



**Goddard Space Flight Center's**  
***Wallops Flight Facility***

Mike Hitch, Special Liaison to the Director

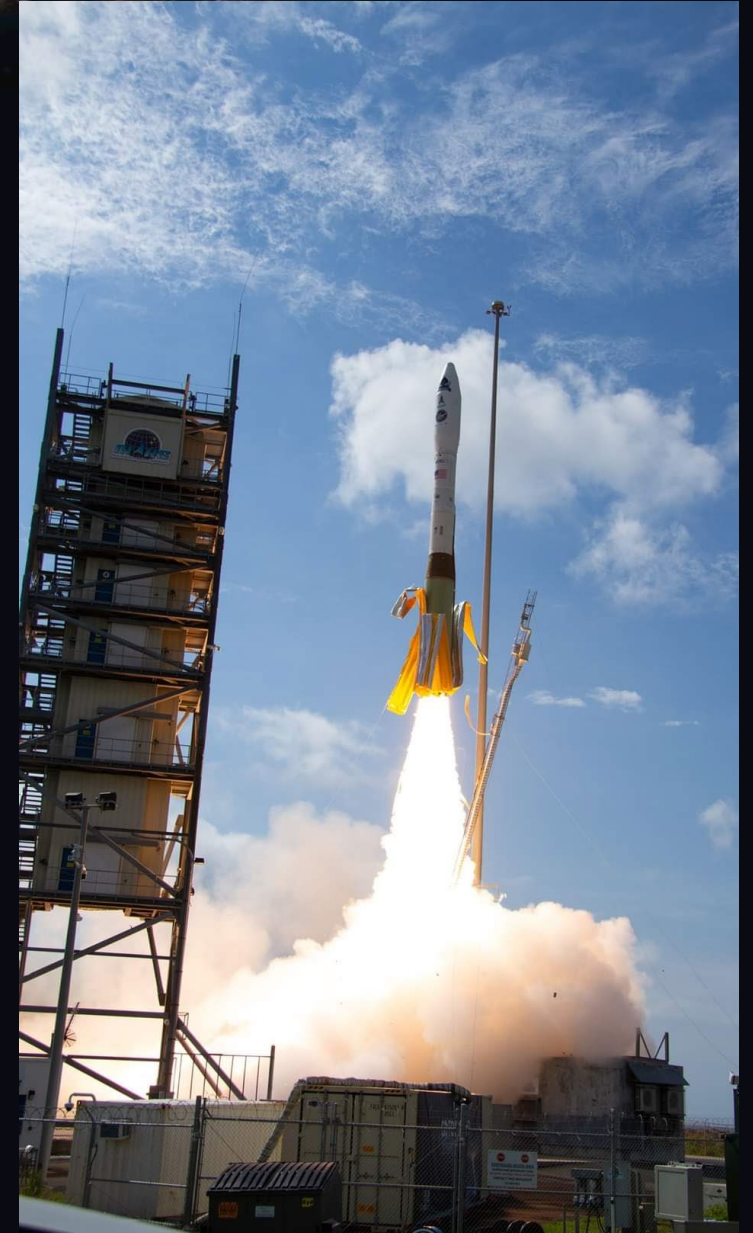




# Wallops is A Unique National Asset



Wallops provides agile, low-cost flight and launch range services to meet NASA, DoD and commercial sector needs for accessing flight regimes worldwide from the surface to the Moon and beyond





# Wallops Complex / Partners



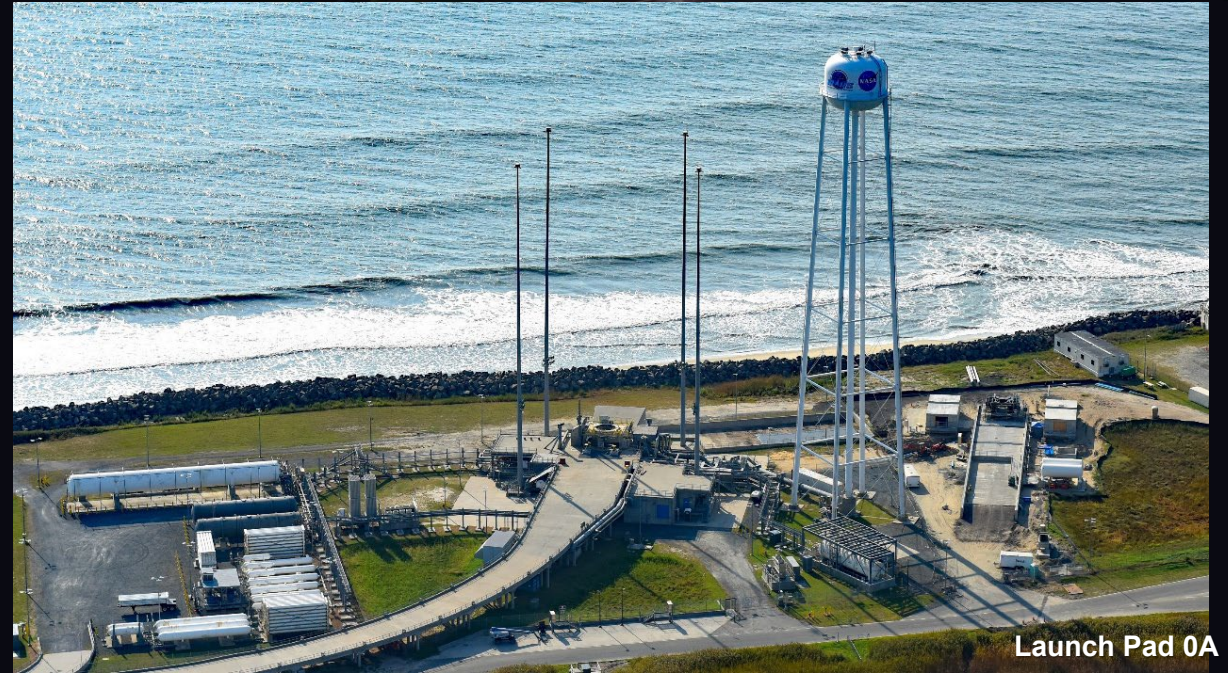
- Vital national asset, one of only four major orbital launch ranges in the U.S. providing assured access to space, supporting NASA, DOD, OGAs, and commercial space
- Provides mobile launch range capability supporting worldwide operations - unique in NASA and the world



Minotaur V: LADEE Mission to the Moon



Rocket Lab



Launch Pad 0A



Payload Processing Facility



UAS Runway



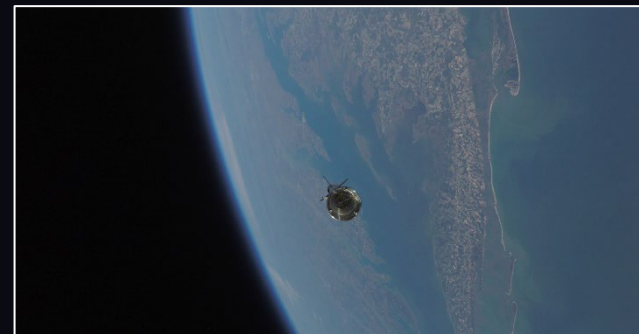
# Wallops Flight Facility – Wallops Island





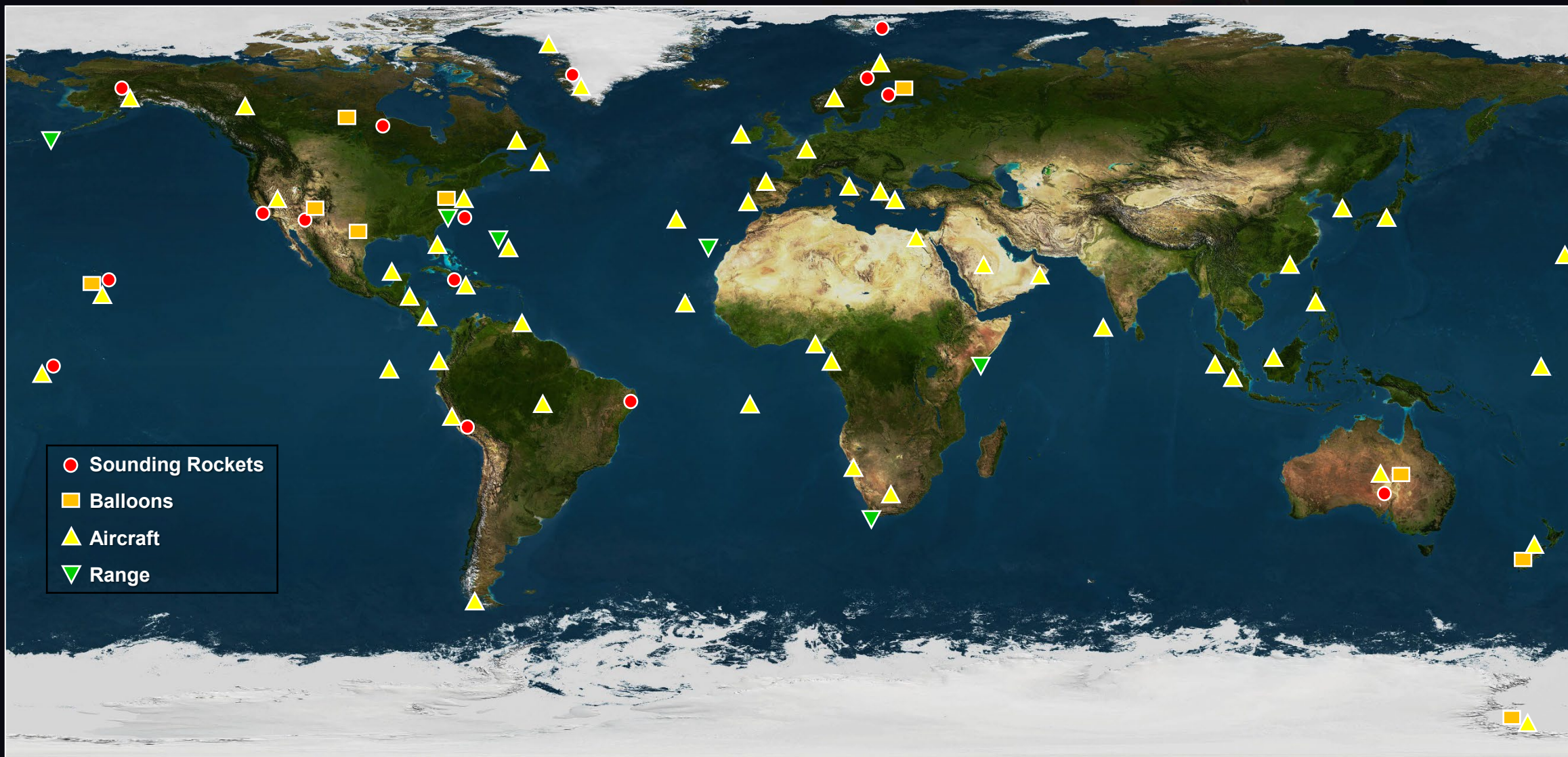
# SRP Program Elements

- **Sounding Rockets** - Suborbital science rockets from worldwide launch sites
- **Scientific Balloons** - Stratospheric science missions from worldwide sites
- **Airborne Science** - Earth Science research using piloted and UAS operations
- **Special Projects** - Small satellite, ISS & ESPA-class mission development and operations
- **Research Range and On-Orbit Operations**
  - Launch range supporting rocket/missile missions
  - Research airfield supporting aircraft/UAS operations and research
  - Mobile range enabling remote campaign missions
  - Satellite tracking of NASA spacecraft
- **STEM Education Activities**
  - Hands-on flight projects for students and researcher training





# Where We Go...



- Sounding Rockets
- Balloons
- ▲ Aircraft
- ▼ Range

# Sounding Rockets Program Capabilities

- Provides suborbital launch vehicles, payload development, and field operations support.
- Provide researchers with unparalleled opportunities to build, test, and fly new instrument and sensor design concepts while simultaneously conducting world class scientific research.
- Operations conducted from fixed launch sites as well as mobile sites around the world.
- Characteristics:
  - ✓ Low cost
  - ✓ Quick turnaround
  - ✓ Minimalistic project teams
  - ✓ Highly flexible and agile
- Sounding Rockets Program Services:
  - ✓ Payload development
  - ✓ Mission and safety analysis
  - ✓ Launch vehicles
  - ✓ Operations support
  - ✓ Technology development





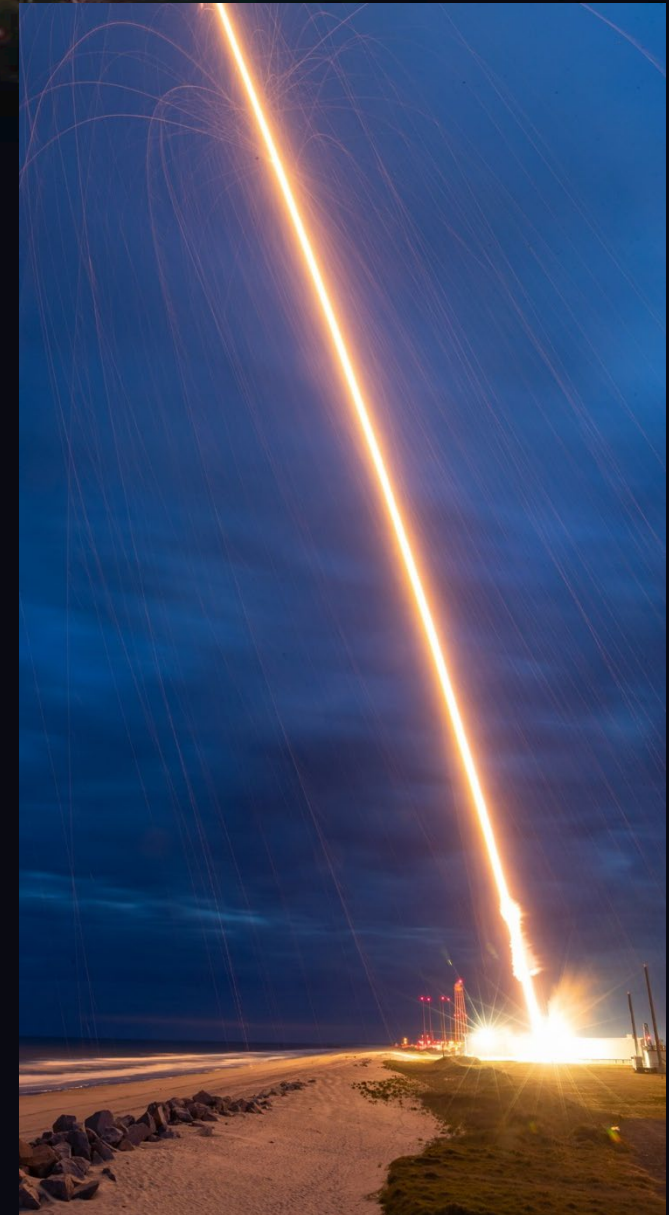
# Sounding Rockets Program Office



Provides suborbital launch vehicles, payload development, and field operations support.

## Characteristics:

- Low cost
- Quick turnaround
- Highly flexible and agile
- Minimalistic project teams





# Scientific Balloons

- Provides low-cost, quick response, near space access for conducting cutting-edge science and technological investigations all over the world.
- Investigations include fundamental scientific discoveries that contribute to our understanding of the Earth, the Sun, the solar system, and universe.
- Provides excellent training for next generation of NASA scientists and engineers.





# Aircraft Science Office



- C-130 support to Cargo transport; Commercial Crew parachute tests
- P-3 Orion is a flying laboratory for Earth Science research



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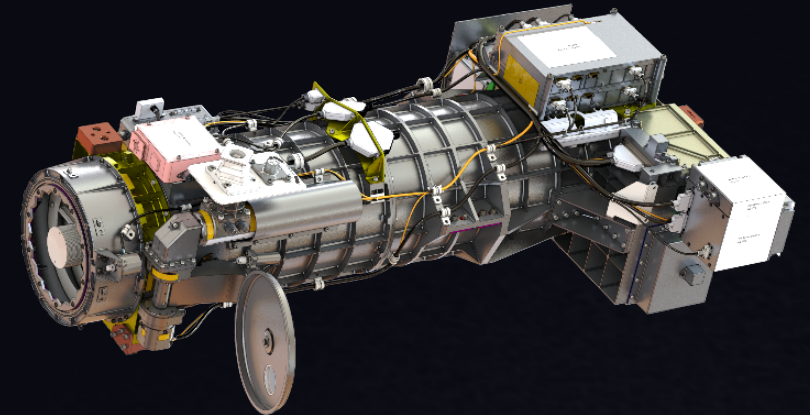
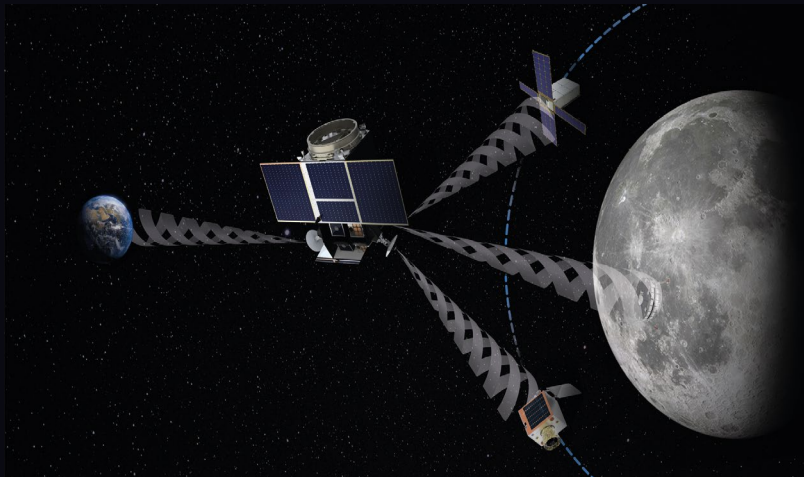
# Small Satellite & Special Projects Office



Provides a bridge between suborbital projects at WFF and the larger spacecraft missions at GSFC.

Manages:

- CubeSats
- Smaller Satellite Missions
- Unique and complex projects implemented at WFF that don't fit the typical program tiers



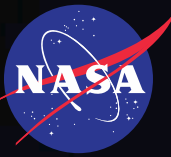


# Research Range

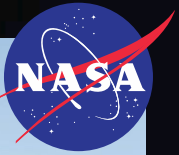
- The Research Range consists of a launch range and associated tracking, data acquisition, and control instrumentation systems.
- Scientists and engineers from NASA, other U.S. government agencies, colleges and universities, commercial organizations, and the world-wide scientific community have conducted experiments using the range.
- The Range provides services necessary for a wide variety of research, development, and operational missions, including rocket, balloon and aerial vehicle flights.
- Manages and operates small satellite tracking stations locally.
- Has the capability to support launch operations worldwide with mobile range instrumentation and equipment.



NG-11 – April 2019







# WFF Airfield

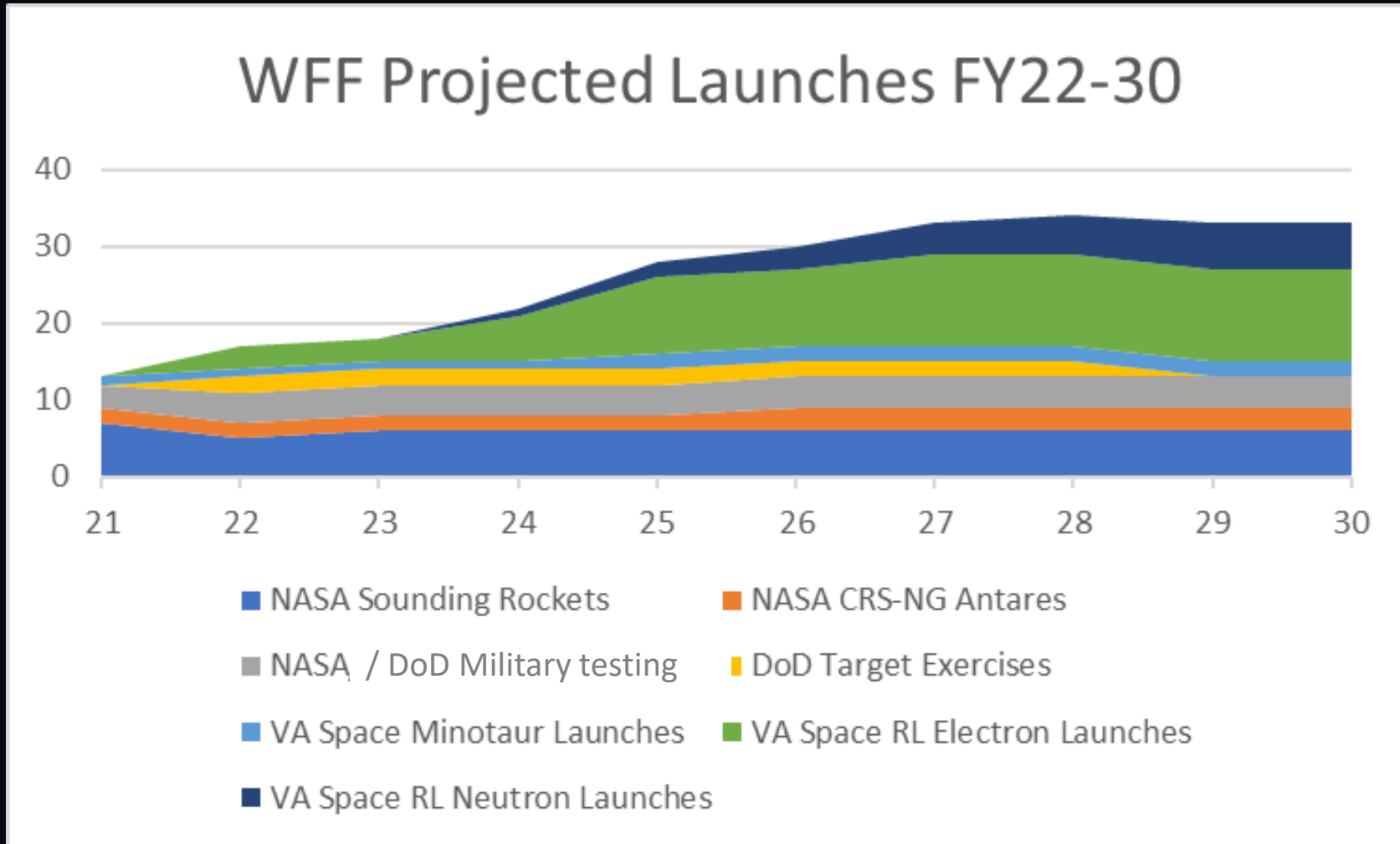
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# Wallops Projected Launch Rate 2022-2030

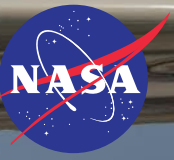


- Sounding Rockets, ISS resupply, and military testing provide NASA, DoD and Commercial launches growth to 25-30 launches annually by 2030





# Questions?



EXPLORE  
WALLOPS