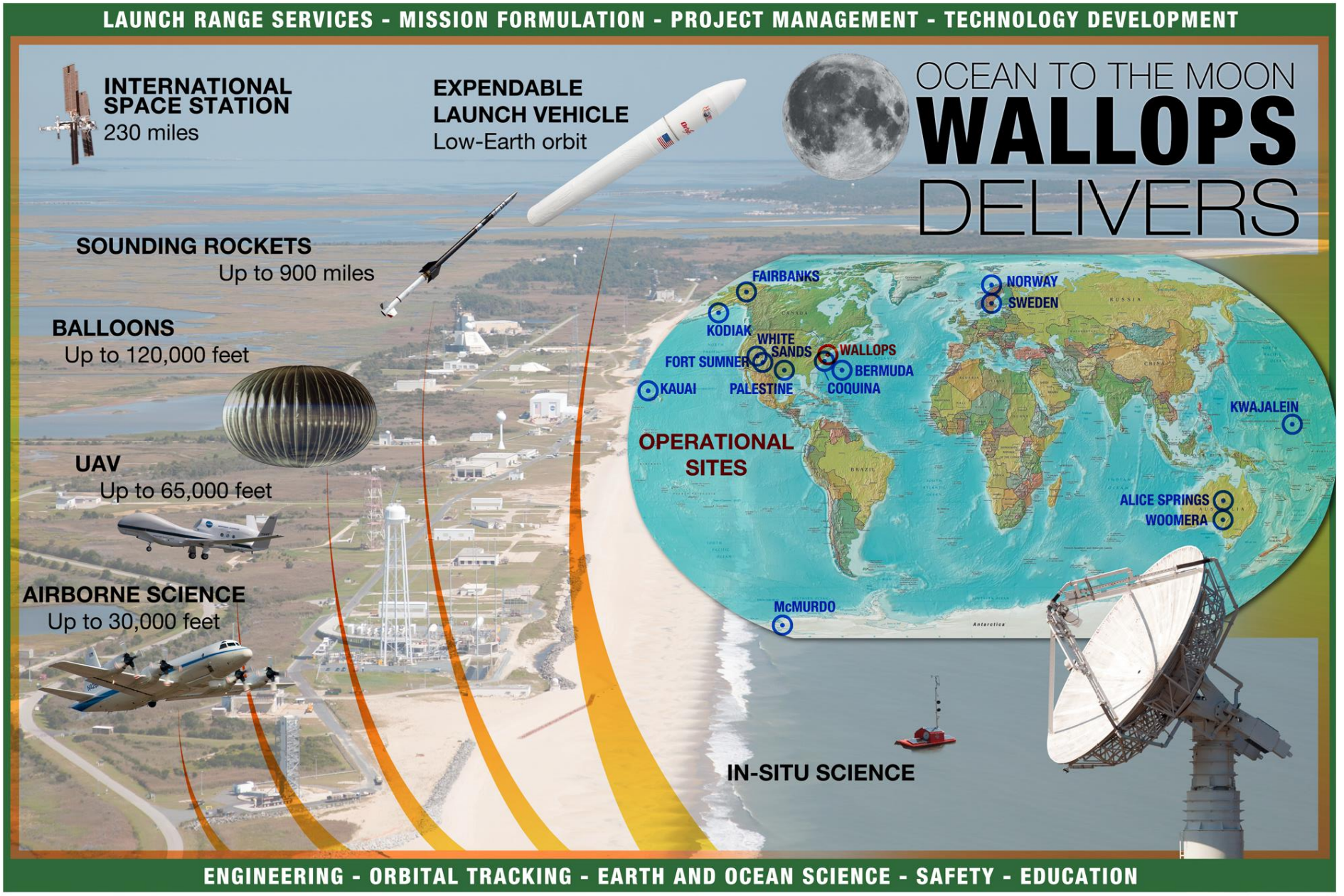
Goddard Space Flight Center

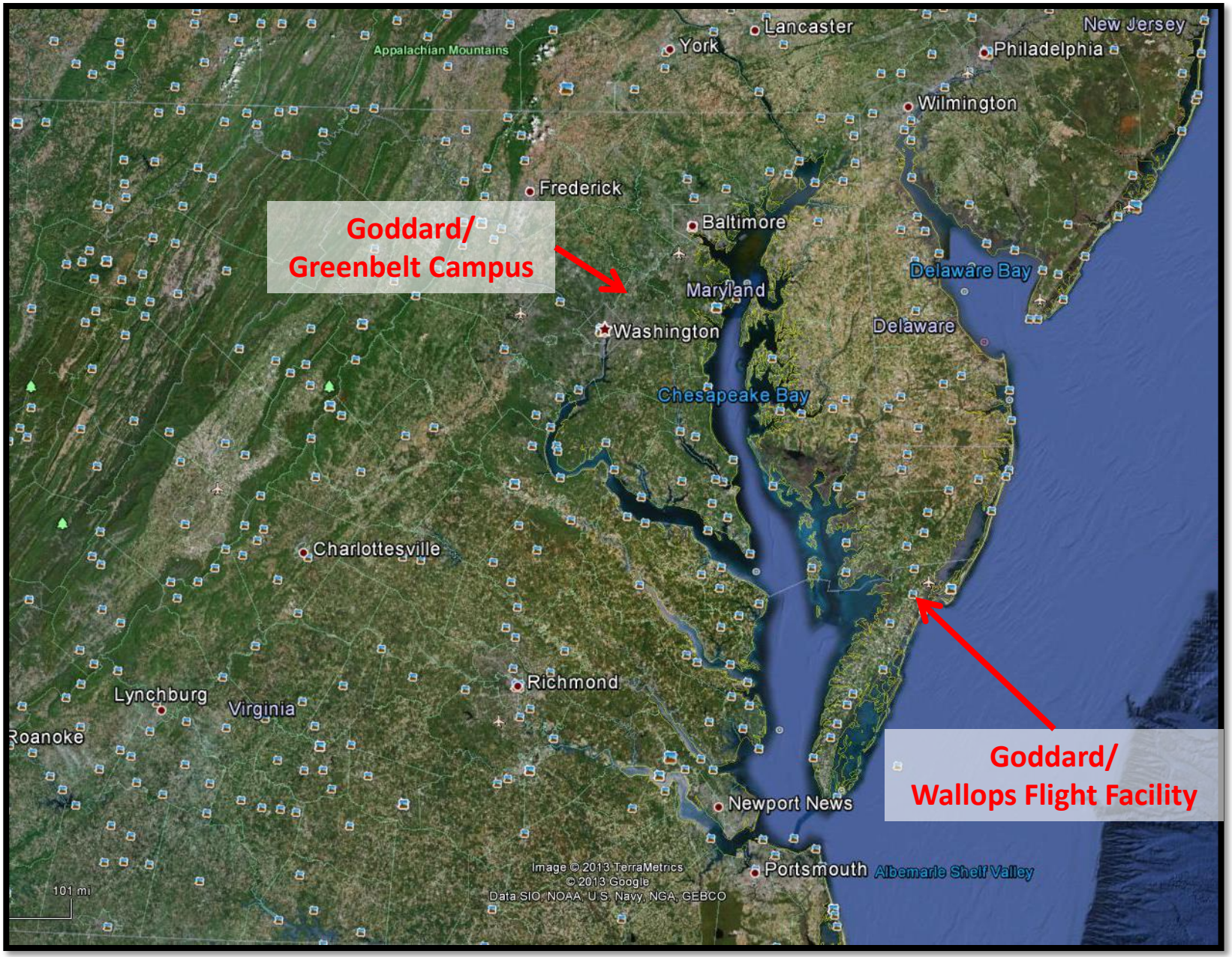
Wallops Flight Facility Overview

October 2015

Wallops Mission



Our Location



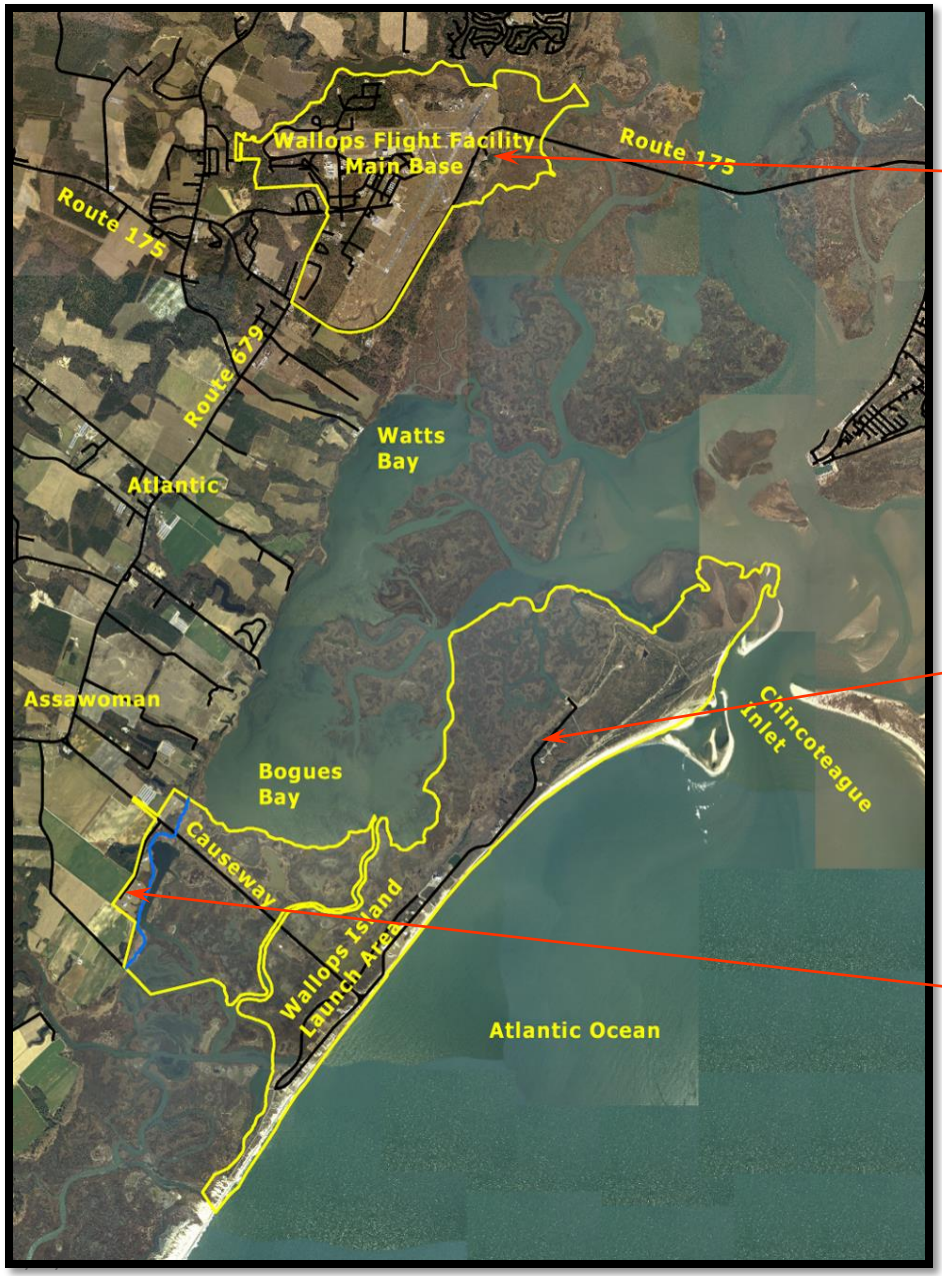
Wallops by the numbers

- $1.2B in assets (NASA and tenants)
- Estimated economic impact: $829.3M and 5,875 jobs (U.S.)
- Campus
  - More than 6,000 acres on three land parcels
- Workforce
  - About 270 civil servants, 800 contractors, and 600 tenant personnel
  - About half live in VA


Wallops Island


WFF Main Base

Wallops Flight Facility



Three Major Parcels **6000 Acres**

Wallops Main Base ***1900 Acres***

- Administrative & Technical Offices
- Tracking & Data Acquisition
- Range Control Center
- Ordnance Storage/Processing
- R&D, Processing Facilities
- Research Airport
- Navy admin & NOAA tracking facilities
- Navy & USCG housing

Wallops Island ***3000 Acres***

- Launch Sites
- Blockhouses
- Radar
- Processing Facilities
- Navy Operational Facilities

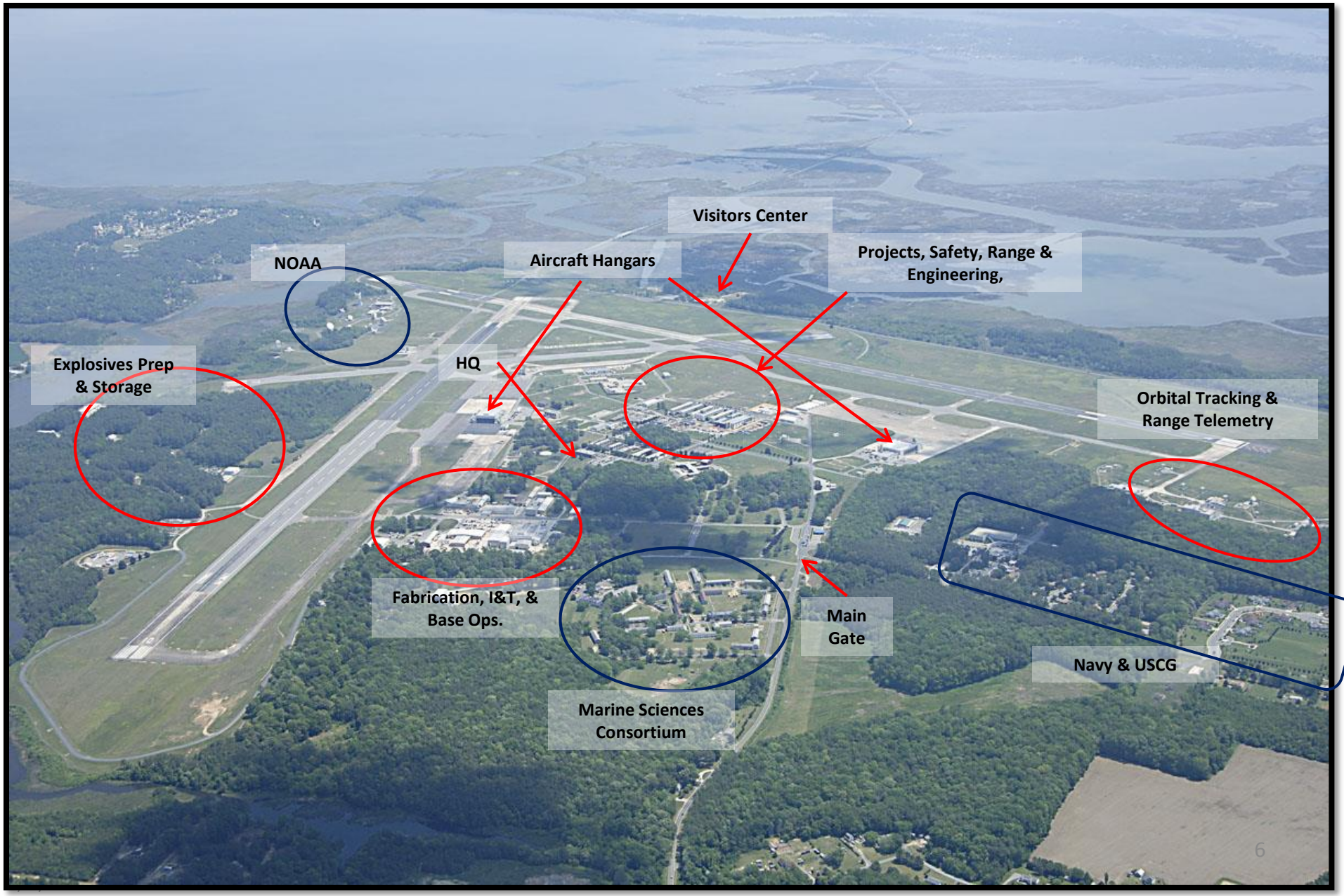
Wallops Mainland **100 Acres**

- Tracking & Data Acquisition

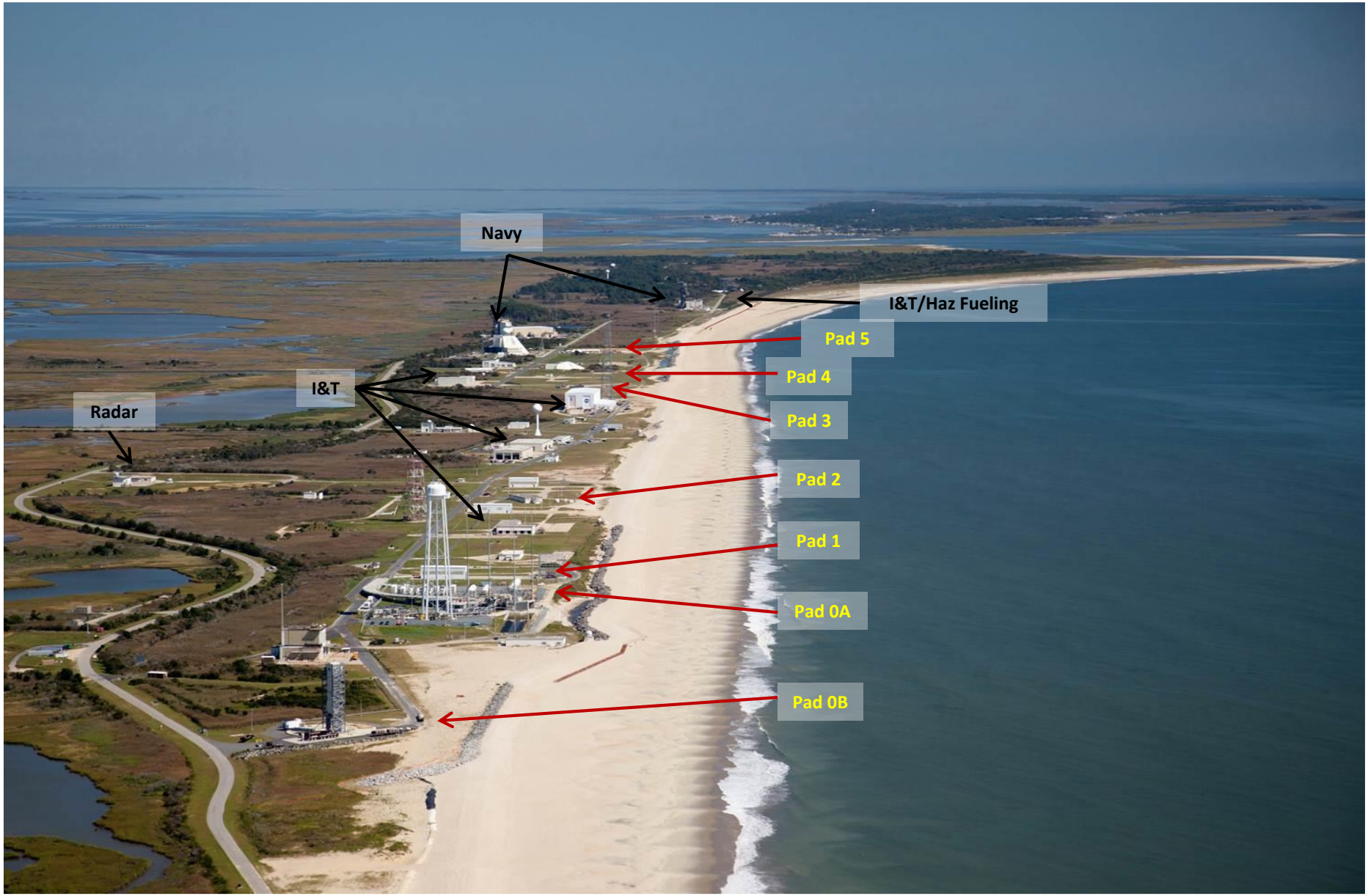
Marshland ***1000 Acres***

5

Wallops Main Base



Wallops Island

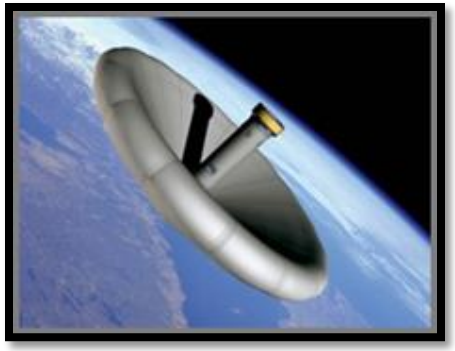


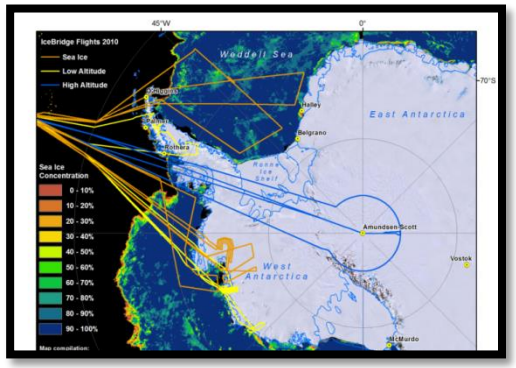

Wallops Island Gate
Boat Basin
I&T Facilities
Navy Facilities
Blockhouse
Wallops Island
Range Instrumentation
I&T Facilities
NASA Pad 5 (Currently Inactive)
NASA Pad 4 (Targets/Suborbital)
Project Support
NASA Pad 3 (Targets/Suborbital)
Blockhouses
I&T Facilities
NASA Pad 2 (Suborbital)
NASA Pad 1 (Suborbital)
NASA UAS Runway
MARS Pad 0A (ELV)
MARS Pad 0B (ELV)
NASA WALLOPS FLIGHT FACILITY GSFC
WFF
Major Wallops Island Facilities

Research Carriers

- Wallops Research Carriers include
  - Sounding Rockets
  - Scientific Balloons
  - Science aircraft (piloted & UAS)
  - Small satellites

- Research Carriers support
  - Cutting edge Earth & Space science
  - Calibration/validation of satellites
  - Technology demonstrations
  - Hands-on STEM-based student flight projects





Airborne Science

- GSFC's Aircraft Project Office conducts frequent global aircraft investigations in support for NASA's Earth scientists
  - Advance Earth System Science
  - Field Campaigns to complement Satellite Measurements
  - New measurement capability demonstrations

- GSFC/WFF - Managed Aircraft
  - P-3
  - C-23 Sherpa
  - C-130
  - Commercially available a/c (Twin Otter, Proteus)
  - Unmanned Aerial Systems

Research Airport

Water Ingestion Testing

Aircraft Noise Testing

Wake Vortex Studies

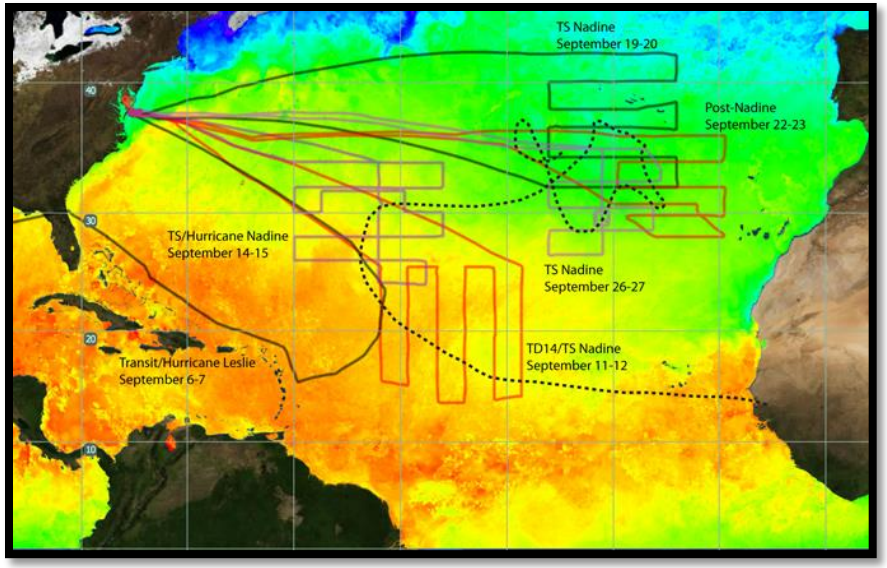
- Primary Missions:
  - Aircraft & airport research
  - Basing for WFF, visiting NASA, & tenant aircraft
  - Support to WFF Launch Range
  - Testing/training site for other Federal agencies
- 3 main runways + *2* UAS runway
  - 2 runways >8000 feet
  - UAS Runway (1500' length)
  - Under Construction new UAS Runway (3500' length scheduled completion Spring 2016

Research Examples

- Water Ingestion Testing
- Runway Friction Research
- UAV flight test operations
- Synthetic vision & runway incursion research
- Aircraft noise measurement
- Landing system instrumentation demonstration

11

Airborne Science Missions



- Hurricane & Severe Storm Sentinel (HS-3)
  - A three-year NASA Earth Venture project to study physical processes that control storm intensity
  - Global Hawk unmanned aircraft operate from Wallops during August-October & deploy during early weather system formulation
  - NOAA continued HS-3 program objectives under new SHOUT (Sensing Hazards with Operational Unmanned Technology) program in 2015

Partnerships

- VA Tech-led team selected by FAA as one of six UAS Test Sites
  - Mission: To aid in development of processes/technologies needed to allow UAS operations in the national airspace system


USCG Scan Eagle UAS


Rigel UAS

- Wallops Research Park
  - State, County project to foster economic growth, research, educational activities
  - Completed Dec. 2014
  - Ready for customers!


New taxiway links to research park

Wallops Research Park entrance


NASA WALLOPS FLIGHT FACILITY OSFC
WFF