Live-Virtual-Constructive Training Systems

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Disclaimer: The information provided herein represents the Government's best understanding of the procurement as of the presentation date. This information should be considered preliminary and subject to change.

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Overview

- Mission Statement
- Points of Contact
- Notional Schedule
- Discussion
    - SLATE ATD
        - Technology Targets to De-Risk
        - S&T Needs
        - Risk Reduction Funding
    - Combat Air Forces Advanced Live Operational Planning (CAFALOT) Development Planning
        - Locking Down F-35 LVC Requirements
        - Threat Emulations
        - Waveforms
    - SCARS
    - LVC Enterprise
- Takeaways

LVC Points of Contact

Ms. Linda Rutledge, PEO/ACS
Dr. Winston “Wink Bennett, 711 HPWRHA
Mr. John “Moses” Noah, 711 HPWRHA
Dr. Lonna Hartley, AFLCMC/XZA
Col Daniel “Ghandi” Marticello, AFLCMC/WNS
Lt Col Aaron Tucker, AFLCMC/WNS

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Mission Statement

Develop, integrate, and sustain USAF Live, Virtual, Constructive training systems to support the full range of operation training resulting in combat mission ready operators

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Live-Virtual-Constructive Training System

LVC Nirvana

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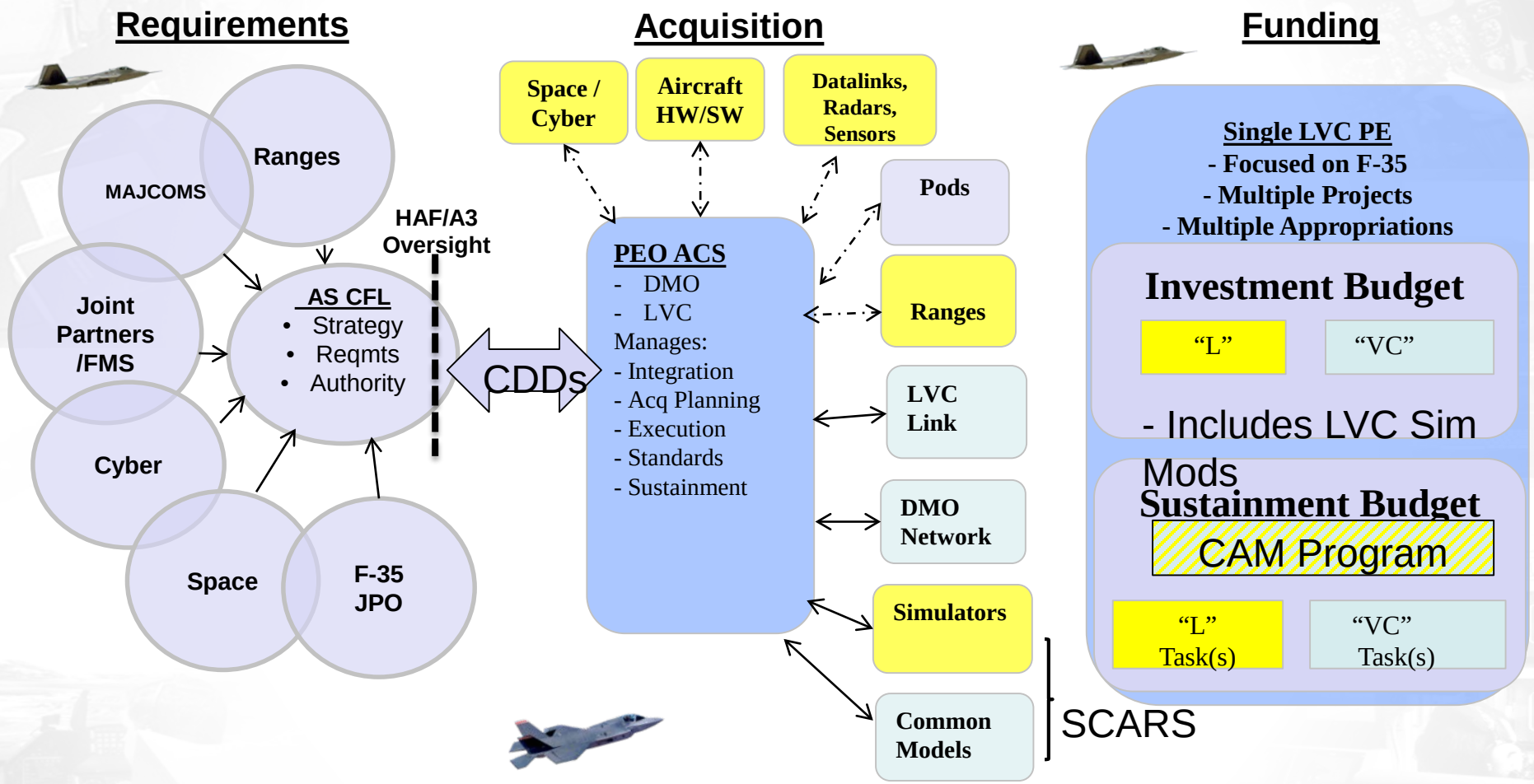
Proposed LVC Management Framework



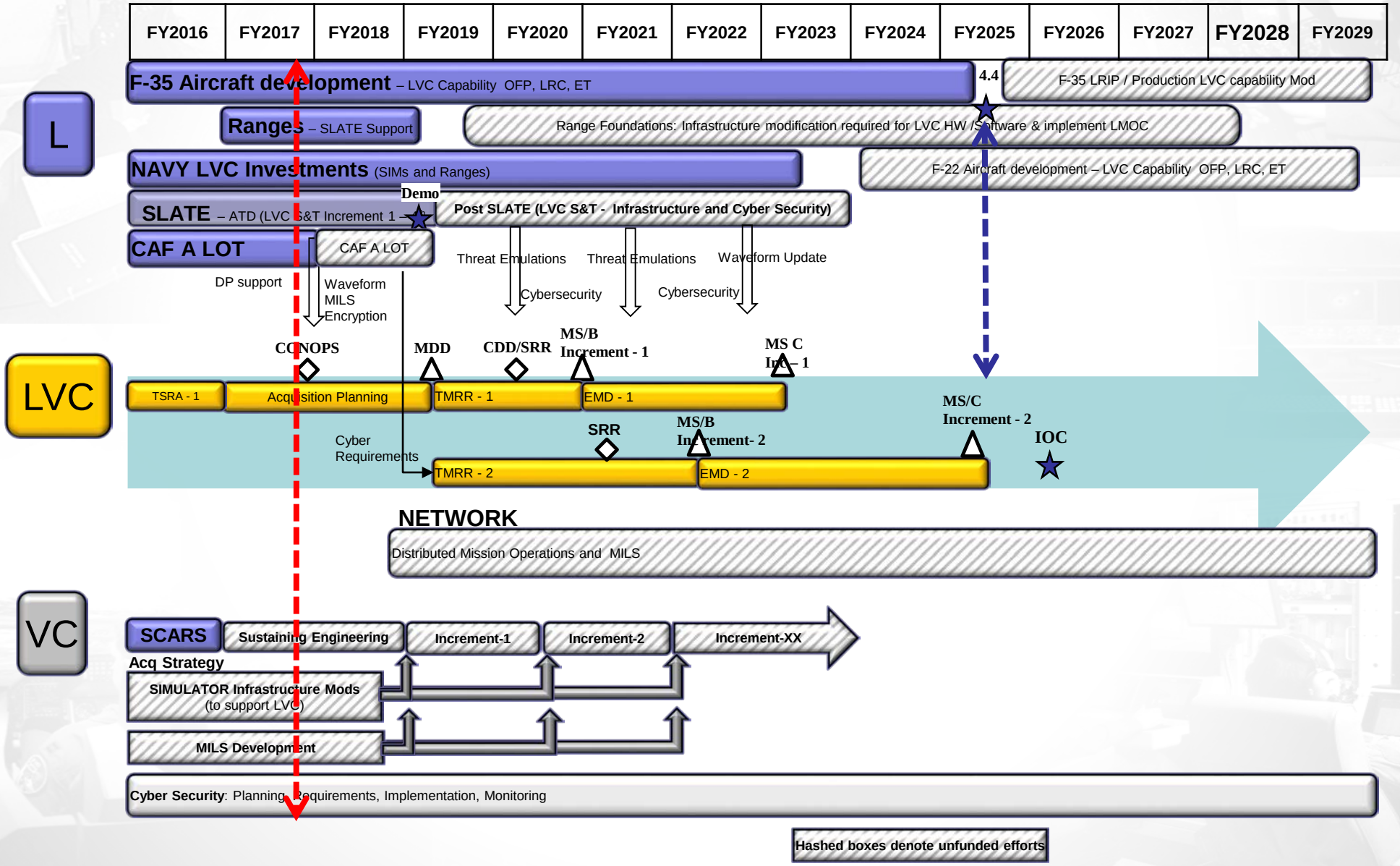
Client Systems

Infrastructure Systems

PEO ACS Coord

PEO ACS Lead

LVC Planning Schedule (Notional)



Combat Air Forces
Advanced Live Operational Trng (CAFALOT)

- Scope

System of Systems assessment

Core Functions and training requirements

Understand competitive tech base and maturity

SLATE ATD tech maturity

Identify/mitigate tech maturity to training effectiveness gap

Analysis of Tradespace

Address 5thGen training gaps (5 May 12 ICD)

Work with Lockheed Martin to identify technology concepts/alternatives not requiring significant OFP changes

F-35 pilot training SME on contract to evaluate LM/other technology concepts against MOEs, MOPs, and MOSs for training gap mitigations

Key Takeaways

- AFMC Enterprise effort underway
  - Integrating LVC Risk Reduction & Acquisition
- **SLATE –** Identify **additional LVC risks**
  - **Need** additional **S&T to identify needs**
  - Need additional RDT&E to deliver capability
  - Need additional Funding
- **F-35 LVC Requirements being locked down**

  - Ongoing DP process, report due end of FY17
- **LVC Support Requested**

  - Define solid requirements NLT 4QFY18

  - Establish FY20 Planning Wedge

LVC TS Capability Delivery

- F-35 Platform focus-IOC 2025
- Integrate w/ VTTC, Navy, Test Enterprises
- Leverage SCARS
  - Common databases, cybersecurity, affordability
- Utilize DMO standards
  - Add security levels
- Future opportunities
  - 4th-/5th-gen
  - Bomber
  - SOF
  - Trainer

What The SLATE ATD Won't Address

- F-35 SIL testing, OFP mods or potential flight testing (*an original SLATE objective*)
- Cyber security vulnerability assessment/remediation
- MILS accreditation across all four levels
- Alternative processor configurations
- Alternative radio/5G-ATW combinations
- CAF OTI investments leverage/complementation
- DMON certification of LVC enterprise and connectivity to larger community
- Full MDS OFP mods
  - Additional OFP mods required for full F-15/F-18 LVC capability
  - Wider range of sensor modeling (both 4th and 5th Gen)

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S&T Needs and RDT&E
Risk Reduction Beyond SLATE

- COMACC/AFRL discussions related to additional funding and sourcing (~$83M) to support further tech integration and F-35 inclusion out to FY23
  - Rationale and key areas of additional work to improve tech maturation and transition is done, initial estimates accomplished
  - Define additional S&T and other (e.g., RDT&E, etc.) funded needs beyond ATD to ensure future IOC (AFRL/AFLCMC)
  - Work with industry partners to refine cost estimate/emphasis areas
  - Define LVC priorities, create timeline and key activities to meet IOC, and if needed, identify "acceleration" options (AFLCMC)
  - Sponsorship and guidance for needs: IOC for LVC; Advocate for access to target platforms (e.g., F-15E and F-35, others) (ACC)

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Discussion: LVC Management

HAF: Strategy, Policy and Oversight

Vision: Paradigm shift from “L” to “V

Authority for systems operations (compliance w/ security & standards)

Lead CFL: Requirements

Air Superiority CFL

Initial focus on F-35 training requirements

PEO ACS: Acquisition Lead

Consolidate multiple lines of effort into program(s) of record

Acquisition planning and execution

Inform requirements

MAJCOMs: Supported Customers

Provide inputs to GPA Core Function Lead

ACC, AFGSC, AMC, AFSPACE, AFSOC, AETC