STP-2 MISSION

WEBCAST

Launch webcast will go live about 20 minutes before liftoff at spacex.com/webcast

PHOTOS

High-resolution photos will be posted at flickr.com/spacex

MISSION OVERVIEW

SpaceX is targeting Monday, June 24 for a Falcon Heavy launch of the STP-2 mission from Launch Complex 39A (LC-39A) at NASA's Kennedy Space Center in Florida. The primary launch window opens at 11:30 p.m. EDT, or 3:30 a.m. UTC on June 25, and closes at 3:30 a.m. EDT on June 25, or 7:30 a.m. UTC. A backup launch window opens on June 25 at 11:30 p.m. EDT, or 3:30 a.m. UTC on June 26, and closes at 3:30 a.m. EDT on June 26, or 7:30 a.m. UTC. Deployments will begin approximately 12 minutes after liftoff and end approximately 3 hours and 32 minutes after liftoff.

Falcon Heavy's side boosters for the STP-2 mission previously supported the Arabsat-6A mission in April 2019. Following booster separation, Falcon Heavy's two side boosters will attempt to land at SpaceX's Landing Zones 1 and 2 (LZ-1 and LZ-2) at Cape Canaveral Air Force Station in Florida. Falcon Heavy's center core will attempt to land on the "Of Course I Still Love You" droneship, which will be stationed in the Atlantic Ocean.

PAYLOAD

The Space and Missile Systems Center teamed with multiple commercial, national, and international mission partners for the historic DoD Space Test Program-2 (STP-2) launch. SMC procured the mission to provide spaceflight for advanced research and development satellites from multiple DoD research laboratories, the National Oceanic and Atmospheric Administration (NOAA), the National Aeronautics and Space Administration (NASA), and universities.

The STP-2 mission will use a SpaceX Falcon Heavy launch vehicle to perform 20 commanded deployment actions and place 24 separate spacecraft in three different orbits. The spacecraft include the Air Force Research Laboratory Demonstration and Science Experiments (DSX) satellite; the NOAA-sponsored Constellation Observing System for Meteorology, Ionosphere, and Climate (COSMIC-2) constellation; four NASA experiments; and many other missions. For more detailed descriptions of the experiments on STP-2, visit our website at spacex.com/stp-2.

The DoD Space Test Program accelerates space technologies into operational capabilities by providing space access for cutting edge, DoD-sponsored experiments and demonstrations. STP, through its Johnson Space Center location, is the single face to NASA for all DoD payloads on the International Space Station and other human-rated launch vehicles, for both domestic and international partners.

LAUNCH FACILITY

Falcon Heavy will launch the STP-2 mission from Launch Complex 39A (LC-39A) at NASA's Kennedy Space Center in Florida. Learn more about SpaceX launch facilities at spacex.com/about

SPACEX CONTACT

James Gleeson
Director, Communications
202.649.2633
media@spacex.com

MISSION TIMELINE (all times approximate)

COUNTDOWN

Min/Sec	Event
- 53:00	SpaceX Launch Director verifies go for propellant load
- 50:00	1st stage RP-1 (rocket grade kerosene) loading begins
- 45:00	1st stage LOX (liquid oxygen) loading begins
- 35:00	2nd stage RP-1 (rocket grade kerosene) loading begins
- 18:30	2nd stage LOX loading begins
- 07:00	Falcon Heavy begins pre-launch engine chill
- 01:30	Flight computer commanded to begin final pre-launch checks
- 01:00	Propellant tanks pressurize for flight
- 00:45	SpaceX Launch Director verifies go for launch
- 00:02	Engine controller commands engine ignition sequence to start
- 00:00	Falcon Heavy liftoff

LAUNCH, LANDINGS, AND SPACECRAFT DEPLOYMENTS

Min/Sec	Event
00:00:42	Max Q (moment of peak mechanical stress on the rocket)
00:02:27	Booster engine cutoff (BECO)
00:02:31	Side boosters separate from center core
00:02:49	Side boosters begin boostback burn
00:03:27	Center core engine shutdown/main engine cutoff (MECO)
00:03:31	Center core and 2nd stage separate
00:03:38	2nd stage engine starts (SES-1)
00:04:03	Fairing deployment
00:07:13	Side boosters begin entry burn
00:08:41	Side booster landings
00:08:38	2nd stage engine cutoff (SECO-1)
00:08:53	Center core begins entry burn
00:11:21	Center core landing
00:12:55	Spacecraft deployments begin
01:12:39	Second stage engine restart (SES-2)
01:13:00	Second stage engine cutoff (SECO-2)
02:07:35	Second stage engine restart (SES-3)
02:08:04	Second stage engine cutoff (SECO-3)
03:27:27	Second stage engine restart (SES-4)
03:28:03	Second stage engine cutoff (SECO-4)
03:34:09	Final spacecraft deployment