

Test Resource Management Center

Joint Mission Environment Test Capability (JMETC)



Briefing for:

LVC Conference

International Test and Evaluation Association

Session 2

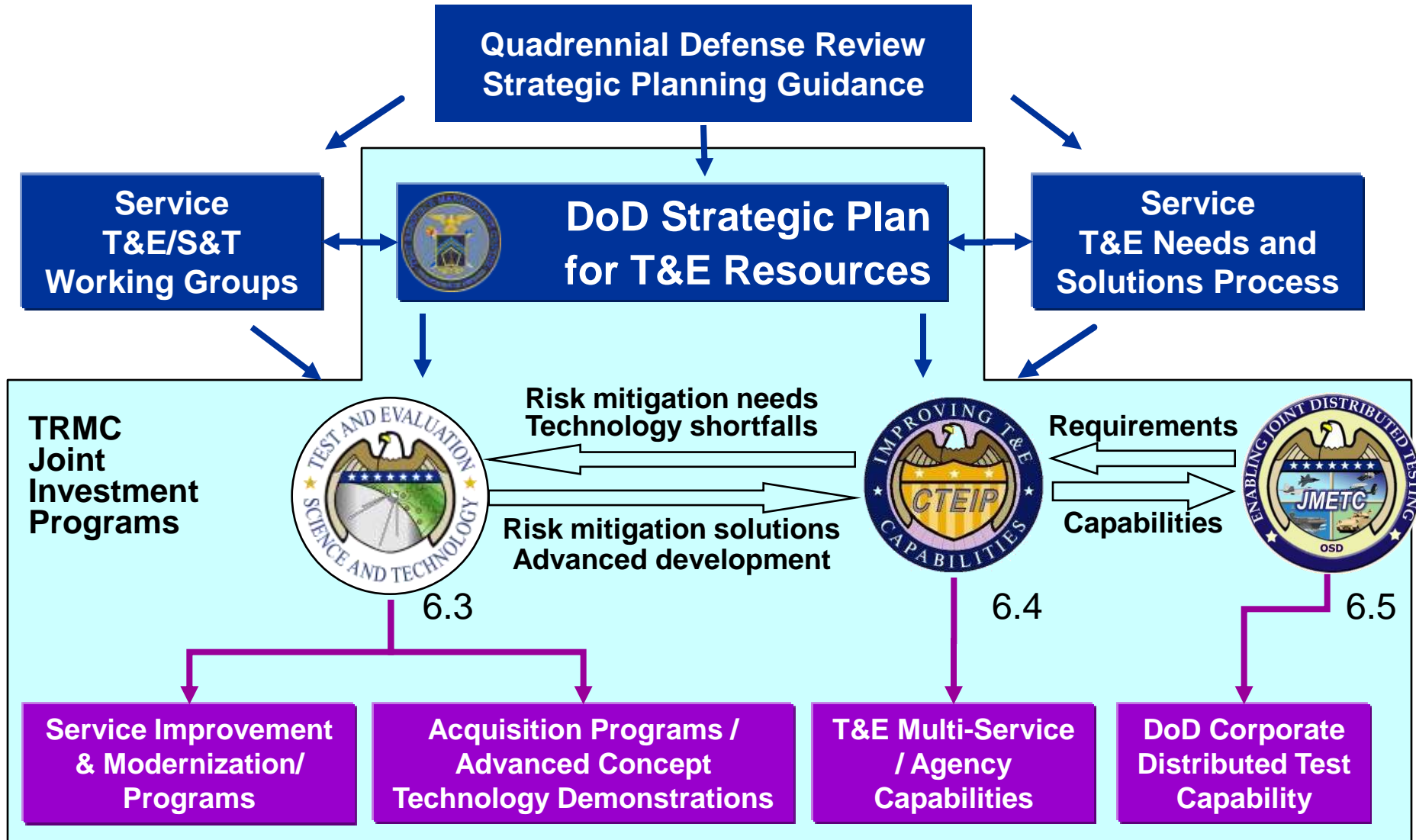
2:00 – 2:30 PM

January 13, 2009



Relationship within TRMTC

Synergy through Aligned Investment





TRMC Investment Programs Overview



T&E/S&T



- Established in FY2002
- Develops technologies required to test future warfighting capabilities
- 6.3 RDT&E funds
- ~\$95M / year
- 7 current focus areas
 - Directed Energy
 - Hypersonics
 - **Netcentric Systems**
 - Unmanned Systems
 - Multi-Spectral Sensors
 - Non-intrusive Instruments
 - Spectrum Efficiencies

CTEIP



- Established in FY1991
- Develops or improves test capabilities that have multi-Service utility
- 6.4 RDT&E funds
- ~\$140M / year
- 52 current projects
 - 27 projects developing core Joint capabilities
 - 2 projects improving interoperability test cap.
 - 9 projects improving threat representations used in testing
 - 16 projects addressing near-term OT shortfalls

JMETC



- Established in FY2007
- Provides corporate infrastructure for distributed Joint testing
- 6.5 RDT&E funds
- ~\$10M / year
- 32 current sites
 - Expanding to 41 sites
- Maintains
 - Network connections
 - Security agreements
 - Integration software
 - Interface definitions
 - Distributed test tools
 - Reuse repository



JMETC Overview

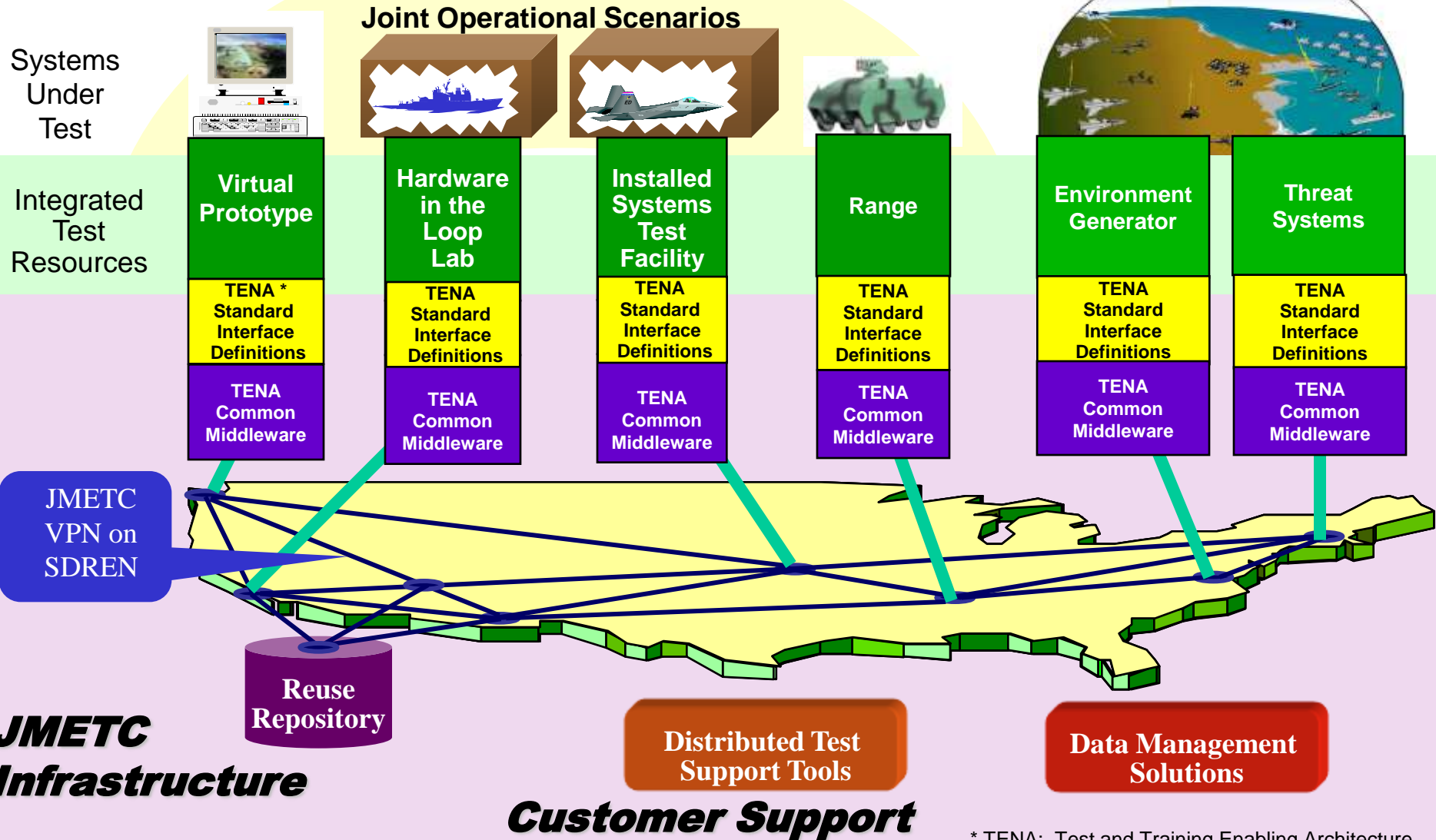


- **JMETC provides the infrastructure for testing in a Joint environment**
 - Developmental Tests, Operational Tests, Interoperability Certification, Net-Ready KPP compliance testing, Joint Mission Capability Portfolio assessments, etc.
- **Time and cost savings**
 - Readily-available, persistent connectivity with standing network security agreements
- **Increased capability/connectivity**
 - Enables more robust testing earlier in the acquisition process
 - Provides common, certified tools to streamline integration process
 - Establishes test capability aligned with JNTC (test and training)
- **Being built based on customer requirements**

Used whenever you need to link resources together to conduct a distributed test event



JMETC Enables Distributed Testing



* TENA: Test and Training Enabling Architecture



What is JMETC?

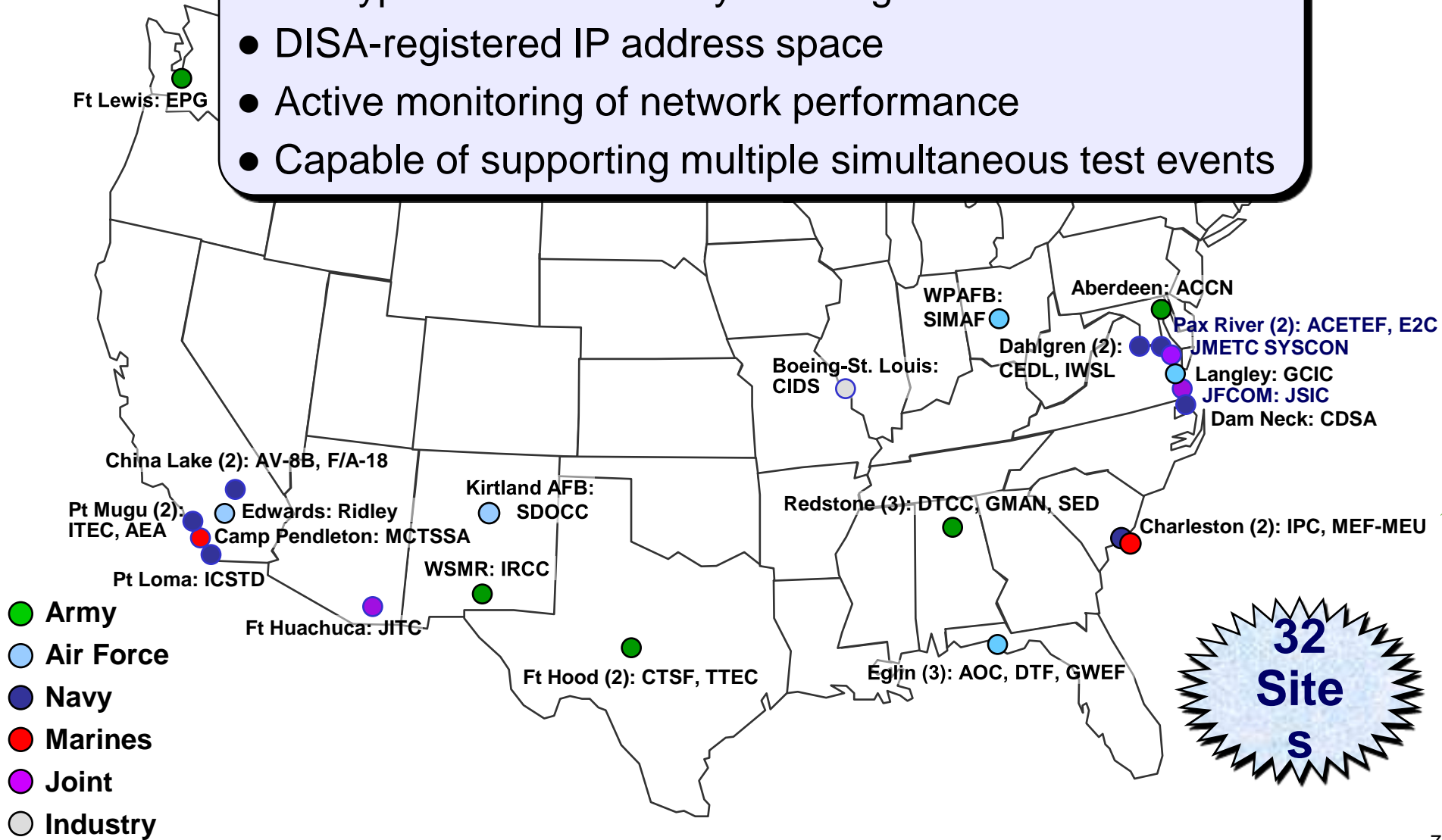


- **A corporate approach for linking distributed facilities**
 - Enables customers to efficiently evaluate their warfighting capabilities in a Joint context
 - Provides compatibility between test and training
- **A core, reusable, and easily reconfigurable infrastructure**
 - Consists of the following products:
 - Persistent connectivity
 - Middleware
 - Standard interface definitions and software algorithms
 - Distributed test support tools
 - Data management solutions
 - Reuse repository
- **Provides customer support team for JMETC products and distributed testing**



Current JMETC Connectivity

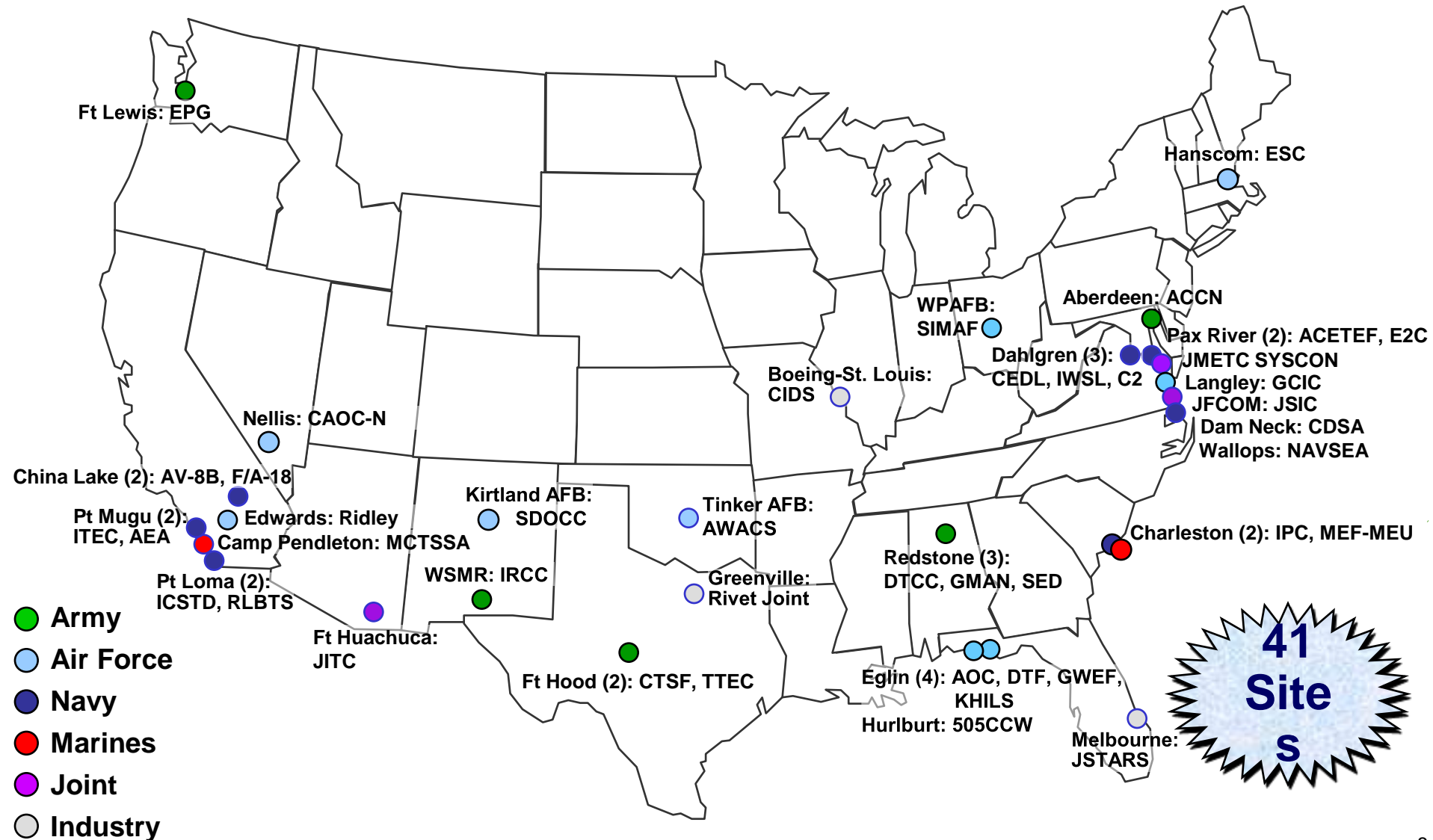
- Dedicated, trusted VPN on SDREN (part of the GIG)
- Encrypted for Secret – System High
- DISA-registered IP address space
- Active monitoring of network performance
- Capable of supporting multiple simultaneous test events



32
Site
s

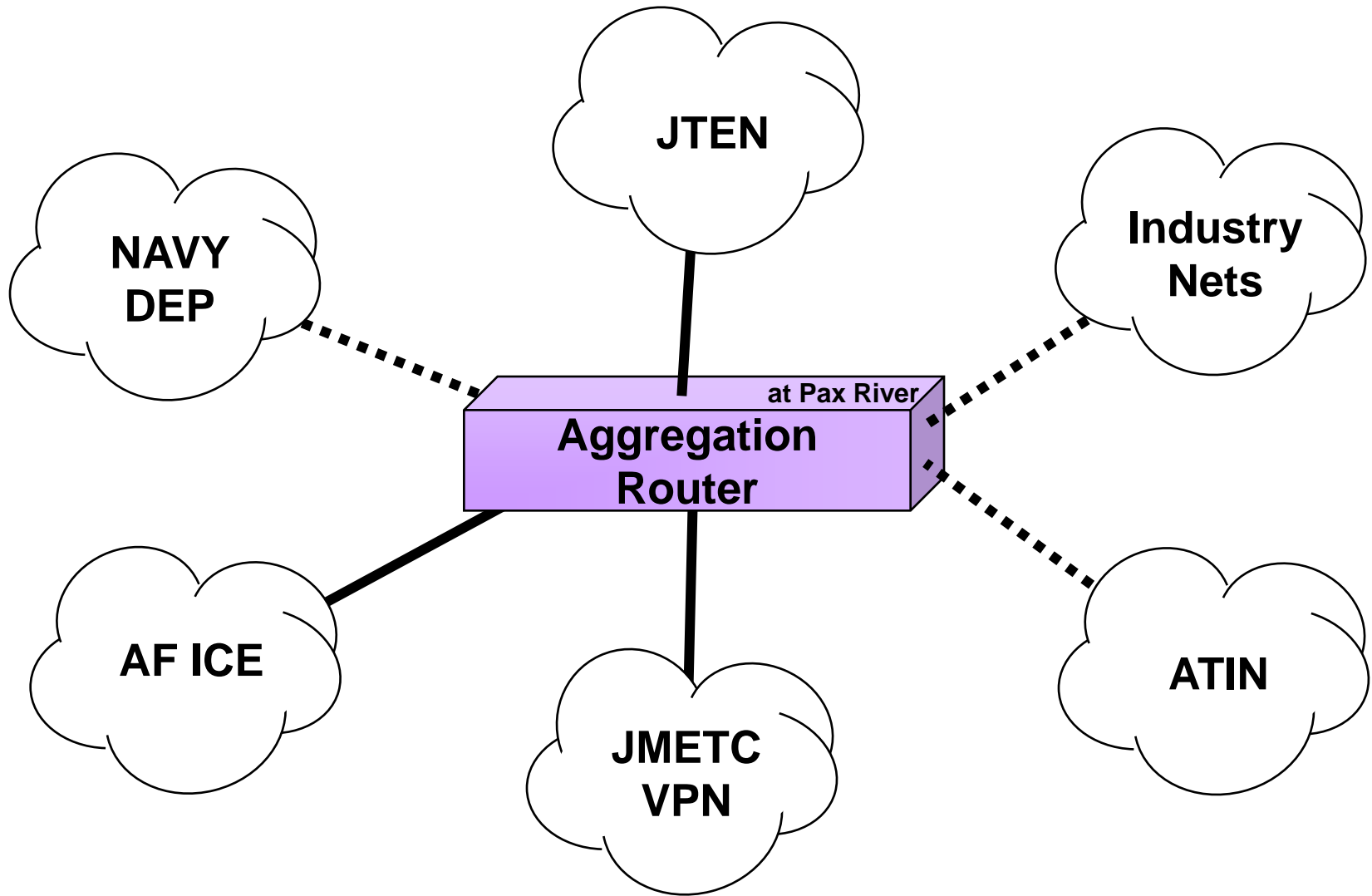


Planned JMETC Connectivity





Network Aggregation Bridging Networks





JMETC Leadership & Governance



JMETC Chain of Command

Honorable John Young
USD (AT&L)



Dr. John B. Foulkes
Director, Test Resource Management Center (TRMC)

Vacant
Principle Deputy, TRMC
Deputy Director, JIPP



Chip Ferguson
JMETC Program Manager



George Rumford
Senior Technical Advisor

JMETC Governance

Testing in a Joint Environment Roadmap Senior Steering Group

- Senior DoD Leaders
- Charter signed 26 Oct 07

JMETC Advisory Group

- Service/Agency reps
- Regularly held meetings to discuss/review plans, common issues, needed studies, etc.

JMETC Users Group

- Technical representatives of customers and test resource owners
- Six meetings held to date
- ~170 participants/meeting



JMETC: Here and Now



- **Has team of experts as your resource for planning and conducting distributed LVC tests**
- **Uses the Secure Defense Research & Engineering Network (SDREN) for connectivity**
 - 32 sites currently on-line
 - Classification: Secret
 - Links together other networks (Air Force, Training, others in-process)
- **Uses Test & Training Enabling Architecture (TENA)**
 - Gateways to link to existing DIS and HLA simulations
- **Incorporates InterTEC test tools**
- **Being expanded based on customer requirements**
- **Holding JMETC Users Group meetings to discuss emerging requirements and technical solutions**
 - Seeking the “best of breed” solutions across the community



FY09 JMETC Support Schedule



Customer	Event	Dates
Air Force	Persistent Fire 01	October 08 – December 09
OSD/TRMC	CTEIP TENA R6	October 08 – February 09
Air Force	JEFX 09-02	October 08 – February 09
Air Force	JEFX 09-03	February 09 – April 09
Joint Program	Single Integrated Air Picture (SIAP)	October 08 – June 09
OSD/TRMC	InterTEC Tools Development	FY09 – Periodic
Navy	Joint Surface Warfare JCTD	October 08 – February 09

Discussions for possible future teaming:

**Gerald R. Ford Class (CVN-21)
Multi-mission Maritime Aircraft (MMA)
Small Diameter Bomb**

**Joint Strike Fighter (JSF)
Net-Enabled Command Capability
Future Combat System**

An Example JMETC Support to Single Integrated Air Picture (SIAP)



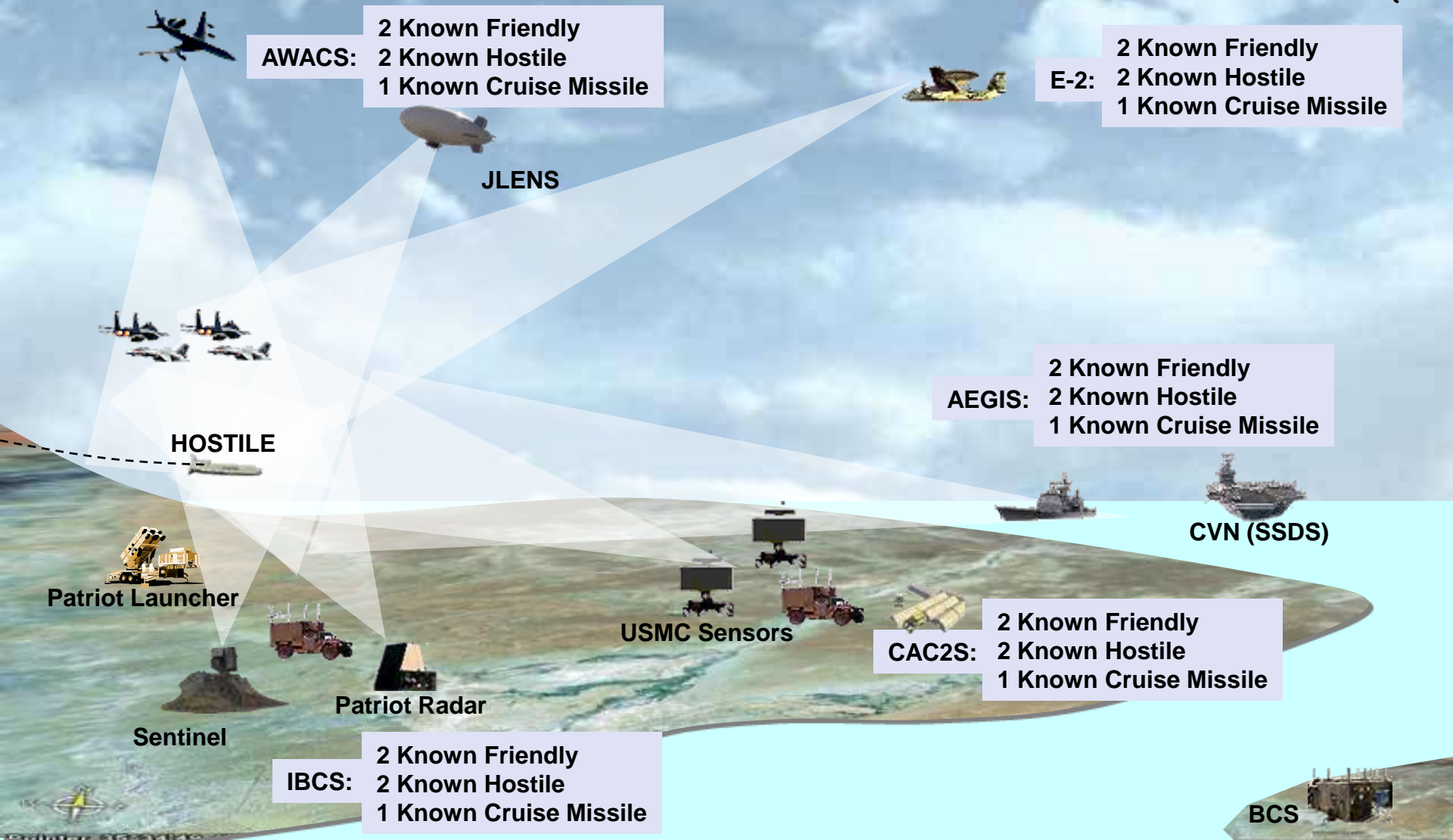
**An Example
JMETC Support to
Single Integrated Air Picture (SIAP)**

Single Integrated Air Picture (SIAP)

- Real time, fire control quality
- Exploit the full range of our weapons
- Reduce the risk of fratricide and counter emerging threats

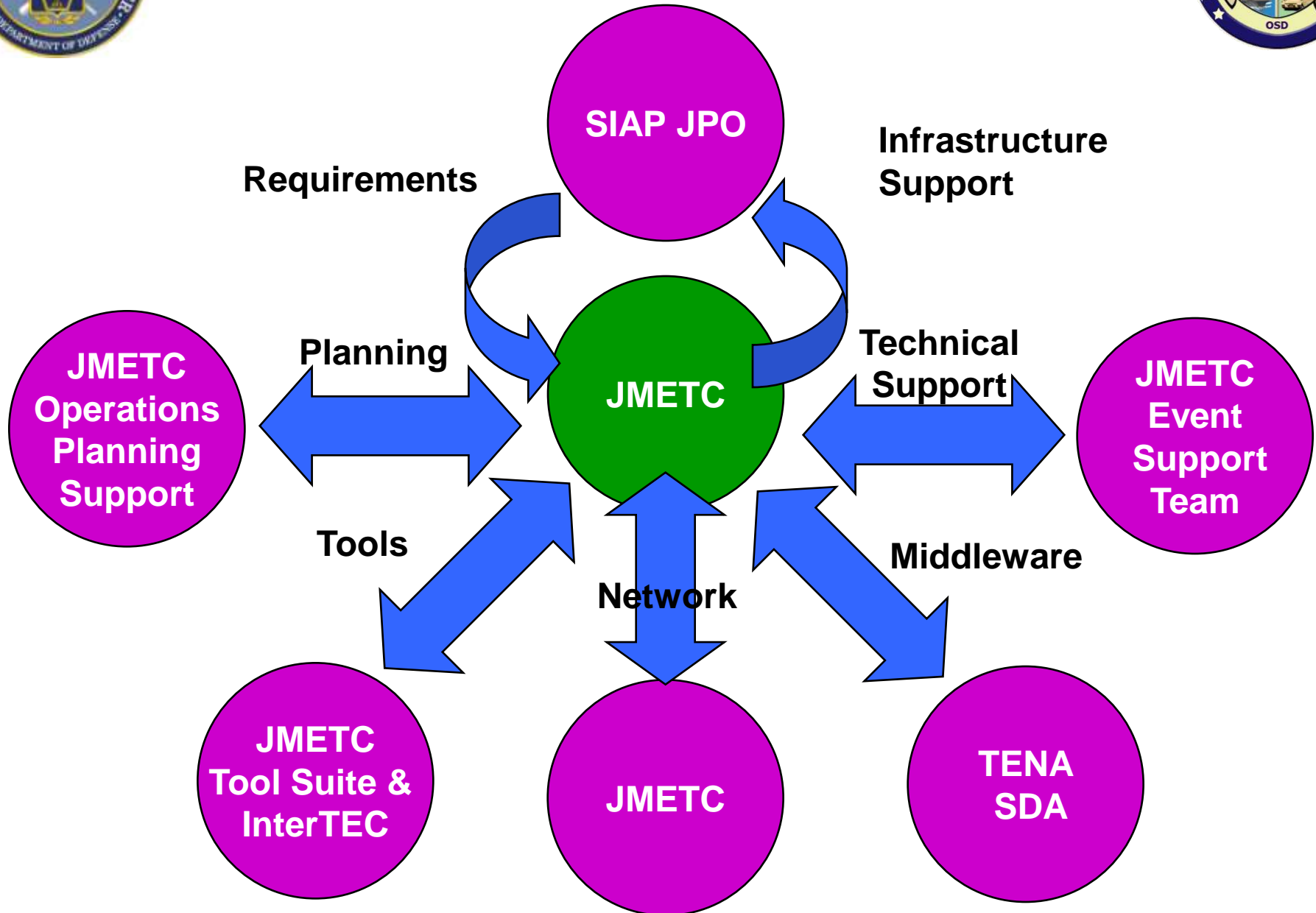
Special Interest Program

Congressional Item of Interest



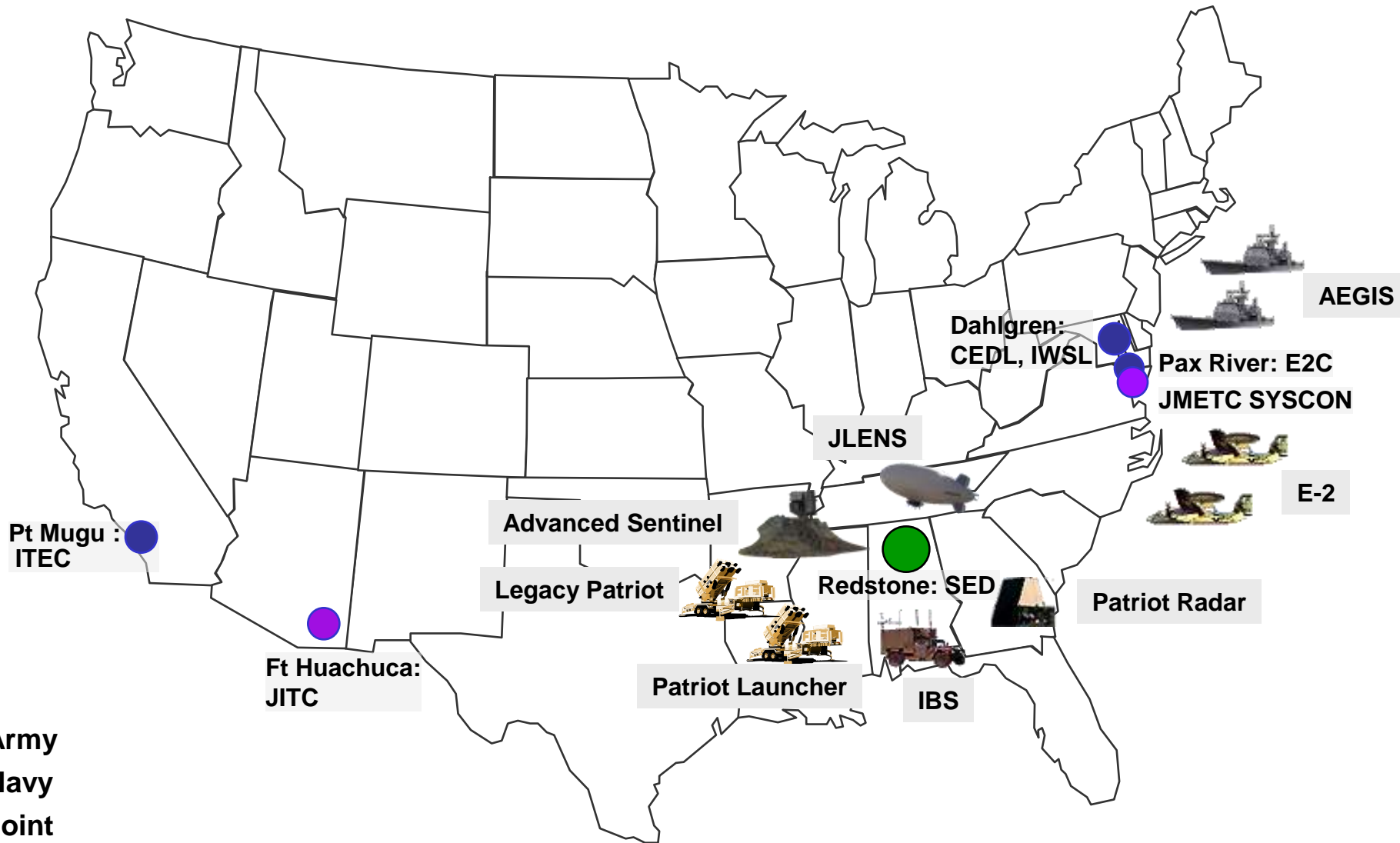


JMETC SIAP Support





JMETC VPN Sites Support to SIAP Joint Combined HWIL Event (JCHE) 5





JMETC SIAP Support



- JMETC provides persistent support to the JPO throughout entire JCHE-5 schedule
- JMETC distributed and Joint testing expertise enables tailor-made test recommendations to SIAP
- **Payoff Example:** JMETC involvement enabled early integration testing of Wrap-Around Simulation Program (WASP) Real-Time Data Distribution System (DDS)
 - “Idea-to-Execution” in just two weeks
 - Tactical simulation traffic over the JMETC VPN five months before scheduled distributed site integration testing
 - **Issues discovered and resolved much earlier in test schedule**

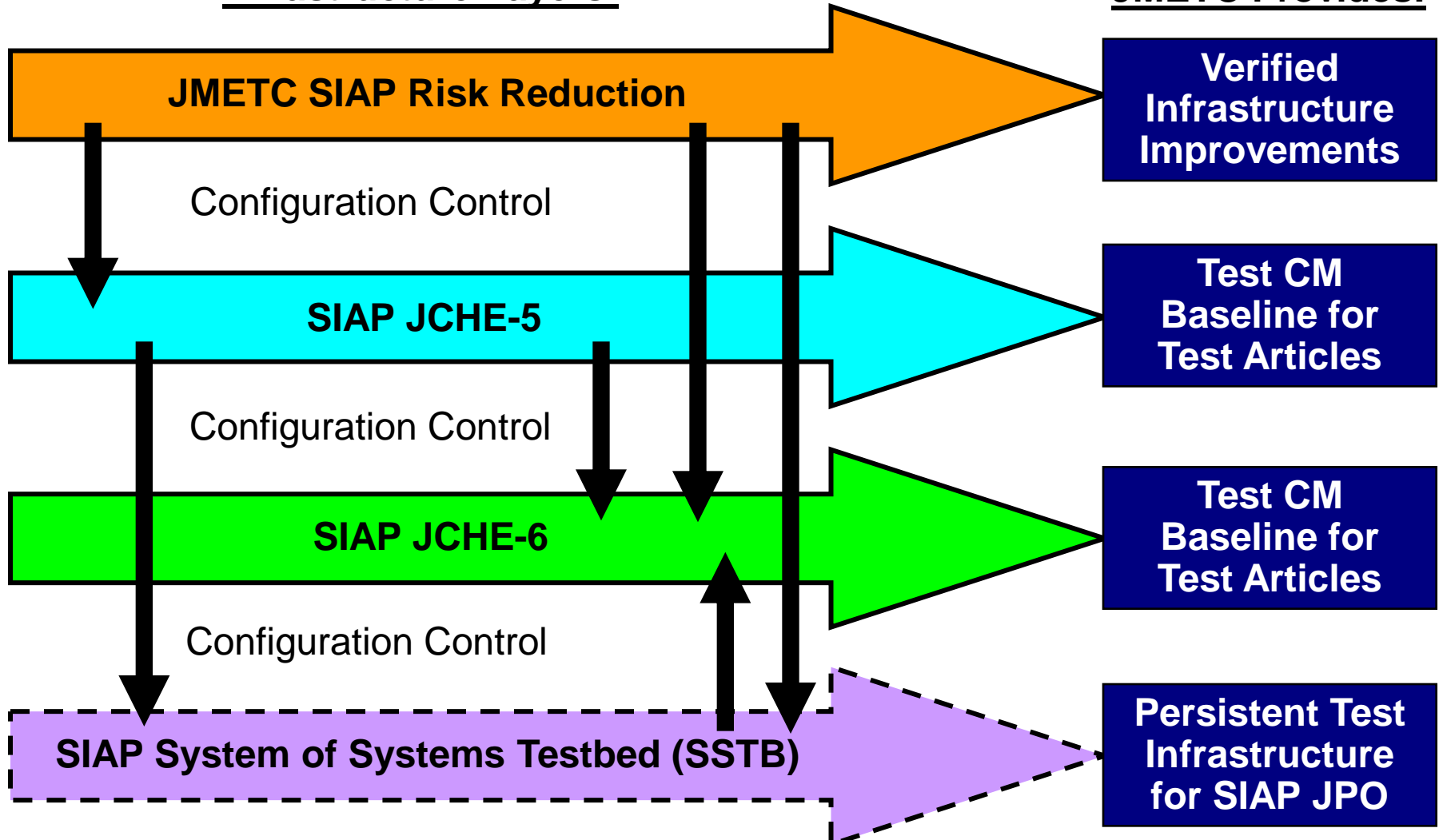


SIAP Test Infrastructure Support Layers



Infrastructure Layers:

JMETC Provides:





JMETC Initiatives



- **DIACAP Implementation**
- **Cross-Domain Solutions**
 - I/O Range
 - Joint Improvised Explosive Device Defeat Organization
 - Unified Cross Domain Management Office (UCDMO)
- **West Coast Aggregation Router**
- **Mobile Node Capability**



Summary



- **JMETC supports the full spectrum of Joint testing, supporting many customers in many different Joint mission threads**
- **JMETC is being built based on customer requirements**
 - JMETC event support can be tailored to customer needs
- **JMETC is partnering with Service activities and leveraging existing capabilities**
- **JMETC is coordinating with JFCOM to bridge test and training capabilities**
- **JMETC Users Group provides an open forum to present emerging requirements as well as new technologies & capabilities**



JMETC Program Points of Contact



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