



COSMO-SKYMED SECOND GENERATION FM2 MISSION

MISSION OVERVIEW

SpaceX is targeting Monday, January 31 for launch of the **COSMO-SkyMed Second Generation FM2** mission to low Earth orbit from Space Launch Complex 40 (SLC-40) at Cape Canaveral Space Force Station in Florida. The instantaneous launch window is at 6:11 p.m. EST, or 23:11 UTC.

WEBCAST

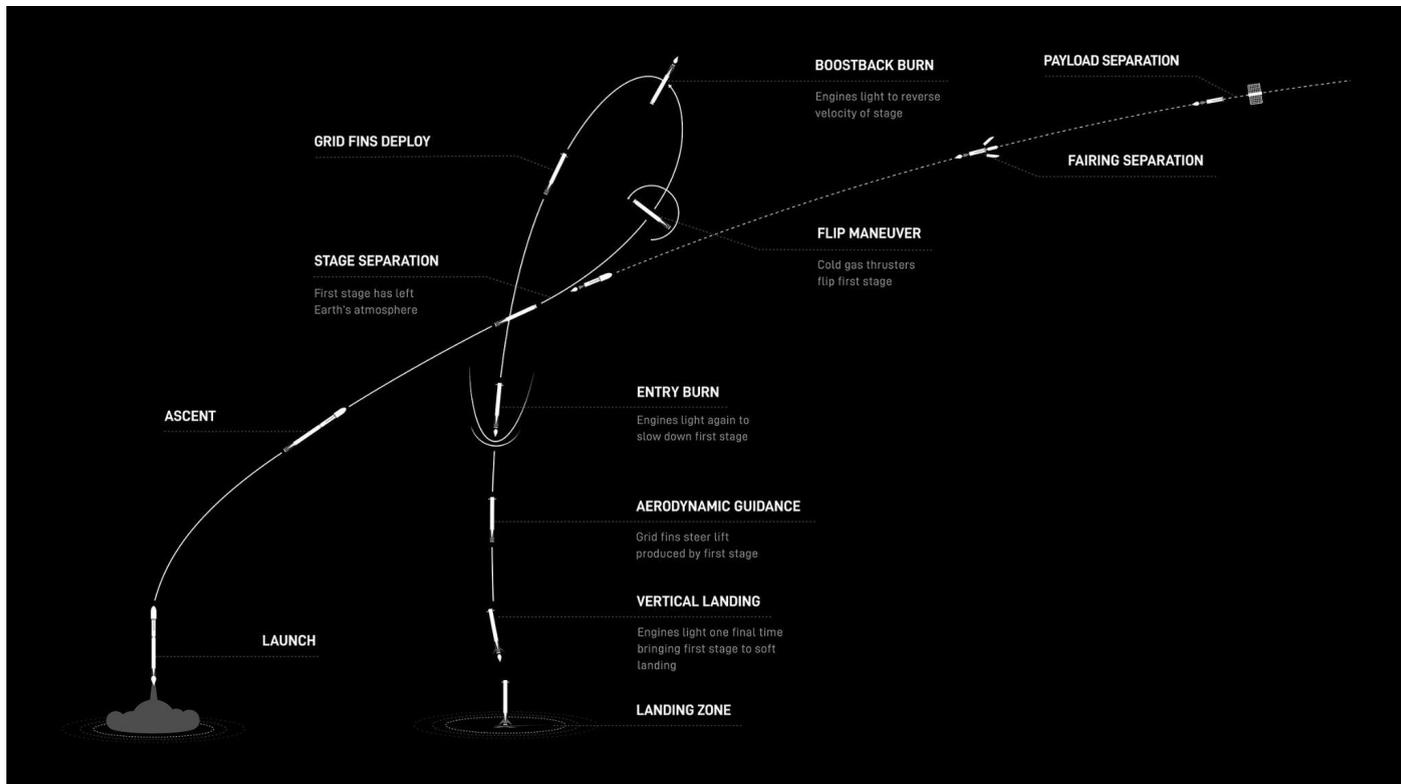
[A live webcast](#) of this mission will begin about 15 minutes prior to liftoff.

PHOTOS

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

The Falcon 9 first stage booster supporting this mission previously supported the launch of Arabsat-6A and STP-2. After stage separation, Falcon 9 will return to Earth and land on Landing Zone 1 (LZ-1) at Cape Canaveral Space Force Station. One half of the fairings supporting this mission previously supported Transporter-1, Transporter-2, and one Starlink mission, and the other half previously supported SAOCOM 1B, Transporter-2, and one Starlink mission.

MISSION PROFILE



MISSION TIMELINE (ALL TIMES APPROXIMATE)

COUNTDOWN

| Hr/Min/Sec | Event |
|-------------------|--|
| - 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 tanks 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 DEPLOYMENT

| Hr/Min/Sec | Event |
|-------------------|--|
| 00:01:12 | Max Q (moment of peak mechanical stress on the rocket) |
| 00:02:15 | 1st stage main engine cutoff (MECO) |
| 00:02:19 | 1st and 2nd stages separate |
| 00:02:27 | 2nd stage engine starts |
| 00:02:32 | 1st stage boostback burn begins |
| 00:03:20 | 1st stage boostback burn complete |
| 00:03:45 | Fairing deployment |
| 00:06:11 | 1st stage entry burn begins |
| 00:06:32 | 1st stage entry burn complete |
| 00:07:22 | 1st stage landing burn begins |
| 00:07:56 | 1st stage lands on Landing Zone 1 |
| 00:08:44 | 2nd stage engine cutoff (SECO) |
| 00:56:01 | 2nd stage engine restarts |
| 00:56:04 | 2nd stage engine cutoff (SECO-2) |
| 01:00:05 | COSMO-SkyMed Second Generation FM2 deployment |