

# Apollo 13 Disaster In Space!

The entire world was transfixed. Many said it was the first time they prayed.

It all began when the Apollo spacecraft heading toward the moon with three astronauts experienced a major malfunction. On the ground, specialists worked feverishly to develop a plan to return the astronauts safely to Earth.

It was a race against time, as the oxygen, heat and electricity in the craft was running out fast. A series of risky maneuvers was initiated in the slim hope of returning the astronauts alive. Would they succeed in time?

U h, Houston, we've had a problem," Commander Lovell's voice crackled matter-of-factly over the radio.

Despite the calm way he intoned this message, his words sent shockwaves of alarm through the Mission Control Center 200,000 miles away on Earth, in Houston, Texas.

Apollo 13 was hurtling 25,000 miles per hour through empty space toward the moon. On board, its three astronauts had been trained to stay calm under all circumstances. The scientists and engineers on Earth had also been trained well and their responses were calm and measured. Nevertheless, for the commander of the craft—the most technologically advanced one in the world (and off the world), where every little component was monitored and where the failure of even one of them could mean death for those on board—to say that there was a problem was startling. It rattled everyone in the command center who understood that there was much more unsaid than said.

Then Commander Lovell uttered something which sent chills down everyone's spine.

"It looks like we are leaking something," his voice echoed. "I don't know what it is.... We're releasing something into, um... space."

Dead silence fell over the Control Center in Houston. Then the room erupted in a frenzy of activity. Everyone knew now that time was of the essence....

## Final Preparations

Just 56 hours earlier, on April 11, 1970, the three astronauts were blissfully beginning their final preparations for their mission. The commander of the Apollo 13 mission was 42-year-old Jim Lovell, a father of four. At that time he was the most experienced astronaut in the world.

Lovell had flown for the Navy before entering NASA's space program eight years earlier, in 1962. He flew two space missions with the Gemini program, even setting a world record by spending two weeks in space. Later he flew on Apollo 8, the first manned mission to orbit the moon. Lovell and the two astronauts with him became the first humans to leave Earth's atmosphere, to orbit the moon and to see the far side of the moon. (Both Russian and US spacecraft had already sent back pictures.) Now Lovell was about to become the first astronaut to fly a second mission to the moon and to fly a fourth mission into space. His total of seven million miles of space travel made him the most travelled human in history.

Lovell was scheduled to make a moonwalk together with his Lunar Module (LM) pilot, 36-year-old rookie astronaut Fred Haise. Haise had an extensive history as a pilot, flying and later serving as a flight instructor for the Navy. He also served as a fighter pilot for the Marines, with the Air Force and for the Oklahoma National Guard before joining NASA as a test pilot in 1963. Haise left his wife, who was ill at the time, and three children behind on Earth.

The third crew member was 38-year-old Jack Swigert, who was to pilot the Command



Left to right: Jim Lovell, Commander of the Apollo 13 mission; Jack Swigert, pilot of the Command and Service Module (CSM); Fred Haise, Lunar Module (LM) pilot.



Original crew photo. Left to right: Lovell, Mattingly (who was replaced after being exposed to measles) and Haise.

and Service Module (CSM). Swigert had served three years in the US Air Force and then spent three years as a test pilot before being accepted as an astronaut by NASA in 1966. He was chosen for Apollo 13 at the last moment, as a replacement for astronaut Ken Mattingly who had been exposed to measles.

Six hours before Apollo 13's launch, the three astronauts sat down in a van and were driven to the launch pad. The space capsule was mounted at the tip of the massive Saturn V rocket, with 5.5 million pounds of fuel prepared to shoot them free of Earth's gravitational pull with its awe-inspiring 7.7 million pounds of thrust. Once they were free of Earth's grip, the rocket would continue to speed them on their way to the moon. They would traverse a distance of 240,000 miles to reach their destination.

The astronauts entered the elevator and were whisked up to the top of the rocket, 360 feet above the launch pad. There they climbed into their capsule. The hatch was sealed and now they would remain confined until they returned from their mission.

They knew their lives were dependent on the cooperation of thousands of components, the complex mathematical calculations of NASA's scientists and on their own abilities to perform their tasks as trained. Fortunately, all of the people and equipment involved had been tested many times over. By now America had two successful lunar landings under its belt.

Unbeknown to everyone, however, the spacecraft suffered from a fault in its equipment. Less than 10 feet below where the men were buckling in, deep within the Command and Service Module, a wire on an oxygen tank had become dangerously exposed. The tank was loaded with pressurized liquid oxygen and a single spark was all it would take to ignite a catastrophic explosion.



Fred Haise, one of the Apollo 13 astronauts, training for the mission.



Apollo 13 on the launching pad. Inset: Apollo 13 insignia.

