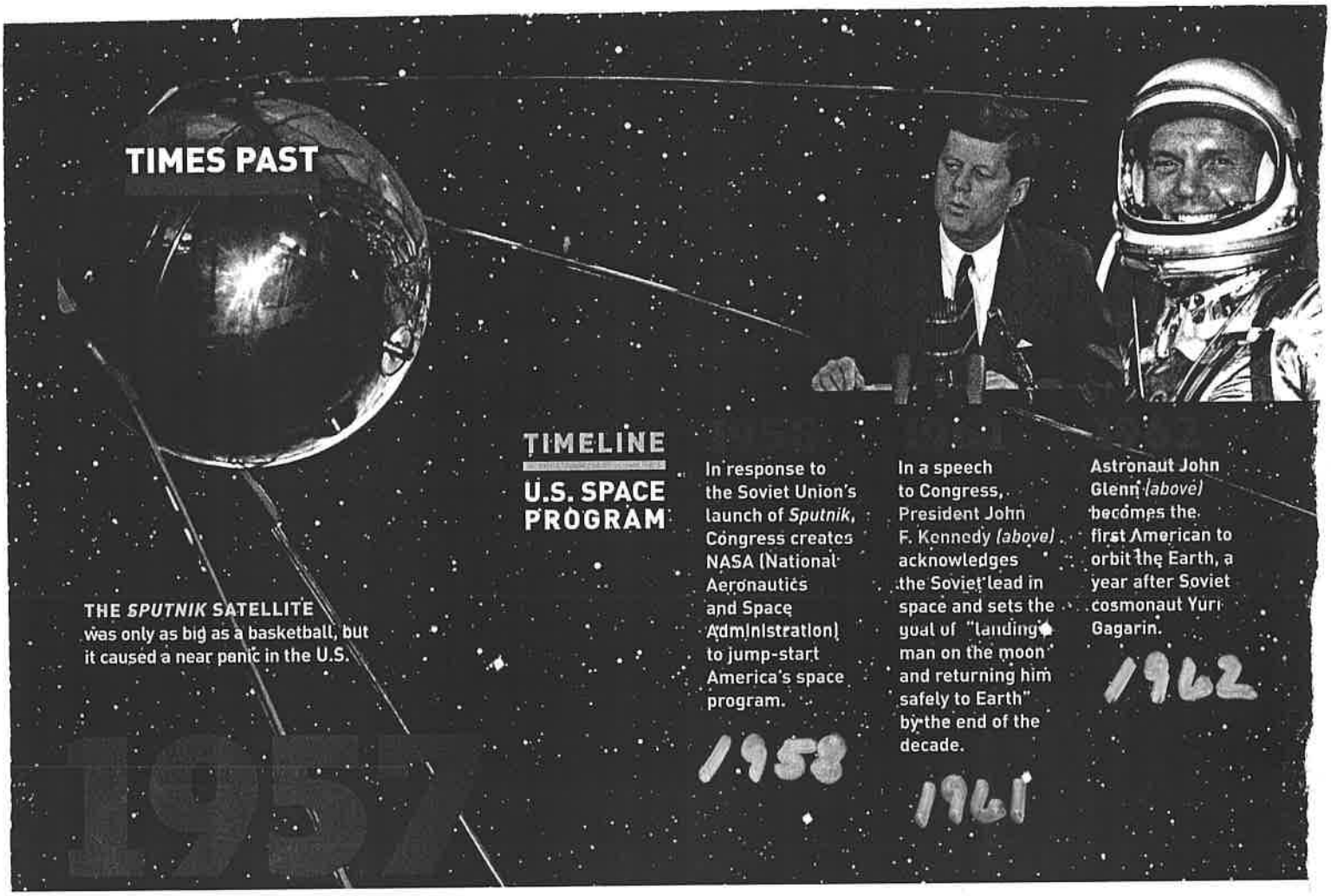


Sputnik Launches the Space Race


The New York Times.
LATE CITY EDITION
"All the News That's Fit to Print"
SOVIET FIRES EARTH SATELLITE INTO SPACE; IT IS CIRCLING THE GLOBE AT 18,000 M. P. H.; SPHERE TRACKED IN 4 CROSSINGS OVER U. S.
560 MILES HIGH
Visible With Simple Binoculars, Moscow Statement Says
COURSE RECORDED
Navy Picks Up Radio Signals—4 Report Sighting Device
HOFFA IS ELECTED TEAMSTERS HEAD, WARNS OF BATTLE
Device Is 8 Times Heavier
PAGE ONE, Oct. 5, 1957

At the height of the Cold War, the by jump-starting its space program,

It weighed 184 pounds and was about as big as a basketball. But as historian Daniel J. Boorstin would later write, "Never before had so small and so harmless an object created such consternation."

The object was *Sputnik*, a small aluminum sphere with spiky antennas, and the first artificial satellite sent into orbit around Earth.

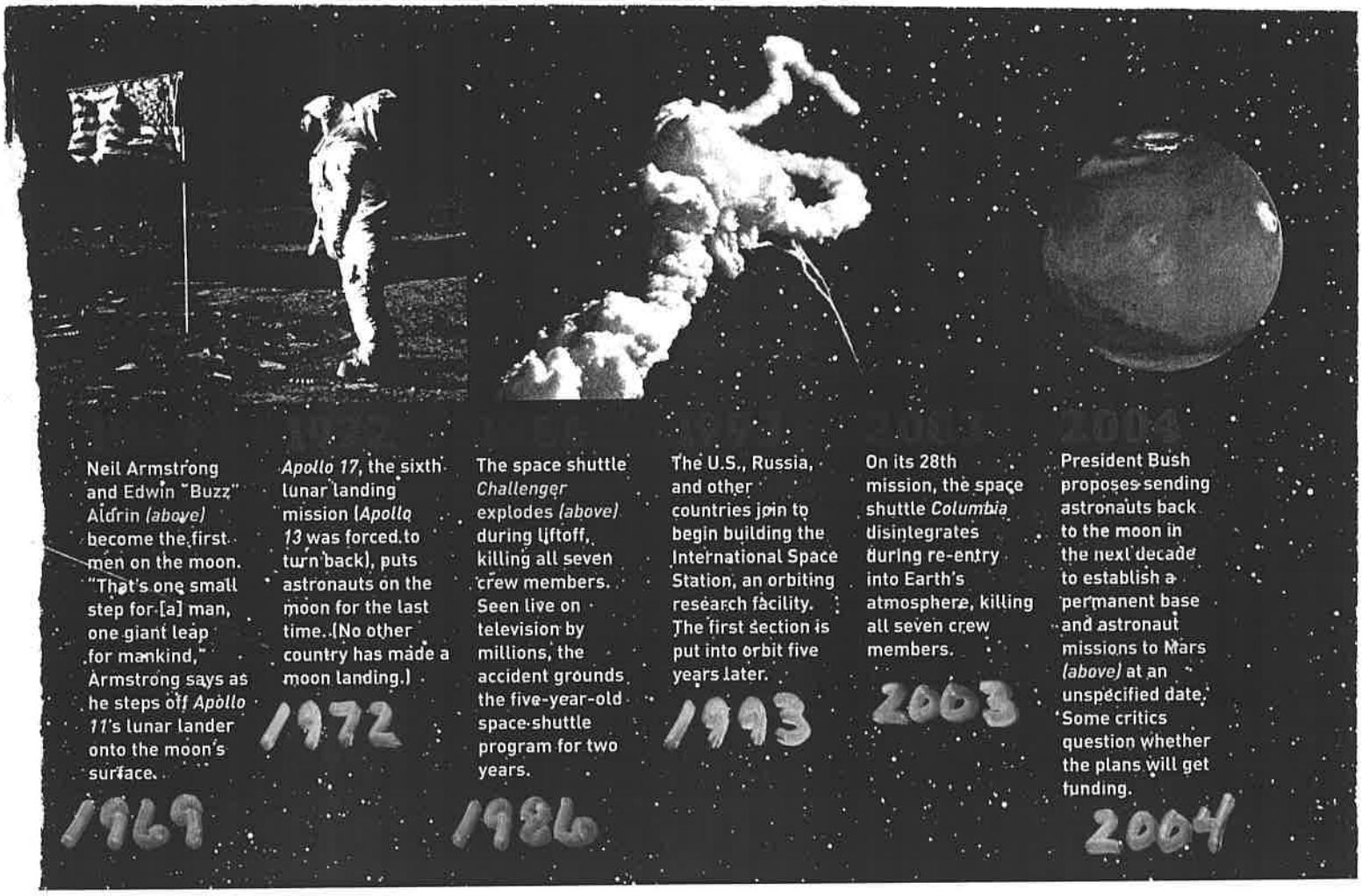
It was launched 50 years ago, on Oct. 4, 1957, by the Soviet Union, shocking the United States at the height of the Cold War and triggering a "space race" with the Soviets, little more than half a century after the first airplane flight.

Sputnik was the space shot heard around the world. It emitted a pulsating beep as it orbited the Earth every 98 minutes—a piercing propaganda coup for the Soviets and an alarming wake-up call to the U.S., which feared it was falling behind its Communist adversary technologically.

It even affected our language. Before *Sputnik*, "satellite" generally referred to the Eastern European countries under the iron-fisted control of the Soviet Union.

It's hard to imagine today, but *Sputnik*'s launch

LEFT TO RIGHT, LEFT PAGE: NASA; BETTMANN/CORBIS; AP IMAGES; RIGHT PAGE: NASA (3)



Soviet Union sent the first satellite into space. A stunned America reacted leading to the historic moon landing 12 years later.

By Sam Roberts

practically caused a panic. Eyes and ears were trained skyward as *Sputnik* circled the Earth, and tough questions were asked in Washington: Why hadn't America been first? How long would it take to catch up? And the most frightening question of all: If the Russians could send a satellite into space, could they also launch missiles at Chicago, Seattle, or Atlanta?

'IT'S UP'

Scientists from around the world had been meeting throughout 1957—which had been designated the International Geophysical Year—to discuss their research on satellites and other topics. Ironically, a week of meetings was capped by a reception at the Soviet embassy in Washington on October 4. The *Times*'s chief science reporter, Walter Sullivan, was there, until he got a call from his editors that the Soviets had just announced *Sputnik*'s launch in Moscow. After whispering "It's up" to an American scientist, he raced back to the bureau to write his story for the front page of the next day's paper.

Sputnik dominated news coverage around the nation. Not only were the Soviets first, but with *Sputnik* at nearly 200 pounds, the planned U.S. contender, at under four pounds, seemed a lightweight by comparison. Less than a month later, the Soviets launched *Sputnik 2* weighing 1,120 pounds—and with a passenger on board named Laika, a mixed-breed dog who was used to test the physiological effects of space travel. (She died of overheating and stress within hours.)

Sputnik (its name translated roughly as "fellow traveler") would fall from the sky after less than three months. But the repercussions of the Soviets' achievement—political, military, and scientific—lasted much longer.

Stung by the launch, President Dwight D. Eisenhower told Americans that Communist dictatorships might be capable of achievements like *Sputnik*, but its citizens did not enjoy the freedoms that Americans did.

In Washington, lawmakers saw what was at stake.

"It took them four years to catch up to our atomic bomb and nine months to catch up to our hydrogen bomb," said George Reedy, an aide to Senate Majority Leader (and

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AMERICAN STUDENTS practice "duck and cover" in case of a Soviet nuclear attack, in the early 1950s. *Sputnik* raised fears that the U.S. was vulnerable militarily.

A POSTAGE STAMP from Albania honors Laika, the dog who rode in *Sputnik 2*.

SOVIET PREMIER Nikita Khrushchev *(right)* gives President Eisenhower a replica of a Soviet satellite in 1959.

later President) Lyndon B. Johnson. "Now we are trying to catch up to their satellite."

The U.S. would not only catch up, but forge ahead.

Three months later, in January 1958, the Army successfully launched the *Explorer*, America's first satellite, from Cape Canaveral, Florida. Unlike *Sputnik*, the *Explorer* carried instruments, however crude, that produced valuable scientific information, including the discovery of what became known as the Van Allen radiation belts.

Proceeding rapidly, the U.S. created the National Aeronautics and Space Administration (NASA) to plan for human space exploration. Concerned that American students weren't getting the preparation they needed to allow the U.S. to compete technologically, Congress passed the National Defense Education Act, which funneled federal money to schools and colleges to improve teaching and research and encouraged students to study science, math, and foreign languages.

WHAT'S THE PURPOSE OF THE SPACE PROGRAM IN THE 21ST CENTURY?

In May 1961, astronaut Alan B. Shepard became the first American in space. That same month, President John F. Kennedy ambitiously announced to a joint session of Congress his goal of "landing a man on the moon and returning him safely to Earth" before the end of the decade.

Five years later, the Soviets succeeded in sending an unmanned spacecraft to the moon. But in July 1969, with millions around the globe watching live on television, America claimed the biggest prize in the space race, as astronaut Neil Armstrong became the first man to walk on the moon.

The Soviets showed Armstrong and fellow astronaut Edwin "Buzz" Aldrin's moon walk at least three times on government-run TV that day, according to Bernard Gwertzman, then a *Times* correspondent in Moscow. "For a day or two, there was a pleasant truce in the Cold War," wrote Gwertzman.

Since then, there have been ups and downs in the space program. In 1976, the U.S. landed the first space probe on Mars and six years later it sent the first spacecraft beyond the outer fringes of the solar system. Scientists discovered more moons circling planets and rings around Uranus, and made flybys or landings on planets and comets.

With the Soviet Union's collapse in 1991, the space race evolved into the sort of partnership envisioned by scientists before *Sputnik* and symbolized by the International Space Station, where American astronauts and Russian cosmonauts have worked side by side.

But NASA has faced other challenges. Seven astronauts died when the space shuttle *Challenger* exploded during takeoff in 1986. In 2003, the space shuttle *Columbia* disintegrated while re-entering Earth's atmosphere and seven more astronauts died.

Some scientists have questioned the value of the space shuttle and space station programs and critics of NASA have complained in recent years that the agency lacks direction and the space program is adrift.

ASTRONAUTS TO MARS?

In 2004, President George W. Bush set new goals for the space program—a return to the moon and an astronaut mission to Mars. "The desire to explore and understand is part of our character," he said.

Some critics remained skeptical. Others hailed the bold vision of discovery, however belated.

"After years of spending our nation's space budget building an orbiting space station of questionable utility, serviced by an operationally expensive space shuttle of unsafe design, NASA has set a new direction for the future of human spaceflight," Carolyn Porco, a planetary scientist, wrote earlier this year. "Once again, we have our sights on the moon and beyond. We are finally, bodily, going to make our way into space, this time to stay."

CLOCKWISE FROM LEFT: BETTMANN/CORBIS; BLANK ARCHIVES/GETTY IMAGES; JERRY COOKE/CORBIS