

# Iridium-8 Mission

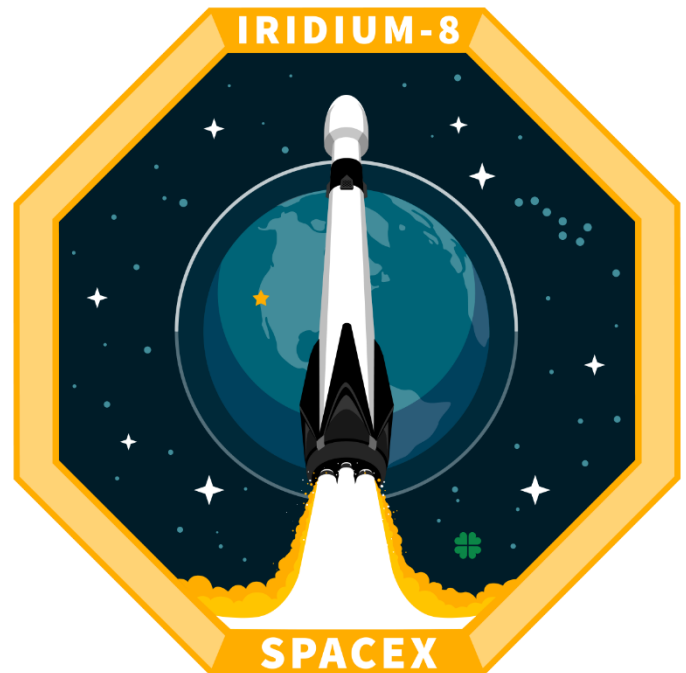
## MISSION OVERVIEW

SpaceX is targeting Friday, January 11 for the launch of 10 Iridium NEXT satellites from Space Launch Complex 4E (SLC-4E) at Vandenberg Air Force Base in California. This is the eighth and final set of satellites in a series of 75 total satellites that SpaceX will launch for Iridium’s next generation global satellite constellation, Iridium NEXT.

The instantaneous launch opportunity is at 7:31 a.m. PST, or 15:31 UTC, and the satellites will begin deployment approximately an hour after launch.

A backup instantaneous launch opportunity is available on Saturday, January 12 at 7:25 a.m. PST, or 15:25 UTC.

Falcon 9’s first stage for the Iridium-8 mission previously supported the Telstar 18 VANTAGE mission in September 2018. Following stage separation, SpaceX will attempt to land Falcon 9’s first stage on the “Just Read the Instructions” droneship, which will be stationed in the Pacific Ocean.



Official SpaceX Iridium-8 Mission Patch

## PAYLOAD

For this eighth and final planned Iridium mission, 10 Iridium® NEXT satellites will be launched as part of the company’s campaign to replace the world’s largest commercial communication satellite network. Including the seven previous launches, all with SpaceX, Iridium is deploying 75 new satellites to orbit. In total, 81 satellites are being built, with 66 in the operational constellation, nine serving as on-orbit spares and six as ground spares.

Iridium is the only satellite communications network that spans the entire globe, and Iridium NEXT is one of the largest “tech upgrades” in space history. The process of replacing the satellites one by one in a constellation of this size and scale has never been completed before. The new constellation is enabling innovative new products and services including Iridium Certus<sup>SM</sup>, the company’s next-generation L-band broadband solution for specialized applications, like safety services, remote monitoring, UAV and UAS command and control, tracking, and more. It also hosts the Aireon<sup>SM</sup> system, which will for the first time bring real-time, truly global aircraft surveillance and tracking to fruition.

## MISSION TIMELINE (ALL TIMES APPROXIMATE)

### COUNTDOWN

Hour/Min/Sec	Events
- 00:38:00	SpaceX Launch Director verifies go for propellant load
- 00:35:00	RP-1 (rocket grade kerosene) loading underway
- 00:35:00	1st stage LOX (liquid oxygen) loading underway
- 00:16:00	2nd stage LOX loading underway
- 00:07:00	Falcon 9 begins engine chill prior to launch
- 00:01:00	Command flight computer to begin final prelaunch checks
- 00:01:00	Propellant tank pressurization to flight pressure begins
- 00:00:45	SpaceX Launch Director verifies go for launch
- 00:00:03	Engine controller commands engine ignition sequence to start
00:00:00	Falcon 9 liftoff

### LAUNCH, LANDING, AND SATELLITE DEPLOYMENTS

Hour/Min/Sec	Events
00:01:01	Max Q (moment of peak mechanical stress on the rocket)
00:02:27	1st stage main engine cutoff (MECO)
00:02:30	1st and 2nd stages separate
00:02:38	2nd stage engine starts
00:03:13	Fairing deployment
00:03:13	Boostback burn
00:05:30	1st stage entry burn
00:07:14	1st stage landing
00:08:46	2nd stage engine cutoff (SECO-1)
00:51:48	2nd stage engine restarts
00:51:51	2nd stage engine cutoff (SECO-2)
00:56:52	Iridium-8 deployment begins
01:11:52	Iridium-8 final deployment

### LAUNCH FACILITY

#### Space Launch Complex 4E at Vandenberg Air Force Base, California

SpaceX's Space Launch Complex 4E at Vandenberg Air Force Base has a long history dating back to the early 1960s. Originally an Atlas launch pad activated in 1962, SLC-4E was in active use until its last Titan IV launch in 2005. SpaceX's groundbreaking was in July 2011, and extensive modifications and reconstruction of the launch pad were completed just 17 months later.

SLC-4E consists of a concrete launch pad/apron and a flame exhaust duct. Surrounding the pad are RP-1 and liquid oxygen storage tanks and an integration hangar. Before launch, Falcon 9's stages, fairing and the mission payload are housed inside the hangar. A crane/lift system moves Falcon 9 into a transporter erector system and the fairing and its payload are mated to the rocket. The vehicle is rolled from the hangar to the launch pad shortly before launch to minimize exposure to the elements.

### RESOURCES

SpaceX Contact | Eva Behrend, Sr. Communications Manager, 310-363-6247, [media@spacex.com](mailto:media@spacex.com).

Photos | High-resolution photos will be posted at [flickr.com/spacex](https://www.flickr.com/photos/spacex/).

Webcast | Launch webcast will go live about 15 minutes before liftoff at [spacex.com/webcast](https://www.spacex.com/webcast).