

Supply rocket headed to space station explodes (Update)

October 28 2014, by Brock Vergakis



This image taken from video provided by NASA TV shows Orbital Sciences Corp.'s unmanned rocket blowing up over the launch complex at Wallops Island, Va., just six seconds after liftoff. The company says no one was believed to be hurt and the damage appeared to be limited to the facilities. (AP Photo/NASA TV)

An unmanned commercial supply rocket bound for the International Space Station exploded moments after liftoff Tuesday evening, with debris falling in flames over the launch site in Virginia. No injuries were reported following the first catastrophic launch in NASA's commercial spaceflight effort.

The accident was sure to draw criticism over the space agency's growing reliance on private U.S. companies in this post-shuttle era. NASA is paying billions of dollars to Orbital Sciences and the SpaceX company to make station deliveries, and it's counting on SpaceX and Boeing to start flying U.S. astronauts to the orbiting lab as early as 2017. This was the fourth flight by Orbital Sciences to the orbiting lab.

The Orbital Sciences' Antares rocket blew up over the beachside launch complex at Wallops Island. The company said everyone at the site had been accounted for, and the damage appeared to be limited to the facilities. And nothing on the lost flight was urgently needed by the six people living on the 260-mile (418-kilometer)-high space station, officials said.

Flames could be seen shooting into the sky as the sun set.

Orbital Sciences' executive vice president Frank Culbertson said things began to go wrong 10 to 12 seconds into the flight and it was all over in 20 seconds when what was left of the rocket came crashing down. He said he believes the range-safety staff sent a destruct signal before it hit the ground.

Bill Wrobel, director of NASA's Wallops Flight Facility, said crews were letting the fires burn out late Tuesday and set up a perimeter to contain them in the darkness.

This was the second launch attempt for the mission. Monday evening's try was thwarted by a stray sailboat in the rocket's danger zone. The restrictions are in case of just such an accident that occurred Tuesday.

Culbertson said the top priority will be repairing the launch pad "as quickly and safely as possible."

He said he could not guess how long it will take to determine the cause of the accident and to make repairs. Culbertson said the company carried insurance on the mission, which he valued at more than \$200 million, not counting repair costs.

He stressed that it was too soon to know whether the Russian-built engines, modified for the Antares and extensively tested, were to blame.

"We will understand what happened—hopefully soon—and we'll get things back on track," Culbertson assured his devastated team. "We've all seen this happen in our business before, and we've all seen the teams recover from this, and we will do the same."

The Wallops facility is small compared to NASA's major centers like those in Florida, Texas and California, but vaulted into the public spotlight in September 2013 with a NASA moonshot and the first Cygnus launch to the space station.



An unmanned Orbital Sciences Corp.'s Antares rocket explodes shortly after takeoff at Wallops Flight Facility on Wallops Island, Va. on Tuesday, Oct. 28, 2014. No injuries were reported following the first catastrophic launch in NASA's commercial spaceflight effort. (AP Photo/Eastern Shore News, Jay Diem)

Michelle Murphy, an innkeeper at the Garden and Sea Inn, New Church, Virginia, where launches are visible across a bay about 16 miles (26 kilometers) away, witnessed the explosion.

"It was scary. Everything rattled," Murphy said. "There were two explosions. The first one we were ready for. The second one we weren't. It shook the inn, like an earthquake."



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TV)

Culbertson advised people not to touch any potentially hazardous rocket or spacecraft debris that came down on their property or might wash ashore.

Immediately after the explosion, the launch team was ordered to maintain all computer data for the ensuing investigation. Culbertson advised his staff not to talk to news reporters and to refrain from speculating among themselves.

"Definitely do not talk outside of our family," said Culbertson, a former astronaut who once served on the space station.



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This newest Cygnus cargo ship—named for the swan constellation—had held 5,000 pounds (2,270 kilograms) of space station experiments and equipment for NASA, as well as prepackaged meals and eagerly awaited crab cakes, freeze-dried for safe eating. It had been due to arrive at the orbiting lab Sunday.

By coincidence, the Russian Space Agency was proceeding with its own supply run on Wednesday, planned well before the U.S. mishap. And SpaceX is scheduled to launch another Dragon supply ship from Cape Canaveral in December; some items may be changed out to replace what was lost on the Cygnus.



Spectators in Chincoteague, Va. watch the fireball from the explosion of the unmanned Orbital Sciences Corp.'s Antares rocket and Cygnus cargo capsule

seconds after liftoff from Wallops Island, Va. on Tuesday, Oct. 28, 2014. No injuries were reported following the first catastrophic launch in NASA's commercial spaceflight effort. (AP Photo/The Virginian-Pilot, Rich-Joseph Facun)

NASA space station program manager Mike Suffredini told reporters that the station and its crew have plenty of supplies on board—about five months' worth—even without the upcoming launches.

Among the science instruments that were lost: a meteor tracker and 32 mini research satellites, along with numerous experiments compiled by schoolchildren. Suffredini promised the experimenters would get a chance to refile their work.



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The two Americans, three Russians and one German aboard the space station were watching a live video feed from Mission Control and saw the whole thing unfold before their eyes.

Until Tuesday, all of the supply missions by the Virginia-based Orbital Sciences and California-based SpaceX had been near-flawless.

President Barack Obama has long championed this commercial space effort, well before NASA's space shuttles were retired in 2011. He's urged that NASA focus its human spaceflight effort less on nearby orbit and more on destinations like asteroids and Mars. He was informed of the accident while on a campaign trip in Wisconsin.

SpaceX's billionaire founder and chief officer Elon Musk—whose company is the face, in many ways, of the commercial effort—said he was sorry to learn about the failure. "Hope they recover soon," he said in a tweet.



This image provided by NASA shows the Orbital Sciences Corporation Antares rocket, with the Cygnus spacecraft onboard, on launch Pad-0A after the launch attempt was scrubbed because of a boat down range in the trajectory Antares would have flown had it lifted off, Monday, Oct. 27, 2014, at NASA's Wallops Flight Facility in Wallops Island, Va. The Antares will launch with the Cygnus spacecraft filled with over 5,000 pounds of supplies for the International Space Station, including science experiments, experiment hardware, spare parts, and crew provisions. The Orbital-3 mission is Orbital Sciences' third contracted cargo delivery flight to the space station for NASA. The next launch attempt will be made on Tuesday. (AP Photo/NASA, Joel Kowsky)

Support poured in from elsewhere in the space community late Tuesday night.

"Very sorry to see the Antares rocket launch failure," said Chris Hadfield, a former Canadian astronaut who served as space station commander last year. "Spaceflight is hard. Very glad that no one was

hurt."

John Logdson, former space policy director at George Washington University, said it was unlikely to be a major setback to NASA's commercial space plans. But he noted it could derail Orbital Sciences for a while given the company has just one launch pad and the accident occurred right above it.

The explosion hit Orbital Science's stock, which fell more than 15 percent in after-hours trading.

More information: NASA:

www.nasa.gov/mission_pages/station/main/index.html

Orbital Sciences: www.orbital.com/ Orbital Sciences:

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