SPACE EXPLORATION TIMELINE

1950s

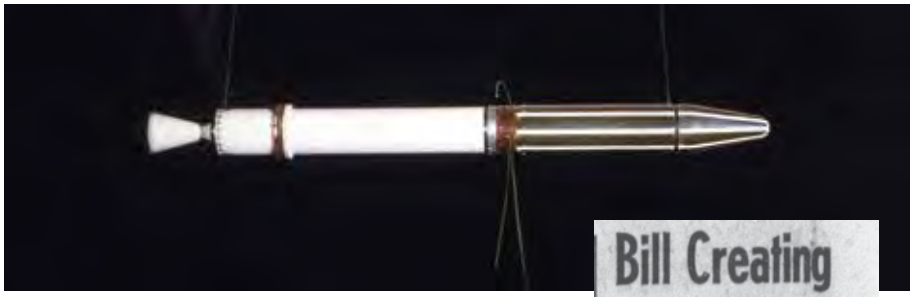
Sputnik 1. National Air and Space Museum

1957

Oct. 4 – The Soviet Union launches the first artificial satellite, Sputnik, into space. Sputnik was about the size of a beach ball and weighed less than 190 pounds. "Sputnik" means "companion" or "satellite" in Russian.

Listen to Sputnik's beep at nasa.gov/wpcontent/uploads/2015/01/578626main_sputnik-beep.mp3.

Nov. 3 – The U.S.S.R. launches Sputnik 2 with a dog named Laika on board. Laika did not survive the voyage.



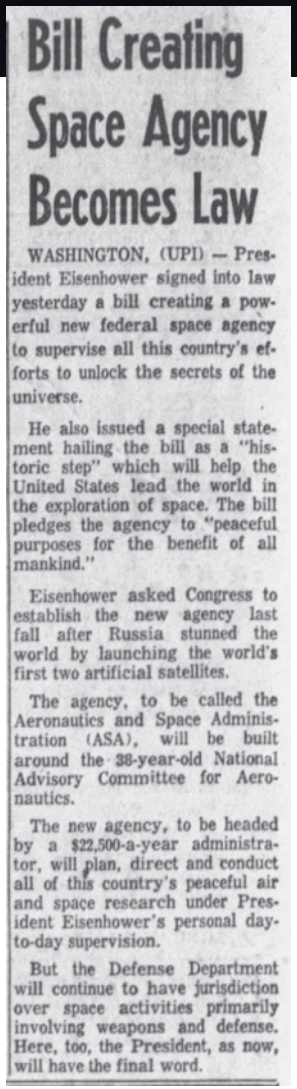
Explorer 1. National Air and Space Museum

1958

Jan. 31 – The United States launches its first satellite, Explorer 1.

July 29 – President Eisenhower signs the National Aeronautics and Space Act, creating NASA.

Oct. 11 – The U.S. launches Pioneer 1, NASA's first spacecraft. It was meant to go into lunar orbit, but sent just 43 minutes of data back before re-entering Earth's atmosphere.



Bill Creating Space Agency Becomes Law

WASHINGTON, (UPI) — President Eisenhower signed into law yesterday a bill creating a powerful new federal space agency to supervise all this country's efforts to unlock the secrets of the universe.

He also issued a special statement hailing the bill as a "historic step" which will help the United States lead the world in the exploration of space. The bill pledges the agency to "peaceful purposes for the benefit of all mankind."

Eisenhower asked Congress to establish the new agency last fall after Russia stunned the world by launching the world's first two artificial satellites.

The agency, to be called the Aeronautics and Space Administration (ASA), will be built around the 38-year-old National Advisory Committee for Aeronautics.

The new agency, to be headed by a $22,500-a-year administrator, will plan, direct and conduct all of this country's peaceful air and space research under President Eisenhower's personal day-to-day supervision.

But the Defense Department will continue to have jurisdiction over space activities primarily involving weapons and defense. Here, too, the President, as now, will have the final word.

The original seven astronauts for the Mercury Project pose in front of an Air Force Jet. From left to right: Scott Carpenter, L. Gordon Cooper, John H. Glenn, Virgil I. Gus Grissom, Walter M. Wally Schirra, Alan B. Shepard, and Donald K. Deke Slayton. NASA

NASA selected its first seven astronauts on April 27, 1959. Left to right at front: Walter M. Wally Schirra, Donald K. Deke Slayton, John H. Glenn, Jr., and Scott Carpenter. Left to right at rear: Alan B. Shepard, Virgil I. Gus Grissom, and L. Gordon Cooper, Jr. NASA

'Moon' Races Around Globe 560 Miles Up

LONDON, (AP) — The Russians announced yesterday they hung an artificial moon 560 miles out into space and that it is streaking around the world at enormous speed.

They said it can be seen with glasses and followed by radio through instruments it carries.

Sighting of man's first satellite was reported from Columbus, Ohio and Terre Haute, Ind. Signals from the radio - equipped sphere were picked up by the Naval Research Laboratory at Washington, D.C., and by amateur radio operators throughout the nation.

National Broadcasting Co. said Radio Corporation of America communications had picked up the sound of the Russian earth satellite launched somewhere in Russia yesterday.

The recovery operation of the Faith 7 spacecraft after the completion of the 1-1/2 day orbital flight (MA-9 mission) with Astronaut Gordon Cooper. Navy frogmen attach the flotation collar to the spacecraft. The MA-9 mission was the last flight of the Mercury Project and launched on May 15, 1963 boosted by The Mercury-Atlas launch vehicle. NASA

St. Petersburg Times

Sure They'll Come Back Safe

America's First Space Pioneers Ready To Orbit

PREDICTS POLITICAL RETALIATION

Redistricting Sectional War Seen By Collins

Governor Offers Some Significant Political Advice

Move To Close Schools Hit By Clergyman

Japan Celebrates Wedding Of Prince

Broad Court Reform Plan Is Outlined

1959

Jan. 2 – The Soviet satellite Luna ("Moon") 1 launches in an attempt to hit the moon. It misses the moon and instead becomes the first man-made object to achieve an orbit around the Sun. It is later dubbed "Artificial Planet 1" and renamed Mechta ("Dream").
April 9 – NASA introduces the first American astronauts, the Mercury 7.
Sept. 13 – The Soviet satellite Luna 2 becomes the first spacecraft to impact the surface of the moon.
Oct. 4 – The Soviet satellite Luna 3 launches, orbits the moon and photographs the moon's far side for the first time.

Astronaut John Glenn enters the Mercury spacecraft, Friendship 7, prior to the launch of MA-6 on February 20, 1961 and became the first American who orbited Earth. The MA-6 mission was the first manned orbital flight boosted by the Mercury-Atlas vehicle, a modified Atlas ICBM (Intercontinental Ballistic Missile), lasted for five hours, and orbited Earth three times.

Ham, a three-year-old chimpanzee, in the spacesuit he would wear for the second Mercury- Redstone (MR-2) suborbital test flight in January, 1961. NASA used chimpanzees and other primates to test the Mercury capsule before launching the first American astronaut, Alan Shepard, in May 1961. NASA


St. Petersburg Times

To Free Or Not To Free, That Is The Question

Rayburn Wins Rules Victory By 217-212 Vote

Chimp Plucked From Atlantic

A three-year-old chimpanzee, named Ham, in the biopack couch for the MR-2 suborbital test flight. On January 31, 1961, a Mercury-Redstone launch from Cape Canaveral carried the chimpanzee "Ham" over 640 kilometers down range in an arching trajectory that reached a peak of 254 kilometers above Earth. The mission was successful and Ham performed his lever-pulling task well in response to the flashing light. NASA used chimpanzees and other primates to test the Mercury Capsule before launching the first American astronaut Alan Shepard in May 1961. NASA

First pass of Echo 1 over the Goldstone Tracking Station in California on the morning of Aug. 12, 1960. NASA/JPL-Caltech

SPACE EXPLORATION TIMELINE

1960s

Yuri Gagarin, pilot of the Vostok 1, on the bus on the way to the launch. During the flight, he was not allowed to operate the controls because the effects of weightlessness had only been tested on dogs so far. The mission was instead controlled by ground crews, and an override key was provided in case of emergency. NASA

Echo 1. National Air and Space Museum

1960

April 1 – The U.S. launches TIROS 1, the first weather satellite. Although it operated for only 78 days, it transmitted the first television image from space.

Aug. 12 – The U.S. launches ECHO 1, the first communications satellite.

Aug. 19 – The U.S.S.R. launches Sputnik 5, carrying the dogs Strelka and Belka. They become the first living beings to survive a trip into space.

1961

April 12 – Soviet cosmonaut Yuri Gagarin becomes the first human in space. Gagarin completes one orbit of Earth in the Soviet spacecraft Vostok ("East") 1. April 12 is internationally recognized as "Yuri's Day."

May 5 – Astronaut Alan Shepard completes a 15-minute suborbital flight and becomes the first American in space.

May 25 – President Kennedy challenges the country to put a man on the moon by the end of the decade.

Soviet cosmonaut Yuri Gagarin shakes hands with NASA's Gemini 4 astronauts, Edward H. White II and James A. McDivitt at the Paris International Air Show in June 1965. This first meeting between Gagarin and the Gemini 4 astronauts occurred shortly after the completion of the Gemini 4 mission, where White performed the first American EVA. Yuri Gagarin achieved fame as the first human to orbit Earth. Also shown in the picture (seated) are Vice President Hubert H. Humphrey and (standing) French Premier Georges Pompidou. NASA

Right: Telstar 1. National Air and Space Museum

Complete Leased AP Wire and WIREPHOTO Service, UPI and Dow Jones

THE TAMPA TRIBUNE

PAID CIRCULATION March Average
Daily 158,815
Sunday 171,706

67TH YEAR—No. 103 FOUR SECTIONS — 68 PAGES TAMPA, FLORIDA, THURSDAY, APRIL 13, 1961 PRICE FIVE CENTS

Districting Bill Passes Senate, 35-3

'Pork-Choppers' Whip Through Bryant Plan Calling For 45-Member Senate

(PHOTO ON PAGE 3-B)
By MARTIN WALDRON
Tribune Staff Writer

TALLAHASSEE, April 12 — Senate Pork Chop leaders whipped a "magic" reapportionment formula out of their hats today and sped it through the upper house.

They introduced and passed a 45-senator plan they said would cure the aches and pains of sectionalism for 20 years or more.

The plan, which leaves the home country of top senate leaders virtually intact, was developed by Gov. Farris Bryant and former senate president Dewey Johnson, of Quincy.

They pushed it through the senate today.

Main Plan

Bryant hailed the plan as a "good one" and said he gave birth to most of the ideas in it during a year of study. Johnson said he thought the plan would end log-rolling county squabbling once and for all.

Tryout hopes will be between small counties scrambling for districts, Bryant said.

Big counties automatically will get senate seats when their population reaches 300,000.

The plan, numbered S-113A, which passed the senate 35-3, may come up in the house tomorrow where a number of

(Continued on Page 3-B, Col. 2)

The Weather

Forecast for Tampa and Tampa Bay Area — Fair and cool tonight and Friday. Warnings Displayed for Westerly Winds 20 to 25 MPH and Hinderlanding in the Afternoon.

High Today 76, Low Tonight 53.

Forecast for Florida—Fair, Cooler and Windy with Highs from 65-75 North to 72-82 South.

Weather Broadcasts
WFLA-Radio
6:55 A.M. 6:55 P.M.
7:55 A.M. 12:55 P.M.
10:55 P.M.
WFLA-TV
6:55 A.M. 1:00 P.M.
7:55 A.M. 5:55 P.M.
8:55 A.M. 11:00 P.M.

Tampa Temperature
High ..... 80 Low 69
Normal ..... 78 Low 57
Rainfall
Total for Month 1.15
Total this month to date 1.34
Normal to date 1.34
Excess since April 1 ..... .27
Excess since Jan. 1 ..... .27
Humidity
1 P.M. 71%
Barometer
7 A.M. 29.79 7 P.M. 29.79
Tampa Tides
High 12:21 A.M. and 1:07 P.M.
Low 6:45 A.M. and 7:13 P.M.

Weather Elsewhere
Temperatures as of 8 A.M. EST Friday
(M—Weather Bureau Airport Temperature and Rainfall)

	High	Low	Rain
Albany	83	57	
Anchorage	42	27	
Asheville	77	50	.60
Atlanta	82	58	1.50
Atlantic City	51	36	.01
Baltimore	61	39	.15
Birmingham	83	60	.90
Boston	49	34	
Buffalo	48	28	
Charleston	79	56	1.02
Charlotte	81	47	
Chattanooga	84	51	1.31
Chicago	51	39	.23
Cleveland	60	41	.04
Columbia	86	55	.16
Dallas	85	64	
Denver	70	40	
Des Moines	61	32	.01
Detroit	57	39	.60
Duluth	46	22	
Houston	72	53	.10
Indianapolis	63	36	.40
Kansas City	64	39	.45
Key West	84	68	.01
Little Rock	87	57	1.16
Los Angeles	69	54	
Louisville	74	42	.05
Memphis	84	67	1.55
Milwaukee	54	34	
Minn.-St. Paul	49	30	.02
Miami	85	68	2.56
Montreal	54	37	
New York	55	41	
Philadelphia	55	40	.05
Phoenix	88	60	
Pittsburgh	59	40	.36
Portland, Me.	50	27	
Portland, Ore.	59	44	.25
Richmond	72	49	.05
St. Louis	64	41	.85
Salt Lake City	61	31	
San Antonio	93	70	
San Francisco	58	50	.10
Savannah	75	56	1.52
Washington	59	37	.15

(Additional Weather, Page 8-D)

Indecent Book, Film Bill Passes Senate

TALLAHASSEE, April 12 — Sen. Charley E. Johns of Starke, who said he has trouble finding his favorites in western novels with "all the sex in the scenes altogether because of obscene magazines and books, rather led bills outlawing indecent literature and censoring movies through the senate.

Johns waved copies of "Playboy" magazine and declared he would be upset unless steps to save for the bills, which are backed by Gov. Farris Bryant.

The senate voted unanimously for both bills.

"You go to a news stand and you can hardly get anything else," Johns said. He said "Look at the titles of some of these: 'Reserve' — this one contains some mighty unusual photographs.

"Sex Factory," "Hot Stuff."

(Continued on Page 6-B, Col. 8)

BILL TO BAN SECRECY IN GOVERNMENT INTRODUCED

TALLAHASSEE, April 12 (AP) — Sen. Dewey Johnson of Quincy today introduced a bill to ban secret meetings by governmental boards, commissions and agencies.

Howell ... But Cross ... ory Crews of ... assured he ... would there ... as even tough ... Howell's bill warns no person ... office for violating ... Howell said ... provides for the ... of public officials who ... conduct public business in private.

The Howell bill provides that no administrative body ... or city shall hold meetings which are closed to the public.

The prohibition would apply even to so-called informal ... gatherings of board members ... if official business was the subject.

Grand jury investigations ... would be exempted from the ... provisions of the bill.

Cross said his bill would make meetings of any public body open to the public with no exceptions other than those ... under the Howell proposal.

Convening for violation of the secret meeting plan would ... a fine of not less than $100 nor more than $500, or be jailing for up to six months.

Legislators To Get Plea Not to Annex Plant Site

By HOWARD A. STEWART
Tribune Staff Writer

Tampa's Committee of 100 will make a direct plea on behalf of a proposed $6 million National Gypsum Co. plant to the Hillsborough County legislative delegation at a public night meeting in Tallahassee. The Tribune learned last night that the plea will center around the delegation's announced intention of annexing the site to Temple Terrace, Hazel to the City of Tampa, Hillsborough County, or Hillsborough County Industry-seeking as it will cut off its plans if the area is annexed. The committee will present its plea at a secret meeting last Friday.

'Storm's Realize Need'

"We on the committee feel the delegation doesn't realize the need for some industrial area, watershed and otherwise, to ... Tampa outside the city limits as we must compete on an equal basis with ... cities," ... Williams, president of Tampa Electric Co., said last night.

The meeting Monday will permit the delegation to hear the benefit of each other's thinking so that an agreement can be reached," Mayor ... Mother group has met formally before on the issue, it added.

Arrangements for the session ... were made by Rep. ... Simmons, chairman of the county delegation, after a number of ... delegation members ... have stayed home ... because of ... conflicting meetings ... Simmons said he ... a hearing for the legislative delegation to decide.

Tentative ... no public announcement ... would ... Tampa ... Tribune ... they had been invited ... and stated ... know ... was going to be dropped.

Delegation members ... have ... committee members ... going to Tallahassee Monday.

(Continued on Page 3-B, Col. 1)

HOUSE VOTES THAT PUPILS LEARN ABOUT COMMUNISM

By JACK NEASE
Tribune Staff Writer

TALLAHASSEE, April 12 — The House today voted overwhelmingly to ... a six-week course in ... "American versus Communism."

Only two members, in an hour-long debate on the bill, ... urged the perusal to ... Communism ... the course be started in all schools before September, 1961, instead of the September, 1962, deadline ... the measure.

It ... the course be started in all schools before September, 1961, instead of the September, 1962, deadline ... the measure.

It ... Communism ... a requirement that students write a 500-word ... on "American freedom versus Communist enslavement."

It ... Make the State Board of Education responsible for choosing a text book on the recommendation of the state superintendent of public instruction.

(Continued on Page 3-C, Col. 5)

Northeast Florida Lashed by High Winds, Heavy Rain

JACKSONVILLE, April 12 (AP) — Severe weather ... Northeast Florida ... with ... lowered ... in four days.

Wind up to 51 miles an hour ... Jacksonville ... and ... a half inch of rain ... during a severe weather alert. A ... was ... Jacksonville ... Beaches ... Fernandina Beach ... Callahan.

An Eastern Air Lines two-engine passenger plane bound ... Miami ... Jacksonville ... was forced to ... at Jacksonville ... when ... severe weather ... Georgia ... passed. It took off from ... Airport a second time ... to Miami.

Tornado-like winds ... struck north of Lake City ... Sat., taking off part of ... roofs of two homes. No one was reported hurt. Trees were also toppled in the area.

Kennedy Says 'We Are Behind In Space'

WASHINGTON, April 12 (AP) — President Kennedy said today it will take some time for the U.S. to catch up with Russia in space exploration and in putting a manned vehicle in the moon.

The President told a news conference however, that he does not give up Russia's leadership in space and the weakening of the West in the fight against Communism.

Kennedy again expressed admiration of the Soviet Union's launching a man in space and bringing him safely to earth. He congratulated Soviet statisticians ... which he sent earlier to Soviet Premier Khrushchev.

'We Are Behind'

As for the relative positions of the United States and Russia in space exploration, Kennedy said there is no doubt about it that ... are behind.

He attributed this largely to the fact that the Soviets have been able to develop much more powerful launching rockets than this country has.

Kennedy's ninth news conference ... the longest ... between ... the largest number of reporters since he took office. The previous record was 418 ... at the President's first session ... last January.

Today's conference dealt ... with the many ... and international affairs.

Cuba and Intervention

Kennedy said there was no ... draft with those ... earlier meeting.

The President apparently was referring to a London dispatch ... that Khrushchev ... Kennedy was reported to have decided not to oppose U.N. secretary general ... for a second ... for a seat in the United ...

Kennedy said that he and British Prime Minister Macmillan had discussed ... Laos ... China issue when Macmillan was here last week. Britain recognizes Communist China, but ... the United States ... the United States is not ...

(Continued on Page 21, Col. 1)

Tribune Features

FOR BUSY PEOPLE—

A Quick Look at the News

International

There was a world of earthly reaction to the Russians' man-in-space feat, ranging from possible international repercussions to the inevitable congressional debate. The Soviets challenged the West to catch up; Moscow received a string of congratulatory messages from foreign governments, including the U.N.; congressmen demanded a space program; the President cautioned that the Reds' success carried no indication of a weakening in the West's ability to fight Communism; U.S. astronauts were disappointed they were not first, and grinning Khrushchev said he hoped the next man to visit the earth's outer limit have friendly intentions (Pages 1, 4-A, 5-A, 6-A).

Any action which might be interpreted as American intervention in Cuba has been barred by President Kennedy. Kennedy said there would not be armed invasion of Cuba by the U.S. unless our circumstances ... be opposed invasion of the island by anti-Castro forces using U.S. bases (Page 21-A).

National

A self-educated man, John Dykstra, is the new president of the Ford Motor Co. Dykstra, 49, attended a night technical high school and took correspondence courses ... (Page 1-D).

General Motors Corp., the world's largest single industrial enterprise, has been indicted on charges of monopolizing diesel locomotive production and sales. The government said GM formed two competitors out of the market and controls 84.1 per cent of the locomotive business (Page 1).

The founder of the controversial, anti-Communist John Birch Society came under new attack in the U.S. Senate—this time for "reckless slurs and smears" against Protestant ministers. Welch claimed 7,000 of the 100 ministers are "sweetpeas" (Page 13-A).

Florida

Florida's long-standing debate on legislative reapportionment may be nearing a new climax. The senate has passed Governor Bryant's 45-senator plan and the bill has headed into the house, with Bryant stating he wants 103 members in that body. The senate now has 38 members, the house 95 (Page 1). Some 29 one-county senate districts would be created under the new plan (Page 1). Under the plan, precincts in the Democratic stronghold of Florida, meanwhile, that ... Democratic ... would be ... in control of 60% in the house in ... of reverse spent on higher education (Page 19-A).

Fugitive brothers Andrell and Quitman Strickland have been captured near Defuniak Springs. The pair was wanted in connection with a Warrenton, Ga., jailbreak. The manhunt began after a highway patrol trooper was wounded by gunfire when he attempted to arrest them for speeding (Page 6-C).

Escambia County Democrats is preparing a plan for gradual school integration, ... U.S. District Court orders (Page 6-C).

Consumer buying habits are changing in relation to Florida citrus, a market research says, with sales of frozen orange concentrate and chilled orange juice declining to greatly increase (Page 17-A). In line with the new trends, Florida Citrus Commission advertising this summer will put the accent on fruit (Page 17-A).

Space Man

—AP Wirephoto
Maj. Yuri A. Gagarin

Red Space Feat Raises Puzzling Questions

By THOMAS A. REEDY

LONDON, April 12 (AP) — The Soviet's claimed feat of launching a man into space ... a host of questions.

Among them:

... how far the other countries try to catch up ...

... how the news agency said Khrushchev talked with Gagarin on the phone, and said ...

"You have made yourself immortal.

"I will meet you in Moscow.

"You and I and all our people will be proud to welcome the great feat in the conquering of space. Let the whole world see what our country is capable of ...

Gagarin, said Tass, responded ...

"Now let the other countries try to catch up."

And Khrushchev replied:

"That's right. Let the capitalist countries try to catch up with our country by technology. Maybe then they will understand the real facts about Communism."

Tough Questions

Soviet announcements seem ... to have answered some of mankind's deepest. But the new indicated that the feat—with its obvious overtones of military overtones — would echo in the Kremlin's cold war and the chief Soviet attitudes toward world problems.

Pravda's story of the flight occurred between 9:07 and 10:35 a.m. today.

Gagarin ... already ... Moscow ... Tass reported in a Moscow broadcast ... Wednesday morning edition flatly announcing a Soviet ... had been in space.

The Communist Party organ ... that the 27-year-old cosmonaut ... who had aroused the world ... as he passed into the realm of ... at a speed of almost 17,000 miles an hour, or six times as fast as man ever flew before.

... Tass said Gagarin's capsule ... was 5,000 miles per hour, achieved by the U.S. X15 rocket ...

President Kennedy called the ... Soviet rocket feat ... a great scientific achievement ... and congratulations of ... the United States, once again lagged behind, but space administration officials unhesitatingly praised Soviet scientists.

The Soviets themselves called ...

(Continued on Page 4, Col. 1)

Happy, Boasting Soviet Officials Challenge West To Equal Feat

By PRESTON GROVER

MOSCOW, April 12 (AP) — A Russian astronaut's orbit around the world at five miles a second with maneuver across the frontier of space today and left the Soviet Union challenging the West to try to catch up.

The pioneer astronaut, 27-year-old Yuri Alekseyevich Gagarin, plunked the cosmos ... with the announcement ... of reconnaissance ... as he passed into the realm of weightlessness, the official Russian announcement said.

The feat lasted the Soviet Union's supply of superlatives and left Communist officials and ... correspondents ... electrified ... reports in the United States.

And tonight Nikita S. Khrushchev, who had presumed a few weeks ago that the first ... would be launched ... Soviet ... to be realized, declared:

Flings Challenge

"Let the capitalist countries try to catch up. ...

The Tass news agency said Khrushchev talked with Gagarin on the phone, and said ...

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"You and I and all our people will be proud to welcome the great feat in the conquering of space. Let the whole world see what our country is capable of ...

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(Continued on Page 4, Col. 1)

Russians Put Man In Space Orbit And Return Him Alive

Soviets Say Space Man Feels Well, No Injuries

By HENRY SHAPIRO

MOSCOW, April 12 (UP)—Soviet Air Force Maj. Yuri Gagarin, a big grin on his face, said today he felt fine and suffered no injuries on the historic ride around earth that made him the first man to travel in space.

Russians danced for joy in the streets at the feat of Soviet rocketry and the flight of the stocky, 27-year-old cosmonaut in his silvery space suit. From the time he was strapped into that cramped ... he was ... almost illiterate carpenter to Columbus, Magellan and Lindbergh. Automatically, he became the world's first man in space but also the world's first ... man—traveling at speeds in excess of 25,000 MPH.

Earth Looks Blue

Stepping from his space cabin somewhere in the Soviet Union, Gagarin reported the earth looked light blue to him during the flight. He said he could see ... were very clear.

"I feel well," he was quoted as saying. "I have no injuries or bruises."

Gagarin and physicians ... rushed him off for intensive examination.

On the basis of their findings it will come the next step, to ... man ... delegates to a space conference in Florence, Italy, said ... is to send a man to the moon.

"The battle of space is half won," said a jubilant Soviet scientist.

Nikita Happy

Premier Nikita S. Khrushchev, vacationing in Sochi on the Black Sea, talked to Gagarin by phone and sent him a radio saying, "I hug you. See you soon in Moscow."

Gagarin ... and ... there had been a Soviet attempt last Friday to launch a spaceman but that it failed. There were no other details, although it was ... that the launching ... the ... space attempt had been made Friday. There was no assessment of the report from the government.

Hundreds of thousands of Muscovites ... streamed through the streets cheering Gagarin's name. A parade was planned to rival any ... since VE day.

All Russia Celebrates

In Kiev, Leningrad and elsewhere, flags flew, people ... and ... Gagarin's name. In Kishinev, Moldavia, city fathers renamed a street "Gagarin Boulevard."

The government newspaper Izvestia ... Gagarin ... to the name of his landing in a "pre-designated spot."

"Thousand and smiling," the Izvestia's correspondent described Gagarin as he stepped from the spaceship. "Smiling as only a man can smile who has just reflected the light of the story."

TV announcers were told with excitement. One waved his arms as he hailed the "

(Continued on Page 4, Col. 2)

Space Man

—AP Wirephoto
Maj. Yuri A. Gagarin

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By HENRY SHAPIRO

MOSCOW, April 12 (UP)—Soviet Air Force Maj. Yuri Gagarin, a big grin on his face, said today he felt fine and suffered no injuries on the historic ride around earth that made him the first man to travel in space.

Russians danced for joy in the streets at the feat of Soviet rocketry and the flight of the stocky, 27-year-old cosmonaut in his silvery space suit. From the time he was strapped into that cramped ... he was ... almost illiterate carpenter to Columbus, Magellan and Lindbergh. Automatically, he became the world's first man in space but also the world's first ... man—traveling at speeds in excess of 25,000 MPH.

Earth Looks Blue

Stepping from his space cabin somewhere in the Soviet Union, Gagarin reported the earth looked light blue to him during the flight. He said he could see ... were very clear.

"I feel well," he was quoted as saying. "I have no injuries or bruises."

Gagarin and physicians ... rushed him off for intensive examination.

On the basis of their findings it will come the next step, to ... man ... delegates to a space conference in Florence, Italy, said ... is to send a man to the moon.

"The battle of space is half won," said a jubilant Soviet scientist.

Nikita Happy

Premier Nikita S. Khrushchev, vacationing in Sochi on the Black Sea, talked to Gagarin by phone and sent him a radio saying, "I hug you. See you soon in Moscow."

Gagarin ... and ... there had been a Soviet attempt last Friday to launch a spaceman but that it failed. There were no other details, although it was ... that the launching ... the ... space attempt had been made Friday. There was no assessment of the report from the government.

Hundreds of thousands of Muscovites ... streamed through the streets cheering Gagarin's name. A parade was planned to rival any ... since VE day.

All Russia Celebrates

In Kiev, Leningrad and elsewhere, flags flew, people ... and ... Gagarin's name. In Kishinev, Moldavia, city fathers renamed a street "Gagarin Boulevard."

The government newspaper Izvestia ... Gagarin ... to the name of his landing in a "pre-designated spot."

"Thousand and smiling," the Izvestia's correspondent described Gagarin as he stepped from the spaceship. "Smiling as only a man can smile who has just reflected the light of the story."

TV announcers were told with excitement. One waved his arms as he hailed the "

(Continued on Page 4, Col. 2)

Russians Hail Soviet Space Man

MOSCOW, April 12—Russians gather in Moscow's Red Square today and cheer announcements that the Soviets have sent a man into outer space. — (AP Wirephoto.)

1962

Feb. 20 – Astronaut John Glenn becomes the first American in orbit. Glenn completes three orbits of Earth in the spacecraft Friendship 7.

June 16 – Cosmonaut Valentina Nikolayeva Tereshkova becomes the first woman in space.

July 10 – The U.S. launches Telstar I, the first active communications satellite and the first satellite launched for a private company (AT&T). On July 23, it relays the first publicly available transatlantic TV signal.

Dec. 14 – The U.S. spacecraft Mariner 2 flies past the planet Venus in the first space mission to study another planet at close range.

A camera onboard the "Friendship 7" Mercury spacecraft photographs astronaut John H. Glenn Jr. during the Mercury-Atlas 6 spaceflight. NASA

John Glenn poses for a photo with the Mercury "Friendship 7" spacecraft during preflight activities. NASA

Valentina Tereshkova. San Diego Air and Space Museum

Pruzzle Deadline, 5 P.M. Today; New Pruzzle Sunday

St. Petersburg Times

GRAND WAY

KHRUSHCHEV CHALLENGES WEST TO CATCH UP

Russian's Flight Hurls Mankind Into New Era

Cold War Implications Are Hinted

NO SUPPORT FOR ANTI-CASTRO FORCES

JFK Disavows U.S. Backing Of Plans To Invade Cuba

'HANDS ACROSS FLORIDA'

45-District Proposal Clears Senate, 35-3

EXCLUSIVE

How Cuban Rebels Are Recruited

REACTION

Apportionment Action Finds House Divided

Other Legislative News Inside

Gagarin Is Name In News

IN NINE-HOUR RECITAL

No Mercy, Hausner Warns Eichmann

'Wild Duck' Top Fare In Russia

U.S. REACTION

'We Are Behind,' Says Kennedy Of Space Race

A Day To Remember

IN TODAY'S TIMES

JFK, Adenauer Plan Stronger Allied Ties

'BOY, WHAT A RIDE!' BEAMS ASTRONAUT SHEPARD

U.S. Takes Giant Step Into Space

JFK To Ask Additional Space Funds

Manned Capsule Blasted 115 Miles Above Earth

Spirits High, He Looks, Feels Great

Legislature Votes To Override Bryant's Vetoes Of Track Bills

Another Bill To Bar Liquor Ads Introduced

First American Voice From Space Is Calm

Times Is Cited For Service To Community

The Citation

The Medal

IN TODAY'S TIMES

Queen Of Britain Calls On Pope John

THE TAMPA TRIBUNE

Glenn Returns Safely After 3 Orbits

'It Was Hot in There,' Astronaut Says of Capsule

Reported In Good Condition

Eats Big Steak After Arriving On Carrier

World Cheers U.S. Feat

Astronaut Flies 81,000 Miles In Under 5 Hours

Kennedy Going To Cape

Federal Pay Hike Asked By Kennedy

President Will Greet Glenn There Friday; Ceremony Also Set in Washington Next Week

Urban Bill Loses Test In Senate

Tribune Features

CHILDREN EXCITED, TOO—

Mrs. Glenn Says It Was Her 'Most Wonderful Day'

Here's Timetable of Glenn's First Orbit Around the Earth

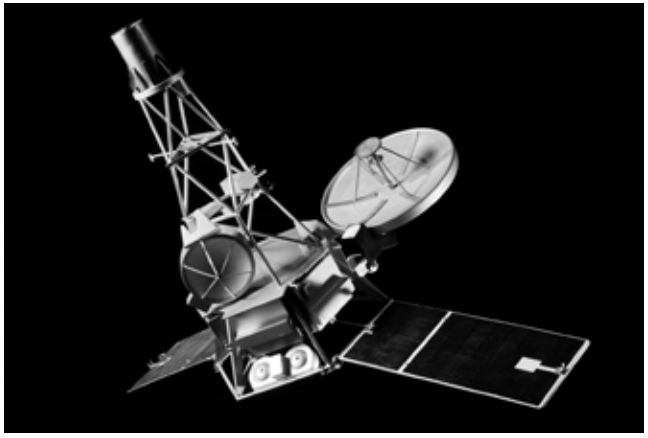
George White's Cartoon on 1-E

FOR BUSY PEOPLE—

Quick Look at News Inside

1964

July 19 – China launches and recovers an experimental biological rocket carrying white mice.



A model of the Mariner spacecraft at the National Aeronautics and Space Administration (NASA) Lewis Research Center in June 1964. NASA

St. Petersburg Times

Glenn's Triple Triumph In Space Sails America Into 'New Ocean'

World Hails Epic Voyage Of Astronaut

JFK Offers U.S. Gratitude After Venture

Astronaut John H. Glenn Jr.: His Day In Space

MAN IN SPACE REPORT

...And Elsewhere

1965

March 18 – Cosmonaut Alexi Leonov becomes the first man to walk in space, performing the first tethered spacewalk outside spacecraft Voskhod ("Sunrise") 2 while in Earth's orbit.

June 3 – Astronaut Ed White becomes the first American to walk in space.

July 14 – The U.S. spacecraft Mariner 4 reaches Mars and transmits the first close-range pictures of Mars.

During the Gemini 4 mission on June 3, 1965, Ed White became the first American to conduct a spacewalk. The spacewalk lasted 23 minutes. NASA

Astronauts, from the left, Gus Grissom, Ed White II and Roger Chaffee stand near Cape Kennedy's Launch Complex 34 during training for Apollo 1 in January 1967. NASA

St. Petersburg Times

3 SPACEMEN TRAPPED BEHIND CLOSED HATCHES

Astronauts Grissom, White, Chaffee Killed In Flash Fire On Pad At Cape

Deadly Storm Rips Midwest; Twenty Killed

Apollo One Crewmen Die Inside Capsule

Kirk Discloses Finance Plans

China Province Clash Deepens

State Chilly —But Warm In Comparison

Legislators 'Stick Together'

Seture Booster And Apollo Teammates (From Left) Grissom, White And Chaffee

Only Hours Before Their Death, Grissom (Right) And Chaffee Walk To Spacecraft

A City Grieves For One Of Its Sons

1966

Feb. 3 – The Soviet spacecraft Luna 9 becomes the first spacecraft to make a soft landing on the moon and transmit pictures back to Earth.

April 3 – The Soviet spacecraft Luna 10 becomes the first spacecraft to orbit the moon. The spacecraft operates for 460 lunar orbits and makes 219 active data transmissions.

June 2 – The U.S. spacecraft Surveyor 1 becomes the first American spacecraft to land on the moon.

1967

Jan. 27 – Astronauts Gus Grissom, Ed White and Roger Chaffee are killed in an accidental fire on the launch pad during a preflight test. The mission originally scheduled for Grissom, White and Chaffee is later designated Apollo 1.

April 24 – Cosmonaut Vladimir M. Komarov is killed in a crash when the parachute on his Soyuz ("Union") 1 spacecraft fails to deploy.

Oct. 10 – The Outer Space Treaty, which provides the basic framework on international space law, enters into force.

Oct. 18 – The Soviet space probe Venera ("Venus") 4 sends a capsule to descend into the atmosphere of the planet Venus. It is the first probe to perform in-place analysis of the environment of another planet.

Taken aboard Apollo 8 by Bill Anders, this iconic picture shows Earth peeking out from beyond the lunar surface as the first crewed spacecraft circumnavigated the Moon, with astronauts Anders, Frank Borman, and Jim Lovell aboard. NASA

1968

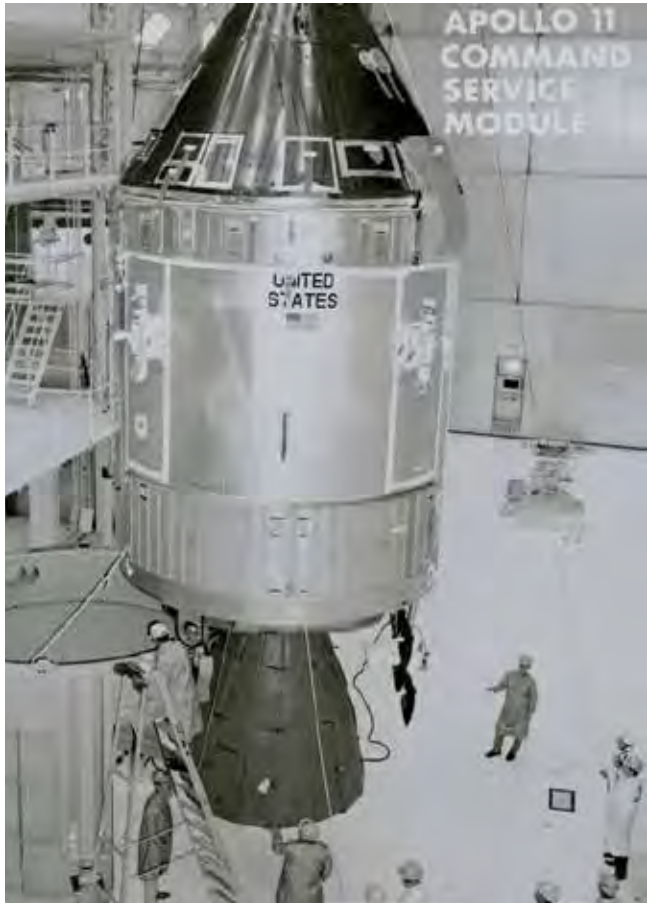
Sept. 15 – The Soviet spacecraft Zond ("Probe") 5 launches. It becomes the first spacecraft to orbit the moon and return safely to Earth. The spacecraft also carries the first terrestrial organisms to the moon, including two tortoises, fruit fly eggs and plants.

Dec. 7 – The U.S. launches the Orbiting Astronomical Observatory 2, or Stargazer, the first autonomous orbiting observatory.

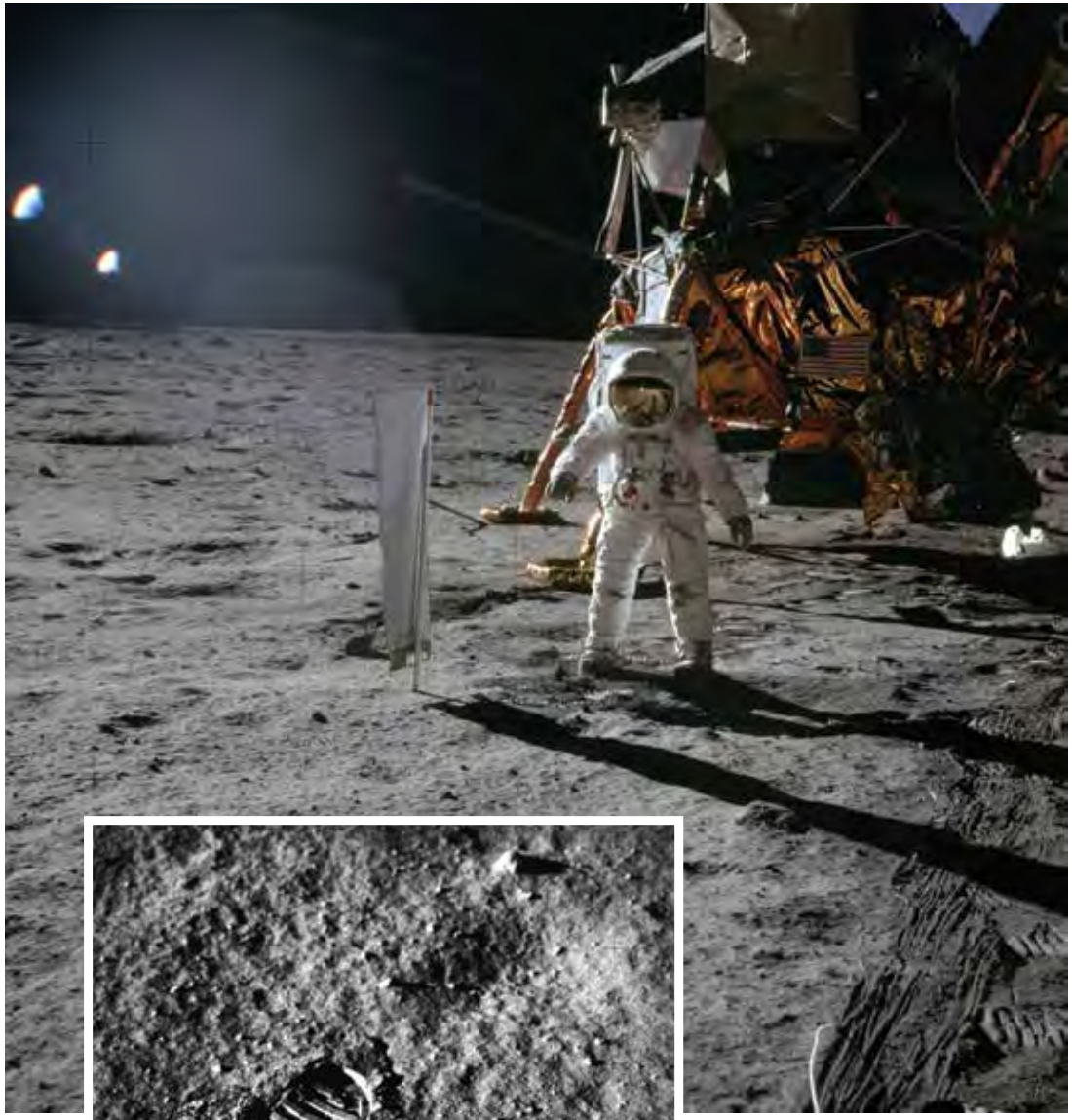
Dec. 21 – The U.S. mission Apollo 8 launches. Astronauts Bill Anders, Frank Borman and Jim Lovell become the first humans to orbit the moon and the first humans to see Earth from lunar orbit. On Dec. 24, Anders takes the iconic photo "Earthrise," which shows Earth peeking out from beyond the lunar surface.

1969

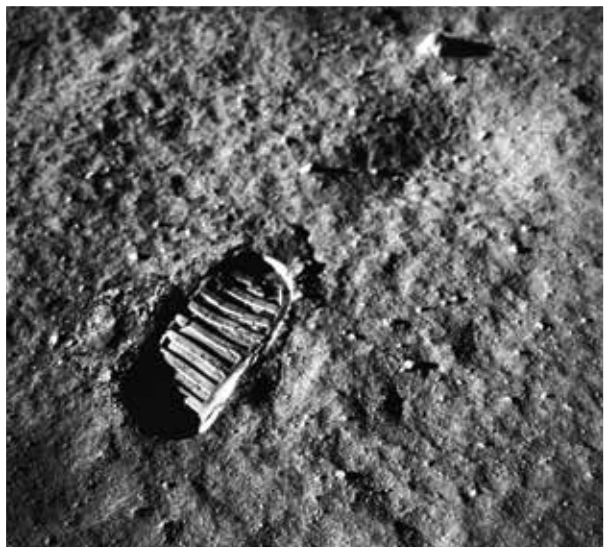
July 20 – Astronauts Neil Armstrong and Edwin E. "Buzz" Aldrin Jr. become the first humans to walk on another celestial body, the moon, during the U.S. Apollo 11 mission.



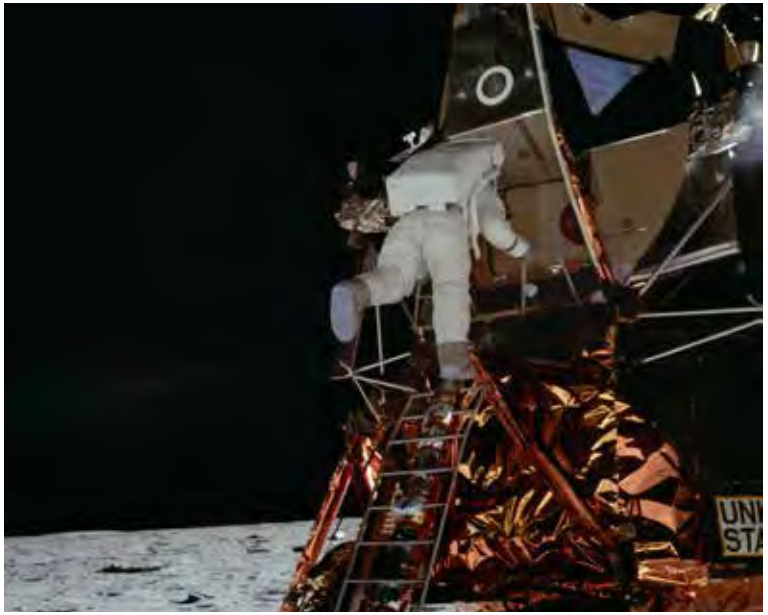
Apollo 11 command service module. NASA



Astronaut Buzz Aldrin, lunar module pilot, is photographed during the Apollo 11 extravehicular activity (EVA) on the lunar surface. In the right background is the lunar module. On Aldrin's right is the Solar Wind Composition (SWC) experiment, already deployed. NASA



Close-up view of an astronaut's footprint in the lunar soil. NASA



Astronaut Edwin E. "Buzz" Aldrin Jr., lunar module pilot, egresses the Lunar Module (LM) "Eagle" and begins to descend the steps of the LM ladder as he prepares to walk on the moon. While astronauts Armstrong and Aldrin descended in the LM "Eagle" to explore the moon, astronaut Michael Collins, command module pilot, remained with the Command and Service Modules (CSM) "Columbia" in lunar orbit. NASA

Apollo 11 Lunar Module resting on lunar surface. Astronaut Edwin E. "Buzz" Aldrin Jr., lunar module pilot, prepares to deploy the Early Apollo Scientific Experiments Package (EASEP) during the Apollo 11 lunar surface extravehicular activity (EVA). NASA

Astronaut Edwin E. "Buzz" Aldrin Jr., lunar module pilot, moves toward a position to deploy two components of the Early Apollo Scientific Experiments Package (EASEP) on the surface of the Moon during the Apollo 11 extravehicular activity. The Passive Seismic Experiments Package (PSEP) is in his left hand; and in his right hand is the Laser Ranging Retro-Reflector (LR3). NASA

Apollo program mission patch. NASA

St. Petersburg Times

Moon, We're Onto You

"That's one step for man . . . one giant leap for mankind."

— Apollo 11 commander Neil Armstrong's first words after setting foot on the moon.

Americans Land On Moon's Plain

Armstrong Walks The Lunar Surface . . . Men Conquer Moon

Luna Orbit Raises Speculation. 9-A

A Nation Prayed . . . And Waited; Berner Leads White House Service. 8-A

The Landing Proves Everything Is Possible—Man Should Look Beyond The Stars. 8-A

National And World Reaction—Shouts Of Joy. 13-A

No Claims To Ownership Are With The Flag. 8-A

The Moon—One Of Only 31 In The Solar System. 13-A

Man's Boundary: Always One Step Away

Kennedy Faces Accident Charge

Simulated Scene Of Moon Walk. Man's Greatest Adventure, Dreamed And Planned For Centuries

Thundershowers

THE TAMPA TRIBUNE

Final City

Man on The Moon

First Footsteps In New World All American

Veni, vidi, vici

"I CAME, I SAW, I CONQUERED" JULIUS CAESAR

The Moon's "Very Level Surface" Touched First Time By Human

'Small Step For Man . . . Giant Leap For Mankind'

Luna 15 Darts To 10 Miles From Moon On Mystery Trip

Neil A. Armstrong

Edwin A. Aldrin

Mrs. Jan Armstrong Is Happy, But Taking No Chances

SPACE EXPLORATION TIMELINE

1970s

Prototype of the "mail box" constructed at the Manned Spacecraft Center (MSC) to remove carbon dioxide from the Apollo 13 Command Module (CM) is displayed in the Mission Control Center (MCC). The "mail box" was constructed when it became apparent CO2 was prevalent in the CM and the spacecraft's lithium hydroxide system was not removing it sufficiently. A space suit exhaust hose is connected to a lithium hydroxide canister to purge the cabin air. There are 16 such canisters in the CM and each will last approximately 12 hours. Looking at the "mail box" are (from the left): Milton L. Windler, shift 1 flight director; Dr. Donald K. (Deke) Slayton, director of flight crew operations, MSC; Howard W. Tindall, deputy director, flight operations, MSC; Sigurd A. Sjoberg, director, flight operations, MSC; Dr. Christopher C. Kraft, deputy director, MSC; and Dr. Robert R. Gilruth, director, MSC. NASA

NASA

1970

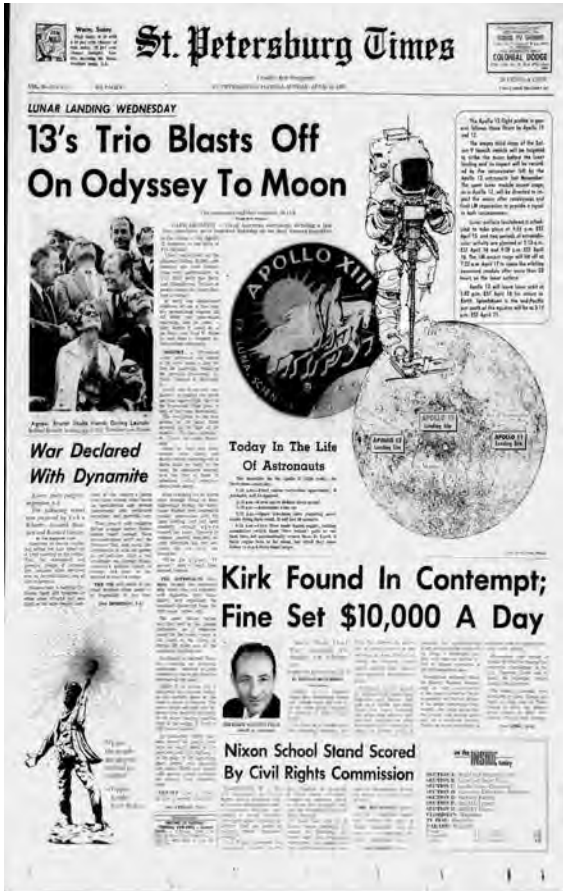
April 11 – The U.S. mission Apollo 13 launches, crewed by astronauts Jim Lovell, John "Jack" Swigert and Fred Haise. Just under 56 hours into the mission, an oxygen tank in the service module explodes, forcing the crew to use the small lunar module as a lifeboat. After more than three days circling the moon, the crew returns safely to Earth.

April 24 – China launches its first satellite, which broadcasts the patriotic anthem "The East is Red" as it orbits. It is the fifth country to send a satellite into orbit, following the Soviet Union, the United States, France and Japan.

Sept. 12 – The Soviet spacecraft Luna 16 launches. It becomes the first automatic spacecraft to return soil samples of the moon.

Nov. 17 – The Soviet spacecraft Luna 17 lands on the moon with the first automatic robot, Lunokhod 1. Driven by a five-person team back on Earth, Lunokhod ("Moonwalker") 1 travels over the lunar surface for 11 lunar days (322 Earth days).

Dec. 15 – The Soviet spacecraft Venera 7 lands on Venus, becoming the first probe to make a soft landing on another planet. The craft is able to transmit data for 23 minutes.



St. Petersburg Times

LUNAR LANDING WEDNESDAY

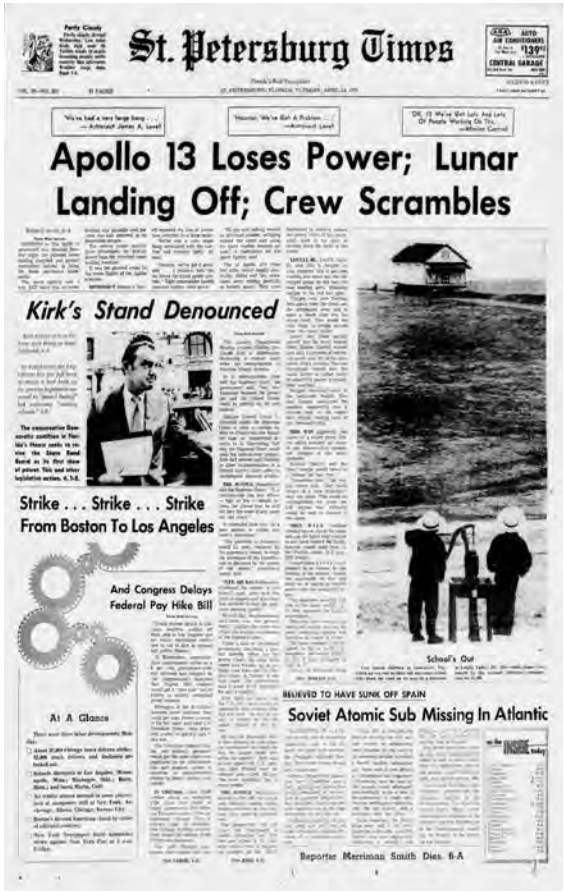
13's Trio Blasts Off On Odyssey To Moon

War Declared With Dynamite

Today In The Life Of Astronauts

Kirk Found In Contempt; Fine Set $10,000 A Day

Nixon School Stand Scored By Civil Rights Commission



St. Petersburg Times

Apollo 13 Loses Power; Lunar Landing Off; Crew Scrambles

Kirk's Stand Denounced

Strike . . . Strike . . . Strike From Boston To Los Angeles

And Congress Delays Federal Pay Hike Bill

At A Glance

Soviet Atomic Sub Missing In Atlantic

Reporter Merriman Smith Dies. 6-A

Lunar Roving Vehicle (LRV). NASA

1971

April 19 – The U.S.S.R. launches the space station Salyut ("Salute") 1, the first space station in orbit around Earth.

June 6 – The Soviet spacecraft Soyuz 11 carries cosmonauts G.T. Dobrovolsky, V.N. Volkov, and V.I. Patsayev to the Salyut 1 station in the first human occupancy of an orbital space station. On June 29, the three cosmonauts become the first humans killed in space when the crew capsule depressurizes while preparing for reentry.

July 30 – Astronauts David Scott and James Irwin drive the first Lunar Roving Vehicle, also known as the Moon Buggy, on the surface of the moon.

Nov. 13 – The U.S. Mariner 9 probe reaches Mars and becomes the first spacecraft to orbit another planet.

Dec. 2 – The Soviet lander Mars 3 becomes the first spacecraft to soft-land on Mars, but contact is lost after just 20 seconds.

St. Petersburg Times

Unlucky 13 Limps Home

'These things surely lie on the knees of the gods.' - The Odyssey, Book 1, Line 267

Man United In Concern

Minnesota Judge Is Court Pick

Cambodia Cries 'Help' For Aid From Anyone

Nixon Picks Admiral To Head Joint Chiefs

Alan B. Shepard Jr. Communicates With The Troubled Apollo 13 Crew

Cambodian Infantryman En Route To Svay Rieng

Skylab 1 mission patch. NASA

Skylab. NASA

1972

July 23 – The U.S. launches its Landsat 1 satellite, beginning more than 40 years of continuous observations of Earth's land surfaces, oceans and atmosphere.

Dec. 11 – Eugene Cernan and Harrison "Jack" Schmitt become the last humans to walk on the moon.

1973

May 14 – The U.S. launches Skylab, the first U.S. space station.

Dec. 3 – The U.S. spacecraft Pioneer 10 becomes the first spacecraft to fly by Jupiter.


St. Petersburg Times

Oh, Happy Landing

. . . Gladly here they set foot on land and escaped an evil end.' -The Odyssey, Homer

'Farewell, Aquarius . . . and we thank you.' 'She sure was a good ship.' - The voyage of Apollo 13.

The Perils Of Apollo 13

Cambodians Slaughter 100 Vietnamese

U.S. Accepts Jordan Envoy's Ouster


St. Petersburg Times

Bush Follows Dole At GOP

FTC Chairman, Aides May Quit

Moynihan

Moonwalking Cernan: 'We Is Here'

'We IS . . .' Cernan's Teacher Flinches

Nixon: Extend Freeze

Pulitzer Poet Dies

Peace Talks Said Gaining Speed


In Today's TRIBUNE

Pollution Agency

Alimony For Husband

THE TAMPA TRIBUNE

2 Jubilant Astronauts Put U.S. Flag On Moon

Nixon Calls For Extension Of Controls; Freezes Hiring

Nixon Chooses Texan Bush To Head Republican Party

Sun Smiles On Tampa Area, Winter Miseries Grip Nation

Tragic Accident Points Up Coordin

Official emblem of the Apollo-Soyuz Test Project. NASA

Apollo spacecraft as seen from Soyuz. NASA/U.S.S.R. Academy of Sciences

1975

July 17 – The U.S. spacecraft Apollo 18 and Soviet spacecraft Soyuz 19 dock in the Apollo-Soyuz Test Project, the first joint mission between the U.S. and U.S.S.R.

Oct. 22 – The Soviet Venera 9 spacecraft lands successfully on Venus and sends the first pictures of the Venusian surface back to Earth.

Sentinel Star

Home Edition

Florida's Most Interesting Newspaper

Brezhnev, Ford Praise Apollo, Soyuz Crews

Bear Hugs Salute Linkup In Space

Gunman Slain In Shootout

Historic Conversations

'Well Done...Was A Good Show'

TV Coverage Today

The Weather

Old File Challenges How Orlando Got Name

St. Petersburg Times

Viking landing picture-perfect

The horizon on Mars

Scientist talks about chance of finding life on Mars

At the foot of Viking

Growth of GNP slows in 2nd quarter

Gross National Product

Senate votes to extend income-tax cut through '77

Times DIGEST

1976

July 20 – The U.S. lander Viking 1 becomes the first spacecraft to successfully land on Mars and later performs the first Martian soil sample using its robotic arm and a special biological laboratory.

Sept. 3 – The U.S. lander Viking 2 lands on Mars. It later discovers and photographs water frost.

1977

Aug. 20 – The U.S. spacecraft Voyager 2 launches.

Sept. 5 – The U.S. spacecraft Voyager 1 launches. The Voyagers' mission is to conduct close-up studies of Jupiter and Saturn, Saturn's rings, and the larger moons of the two planets.

Full-scale model of Voyager 2. NASA

Right: Engineers working on Voyager 2. NASA/JPL-Caltech

1978

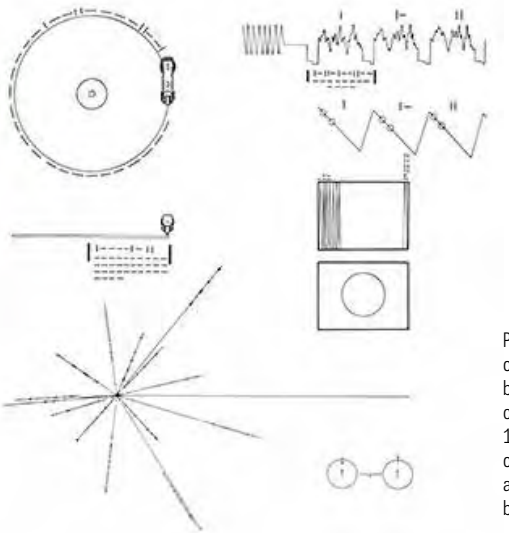
Jan. 17 – NASA announces the selection of 35 new astronauts, including the first women and African Americans.

Dec. 4 – The U.S. Pioneer Venus Orbiter enters orbit around Venus. The Pioneer Venus Multiprobe spacecraft deploys four small probes into the Venusian atmosphere on Dec. 9.

1979

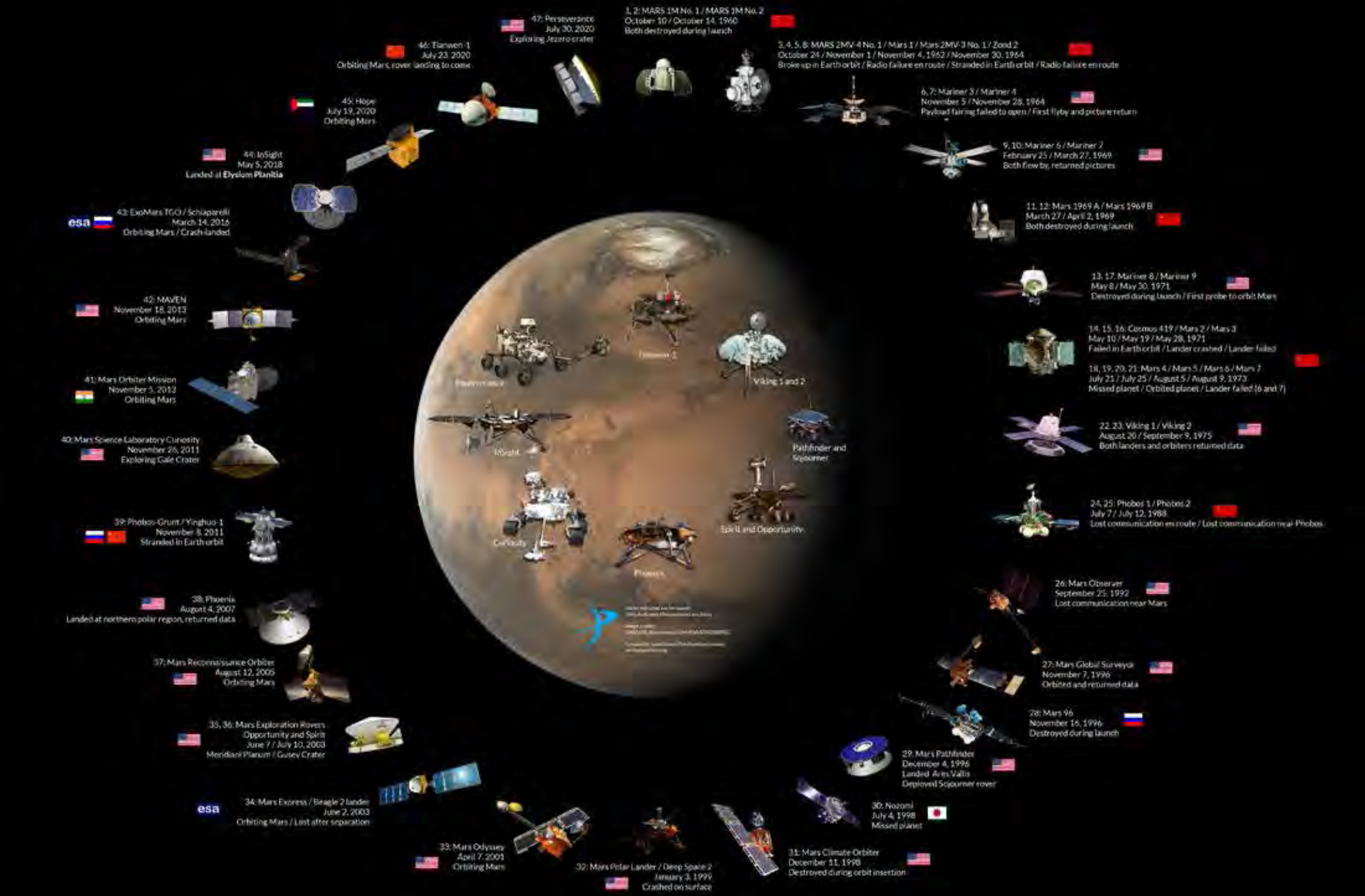
March 5 – The U.S. Voyager 1 spacecraft arrives at Jupiter. Voyager 2 arrives on July 9.

Sept. 1 – The U.S. spacecraft Pioneer 11 becomes the first spacecraft to fly past Saturn, discovering another moon and another ring.



Pioneers 10 and 11, which preceded Voyager, both carried small metal plaques identifying their time and place of origin for the benefit of any other spacefarers that might find them in the distant future. With this example before them, NASA placed a more ambitious message aboard Voyager 1 and 2, a kind of time capsule, intended to communicate a story of our world to extraterrestrials. The Voyager message is carried by a phonograph record, a 12-inch gold-plated copper disk containing sounds and images selected to portray the diversity of life and culture on Earth. The record's protective cover includes instructions for playing its contents, finding Earth in the cosmos and dating how long it has been in space. The record features images and a variety of natural sounds, such thunder, birds, musical selections from different cultures and eras, and spoken greetings in 55 languages. NASA

Mars Exploration Family Portrait



SPACE EXPLORATION TIMELINE

1980s

Grantee

St. Petersburg Times

Florida's Best Newspaper

ST. PETERSBURG, FLORIDA, MONDAY, APRIL 13, 1981

20 CENTS A COPY

Columbia does just heavenly

Some tiles lost, but NASA says there's no danger

Columbia's mighty engines boost John Young and Robert Crippen into space.

'The future came today'

mood

In other news. . .

Report: GM says X-car bodies are sub-par

Son, grandson of Soviet composer defect

London hit with third night of riots

Would-be guerrilla forces training in Florida

Joe Louis, the 'Brown Bomber,' dies at age 66

1980

Nov. 13 – Voyager 1 reaches Saturn and begins transmitting images.

1981

April 12 – The U.S. launches the first space shuttle, Columbia. The space shuttle is the world's first reusable spacecraft.

Aug. 26 - Voyager 2 reaches Saturn and begins transmitting images.

1982

March 1 – The Soviet Venera 13 spacecraft lands on the planet Venus and functions for 127 minutes, providing the first scientific analysis of the Venusian soil.

Astronaut Sally K. Ride aboard Space Shuttle Challenger. NASA

Astronaut Guion S. Bluford aboard Space Shuttle Challenger. NASA

St. Petersburg Times

'Challenger' leaves all its earthly problems behind

Gloria Swanson dies; glamor queen of films

Chinese defectors

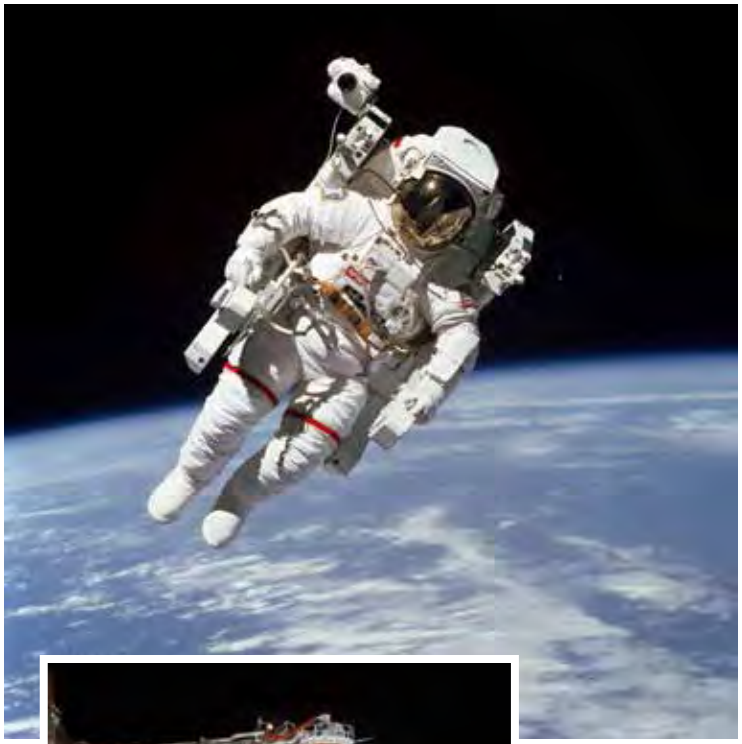
1983

April 4 – The U.S. launches the second space shuttle, Challenger.

June 13 – Pioneer 10 becomes the first spacecraft to travel beyond the orbits of the known planets. In about 2 million years, it will come close to the star Aldebaran.

June 19 – Astronaut Sally Ride becomes the first American woman in space.

Aug. 30 – Astronaut Guion Bluford becomes the first African American in space.



Astronaut Bruce McCandless II participating in a historical Extravehicular Activity (EVA). This EVA represented the first use of a nitrogen-propelled, hand-controlled device called the Manned Maneuvering Unit (MMU), which allows for much greater mobility than that afforded previous spacewalkers who had to use restrictive tethers. NASA

Space Shuttle Discovery. NASA

Astronaut Kathryn D. Sullivan checks the latch of the SIR-B antenna in the space shuttle Challenger's open cargo bay during her historic extravehicular activity (EVA) on Oct. 11, 1984. NASA

1984

Feb. 3 – Astronaut Bruce McCandless becomes the first human to take an untethered spacewalk.

April 6 – The crew of space shuttle Challenger mission STS-41-C makes the first on-orbit satellite repair, replacing instruments on the Solar Max satellite.

Aug. 30 – The U.S. launches its third space shuttle, Discovery.

Oct. 11 – Kathryn Sullivan becomes the first American woman to walk in space.

Space Shuttle Atlantis. NASA

1985

Oct. 3 – The U.S. launches the fourth space shuttle, Atlantis.

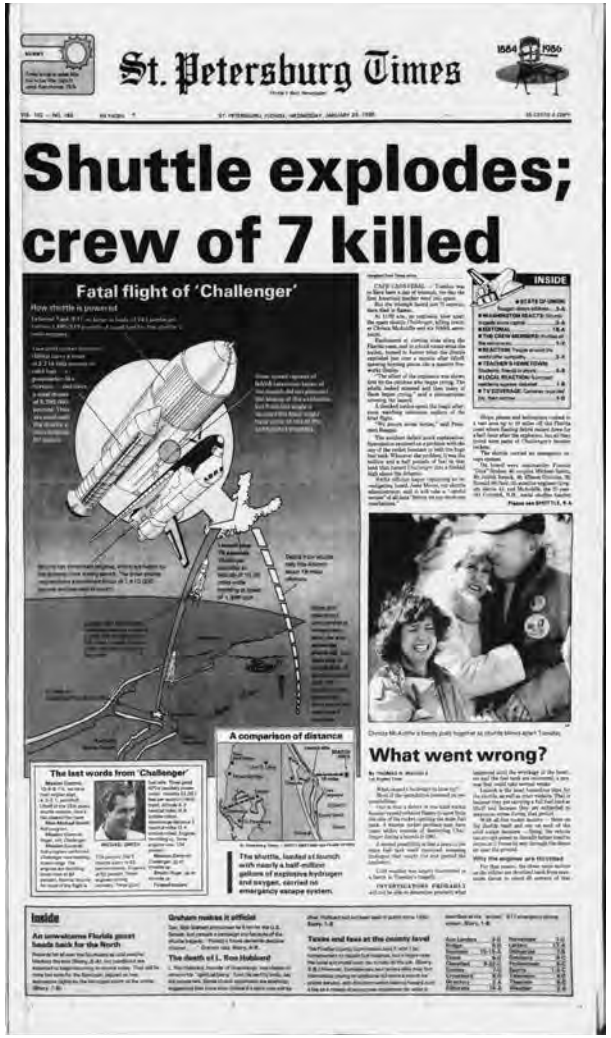
1986

Jan. 24 – Voyager 2 arrives at Uranus, transmitting images and discovering 11 new moons.

Jan. 28 – The space shuttle Challenger explodes 73 seconds after liftoff, resulting in the deaths of the crew of seven astronauts, including teacher-astronaut Christa McAuliffe.

Feb. 20 – The U.S.S.R. launches the core section of the Soviet Space Station Mir ("Peace" or "World"), the first modular space station in orbit.

March 13 – The European Space Agency (ESA) Giotto spacecraft becomes the first spacecraft to make a close flyby of a comet nucleus, Halley's Comet.



St. Petersburg Times

Shuttle explodes; crew of 7 killed

Fatal flight of 'Challenger'

What went wrong?

1988

Sept. 29 – The space shuttle Discovery launches, marking the shuttle's return to flight two and a half years after the Challenger accident.

1989

Aug. 25 – Voyager 2 arrives at Neptune, transmitting images, discovering previously unknown Neptunian rings and confirming six new moons.

Nov. 18 – The U.S. launches the Cosmic Background Explorer satellite. COBE measures the background radiation of the universe to better understand how the universe formed after the Big Bang.

Space Shuttle Atlantis approaching Russia's Mir Space Station. NASA

SPACE EXPLORATION TIMELINE

1990s

1990

Aug. 10 – The U.S. spacecraft Magellan arrives at Venus and begins mapping the surface using radar equipment.

Aug. 24 – The space shuttle Discovery deploys the Hubble Space Telescope.

1991

Oct. 29 – NASA's Galileo probe performs the first asteroid encounter by a spacecraft, passing 990 miles from asteroid 951 Gaspra, and later making close observations of a second asteroid known as 243 Ida.

The Hubble Space Telescope (HST) clears the cargo bay of Space Shuttle Discovery during its deployment on April 25, 1990. NASA

Russia's Mir space station is captured on film as it floats above the blue and white planet Earth during Shuttle-Mir final fly-around. NASA

Astronauts and cosmonauts aboard Russia's Mir space station pose for a joint inflight NASA-Mir portrait. NASA/ Russian Aviation and Space Agency

Cosmonaut Yury I. Onufrienko, commander for the Mir-21 mission, floats through the Base Block Module on Russia's Mir Space Station. NASA

Space Shuttle Atlantis during its move away from Russia's Mir Space Station, photographed by the Mir-19 crew on July 4, 1995. NASA

Space Shuttle Endeavour. NASA

Astronaut Mae Jemison working in the Spacelab-J module of Space Shuttle Endeavour. NASA

1992

May 7 – The U.S. launches the fifth space shuttle, Endeavor.

Sept. 12 – Astronaut Mae Jemison becomes the first African American woman in space.

1993

Nov. 17 – The United States, Russia, Japan, Canada and the European Space Agency announce they will cooperate in building the International Space Station (ISS).

Dec. 2 – The space shuttle Endeavor launches to perform the first servicing mission of the Hubble Space Telescope.

1994

Feb. 3 – Cosmonaut Sergei Krikalev becomes the first Russian cosmonaut to fly aboard an American space shuttle, Discovery.

1995

Feb. 2 – Astronaut Eileen Collins becomes the first woman space shuttle pilot.

March 14 – Astronaut Norm Thagard launches aboard a Russian Soyuz spacecraft to spend 115 days aboard the Russian space station Mir.

June 27 – The space shuttle Atlantis docks with Mir, remaining docked for five days.

Dec. 7 – The U.S. spacecraft Galileo arrives at Jupiter and releases its probe into Jupiter's atmosphere. The probe descends 125 miles and transmits data for fifty-eight minutes.

1996

May 18 – The X PRIZE Competition offers $10 million to the first person or team to safely launch and land a spacecraft capable of carrying three people to a suborbital altitude of 100 kilometers (62.5 miles) and repeat the trip again within two weeks.

The docked Russian Mir Space Station seen through the Spacehab viewing port onboard the space shuttle Atlantis. NASA

1997

July 4 – The U.S. spacecraft Mars Pathfinder lands on Mars. It consists of a lander and a robotic rover named Sojourner, which becomes the first rover to operate on another planet.

1998

Nov. 20 – Russia launches the first element of the Zarya ("Sunrise") Control Module.

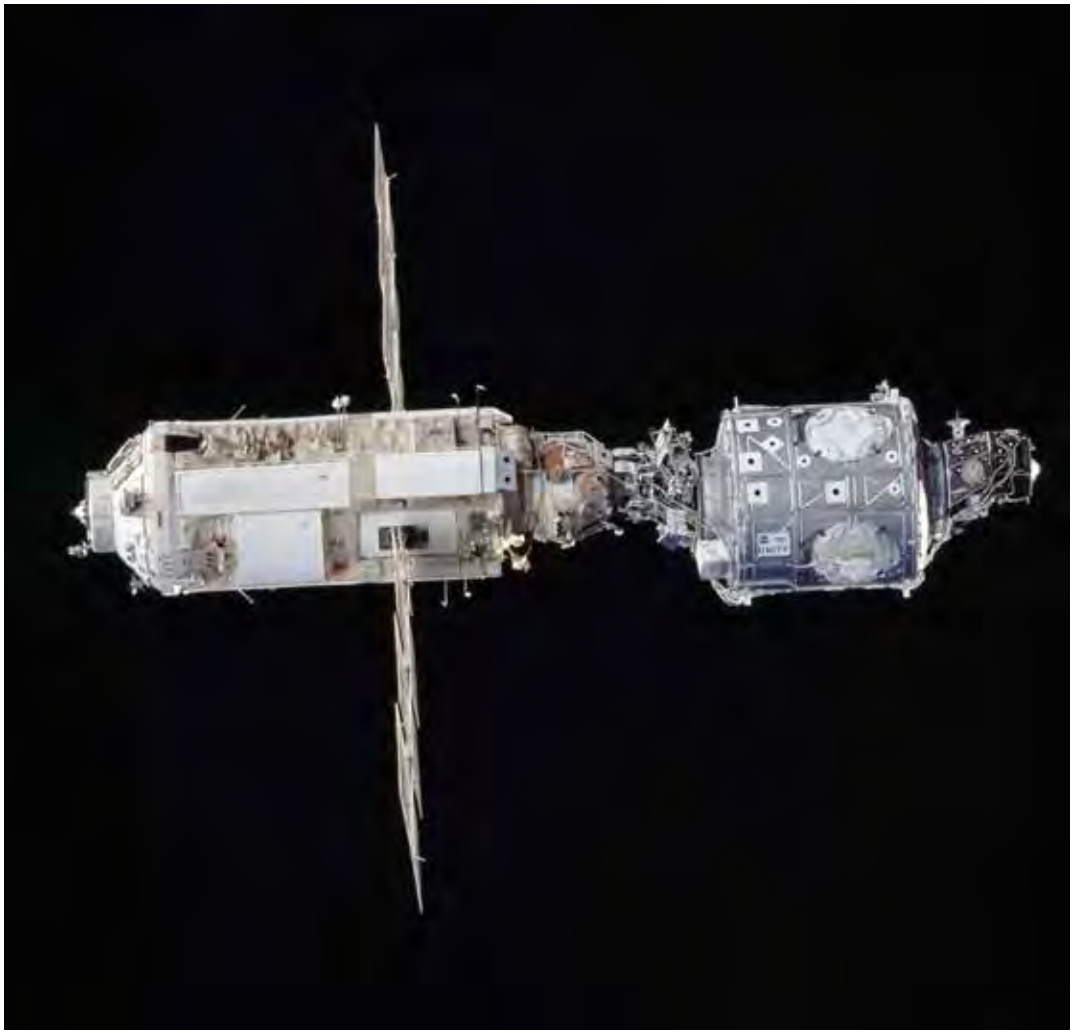
Dec. 6 – The crew of space shuttle Endeavor joins the U.S.-built Unity node to Zarya, officially beginning construction of the ISS.

1999

May 29 – Discovery becomes the first shuttle to dock to the International Space Station.

July 23 – STS-93 Columbia is the first shuttle mission to be commanded by a woman, astronaut Eileen Collins.

Nov. 20 – China launches its first unmanned spacecraft, the Shenzhou-1 ("Divine Ship").



The U.S.-built Unity connecting module and the Russian-built Zarya module viewed from Space Shuttle Endeavour. NASA

SPACE EXPLORATION TIMELINE

2000s

2000

Feb. 14 – The U.S. Near Earth Asteroid Rendezvous (NEAR) spacecraft begins transmitting images of the asteroid Eros.

Nov. 2 – Astronaut Bill Shepherd and cosmonauts Yuri Gidzenko and Sergei Krikalev board the ISS as Expedition 1 crew members, beginning humanity's permanent presence in space.

2001

Feb. 7 – Destiny, the U.S. laboratory module, becomes part of the ISS. The lab increases onboard living space by 41% and continues to be the primary research laboratory for U.S. payloads.

Feb. 12 – NEAR lands on the surface of Eros.

April 28 – American Dennis Tito becomes the first space tourist, launching to the ISS in a Russian Soyuz spacecraft for an eight-day stay.

The crews of the Space Shuttle Atlantis and International Space Station (ISS) pose for an in-flight joint group portrait. In front are (L-R) cosmonaut Sergei K. Krikalev, Expedition One flight engineer; astronaut William M. (Bill) Shepherd, Expedition One mission commander; and Yuri P. Gidzenko, Soyuz commander. The shuttle crew is made up of (L-R) astronauts Mark L. Polansky, pilot; Kenneth D. Cockrell, mission commander; and Marsha S. Ivins, Robert L. Curbeam and Thomas D. Jones, all mission specialists. Krikalev and Gidzenko represent the Russian Aviation and Space Agency. NASA

First Chinese astronaut Yang Liwei waves before boarding China's first manned spacecraft Shenzhou 5 at Jiuquan Satellite Launch Center in northwest China's Gansu Province Wednesday, Oct. 15, 2003. AP/Xinhua, Li Gang

St. Petersburg Times

SUNDAY, February 2, 2003

WHAT HAPPENED?

SHUTTLE COLUMBIA DISINTEGRATES; SEVEN ASTRONAUTS LOST

NASA left with tragic puzzle as nation mourns

THE TAMPA TRIBUNE

and The Tampa Times

ALMOST HOME

Columbia's Astronauts Were 16 Minutes From A Perfect Mission

2003

Feb. 1 – The space shuttle Columbia breaks up on re-entry into Earth's atmosphere, resulting in the deaths of all seven crew members.

Aug. 25 – NASA launches the largest-diameter infrared telescope ever in space, the Spitzer Space Telescope.

Sept. 21 – NASA's Galileo mission ends a 14-year exploration of the solar system's largest planet and its moons with the spacecraft crashing by design into Jupiter at 108,000 mph.

Oct. 15 – China launches the Shenzhou 5 spacecraft with the first Chinese astronaut, Yang Liwei, on board. This makes China the third country in the world, after Russia and the United States, to launch a crewed spacecraft.

2004

Jan. 3 – The U.S. rover Spirit lands on Mars. Designed to last only three months, Spirit continues to roam until 2009. It then continues to function as a stationary science platform until 2010.

Jan. 25 – The U.S. rover Opportunity, the sister rover to Spirit, lands on Mars. Designed to last only three months, Opportunity continues to operate until 2018.

June 21 – Mojave Aerospace Ventures' SpaceShipOne is the first private, commercial spacecraft to be flown into space. Pilot Mike Melvill flies the craft to an altitude of 62 miles (100 kilometers).

June 30 – The Cassini spacecraft, a joint endeavor of NASA, ESA and the Italian space agency (ASI), enters orbit around Saturn.

Oct. 5 – SpaceShipOne claims the $10 million X PRIZE by making its second trip into space within two weeks. On this flight, civilian astronaut Brian Binnie pilots the craft to an altitude of 367,442 feet (112 kilometers), breaking the altitude record for an airplane set by X-15 pilot Joseph Walker in 1963.

SpaceShipOne flies attached to its launch ship, White Knight. AP/Jim Campbell

Spirit and Opportunity. NASA

India's maiden lunar mission Chandrayaan-1 is seen successfully taking off at the Satish Dhawan Space Centre in Sriharikota, India, on Wednesday, Oct. 22, 2008. AP/Indian Space Research Organization

2005

Jan. 14 – The ESA's Huygens probe, which traveled to Saturn with the Cassini spacecraft, lands on Saturn's moon Titan.

July 3 – The NASA spacecraft Deep Impact deploys an impactor to collide with Comet Tempel 1, revealing a number of new findings about comets and their composition, including evidence of water ice and organic materials.

July 26 – Space shuttle Discovery launches with seven astronauts aboard, the U.S.' first manned space launch since the 2003 Columbia disaster.

2006

Jan. 15 – The NASA spacecraft Stardust returns to Earth with samples of Comet Wild-2, the first samples ever collected from a comet.

2007

Aug. 4 – NASA launches the Phoenix Mars Lander.

Aug. 8 – Space shuttle Endeavour and a crew of seven launches with teacher-astronaut Barbara Morgan, the first teacher in space since the Challenger disaster in 1986, aboard as a crewmember.

Nov. 5 – China's first lunar orbiter, Chang'e 1, enters the moon's orbit. Chang'e is the name of a mythological Chinese goddess who flew from Earth to the moon.

2008

Jan. 14 – The NASA space probe Messenger skims 124 miles above Mercury.

Feb. 7 – The ESA's Columbus Laboratory becomes part of the ISS.

March 11 – The Japanese Kibo laboratory module becomes part of the ISS.

May 25 – The Phoenix Mars Lander lands safely and begins sending images back to Earth. Phoenix later finds evidence of water ice.

Sept. 25 – China launches the spacecraft Shenzhou 7, carrying three astronauts. Astronaut Zhai Zhigang makes the first Chinese spacewalk.

Oct. 22 – India launches the lunar orbiter Chandrayaan ("Moon Craft") 1, India's first deep space mission. Chandrayaan-1 later releases the Moon Impact Probe (MIP), which impacts the moon at the lunar south pole.

Chinese astronauts Zhai Zhigang, center, Liu Boming, right, and Jing Haipeng, left, wave in the cabin during training at the Jiuquan Satellite Launch Center in Jiuquan, in China's Gansu province. The three astronauts were launched on China's third manned space mission Thursday, Sept. 25, 2008. AP/Color China Photo/Jiuquan Launch Center

2009

March 6 – The NASA spacecraft Kepler launches. Its mission is to search for planets outside our solar system, in a distant area of the Milky Way.

June 18 – NASA launches the Lunar Crater Observation and Sensing Satellite (LCROSS) to confirm the presence or absence of ice on the moon. On Nov. 13, NASA scientists announce the discovery of a "significant amount" of ice in a crater near the moon's south pole.

A SpaceX Falcon 9 rocket soars upward after liftoff from Kennedy Space Center on a Commercial Resupply Services mission for NASA to the International Space Station. NASA

2010

June 13 – The Japanese spacecraft Hayabusa ("Falcon") returns the first samples from an asteroid, 25143 Itokawa, to Earth.

Oct. 1 – China launches its second lunar exploration probe, Chang'e 2.

Oct. 10 – Virgin Galactic, a private company, announces the successful first manned glide flight of the VSS Enterprise, a suborbital plane designed to take private citizens on suborbital space flights.

Dec. 8 – The commercial company SpaceX becomes the first non-government organization to launch a spacecraft into orbit and return it safely to Earth.

Virgin Galactic's VMS Eve and VSS Unity in flight. Virgin Galactic

2011

March 18 – NASA's Messenger probe becomes the first spacecraft to orbit Mercury.

July 8 – Atlantis becomes the last space shuttle to be launched into space.

July 16 – NASA's Dawn spacecraft becomes the first spacecraft to orbit an asteroid.

July 18 – Russia launches Spektr-R ("Spectrum"), the largest space telescope to be placed into orbit.

Sept. 29 – China launches Tiangong ("Heavenly Palace") 1, the first Chinese space lab.

Nov. 26 – NASA launches the Curiosity Mars rover.


THE SATURDAY TAMPA TRIBUNE and The Tampa Times

Record rain drenches Bay area

A beacon of hope, Betty Ford dies at 93

Space Shuttle Atlantis

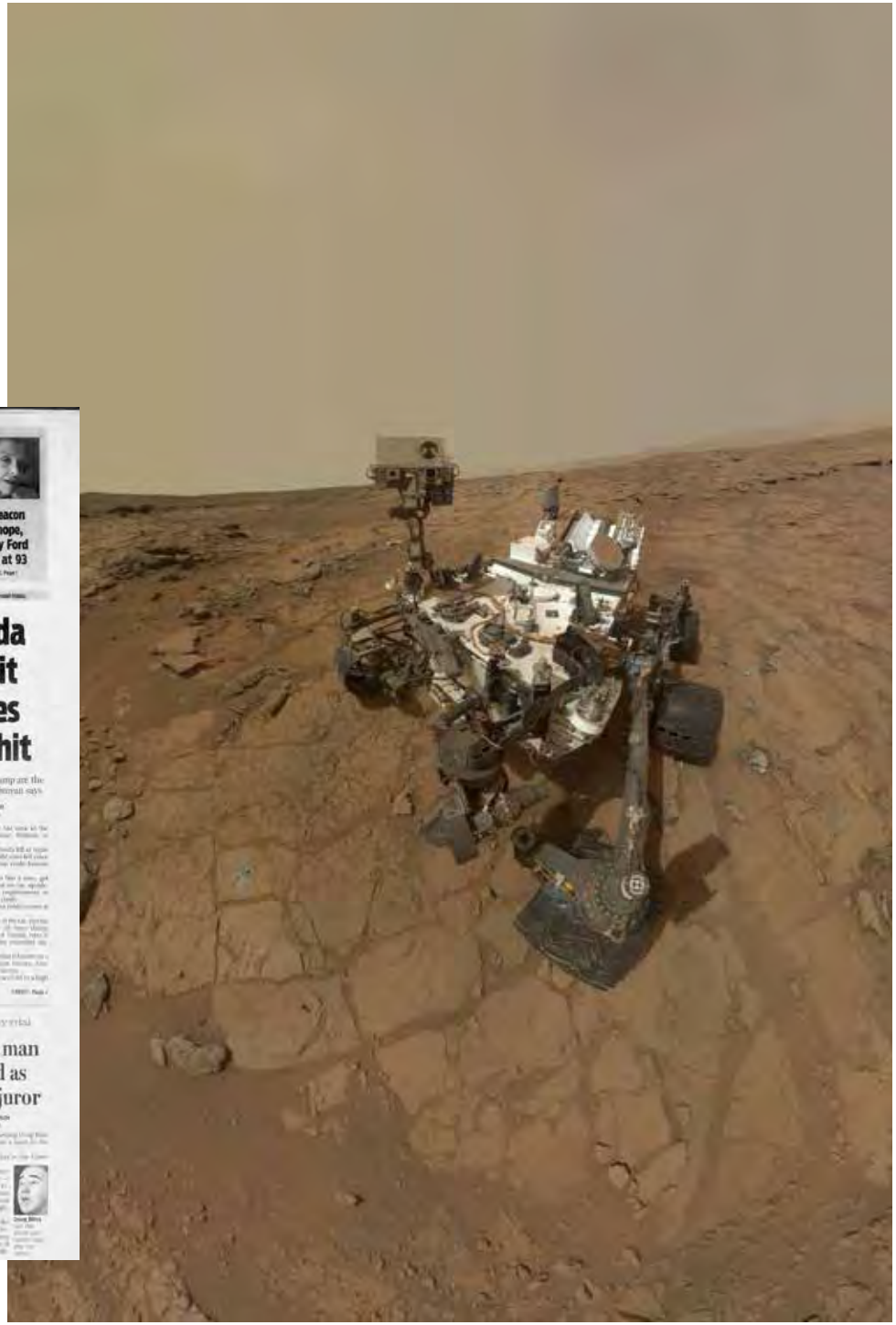
Beginning of the end

Florida credit scores take hit

Recession, housing slump are the main reasons, credit bureau says

Dreary weather aside, final launch a bittersweet success

Innocent man pilloried as Anthony juror



Self-portrait of Mars rover Curiosity. NASA

‘Voyager 1,’ now 35, at outer edge of space

Associated Press

Thirty-five years after leaving Earth, *Voyager 1* is reaching for the stars.

Sooner or later, the workhorse spacecraft will bid adieu to the solar system — the first time a human-made object will have escaped to the other side.

When NASA's *Voyager 1* and *Voyager 2* first rocketed out of Earth's grip in 1977, no one knew how long they would last. Now, they are the longest-operating spacecraft in history and the most distant, at billions of miles from Earth.

Today marks the 35th anniversary of *Voyager 1's* launch to Jupiter and Saturn. It is now flitting around the fringes of the solar system, which is enveloped in a giant plasma bubble. This hot and turbulent area is created by a stream of charged particles from the sun.

Outside the bubble is a new frontier in the Milky Way — the space between stars. Once it plows through, scientists expect a calmer environment by comparison.

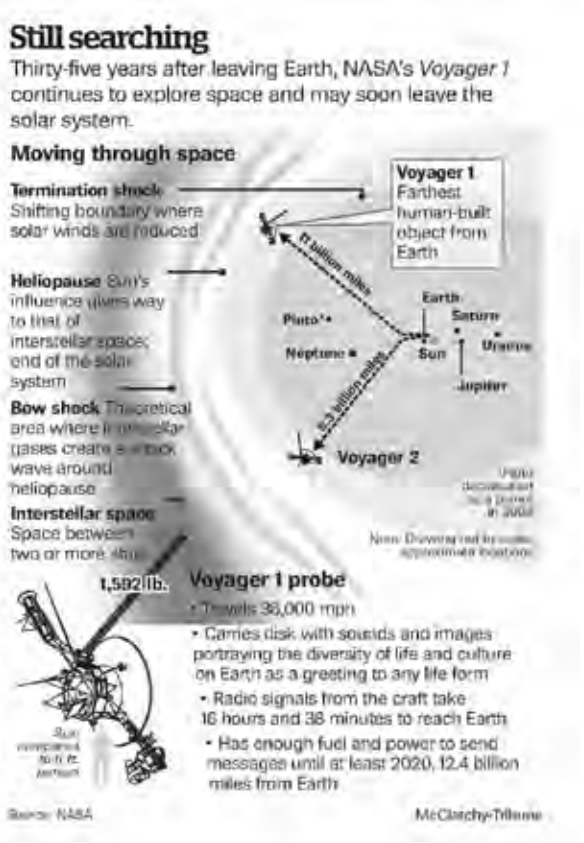
Voyager 1 is in uncharted celestial territory. The boundary that separates the solar system and interstellar space is near, but it could take days, months or years to cross it.

Voyager 1 is currently more than 11 billion miles from the sun. Twin *Voyager 2*, which celebrated its launch anniversary two weeks ago, trails behind at 9 billion miles from the sun.

The NASA Jet Propulsion Laboratory built the spacecraft. Their original goal was to tour Jupiter and Saturn, and they sent back postcards of Jupiter's big red spot and Saturn's glittery rings.

Voyager 2 then journeyed to Uranus and Neptune. It remains the only spacecraft to fly by these two outer planets. *Voyager 1* used Saturn as a gravitational slingshot to catapult itself toward the edge of the solar system.

"Time after time, Voyager revealed unexpected — kind of counterintuitive — results, which means we have a lot to learn," said Ed Stone, 76, *Voyager's* chief scientist and a professor of physics at the California Institute of Technology.



2012

May 22 – SpaceX launches the first commercial ISS supply mission.

Aug. 6 – NASA's Curiosity rover successfully lands on Mars.

Aug. 25 – NASA's Voyager 1 probe, launched in 1977, becomes the first spacecraft to reach interstellar space.

2013

Sept. 6 – NASA launches the unmanned LADEE lunar probe.

Nov. 5 – India launches the Mangalyaan (Hindi for "Mars Craft"), also known as the Mars Orbiter Mission (MOM), the country's first mission to Mars.

Dec. 14 – China's Chang'e 3 probe lands on the moon and deploys the Yutu rover. It is the first moon landing since 1976. China becomes the third country, after the U.S. and the former U.S.S.R., to land on the moon. Yutu is the pet rabbit of the lunar goddess Chang'e in Chinese mythology.

NASA/AP

A crop of "Outredgeous" red romaine lettuce from NASA's Veggie plant growth system.

SPACE STATION

Astronauts eat space-grown lettuce

A group of astronauts harvested the first samples of lettuce grown on the International Space Station and ate it as Earthlings watched the live stream of the historic salad preparation on Monday. The NASA experiment, called Veg-01, will help scientists determine the feasibility of fresh-grown food for long-term space missions, such as ones that would send astronauts to Mars. This isn't the first batch of lettuce grown. The first round of romaine was returned to Earth and tested for safety. Some day soon, astronauts could count on a more ready supply of space veggies.

Image of Pluto taken by the Long Range Reconnaissance Imager (LORRI) aboard NASA's New Horizons spacecraft, taken on July 13, 2015, when the spacecraft was 476,000 miles (768,000 kilometers) from the surface. NASA/APL/SwRI

A SpaceX Falcon 9 rocket and Crew Dragon spacecraft lifts off from Kennedy Space Center. NASA

2014

Aug. 6 – The ESA's Rosetta space probe becomes the first spacecraft to enter orbit around a comet, 67P/Churyumov-Gerasimenko.

Sept. 23 – India's Mars Orbiter Mission enters orbit around Mars. India becomes the fourth nation in the world, after the U.S., Russia and China, to successfully put a spacecraft in orbit around Mars.

Nov. 12 – The ESA's Philae lander is released from the Rosetta space probe and becomes the first spacecraft to make a soft landing on a comet.

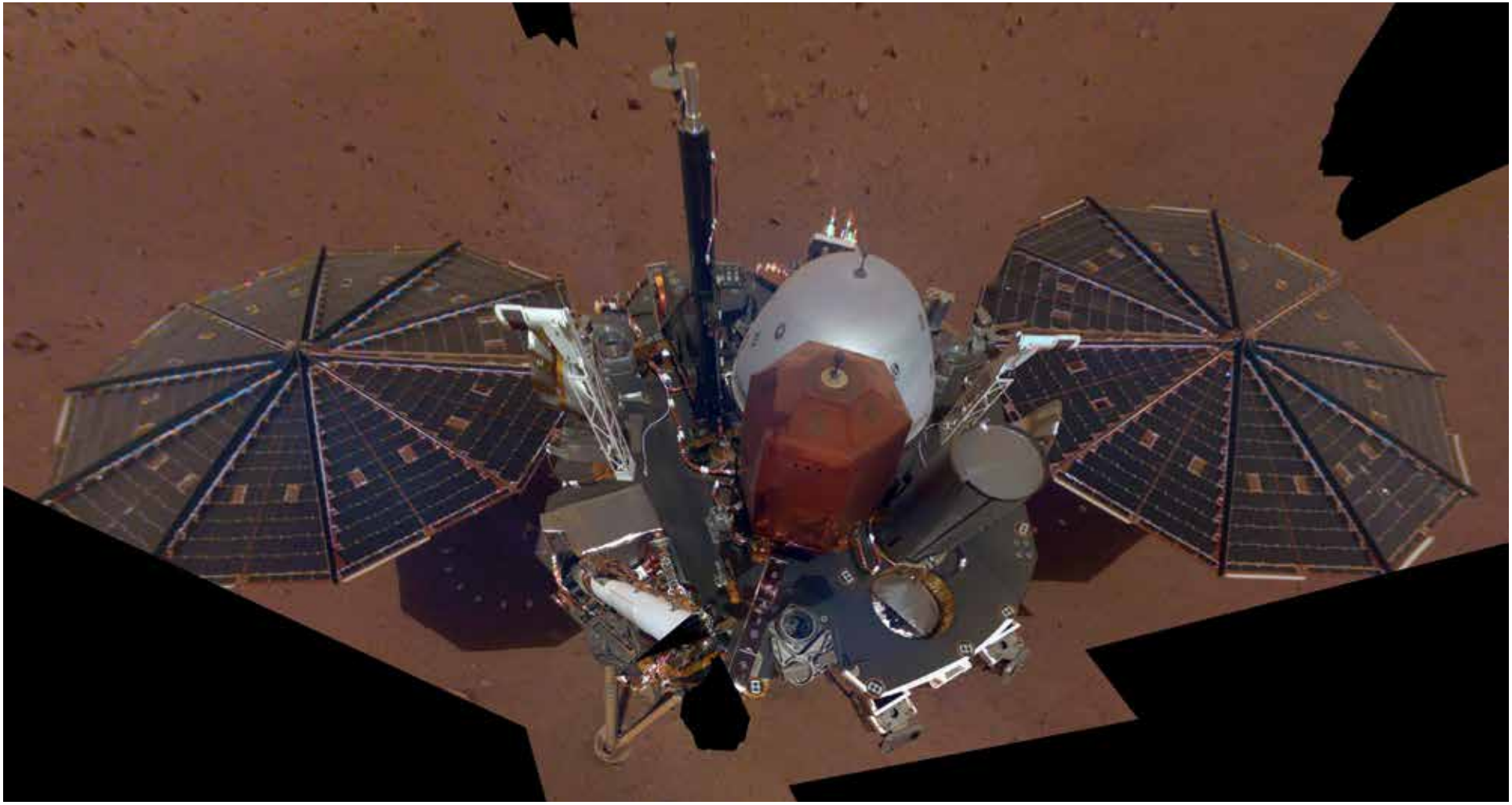
2015

March 6 – NASA's Dawn spacecraft enters orbit around Ceres, becoming the first spacecraft to orbit a dwarf planet.

July 15 – NASA's New Horizons spacecraft flies by Pluto, sending back the first close-up views of the dwarf planet.

Aug. 10 – The crew of the ISS become the first astronauts to eat food grown in space.

Dec. 21 – SpaceX makes the first successful vertical landing of an orbital booster rocket.



This is NASA InSight's first full selfie on Mars. It displays the lander's solar panels and deck. On top of the deck are its science instruments, weather sensor booms and UHF antenna. The selfie was taken on Dec. 6, 2018 (Sol 10). The selfie is made up of 11 images which were taken by its Instrument Deployment Camera, located on the elbow of its robotic arm. Those images are then stitched together into a mosaic. NASA

2016

July 4 – NASA's Juno spacecraft reaches orbit around Jupiter.

Sept. 15 – China launches the orbital laboratory Tiangong-2, which replaces Tiangong-1.

2018

Sept. 21 – The Japan Aerospace Exploration Agency (JAXA)'s Hayabusa 2 spacecraft successfully deploys two rovers called MINERVA-II 1A and 1B to the surface of an asteroid known as Ryugu, becoming the first to land moving rovers on the surface of an asteroid.

Nov. 5 – Voyager 2 reaches interstellar space.

Nov. 27 – NASA's Mars InSight lander lands on Mars.

2019

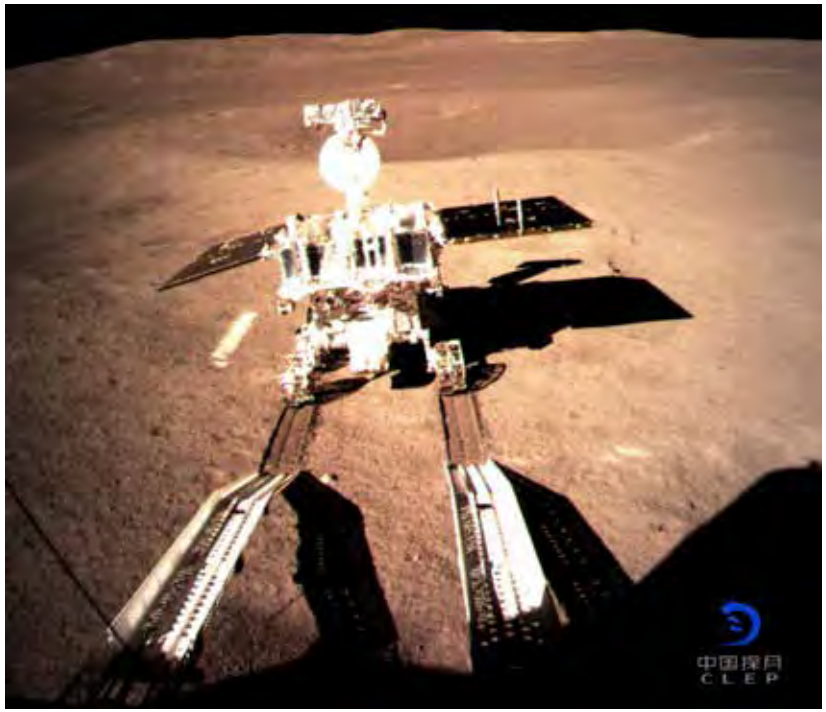
Jan. 1 – NASA's New Horizons spacecraft flies by the Kuiper Belt Object Arrokoth, the most distant object ever explored up close.

Jan. 3 – China's Chang'e 4 spacecraft makes the first-ever soft landing on the far side of the moon and deploys a lunar rover. The first seeds germinated on another celestial body are grown in a sealed biosphere on the lander.

July 22 – India launches the lunar orbiter, lander and rover Chandrayaan-2. Although the lander crashed on the surface, the orbiter continues to operate.

Dec. 20 – The National Defense Authorization Act is signed into law, creating the U.S. Space Force, the first new branch of the armed services since 1947. The Space Force consolidates space operations from across more than 60 different organizations into a unified service.

U.S. Space Force insignia. USSF



China's lunar rover Yutu-2 leaves wheel marks after leaving the Chang'e 4 lander that touched down on the surface of the far side of the moon. China National Space Administration/Xinhua News Agency via AP

SPACE EXPLORATION TIMELINE 2020s

Grantee

2020

Jan. 7 – Five chocolate chip cookies baked by the crew of the ISS become the first food to be baked in space. The cookies, baked one at a time in a special zero gravity oven, take a little over two hours to cook thoroughly in the microgravity environment.

May 30 – SpaceX becomes the first private company to launch astronauts into space with the Crew Demo 2 test flight, which successfully launches two astronauts into orbit on a mission to the ISS. This mission marks the return of America's manned space program since the space shuttle program ended in 2011.

July 20 – The United Arab Emirates (UAE) launches the Al-Amal ("Hope") Mars orbiter.

July 23 – China launches the Tianwen-1 ("Questions to Heaven") probe to Mars, its first independent mission to another planet.

Oct. 13 – The Artemis Accords, a non-binding set of principles designed to guide civil space exploration and use in the 21st century, are signed by Australia, Canada, Italy, Japan, Luxembourg, the United Arab Emirates, the United Kingdom and the United States. As of January 2025, there are 53 signatories.

Dec. 1 – The Chinese Chang'e-5 probe successfully lands on the moon's surface and collects 1.7 kilograms (3.7 pounds) of lunar regolith samples, which are later returned to Earth. China becomes the third country, after the U.S. and U.S.S.R., to return lunar samples to Earth.

China's Mars rover touches ground on red planet

BEIJING

China's first Mars rover has driven down from its landing platform and is now roaming the surface of the red planet, China's space administration said Saturday.

The solar-powered rover touched Martian soil at 10:40 a.m. Saturday Beijing time, the China National Space Administration said.

China landed the spacecraft carrying the rover on Mars last Saturday, a technically challenging feat more difficult than a moon landing, in a first for the country. It is the second country to land and operate a spacecraft on Mars, after the United States.

Named after the Chinese god of fire, Zhurong, the rover has been running diagnostics tests for several days before it began its exploration. It is expected to spend 90 days in a search of evidence of life.

— ASSOCIATED PRESS

Successful moon mission vaults China into ranks of space powers

BY GERRY SHIH
Washington Post

TAIPEI, Taiwan — Bearing 4.4 lbs. of lunar rock and soil, China's Chang'e-5 capsule touched down on the frozen steppes of Inner Mongolia early Thursday and vaulted China into the ranks of only three nations that have ventured to the moon and brought back samples.

The mission will provide earthbound researchers with the first fresh batch of lunar material in 44 years. The last delivery came in 1976, when the Soviet Luna 24 mission scooped up about 6½ ounces of moon rocks and returned.

The Chang'e-5 mission launched on Nov. 24, and its lander touched down Dec. 1 near Mons Rümker, a volcanic mound on the near side of the moon. Chinese officials say the site is of a younger geological age and can provide new insights about the makeup of the moon and the universe compared with sites sampled in the 1960s and 1970s by the Soviet Union and United States.

The mission was also significant, according to Chinese space officials, because it was the first time China synchronized and docked vessels in the moon's orbit.

Footage released by state media showed the Chang'e-5's copper-colored return capsule nestled safely in the snow and recovery staff members celebrating next to a Chinese flag. China's space-faring exploits have stoked national pride and have been a priority for Chinese leader Xi Jinping, who has spoken of his "space dream" as part of a broader vision for China to become a comprehensive superpower.

In a congratulatory statement, Xi hailed the mission as a "remarkable feat" that would be remembered by the Chinese people.

China's space budget, while not publicly available, is estimated by the Space Foundation nonprofit organization to be the world's second-largest at more than $8 billion a year, compared with NASA's $22 billion. U.S. and Russian funding for their space programs has fallen relative to their national budgets since the space race of the 1960s. Last year, China became the first country to land a rover on the far — or "dark" — side of the moon, a technical challenge that required the use a dedicated lunar satellite to relay signals to Earth.

Space cookies slow to make, taste unknown

BY MARCIA DUNN
Associated Press

CAPE CANAVERAL — The results are finally in for the first chocolate chip cookie bake-off in space.

While looking more or less normal, the best cookies required two hours of baking time last month up at the International Space Station. It takes far less time on Earth, under 20 minutes.

And how do they taste? No one knows.

Still sealed in individual baking pouches and packed in their spaceflight container, the cookies remain frozen in a Houston-area lab after splashing down two weeks ago in a SpaceX capsule. They were the first food baked in space from raw ingredients.

The makers of the oven, Texas-based Nanoracks, expected a difference in baking time in space, but not that big.

"There's still a lot to look into to figure out really what's driving that difference, but definitely a cool result," said Mary Murphy, a manager at Nanoracks.

Italian astronaut Luca Parmitano was the master baker in December, radioing down a description as he baked them one by one in the prototype Zero G Oven.

The first cookie — in the oven for 25 minutes at 300 degrees Fahrenheit — ended up seriously under-baked. He more than doubled the baking time for the next two, and the results were still so-so. The fourth cookie stayed in the oven for two hours, and finally success.

2021

Feb. 9 – The Al-Amal Mars orbiter enters Mars orbit. The UAE becomes the fifth nation in the world, after the U.S., Russia, China and India, to successfully put a spacecraft in orbit around Mars.

Feb. 18 – NASA's Perseverance rover lands on Mars and later records the first sounds ever captured on the surface of Mars.

April 19 – NASA's Ingenuity Mars helicopter launches from the Perseverance Mars rover, becoming the first aircraft to make a powered, controlled flight on another planet.

April 28 – NASA's Parker Solar Probe becomes the first man-made spacecraft to enter the atmosphere of the Sun.

April 29 – China launches Tianhe ("Heavenly River"), the first module of its Tiangong space station, into low Earth orbit.

May 15 – China's Tianwen-1 spacecraft lands on Mars and deploys the Zhurong rover, marking China's first landing on another planet. China becomes the second country after the United States to land a robotic rover on the surface of Mars. Zhurong is the god of fire in Chinese mythology.

NASA's Perseverance Mars rover took a selfie with the Ingenuity helicopter, seen here about 13 feet (3.9 meters) from the rover in this image taken April 6, 2021. This image is made up of 62 individual images taken in sequence while the rover was looking at the helicopter, then again while it was looking at the camera, then stitched together once they are sent back to Earth. NASA

June 16 – China's Shenzhou 12 mission takes three Chinese astronauts for a three-month stay on Tianhe, the initial module of the Tiangong space station.

July 20 – The commercial company Blue Origin launches four private citizens to space aboard the New Shepard, an autonomous, reusable suborbital rocket system.

Blue Origin's New Shepard. Blue Origin

July 11 – The commercial company Virgin Galactic makes its first fully crewed flight, launching two pilots and four passengers into suborbital space aboard its spaceship VSS Unity.

Sept. 15 – SpaceX launches the first all-civilian astronaut crew into Earth orbit.

Dec. 25 – NASA launches the James Webb Space Telescope.

ANDY WONG | Associated Press

China launched a three-man crew to its space station Thursday, its first crewed mission in five years.

China's space station has its first inhabitants after launch

BY SAM MCNEIL
Associated Press

JIUQUAN, China — A Chinese spaceship carrying a three-person crew docked with China's new space station at the start of a three-month mission Thursday, marking a milestone in the country's ambitious space program.

The *Shenzhou-12* craft connected with the *Tianhe* space station module about six hours after takeoff from the Jiuquan launch center on the edge of the Gobi Desert.

The three astronauts are the first to take up residency in the main living module and will carry out experiments, test equipment, conduct maintenance and prepare the station for receiving two laboratory modules next year.

The mission brings to 14 the number of astronauts China has launched into space since 2003, becoming only the third country after the former Soviet Union and the United States to do so on its own.

The astronauts were seen off by space officials, other uniformed military personnel and a crowd of children waving flowers and flags and singing patriotic songs.

The rocket dropped its boosters about two minutes into the flight followed by the cowling surrounding *Shenzhou-12* at the top of the rocket. After about 10 minutes it separated from the rocket's upper section, extended its solar panels and shortly afterward entered orbit.

About a half-dozen adjustments took place over the following six hours to line up the spaceship for docking with the *Tianhe*, or *Heavenly Harmony*, module at about 4 p.m.

China is not a participant in the International Space Station, largely as a result of U.S. objections to the secrecy and close military ties of Chinese programs. However, China has been stepping up cooperation with Russia and a host of other countries, and its station may continue operating beyond the International Space Station, which is reaching the end of its functional life.

China landed a probe on Mars last month that carried a rover, the *Zhurong*, and earlier landed a probe and rover on the moon's less explored far side and brought back the first lunar samples by any country's space program since the 1970s.

NG HAN GUAN | Associated Press

Chinese astronauts, from left, Tang Hongbo, Nie Haisheng and Liu Boming wave as they prepare to board for liftoff at the Jiuquan Satellite Launch Center in northwestern China on Thursday.

2022

April 8 – Axiom Space launches the first fully commercial space mission, launching four civilian astronauts to the ISS aboard a Dragon spacecraft and Falcon 9 rocket, both manufactured by SpaceX.

July 24 – China launches the Wentian ("Quest for the Heavens") module of its Tiangong space station.

Oct. 31 – China launches the Mengtian ("Dreaming of the Heavens") module of its Tiangong space station.

Nov. 16 – NASA launches the first Orion spacecraft into space to mark their return to lunar exploration. The Artemis 1 mission launches as an unmanned test mission to orbit the moon and return to Earth. The spacecraft spends three weeks in space and makes 2 separate orbits of the moon.

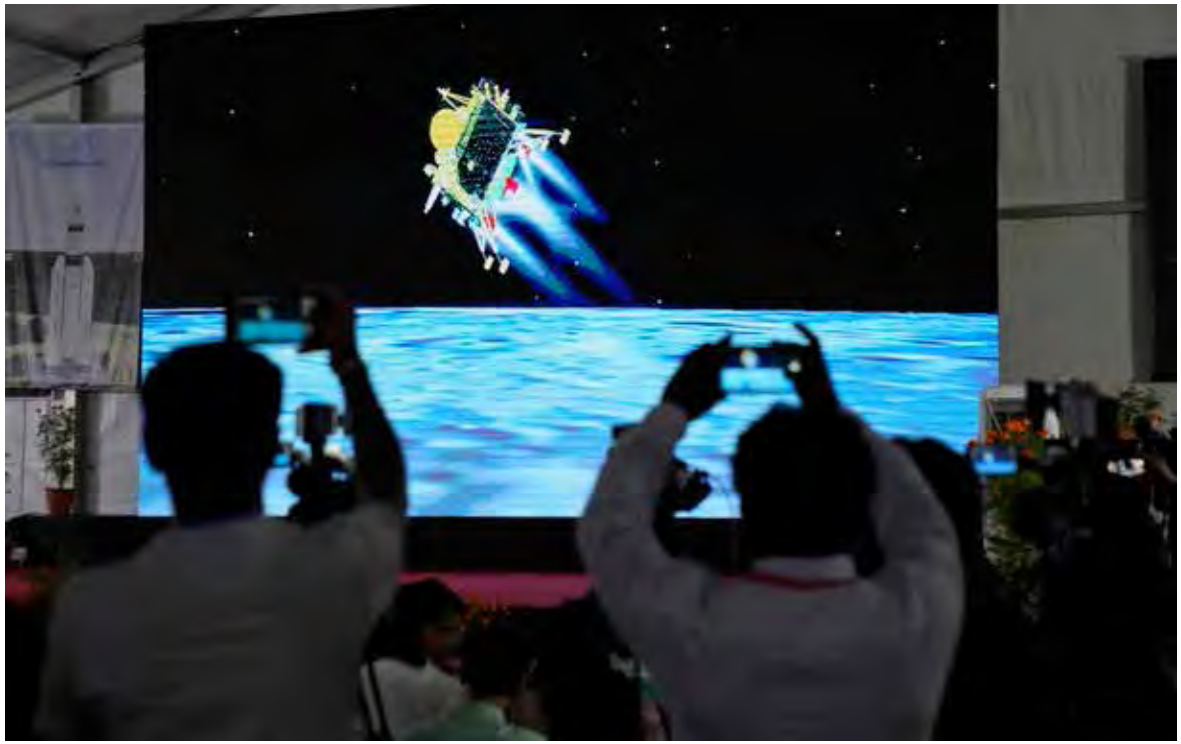
Nov. 29 – China launches the Shenzhou 15 mission, carrying three Chinese astronauts to the completed Tiangong space station. They dock the following day, marking the first time that six occupants are aboard at once and beginning the permanent occupancy of the space station.

NASA's Space Launch System (SLS) rocket with the Orion spacecraft aboard is seen atop the mobile launcher at Launch 39B at NASA's Kennedy Space Center in Florida. NASA

SpaceX's Crew Dragon, atop the company's Falcon 9 rocket, rolls out to Launch Complex 39A at NASA's Kennedy Space Center on April 19, 2022. NASA

India's Chandrayaan-3 lunar rover on the moon. ISRO

India's Chandrayaan-3 lunar lander on the moon, August 30, 2023. ISRO



Journalists film the live telecast of spacecraft Chandrayaan-3 landing on the moon at ISRO's Telemetry, Tracking and Command Network facility in Bengaluru, India, Wednesday, Aug. 23, 2023. AP/Aijaz Rahi

2023

June 1 – China's Chang'e 6 lunar lander lands on the far side of the moon. Chang'e collects about 2 kilograms (4.4 pounds) of samples and deploys a small rover. An ascent vehicle later brought the samples to an orbiter/return vehicle in lunar orbit. The samples are returned to Earth on June 25, marking the first samples from the far side of the moon returned to Earth.

Aug. 23 – India's Chandrayaan-3 lunar lander and rover land in the moon's south polar region.

Sept. 24 – The U.S. spacecraft OSIRIS-REx, which launched in 2016, returns to Earth to drop off a capsule with material from asteroid Bennu, becoming the first U.S. mission to collect a sample from an asteroid. After dropping off the sample, the spacecraft is renamed OSIRIS-APEX and sent on a new mission to explore asteroid Apophis.

2024

June 5 – Boeing launches two astronauts to the ISS aboard the Starliner spacecraft. The Starliner is designed to carry crew to low Earth orbit, joining the Russian Soyuz and SpaceX Dragon spacecraft.

Sept. 12 – Two civilians – tech entrepreneur Jared Isaacman and SpaceX engineer Sarah Gillis – conduct the first private spacewalk on a commercial SpaceX flight.

Timeline sources: Encyclopædia Britannica; ISS National Laboratory; NASA; National Archives; New York Times; Reuters; Sea and Sky

Boeing's Starliner spacecraft atop United Launch Alliance's Atlas V rocket at the launch pad of Space Launch Complex-41 at Cape Canaveral Space Force Station in Florida. NASA

The New Shepard booster comes in for a smooth landing at Launch Site One on November 22, 2024. Blue Origin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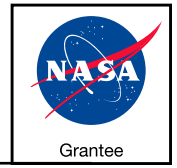
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