

## SpaceX delays Polaris Dawn launch again with no new date set

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Billionaire Jared Isaacman's return trip to space on the Polaris Dawn mission is having to wait a little longer after a launch pad issue forced one delay and now the weather has taken the next two launch



opportunities off the board.

First, a helium leak on the launch pad Monday night forced SpaceX to hold off a planned overnight launch attempt of Isaacman and three crewmates aboard the SpaceX Crew Dragon Resilience atop a Falcon 9 rocket from KSC's Launch Pad 39-A. Then SpaceX said weather in the recovery area would take off both early Wednesday and early Thursday morning opportunities.

"Due to unfavorable weather forecast in Dragon's splashdown areas off the coast of Florida, we are now standing down from tonight and tomorrow's Falcon 9 launch opportunities of Polaris Dawn," SpaceX posted on X late Tuesday. "Teams will continue to monitor weather for favorable launch and return conditions."

It's uncertain if SpaceX would try for an early Friday morning launch opportunity.

"The ascent corridor is go, it's the splashdown locations day 5 that are not favorable," Isaacman posted late Tuesday to X.

The delay comes after launch pad problems shut down the first attempt.

"Teams are taking a closer look at a ground-side helium leak on the Quick Disconnect umbilical," SpaceX posted on X late Monday. "Falcon and Dragon remain healthy and the crew continues to be ready for their multi-day mission to low-Earth orbit."

In a Tuesday update, SpaceX said the weather had an 85% chance for good launch conditions for the Wednesday attempt, but that teams were also looking at recovery weather at potential splashdown locations off the coast of Florida. That ended up being what SpaceX said was the reason to call off the attempt, and it has to do with weather five days



from now.

"Our launch criteria are heavily constrained by forecasted splashdown weather conditions," Isaacman posted to X late Tuesday. "With no ISS rendezvous and limited life support consumables, we must be absolutely sure of reentry weather before launching. As of now, conditions are not favorable tonight or tomorrow, so we'll assess day by day."

He said he's not discouraged by the delay.

"As Elon mentioned, Polaris Dawn is a challenging mission with critical objectives, so we'll wait for the best opportunity to ensure success. Sometimes, the hardest journeys require the most patience, and we're ready to wait for the right moment. We know many have traveled to see the launch, and we're grateful for your support. Alongside @SpaceX, we'll do our best to keep you updated."

Whatever the helium leak issue was on Monday, though, it was not in line to halt the attempt.

"While it's a bummer to not step into a launch attempt tonight, I'm very proud of the team for identifying an issue and then digging in," posted SpaceX vice president of launch Kiko Dontchev on X regarding Monday's leak. "Nothing is more important than the safety of our astronauts and the reliability of our vehicles and operation."

"We are grateful to all our friends, family, and supporters who have come out to @NASAKennedy for the launch," Isaacman posted on X. "The best aerospace engineers in the world are working on the issue, and we promise to put on a great show soon enough!"

Elon Musk weighed in as well.



"An incredible amount of work has gone into this historic mission by an amazing team. We are triple-checking everything to make sure there is nothing more we can do to improve crew safety," Musk posted.

"More time in quarantine to prepare is never a bad thing," Isaacman later posted. "We're well-informed on the issue and resolution. It's immensely comforting to have the full support of @SpaceX & leadership, including Elon, ensuring mission's safety. When the call comes, we won't hesitate to strap in."

When it does launch, the first-stage booster, which is making its fourth flight, will aim for a recovery landing downrange in the Atlantic on the droneship A Shortfall of Gravitas.

The Crew Dragon Resilience is flying for the third time, having debuted on the Crew-1 mission in 2020 and also having flown the Inspiration4 mission in 2021.

That second flight was Isaacman's first trip to space, a three-day orbital mission that was the first ever all-commercial spaceflight that raised more than \$250 million for St. Jude Children's Research Hospital.

In 2022, Isaacman announced the Polaris Program in partnership with SpaceX with up to three missions with Polaris Dawn as the first. The final mission would be the first crewed flight of the in-development Starship and Super Heavy.

But first up, Isaacman will be flying with one of his pilot buddies, former Air Force pilot Scott Poteet, and two SpaceX employees, Sarah Gillis and Anna Menon.

The highlight of the trip is what would be the first commercial spacewalk, targeting day three of the five-day orbital flight.



Isaacman and Gillis will venture outside the spacecraft that will open its hatch and vent the entire atmosphere out, meaning all four <u>crew</u> <u>members</u> will be wearing the new extravehicular activity spacesuits that SpaceX developed in the last 2 1/2 years, and all breathing 100% oxygen.

Isaacman and Gillis will be connected to a 12-foot-long tether as they each spend about 15–20 minutes outside Resilience.

The flight also will take the spacecraft to a record 870-mile orbital altitude, test out a new Starlink communication experiment and tackle 40 more science and research efforts.

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