CAPE CANAVERAL

NROL-77

NATIONAL RECONNAISSANCE OFFICE

NRO Mission

Since its inception more than 60 years ago, the National Reconnaissance Office has been on the leading edge of innovation – collecting and delivering critical information that can only be obtained from the vantage point of space.

From warfighters to humanitarian responders, the NRO serves a wide range of customers. The Department of War and Intelligence Community depend on NRO capabilities for national security objectives. NRO systems are often the only tools able to access hostile territory or rugged terrain, and they can collect critical information without risking human lives or infringing on other nations' territorial sovereignty. Civilian customers depend on the NRO's space-based collections to assess damage from natural disasters, and help relief agencies determine how and where to deliver humanitarian aid.

The NRO is investing in the world's most advanced tools, information technology, and communications networks in order to meet customers' needs today and anticipate and adapt to the emerging demands of tomorrow. NRO capabilities on the ground, on orbit, and everywhere in between ensure customers get the information they need, where they need it, faster than ever before.

NROL-69

NROL-77

The National Reconnaissance Office (NRO) and U.S. Space Force Space Systems Command (SSC) are partnering to launch NROL-77 on a SpaceX Falcon 9 rocket through the National Security Space Launch (NSSL) program. This mission carries a national security payload designed, built, and operated by NRO.

One of NRO's most critical relationships is with the Space Force. The partnership between NRO and SSC through the NSSL program plays a key role in delivering critical space-based capabilities for national security. NSSL, a government launch acquisition partnership program between SSC's Assured Access to Space and NRO, is overseen and operated by SSC headquartered at Los Angeles Air Force Base in California. The program uses commercial-like contracts and pricing to save taxpayer dollars while ensuring high-quality service. This innovative approach ensures that the U.S. government benefits from the best value while meeting its national security needs.

NROL-77 is the second NRO mission launched with SpaceX from the NSSL Phase 2 contract awarded in August 2020.

Earlier this Spring, NRO partnered with SSC to launch NROL-69 and NROL-145 through the NSSL program and NROL-174 through the Rocket Systems Launch Program.

NSSL continues to be NRO's principal mechanism to procure launch services for major system acquisitions to maintain NRO's assured and affordable access to space.

The flying squirrel is a symbol of hard work and endurance – always active gathering foundational knowledge from the space domain for the nation and its allies.

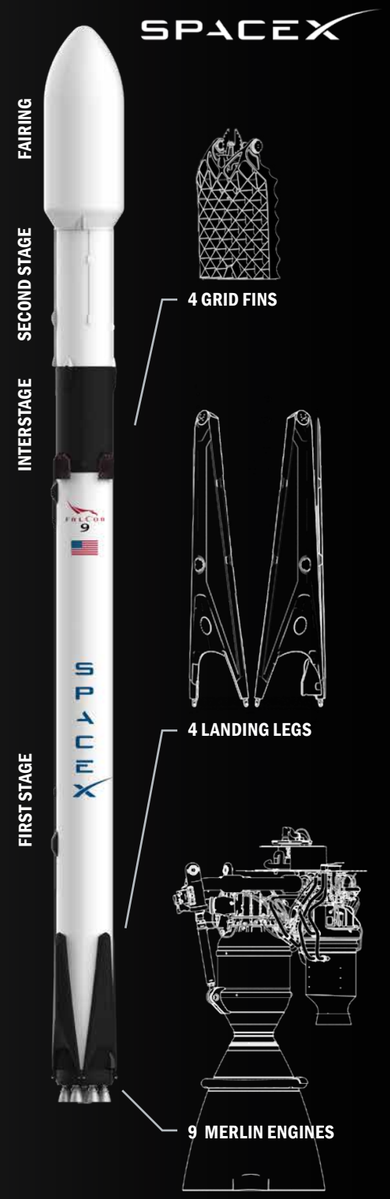
Every mission counts, every decision matters, and every advancement propels us further. "Another One Gone – Today, Tomorrow, and Beyond" embodies the relentless pursuit of excellence.

To read more about NRO launches and previous patches, visit **www.NRO.gov/launch**

NROL-186

Rocket & Launch Facts

Falcon 9 is a reusable, two-stage rocket designed and manufactured by SpaceX for the reliable and safe transport of people and payloads into Earth orbit and beyond.



Fairing

Made of a carbon composite material, the fairing protects satellites on their way to orbit. The fairing is jettisoned approximately three minutes into flight, and SpaceX continues to recover fairings for reuse on future missions.

First Stage

Falcon 9's first stage incorporates nine Merlin engines and aluminum-lithium alloy tanks containing liquid oxygen and rocket-grade kerosene (RP-1) propellant, generating more than 1.7 million pounds of thrust at sea level. After separation, the first stage will return to SpaceX's Landing Zone 2 (LZ-2) at Cape Canaveral Space Force Station.

Interstage

The interstage is a composite structure that connects the first and second stages, and houses the pneumatic pushers that allow the first and second stage to separate during flight. Falcon 9 is equipped with four hypersonic grid fins positioned at the base of the interstage. They orient the rocket during reentry by moving the center of pressure.

Second Stage

Powered by a single Merlin Vacuum Engine, the second stage delivers Falcon 9's payload to the desired orbit. The engine ignites a few seconds after stage separation, and can be restarted several times to place multiple payloads into different orbits.

Launch Site

Space Launch Complex-40 (SLC-40)

NROL-77 will launch from Space Launch Complex-40 (SLC-40) at Cape Canaveral Space Force Station, Florida. SLC-40 was the first of two complexes built to support the Titan III series of launch vehicles. A total of 55 Titan III and Titan IV missions were launched between 1963 and 2005. In 2007, SLC-40 was leased to SpaceX and was refurbished to accommodate the Falcon 9 rocket. Modifications include a new hangar on the pad to support Falcon 9 launches, new launch mount, a mobile Transporter/Erector system, and support equipment. The maiden flight of Falcon 9 from SLC-40 lifted off in June 2010, and fifteen years later, SLC-40 remains an active launch location for SpaceX missions.

2025 Success

The NRO is the best in the world at providing overhead intelligence, surveillance, and reconnaissance to more than half a million government users—including every member of the Intelligence Community, two dozen domestic agencies, our nation's military, lawmakers, and decision makers.

In only two years, NRO launched more than 200 satellites, creating the largest and most capable government constellation on orbit in our nation's history. Continuing with this momentum, 2025 has proven to be another dynamic year, with 10 NRO missions successfully delivered to orbit. NROL-77 is NRO's 10th and final launch of 2025. Previous NRO launches in 2025 were NRO-153, NROL-57, two rideshare missions aboard SpaceX's Transporter-12 and Transporter-13, NROL-192, NROL-69, NROL-174, NROL-145, and NROL-48. Additional information on upcoming launches will be made available at **NRO.gov/launch.**

Visit **www.NRO.gov** to view launch press releases.

NROL-69

Engage With Us

WWW.NRO.GOV

MEDIA@NRO.MIL

703.808.1198

@NRO_GOV
FOLLOW ON X FOR LIVE UPDATES ON LAUNCH DAY

@NRO_GOV

@NATIONALRECONNAISSANCEOFFICE

@NATIONALRECONNAISSANCEOFFICE

NRO | MSC 2514767
NRO/OPA [10441] ID 10.25