Location, Location, Location

- Restricted Airspace adjoining Atlantic Ocean
- Centrally Located among many NASA & DoD customers

- NASA/Goddard
- NASA/Langley
- Norfolk Area
- Atlantic Fleet
- Oceana
- Dahlgren
- Dam Neck
- Dover AFB
- NASA/GSFC (Wallops)
- D.C. Area
- Pentagon
- DARPA
- Missile Defense Agency
- Andrews AFB
• Established by National Advisory Committee on Aeronautics in 1945 as test site for aerodynamic research

• Over 16,000 launches conducted during 63 year history

• Wallops mission has evolved to include:
  • Flight program management
  • Technology development
  • Scientific research
Wallops is the Agency’s premier site for suborbital and small & medium class orbital flight projects, and **NASA’s only owned and operated launch range** that enables frequent flight opportunities for a diverse customer base. Wallops serves as a key facility for operational test, integration, and certification of NASA and commercial next-generation, low-cost orbital launch technologies. Wallops pioneers productive and innovative government, industry, and academic partnerships.
Wallops Tenants

- Navy/Surface Combat Systems Center
- NOAA
- Mid-Atlantic Regional Spaceport
- Naval Air Warfare Center (Patuxent River)
- U. S. Coast Guard
- BaySys Technologies
### Wallops Workforce & Budget

#### NASA Workforce
- Total = 998
- 245 Civil Service
- 753 Contractors

#### Wallops Flight Facility
Regional Economic Impact FY 2008
- Total = $197 Million

#### Wallops Employment
- Total = 1574
- 500 NASA
- 998 NOAA
- 70 M Navy

Percentage of employees residing in area counties
# Wallops Research Carriers

## Science Duration

<table>
<thead>
<tr>
<th>Science Altitude (nm)</th>
<th>New SRs</th>
<th>Sounding Rockets</th>
<th>Small Orbital Payloads</th>
<th>Balloons</th>
<th>ULDB</th>
<th>Potential or Planned Carriers</th>
</tr>
</thead>
<tbody>
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</tbody>
</table>

## Surface Measurements

- Piloted Aircraft
- Airships & Aerostats
- Surface Measurements

## Sub-Surface Measurements & AUVs

- Hours
- Days
- Weeks
- Months
Numerous & Diverse Launch Capabilities

- MARS Pad 0B
- Orbital Sciences Pegasus
- MARS Pad 0A
- Pad 1 50K Launcher
- 20K ARC Rail Launcher
- 20K AML Launcher
- Navy Target Launchers
Many different missions, many different customers

### Annual Average Utilization

- NASA Science: 28%
- NASA Aeronautics: 23%
- NASA Exploration: 6%
- NASA Space Operations: 15%
- Non-NASA: 28%

### Average Annual Usage Events

<table>
<thead>
<tr>
<th>Event</th>
<th>Utilization</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELV Support</td>
<td>1-2</td>
</tr>
<tr>
<td>Field Campaigns</td>
<td>1-2</td>
</tr>
<tr>
<td>Suborbital-class Rockets</td>
<td>7</td>
</tr>
<tr>
<td>Small Rockets</td>
<td>20</td>
</tr>
<tr>
<td>Shuttle Launch</td>
<td>1</td>
</tr>
<tr>
<td>Orbital Tracks (ISS/STS)</td>
<td>389</td>
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<tr>
<td>UAVs / Drop Models</td>
<td>143</td>
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<tr>
<td>Aircraft Tests</td>
<td>144</td>
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<tr>
<td>Ground System Tests</td>
<td>30</td>
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<tr>
<td>DoD Targets</td>
<td>24</td>
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<tr>
<td>DoD Gun Tests</td>
<td>3</td>
</tr>
<tr>
<td>Other Tests</td>
<td>20</td>
</tr>
</tbody>
</table>

Activated restricted airspace 182 days in last year!
Past
• 2 Minotaur I missions (Wallops)
• 9 Pegasus (8 from Wallops)
  – 1 mobile from Canary Islands
• 20 Scout missions (Wallops)
  – Several additional from Kenya
• 1 Conestoga (Wallops)
• 1 Athena
  – Mobile from Kodiak, AK

Upcoming
• TacSat 3 (DoD) – 5/09
• 2 DoD missions from Kodiak, AK – 2009/10
• Taurus II (NASA) – Beginning in 2010
• ORS-Sat 1 (DoD) - 2010
• TacSat 5 (DoD) - 2011
• LADEE (NASA) – 5/2012
New Launch Range Infrastructure Investment:

Virginia: $26 Million
Federal: $23 Million (+)
Private Sector: $15 Million
Total: $64 Million

In Support of $1.9 Billion Program (Taurus II CRS)
Overview

• 3 phased project designed to provide storm damage reduction for Government assets.
• Design underway (USACE, Norfolk District)
• Construction funded over 3 fiscal years (‘09, ‘11 and ‘12)
• ECC ~ $40M

Technical

• Repairs 5 areas of existing seawall
• Extends seawall 1,500’
• Places ~ 3M cuyds of sand on shoreline
Wallop’s Research Park

- A partnership between 3 landowners
  - NASA/Wallops
  - Virginia’s Accomack County
  - Marine Science Consortium

- 270 Acres adjacent to NASA property
  - Set aside for commercial & educational organizations conducting business with Wallops

- Primary Focus
  - Commercial aerospace companies
  - Research & educational organizations

- 1st Tenant: BaySys Technologies
  - Business aircraft interiors mods.
  - 150,000 sq ft hangar planned
Wallops Institutional Consolidated Contract

- Consolidated Operations Contract
  - Includes both design and construction “in-house” services
  - Current contract held by VT Griffin
  - VT Griffin self performs and subcontracts construction work
    - Annual avg. IDIQ ` $2M-$5M
  - TRANSYSTEMS (Norfolk) is current A&E (subcontract to VT)
    - Annual avg. “baseline” design work ~ $700K
    - Annual avg. “IDIQ” design work ~ $600K
  - Current contract expires in August 2011
Back-up Slides
Upcoming Major Launches

- **May 2009: TacSat-3**
  - USAF technology demonstration satellite supporting DoD’s Operationally Responsive Space launched on a Minotaur I

- **May 2009: Max Launch Abort System (MLAS)**
  - Full-scale demonstration of an alternative design crew module rescue system for NASA’s Exploration Program

- **December 2010: Taurus II Demonstration**
  - Demonstrates new commercial option for re-supply of Space Station

- **May 2012: LADEE**
  - Launch of NASA’s Lunar Atmosphere and Dust Experiment Explorer spacecraft on a Minotaur V
Upcoming Missions

Taurus II & ISS Resupply

• Taurus II to be launched from Wallops, supported by NASA & MARS Spaceport

• Orbital Sciences awarded contract by NASA’s Commercial Orbital Transportation Services (COTS)
  – Demonstration of a commercial ISS cargo delivery system to orbit at the end of 2010
  – Consists a new spacecraft called Cygnus™, launched on Taurus II medium-lift rocket

• NASA’s Commercial Resupply Services (CRS), a 5 year, $1.9B program
  – Cargo transportation services to and from the International Space Station (ISS)
  – 20 metric tons of cargo, on 8 missions between 2011 and 2015

• At least $40M of state and federal money invested in new WFF facilities
Upcoming Missions

Lunar Atmosphere Dust Experiment Explorer (LADEE)

- **Lunar orbiting spacecraft being developed by NASA/Ames & Goddard**

- **To be launched from WFF on a Minotaur V in May 2012**
  - WFF managing launch service & providing launch range services
Minotaur at Wallops