

THAICOM 8 Mission

Mission Overview

SpaceX’s Falcon 9 rocket will deliver THAICOM 8, a commercial communications satellite for Thaicom, to a supersynchronous transfer orbit. Thaicom is one of Asia’s leading Asian satellite operators, influencing and innovating communications on a global scale.

SpaceX is targeting launch of THAICOM 8 from Space Launch Complex 40 at Cape Canaveral Air Force Station, Florida on May 26 with a backup date of May 27. The approximately two-hour launch window opens on May 26 at 5:40 pm ET, 9:40 pm UTC. A backup launch window on May 27 opens at approximately the same time. The satellite will be deployed about 32 minutes after liftoff.



Official SpaceX THAICOM 8 mission patch

Following stage separation, the first stage of Falcon 9 will attempt an experimental landing on the “Of Course I Still Love You” droneship. As with other missions going to geostationary orbits, the first-stage will be subject to extreme velocities and re-entry heating, making a successful landing challenging.

Payload

The payload for this launch will be the THAICOM 8 satellite, a commercial communications satellite built by Orbital ATK, and its mission is to provide Ku-band communications coverage for South Asia and Southeast Asia. The satellite will be delivered to a supersynchronous transfer orbit that will later be reduced by the satellite to an approximately 35,800 kilometers circular geostationary orbit.

THAICOM 8 will be the fifth operational satellite for Thaicom. When THAICOM 8 launches, it will strengthen Thaicom’s broadcast platform at 78.5 degrees east longitude – providing South Asia and Southeast Asia with broadcast and data services.

The spacecraft is about 3,000 kg and has an operational design life of 15 years. For more information about THAICOM 8, [click here](#).

Mission Timeline (all times approximate)

COUNTDOWN

Hour/Min	Events
- 00:38	Launch Conductor takes launch readiness poll
- 00:35	RP-1 (rocket grade kerosene) and LOX (liquid oxygen) loading underway
- 00:10	Falcon 9 begins engine chill prior to launch
- 00:02	Range Control Officer (USAF) verifies range is go for launch
- 00:01:30	SpaceX Launch Director verifies go for launch
- 00:01	Command flight computer to begin final prelaunch checks
- 00:01	Pressurize propellant tanks
- 00:00:03	Engine controller commands engine ignition sequence to start
00:00:00	Falcon 9 liftoff

LAUNCH AND SATELLITE DEPLOYMENT

Hour/Min	Events
00:01:17	Max Q (moment of peak mechanical stress on the rocket)
00:02:35	1st stage engine shutdown/main engine cutoff (MECO)
00:02:39	1st and 2nd stages separate
00:02:46	2nd stage engine starts first burn
00:03:37	Fairing deployment
00:08:56	2nd stage engine cutoff (SECO-1)
00:27:07	2nd stage engine restarts for second burn
00:28:20	2nd stage engine cutoff (SECO-2)
00:31:56	THAICOM 8 satellite deployed

Launch Facility

Space Launch Complex 40, Cape Canaveral Air Force Station, Fla.

SpaceX's Space Launch Complex 40 (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 the Cape, was used for many years to launch Titan rockets, among the most powerful rockets 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 exhaust duct. 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 THAICOM 8 satellite was encapsulated at the SpaceX payload processing facility at Cape Canaveral. The encapsulated payload was transported to the SLC-40 hangar and mated to the Falcon 9 already on the transporter erector. The rocket and payload are then rolled out from the hangar to the launch pad on fixed rails and lifted to a vertical position prior to launch.

Resources

SPACE X CONTACT | John Taylor, Director of Communications, 310-363-6703, media@spacex.com.

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

WEBCAST | Launch webcast will be live about 20 minutes before launch at spacex.com/webcast.