

Bangabandhu Satellite-1 Mission

Mission Overview

SpaceX is targeting launch of Bangabandhu Satellite-1 on Thursday, May 10 from Launch Complex 39A (LC-39A) at NASA's Kennedy Space Center, Florida. The launch window opens at 4:12 p.m. EDT, or 20:12 UTC, and closes at 6:22 p.m. EDT, or 22:22 UTC. Bangabandhu Satellite-1 will be deployed into a geostationary transfer orbit (GTO) approximately 33 minutes after launch.

A backup launch window opens on Friday, May 11 at 4:14 p.m. EDT, or 20:14 UTC, and closes at 6:21 p.m. EDT, or 22:21 UTC.

The Bangabandhu Satellite-1 mission will be the first to utilize Falcon 9 Block 5, the final substantial upgrade to SpaceX's Falcon 9 launch vehicle. Falcon 9 Block 5 is designed to be capable of 10 or more flights with very limited refurbishment as SpaceX continues to strive for rapid reusability and extremely high reliability.

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.

Payload

Bangabandhu Satellite-1 is Bangladesh's first geostationary communications satellite. Development of the satellite program, known as the "Bangabandhu Satellite Launching Project," was managed by the Bangladesh Telecommunication Regulatory Commission (BTRC) with technical support from Space Partnership International (SPI). The satellite, which is comprised of 26 Ku-band and 14 C-band transponders, was manufactured by Thales Alenia Space on the Spacebus 4000B2 platform and will be operated by the Bangladesh Communication Satellite Company Limited (BCSCL).

Bangabandhu Satellite-1 has a primary service area encompassing Bangladesh and the surrounding region. The satellite will offer Ku-band coverage over Bangladesh and its territorial waters in the Bay of Bengal, as well as India, Nepal, Bhutan, Sri Lanka, the Philippines, and Indonesia. It will also provide C-band capacity for the entire region.

Located at 119.1° East, Bangabandhu Satellite-1 will provide direct-to-home (DTH) services, video distribution and very small aperture terminal (VSAT) communications across Bangladesh. The satellite will also provide broadband connectivity to rural areas throughout the country. Bangabandhu Satellite-1's mission is expected to last at least 15 years.



Official SpaceX Bangabandhu Satellite-1 mission patch



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	Flight computer commanded 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
00:01:14	Max Q (moment of peak mechanical stress on the rocket)
00:02:31	1st stage main engine cutoff (MECO)
00:02:33	1st and 2nd stages separate
00:02:36	2nd stage engine starts
00:03:37	Fairing deployment
00:06:15	1st stage entry burn
00:08:10	1st stage landing
00:08:19	2nd stage engine cutoff (SECO-1)
00:27:38	2nd stage engine restarts
00:28:37	2nd stage engine cutoff (SECO-2)
00:33:38	Bangabandhu Satellite-1 Deployment

Launch Facility

Launch Complex 39A at Kennedy Space Center, Florida

Launch Complex 39A at NASA's Kennedy Space Center has a long and storied 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 historic Launch Complex 39A. Since then, the company has made significant upgrades to modernize the pad's structures and ground systems, while also preserving its important heritage. Extensive modifications to LC-39A have been made to support launches of both commercial and crew missions on SpaceX's Falcon 9 and Falcon Heavy launch vehicles.

Resources

SpaceX Contact | James Gleeson, Sr. Manager, Communications, 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 20 minutes before liftoff at [spacex.com/webcast](https://www.spacex.com/webcast).