

Telstar 18 VANTAGE MISSION

MISSION OVERVIEW

SpaceX is targeting launch of the Telstar 18 VANTAGE satellite to a Geostationary Transfer Orbit (GTO) from Space Launch Complex 40 (SLC-40) at Cape Canaveral Air Force Station, Florida. The four-hour launch window opens at 11:28 p.m. EDT on Sunday, September 9, or 3:28 UTC on Monday, September 10. The satellite will be deployed approximately 32 minutes after liftoff.

A four-hour backup launch window opens at 11:28 p.m. EDT on Monday, September 10, or 3:28 UTC on Tuesday, September 11.

Following stage separation, SpaceX will attempt to land Falcon 9's first stage on the "Of Course I Still Love You" dronship, which will be stationed in the Atlantic Ocean.



Official SpaceX Telstar 18 VANTAGE Mission Patch

PAYLOAD

Telstar 18 VANTAGE is the third high throughput satellite (HTS) in Telesat's global fleet and the first with coverage over the Asia Pacific region. Its innovative payloads will provide Telesat's customers with a new level of performance and value to serve growing satellite broadband requirements on land, at sea and in the air.

Built by SSL, a Maxar Technologies Company, Telstar 18 VANTAGE will replace and expand on the capabilities of Telesat's Telstar 18 satellite through its extensive C-band capacity over Asia, its Ku-band HTS spots over Indonesia and Malaysia, and its five additional Ku-band beams. Located at 138 degrees East, the coverage of Telesat's newest satellite reaches across Asia all the way to Hawaii – in both C and Ku-bands – enabling direct connectivity between any point in Asia and the Americas. Its Ku-band payloads of HTS spot beams and focused regional beams will provide customers operating in Southeast Asia, Mongolia, Australia & New Zealand, and the North Pacific Ocean with greater choice and flexibility to serve today's bandwidth intensive applications.

Telesat VANTAGE satellites combine focused regional beams with powerful HTS spot beams enabling users to maximize throughput and spectral efficiency while optimizing network performance. By implementing these advances on Telstar 18 VANTAGE, Telesat customers across the Asia Pacific region will have a competitive edge in meeting growing demand for satellite broadband from mobility markets – both aero and maritime, enterprise network operators and from leading telecom companies.

Telstar 18 VANTAGE is expected to enter commercial service this fall after it has completed orbit raising and on-orbit testing. The satellite has a 15-year design life.

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 DEPLOYMENT

Hour/Min/Sec	Events
00:01:07	Max Q (moment of peak mechanical stress on the rocket)
00:02:33	1st stage main engine cutoff (MECO)
00:02:37	1st and 2nd stages separate
00:02:45	2nd stage engine starts
00:03:29	Fairing deployment
00:06:17	1st stage entry burn
00:08:14	2nd stage engine cutoff (SECO-1)
00:08:32	1st stage landing
00:26:17	2nd stage engine restarts
00:27:00	2nd stage engine cutoff (SECO-2)
00:32:01	Telstar 18 VANTAGE satellite deployment

LAUNCH FACILITY

Space Launch Complex 40 at Cape Canaveral Air Force Station, Florida

SpaceX's SLC-40 at Cape Canaveral Air Force Station is a world-class launch site that builds on a strong heritage. The site, located at the north end of Cape Canaveral Air Force Station, was used for many years to launch Titan rockets, among the most powerful in the U.S. fleet. SpaceX took over the facility in May 2008.

The center of the complex is composed of the concrete launch pad and flame diverter system. Surrounding the pad are four lightning towers, propellant storage tanks, and the integration hangar. Before launch, Falcon 9's stages and payload are housed inside the hangar. The payload is mated to the Falcon 9 inside SLC-40's hangar on the transporter erector. The rocket and payload are then rolled out from the hangar to the launch pad and lifted to a vertical position.

RESOURCES

SpaceX Contact | James Gleeson, Communications Director, 202-649-2633, 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).