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PROGRAM EXECUTIVE OFFICE AVIATION

Future Tactical Uncrewed Aircraft System (FTUAS) Program Update

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Future Tactical Uncrewed Aircraft Systems

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Distribution Statement A: Approved for Public Release. Distribution is Unlimited

Rapid Prototyping Vendor Systems

Griffon Aerospace: Valiant

Textron Systems: Aerosonde

Key Capabilities

- Vertical Take Off and Landing (VTOL)
- Organic sustainment (diag. and repair)
- Runway independence
- Reduced acoustic signature
- Smaller footprint
- On-The-Move Command and Control
- Components are 2-person lift
- Set up system <45 minutes
- Internally Transportable (CH-47)
- A-PNT and data link encryption

Key elements of the FTUAS system include

Air vehicles with EO/IR (6)

Ground Data Terminal (6)

Portable Control Station (6)

OTM equipment (6)

Transformational UAS allowing for iterative capability, combining enhanced survivability, sustainability, and upgradeability

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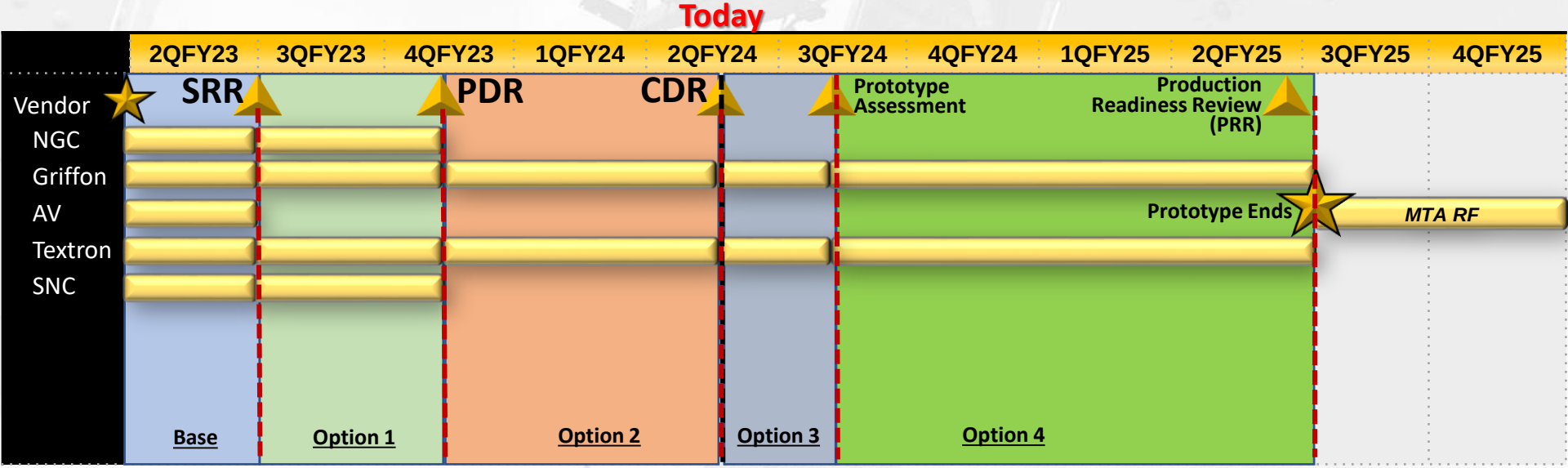
Industry Trends



Contract Period	Criteria Evaluated for Continuation (Selection Methodology Focused)	Deliverable Evaluated
Base	Requirements understanding, functional decomposition, performance/MOSA capability estimates, initial cost estimates	SRR Completed 12APR23
Option 1	Feasibility of design, utility, performance, cost, schedule and proposed implementation of MOSA	PDR Completed 17AUG23
Option 2	Threshold requirements met with growth capability to ideal requirements. Includes C/S/P risk, trade space analysis, and MOSA for MSCs, and traceability to the UAS FoS system model	CDR Completed 15FEB24
Option 3	Flight performance to objectives, airworthiness, safety, 3rd party MOSA verification, interoperability, and production cost and schedule predictions	Prototype assessment, MOSA verification MAY24
Option 4	Verified performance through flight assessment, launch and recovery, controllability, stability, payload capacity, endurance, on the move control; limited qualification, production readiness, production cost and schedule assessment	PRR 2QFY25

* 30-Day Vendor Blackout following each option period

Industry Trends

- **Optics: 8” class Electro-Optical/Infrared (EO/IR) with Laser Range Finder/Laser Designator/Laser Pointer (LRF/LD/LP)**
  - Options exist for Short-Wavelength/Mid-Wavelength Infrared (SWIR/MWIR) at various resolutions
  - H.264/H.265 compression
  - Weight 9.3-12lbs
  - Key Modular Open Systems Architecture (MOSA) interface
- **Retrans: PRC-163**
  - TSM waveform to support current Brigade Combat Team (BCT) radios
  - Key MOSA interface
- **Fuel: MOGAS or Heavy Fuel**
- **Endurance: 6-16 hours based on ceiling**
- **Batteries: Both vendors use LiPo batteries for VTOL flight**
  - Environmental challenges with that chemistry
  - Integration of newer composites under investigation
- **Payload Capacity: ≤45lbs**
  - Inclusive of EO/IR sensor and Communications Relay Package
  - Constrained by Maximum Gross Takeoff Wights requirement

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Questions?