

# Telstar 19 VANTAGE MISSION

## MISSION OVERVIEW

SpaceX is targeting launch of the Telstar 19 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 on Sunday, July 22 at 1:50 a.m. EDT, or 5:50 UTC. The satellite will be deployed approximately 32 minutes after liftoff.

A four-hour backup launch window opens on Monday, July 23 at 1:50 a.m. EDT, or 5:50 UTC.

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



Official SpaceX Telstar 19 VANTAGE Mission Patch

## PAYLOAD

Telstar 19 VANTAGE is the latest in a new generation of Telesat satellites that combine broad regional beams and powerful high throughput satellite (HTS) spot beams in a design optimized to serve the types of bandwidth intensive applications increasingly in demand by users worldwide.

Operating from Telesat's prime orbital location of 63 degrees West, the same as Telesat's highly utilized Telstar 14R satellite, Telstar 19 VANTAGE will provide important advantages to Telesat customers who serve growing consumer, enterprise and mobility markets. It will have distinct zones of coverage across the Americas and Atlantic in both Ku-band and Ka-band. Ku-band coverages include: Brazil regional beam, North Atlantic regional beam and HTS spot beams over Brazil and the Andean region. Its Ka-band HTS spot beams will cover South America, the Caribbean, the North Atlantic and Northern Canada.

Telesat customer Hughes Network Systems LLC (Hughes) has signed a 15-year agreement for Telstar 19 VANTAGE Ka-band capacity that Hughes will utilize to expand its broadband satellite services for consumers and businesses in five South American countries. Hughes will refer to this capacity as "Hughes 63 West." Telesat also has long-term contracts for the entire Ka-band capacity of Telstar 19 VANTAGE over Northern Canada, including providing Bell Canada subsidiary Northwestel with the HTS spot beam capacity required to enhance broadband connectivity for all 25 communities in Nunavut, Canada's northernmost territory.

Following successful launch, Telstar 19 VANTAGE will enter commercial service this summer after it has completed orbit raising and in-orbit testing. The satellite was built by SSL, a Maxar Technologies company, and 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
00:01:12	Max Q (moment of peak mechanical stress on the rocket)
00:02:30	1st stage main engine cutoff (MECO)
00:02:33	1st and 2nd stages separate
00:02:34	2nd stage engine starts
00:03:40	Fairing deployment
00:06:12	1st stage entry burn
00:08:12	2nd stage engine cutoff (SECO-1)
00:08:29	1st stage landing
00:26:49	2nd stage engine restarts
00:27:39	2nd stage engine cutoff (SECO-2)
00:32:40	Telstar 19 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](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).