



# Innovative Pathways: Military Museums and the Future of the STEM Workforce

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## Panel Participants:

*Aaron Clark* / Director, Hill Aerospace Museum, Hill AFB, Utah

*Melissa Spalding* / Vice President, Education and Visitor Experience, Museum of Aviation and the National STEM Academy, Warner Robins AFB, Georgia

*Bob Ross* / Connecticut State, Executive Director, Office of Military Affairs

*Dan Rhoades* / 21<sup>st</sup> Century Partnership, Robins AFB, Georgia

# Agenda

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- Introduction / Slides
- Discussion / Questions
- Open Q&A



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***Aaron Clark***  
*Director, Hill Aerospace  
Museum, Hill AFB, Utah*



HILL  
**AEROSPACE**  
MUSEUM  
HILL AIR FORCE BASE | UTAH

# Innovative Programs: Inspiring young minds towards STEM careers



## Use institution & network in creative ways to inspire!

- Military museums are target rich environments for inspiring STEM offerings; generally have unique resources, networks, etc.
- What are community needs (on & off base)? / Explore creative opportunities
- Utah focused on aerospace industry as a primary economic initiative
- Second largest AFB in our backyard / Hill AFB is an aircraft depot needing engineers, scientists, maintainers...
- 75+ historical US Air Force aircraft from every era; many, if not all, need constant care, maintenance, restoration (ingenuity required)
- Museum programs that require software, science & engineering support

# Community and Industry Partnerships: Using collaborations to enhance the effectiveness of your STEM programs

## Hill Aerospace Museum Collaborations



- Airframe structures courses at museum (A&P concurrent enrollment)
- Cooperative STEM projects / Universities, tech colleges & high schools
- Subsidized composite courses for nontraditional students
- STEM programming partnerships with Utah museums
- Diverse internships (15+) / Complement nationwide college & university programs
- State needs / Focused collaboration with Utah & school district specialists
- Military / Open house, tours, job fairs, programming, etc...STEM careers in defense focus
- Industry / Current defense contractor partnership enables:
  - State-endorsed teacher workshops / Aerospace STEM focus
  - Increased Title 1 (lower income districts) school offerings

# Hands-On Learning & Innovation: Importance of hands-on learning in STEM education



## Use resources to offer unique, authentic skills experiences

- Exhibit design & fabrication
- Structures design & fabrication
- Aircraft 3D part design & printing
- Aircraft repair
- CAD modeling of exhibits, collection & campus
- Collection digitization & virtual tours
- Hill AFB pilot virtual reality experiences
- Museum software development
- Tours, career & open house days (military, communities, etc...)

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***Melissa Spalding***  
*Vice President,  
Education and Visitor  
Experience*



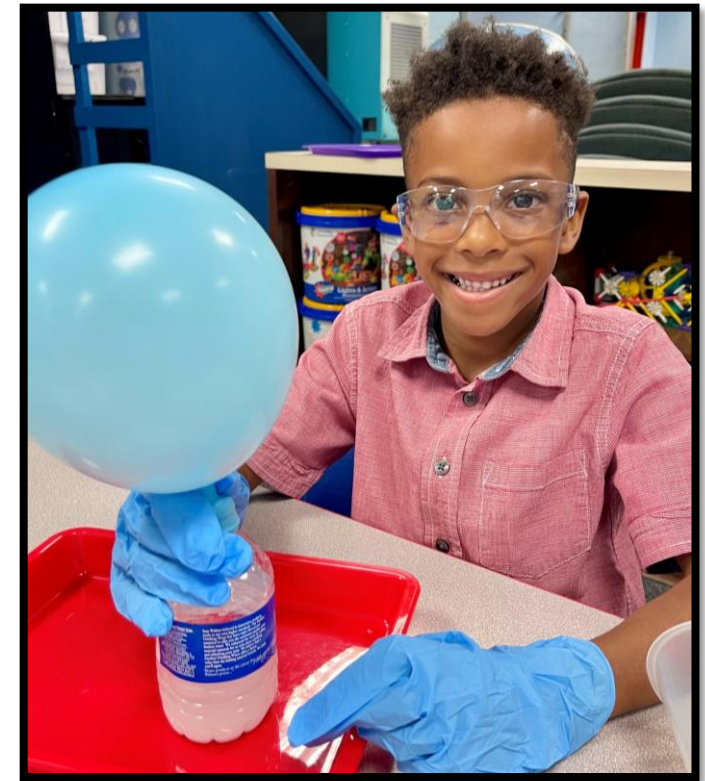
**Warner Robins, Georgia**  
**Robins Air Force Base**

# Museum of Aviation Programs for Students



[MuseumOfAviation.org](https://www.MuseumOfAviation.org)

- PreK – College Students
  - STEM Field Trips
  - Tours of the Museum
  - Outreach to Schools
  - Virtual Connections
  - Camps, Workshops, STEM Labs
  - STEM Mentors
  - Jr. Volunteers
  - Internships





# Museum of Aviation Programs for Teachers

- Professional Development
  - Workshops and Seminars
  - STEM Ambassadors
  - Resources
  - STEM Kits
  - Book Sets
  - Real World Connections
  - Outreach to Classrooms



[MuseumOfAviation.org](https://www.MuseumOfAviation.org)



# Museum of Aviation Programs for Families

- Family/Friends Opportunities
  - Events held at the Museum
  - Events held in the Community
  - Birthday Parties
  - Guest Speakers
  - Teambuilding in Flight Simulators
  - Family Tours
  - Kinder STEM



[MuseumOfAviation.org](http://MuseumOfAviation.org)



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***Bob Ross***  
*Connecticut State,  
Executive Director,  
Office of Military  
Affairs*



**SUBMARINE FORCE**  
— LIBRARY AND MUSEUM ASSOCIATION —



**National Coast Guard Museum**

**New London, Connecticut**  
**Coming in 2026!**



# SUBMARINE FORCE

— LIBRARY AND MUSEUM ASSOCIATION —

**Groton, Connecticut**



- \$30M for 30 More Years!
- New Dock for Public Access from the Sea
- New Director of Education & Outreach
- Active Duty Servicemembers
- Exportable Lessons in Technology
  - For Students & Teachers
- SEAPERCH (Undersea ROV in 2 Days)

[www.ussnautilus.org](http://www.ussnautilus.org)



# National Coast Guard Museum

New London, Connecticut

**Coming in 2026!**



- Missions of the Coast Guard
- Teach BEFORE They Visit
- \$100K+ Grant for Program Development
- Tied to National and State Standards
  - K-8 Designed for Grade Level
  - HS Designed for Subject Matter
- Use USCGA Cadets as Instructors



# National Coast Guard Museum

New London, Connecticut

**Coming in 2026!**



- National Coast Guard Museum
- Multi-Modal Transportation Hub
- Connected to the Ocean
- EAGLE Homeport
- USCG R&D Center and Labs
- Ice Patrol HQ

[www.cgmuseumassociation.org](http://www.cgmuseumassociation.org)



# **Discussion / Questions**

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