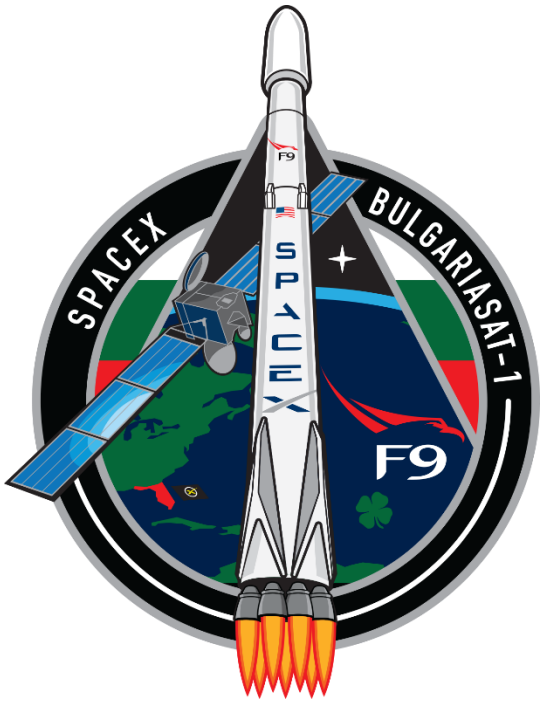
BulgariaSat-1 Mission

Mission Overview

SpaceX's Falcon 9 rocket will deliver BulgariaSat-1, a commercial communications satellite, to a Geostationary Transfer Orbit (GTO). BulgariaSat-1 is the first geostationary communications satellite in Bulgaria's history.

SpaceX is targeting launch of BulgariaSat-1 from Launch Complex 39A (LC-39A) at NASA's Kennedy Space Center in Florida. The two-hour launch window opens on Friday, June 23, at 2:10 p.m. EDT, or 18:10 UTC, with a backup launch opportunity on Saturday, June 24, at 2:10 p.m. EDT, or 18:10 UTC. The satellite will be deployed approximately 35 minutes after launch.

Falcon 9's first stage for the BulgariaSat-1 mission previously supported the Iridium-1 mission from Vandenberg Air Force Base in January of this year.



Official SpaceX BulgariaSat-1 mission patch

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

Payload

BulgariaSat-1 is a geostationary communications satellite built by SSL in Palo Alto, Calif., which will provide direct-to-home television (DTH) and data communications services to Southeastern Europe and other European regions. It will be located at the Bulgarian orbital position at 1.9 degrees East longitude and will provide reliable satellite communications solutions to broadcast, telecom, corporate and government customers.

BulgariaSat-1's payload includes 30 Broadcast Satellite Service (BSS) Ku-band transponders and two Fixed Satellite Service (FSS) Ku-band transponders, in order to meet the current demand for high quality HDTV and Ultra HDTV broadcasting, as well as various other communications applications.

BulgariaSat-1 is designed based on SSL's proven 1300 series platform and it will provide service in the Balkans, Eastern and Western Europe, the Middle East, Northern Africa, and the Caucasus with its high-power European beam. In addition, BulgariaSat-1 is equipped with a spot beam which can be used to provide extra capacity over the Balkans. The satellite is designed to provide service for 15 years or longer.

Mission Timeline (all times approximate)

COUNTDOWN

Hour/Min/Sec	Events
- 01:13:00	Launch Conductor takes launch readiness poll
- 01:10:00	RP-1 (rocket grade kerosene) loading underway
- 00:45:00	LOX (liquid oxygen) 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
00:01:19	Max Q (moment of peak mechanical stress on the rocket)
00:02:36	1st stage main engine cutoff (MECO)
00:02:40	1st and 2nd stages separate
00:02:47	2nd stage engine starts
00:03:40	Fairing deployment
00:06:19	1st stage entry burn begins
00:08:31	1st stage landing
00:08:38	2nd stage engine cutoff (SECO-1)
00:27:08	2nd stage engine restarts
00:28:13	2nd stage engine cutoff (SECO-2)
00:34:55	BulgariaSat-1 satellite deployment

Launch Facility

Launch Complex 39A at Kennedy Space Center, Florida

Launch Complex 39A (LC-39A) at Kennedy Space Center has a history dating back to the early 1960s. Originally built to support the Apollo program, LC-39A supported the first Saturn V launch (Apollo 4), and many subsequent Apollo missions, including Apollo 11 in July 1969. Beginning in the late 1970s, LC-39A was modified to support space shuttle launches, hosting the first and last shuttle missions to orbit in 1981 and 2011, respectively.

In 2014, SpaceX signed a 20-year lease with NASA for the use of Launch Complex 39A. Since then, the company has made significant upgrades to modernize the pad's structures and ground systems, while preserving its important heritage. Extensive modifications to LC-39A have been made to support launches of both the Falcon 9 and Falcon Heavy launch vehicles. These upgrades will also enable the pad to serve as the complex from which SpaceX will launch crew rotation missions to and from the International Space Station for NASA's Commercial Crew Program.

Resources

SPACEX CONTACT | John Taylor, Director of Communications, 310-363-6703, media@spacex.com.
PHOTOS | High-resolution photos will be posted at flickr.com/spacex.
WEBCAST | Launch webcast will go live about 15 minutes before liftoff at spacex.com/webcast.