U. S. Air Force Lead

I n t e g r i t y - S e r v i c e - E x c e l l e n c e

Joint Pilot Time-Sensitive Target Community Of Interest (TST COI) Threads

Net Centric Operations, Interoperability & Systems Integration Conference
24 Mar 05

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Air Force C2 & ISR Center/DO

Joint Pilot TST COI Threads

- **Background**
- **TST and COI defined**
- **Overview**
- **Deliverables**
- **Schedule**
- **Governance**
- **Expectations / Resources**
- **Recommendation**

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DOD Data Strategy Background

Source / Implementation Authorities

- **DOD Net-Centric Data Strategy, May 2003**
- **Management Initiative Decision (MID) 912, Jan 2003**
- **JBMC2 Roadmap - Chapter 6, JBMC2 Data Strategy, Apr 20**
- **JBMC2 Board of Directors Endorsement, Oct 2004 (SECDEF)**
- **Joint Requirements Oversight Council Memorandum 199-04, Oct 2004**
  - **USJFCOM Deputy Commander's Memorandum, Nov 2004**
- **Partnership with JFCOM on TST COI**

How data policy affects TSTs

It's ALL about the data throughout the WHOLE kill chain

- **FIND, FIX, TRACK, TARGET, ENGAGE, ASSESS**
- **Up-front planning for, readiness for TST appearances**
- **Much of the current targeting data it is not visible, accessible or understandable; discovery difficult**
- **Process for TST engagement has made progress using ADOCS / WEEMC mission managers, Chat; enables collaboration but still takes too long,**
- **Targeting data not easily sorted, filtered for short response TST engagement cycle**
- **Tagging a solution but xml already has 94,000 tags**
- **Data has to be arranged to help not hinder response**

Definitions

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Time-Sensitive Target –

- ■ **"Those targets requiring immediate response because they pose (or will soon pose) a danger to friendly forces or are highly lucrative, fleeting targets of opportunity. Also called TSTs."**

- JP 1-02

Community of Interest –

- ■ **"COI is a term used to describe any collaborative group of users who must exchange information in pursuit of their shared goals, interests, missions, or business processes, and who therefore must have shared vocabulary for the information they exchange."**

- DOD Net-Centric Data Strategy

Thrust-Piggyback on Joint Efforts

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- **ALSA TST MTTP**
- **Joint Fires Initiative**
- **Joint Mission Threads**
- **Experimentation from JFCOM, Services**
- **Others**

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Joint TST Thread

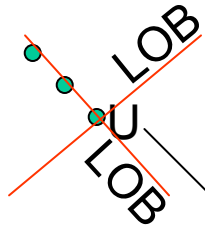Plan   **Find**   Fix   Track   Target   Engage   Assess

LOB   U   LOB

Emitters?
Special Case
NCCT may generate track
before radars, ladars acquire

- Sensor detects track, waits until three hits occur, starts tracking
- Distinguish between mobile tracks and stationary targets

Service systems must promote an operational synergy by sharing target data, confirming or validating the target, and then engaging the target using the best weapon for effect within the appropriate response time as required by the JFC

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Fixing

Find   **Fix**   Track   Target   Engage   Assess

36 27N 135 42E
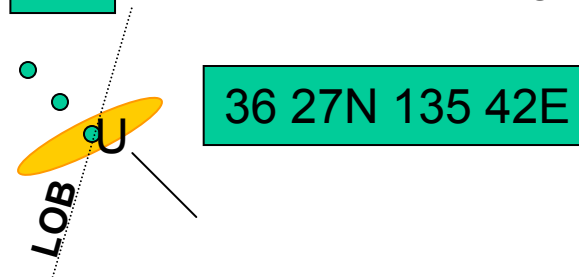
- Several other sensors are cued to look at the track to determine what the target is
- If the target matches TST criteria, track is handled differently

Tracking

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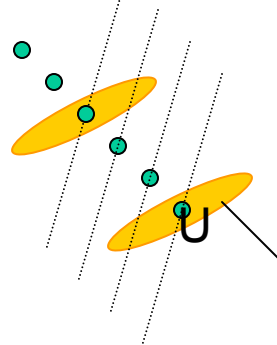Find   Fix   **Track**   Target   Engage   Assess

U

Track: A4123
Heading: 129
Altitude: FLV290
Speed: 380K
AMP: Prob SU-21
from Karkoran

Data Links

AOC

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Targeting, Engagement

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Find   Fix   Track | Target | | Engage | Assess

AF

U

Friendly

Friendly

Friendly

V

V

USA
USN
USMC

Patriot

Friendly

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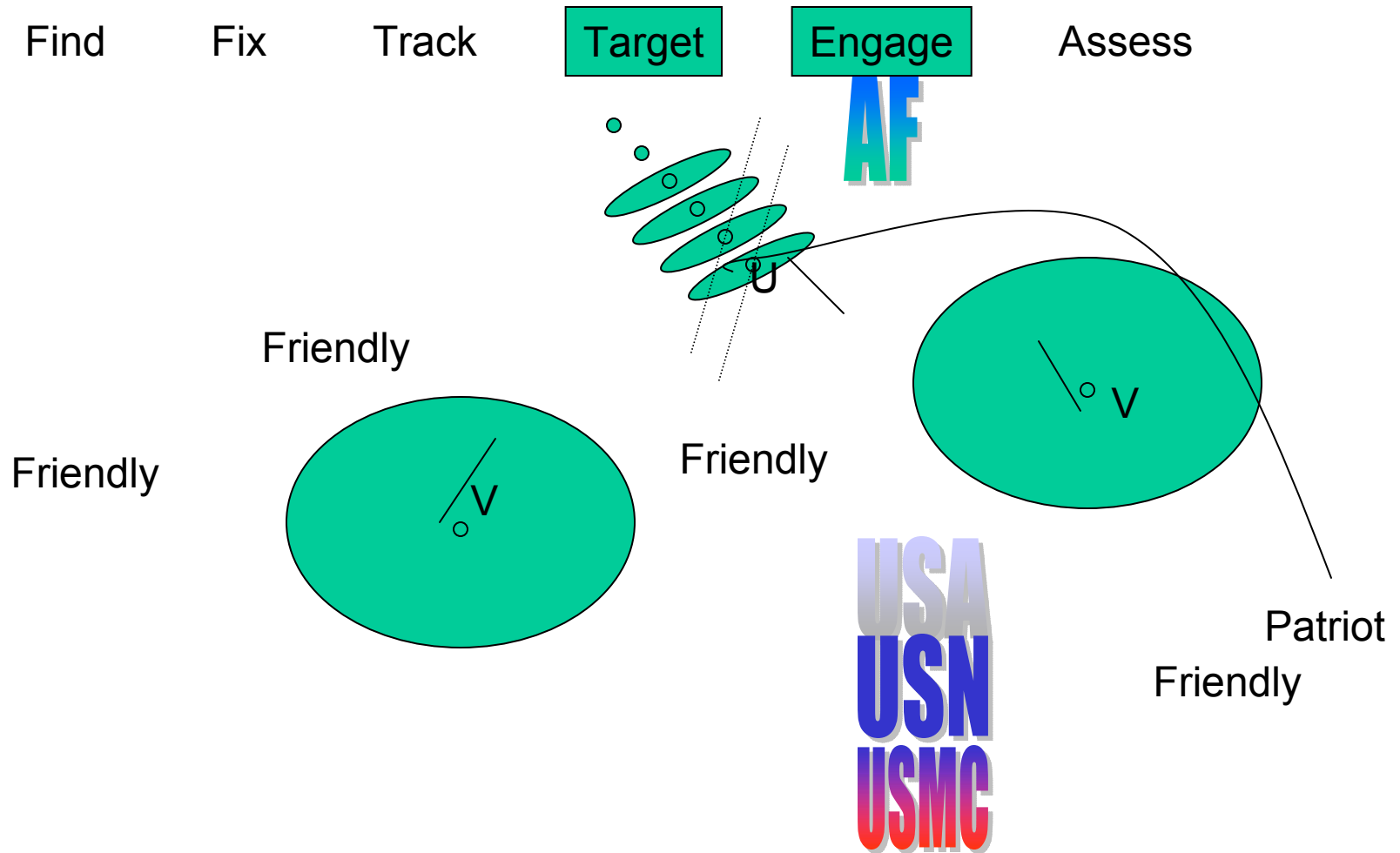
Assessment

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Find   Fix   Track   Target   Engage   Assess
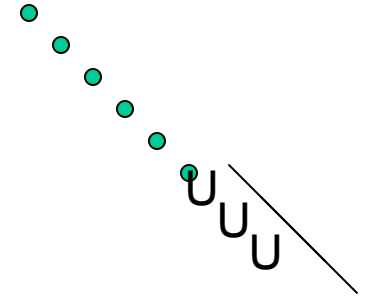
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Specifying Data

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Find	Fix	Track	Target	Engage	Assess
Data	Data	Data	Data	Data	Data

Sensor data	Coordinates	BE #s	ATO	USAF Weapons	Post strike sensor
Collectors	Altitidues	Track #s	ACO	USA Weapons	IPB/PBA
IPB/PBA	GPS	Datalinks	BFT	USN Weapons	Radar
Radar	Georefs	Amp Info	FSCL	USMC Weapons	EW
EW	Applications	Intent	CAS	Allies	SOF
SOF		Originator		Coalition	UGS
UGS				Intel appls/plans	Video
Video					Ladar
Ladar					

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Joint Pilot TST COI Overview

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Operational Context		DoD Data Strategy

Warfighter

Accessible Visible Understandable

Metadata Analysis, Integration, and Registration

Implementation

Demonstration(s)

- SJFHQ
- JC2
- DJC2
- JBMC2
- DCGS
- GCSS

- FORCEnet
- CONSTELLATIONnet
- LANDWARnet
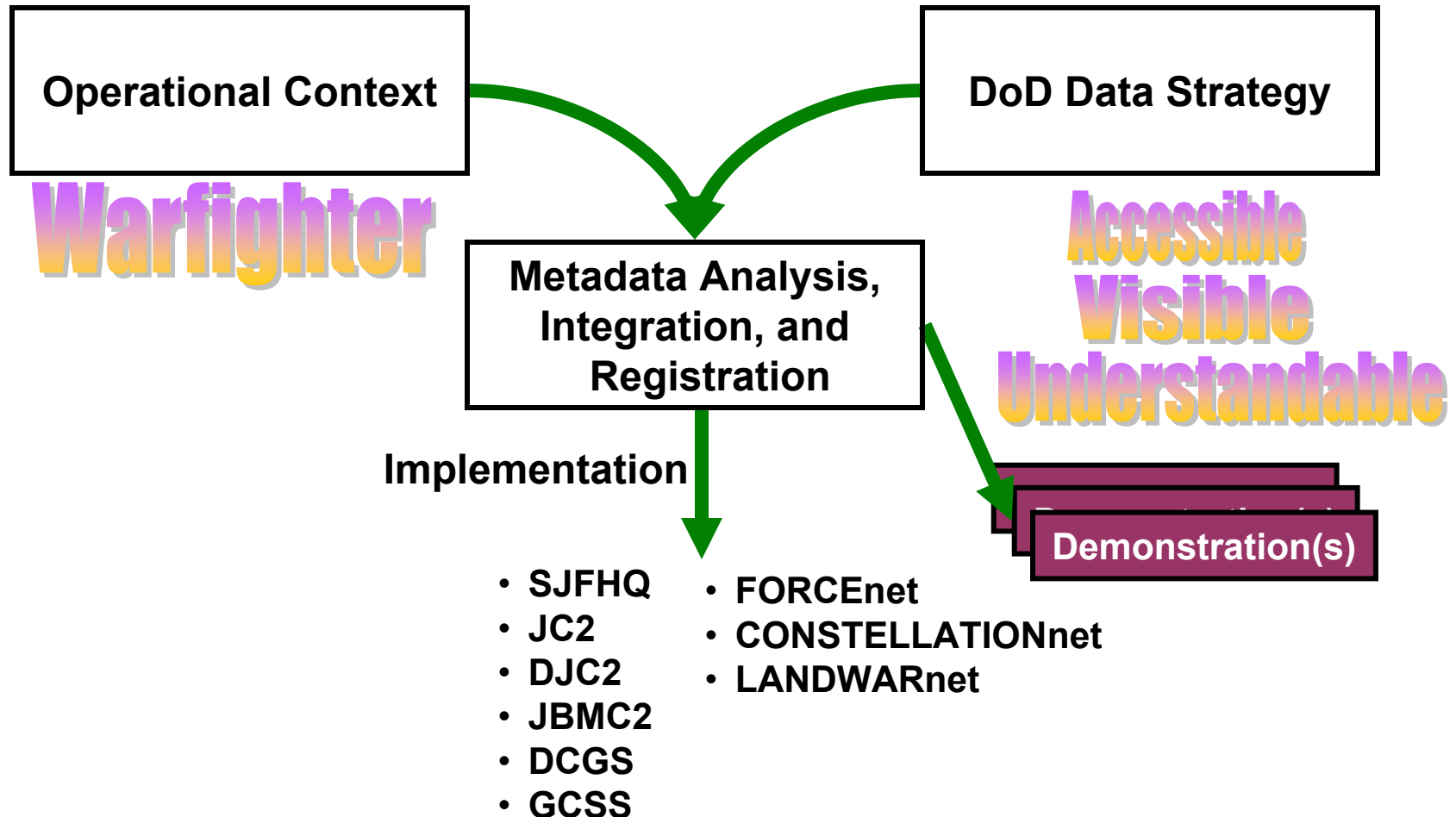
Joint Pilot TST COI Deliverables

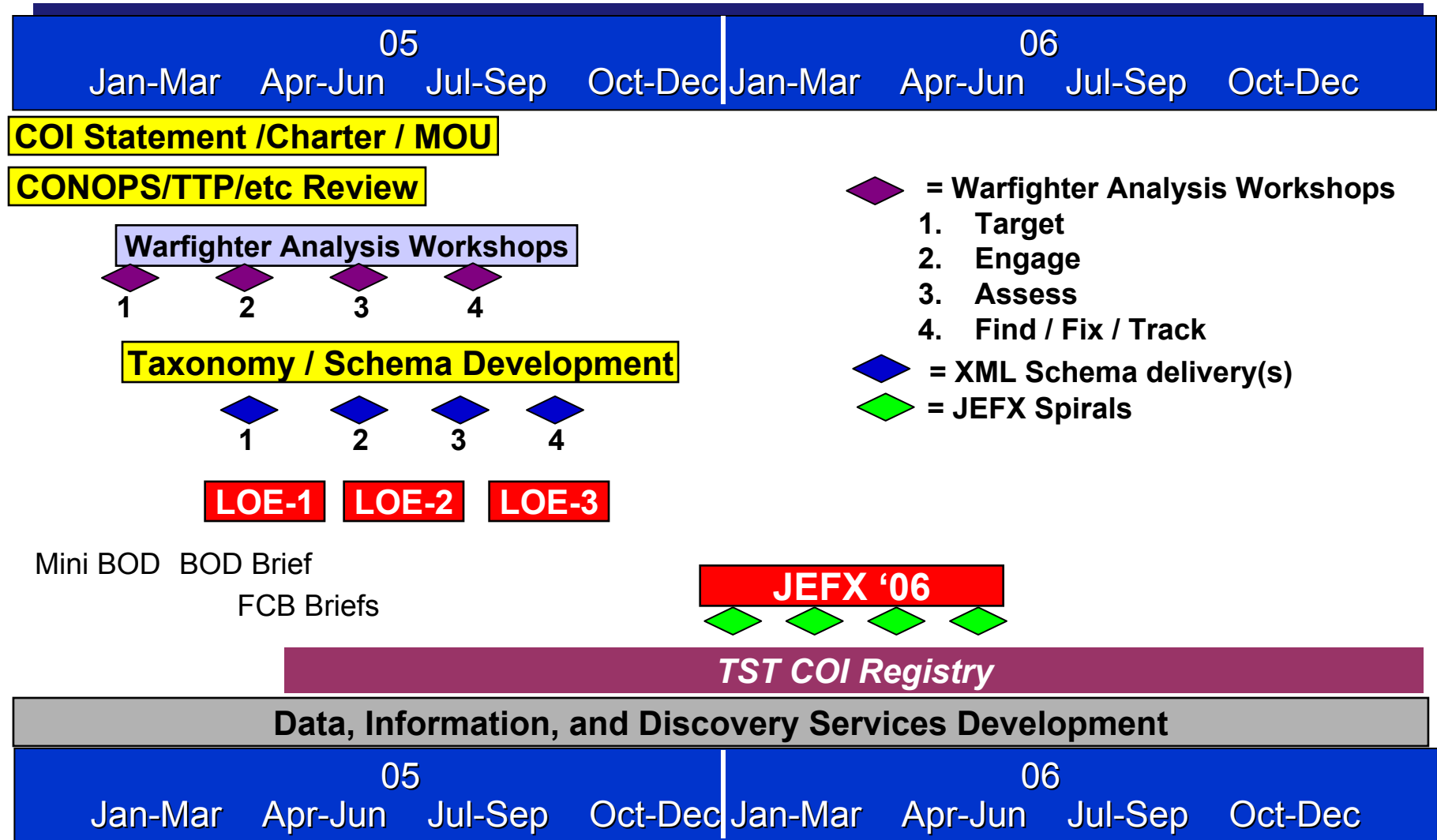| Deliverable	Purpose
COI scope statement	Defines the mission, scope, and responsibilities of COI
Charter / MOU to integrate / pilot COI capabilities *(as required)*	Ensures agreements are in place to make use of COI products (data standards, web services)
COI vocabulary *(e.g. taxonomy and definition of terms)*	Helps to organize and classify COI data and services
Discovery Catalog	Capability that allows GIG-users to find and retrieve COI data / information
Data models and schema	Defines specifications / models for the sharing of information (supports web services)
Data & Information Web Services	Discoverable, re-usable services that provide COI-related information
Pilot COI service within scheduled net-centric event *(e.g. JEFX, NCCP, etc.)*	Demonstrations of COI services within real-world applications / context

Joint Pilot TST COI Schedule

05				06			
Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec

COI Statement /Charter / MOU

CONOPS/TTP/etc Review

Warfighter Analysis Workshops

◆ 1   ◆ 2   ◆ 3   ◆ 4

◆ = Warfighter Analysis Workshops
1. **Target**
2. **Engage**
3. **Assess**
4. **Find / Fix / Track**

◆ = XML Schema delivery(s)

◆ = JEFX Spirals

Taxonomy / Schema Development

◆ 1   ◆ 2   ◆ 3   ◆ 4

LOE-1 **LOE-2** **LOE-3**

Mini BOD   BOD Brief

FCB Briefs

JEFX '06

◆ ◆ ◆ ◆

TST COI Registry

Data, Information, and Discovery Services Development

05				06			
Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec

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Joint Pilot TST COI Governance

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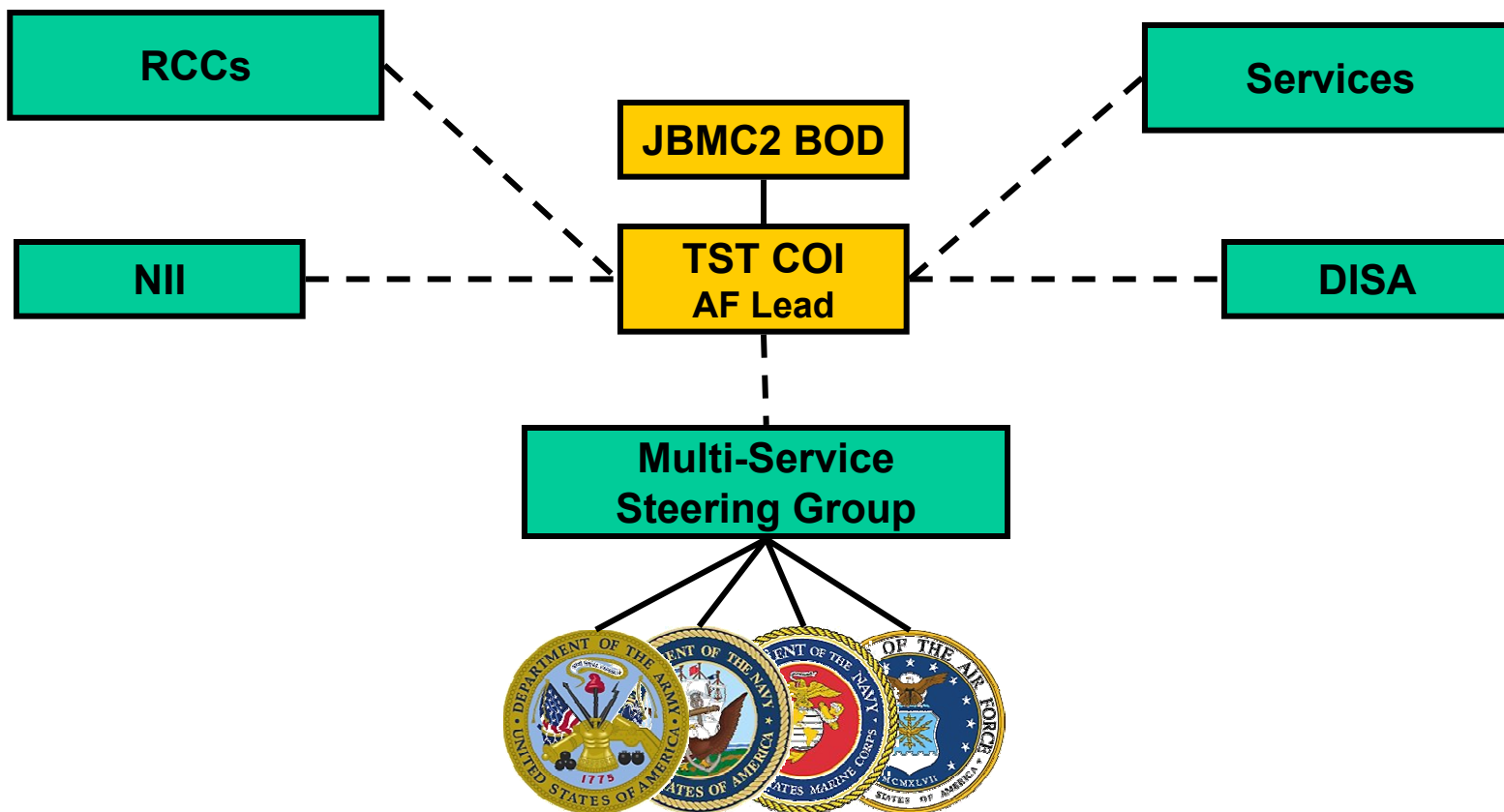
Joint Pilot TST COI Expectations / Resources

- **AF will provide the following:**
  - **Establish and lead the Joint TST COI**

  - **Champion the COI's activities and actively work with acq community to utilize COI-developed capabilities within their respective Programs**

  - **Oversee approaches to ensure 1) alignment with net-centric objectives and 2) use of enterprise capabilities (where applicable)**

  - **Provide resources to manage the COI's activities and to facilitate meetings and working sessions**

- **JFCOM will provide the following:**
  - **Staff resources to provide integration, operational, technical advice / guidance.**

  - **Engagement with C/S/A and have them identify appropriate Subject Matter Experts**
  - **Ongoing LOE opportunities with JSIC and J9**

  - **One on-site FTE to AFC2ISRC, in addition to 0-5 Lead, GS Deputy, one Data Modeler and one Web Service Engineer at JFCOM to assist in multi-service coordination and analysis, integration, development, and registration**

Joint Pilot TST COI Expectations / Resources

- **COCOMS / Services / Agencies will:**
  - Provide authoritative Operators and Technical SMEs with access to representative C/S/A data and information systems to participate in working groups
  - Identify existing / planned Joint Time-Sensitive Targeting information sharing activities
  - Work with Program Managers to incorporate COI-developed capabilities within their programs (experiments, exercises, LOEs)
  - Synchronize and leverage technical approaches to ensure alignment with net-centric objectives

  - **Program (POM$) sustainment for this effort to assure success for Joint TST and Targeting data standards**

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Working with Pilot BFT COI

- **The Joint Pilot TST and Pilot BFT COIs are two sides of the same coin**
  - **The Joint Pilot TST COI will support rapid and efficient targeting by focusing on data needed to make engagements**
  - **The Joint Pilot BFT COI will provide information for preventing fratricide and enhancing our situational awareness with:**
    - **Combat ID**
    - **BF Situational Awareness [Dispersion]**
    - **Force Location, [and or position]**
    - **Force Intent**
    - **Force Mission**
    - **Force Elements**
    - **Force Capabilities**
- **All needed for rapid targeting and Engagement**

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Laying out the battlespace

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Placeholder

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Questions

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Recent ESC TST Architecture Efforts

- **ESC has collaborated with AFC2ISRC to develop TST architecture product System and Technical Views**
  - **Applied architectures to CRRA analyses**
- **Worked cross service TST Architectures with Navy SPAWAR and Army TRADOC**
  - **Leveraged diverse contractor team to pave the way to implementation**
  - **Identified interoperability touchpoints**
- **Demonstrated application of architecture TVs to actual systems**
- **Ready to move forward**

Joint Pilot TST COI History

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Source / Implementation Authority

Partners
OSD/DCIO/(NII), USJFCOM, USAF

Prepping the Battlespace
- 17/18 Aug 04: Net-Centric Focused Forum 2 Pilots (TST/ BFT)
- 26 Aug 04: USJFCOM / OSD(NII) COI IPR
- 31 Aug 04: USJFCOM Component Commander's Meeting
- 19 Oct 04: TST COI meeting at Pentagon - AF investigates lead
- 20 Oct 04: JBMC2 BoD TST COI & BFT COI developing initiative
- 28 Oct 04: DOD NII/Deputy CIO forum – JFCOM Game plan for COIs
- 8 Nov 04: AF TST COI meeting at XII Rosslyn
- 2 Dec 04: USJFCOM Component Commander's Meeting
- 20 Jan 05: Mini BOD Meeting**

- 17 Feb 05: JBMC2 BOD Meeting

Moving Forward
- Establish Joint Working groups
- Collaborate with other COIs

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