

# Why did the optical module explode



## Overview

But on the mission's third day, at 9:07pm CST on April 13, 1970, something happens that causes the world's attention to laser-focus on this little spacecraft and its three occupants. A routine maintenance checklist task results in an explosion of one of the spacecraft's oxygen. This view of the severely damaged Apollo 13 Service Module (SM) was photographed from the Lunar Module/Command Module (LM/CM) following SM jettisoning. Extensive damage is visible from the oxygen tank explosion. Space industry insiders have a love-hate relationship with Ron Howard's 1995 film Apollo 13. The damaged Oxygen Tank two in the Apollo 13 Service Module exploded at Mission Elapsed Time (MET) 55 hours and 55 minutes, 321,860 kilometers (199,990 miles) away from Earth. If the tank was going to rupture and the crew was going to survive the ordeal, the explosion couldn't have happened at a better time.



## Article Content

Jul 10, 2025

Apollo 13

On the evening of April 13, 1970, the Apollo 13 crew was 200,000 miles from Earth and closing in on the moon. Unexpectedly, mission control saw voltage alarms

Apr 08, 2026

AtMega16U2 module on Arduino UNO R3 exploded

please help, I use Arduino Uno R3 to drive two mg996r servo motors which will move simultaneously. After approximately 1 hour of use, the

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45 years after Apollo 13: Ars looks at what went wrong and why

The device let the Apollo 13 crew utilize scrubbers from the Command Module by channeling air from the Lunar Module's receptacles through the bulkier square cartridges.

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Damage From Apollo 13 Explosion

As seen in this cropped image, enlarged to provide a close-up view of the damaged area, an entire panel on the SM was blown away by the apparent explosion of oxygen tank number two.

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Why Did My Light Bulb Explode and What Are Its Causes?

Did you get a jolt of surprise when you flipped the switch and got a loud pop and shards of glass raining down? It might seem random, but there's almost always a

Aug 17, 2025

Why Did The SpaceX Starship Explosion? Here's What

The most recent SpaceX Starship test launch ended in disaster again, with the rocket exploding shortly after takeoff. Here's what we know about the

Dec 24, 2025

AshwinD24's gists · GitHub

GitHub Gist: star and fork AshwinD24's gists by creating an account on GitHub.

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What Happened to Apollo 13? Inside the Near-Fatal

Here's everything to know about NASA's 1970 space mission Apollo 13, including its purpose, what went wrong, if the crew survived and more.

Sep 30, 2025

What Is an Optical Module and Its FAQs (V200)

What Is an Optical Module and Its FAQs (V200) Describes what an optical module is and FAQs, including the fundamentals, appearance and structure, key performance counters, common types,

Sep 16, 2025

What exploded on Apollo 13 module? – Your Wisdom Tips

What exploded on Apollo 13 module? July 31, 2020 by Author Table of Contents 1 What exploded on Apollo 13 module? 2 Why was there ice on Apollo 13? 3 What happened to the

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Various reasons for IGBT power module explosions

Insulated gate bipolar transistors (IGBTs) modules are critical components in modern power electronics, used widely in industrial applications,

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The Apollo 13 Disaster: A Story of Survival

Fifty-six hours into the mission, an oxygen tank exploded, crippling the Service Module. This left astronauts Jim Lovell, Fred Haise, and Jack Swigert in a dire situation: their spacecraft was losing

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NASA Lewis Aided Apollo 13 Investigation

One of the service module's oxygen tanks exploded. The explosion crippled the module, leaving it without its oxygen supply, power, water and propulsion. The astronauts crammed into the

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What Caused the Apollo 13 Accident?

Once the astronauts were safely back on Earth, engineers began working to understand the causes of the accident, to prevent it from happening

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### What Happened to Apollo 13? Inside the Near-Fatal

Two days after liftoff, on April 13, 1970, an oxygen tank in Apollo 13's service module exploded. The explosion crippled the spacecraft, leaving it without

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### Apollo 13

Apollo 13 astronauts heard a loud bang. Command Module Pilot Jack Swigert saw a warning light and said, "Houston, we've had a problem " Additional warning

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### The Rise of Co-Packaged Optics: A Deep Dive into CPO

A CPO optical module integrates optical and electronic components to boost data center speed, efficiency, and bandwidth while reducing power use.

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### What Happened to Apollo 13? Inside the Near-Fatal

Did the Apollo 13 crew survive? Heritage Space/Heritage Images/Getty; Bettmann/Getty The prime recovery ship for the Apollo 13 mission

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### 13 Things That Saved Apollo 13, Part 1: Timing

Without a fueled lunar lander descent stage attached, lacking its consumables and engines as well as the needed battery power, water and oxygen, the crippled Command Module could not

Dec 05, 2025

### The Recipe for Apollo 13's Disaster

We all know Apollo 13's lunar landing was aborted when an oxygen tank exploded on board the spacecraft. But why did the tank explode?

May 31, 2026

### 13 Things That Saved Apollo 13, Part 1: Timing

Click here for our preview article. Oxygen Tank two in the Apollo 13 Service Module exploded at Mission Elapsed Time (MET) 55 hours and 55 minutes, 321,860 kilometers (199,990

Apr 15, 2026

Challenger Disaster 30 Years Ago Shocked the World,

Thirty years ago today, NASA suffered a spaceflight tragedy that stunned the world and changed the agency forever. On Jan. 28, 1986, the space

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BBC ON THIS DAY | 14 | 1970: Critical explosion cripples Apollo 13

Plans have been made to "slingshot" Apollo 13 around the Moon and fire the spacecraft's last remaining booster engine to take it away from the Moon's orbit and bring it back on course to Earth....

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Why did SpaceX's Starship explode? Musk's company

SpaceX's Starship exploded mid-flight during its eighth test, prompting an FAA-mandated investigation as the company analyzes the cause.

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50 years after Apollo 13, failure is still not an option

The command module, still docked with the Lunar Module, is in the

May 12, 2026

"Houston We've Had a Problem" - The Failure of Apollo 13, 55

Fifty Five years ago today, on April 13, 1970, while en route to the Moon, an oxygen tank in the Service Module of Apollo 13 exploded. The lunar landing and moonwalk, which would have

Mar 30, 2026

Samsung finally explained what caused the Galaxy Note

Samsung finally explained what caused the Galaxy Note 7 explosions Samsung would like you to believe that engineering—not mismanagement—were

Feb 17, 2026

Apollo 1

Apollo 1, initially designated AS-204, was planned to be the first crewed mission of the Apollo program, the American undertaking to land the first man on the

Jun 26, 2025

Apollo 13

When Apollo 13 launched on April 11, 1970, it was intended to be the third Apollo mission to land on the Moon. Unfortunately, an explosion in one of the oxygen tanks crippled the spacecraft during flight

Mar 22, 2026

Apollo 13: "Houston, We've Had a Problem Here"

The number two oxygen tank in the service module had exploded. The liquid oxygen escaped into space. It formed a huge gas ball that expanded

## Contact Us

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