

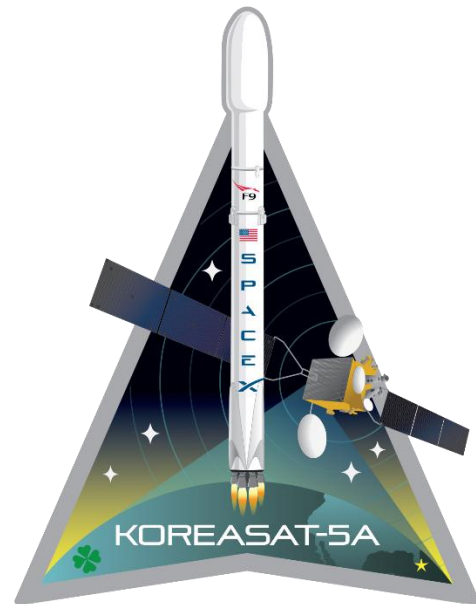
# Koreasat-5A Mission

## Mission Overview

SpaceX's Falcon 9 rocket will deliver Koreasat-5A, a commercial communications satellite, to a Geostationary Transfer Orbit (GTO).

SpaceX is targeting launch of Koreasat-5A from Launch Complex 39A (LC-39A) at NASA's Kennedy Space Center, Florida. The primary launch window opens on Monday, October 30 at 3:34 p.m. EDT, or 19:34 UTC and closes at 5:58 p.m. EDT, or 21:58 UTC. A backup launch window opens on Tuesday, October 31 at 3:34 p.m. EDT, or 19:34 UTC and closes at 5:58 p.m. EDT, or 21:58 UTC. The satellite will be deployed approximately 36 minutes after liftoff.

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



Official SpaceX Koreasat-5A mission patch

## Payload

Koreasat-5A is a communications satellite operated by KT SAT, South Korea's sole satellite service provider.

Manufactured by Thales Alenia Space and located at 113°E, Koreasat-5A will provide Direct-to-Home (DTH) broadcast, broadband, and backhaul services with its Ku-Band capacity. Koreasat-5A provides KT SAT with 12 Ku-band transponders of 36MHz, and 24 Ku-band transponders of 54MHz.

As a replacement for Koreasat-5, Koreasat-5A will expand KT SAT's coverage across Asia and the Middle East. Unlike other satellites in the Koreasat fleet, Koreasat-5A will provide maritime coverage of the Persian Gulf, Indian Ocean, South China Sea, and East China Sea.

Koreasat-5A is also equipped with four extended Ku-band steerable transponders (54 MHz each). These steerable transponders will provide commercial DTH broadcasting services in the North Asia region by the end of this year.

KT SAT aspires to be one of the leading satellite operators in the highly competitive Asian market. The company plans to consolidate its overseas offices into one central hub located in a capital city of Southeast Asia to provide a more relevant presence in its target market.

## Mission Timeline (all times approximate)

### COUNTDOWN

Hour/Min/Sec	Events
- 01:13:00	SpaceX Launch Director verifies go for propellant load
- 01:10:00	RP-1 (rocket grade kerosene) loading underway
- 00:35:00	LOX (liquid oxygen) 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
00:01:16	Max Q (moment of peak mechanical stress on the rocket)
00:02:33	1st stage main engine cutoff (MECO)
00:02:36	1st and 2nd stages separate
00:02:38	2nd stage engine starts
00:03:40	Fairing deployment
00:06:22	1st stage entry burn
00:08:32	2nd stage engine cutoff (SECO-1)
00:08:35	1st stage landing
00:26:45	2nd stage engine restarts
00:27:52	2nd stage engine cutoff (SECO-2)
00:35:38	Koreasat-5A 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](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).