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**NEWS RELEASE**

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**PROJECT MERCURY MONUMENT  
DEDICATION AND UNVEILING  
INFORMATION**

**ASTRONAUTICS DIVISION  
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## PROJECT MERCURY MONUMENT DEDICATION

The Project Mercury monument honoring the initial United States man-in-space program and marking the launching site of the nation's pioneering manned orbital flights will be dedicated at Cape Kennedy, Fla., Nov. 10.

Principal speaker in the dedication ceremony will be Dr. Edward C. Welsh, acting chairman and executive secretary of the National Aeronautics and Space Council and aeronautics and astronautics advisor to President Lyndon B. Johnson.

Dr. Welsh will be presented by Roger Lewis, president of General Dynamics Corp., whose Astronautics division in San Diego, Calif., produced the Air Force Atlas launch vehicles used for the manned orbital flights.

J. R. Dempsey, president of the Astronautics division of General Dynamics Corp., will introduce Lewis to the congressional, governmental, military and industry leaders in attendance at the ceremony, scheduled for 1:30 p.m.

The dedication ceremonies will be conducted cooperatively by the National Aeronautics and Space Administration, the United States Air Force, and the General Dynamics Corp.

General Dynamics is erecting the monument as a public service and will donate it during the ceremonies to the United States government.

The purpose of the monument to Project Mercury is to provide a lasting salute to our nation's pioneering man-in-space program and to inspire continuing achievements in our national space program.

It also is intended to "honor in their own time" the estimated two million men and women from government, military services, and industry whose courage, dedication and skills contributed to the success of Project Mercury.

From its inception on Oct. 7, 1958, to its conclusion May 16, 1963, Project Mercury accomplished six completely successful space flights--two sub-orbital missions and four orbital flights.

The monument will be located near Atlas launch complex 14 where astronauts John H. Glenn, Jr., M. Scott Carpenter, Walter M. Schirra, Jr., and L. Gordon Cooper began their orbital flights.

Located adjacent to one of the main thoroughfares on Cape Kennedy, the monument will be accessible to the public during visiting periods at the space center.

Principal feature of the monument is a 13-foot-high astronomical symbol for the planet Mercury. A number "7" in the center of the symbol represents the nation's seven original astronauts. The symbol is one-foot thick and six feet across at its widest point, and weighs 1,250 pounds. It was fabricated of the same stainless steel developed originally for the Atlas.

The base of the base of the monument includes a bronze tablet with the dedicatory inscription and a medallion,  $2\frac{1}{2}$  feet in diameter, featuring in bas-relief the faces of the seven original astronauts.

Beneath the monument is a time capsule intended for opening in the year 2464. It contains reports, photographs, motion pictures and other records of Project Mercury.

## PROJECT MERCURY

Project Mercury has been acclaimed as one of the outstanding technical achievements contributed by this country to world history.

The late President John F. Kennedy said the achievement of manned orbital flight was "...one of the most complex tasks ever presented to man in this country."

On October 7, 1958, just six days after formation of the National Aeronautics and Space Administration, Project Mercury was organized.

Its purpose was to orbit man around the earth and recover him safely.

Just  $3\frac{1}{2}$  years after the program's inception, astronaut John H. Glenn, Jr., orbited the earth and was recovered safely.

In four years, eight months and one week, six U.S. astronauts were successfully rocketed into space and safely returned to earth--two on suborbital flights powered by Redstone rockets and four on orbital missions boosted by Atlas.

This achievement is all the more spectacular when it is remembered that during those short, eventful years NASA had to select and train its Mercury team, establish and perfect operational procedures, establish and perfect a global tracking system and recovery methods, and produce and perfect the required ground and airborne equipment.

McDonnell Aircraft Corp., for example, developed the Mercury spacecraft in half the time normally required for new flight systems, and the Astronautics division of General Dynamics Corp. "man-rated" the Air Force Atlas, intended originally as only a weapon system, to deliver flawless performance for manned space flights.

Project Mercury was considered a monumental government-industry national achievement, involving the skills, experience and initiative of more than two million people.

Following is a Project Mercury launch chronology compiled from NASA records:

Two types of Mercury spacecraft were used in the flight test program. The first series of launches used full-scale "boilerplate" models of the spacecraft to check out launch vehicle-spacecraft integration and the escape system. The second phase of the development launch program used Mercury spacecraft built to production standards.

August 21, 1959 -- Little Joe 1. This was the first attempt to launch a Little Joe Mercury spacecraft for a complex evaluation of escape and recovery systems. Due to accidental ignition of escape rocket, the attempt was terminated.

September 9, 1959 -- Big Joe. This NASA-produced, research and development, boilerplate spacecraft was launched by an Atlas from Cape Kennedy (then Cape Canaveral) for a test validation of the Mercury concept. The spacecraft survived high heat and air loads and was successfully recovered.

October 4, 1959 -- Little Joe 1A. This vehicle was launched at NASA's Wallops Station, Wallops Island, Virginia, to check matching of launch vehicle and spacecraft. Eight solid-propellant rockets producing 250,000 lbs. of thrust drove the vehicle.

November 4, 1959 -- Little Joe 2. Also used at Wallops Station, this was an evaluation of low-altitude abort conditions.

December 4, 1959 -- Little Joe 3. This craft was utilized at Wallops Station to check high-altitude performance of the escape system with Rhesus monkey "Sam" as test subject.

January 21, 1960 -- Little Joe 4. Launched at Wallops Station to evaluate the escape system under high airloads, Rhesus monkey "Miss Sam" was used on this flight as test subject.

May 9, 1960 -- Beach Abort Test. First production spacecraft and its escape system were flight tested in an off-the-pad abort test. (Spacecraft 1)

July 29, 1960 -- Mercury-Atlas 1. This was the first Atlas-launched flight and was aimed at qualifying the spacecraft under maximum airloads and afterbody heating rate during reentry conditions. The spacecraft contained no escape systems and no test subject. The test was unsuccessful because of a launch vehicle system malfunction. (Spacecraft 4)

November 8, 1960 -- Little Joe 5. This was another in the Little Joe series from Wallops Station. The purpose of the test was to check the production spacecraft in an abort simulating the most severe launch conditions. The attempt was unsuccessful. (Spacecraft 3)



November 21, 1960 -- Mercury-Redstone 1. This was the first unmanned, Redstone - powered flight, but premature engine cutoff activated the emergency escape system when the vehicle was only about one inch off the pad. The launch vehicle settled back on the pad and was damaged slightly. The spacecraft was recovered for re-use. (Spacecraft 2)

December 19, 1960 -- Mercury-Redstone 1A. This launch was a repeat of the November 21 attempt and was successful. The spacecraft reached a peak altitude of 135 statute miles, covered a horizontal distance of 236 statute miles and was recovered successfully. (Spacecraft 2)

January 31, 1961 -- Mercury-Redstone 2. This was the Mercury-Redstone flight which carried "Ham," the 37-lb. chimpanzee. The spacecraft reached 155 statute miles altitude, landed 420 statute miles downrange and was recovered. During the landing phase, the parachuting craft was drifting as it struck the water. Impact of the angled blow slammed the suspended heat shield against a bundle of potted wires, driving a bolt through the pressure bulkhead and causing the spacecraft to leak. Ham was rescued before the craft had taken on too much water. (Spacecraft 5)

February 21, 1961 -- Mercury-Atlas 2. This Atlas-powered flight was to check maximum heating and its effect during the worst re-entry design conditions. Peak altitude was 108 statute miles. Re-entry angle was higher than planned and heating was correspondingly worse than anticipated. It landed 1,425 statute miles downrange. Maximum speed was about 13,000 mph. The test was successful. (Spacecraft 6)

March 18, 1961 -- Little Joe 5A. This was a repeat of the unsuccessful Little Joe 5; it was launched at Wallops Station and was only marginally successful. (Spacecraft 4)

March 24, 1961 -- MRBD. A Mercury-Redstone combination successfully flew an unmanned spacecraft on a 115-mile flight test for a checkout of the Redstone launch vehicle. The spacecraft was a recovered craft used on a previous Little Joe flight. (Spacecraft 3)

April 25, 1961 -- Mercury-Atlas 3. This was an Atlas-powered flight attempting to orbit the spacecraft with a "mechanical astronaut" aboard. Forty seconds after lift-off the launch vehicle was destroyed by radio command given by the range safety officer. The spacecraft was recovered to be used again. (Spacecraft 14)

April 28, 1961 -- Little Joe 5B. A Mercury spacecraft was launched from Wallops Station and provided an abort test under severe atmospheric flight conditions.

May 5, 1961 -- Mercury-Redstone 3. The Redstone-powered "Freedom 7" spacecraft carried astronaut Alan B. Shepard, Jr., on a ballistic flight path reaching a peak altitude of 115 statute miles and a downrange distance of 302 statute miles. The flight was successful. (Spacecraft 7)

July 21, 1961 -- Mercury-Redstone 4. This successful "Liberty Bell" flight carried astronaut Virgil I. "Gus" Grissom to an altitude of 118 statute miles and 303 statute miles downrange. The spacecraft sank despite helicopter recovery efforts. (Spacecraft 8)

September 13, 1961 -- Mercury-Atlas 4. This Mercury spacecraft was orbited by Atlas. "Mechanical astronaut" flew one-orbit mission of one hour and 22 minutes. Flight demonstrated that Atlas had capability to fly a man into orbit. MA-4 brought in for first time the world-wide tracking network and demonstrated ability of spacecraft and its systems to operate while completely unattended. (Spacecraft 8)

November 1, 1961 -- Mercury-Scout 1. The Scout launch vehicle was used in an attempt to orbit a communications package to further evaluate the radar tracking capability of the Mercury Tracking Network. This test was terminated shortly after lift-off due to the development of erratic oscillations in the Scout vehicle.

November 29, 1961 -- Mercury-Atlas 5. This Atlas-launched mission sent the Mercury spacecraft on a two-orbit mission. "Enos," the 37½ lb. chimpanzee, made the flight. (Spacecraft 9)

February 20, 1962 -- Mercury-Atlas 6. As the nation's first manned orbital space flight, this was a three-orbit mission of "Friendship 7," piloted by astronaut John H. Glenn, Jr. The mission was completely successful, lasting four hours, 55 minutes and 23 seconds. (Spacecraft 13)

May 24, 1962 -- Mercury-Atlas 7. Astronaut M. Scott Carpenter was pilot of the nation's second manned orbital space flight. His spacecraft was "Aurora 7." This mission, too, was successful. (Spacecraft 18)

October 3, 1962 -- Mercury-Atlas 8. Astronaut Walter M. Schirra, Jr., flew the "Sigma 7" spacecraft 160,000 miles during his six-orbit mission. Total flight time was nine hours, thirteen minutes at a speed of 17,560 miles per hour. Apogee was 176 miles, and perigee was 100 miles. "Sigma 7" landed in the center of the recovery area 275 miles northeast of Midway Island in the Pacific. The flight was considered an unqualified success. (Spacecraft 16)

May 15, 1963 -- Mercury-Atlas 9. Astronaut L. Gordon Cooper, Jr., piloted his "Faith 7" spacecraft on a 22-orbit flight of 34 hours, 20 minutes and 20 seconds. With a total orbital mileage of 589,050 his perigee was 100 miles altitude, and his apogee reached 165.8 miles. This mission successfully concluded the Mercury program. (Spacecraft 20)

## THE MONUMENT

The Project Mercury Monument will be unveiled in a dedication ceremony conducted cooperatively by the National Aeronautics and Space Administration, the United States Air Force and the General Dynamics Corp., builder of the Atlas launch vehicles used for the manned orbital flights.

The monument is being erected as a public service by the General Dynamics Corp., and donated to the United States government.

Heart of the monument is a 13-foot-high astronomical symbol of the planet Mercury. A number "7" inside the symbol signifies the original seven astronauts:

Malcolm Scott Carpenter

Leroy Gordon Cooper, Jr.

John Herschel Glenn, Jr.

Virgil Ivan Grissom

Walter Marty Schirra, Jr.

Alan Bartlett Shepard, Jr.

Donald Kent Slayton

During Project Mercury, the seven astronauts wore as emblems of the program lapel pins identical in design to the symbol on the monument. Only seven of the pins were ever made, and they were presented to the astronauts by the General Dynamics Corp.

The monument's Mercury symbol alone weighs 1,250 pounds. It was fashioned by the Washington Steel Company, Washington, Pa., of the same stainless steel the company developed for the Atlas.

At the base of the monument is a bronze medallion with the faces of the seven original astronauts appearing in bas-relief and a bronze tablet bearing the commemorative inscription:

$$V_c = R_o \sqrt{\frac{g}{R_o + h}}$$

"...ONE OF THE MOST COMPLEX TASKS EVER PRESENTED TO MAN IN THIS COUNTRY...THE ACHIEVEMENT OF MANNED FLIGHT IN ORBIT AROUND THE EARTH."

-JOHN F. KENNEDY

THIRTY-FIFTH PRESIDENT OF THE UNITED STATES

THIS MARKER COMMEMORATES THE NATIONAL AERONAUTICS AND SPACE ADMINISTRATION'S PROJECT MERCURY, WHICH FIRST PUT FREE MEN INTO SPACE. THE FOUR MANNED ORBITAL CAPSULES WERE BOOSTED INTO SPACE BY ATLAS ROCKETS, WHICH WERE LAUNCHED BY THE UNITED STATES AIR FORCE FROM COMPLEX 14, LOCATED 2200 FEET EAST OF HERE AT 28° 29' 27.1428" NORTH LATITUDE AND 80° 32' 49.6107" WEST LONGITUDE. CONTAINED IN A CAPSULE HEREIN TO BE OPENED IN THE YEAR 2464 A.D., ARE TECHNICAL REPORTS OF THESE FLIGHTS.

DEDICATED 1964 A.D., TO THE THOUSANDS OF MEN AND WOMEN OF THE FREE WORLD WHO CONTRIBUTED TO THE SUCCESS OF PROJECT MERCURY.

"SI MONUMENTUM REQUIRIS CIRCUMSPICE"

ANON.

ERECTED AS A PUBLIC SERVICE BY GENERAL DYNAMICS CORPORATION.

Enclosed within the monument is a time capsule, intended for opening in 2464, containing technical reports, still photographs, motion pictures and tape recordings of the manned space flights and other memorabilia of Project Mercury.

LATIN INSCRIPTION ON BRONZE DEDICATORY TABLET

"Si Monumentum Requiris Circumspice"

That famous epitaph on the tomb of Sir Christopher Wren (1632-1723) in St. Paul's Cathedral, London, translates into English as, "If you seek a monument, look about you."

It was inscribed on the Project Mercury monument because it aptly expresses the monument's real significance. The monument itself stands as a salute to Project Mercury and as a historical marker identifying the site of the first U. S. manned orbital missions. But the famed quotation reminds that all of Cape Kennedy is, in fact, a monument to national space achievements.

Sir Christopher Wren was famed as an English scientist and architect. He was professor of astronomy at Gresham College and, later, Oxford. Among his scientific achievements he evolved a hypothesis concerning comets, studied Saturn and its rings, made a model of the moon and discovered a graphic method of computing eclipses.

He designed St. Paul's Cathedral and other notable buildings in England, was twice a member of parliament, was the founder and a president of the Royal Society, and was a member of the council of the Hudson's Bay Company.



FORMULA AT TOP OF DEDICATORY TABLET

Project Mercury Monument

$$V_c = R_o \sqrt{\frac{g}{R_o + h}}$$

This is the mathematical expression of circular orbital flight.

It expresses the factors that must be satisfied to balance a space vehicle between the centrifugal force of its own outward momentum and the downward pull of earth's gravity.

For the 100-mile-high-orbit of Project Mercury, the spacecraft required a velocity of 17,400 miles per hour to achieve the proper balance.

Factors expressed in the equation are:

$V_c$  Velocity for circular orbit

$h$  Distance from earth's surface to spacecraft

$g$  Gravity

$R_o$  Earth's radius, or distance from its center to surface

Essentially, the equation says that by knowing the distance between the earth's center and the spacecraft, you can calculate the gravity force existing at the desired orbital altitude and thus determine the velocity required to achieve the circular orbit.

## TIME CAPSULE

Enclosed within the Project Mercury monument is a stainless steel "time capsule" intended for opening in the year 2464. The capsule contains technical reports, photographs, motion pictures and tape recordings of the manned flights, and other documents of Project Mercury.

Items selected for the time capsule were sealed within special plastic containers to protect against deterioration during the five centuries of storage.

Still photographs showing highlight moments of Project Mercury were specially prepared according to recommendations provided by the American Standards Association and the Eastman Kodak Co. and then certified by a quality control technician to be of "archival quality."

Material contained within the time capsule includes:

1. Proceedings of the Mercury-Atlas Booster Reliability Workshop conducted at San Diego, California, 12 July 1963.
2. Results of the First United States Manned Orbital Space Flight. NASA Manned Spacecraft Center, 20 February 1962.
3. Results of the Second United States Manned Orbital Space Flight. NASA Manned Spacecraft Center, 24 May 1962.
4. Results of the Third United States Manned Orbital Space Flight. NASA Manned Spacecraft Center, 3 October, 1962. (NASA SP-12)
5. Mercury Project Summary including results of the Fourth Manned Orbital Flight. NASA Manned Spacecraft Center, 15 and 16 May 1963. (NASA SP-45)

6. Project Mercury - A Chronology. (NASA SP-4001) Prepared by James M. Grimwood, Historical Branch, Manned Spacecraft Center, Houston, Texas, as MSC Publication HR-1. Dated year 1963.

7. 87th Congress-2d Session/Committee Print. Manned Space Flight Program of the National Aeronautics and Space Administration: Projects Mercury, Gemini, and Apollo. Staff Report of the Committee on Aeronautical and Space Sciences United States Senate. Dated 4 September 1962.

8. Review of the Space Program: Hearings before the Committee on Science and Astronautics U.S. House of Representatives. Eighty-Sixth Congress - Second Session. No. 3, Part 3. Dated 23, 24 February and 7 March 1960.

9. 87th Congress, 1st Session - House Report No. 671. Union Calendar No. 241. Project Mercury. Second Interim Report. Report of the Committee on Science and Astronautics U. S. House of Representatives. (Serial h) Dated 29 June 1961.

10. "We Seven" by the Astronauts themselves. Publishers are Simon and Schuster. New York 1962.

11. Astronautics-Past and Future by J. R. Dempsey, President, General Dynamics/Astronautics. Dated 9 October 1964.

12. Prediction Book 2063 A.D. Prophecies by distinguished Americans of man's employment of space in 2063 A.D. sealed in ceremonies commemorating the fifth anniversary of the dedication of the General Dynamics/Astronautics facility, San Diego, California. Dated July 1963.

13. One deck, General Dynamics/Astronautics space cards.
14. Twenty-six 8x10 photographs showing highlight moments of Project Mercury. (prepared to archival specification)
15. "Friendship 7," an hour-long color motion picture documenting the orbital flight of astronaut John H. Glenn, Jr.
16. Voice countdown excerpts from U.S. manned space flights. (Recorded on Ampex 354-U).
17. Atlas Mercury Vehicle - 1/65th scale desk model.

## COMPLEX 14

Complex 14 is the most famous rocket launching site in the free world.

In appearance it is similar to the other launching facilities fronting the Atlantic ocean along Cape Kennedy's ICBM row.

Beyond appearance, however, the similarity ends.

Complex 14 is credited with literally launching the United States into the space age.

Via words and pictures from all news media, the world's attention was focused on complex 14 during four successful manned orbital flights.

But its contributions to space history precede Project Mercury.

A large "scoreboard" above the blockhouse entrance records 24 Atlas launches from complex 14, and cites among its achievements:

--June 11, 1957, launched first U.S. intercontinental ballistic missile, Atlas 4-A. Though destroyed in flight, 4-A proved conclusively the design worthiness of the Atlas concept.

--December 17, 1957, launched missile 12-A on the first completely successful Atlas flight.

--September 16, 1960, launched Atlas 79-D which established an ICBM distance record of 9,055 statute miles.

--February 26, 1960, launched the first Atlas-Agena--a reliable space launch vehicle combination that since has scored numerous space accomplishments including the Mariner flight to Venus and the recent Ranger VII lunar mission.

--February 20, 1962, launched astronaut John Glenn, Jr. on three-orbit flight in his Friendship 7 spacecraft.

--May 25, 1962, launched M. Scott Carpenter on three-orbit flight in Aurora 7.

--October 3, 1962, launched Walter Schirra, Jr., on six-orbit flight in Sigma 7.

--May 15, 1963, launched Gordon Cooper, Jr., on 22-orbit flight in Faith 7.

Since the final Project Mercury manned flight, complex 14 has been undergoing conversion for use in the forthcoming Project Gemini man-in-space program.

Unmanned Atlas-Agena space launch vehicles will be flown from complex 14 to serve as rendezvous vehicles for astronaut teams in Gemini spacecraft.

## CONTRIBUTORS TO PROJECT MERCURY MONUMENT

In cooperation with the National Aeronautics and Space Administration and the United States Air Force, the General Dynamics Corp. conceived and designed the historical monument to Project Mercury and will donate it during dedication ceremonies to the United States government.

### Design:

The Project Mercury monument was designed by Stanley B. Hodge, manager of art direction for the Astronautics division of General Dynamics Corp., San Diego, Calif. A nationally recognized art director, Hodge was an art instructor at Long Beach State College and at the University of California at Los Angeles, where he earned a master of arts degree, before joining General Dynamics in 1957. An author and featured speaker on art direction, his work has been exhibited nationally, including the American Institute of Graphic Arts, the Art Directors Club of Los Angeles, and the Art Directors Club of New York.

### Mercury Symbol:

The Mercury symbol portion of the monument was donated by the Washington Steel Company, Washington, Pa. It is made of the same stainless steel the firm developed for the Atlas. It was fabricated for them by the Sandemeyer Steel Co. of Philadelphia Pa.

Medallion:

The medallion featuring the faces of the nation's seven original astronauts in bas-relief was sculptured especially for the Project Mercury monument by Ralph J. Menconi, of New York City. A prize-winning artist, he is a director of the Municipal Art Society of New York City and a member of the National Sculpture Society. His works, ranging from portraits to medals, have been commissioned by numerous civic, labor and industrial organizations, and he is currently preparing a series of historical medals which, when completed, will include all U. S. presidents, all 50 states, and all the signers of the Declaration of Independence.

From the Menconi sculpture of the astronauts, the gold-bronze medallion was produced by the Medallic Art Co., of New York City, which is recognized as one of the nation's leading firms in producing bas-relief medallions from sculptors' original models.

In addition to the medallion on the Mercury monument, a limited number of coin-sized medallions have been struck for presentation to persons credited with extraordinary roles in the success of Project Mercury.



Site Preparation:

The site for the Project Mercury monument near complex 14 at Cape Kennedy, Fla., was prepared by the following contributors:

The Guided Missile Range division of Pan American World Airways--  
site preparation and landscaping.

Electric Construction Co., Orlando, Fla.--provided permanent  
lighting.

Houdaille-Duval Co., Jacksonville, Fla.--paved the monument site.

Rinker Material Co., West Palm Beach, Fla.--provided concrete.

Paul Smith Construction Co., Orlando, Fla.--installed the con-  
crete.