SOF Future Vertical Lift (FVL)

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Bottom Line Up Front

The Current Fleet Of DoD Rotorcraft Cannot Continue To Be Incrementally Improved To Meet Future Operational Requirements. Significant Increases In Range, Speed, Payload, Survivability, Reliability, And Reduced Logistical Footprint Are All Required And Can Only Be Met Through The Application Of New Technologies, Which Are Best Developed Through A Joint Multi-role/Commonality Approach.

Agenda

- **SOCOM Rotary Wing Roadmap**
- **Major Tenets of the Future Vertical Lift**
- **Future Vertical Lift Organization**
- **Development Timeline**
- **SOF FVL Transformation**
- **SOF FVL Mission Package**
- **Way Ahead**

Preserve RW Capacity: Platform & Force Structure Survivability, Sustainability & Affordability

RW Vertical Lift Roadmap

SOF
Joint
Army

Near Term (Prior to FY 15) | *The POM Years (Fiscal Year 15-19)* | *The EPP Years (Fiscal Year 20-28)* | *Beyond the EPP (Fiscal Year 29 – beyond)*

2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027 2028 2029 2030 2031 2032 2033

Light Attack /Assault

MH-6C
A/MH-6 J
A/MH-6 MELB (52)
Improved Seats
Block 2.2
IOC
Block 3.0/SLEP
AAS or Block 3.1
FOC
Block 3.1
Armed Aerial Scout
Block 3.2/SLEP

Assault

MH-47D
MH-47G (61+8)
IOC
Block 2.2
+8 New Build
FOC
Block 2.3
Block 3.2/ SLEP
NEW
SLEP
RE-NEW
FVL

Attack/ Assault

MH-47E
MH-60L
NEW or SLEP or RE-NEW
IOC
FOC
MH-60L DAP (CAAS)
MH-60M (72)
Block I
Block 2
Block 3
FVL (ML)/(MH)
MH-60K

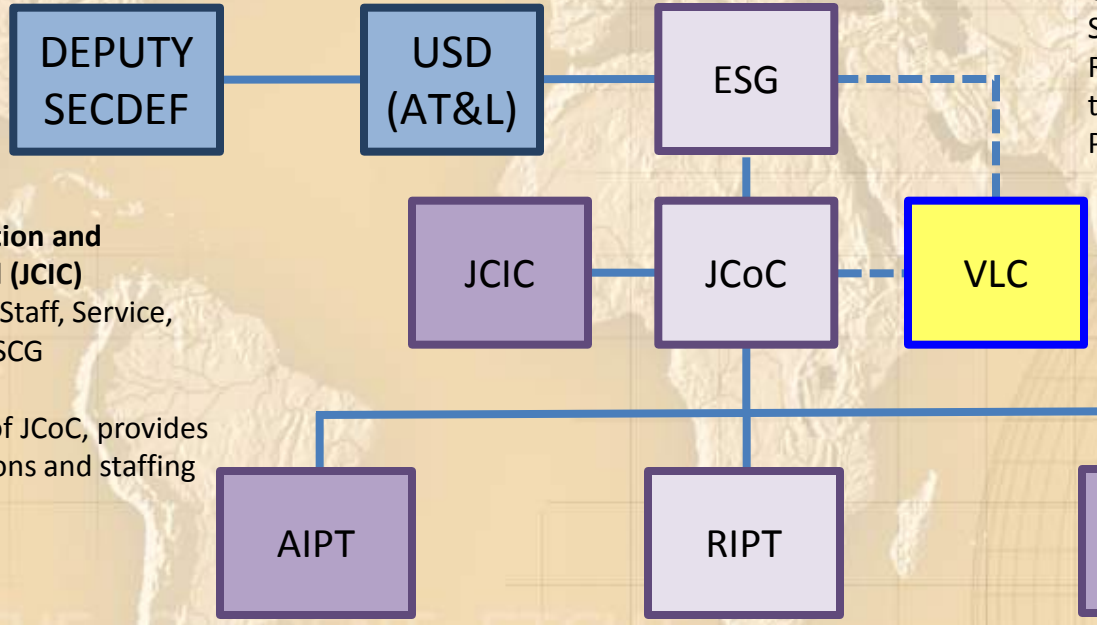
Major Tenets of the Future Vertical Lift Effort

- A Joint effort across the Services to produce a family of vertical lift aircraft sharing a common architecture and component baseline
- A dedicated Science and Technology effort aligned with the future requirements and supported by a comprehensive investment plan to meet the 2030 – 2035 timeframe
- A joint structure is established to facilitate the Future Vertical Lift effort and assist the Services in executing their responsibilities
- The Future Vertical Lift is no longer another DoD Study, it is an actionable plan to meet the future vertical lift requirements of the 2025+ Warfighter

FVL Organization

Executive Steering Group (ESG)
GO/FO DoD, Joint Staff, Service, SOCOM, and USCG Representation
Provides overarching guidance for development of FVL

Joint Council of Colonels (JCoC)
O6 DoD, Joint Staff, Service, SOCOM, and USCG Representation
Refines and recommends actions to ESG
Provides Service input and staffing



Joint Coordination and Integration Cell (JCIC)
O5/O4 Joint Staff, Service, SOCOM, and USCG Representation
Action arm of JCoC, provides recommendations and staffing for JCoC

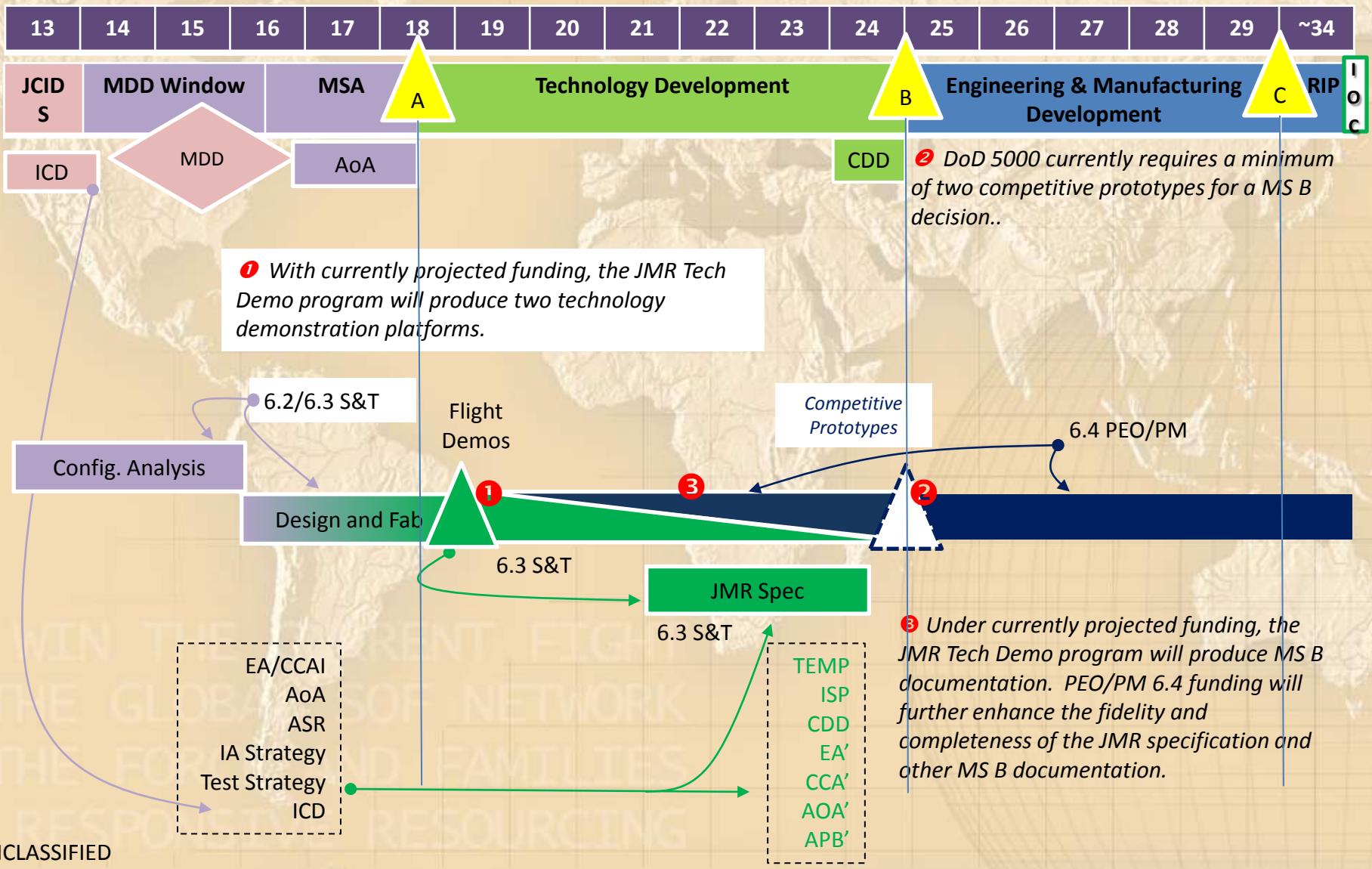
Vertical Lift Consortium (VLC)
90+ industry partners representing aviation and aviation system development

Acquisition IPT (AIPT)
Service, SOCOM, and USCG Representation
Forerunner to FVL Program Office

Requirements IPT (RIPT)
Service, SOCOM, and USCG Representation
Responsible for ICD/AoA/MDD/CDD development

FVL Science and Technology (FVL-S&T)
AMRDEC, DARPA, CAPE, Service, SOCOM, and USCG Representation
Responsible for FVL S&T/RDT&E

FVL Development Timeline



SOF FVL Transformation

SOF FVL Intent: To assist the Services and DoD in the development, production, and fielding of the most capable Service common vertical lift platform

Key developmental requirements:

- **Lighter & Faster**
- **Increase Payloads**
- **Increase Lethality**
- **Increase Survivability**
- **Increase Situational Awareness**
- **Reduce Crewmember Workload**
- **Seamless & Quick Aircraft Integration**

SOF FVL Transformation

A/MH-6M (51)

MH-60M (72)

MH-47G (69)

FVL Light
200+ knots in mission configuration
6k/95 – high hot capability
Internal load 4-6 passengers/2-4.5k pounds
SOF mission package

FVL Medium
200+ knots in mission configuration
6k/95 – high hot capability
Internal load 11-24 passengers/6-20k pounds
SOF mission package

FVL Heavy
200+ knots in mission configuration
6k/95 – high hot capability
Internal load 33-44 passengers/33-44k pounds
SOF mission package

SOF Mission Package

- **Aerial Refuel**
- **Shipboard Compatible**
- **Integrated Weapons Systems**
- **Optionally Manned/Unmanned Teaming LOI 5**
- **Enhanced Voice and Data Communications**
- **Collaborative Mission Planning and Execution**
- **Increased Power Capability**
- **Integrated 360 degree Multi-spectrum Sensor Capabilities**
- **Active/Passive Integrated Survivability System**
- **Active/Passive Signature Reduction**

FVL/RW Special Operations Peculiar (SO-P) Integration

- **Range/Speed**
  - **Compound Helicopters**
  - **Composite Structures**
  - **Dynamically Shapeable Rotor Blades**
- **Survivability/Sustainability**
  - **Small Arms/RPG Shields**
  - **Transparent Armor**
  - **Reduced Logistics Footprint**
- **Signature Management**
  - **Low Observable**
  - **Color Changing Paint**
  - **Low Acoustic Signature**
  - **Active Acoustic Suppression**
- **Penetration**
  - **Penetration into hostile/ non-permissive environments**
- **Weapons**
  - **Point Target**
  - **Area Effect**
- **Mission Equipment**
  - **OPV – Optional Piloted Vehicles with BLOS data links**
  - **Manned/Unmanned Teaming: Control UAV Helos From Manned Helo Teammate**
  - **ADAS**

SOCOM FVL Way Ahead

- **Continued Partnership in Joint FVL Effort**
  - **Executive Steering Group**
  - **Joint Council of Colonels**
  - **Joint Coordination and Integration Cell**
  - **AIPT, RIPT, and S&T Working Groups**
  - **Dedicated funding of Joint FVL Effort**
- **SOCOM FVL Development Program (PEO RW)**
- **Refinement of SOCOM FVL Requirements**
- **Development of SO-P Mission Equipment Packages (MEP)**

Questions ?