



S&T for Future Vertical Lift

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29 October 2015



Bottom Line Up Front



- The aircraft that comprise the current vertical lift fleet cannot be modified to achieve FVL capabilities
- FVL performance requires significant improvements to the current fleet
 - Significantly increased vehicle speed and range
 - Reduced drag
 - Expanded environmental performance
- A comprehensive, well supported S&T plan is required for the development of the FVL family of vehicles
- FVL does not have a devoted S&T budget
- FVL S&T needs will be addressed by the S&T Enterprise
- Devoted investment in technologies, configurations, and concepts that enable FVL capabilities has not been made





FVL S&T IPT



Objective

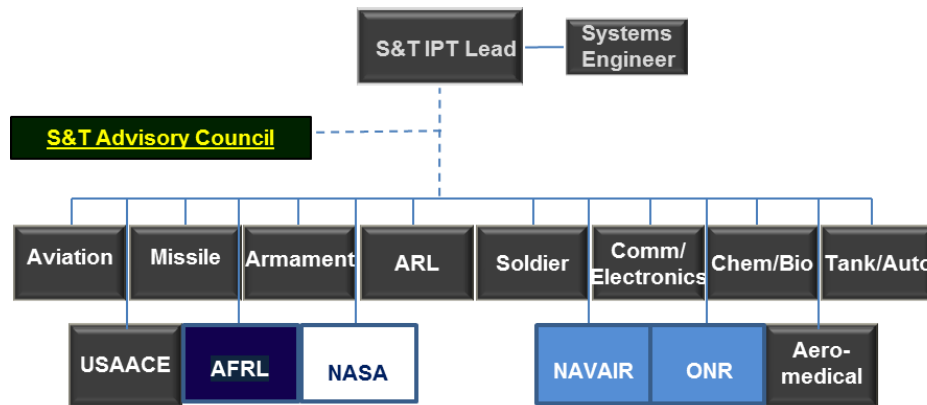
Develop and maintain an enterprise-wide Science and Technology Strategy supportive of FVL

- Identify critical enabling technologies
- Present a roadmap of system level technology development that leverages the resources and investments of the OSD Communities of Interest (CoI)
- Enable risk reduction measures that minimize technology risks for transition to an FVL PoR
- Highlight POM plans that support FVL from across the S&T enterprise and provide the status of that plan upon request

Products

- Common requirements baseline
- Synchronized technology development roadmaps
- Comprehensive S&T investment strategy supportive of FVL
- Technology performance metrics
- Risk identification and mitigation plans
- Technical data and analytical support for the FVL milestone and decision process
 - Cost/value assessments of enabling technologies and resulting system capabilities
 - Analysis methods and tool maturation

Organization

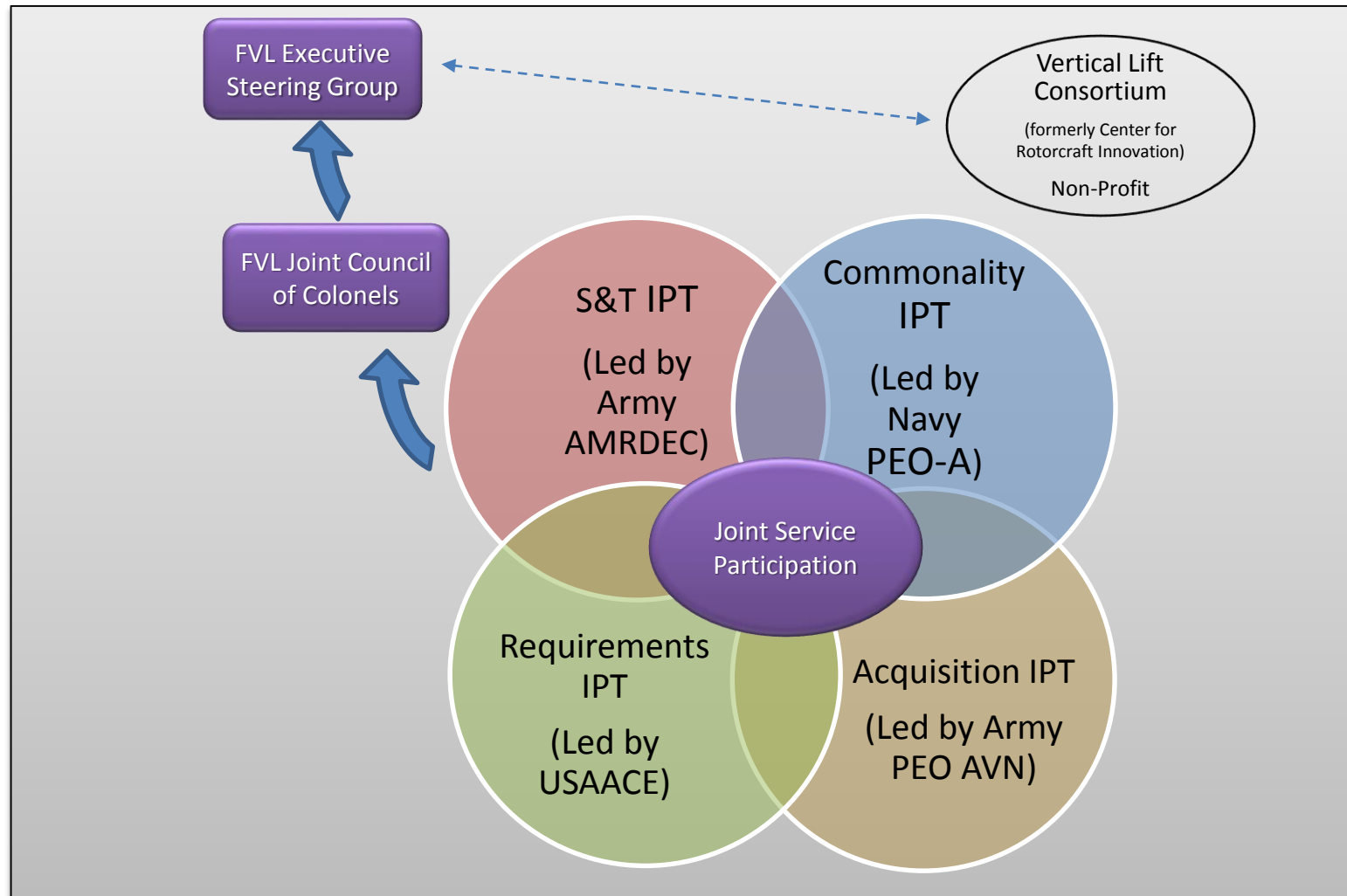


Significant Progress

- S&T Enterprise is engaged and anticipating FVL
- Engineering requirements baseline continues to evolve
- The Government Enterprise has been surveyed for technologies relevant to FVL development
- Survey inputs have been assimilated into a coherent description of on-going and planned development efforts
- Initiated an assessment of the S&T investment strategy to ensure that it is comprehensive, thoroughly leverages the OSD COIs, and reflects the intent of stated FVL requirements



FVL DOD Organization



S&T Objectives



- Deliver technologies that enable the breadth of capabilities required by a fully capable aviation weapon system
- Evaluate the overall value of what is demonstrated
 - Technologies
 - Configurations
 - Capabilities
- Mature the skillsets and tools required to design, analyze, predict, and evaluate the next generation rotorcraft
- Keep the rotorcraft industrial base engaged and aligned with the Nation's security interests



S&T Enterprise



- Army
 - Research, Development, and Engineering Command
 - US Army Aeromedical Research Laboratory
- Navy
 - Naval Air Systems Command
 - Office of Naval Research
- Air Force Research Laboratory
- OSD Communities of Interest
- NASA
- DARPA
- Industry



Path Forward



- Initiate collaboration with Industry regarding a comprehensive technology development strategy for FVL
- Present and maintain an S&T Enterprise plan to deliver technologies that enable FVL capabilities
- Ensure complimentary plans and objectives across the Enterprise
- Demonstrate and evaluate technologies applicable to alternative rotorcraft configurations
- Leverage the talents, resources, and facilities of the Enterprise to meet the DoD's future vertical lift needs
- Enable the integration and characterization of Enterprise S&T products required to deliver mature technology for the future fleet

