Wallops Flight Facility Range and Mission Management Office

Down on the Range 2009

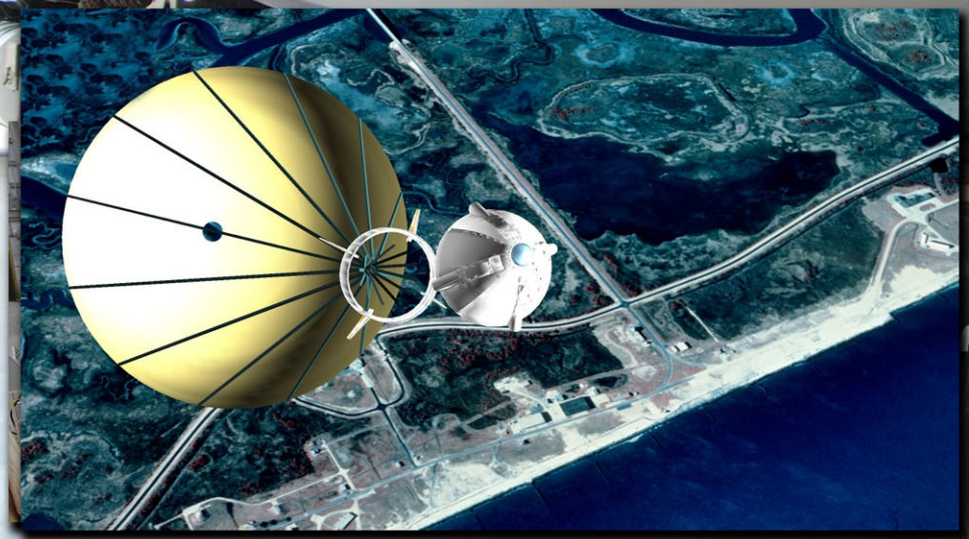
Enabling Worldwide Research

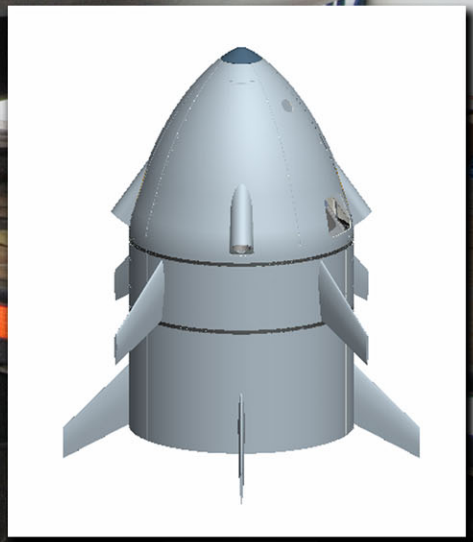
Max Launch Abort System

Project Fact

NASA Wallops Flight Facility is the lead range and launch site, selected by the Exploration Systems Mission Directorate (ESMD) and NASA Engineering and Safety Center (NESC), for assembling, integrating and operationally testing an experimental launch abort system for NASA's new Ares I Crew Launch Vehicle (CLV).

This project is a risk reduction effort to the Orion Launch Abort System (LAS) already baselined for the CLV.





Advanced Modular Gun

Project Fact

The Department of Defense conducted a program at Wallops called Advanced Modular Gun. This program fired projectiles at high velocity more than 80 nautical miles from the shores of Wallops Island.

This five-inch Navy gun fired shots from a custom built launch pad at Wallops to altitudes of 155,000 feet and was heard from as far as 10 miles away.

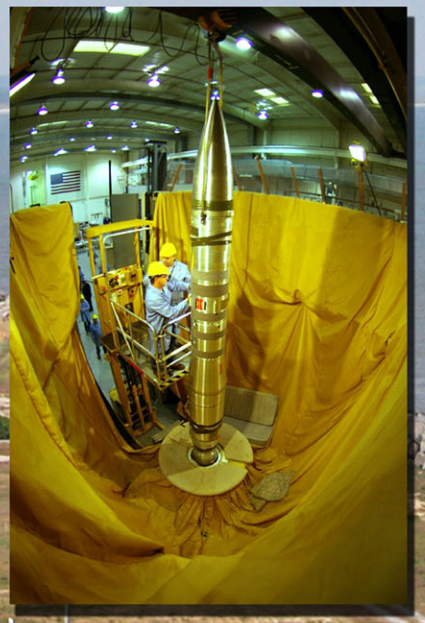
Next Generation Sensor Producibility

Project Fact

The Missile Defense Agency successfully flew their first Next Generation Sensor Producibility Experiment on a Wallops-provided Black Brant XI in June 2008.

The experiment focused primarily on the demonstration of more producible and reliable space flight systems technologies.

Wallops also collaborated with the MDA in the development and flight of a high data rate Ku Band telemetry system.



Space Shuttle

Project Fact

Space Shuttle Atlantis, foreground, sits on Launch Pad A and Endeavour on Launch Pad B at NASA's Kennedy Space Center in Florida.

For the first time since July 2001, two shuttles were on the launch pads at the same time. Endeavour stands by in the unlikely event that a rescue mission would be necessary during Atlantis' scheduled mission to repair the Hubble Space Telescope.

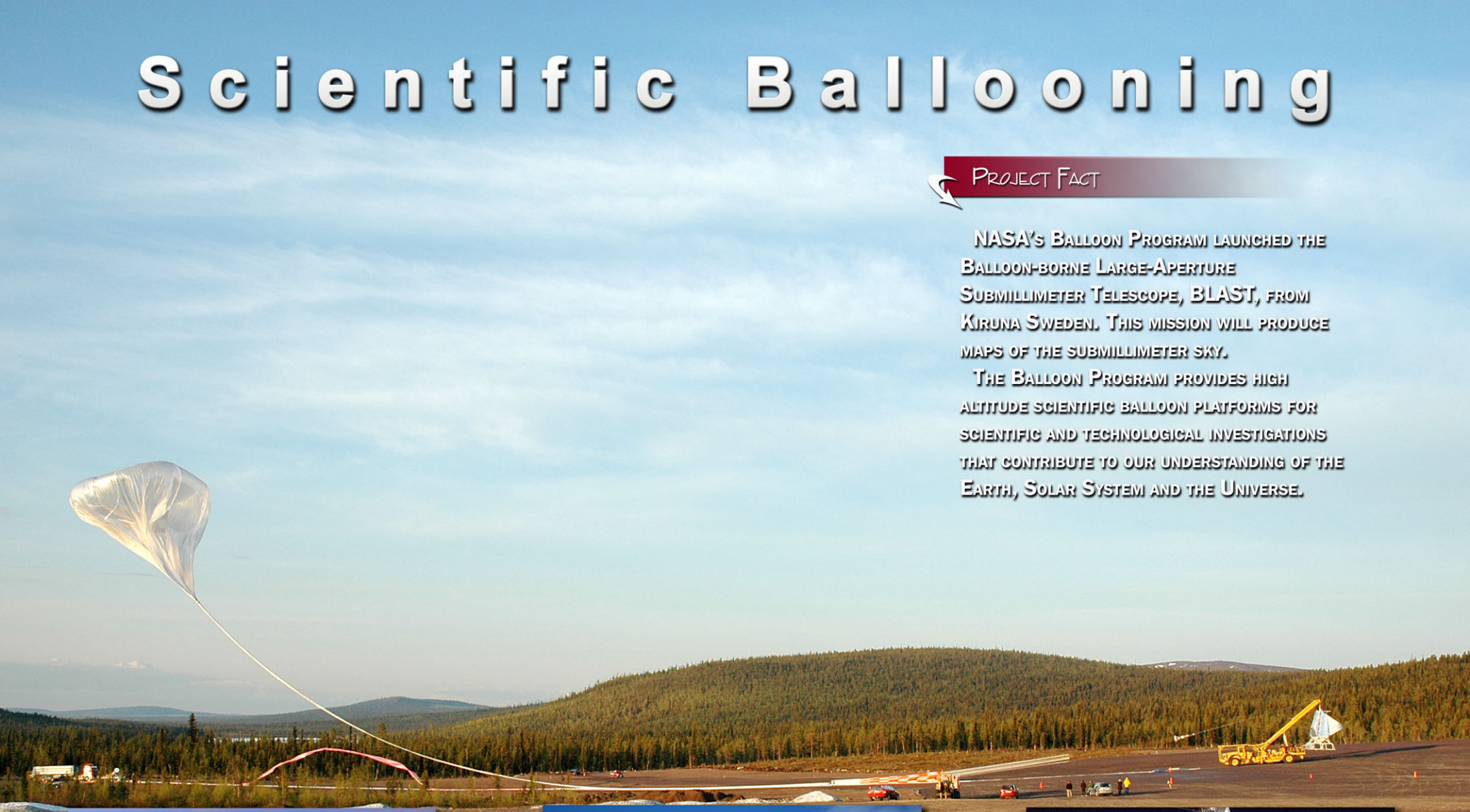
Wallops Flight Facility provides critical data communication and an emergency landing site during Shuttle missions.

Scientific Ballooning

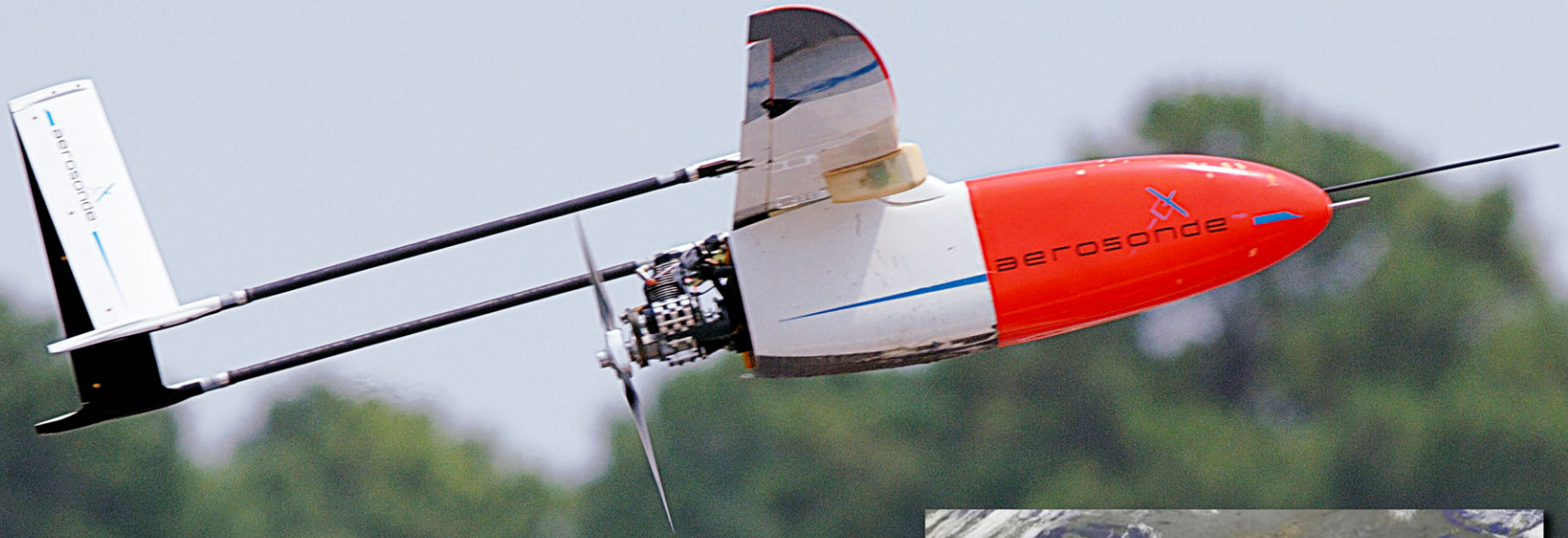
Project Fact

NASA's Balloon Program launched the Balloon-borne Large-Aperture Submillimeter Telescope, BLAST, from Kiruna Sweden. This mission will produce maps of the submillimeter sky.

The Balloon Program provides high altitude scientific balloon platforms for scientific and technological investigations that contribute to our understanding of the Earth, Solar System and the Universe.



Unmanned Aerial Vehicles



Project Fact

Wallops Flight Facility and the National Oceanic and Atmospheric Administration (NOAA) opened a new chapter in the world of hurricane observation by making the first unmanned flight into Hurricane Noel.

Aerosonde flew into the eye wall of the hurricane at altitudes as low as 300 feet.

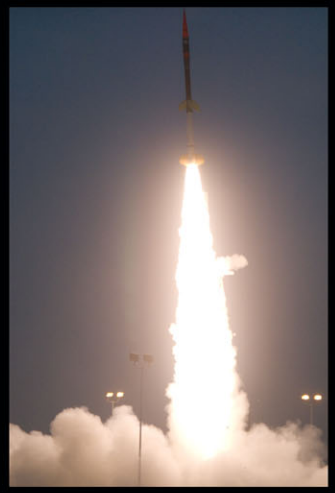
"Enhancing this predictive capability would not only save the U.S. economy billions of dollars, but more importantly, it could save many lives," said Principal Investigator Dr. Joe Cione.

SubTec II

Project Fact

Wallops launched a Terrier Mk70 Improved-Orion to demonstrate new tracking, data processing, payload positioning, power and communication systems.

The payload weighed 660 pounds and the tapered Ignition Recovery Module Assembly (IRMA) recovery system weighed 750 pounds.



Andoya Rocket Range

Project Fact

Wallops Flight Facility sent personnel to Andoya Rocket Range in Norway to build a rocket launcher which supported two Sounding Rocket programs.

The Kletzing Mission was designed to make simultaneous measurements of the electrodynamics inside an active Aurora at different altitudes along the same magnetic field line.

The Kintner Mission studied the top side Auroral electrodynamics and flew a sounding rocket to an apogee of 1,468 kilometers which is a new record for NASA.

Navy Aerial Target Operations

Project Fact

Wallops Flight Facility launched aerial target drones at the USS San Antonio, an LPD-17 amphibious warfare ship, so the Navy could test and evaluate their defense systems.

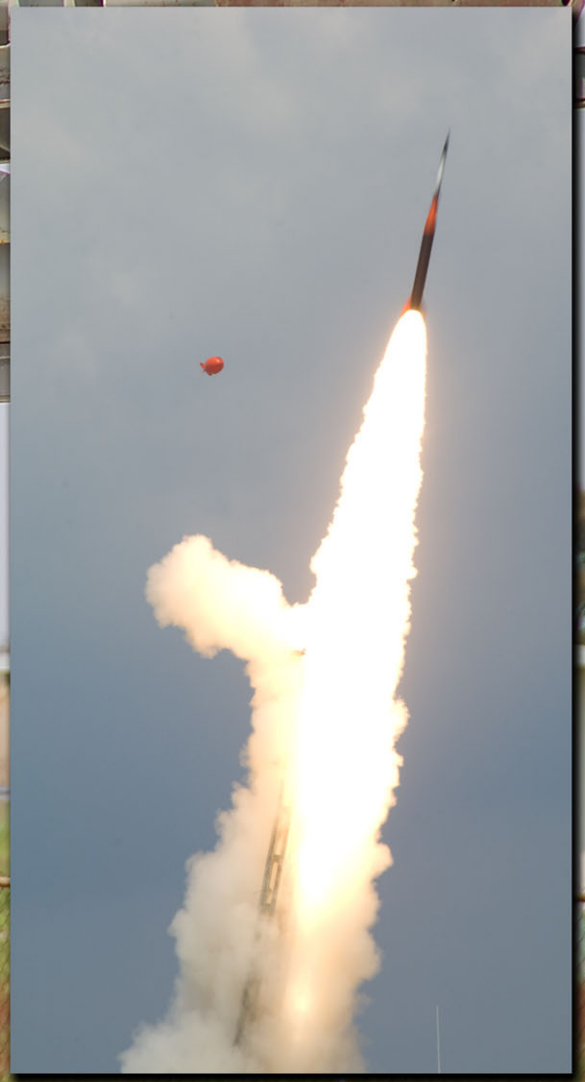
Wallops serves as the only East Coast, land-based location capable of firing BQM 34s (pictured below) enabling the Navy to conduct these critical launch tests.

Mesquito

Project Fact

Wallops Flight Facility launched two newly developed, non-instrumented Mesospheric Sounding Rockets which came off the pad at 80 g-force and reached a maximum speed of 120 g-force at 1.6 seconds.

The Project's goal is to provide a small, low-cost sounding rocket for studying the Earth's mesophere below 90 kilometers.



Wallops P-3 ARCTAS Mission

Project Fact

The Wallops P-3 flies over the Yukon river in Alaska during the first portion of the Arctic Research of the composition of the Troposhere from Aircraft and Satellites (ARCTAS) mission.

A payload consisting of instruments and data transfer systems was used to target anthropogenic pollution including arctic haze, stratosphere-troposphere exchange and sunrise photochemistry including halogen radicals.

HyBoLT/SOAREX/ALV

Project Fact

The HyBoLT/SOAREX/ALV mission, or HSA, carried two NASA payloads on a new suborbital, two-stage launch vehicle designed by ATK.

HyBoLT contained hypersonic boundary layer transition experiments to better understand transition characteristics.

SOAREX was a flight test of a unique planetary probe provided by NASA ARC to collect flight data for heating rates, thermal protection material performance and instrumentation relevant to future atmospheric re-entry vehicles.

NASA Wallops Flight Facility
A Team of Teams

National Aeronautics and Space Administration
Goddard Space flight Center
Wallops Flight Facility
Wallops Island Virginia 23337

For More Information Contact:
757-824-1955 or 757-824-1114
Or visit our Website at:
www.wff.nasa.gov/code840