



Thales Mission

Mission Overview

SpaceX's customer for this mission is Thales Alenia Space. With this flight, the Falcon 9 rocket will deliver the TurkmenÄlem52E/MonacoSat satellite to a geosynchronous transfer orbit.

The Thales launch window is targeted to open at approximately **6:14pm EDT on Monday, April 27, 2015**, from Space Launch Complex 40 at Cape Canaveral Air Force Station, Florida. If all goes as planned, the satellite will be deployed approximately 32 minutes after liftoff.

Satellite Payload

TurkmenÄlem52E/MonacoSat

This mission will launch TurkmenÄlem52E/MonacoSat, a communications satellite built on a Thales Alenia Space Spacebus 4000 C2 platform and weighing 4,500 kg at launch.

The satellite's design life exceeds 15 years, and its coverage zone encompasses Europe, Central Asia (up to the Chinese border), and virtually all of Africa. Once operational in orbit, TurkmenÄlem52E/MonacoSat will allow Turkmenistan to operate its first national satellite telecommunications system, ensuring enhanced, secure telecommunications for the country. The Turkmenistan Ministry of Communications will use Monaco's 52°E orbital position, via the Monaco-based satellite operator, Space Systems International – Monaco (SSI-Monaco).

Launch Vehicle

FALCON 9

TurkmenÄlem52E/MonacoSat will launch on Falcon 9, a two-stage rocket designed and built by SpaceX for the reliable and cost-efficient transport of satellites and SpaceX's Dragon spacecraft. As the first rocket completely developed in the 21st century, Falcon 9 was designed from the beginning for maximum reliability. Falcon 9's simple two-stage configuration minimizes the number of separation events – and with nine first-stage engines, it can safely complete its mission even in the event of an engine shutdown.

Web Resources

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

PHOTOS | High-resolution photos will be posted after launch at spacex.com/media and flickr.com/spacexphotos.

WEBCAST | The launch will be webcast live at spacex.com/webcast beginning approximately 20 minutes before launch.

MORE RESOURCES ON THE WEB

spacex.com

twitter.com/elonmusk

twitter.com/spacex

facebook.com/spacex

plus.google.com/+SpaceX

youtube.com/spacex

flickr.com/spacexphotos

vine.co/spacex



Official SpaceX Thales mission patch.

Thales Mission Timeline

Times are subject to change.

COUNTDOWN

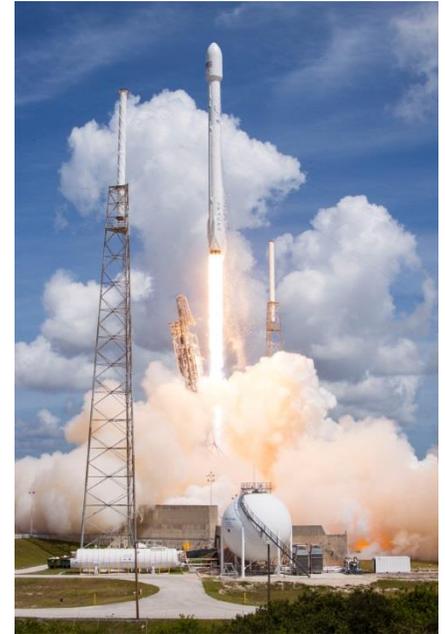
Hour:Min:Sec

	Events
- 10:00:00	Vehicle is powered on
- 3:00	Commence loading RP-1 (rocket grade kerosene)
- 2:35	Commence loading liquid oxygen (LOX)
- 1:30	LOX and RP-1 loading complete
- 0:10:00	Falcon 9 terminal count autosequence started
- 0:02:00	SpaceX Launch Director verifies go for launch
- 0:02:00	Range Control Officer (USAF) verifies Range is go for launch
- 0:01:00	Command flight computer to begin final prelaunch checks
- 0:00:40	Pressurize propellant tanks
- 0:00:03	Engine controller commands engine ignition sequence
0:00:00	Falcon 9 liftoff

LAUNCH

Hour:Min

	Events
0:03	1st stage engine shutdown/main engine cutoff (MECO)
0:03	1st and 2nd stage separation
0:03	2nd stage engine start
0:04	Fairing separation
0:09	2nd stage engine cutoff-1 (SECO-1)
0:26	2nd stage engine restart
0:27	2nd stage engine cutoff-2 (SECO-2)
0:32	TurkmenÄlem52E/MonacoSat deployment



A Falcon 9 rocket launches from SpaceX's launch site at Cape Canaveral Air Force Station, Fla.

Launch Facility

SPACE LAUNCH COMPLEX 40, CAPE CANAVERAL AIR FORCE STATION, FLORIDA

SpaceX's Space Launch Complex 40 at Cape Canaveral Air Force Station is a world-class launch site that builds on strong heritage: the site at the north end of the Cape was used for many years to launch Titan rockets, among the most powerful rockets in the US fleet. SpaceX took over the facility in May 2008 and has since launched from the site 16 times.



A Falcon 9 rocket launches from SpaceX's launch site at Cape Canaveral Air Force Station, Fla.

The center of the complex is composed of the concrete launch pad/apron and flame exhaust duct. Surrounding the pad are four lightning towers, fuel storage tanks, and the integration hangar. Before launch, Falcon 9's stages and the payload are housed inside the hangar. The payload is encapsulated within the fairing either at the hangar or at an offsite location and then transported to the hangar – TurkmenÄlem52E/MonacoSat was encapsulated at the hangar. An overhead crane positions Falcon 9 into a transporter-erector system and the payload and fairing are mated to the rocket. The vehicle is rolled from hangar to launch pad on fixed rails shortly before launch to minimize exposure to the elements.

SpaceX Launch Control, also at Cape Canaveral, is responsible for operating the Falcon 9 throughout the launch countdown.