

NEAR SPACE NETWORK

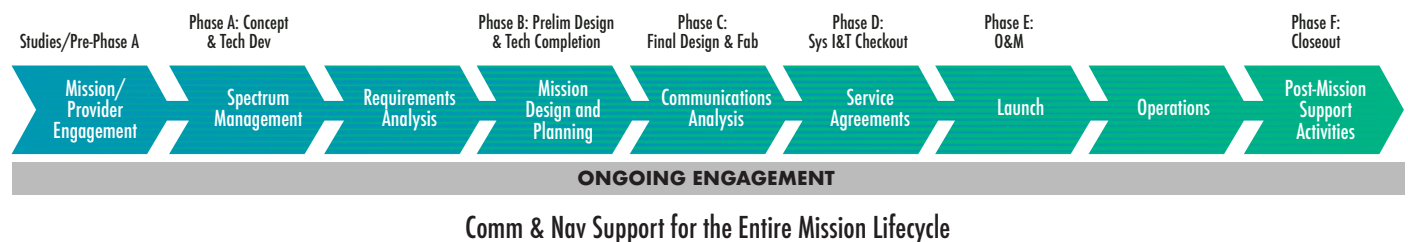
National Aeronautics and
Space Administration



NASA's Near Space Network (NSN) empowers user missions with critical communications and navigation services, enabling the transmission of science and exploration data from space to Earth. As a single point of contact for missions in the near-space region, the NSN provides users with a robust blend of government and commercial services throughout their entire mission lifecycle.

The network leverages a broad spectrum of government and commercial capabilities and services, negotiating with providers on behalf of all user missions to lower the costs of mission services. Users can confidently rely on the proficiency and expertise of NASA's Goddard Space Flight Center, which has a 60-year legacy of excellence in managing NASA communications services.

SERVICES PROVIDED



OUR REGIME



NEAR SPACE OPERATIONS CONTROL CENTER

NASA's Near Space Network provides missions within 1.2 million miles of Earth with communications and navigation services, enabling satellites to transmit critical science information to Earth while also exchanging tracking, telemetry, and command data with mission operators.

In addition to day-to-day mission support, the network provides communications and navigation services to launches as well.

Mission managers at the Near Space Operations Control Center (NSOCC) centralize communications from different NASA control centers around the globe to ensure a mission's pre-launch, launch, and post-launch operations are successful. During real-time launch efforts, personnel sit on-console communicating with the launch site and other network locations.

SERVICES PROVIDED

During a launch, the network could be communicating with the rocket, or the rocket and the mission it is launching. For example, during the launch of NASA's Plankton, Aerosol, Cloud, ocean Ecosystem (PACE) mission, the NSOCC team was monitoring the United Launch Alliance's (ULA) Atlas V rocket and the PACE spacecraft contained inside of the payload fairing. Now PACE is in orbit, downlinking terabytes of data each day through the Near Space Network.

The NSOCC supports multiple launch vehicle types, including rockets from NASA, other government agencies, and the commercial aerospace industry. Some examples of supported rockets include JAXA's H-IIA & H3, ESA's Ariane 5 & 6, and SpaceX's Falcon Heavy and Starship. These rockets launch anything from science missions to technology demonstrations to crews going to the International Space Station.

Throughout NASA's existence the NSOCC has had many names – Network Integration Center, Network Communications Center, and the Manned Space Flight Operations Control Center to name a few. The NSOCC is a key part of ensuring smooth launch operations and has a storied legacy in supporting many historic missions including Gemini, Apollo, and every Space Shuttle mission.



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To learn more about the NSOCC, visit:

<https://esc.gsfc.nasa.gov/projects/NSN?tab=nsocc>