

# STARLINK GROUP 5-1 MISSION



## MISSION OVERVIEW

SpaceX is targeting Wednesday, December 28 at 4:34 a.m. ET (9:34 UTC) for a Falcon 9 launch of 54 **Starlink** satellites to low-Earth orbit from Space Launch Complex 40 (SLC-40) at Cape Canaveral Space Force Station in Florida. If needed, there is a backup opportunity available on Thursday, December 29 starting at 4:14 a.m. ET (9:14 UTC).

The first stage booster supporting this mission previously launched GPS III Space Vehicle 04, GPS III Space Vehicle 05, Inspiration4, Ax-1, Nilesat 301, and five Starlink missions. Following stage separation, the first stage will land on the A Shortfall of Gravitas droneship, which will be stationed in the Atlantic Ocean.

This launch marks the first of Starlink's upgraded network. Under our new license, we are now able to deploy satellites to new orbits that will add even more capacity to the network. Ultimately, this enables us to add more customers and provide faster service – particularly in areas that are currently over-subscribed.

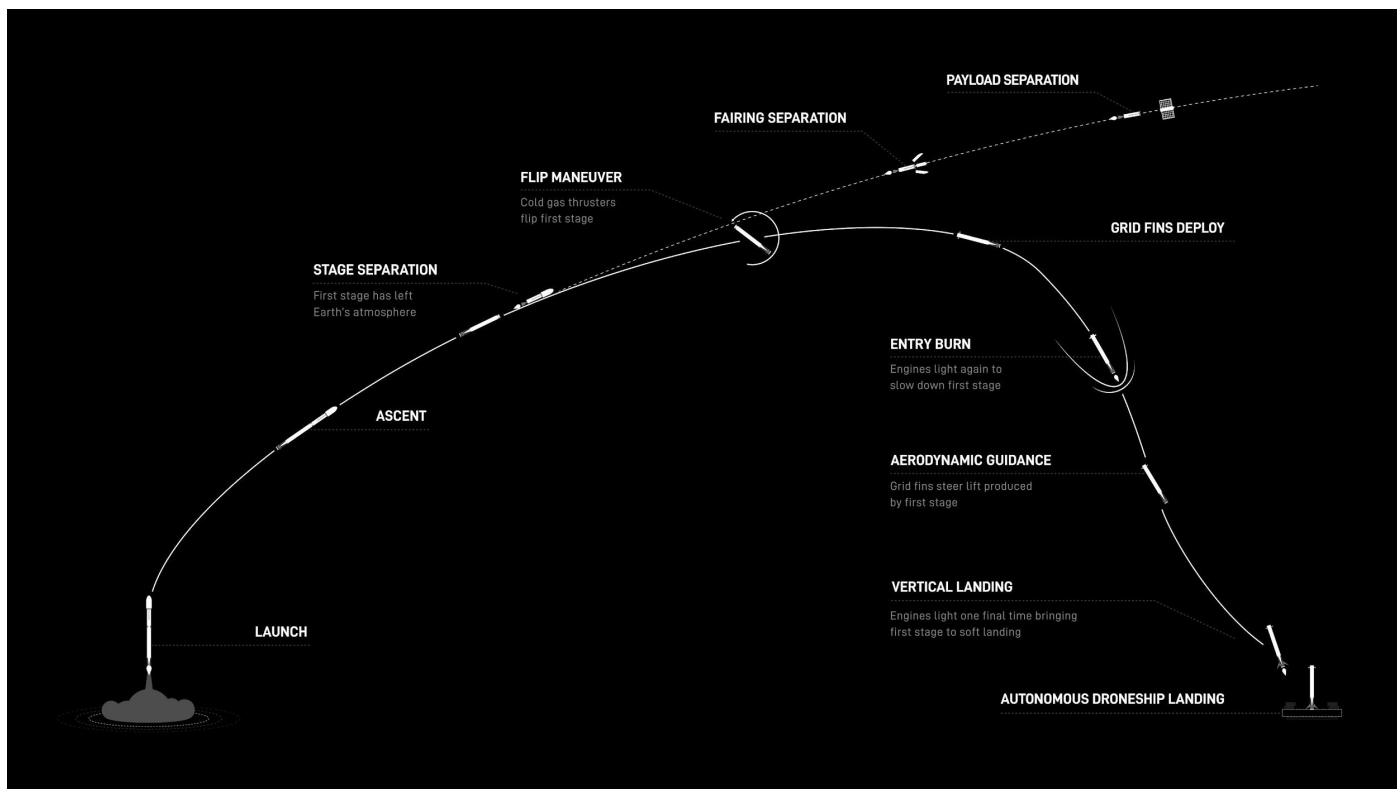
## WEBCAST

A live webcast of this mission will begin about five minutes prior to liftoff.

## PHOTOS

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

## MISSION PROFILE



# MISSION TIMELINE (ALL TIMES APPROXIMATE)

## COUNTDOWN

<b>Hr/Min/Sec</b>	<b>Event</b>
- 00:38:00	SpaceX Launch Director verifies go for propellant load
- 00:35:00	RP-1 (rocket grade kerosene) loading begins
- 00:35:00	1st stage LOX (liquid oxygen) loading begins
- 00:16:00	2nd stage LOX loading begins
- 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 DEPLOYMENT

<b>Hr/Min/Sec</b>	<b>Event</b>
00:01:12	Max Q (moment of peak mechanical stress on the rocket)
00:02:29	1st stage main engine cutoff (MECO)
00:02:32	1st and 2nd stages separate
00:02:39	2nd stage engine starts
00:02:44	Fairing deployment
00:06:44	1st stage entry burn start
00:07:00	1st stage entry burn complete
00:08:26	1st stage landing burn start
00:08:38	2nd stage engine cutoff (SECO-1)
00:08:47	1st stage landing
00:18:43	Starlink satellites deploy