



U.S. AIR FORCE

AFLCMC... *Providing the Warfighter's Edge*



Training and Simulation Industry Symposium 16-18 June 2020

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BLUF



Simulators are Key to Air Force Readiness Strategy Train How We Fight

- **General David Goldfein, AF Chief of Staff**
 - Simulators one of his top three initiatives—looking to “fix” simulators
 - AF M&S Governance structure is under review—newly stood up:
 - Chief Modeling & Simulation Officer
 - M&S Steering Committee
- **Dr. Roper, SAF/AQ, Feedback**
 - Looking for massive multiplayer option—ability to simulate entire AF going to war
 - Partner with small businesses and universities—utilizing pitch days (like shark tank)
 - Innovation Focus—cloud and common architecture; challenged Sims on artificial intelligence



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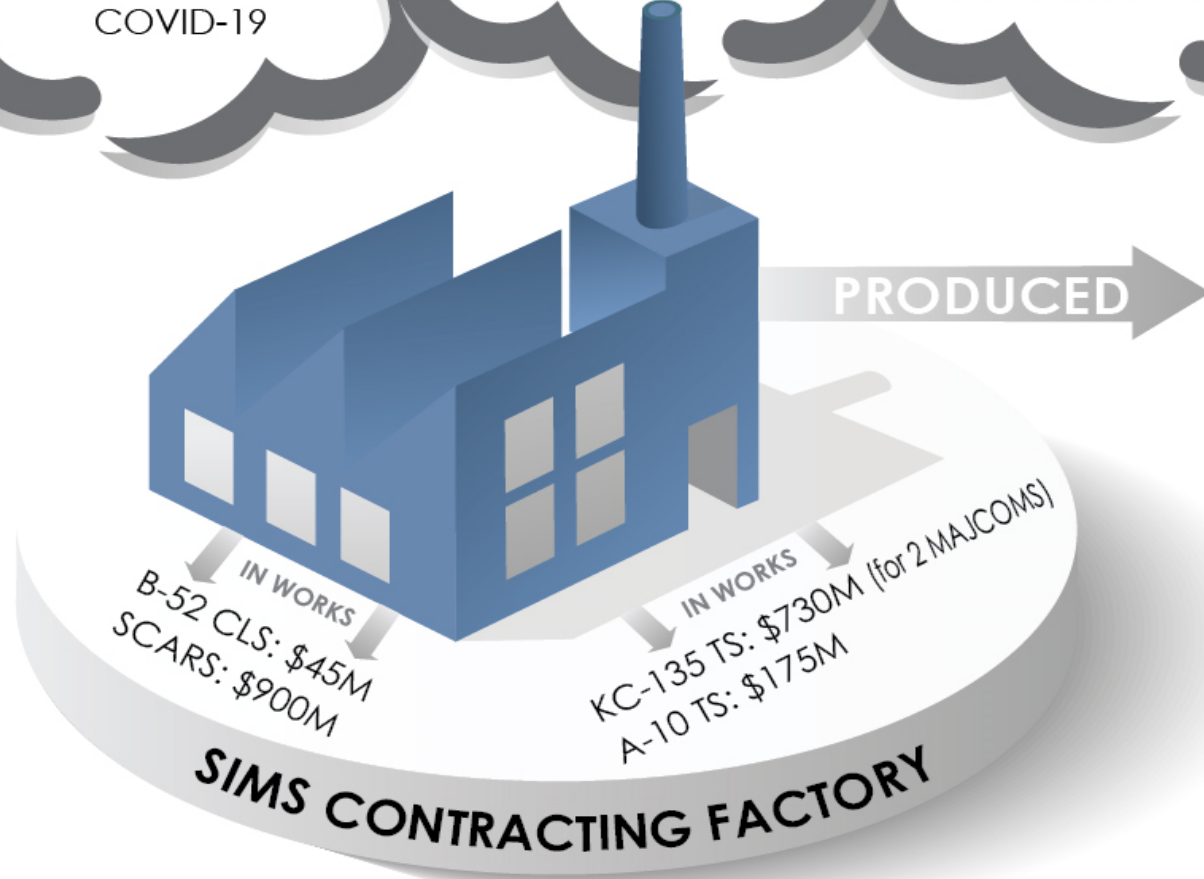
SIMULATORS PROGRAM OFFICE VISION



- **Move from command segregated missions scenarios (stovepipe) to a joint warfighter environment**
 - Massive multiplayer option—simulate entire AF going to war
- **Enable Train-How-We-Fight vision**
 - Multiservice, multinational
 - Fully live virtual integrated, full spectrum missions
- **We are the ‘front door’ for Simulators**
- **Go Faster Smarter** (AI, VR, quick innovation, new Ctr approaches)
 - Innovation Cell
 - Partner w/ AFRL, DoD Agencies, small business, non-traditionals
 - Explore new game-changing technologies to enhance readiness



Simulators Successes in the COVID-19 World



MAR - APR TOTAL CONTRACT ACTIONS
(98 Contracts/\$365M Obligated)

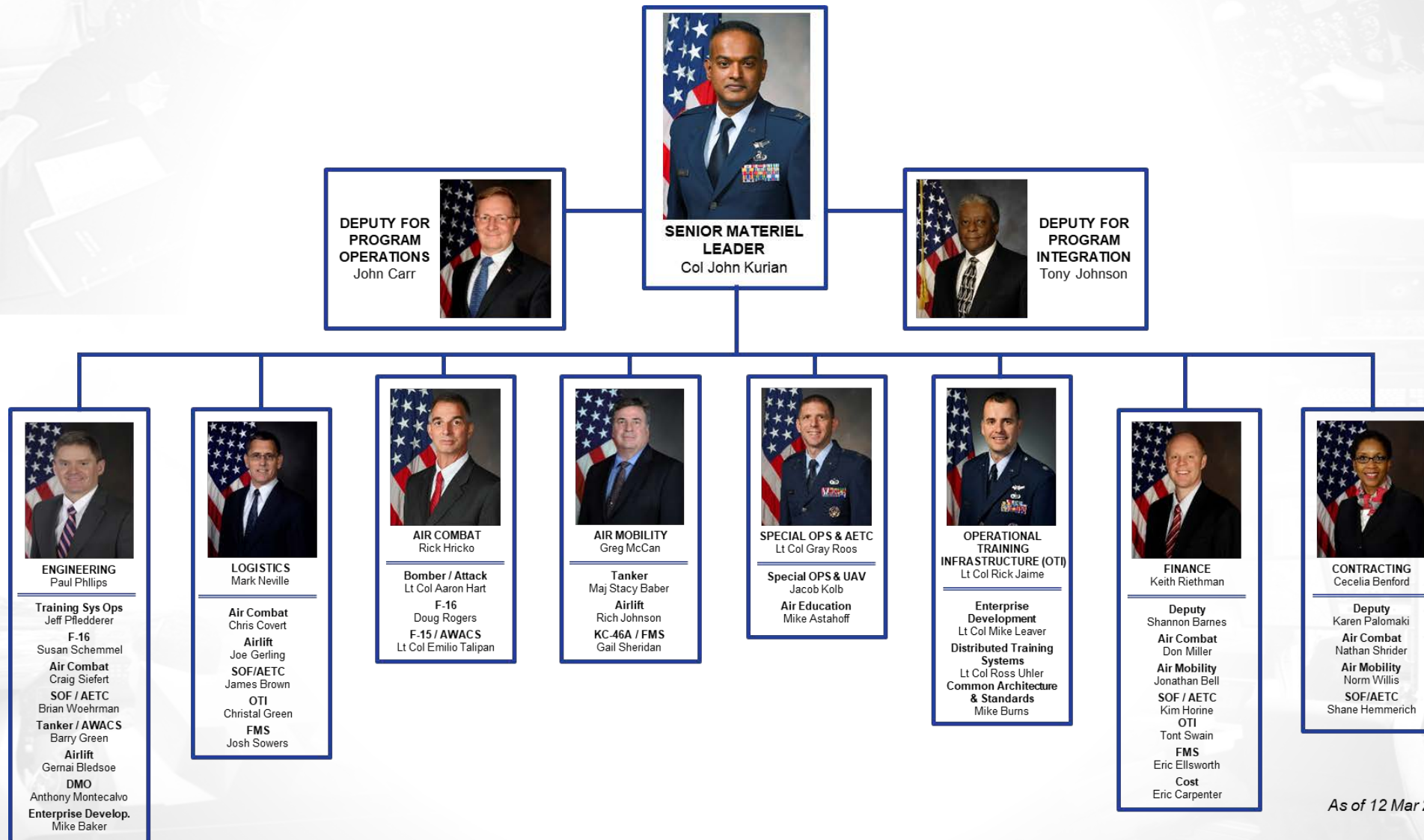
NEW CONTRACT Awards
C-17 TS NATO: \$25M
ANG OTS: \$64M
URT GBTS: \$30M
MAF DMO: \$100M

COVID-19 SCIF Sanitization: \$2.9M
COVID-19 Masks: \$164M



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SIMULATORS PROGRAM OFFICE LEADERSHIP





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SIMULATORS SNAPSHOT



64 Programs



500+ Members Strong

FY19



633 Contract Actions



\$3.18B Active Year
(includes \$1.7B for FMS)



684 Funding Documents

supporting



9 MAJCOMS



ANG



29 Program Offices



Navy



20 Countries



2,300+

Training Devices
Over 93% of the Air Force inventory





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TRAINING & SIMULATION DEVICE SPECTRUM



Virtual Reality



Mixed Reality



Integrated Desktop Trainers



Part Task Trainers



Advanced Flight Training Devices



Full Motion Simulators



In-Aircraft Training



2,300+ devices under life cycle management by WNS



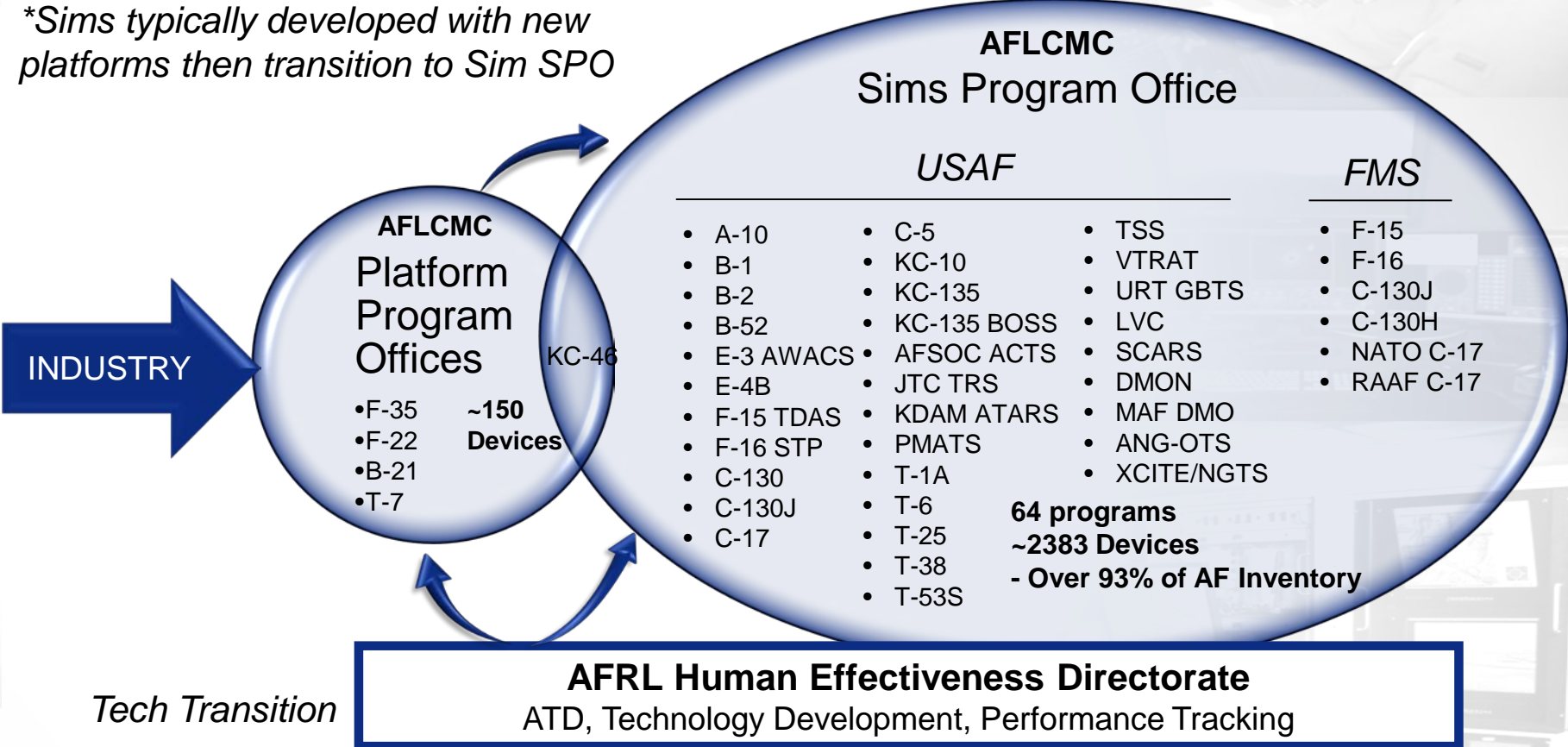
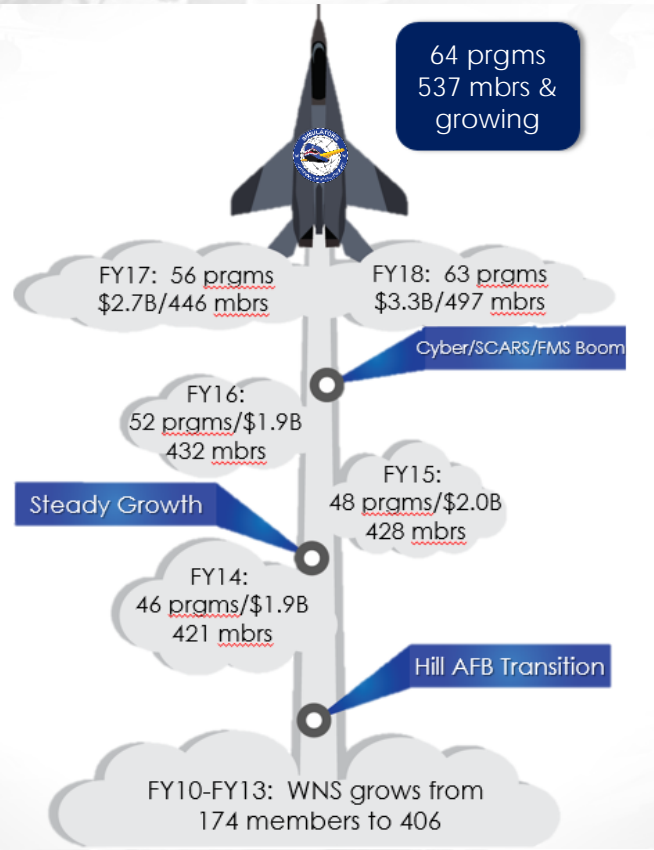
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SIMULATORS UNIVERSE

AFLCMC Program Lifecycle

**Sims typically developed with new platforms then transition to Sim SPO*

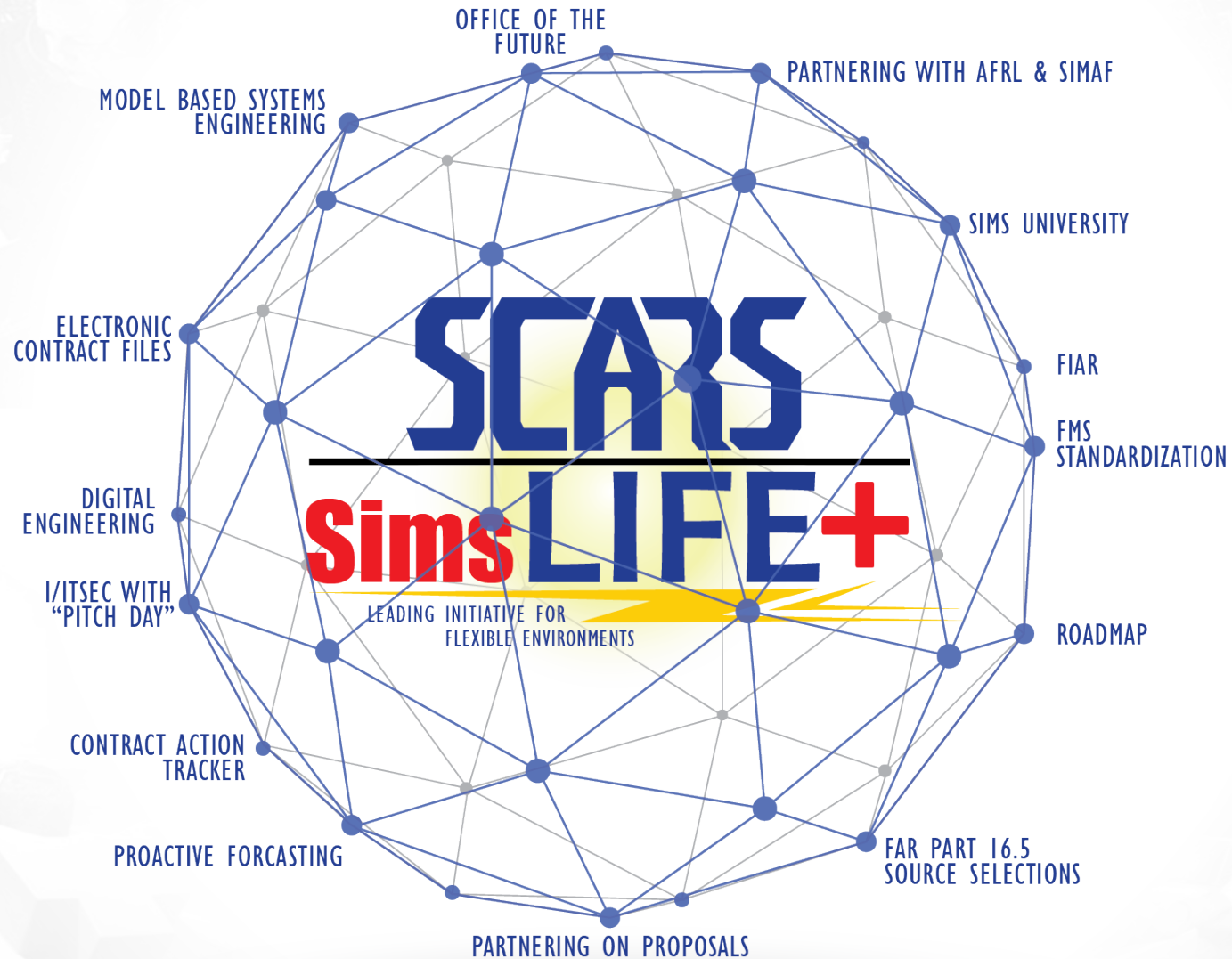


Large Portfolio Touching Virtually Every Aspect of our Warfighters Training Environment



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SIMULATORS WAY FORWARD





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OPERATIONAL TRAINING STRUCTURE 2035 FLIGHT PLAN



Operational Training Structure (OTI) Vision – “...a realistic, integrated training environment that allows our forces to train in an operationally and tactically relevant employment scheme to achieve and sustain full-spectrum readiness.”



Air Force has identified 13 Lines of Effort required to achieve the OTI vision

- | | |
|--|------------------------------------|
| 1. Funding Strategy | 8. Relevant Threat Environment |
| 2. Human Capital Plan | 9. Quality Metrics |
| 3. SYNTHETIC-TO-LIVE CAPABILITY | 10. Joint Interoperability |
| 4. Data and Technical Standards | 11. Multinational Interoperability |
| 5. Acquisition Policy | 12. COMMON ARCHITECTURE |
| 6. Acquisition Oversight | 13. Exercise Oversight |
| 7. Institutionalize OTI | |

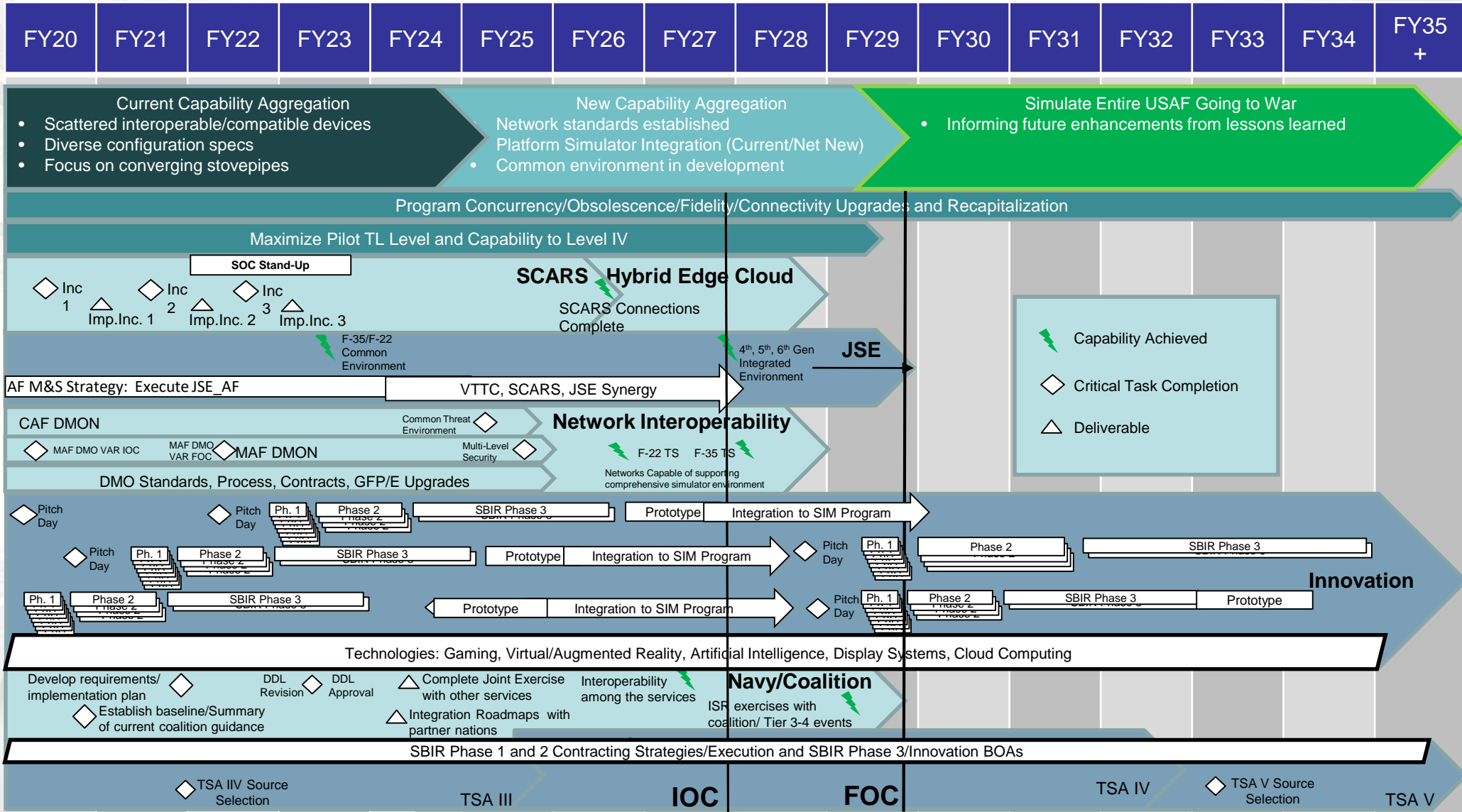
** Simulator Program Office directly impacts lines 3 and 12 (LVC/SCARS)*



SIMULATE USAF GOING TO WAR



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CHALLENGES/OPPORTUNITIES



Challenges

- System requirements & development transition from platform SPO to Sims life cycle management
- Modernizing Sim fleet while maintaining throughput & readiness
- Refine/standardize requirements throughout life cycle
- Orchestrating Sims unity of effort across MAJCOMS/users who share systems and/or network
- Managing diverse and dissimilar portfolio of simulators
- Hardware and software obsolescence
- Cyber compliance difficult with 2,300+ devices

Opportunities

- Simulator Common Architecture Requirements and Standards (SCARS)
- Live-Virtual-Constructive (LVC)
- Joint Simulation Environment (JSE)
- Application of new expeditionary training technologies/techniques
- Expansion of distributed mission operation networks and standards (“peer-to-peer”)
- Model Based Systems Engineering (MBSE)



SUMMARY

Delivering at the Speed of Relevance

- Growing organization meeting Air Force's expanding Simulator Enterprise demands
- Focused on meeting HAF/A3T's OTI 2035 Flight Plan
- Dynamic environment with challenges & opportunities
 - Leveraging latest technologies
 - Major initiative – “Pitch Day” during I/ITSEC