



Doing Business with NASA's Wallops Flight Facility



NASA's Wallops Flight Facility in Virginia provides agile, low-cost flight and launch range services to meet government and commercial sector needs for accessing flight regimes worldwide from the Earth's surface to the Moon and beyond. As a multi-user facility with an operational launch range, spaceport, and airfield assets, Wallops is well-positioned to meet ongoing and emerging needs in the science, aerospace, defense, and commercial industries.

WALLOPS RANGE

The Wallops Range supports many mission activities around Wallops and abroad. Project managers use the support of range services to provide a broad array of technical and instrumentation services, such as radar, optical tracking, telemetry, meteorological, command and control, surveillance and recovery, financial analysis and engineering services to support Wallops customers.



WALLOPS MOBILE ASSETS

Wallops has semi-permanent downrange instrumentation as well as mobile instrumentation to include radar, telemetry, command and control, and data systems that can be transported offsite and to remote locations. Campaigns have been conducted from the semi-permanent locations in Bermuda and North Carolina. Other mobile support locations include Australia, Norway, Alaska, South America, Africa, Europe, Arctic and Antarctic regions. Wallops personnel have extensive experience in planning and conducting downrange support and mobile campaigns, as well as developing new equipment and systems to support these operations. Downrange and mobile systems include the following: C-band radar, X-band radar, meteorology, optical tracking, orbital tracking, flight termination, telemetry, timing, surveillance, and recovery.

MID-ATLANTIC REGIONAL SPACEPORT

Virginia's Mid-Atlantic Regional Spaceport at Wallops supports three launch facilities, one medium-lift liquid-fueled pad and a medium-lift solid propellant pad, and a venture-class launch pad. Additionally, the spaceport is slated to add another medium-lift, liquid-fueled pad. In general, launch azimuths between 90° and 160° can be achieved, depending on impact areas. For most orbital vehicles, this translates into orbital inclinations between 38° and approximately 60° . Trajectory options outside of these launch azimuths, including polar and sun-synchronous orbits, can be achieved by in-flight azimuth maneuvers.

Support infrastructure includes on-site liquid oxygen and RP-1 along with access to other commodities. Through agreements with NASA, additional services available include vehicle and payload processing integration facilities, support instrumentation, and emergency facilities.



SUBORBITAL FLIGHT PLATFORMS

Wallops' suborbital flight vehicles — suborbital sounding rockets, scientific balloons, and an array of research aircraft — are vital to supporting science, technology development, and education missions. Additionally, a key hallmark of the suborbital program is training the next generation of scientists and engineers, as well as raising the technology readiness level of various instruments.

Suborbital rockets fly parabolic trajectories providing customers from 5-20 minutes of exposure in space. These rockets can carry payloads as heavy as 1,500 pounds to altitudes as high as 1,000 miles. Scientific high-altitude balloons are capable of lifting payloads up to 8,000 pounds and can reach altitudes as high as 160,000 feet.

The Aircraft Office provides the operation, maintenance, engineering, airworthiness, and mission support of assigned aircraft, as well as planning and conducting operational missions. Agile, highly configurable flight platforms include the P-3, C-130, and B-200.

The facility has three runways on the main base: Runway 10-28 (8,005 feet); Runway 4-22 (8,750 feet, with the ability to expand to 10,250 feet); and Runway 17-35 (4,808 feet). The runways can also support air launch vehicle systems. In addition to the NASA airfield, Virginia Space operates a 3,000-foot-long, 75-foot-wide unmanned aerial systems runway on North Wallops Island.