



# SSC SPACE SYSTEMS INTEGRATION OFFICE

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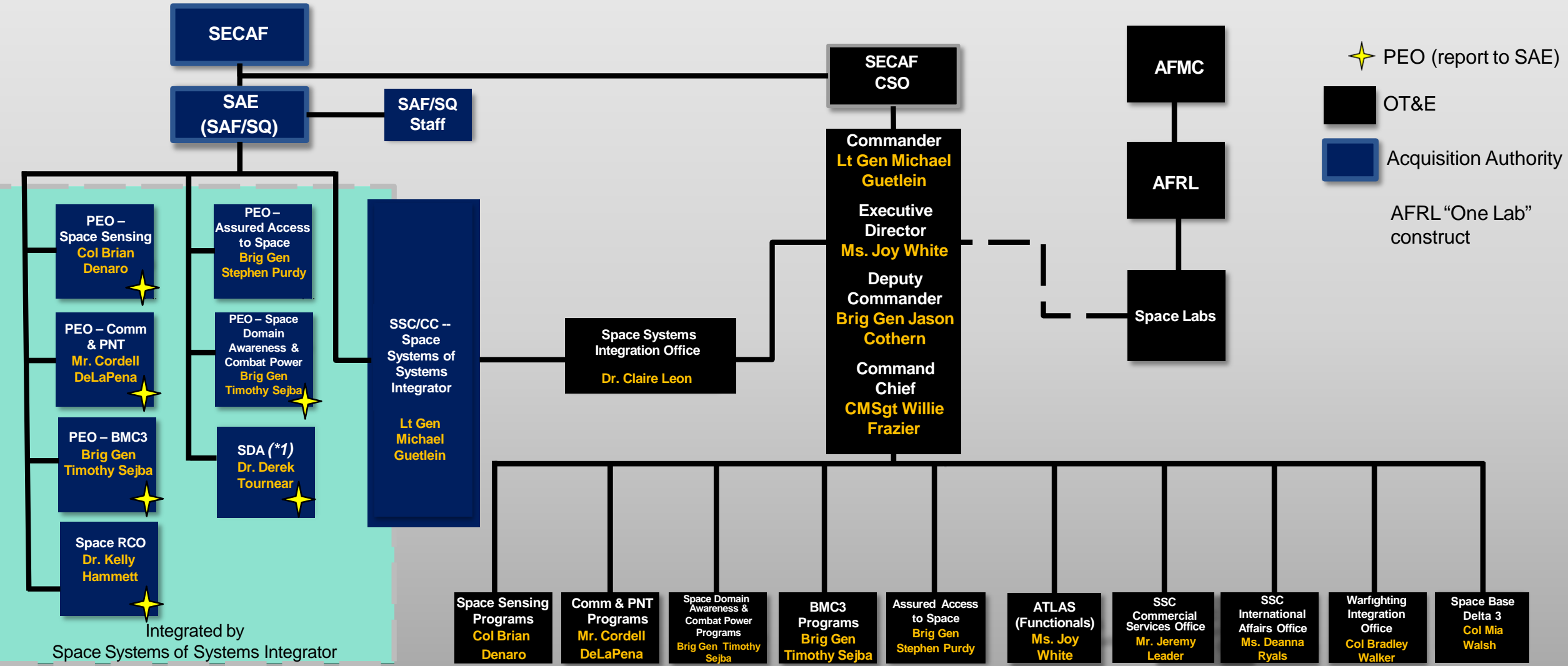
Director

SSC Space Systems Integration Office

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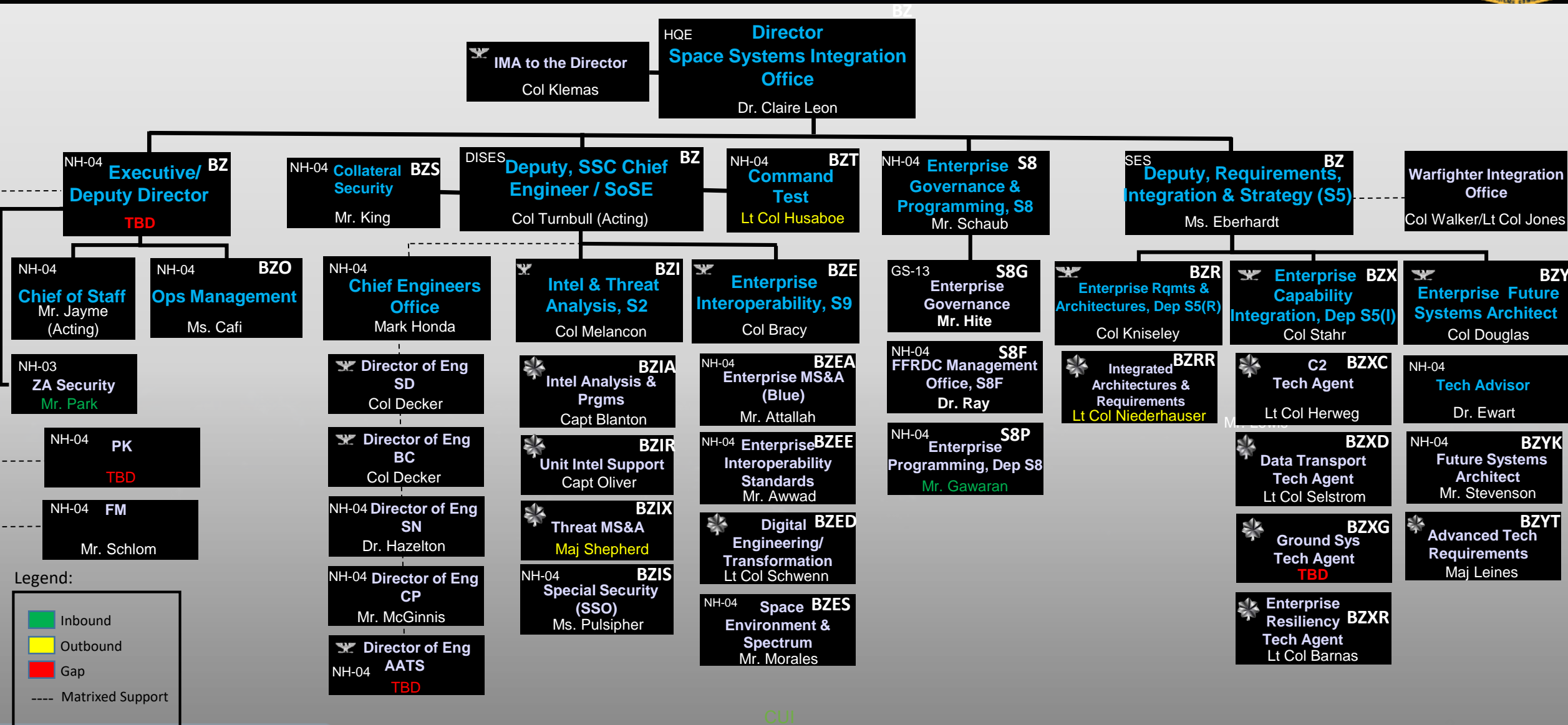


# Space Systems Command Organization





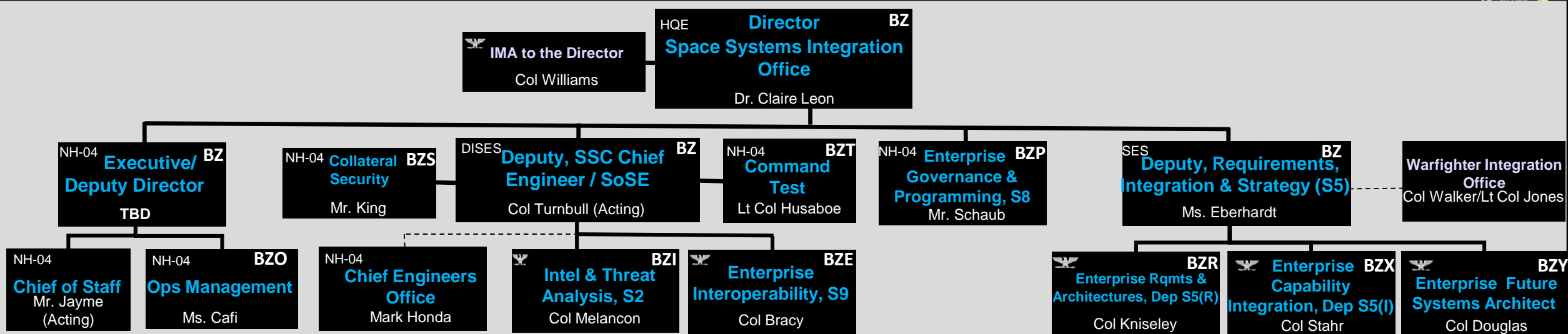
# Space Systems Integration Office







# SSC Space Systems Integration Office



- ### Chief Engineer/SoSE
- Intel support; Threat MS&A
  - System-of-systems engineering
  - Specifications, standards, & interfaces
  - Digital Engineering & Transformation
  - Chief Engineers Office / Council
  - Space Environment & Spectrum
  - Special and Collateral Security
  - Test Policy / Integrated Test Force

- ### Enterprise Governance & Investment Planning
- Program Integration Council Secretariat
  - Acquisition Leadership Sync Secretariat
  - Strategic planning
  - Strategic investment analysis
  - Financial planning and programming

- ### Rqmts, Integration, & Strategy
- Develop integrated architectures & requirements in collaboration with SWAC and key stakeholders
  - Technical Agents for Ground, C2, Data Transport, and Enterprise Resiliency
  - Integrate and synchronize enterprise activities across organizational and system boundaries
  - Advanced concepts & Requirements



# Force Design to Execution

**SWAC**

- Develops Force Design or the “What we need”
- Informed by SMEs from the various acquisition organizations
- Conducts “cost comparisons” of COAs to inform trade studies
- Approved through DEPSECDEF Gov Structure



**CSRO**

- Receives the Force Design and works with the various requirements organizations to turn the Force Design into a set of requirements
- Works with various Force Design Stakeholders in accordance with JROCM 029-21



**SSC Space Sys Integ Ofc**

- Receives the requirements from CSRO and others
- As the PIC Secretariat, calls for a meeting to make a recommendation regarding “HOW” best to meet the requirements
- Responsible for Systems of Systems Integration



**PEOs**

- Execute the programs



**Acquisition Decision Authorities**

- SAE (also chairs the SAC)
- RCOs Board of Directors
- NRO Director
- MDA Director
- SDA Director
- Etc.



**PIC**

- Interagency integration
- SSC is the Secretariat
- Chair rotates monthly between 7 members
- Synchronizes/integrates efforts between members
- PIC can only make recommendations to Acquisition Decision Authorities like the SAE
- Cannot commit resources



- + SSC Commercial Services Office (Buy before Build)
- + SSC International Affairs Office (Allied by Design)
- + Warfighter Input & Labs

Course of Action (COA); Chief Strategy and Resourcing Officer (CSRO); Missile Defense Agency (MDA); National Reconnaissance Office (NRO); Program Executive Officer (PEO); Program Integration Council (PIC); Rapid Capability Office (RCO); Space Acquisition Council (SAC); Service Acquisition Executive (SAE); Space Development Agency (SDA); Subject Matter Expert (SME); Space Warfighting Analysis Center (SWAC)



# SSC / SSIO Outreach and Industry Engagement

## Share government roadmaps/strategies to allow industry to steer their IRAD appropriately

- SSC chaired Industry Days / Reverse industry days--hosted by PEOs to address specific mission needs
- Hosting / Visiting industry technical leads to share business plans, portfolio overviews, program roadmaps, and IR&D investments

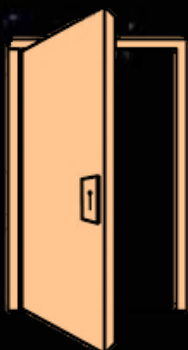
## Understand and leverage commercial solutions

- Adopt, adapt, or buy commercial before creating military-unique solutions
- SSC Advanced Tech Solutions and Front Door scout and maintain cognizance of Industry products, services, and technologies

## Match candidate solutions to USSF technical needs

- Seamlessly integrate the results of business intelligence efforts to the USSF/CTIO's "Book of Needs"
- Work jointly with USSF/CTIO, SpOC, AFRL, and SWAC to evaluate, select, and pursue development of most promising solutions

### SSC Front Door



### "Screen Door"

#### Assessments for:

- ✓ Business Viability
- ✓ Technical Feasibility
- ✓ Ops Utility Assessments
- ✓ Supply Chain Risk Mgt Assessment

### USSF/CTIO S&T Process



DAFI 61-101

### Tech Maturation

#### Outputs:

- Tech Needs
- Selected Solutions
- USSF S&T Database



# Technology Maturation & Transition

- USSF/CTIO S&T Process Identifies the most applicable technology maturation route
- SSC Integration Forum (SIF) assesses S&T concepts / solutions for transition
  - SIF identifies and secures commitment from receiving PEO
  - Ensures technologies have a documented transition plan to avoid the “valley of death”

**Mature Commercial Capability/Services**

PEO Program Offices, COMSO, DIU

**Prototypes**

SSC/SZI, SpEC, SpaceWERX, DIU

**Lower TRL**

SpaceWERX, AFWERX, AFRL, DIU

**Ground Software**

Software Factories  
(e.g., SpaceCAMP, Kobayashi Maru)

**No application currently**

Technology has merit that warrants future considerations



**SSC Integration Forum**



**Transition to the Warfighter**







## Summary

- Clear imperative to pivot to resilient architectures with speed and agility
  - Start with the Force Design from SWAC
  - Use threat assessment intel to shape future system requirements
  - Determine the optimum future system design/requirements based on modeling and analysis
  - Leverage input from industry to shape the requirements
- Desire for increased partnership with industry
  - Focus on “Buy before Build”
  - Define the standards & interfaces – enable system of system integration
  - Goal is to share government roadmaps/strategies to allow industry to steer their IRAD appropriately
- Build strong partnerships inside and outside of SSC
  - STARCOC, SpOC, Mission Partners, Industry, Allies
  - Synchronize efforts to support a united front for space acquisitions

### SSC Front Door

**Submit products, services, & ideas!**

<https://www.ssc.spaceforce.mil/Connect-With-Us/Space-Systems-Command-Front-Door>



# Questions?