonaut Yuri Gagarin became the first human in space. Aboard his Vostok 1 spacecraft, he completed a single 108-minute orbit of the Earth, uttering the famous words "Poyekhali!" ("Let's go!"). His safe return made him an instant global hero and intensified the Space Race.

The United States responded just three weeks later. On May 5, 1961, Alan Shepard climbed into the Mercury capsule Freedom 7 and became America's first astronaut in space. His 15-minute suborbital flight reached an altitude of 116 miles before splashing down safely in the Atlantic. In July, Gus Grissom flew a similar mission aboard Liberty Bell 7. These flights proved that the Mercury spacecraft could carry humans through the rigors of launch and re-entry.

President John F. Kennedy seized the moment. On May 25, 1961 , just 20 days after Shepard's flight , he stood before a joint session of Congress and issued one of the most ambitious challenges in American history: "I believe that this nation should commit itself to achieving the goal, before this decade is out, of landing a man on the Moon and returning him safely to the Earth." The speech committed vast resources and national will to the Apollo program, transforming the Space Race into a defining contest of systems and ideologies.

Before entrusting human lives to the Mercury capsule for longer missions, NASA turned to our closest biologi-

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The Dawn of the Space Age: 1957–1962

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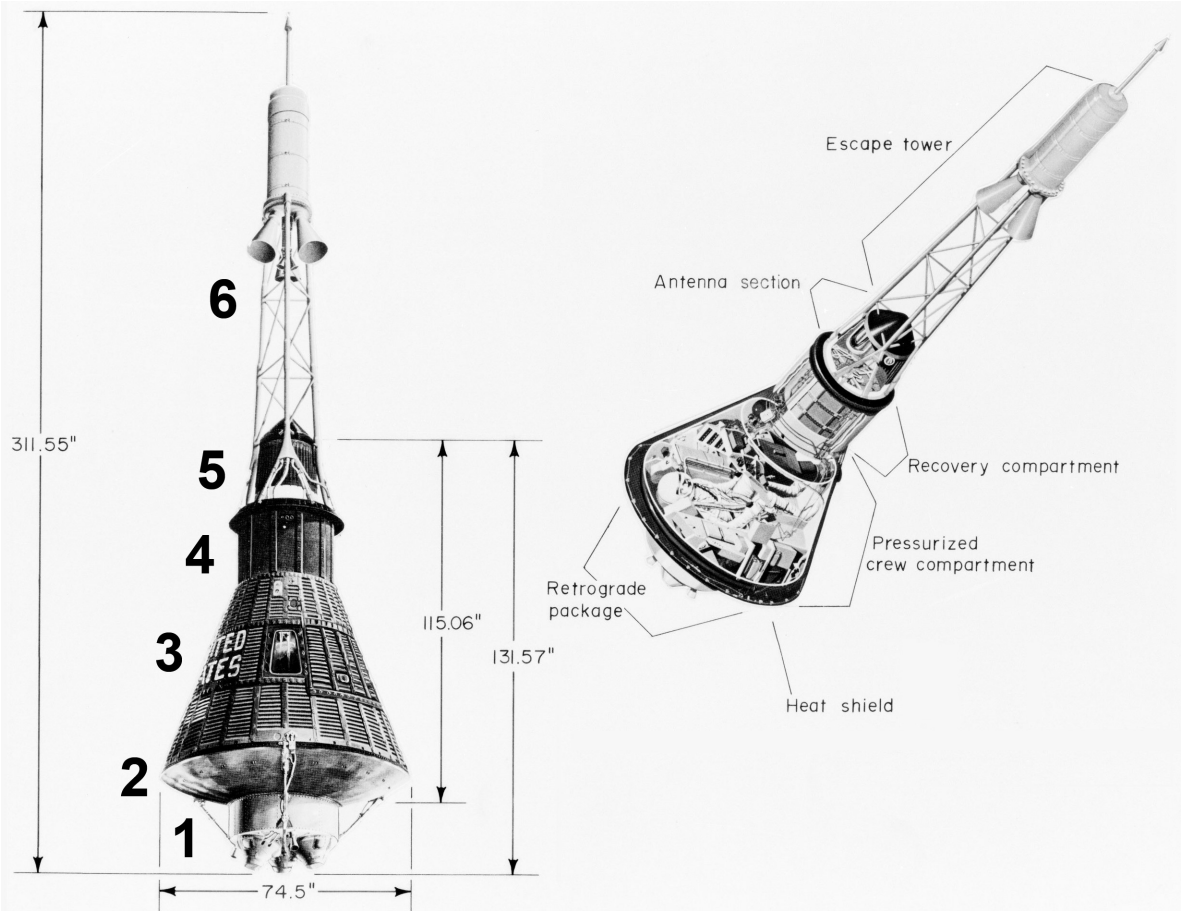
cal relatives. Two chimpanzees, Ham and Enos, became unlikely space pioneers. Ham flew a suborbital mission on January 31, 1961, enduring high g-forces and weightlessness. Enos followed on November 29, 1961, becoming the first chimpanzee to orbit the Earth. Their flights, complete with cognitive tests and physiological monitoring, validated the spacecraft's life-support systems and provided engineers with crucial data before committing astronauts to orbital missions.

The period reached its emotional crescendo on February 20, 1962. John Glenn, one of the original Mercury Seven astronauts, launched aboard Friendship 7. Using an Atlas rocket, he completed three orbits of the Earth in just under five hours. The mission was not without drama; a faulty heat shield signal forced Glenn to manually control the spacecraft during re-entry. When he splashed down safely, the nation erupted in celebration. Ticker-tape parades, front-page headlines, and a hero's welcome followed. For many Americans, Glenn's flight symbolized that the United States was solidly in the game.

In those five short years, the world had changed forever. From a solitary beeping satellite to an American orbiting the globe, the dawn of the Space Age marked humanity's irreversible leap into the cosmos, a leap driven by competition, curiosity, and courage.



From Sputnik to America's First Orbit

October 4, 1957
Sputnik 1 – The Soviet Union launches the world's first artificial satellite. A small beeping sphere shocks the United States and ignites the Space Age.

January 31, 1958
Explorer 1 – America's first satellite reaches orbit and discovers the Van Allen radiation belts. This success leads directly to the creation of NASA later that year.

April 1959
The Mercury Seven – NASA introduces its first astronauts: Alan Shepard, Gus Grissom, John Glenn, Scott Carpenter, Wally Schirra, Gordon Cooper, and Deke Slayton.

1959–1960
Project Discoverer / Corona – The U.S. secretly begins its reconnaissance satellite program while the public space race continues.

September 1959
Luna 2 – The Soviets score another first: the first human-made object to reach the Moon.

January 31, 1961
Ham the Chimp – A suborbital flight proves the Mercury capsule can safely carry a living creature through launch, weightlessness, and reentry.

April 12, 1961
Yuri Gagarin – The Soviet cosmonaut becomes the first human to orbit the Earth aboard Vostok 1.

May 5, 1961
Alan Shepard – America's first astronaut flies a 15-minute suborbital mission aboard Freedom 7.

May 25, 1961
Kennedy's Moon Speech – President Kennedy commits the U.S. to landing a man on the Moon before the end of the decade.

July 21, 1961
Gus Grissom – Second American suborbital flight aboard Liberty Bell 7 (capsule sinks after hatch issue).

November 29, 1961
Enos the Chimp – First orbital flight by a chimpanzee, clearing the final hurdle for human orbital missions.

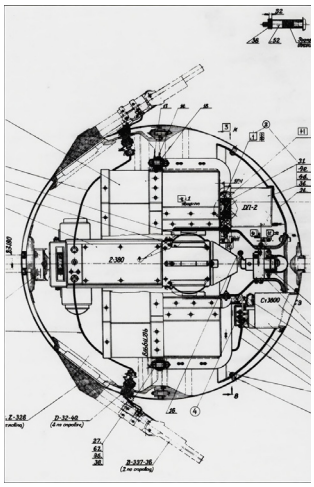
February 20, 1962
John Glenn – Aboard Friendship 7, Glenn becomes the first American to orbit the Earth, completing three orbits and returning a national hero.

Background: NASA Historical Imagery

Sputnik 1 – October 1957:
The Shot That Started It All

BILL KOLB
MONDAY DOCENT

On the evening of October 4, 1957, the Soviet Union launched humanity's first artificial satellite. A gleaming sphere just 23 inches in diameter and weighing 184 pounds was lofted into orbit atop a modified R-7 Semyorka rocket, the world's first intercontinental ballistic missile.



Sputnik 1 was elegantly simple yet brilliantly engineered. Its two polished aluminum hemispheres, each about 1/16 inch thick and covered with a thin heat shield of aluminum-magnesium-titanium alloy, were joined by 36 bolts and sealed with O-rings to create a pressurized vessel filled with dry nitrogen at 1.3 atmospheres (about 19 psi).

Four long whip antennas extended from the sphere, two pairs measuring roughly 8 feet and 9.5 feet, angled at about 35 degrees for an almost spherical radiation pattern that helped the signal reach radio operators worldwide.

Inside, the satellite carried surprisingly little payload: two 1-watt radio transmitters operating at 20.005 MHz and 40.002 MHz, three silver-zinc batteries (two for the transmitters, one dedicated to the thermal system), temperature and pressure sensors, and a basic thermal control system. The transmitters sent rhythmic pulses, typically a 0.3-second beep followed by 0.3 seconds of silence on one frequency, alternating with the other. Variations in the beep duration encoded vital data: scientists could deduce internal temperature and pressure simply by listening.

Thermal management was critical in the harsh environment of space. A small fan would automatically turn on if the interior temperature rose above 97°F and turned off when it dropped below 68°F, thanks to a dual thermal switch. If temperatures ever exceeded 122°F or fell below 32°F, or if internal pressure dropped below normal (indicating a possible micrometeorite puncture), a thermal control switch and a barometric switch would alter the signal pattern to alert ground controllers.

The R-7 rocket that carried Sputnik was a technological marvel itself, a two-stage liquid-fueled giant standing about 98 feet tall for the Sputnik version, with a cluster of engines burning kerosene and liquid oxygen, generating massive thrust from four strap-on boosters plus a central core.

When Sputnik 1 reached its elliptical orbit (perigee about 140 miles, apogee about 590 miles), it circled Earth every 96 minutes at roughly 18,000 mph. That iconic "beep... beep... beep" was heard by amateur radio operators from California to Calcutta for 21 days, until the batteries finally died on October 26.

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Sputnik 1 – October 1957:

The Shot That Started It All

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The launch sent shockwaves through the United States. American leaders had assumed the U.S. would be first to space. Instead, the same rocket technology that placed Sputnik in orbit could deliver nuclear warheads anywhere on Earth. The "Sputnik Crisis" that followed

Though Sputnik 1 itself burned up in the atmosphere on January 4, 1958, after 1,440 orbits, its impact is still felt today. That small beeping sphere proved that space was reachable, and that the race to get there had officially begun.

About Our Sputnik

A replica of a Sputnik satellite hangs from the ceiling in the Titan Pavilion.

"All the News That's Fit to Print"

The New York Times.

LATE CITY EDITION

U. S. Weather Bureau Report (Page 33) forecasts: Cloudy and cool today and tonight. Mostly fair tomorrow. Temp. range: 65—53. Yesterday: 62.4—49.2.

VOL. CVII..No. 36,414. © 1957, by The New York Times Company, Times Square, New York 36, N. Y. NEW YORK, SATURDAY, OCTOBER 5, 1957. 10c beyond 100-mile zone from New York City FIVE CENTS

SOVIET FIRES EARTH SATELLITE INTO SPACE; IT IS CIRCLING THE GLOBE AT 18,000 M. P. H.; SPHERE TRACKED IN 4 CROSSINGS OVER U. S.

HOFFA IS ELECTED TEAMSTERS HEAD; WARNS OF BATTLE

Defeats Two Foes 3 to 1 —Says Union Will Fight 'With Every Ounce'

Text of the Hoffa address is printed on Page 6.

By A. H. RASKIN

Special to The New York Times.

MIAMI BEACH, Oct. 4—The scandal-scarred International Brotherhood of Teamsters elected James R. Hoffa as its president today.

He won by a margin of nearly 3 to 1 over the combined vote of two rivals who campaigned on pledges to clean up the nation's biggest union.

Senate rackets investigators and Hoffa critics in the union rank-and-file immediately opened actions to strip the 44-year-old former warehouseman from Detroit of his election victory.

A jubilant Hoffa exhibited,

Associated Press Wirephoto

IN TOKEN OF VICTORY: Dave Beck, retiring head of the Teamsters Union, raises hand of James R. Hoffa upon his election as union's president. At right is Mrs. Hoffa.

COURSE RECORDED

Navy Picks Up Radio Signals—4 Report Sighting Device

By WALTER SULLIVAN

Special to The New York Times

WASHINGTON, Saturday, Oct. 5—The Naval Research Laboratory announced early today that it had recorded four crossings of the Soviet earth satellite over the United States.

It said that one had passed near Washington. Two crossings were farther to the west. The location of the fourth was not made available immediately.

It added that tracking would be continued in an attempt to pin down the orbit sufficiently to obtain scientific information of the type sought in the International Geophysical Year.

[Four visual sightings, one of which was in conjunction with a radio contact, were reported by early Saturday morning. Two sightings were made at Columbus, Ohio, and one each from Terre Haute, Ind., and Whittier, Calif.]

Press Reports Noted

The New York Times Oct. 5, 1957

The approximate orbit of the Russian earth satellite is shown by black line. The rotation of the earth will bring the United States under the orbit of Soviet-made moon.

Device Is 8 Times Heavier Than One Planned by U.S.

Special to The New York Times.

560 MILES HIGH

Visible With Simple Binoculars, Moscow Statement Says

Text of Tass announcement appears on Page 3.

By WILLIAM J. JORDEN

Special to The New York Times.

MOSCOW, Saturday, Oct. 5—The Soviet Union announced this morning that it successfully launched a man-made earth satellite into space yesterday.

The Russians calculated the satellite's orbit at a maximum of 560 miles above the earth and its speed at 18,000 miles an hour.

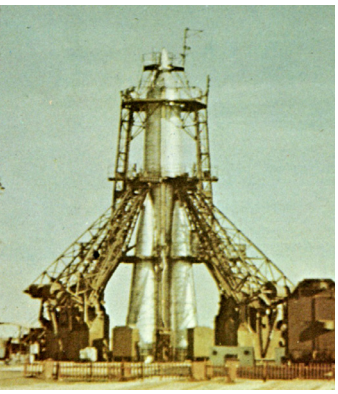
The official Soviet news agency Tass said the artificial moon, with a diameter of twenty-two inches and a weight of 184 pounds, was circling the earth once every hour and thirty-five minutes. This means more than fifteen times a day.

Two radio transmitters, Tass said, are sending signals continuously on frequencies of 20.005 and 40.002 megacycles

Sputnik 2: The First Dog in Space

BILL KOLB
MONDAY DOCENT

On November 3, 1957, just one month after Sputnik 1, the Soviet Union launched Sputnik 2, another major milestone in the early Space Age. This spacecraft became the first to carry a living creature into orbit: a stray dog named Laika (the press nicknamed Laika "Mutnik"). The mission proved that a living being could survive launch and weightlessness, while also revealing the serious ethical challenges of early space exploration.



Sputnik 2 was a conical spacecraft attached to its rocket core. Launched from Baikonur Cosmodrome using a modified R-7 Semyorka missile, it entered an elliptical orbit around Earth. The satellite carried scientific instruments to study cosmic rays, solar radiation, and the planet's magnetic field.

The most important part of the mission was the sealed life-support cabin for Laika. She was a small, mixed-breed female dog, originally called Kudryavka ("Little Curly"). Stray dogs were selected for their toughness and adaptability. Laika trained for the flight by getting used to tight spaces, enduring high g-forces in a centrifuge, and learning to eat special jellied food. Sensors tracked her heart rate, breathing, blood pressure, and the cabin conditions. A small window gave her limited views outside.

The mission was hastily prepared to mark the 40th anniversary of the Bolshevik Revolution. Because of the rushed timeline, there was no plan for re-entry or advanced life support. Laika's flight was always meant to be one-way. Data showed she survived the intense forces of launch and entered orbit successfully. However, the thermal control system failed, causing the cabin temperature to rise rapidly. Laika likely died from overheating within hours of launch, though the Soviets initially claimed she survived for several days.

Despite Laika's tragic end, Sputnik 2 delivered valuable information about how living creatures respond to spaceflight. It transmitted signals for several days before going silent and remained in orbit for about five months before burning up on re-entry.

The mission sent shockwaves around the world and intensified the Space Race. It pushed the United States to accelerate its own space program, eventually leading to NASA and Project Mercury.

Laika's story remains a powerful symbol of both ambition and sacrifice in space exploration. Monuments in her honor stand in Moscow today. Her pioneering flight helped lay the foundation for future animal experiments and, ultimately, human spaceflight, including Yuri Gagarin's historic journey in 1961.

The Cold War: Ideological Clash and the Race to the Stars

BILL KOLB
MONDAY DOCENT

The Cold War was one of the defining conflicts of the 20th century, a decades-long struggle for global supremacy between the United States and the Soviet Union that shaped politics, economies, cultures, and technologies from 1947 until the Soviet Union's collapse in 1991. Unlike the hot wars that preceded it, it was not a direct military confrontation between the two superpowers. Instead, it played out through proxy wars, espionage, propaganda, economic aid, and an accelerating arms race. At its core lay a profound ideological divide: American-style democratic capitalism, emphasizing individual freedoms and free markets, versus Soviet communism, which promoted state control of the economy and the spread of socialist revolution.

The roots of the Cold War trace to the final days of World War II. The uneasy wartime alliance between the Western Allies and the Soviet Union fractured as the Red Army occupied much of Eastern Europe. Soviet leader Joseph Stalin sought a buffer zone against future invasions, installing communist governments in Poland, Hungary, Czechoslovakia, and elsewhere. The United States, fearing a domino-like spread of communism, responded with the Truman Doctrine in 1947, pledging support to nations resisting communist subversion. That same year, the Marshall Plan poured billions of dollars into Western Europe to rebuild economies and blunt the appeal of communism. By 1949, the division had hardened: the Soviet Union tested its first atomic bomb, ending America's nuclear monopoly, while the United States helped form the North Atlantic Treaty Organization (NATO), the first peacetime military alliance in U.S. history. The Soviets countered with the Warsaw Pact in 1955.

Tensions escalated through crises like the 1948–49 Berlin Blockade, the 1950–53 Korean War, and the 1956 Hungarian uprising. Both sides amassed nuclear arsenals capable of mutual destruction, fostering a doctrine of deterrence. Yet the competition extended far beyond bombs and battlefields. It became a contest for hearts and minds, scientific prestige, and technological dominance. Nowhere was this more dramatic than in the late 1950s and early 1960s, when the Cold War propelled both nations into the Space Race. In this high-stakes arena, orbital achievements symbolize national vitality and military prowess.

The Space Race ignited on October 4, 1957, when the Soviet Union launched Sputnik 1, the world's first artificial satellite. Weighing just 184 pounds and roughly the size of a beach ball, the polished sphere orbited Earth every 98 minutes, emitting a steady radio beep that amateur listeners worldwide could pick up. For Americans, the moment was a profound shock. Newspapers screamed headlines about a "Red Moon" hanging over

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The Cold War: Ideological Clash and the Race to the Stars

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the free world. The successful launch of an R-7 intercontinental ballistic missile, the carrier rocket, suggested the Soviets could soon deliver nuclear warheads to American soil. Amid McCarthy-era fears and "duck-and-cover" drills, Sputnik crystallized widespread anxiety that the United States had fallen dangerously behind in science, education, and rocketry.

The Eisenhower administration reacted swiftly. Congress passed the National Defense Education Act to bolster math and science programs in schools. In July 1958, the National Aeronautics and Space Administration (NASA) was created to coordinate civilian space efforts. The United States rushed its satellite, Explorer 1, into orbit in January 1958, but the Soviets maintained their lead. They followed Sputnik with Sputnik 2, carrying the dog Laika—the first living creature in space—though she did not survive the mission. These triumphs allowed Soviet Premier Nikita Khrushchev to boast of communist technological superiority, using the feats as propaganda to portray the Soviet system as the wave of the future.

The competition intensified in the early 1960s under President John F. Kennedy. On April 12, 1961, Soviet cosmonaut Yuri Gagarin became the first human in space. Aboard Vostok 1, the 27-year-old pilot completed a single 108-minute orbit and returned safely as a global hero. The flight was another propaganda coup for Moscow. Just weeks earlier, the failed Bay of Pigs invasion had already damaged U.S. prestige in the eyes of the world. Gagarin's success deepened the sense of crisis in Washington.

Determined to reclaim the initiative, Kennedy turned to space as the decisive battlefield. On May 25, 1961, in a dramatic address to a joint session of Congress, he declared: "I believe that this nation should commit itself to achieving the goal, before this decade is out, of landing a man on the moon and returning him safely to the Earth." It was an audacious pledge. At the time, the United States had yet to put an astronaut in orbit; Alan Shepard's suborbital flight had occurred only three weeks earlier. Kennedy's challenge was explicitly framed in Cold War terms. He argued that space achievements would "organize and measure the best of our energies and skills" and demonstrate that "a nation organized and governed such as ours can stand the test." The moon became the ultimate prize, a visible symbol of superiority that could not be ignored.

The decision transformed NASA. Funding surged from $500 million in 1960 to over $5 billion by the mid-1960s. The Apollo program absorbed vast resources, employing hundreds of thousands of engineers, scientists, and contractors. Parallel efforts included the Mercury and Gemini programs, which tested human spaceflight, rendezvous, and re-entry technologies. The Soviets, meanwhile, pressed ahead with their own lunar ambitions, though internal rivalries and technical hurdles slowed them. Both nations understood that rockets developed for space could double as delivery systems for thermonuclear weapons, making the civilian Space Race inseparable from the military arms race.

The drive to the moon was not merely about planting flags. It was a contest over which ideology—democratic capitalism or state socialism—could best harness human ingenuity. American leaders portrayed the effort as open and collaborative, drawing on universities and private industry. Soviet secrecy, by contrast, masked setbacks and projected an image of flawless progress. Yet the competition spurred breathtaking innovation: miniaturized electronics, new materials, advances in computing, and life-support systems that later found civilian applications, from medical imaging to personal computers.

By the time Neil Armstrong and Buzz Aldrin stepped onto the lunar surface on July 20, 1969, the Space Race had already begun to wind down. The Soviets never attempted a crewed lunar landing after early failures. The United States had met Kennedy's deadline, proving its technological edge at enormous cost. Yet the broader Cold War continued for two more decades, eventually ending not in space but through economic pressure, internal Soviet reforms, and the fall of the Berlin Wall in 1989.

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The Cold War: Ideological Clash and the Race to the Stars

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The late 1950s and early 1960s marked the moment when the Cold War reached for the stars. Sputnik's beep, Gagarin's orbit, and Kennedy's lunar pledge turned the heavens into a proving ground for earthly rivalries. What began as a contest for prestige became a catalyst for human achievement, reminding us that even the darkest geopolitical struggles can propel civilization forward. The moon landing remains a shared triumph, but its origins lie squarely in the anxious, ambitious heart of the Cold War.

Feature Index

The Huntsville Times

Where Progress...

Covers The Valley!

VOL. 81, NO. 21 — CHICAGO DAILY NEWS SERVICE — HUNTSVILLE, ALABAMA, WEDNESDAY, APR. 12, 1961 — ASSOCIATED PRESS — WIREPHOTO — 45c PER WEEK

Man Enters Space

'So Close, Yet So Far,' Sighs Cape

U.S. Had Hoped For Own Launch

Hobbs Admits 1944 Slaying

Soviet Officer Orbits Globe In 5-Ton Ship

Maximum Height Reached Reported As 188 Miles

VON BRAUN'S REACTION:

To Keep Up, U. S. A. Must Run Like Hell'

Yuri Gagarin: The First Human in Space

BILL KOLB

MONDAY DOCENT

Yuri Alekseyevich Gagarin made history on April 12, 1961, when he became the first human to fly in space aboard the Soviet spacecraft Vostok 1. This 108-minute mission marked the beginning of human spaceflight and gave the Soviet Union a decisive early lead in the Space Race.

The Spacecraft: Vostok 1

Vostok 1 (meaning "East") was a capsule developed under Chief Designer Sergei Korolev. The spacecraft consisted of two main parts:

- A spherical descent module (about 7.5 feet in diameter) where Gagarin rode.
- An instrument module containing life support, batteries, retro-rockets, and other systems.

Total launch weight was roughly 10,417 lb. The capsule was extremely cramped—Gagarin's small stature (only 5'2") helped him fit inside. It featured a small porthole, basic controls, and an ejection seat. The entire vehicle was largely automated, as engineers were uncertain how a human would perform in weightlessness.

Vostok 1 launched atop a Vostok-K rocket (derived from the R-7 ICBM) from Baikonur Cosmodrome in Kazakhstan. Liftoff occurred at 09:07 Moscow Time (06:07 UTC). As the rocket ignited, Gagarin famously called out "Poyekhali!" ("Let's go!").

The Historic Flight

The mission lasted 108 minutes and completed exactly one orbit of Earth. Gagarin reached a maximum altitude of 203 miles and a minimum of 112 miles, traveling at speeds up to 17,000 mph. He experienced weightlessness for most of the flight, ate, drank, and made notes while observing Earth's curvature, clouds, and continents.

The flight was not without risks. After the braking rocket fired to begin re-entry, the descent module failed to separate cleanly from the instrument module at first, causing the spacecraft to tumble wildly. The two sections eventually separated, and the descent module stabilized.

At about 23,000 ft, Gagarin ejected from the capsule as planned and parachuted to Earth near Saratov, Russia. The capsule landed nearby. Both he and the spacecraft were recovered safely.

Legacy

Gagarin's flight electrified the world. He instantly became a global celebrity and national hero, and was awarded the titles of Hero of the Soviet Union and Pilot Cosmonaut. His success pressured the United States to accelerate its own program, directly influencing President Kennedy's Moon landing goal.

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Yuri Gagarin: The First Human in Space

(CONTINUED FROM PREVIOUS PAGE)

This single orbit changed humanity's perspective forever — we were no longer bound to Earth.

Our Vostok Capsule

We have a Vostok-like capsule displayed in the Titan Pavilion. It is the Foton 6 unmanned spacecraft. It was launched in 1990 and completed 250 orbits before its recovery in Russia. This spacecraft placed more than 1,500 pounds of scientific equipment in space for Russia, the European Space Agency, and the French Space Agency.

Corona: The Eye in the Sky

BILL KOLB
MONDAY DOCENT

In the tense years after Sputnik, the United States faced a critical intelligence gap. With Soviet borders closed to traditional espionage and the U-2 spy plane increasingly vulnerable, America urgently needed a new way to peer behind the Iron Curtain. Enter the world's first photoreconnaissance satellite program — a top-secret effort developed by Lockheed Missiles and Space. Publicly known as Discoverer, the program's true, classified identity was Corona. This pioneering program provided eyes in the sky during the most dangerous period of the Cold War.

Discoverer

Launched under the guise of a scientific and technological research program, the Discoverer series began in February 1959 with Discoverer 1 — the first satellite placed in polar orbit. The public narrative involved testing reentry vehicles, biomedical specimens, and satellite stabilization. In reality, many of these missions carried cameras as part of the secret Corona effort developed by Lockheed Missiles and Space. Early launches from Vandenberg Air Force Base suffered numerous failures due to unreliable rockets, faulty cameras, and problematic film-recovery systems. Of the first twelve missions, most ended in disappointment. Discoverer 13, launched in August 1960, successfully returned a capsule (containing only an American flag) — marking the first recovery of an object from orbit.

Corona

Behind the Discoverer facade, Corona was a joint CIA and U.S. Air Force program approved by President Eisenhower in 1958. Lockheed Missiles and Space served as the prime contractor, designing and building satellites equipped with panoramic cameras to photograph denied territory, primarily the Soviet Union and China. Exposed film was loaded into reentry capsules that parachuted back to Earth, where specially equipped aircraft snagged them mid-air. The first fully successful imaging mission was Discoverer 14 in August 1960, which returned stunning photographs covering more Soviet territory in a single pass than all previous U-2 missions combined. Over time, Corona evolved through multiple versions (KH-1 through KH-4B), improving resolution and reliability. By the early 1960s, these satellites provided crucial data on Soviet missile sites, bomber bases, and military capabilities — information that helped calm fears of a "missile gap."

Legacy

Corona operated until 1972, completing 145 missions and returning over 800,000 images. It delivered irreplaceable intelligence that shaped U.S. policy throughout the Cold War, reduced the risk of surprise attack, and supported mapping efforts. The program pioneered film-return technology, mid-air recovery techniques, and satellite reconnaissance methods still foundational today. Declassified in 1995, Corona imagery now serves historians, scientists, and environmental researchers. In the context of 1957–1962 spaceflight, Corona demonstrated America's determination to match Soviet achievements while quietly gaining a strategic edge in the shadows. These "eyes in the sky" helped ensure the Space Race remained cold rather than hot.

A Chronology of Events Charting the Early Days of the U.S. Space Program

BILL KOLB
MONDAY DOCENT

The early days of the United States space program were defined by urgency, embarrassment, and intense Cold War pressure. Beginning with the Soviet Union's launch of Sputnik 1 in October 1957, America found itself repeatedly stunned by Soviet achievements in space. This technological and symbolic gap reached a crisis point in April 1961 when Yuri Gagarin became the first human in space, followed just days later by the humiliating failure of the Bay of Pigs invasion. These back-to-back setbacks prompted President John F. Kennedy to launch an urgent internal review of America's space capabilities. What followed was a remarkably rapid sequence of events that transformed a struggling space effort into a bold national mission. The key moments below trace the dramatic path from shock and crisis to Kennedy's historic commitment to land a man on the Moon by the end of the decade.

1. October 4, 1957: Sputnik I

The launch of Sputnik 1 on October 4, 1957, triggered a major shock in the United States. Americans were stunned that the Soviet Union had beaten them into space, sparking fears that the U.S. was falling behind in technology and military power during the Cold War.

2. April 12, 1961: Soviet Success Shocks the U.S.

Yuri Gagarin became the first human in space aboard Vostok 1. This achievement heightened Cold War tensions and made the U.S. appear to lag in space technology.

3. April 17–20, 1961: Bay of Pigs and Kennedy's Response

The failed Bay of Pigs invasion in Cuba deeply embarrassed the Kennedy administration. On April 20, 1961, President Kennedy sent a memo to Vice President Lyndon B. Johnson asking him to lead a review of the U.S. space program. He specifically wanted to know what the U.S. could do to beat the Soviets—such as orbiting a laboratory, circling the Moon, or landing a man on the Moon—and how much it would cost.

4. Late April – Early May 1961: Internal Reviews

Vice President Johnson consulted closely with:

- NASA Administrator James E. Webb
- Secretary of Defense Robert McNamara
- Other top officials and scientists

Webb and McNamara prepared a detailed memo recommending a manned lunar landing as the best option for the U.S. to regain leadership in space. They acknowledged it would be extremely difficult and expensive, but believed it was achievable and offered the greatest prestige.

5. May 5, 1961: Alan Shepard's Flight

Alan Shepard became the first American in space with a 15-minute suborbital flight aboard Freedom 7 (Mercury-Redstone 3). While a success, it was far less impressive than Gagarin's orbital flight, adding more pressure on Kennedy.

6. May 25, 1961: The Official Announcement

In a special message to a joint session of Congress on "Urgent National Needs," President Kennedy publicly committed the United States to the goal:

"I believe that this nation should commit itself to achieving the goal, before this decade is out, of landing a man on the Moon and returning him safely to the Earth."

He requested additional funding (eventually billions more) to make it possible. This was the formal announcement of the Moon landing goal.

7. September 12, 1962: The Rice University Speech

Kennedy delivered his famous "We choose to go to the Moon" address at Rice Stadium. This was not the original announcement but a powerful follow-up to build public

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A Chronology of Events Charting the Early Days of the U.S. Space Program

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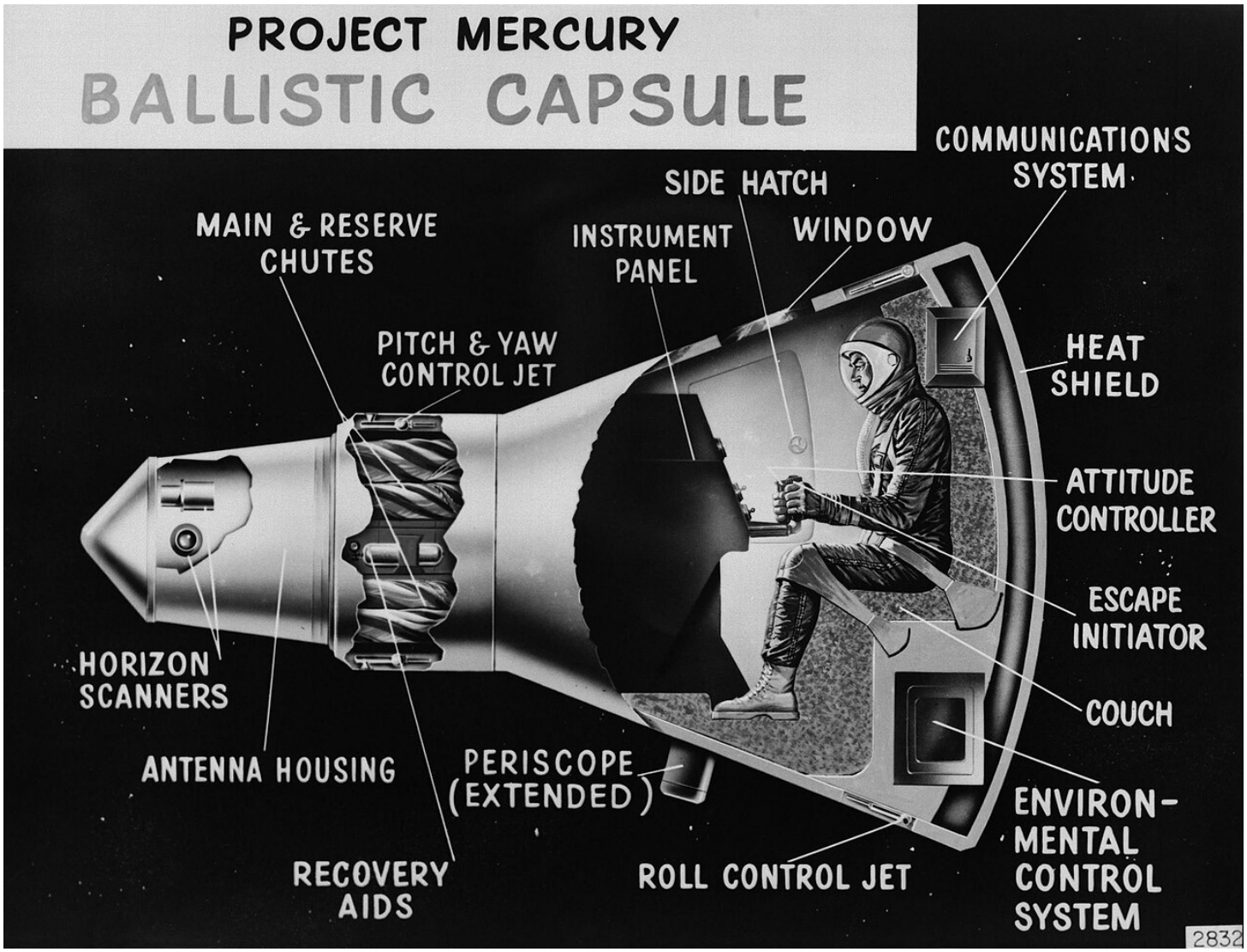
enthusiasm and support for the already-established Apollo program.

Summary

The decision was made rapidly in the spring of 1961 — driven by Gagarin's flight, the Bay of Pigs failure, and Cold War competition. The critical internal deliberations occurred in April–May 1961, culminating in Kennedy's historic address to Congress on May 25, 1961.

This goal transformed NASA and led to the successful Apollo 11 landing on July 20, 1969.



The Story of Project Vanguard

BILL KOLB
MONDAY DOCENT

In the tense summer of 1955, the United States found itself quietly racing against the clock. The International Geophysical Year, a global scientific collaboration, was approaching, and America wanted to be the first to place a satellite in orbit. While the Army and Air Force pushed their own military-derived rocket proposals, the Navy stepped forward with a bold, purely civilian plan: Project Vanguard.

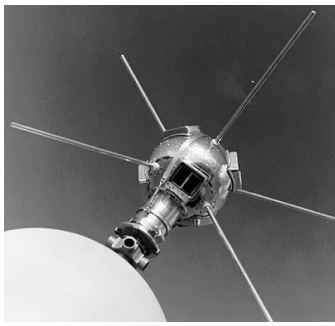
Unlike the era's urgent ballistic missile programs, Vanguard was designed from the ground up as a scientific endeavor. Its goal was not to build a weapon but to create a reliable three-stage rocket capable of placing a small satellite in Earth orbit. The Naval Research Laboratory led the effort, with the Martin Company building the rocket. It would use a modified Viking missile as the first stage, an Aerobee-derived second stage, and a new solid-fuel third stage. Everything about it screamed "peaceful exploration," deliberately set apart from the military's top-priority missile work.

Then came October 4, 1957.

The Soviet Union launched Sputnik 1, and America was stunned. The pressure on Vanguard suddenly became enormous. The program, already behind schedule, was now expected to deliver a dramatic American response.

On December 6, 1957, the world watched as Vanguard's first full test flight (TV-3) sat on the launch pad at Cape Canaveral. Carrying a tiny satellite, the rocket lifted a few feet off the ground... then catastrophically exploded in a fireball. The satellite, thrown clear, landed in the grass and began transmitting its signal helplessly from the ground. Newspapers mocked it as "Flopnik" and "Kaputnik." The embarrassment was national.

But the team refused to quit.



Over the next two years, they endured a string of difficult launches. Failures stemmed from fuel sloshing, control system issues, and stage separation problems. Then, on March 17, 1958, everything finally came together. Vanguard 1 soared into orbit, a tiny, grapefruit-sized sphere that became America's second satellite (following the Army's Explorer 1 just weeks earlier).

Vanguard 1 was a remarkable little machine. It was the first satellite to use solar cells for power, and its orbit was so high and stable that it is still circling the Earth today, the oldest human-made object in space. Subsequent Vanguard launches added valuable data on Earth's shape, magnetic fields, and the space environment.

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The Story of Project Vanguard

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Although the program achieved only three successful orbital missions out of eleven attempts, its impact extended far beyond those small satellites.

Its Role in Manned Spaceflight

Vanguard was never meant to carry astronauts. Its rockets were far too small. However, it quietly laid essential groundwork for America's future human space program:

- The Minitrack global tracking network created for Vanguard became the foundation for following astronauts in orbit.
- Engineering lessons from its upper stages and guidance systems flowed into later rockets.
- The culture of rigorous scientific testing helped shape NASA, which absorbed the Vanguard team in 1958.
- Most importantly, it proved that America could successfully orbit payloads and operate satellites, a critical confidence boost after the early humiliations of the Space Race.

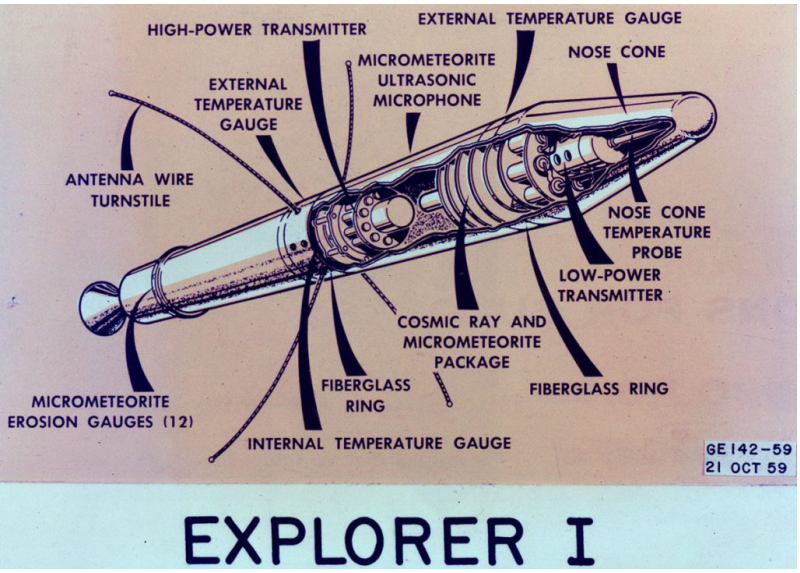
In the end, Project Vanguard was a story of ambition, public failure, stubborn persistence, and quiet success. It didn't grab headlines like Mercury or Apollo, but it laid the foundation for those later triumphs. The little satellite that could still whispers overhead every day, a silent reminder of the gritty beginning of America's journey into space.

Explorer 1 & the Birth of NASA – January 1958:
America Strikes Back

BILL KOLB
MONDAY DOCENT

In the tense summer of 1955, the United States found itself quietly racing against the clock. The International Geophysical Year, a global scientific collaboration, was approaching, and America wanted to be the first to place a satellite in orbit. While the Army and Air Force pushed their own military-derived rocket proposals, the Navy stepped forward with a bold, purely civilian plan: Project Vanguard.

Just 92 days after Sputnik 1 shocked the world, the United States launched its first artificial satellite on January 31, 1958. Explorer 1 roared into the night sky from Cape Canaveral, Florida, at 10:48 p.m. Eastern Time atop a Juno I rocket, a modified Jupiter-C ballistic missile developed by Wernher von Braun's team at the Army Ballistic Missile Agency in Huntsville, Alabama. The launch marked America's dramatic entry into the Space Age and began the long road to catching up with the Soviets.



Explorer 1 was a slender, bullet-shaped spacecraft about 80 inches long and 6 inches in diameter, weighing just 31 pounds total, with roughly 18 pounds dedicated to scientific instruments. The front section housed the payload, while the rear was the empty casing of the rocket's fourth stage. It spun at about 750 revolutions per minute for stability, and four flexible whip antennas extended like a turnstile to transmit data back to Earth.

Unlike Sputnik's simple radio beacon, Explorer 1 carried real science instruments. The star of the show was a cosmic-ray detector designed by University of Iowa physicist James Van Allen. It included a Geiger-Müller tube to measure high-energy charged particles, along with temperature sensors (internal, external, and nose-cone), a microphone to detect micrometeorite impacts, and erosion gauges consisting of wire grids and metallic film. Two transmitters sent the data: one high-power transmitter that lasted about a month and a lower-power backup.

The satellite entered a highly elliptical orbit, swinging as low as about 220 miles at perigee and reaching as high as roughly 1,560 miles at apogee. It completed one orbit every 115 minutes, making about 12.5 orbits per day at speeds around 18,000 mph.

The Geiger counter delivered puzzling results almost immediately. At lower altitudes, the readings matched expectations, but at higher altitudes, the instrument sometimes registered nothing at all, as if the radiation had suddenly vanished. Scientists initially worried the detector was faulty. In reality, the intense radiation was overwhelming (or "saturating") the Geiger tube, causing it to go silent. Data from Explorer 1 and the follow-on Explorer 3 (which carried a tape recorder for full-orbit coverage) revealed two donut-shaped zones of trapped energetic particles encircling Earth, held in place by our planet's magnetic field. These became known as the Van Allen radiation belts, the first major scientific discovery made by an artificial satellite.

This finding was revolutionary. It showed that space around Earth is not empty but filled with dynamic radiation that could affect satellites, future astronauts, and communications. The discovery influenced spacecraft

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Explorer 1 & the Birth of NASA – January 1958:
America Strikes Back

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design, radiation shielding, and our understanding of Earth's magnetic environment for decades to come.

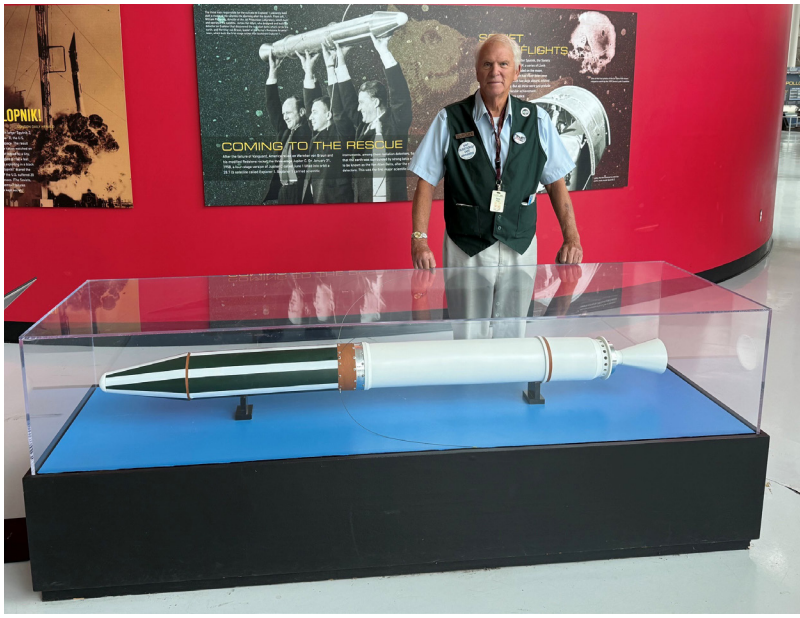
Explorer 1's success came after the embarrassing failure of the Navy's Vanguard rocket in December 1957, which had been the original civilian satellite effort. The Army's rapid response with Explorer restored national pride and demonstrated American rocketry talent.

The mission also accelerated the creation of a dedicated civilian space agency. In July 1958, President Eisenhower signed the National Aeronautics and Space Act, officially birthing NASA. Explorer 1 helped shift America from panic to purposeful action in the space race.

The satellite transmitted data until its batteries died on May 23, 1958. It continued silently orbiting for over 12 years, completing more than 58,000 orbits before burning up in the atmosphere on March 31, 1970.

Explorer 1 stands as the direct American reply to Sputnik 1. It proved we could reach space and do meaningful science there. The momentum it created led straight to the formation of NASA, the selection of the Mercury Seven astronauts, and the secret Discoverer/Corona spy satellite program we'll cover next. Without this small spinning cylinder and its surprising radiation data, the path to John Glenn's orbital flight in 1962 would have looked very different.

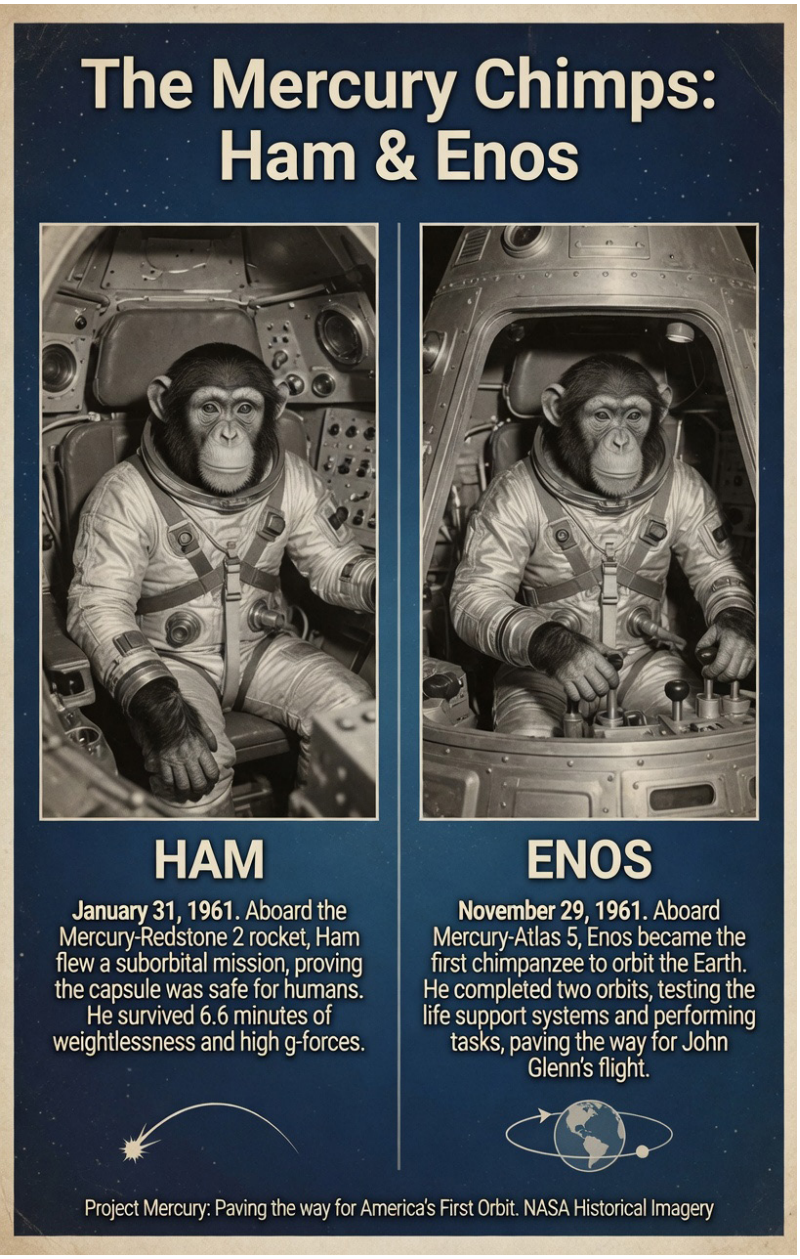
Members of the Explorer 1 team hoist a model of the satellite during a postlaunch news conference in 1958. From left: William Pickering, then-director of the Jet Propulsion Laboratory; James Van Allen, Explorer 1 principal investigator; and Wernher von Braun, chief of guided missile development operations for the Army Ballistic Missile Agency at Redstone Arsenal in Huntsville, Alabama. *NASA/JPL-Caltech*



Our Explorer 1

Our Explorer 1 was built from scratch by our own Dave Bibbee, a long-time docent and supporter of the Museum. You can find him in the Titan Pavilion on Mondays.

Ham & Enos:
The Astrochimps Who Blazed the Trail to Orbit



BILL KOLB
MONDAY DOCENT

Before Alan Shepard, Gus Grissom, and John Glenn made history as America's first astronauts, two remarkable chimpanzees named Ham and Enos paved the way. Captured in Africa and trained by the U.S. Air Force and NASA, these "astrochimps" proved that living beings could survive the extreme conditions of spaceflight. Their courage and resilience helped make human orbital missions possible.

Ham: The First American in Space (Almost)

Ham and Enos were young male chimpanzees captured in Cameroon around 1957 and brought to the United States. They joined roughly 40 other chimps at the U.S. Air Force's Holloman Aerospace Medical Center in New Mexico. There, NASA and the Air Force prepared them for one of the most important and dangerous roles in the early Space Race: testing whether living creatures could function in the harsh environment of space before risking human lives.

Chimpanzees were chosen because of their intelligence, trainability, and physiological similarities to humans. The training was rigorous. The chimps learned to sit calmly in a restraint couch, like the seat in a Mercury capsule. They were taught to pull levers in response to flashing lights and sounds as part of psychomotor performance tests. Correct responses earned banana pellets; mistakes sometimes brought mild electric shocks, a standard but controversial training method of the era.

Ham, originally known only as "Number 65," stood out for his calm and good-natured personality. On January 31, 1961, the three-and-a-half-year-old chimp made history aboard the Mercury-Redstone 2 mission. Strapped into a small capsule on top of a Redstone rocket at Cape Canaveral, Florida, Ham blasted off on a suborbital flight.

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Ham & Enos:
The Astrochimps Who Blazed the Trail to Orbit

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The mission was rougher than planned. A rocket malfunction sent the capsule higher and faster than intended, reaching an altitude of 157 miles. Ham endured more than six minutes of weightlessness and up to 15 g-forces during re-entry. Despite the intense ride, he successfully performed his lever-pulling tasks. After a 16.5-minute flight, the capsule splashed down in the Atlantic Ocean. Recovery was delayed, and the capsule took on some water. Ham emerged slightly dehydrated and fatigued but otherwise healthy.

Widely publicized photos of Ham after the flight, often showing him baring his teeth, made him an instant celebrity. His successful flight cleared the final major hurdles for Alan Shepard's historic suborbital mission just three months later.

Enos: The First Chimpanzee to Orbit Earth

Ten months later, another chimpanzee stepped into the spotlight. Enos, known for his more ornery and high-strung personality, was selected just days before launch as the prime candidate for an orbital test flight. On November 29, 1961, he rode aboard Mercury-Atlas 5, becoming the first chimpanzee, and only the third hominid after Yuri Gagarin and Gherman Titov, to orbit the Earth.

The mission was intended to last three orbits but was shortened to two due to technical issues, including a malfunctioning thruster. Despite these problems, Enos performed his assigned tasks with remarkable focus. A short-circuit in the shock system, unfortunately, delivered repeated electrical shocks even when he responded correctly. Yet Enos continued working the controls properly throughout the ordeal. His flight provided critical data on prolonged weightlessness and spacecraft performance.

Enos splashed down safely and recovered in good condition. His mission proved that the Mercury-Atlas system was ready for human orbital flight, directly paving the way for John Glenn's historic three-orbit mission on February 20, 1962.

Legacy

After their flights, both chimps retired from active duty. Ham lived at the National Zoo in Washington, D.C., for many years before moving to the North Carolina Zoo in 1980, where he enjoyed a more social environment with other chimpanzees. He died in 1983 at about age 26. His remains were treated with special respect: soft tissues were cremated and buried at the International Space Hall of Fame in New Mexico.

Enos returned to Holloman but sadly died less than a year later in November 1962 from dysentery unrelated to his spaceflight. He was only about five years old.

Though often overlooked today, Ham and Enos played an essential role in the Mercury program. Their flights helped NASA engineers and doctors understand the effects of launch forces, weightlessness, and re-entry on living beings. By taking those risks first, these two chimpanzees helped ensure the safety of the astronauts who followed, ultimately contributing to humanity's greater journey to the Moon.

Alan Shepard: Pioneer of American Spaceflight

BILL KOLB
MONDAY DOCENT

Alan Bartlett Shepard Jr. (November 18, 1923 – July 21, 1998) stands as one of the most iconic figures in the history of space exploration. As the first American to travel into space and later the fifth person to walk on the Moon, Shepard embodied the courage, skill, and determination that defined NASA's early manned space programs.

Born in East Derry, New Hampshire, to a family with military roots, Shepard graduated from the U.S. Naval Academy in 1944 (after an accelerated program due to World War II). He served aboard the destroyer USS Cogswell in the Pacific theater during the final months of the war. After the conflict, he earned his naval aviator wings in 1947 and became a test pilot in 1950, gaining extensive experience with high-altitude flights, carrier operations, and experimental aircraft. In 1957, he graduated from the Naval War College.

In 1959, Shepard was selected as one of NASA's original Mercury Seven astronauts. On May 5, 1961, just weeks after Soviet cosmonaut Yuri Gagarin's historic orbital flight, Shepard piloted the Freedom 7 capsule atop a Redstone rocket on a suborbital mission. The 15-minute flight reached an altitude of about 116 miles (187 km) and traveled 302 miles downrange, splashing down safely in the Atlantic. Though brief, this mission made Shepard the second human in space and the first American, galvanizing U.S. efforts in the Space Race and boosting national morale during the Cold War.

A diagnosis of Ménière's disease, an inner-ear disorder causing vertigo, grounded him for several years. Corrective surgery in 1969 restored his flight status. At age 47, Shepard commanded Apollo 14 (January 31–February 9, 1971), NASA's third successful Moon landing. Alongside crewmates Stuart Roosa and Edgar Mitchell, he spent over 33 hours on the lunar surface in the Fra Mauro highlands, conducting experiments and collecting samples. In a memorable moment, Shepard used a makeshift six-iron to hit two golf balls, demonstrating the Moon's low gravity in one of space exploration's most lighthearted televised moments.

Across his two flights, Shepard logged 216 hours and 57 minutes in space, including more than nine hours of lunar EVA. He served as Chief of the Astronaut Office, mentoring generations of spacefarers, and retired from NASA and the Navy as a Rear Admiral in 1974.

In later years, Shepard pursued business ventures in Texas and co-authored Moon Shot (1994) with Deke Slayton. He remained active in space advocacy until his death from leukemia in 1998 at age 74. His wife of 53 years, Louise, passed away shortly after. Their ashes were scattered near their Pebble Beach home.

Shepard's legacy endures through awards like the Congressional Space Medal of Honor and NASA Distinguished Service Medals. He symbolizes America's bold leap into the cosmos, from suborbital pioneer to lunar explorer, helping usher in an era of human spaceflight that continues to inspire.

Gus Grissom - Mercury 7 Astronaut

BILL KOLB
MONDAY DOCENT

Many people know that Alan Shepard was the first American in space and that John Glenn was the first American to orbit the Earth. They were two of the first seven astronauts selected - Mercury 7. But what of the other Mercury astronauts - were their contributions any less important to America's race to the moon?

Gus Grissom was a gruff, 5'7" media-shy pilot, recognized for his engineering skills. Most historians remember him for two things: his Mercury flight, which ended with the sinking of his capsule (Liberty Bell 7), and his death in the Apollo I fire.

Shepard's first suborbital spaceflight (Freedom 7) on May 5, 1961, was a success. For America's second spaceflight commanded by Grissom, major changes had been made to the capsule. Shepard's capsule had two tiny portholes; Grissom's had an actual centerline window. Shepard's capsule had mechanical hatch latches. Grissom's had explosive bolts around the hatch so it could be jettisoned quickly in an emergency.

Grissom's flight on July 21, 1961, proved Shepard's flight was no fluke, and Liberty Bell 7 performed flawlessly until splashdown. As Grissom bobbed in the ocean, readying the capsule for recovery, an explosion blew the hatch away. Grissom barely escaped, almost drowning as his capsule sank. Puzzled engineers theorized that Grissom panicked and hit the emergency plunger, detonating the hatch release too soon. With the capsule on the ocean floor, engineers could never replicate what caused the blown hatch or determine whether it was a panicky astronaut responsible for the detonation. It was little consolation for Grissom, who said: "In all my years of flying, including combat in Korea, this was the first time that my aircraft and I had not come back together."

After the Mercury program ended, Grissom worked on Gemini, a spacecraft designed for a two man crew. Working with engineers from McDonnell Aircraft (the builders of Gemini), he combined his engineering skills with his test pilot experience to help produce a manned system designed to rely on his pilots' input. According to Deke Slayton (former Director of Flight Crew Operations at NASA), "Gemini would not fly without a guy at its controls. It was laid out the way a pilot likes to have the thing laid out. Gus was the guy who did all that." Because of his involvement, his fellow astronauts humorously referred to Gemini as the "Gusmobile." He also helped design the multi-axis translation thruster controller used to push the Gemini (and later Apollo) spacecraft in linear directions for rendezvous and docking.

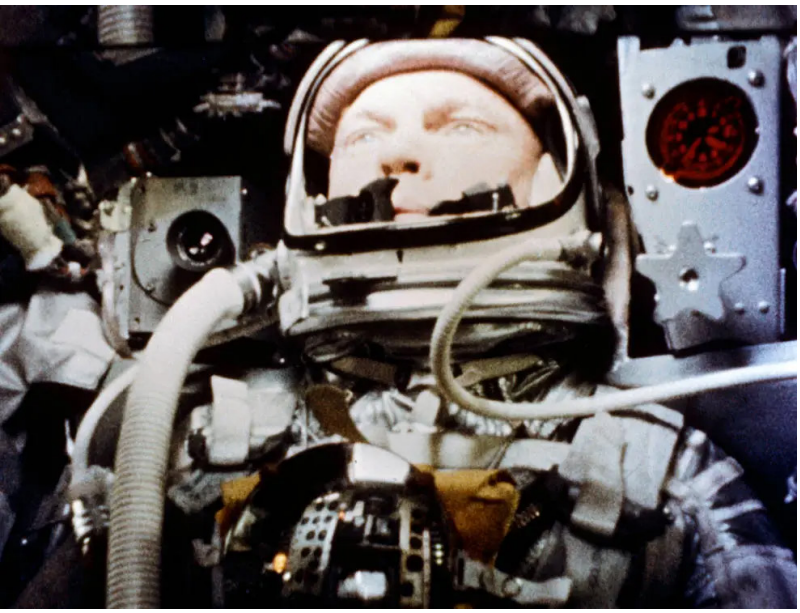
Grissom (along with John Young) flew the first manned Gemini 3 mission, becoming the first NASA astronaut to go into space twice. Gemini 3 accomplished the first orbital trajectory modifications. This enabled future Gemini and Apollo missions to dock and perform orbital maneuvers, important steps before landing on the moon.

After Gemini, Grissom continued on with Apollo, tragically dying in the Apollo I fire that engulfed his capsule during testing. A man of few words, he made many contributions.

John Glenn:
The All-American Hero Who Orbited the Earth

BILL KOLB
MONDAY DOCENT

When NASA selected its first seven astronauts in April 1959, one name stood out as the steady, reliable heart of the group: John Herschel Glenn Jr.



Born July 18, 1921, in Cambridge, Ohio, Glenn grew up during the Great Depression with a strong sense of duty and adventure. He learned to fly as a teenager, joined the U.S. Marine Corps in 1942, and flew 59 combat missions in the Pacific during World War II. Later, in the Korean War, he flew another 63 missions and even shot down three MiG fighters in the final days of the conflict.

After Korea, Glenn became a test pilot, setting a transcontinental speed record in 1957 by flying an F8U Crusader from Los Angeles to New York in just 3 hours and 23 minutes. That same year, while Sputnik was beeping overhead, he was already pushing the limits of aviation.

When NASA put out the call for astronauts, Glenn was 37 years old, married to his childhood sweetheart Annie, and the father of two children. He was one of the Mercury Seven, the elite group of military test pilots introduced to the nation with great fanfare. Unlike some of his more flamboyant colleagues, Glenn projected calm competence and quiet patriotism. He was deeply religious, a family man, and a gifted public speaker who quickly became the program's public face.

Glenn trained rigorously alongside Shepard, Grissom, and the others. He spent endless hours in simulators, learning every switch and procedure in the cramped Mercury capsule. He also became a strong advocate for giving astronauts more manual control over their spacecraft, believing a skilled pilot should never be just a passenger.

By early 1962, after Yuri Gagarin's orbit and America's suborbital flights (which we covered in previous articles), NASA was ready to attempt its first manned orbital mission. Glenn was chosen for the flight, not only because of his skill, but because he was seen as the perfect representative of American values at a tense moment in the Cold War.

His selection came after several delays caused by technical issues and weather. The nation held its breath. When he finally climbed into Friendship 7 on February 20, 1962, John Glenn was no longer just a test pilot or Marine colonel, he had become a symbol of America's determination to catch up in space.

Pancakes, Blackbirds & Family Fun

REBECCA LERBACK
COMMUNITY RELATIONS DIRECTOR

Father's Day is all about making memories, and this year, on Sunday, June 21, you are invited to celebrate with a unique experience you won't find anywhere else. Whether you're honoring Dad, Grandpa, a mentor, or simply spending time with family, we have a day of aviation, discovery, and fun planned just for you.

Start Your Day with Pancakes

Before exploring the Museum, bring the family for a hearty pancake breakfast featuring pancakes, eggs, sausage, milk, juice, tea, and coffee. Two seating times are available: **8:00 a.m.** and **9:00 a.m.** Breakfast tickets must be purchased online in advance. ***Pancake Breakfast Tickets Now Available!***

Please note: Pancake Breakfast tickets do not include Museum admission or access to the Speed & Stealth Fair. Museum admission passes are sold separately.

Explore the World of Speed & Stealth

Following breakfast, spend the day getting up close to some of the fastest, most innovative aircraft ever created. Many of our guests look forward to our biennial SR-71 Symposium. While we'll have to wait until 2027 for the next one, we decided not to let an entire year pass without celebrating some of the most remarkable aircraft ever built.

That's why we're excited to introduce our new **Speed & Stealth Fair,** a special Father's Day event showcasing Evergreen's collection of legendary Lockheed Martin Skunk Works aircraft, including the **SR-71 Blackbird, F-117 Nighthawk, F-104 Starfighter,** and **D-21 Supersonic Reconnaissance Drone.**

Highlights include:

- Rare opportunities to peek inside the cockpits of the SR-71 Blackbird and F-117 Nighthawk
- Conversations with experts and enthusiasts who know these aircraft inside and out
- Fascinating stories about the people and innovations behind the legendary Skunk Works program
- Special Father's Day discounts on select merchandise in the Museum Gift Shop

Best of all, members and paid guests can come to the **Speed & Stealth Fair at no charge!**

Afterburner Ignites a New Tradition

REBECCA LERBACK
COMMUNITY RELATIONS DIRECTOR

What do fighter jets, exotic cars, gourmet food, premium cigars, and a community of passionate supporters have in common? They all came together on May 30 for Afterburner, a special event to support Evergreen Aviation & Space Museum.

More than 125 guests spent the evening enjoying a unique blend of aviation, luxury, and camaraderie while exploring our newly reimagined Fightertown U.S.A. exhibit. Surrounded by aircraft that span generations of military aviation, attendees experienced firsthand the stories of innovation, courage, and service that make Fightertown such a compelling addition to the Museum.

Guests were invited to view the cockpit of the SR-71 Blackbird, F-117 Nighthawk, F-4 Phantom, MiG-21, and MiG-23. Fighter pilots from our Docent team (including Museum board member, Greg "Boss" Wooldridge) were on hand to answer questions and share stories. Greg is the only 3-time Blue Angels leader and executive producer of 2024's *The Blue Angels* documentary.

Sheri Harbour de Vos of Ron Tonkin Gran Turismo (Afterburner Automotive Sponsor) enjoys a moment with her special guests, Ben Tyson and Doug Ferling.

The evening's success would not have been possible without the generous support of our sponsors, volunteers, and guests. We extend special thanks to our Presenting Sponsor, Real Clean Aircraft Detailing, and our Automotive Sponsor, Ron Tonkin Gran Turismo, for their leadership in making our Afterburner event possible.

Every ticket purchased, auction bid placed, amenity enjoyed, and sponsorship provided helps us continue our mission of connecting people to the stories, science, and innovation of flight. We look forward to expanding our Afterburner event in the future and hope you will join us then!

Mystery Corner

ALLYN VANNOY
ARCHIVES

In this and future editions of the FlightPlan, Archives will provide a picture of an artifact/item for which they have no idea what it is, how it came about, or where it originated.

The following month, Archives will provide the answer or the best-guess submissions, if any.

THIS MONTH'S MYSTERY:
What the heck is this?

Shown here are a set of World War 2 service ribbons. Can you identify the one on the lower right? The answer was determined, but the back-story turned out to be quite interesting. Story to run in the July edition.

We hope someone has knowledge of this artifact, or at least can make an educated guess. Readers are encouraged to provide Archives with their best answer/guess by responding to Jean Herkamp at: **jean.herkamp@evergreenmuseum.org.**

May Issue - Puzzle Answer Key

Note: *We do not have a puzzle for this month, but we wanted to include the answer key for last month.*

DON COX

ARCHIVES & SATURDAY DOCENT

ACROSS

6. BALDONNEL: "Wrong Way" Corrigan's Irish airport
8. NACA: NASA's predecessor
9. ELY: first person to take off from a ship, Eugene _____
10. PASCO: first official airmal route, between _____, WA and Elko, NV.
14. NOONAN: Earthart's navigator Fred _____
16. RYAN: maker of Lindbergh's plane
18. VIMY: first plane to fly non-stop across Atlantic, a Vickers _____
19. SCHNEIDER: seaplane and flying boat race prize
20. DOOLITTLE: first aviator to (successfully) perform an outside loop...and bomb Tokyo
23. HELLSANGELS: Howard Hughes' epic war film (2 wds)
31. DRAG: opposite of thrust
32. ITALY: Bellanca was from this country
34. INTERRUPTOR: gear prevents bullets from firing through propellor
35. BIRCH: predominant wood used in Spruce Goose
36. LILIENTHAL: German glider pioneer Otto _____
38. SPERRY: "Father of Modern Navigation Technology" Elmer _____
42. ELECTRA: Earhart's ill-fated Lockheed plane
44. INLINE: type of piston engine
46. HARRIET: first U.S. female to get pilot's license, _____ Quimby
47. CAMEL: Snoopy's Sopwith
48. RUSSIAN: nationality of first person to make trans-polar flight
49. SUNSHINE: name of Corrigan's Curtiss Robin

DOWN

1. ROTARY: circular piston engine
2. PANCHO: nickname of Florence Lowe Barnes
3. GLENNCURTIS: owner of first pilot's license issued in U.S. (2 wds)
4. AERODYNE: official term for heavier-than-air aircraft
5. LAFAYETTE: American staffed escadrille during WWI
7. GRANVILLE: brothers who made the Gee Bee racers
11. CLEVELAND: Ohio home of the National Air Races
12. HIALEAH: FL city founded by Glenn Curtiss
13. BYRD: first person to fly over both North and South Poles, Richard _____
15. ORTEIG: Lindbergh's prize
16. RUDDER: controls aircraft's yaw movement
17. AUTOGYRO: Spain's Juan de la Cierva invented this type of aircraft
21. ELEVATOR: controls aircraft's pitch movement
22. ZEPPELIN: maker of German airships
24. LANGLEY: first U.S. aircraft carrier, named after aviation pioneer
25. HYDROPLANE: first Collier Trophy went to Glenn Curtiss for his design of this type of aircraft
26. EARHART: second person to fly solo across the Atlantic
27. VEGA: Wiley Post flew around the world in this Lockheed product
28. FIVEBLACKBIRDS: early all-Black flying group (2 wds)
29. JENNY: Curtiss WWI trainer
30. ICARUS: name of first pig to fly
33. KAISER: Hughes' Spruce Goose business partner
37. MITCHELL: Father of the United States Air Force, William _____
38. SPRUCE: predominant wood used in Curtiss Pusher
39. AILERON: French word meaning "little wing"
40. AEROSTAT: official name for lighter-than-air aircraft
41. BUFFALO: NY hometown of Curtiss
43. CASTOR: oil for rotary engines
45. NORGE: Roald Amundsen's airship

Band of Brothers

The McMinnville, Oregon Band of Brothers meets on the **first Thursday of each month.** Because of changes, we are not sure of the location at the Museum. The **meetings start at 11:30 am** and run about an hour, with coffee and cookies served. More details can be found at the group's **Facebook page: https://www.facebook.com/groups/838928846550343**

We are currently looking for speakers. If you would like to become one of the monthly speakers, please contact **Al Arguedas** at **aja@onlinemac.com.**

MUSEUM MISSION

Evergreen Aviation & Space Museum is a force of curiosity and courage for kids of all ages to gain the confidence to take flight.

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