



AFWERX

AFWERX Prime

**Presented by: Lt Col Tom Meagher
AFWERX Prime Division Chief**

Capability Development with AFWERX



EXPANDED TECHNOLOGY



AFWERX
AFVENTURES



EXPANDED TALENT



AFWERX
SPARK



EXPANDED TRANSITION



AFWERX
PRIME



EXPANDED PORTFOLIO OF CAPABILITIES



JADC2



Autonomy



Hypersonic



Adv Log



Swarm



AI



Quantum



AFWERX Prime



AFWERX
PRIME

MISSION AND STRUCTURE

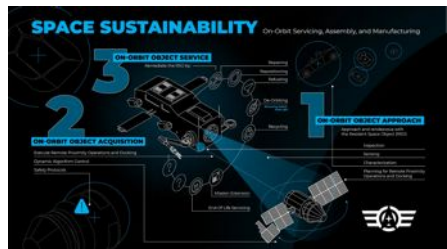
Mission: Expand technology transition paths to accelerate emerging technology markets by leveraging government resources for rapid and affordable fielding, attracting and optimizing external funding and talent

Strategy: Accelerated learning through collaborative risk reduction to rapidly field capability

- Attract the world's greatest talent to solve DAF challenges through collaborative problem curation and solution teaming
- Establish diverse partnerships to identify and accelerate emerging technology sectors

Structure: Diverse Partnerships

- Industry
- Investor
- Interagency
- State and Local
- International
- Laboratory
- Acquisition Community
- Warfighter



Prime key industry tech areas to advance US National Security and economic prosperity

Prime Programs

Current:



Agility

Focus:

- Transformative vertical lift
- Hybrid and Electric Vertical Takeoff and Landing (eVTOL) aircraft
- Distributed electric or hybrid propulsion
- Increased autonomy
- Advanced manufacturing
- Agile Combat Employment support



Orbital

Focus:

- On-Orbit Servicing, Assembly, and Manufacturing (OSAM)
- First use case: Active Debris Removal
- Technology Tracks:
 - Approach
 - Acquisition
 - Servicing

Upcoming Future Programs:



Autonomy

Focus:

- DevSecOps transition pipeline for autonomy capabilities into fielded capabilities
- AFWERX Proving Ground
- Leverage increased industry capes
- Bolster industrial base flight autonomy with commercial funding and interagency collaboration

Future Prime Programs focus efforts on critical tech aligned with bolstering industrial base for key DAF needs and Operational Imperatives including autonomy and integrating across capabilities

Agility Prime Overview

WHY: Global Leadership / Accelerate Fielding of eVTOL
Enable Transformative Logistics Capabilities

Strategic: Zero emission/runway independent aircraft

Process: New transition paths (contracts, certification, budget)

Product: Field operationally relevant logistics capabilities

HOW: Collaborative Risk Reduction

Tech Risk: Opportunities for collaborative test and eval

Regulatory Risk: Early military airworthiness review

Financial Risk: Contracts for testing and early use cases

WHAT: “Third Revolution in Aerospace”

Hybrid/Electric Vertical Takeoff and Landing (eVTOL) Aircraft

Electric & Hybrid: Large electric power systems (auto industry)

Autonomy: AI/Autonomy/Simplified Vehicle Operations

Manufacturing: Advanced manufacturing/materials/scale



Agility Prime By The Numbers



7B
Over \$7B in commercial investment

A dark blue square containing a large white "7" and a smaller green "B". Below the number is the text "Over \$7B in commercial investment".

23
23 contracts awarded to 15 companies

A grey square containing a large white "23" inside a dark blue document icon. Below the icon is the text "23 contracts awarded to 15 companies".

250
Over 250 small business and university contracts for research and development

A dark blue square featuring two green gears at the top. Below them is the text "Over 250 small business and university contracts for research and development" and a large white "250".

5
5 exercises complete or planned

A green square with a large white checkmark. To the right of the checkmark is the text "5 exercises complete or planned".

32 companies applied to the Air Race
32

A green square with a white building icon at the bottom. Above the icon is the text "32 companies applied to the Air Race" and a large white "32".

100
Over \$100M AWARDED

A dark blue square with a green upward-pointing arrow containing a white dollar sign at the bottom. Above the arrow is the text "Over \$100M AWARDED" and a large white "100".

Simulator Locations
3

A green square with a white location pin icon at the top. Below the icon is the text "Simulator Locations" and a large white "3".

400+
Over 400 flight tests

A grey square with three white aircraft icons flying upwards. The text "Over 400 flight tests" is written in white, with a large white "400+" above it.

Engagement/Partnerships





Orbital Prime Overview

WHY: Accelerate Fielding of Commercial Dual-Use Space Technology

Strategic: Build OSAM industrial base, demo Active Debris Remediation (ADR)
Process: New transition paths (contracts, commercial space utilization)
Outcome: Inform Space Force buy or build decisions

HOW: Collaborative Risk Reduction

Tech Risk: Synergize existing lab/testing efforts across Gov and Industry
Regulatory Risk: Drive Interagency/Int'l space sustainability policy
Financial Risk: Partner with investors to ensure adequate Due Diligence, appropriate resourcing, and timely scaling

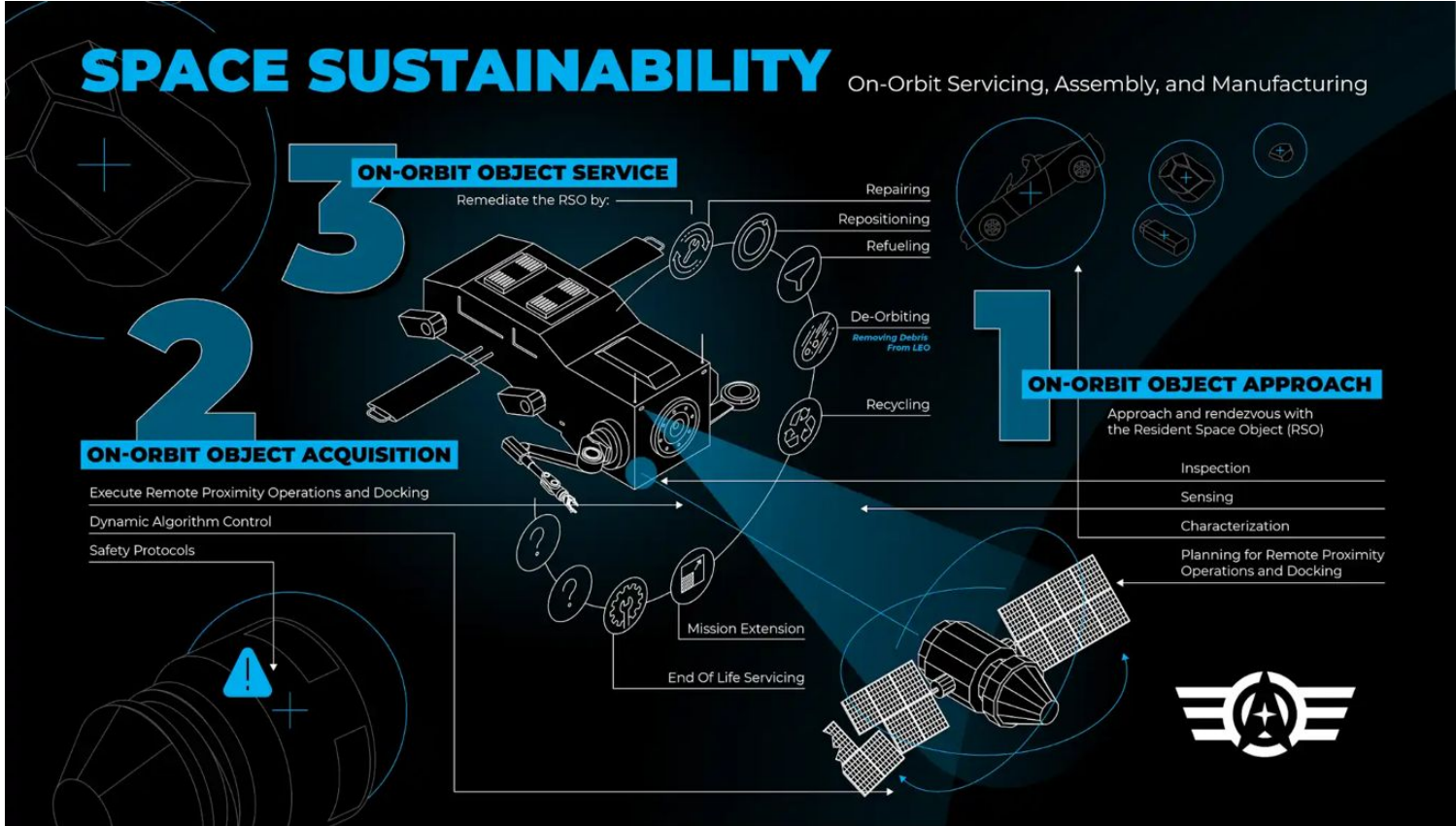
WHAT: On-Orbit Servicing, Assembly, and Manufacturing (OSAM)

Approach and Remote Proximity Operations: Characterization, Approach, Advanced power, Maneuver
Acquisition: Robotics for capture, control, docking, and associated control algorithms
Service: Provide end-of-life servicing, missions extension, orbit relocation/de-orbit



AFWERX
 ORBITAL PRIME
 SPACEWERX

Orbital Prime



Get Involved

AFWERX: afwerx.com

Prime Programs: afwerx.com/prime-overview/

Orbital Prime: <https://spacewerx.us/space-prime/>