The Way Forward to Achieve Net Centric Interoperability

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We are experiencing the transformation of Knowledge and Practices of what worked well during Analog Systems Procurement to the disciplined approach required to successful operate in the Digital Environment era.
• We will discuss:
  – A holistic view of the Net Centric Definition
  – Policy and Structure
A Balanced Approach

- Provides Guidance
- Enables Consistency
- Fosters lessons learned
- Establishes Standards

- Enables Data Integration
- Data Leveling (Above/Below)
- Data Traceability (Cap-Sys Funct.)
- Enables Data Sharing
Vertical Structure for Data

WARFIGHTER MISSIONS

JCA
(OP Taskers associated to JCA)

ROC POE
• Mapped to OP Taskers

System Agnostic Mission Thread
• Defines CONOPS
• Uses Operational Performers & tasks
• Defines OA Application Layers

Mission Area Template

Key Perf. Threads (scenarios)
• Define Doctrine / physics scenarios

OPLANs / OPORDs

WCB/ Training / Doctrine

Decompose OP Taskers to UNTLs

Decompose UNTLs to Activities

Functionally Allocate Activities

Temporal Mission Thread

CBA ICD OA AoA MS ‘A’
Mission Areas

The starting point for mission definition

Defined in:
OPNAVINST C3501.2
Associate to JCA

Mission Areas Template
Operational Taskers associate to JCA

USING OPERATIONAL TASKERS (UJTLS) – ENABLE FEDERATION
Naval Level - Mission Area Template

EXPEDITIONARY WARFARE – GOPLAT Mission

Maintain Operational Picture and Situational Awareness

- 2.1 ISR
  - 2.1.1 ISR Planning & Direction
  - 2.1.2 Collection
  - 6.2 Enterprise Services
  - 6.2.3 Pos., Nav., & Timing

- 2.1.2 Collection
  - 2.1.3 Processing & Exploitation
  - 6.2.1 Info Sharing & Computing

- 2.1.3.2 Target Categorization
  - 2.1.4 ISR Dissemination
  - 6.2.1 Info Sharing & Computing

- 2.1.2 Collection
  - 2.1.3 Processing & Exploitation
  - 2.1.4 Analysis & Production
  - 6.2 Enterprise Services

Exercise Tactical C2

- 5.1 Organize
  - 5.1.2 Structure
  - Organization to Mission
  - 6.2 Enterprise Services
  - 6.2.3 Pos., Nav., & Timing

- 5.2 Understand
  - 6.2.1 Info Sharing & Computing

- 5.3 Planning
  - 6.2.1 Info Sharing & Computing
  - 6.2.3 Pos., Nav., & Timing

- 5.4 Decide
  - 5.5 Direct
  - 5.6 Monitor
  - 6.2 Enterprise Services
  - 6.2.3 Pos., Nav., & Timing

Prepare For Mission

- 1.1 Force Manage.
- 3.1 Maneuver
- 4.1 Deployment and Distribute
- 4.1.1 Move the Force
- 4.1.1.1 Strategically

Surveillance

- 2.1 ISR
  - 2.1.1 ISR Planning & Direction

Detect

- 2.1.2 Collection

Track

- 2.1.2 Collection
  - 2.1.3 Processing & Exploitation

ID

- 2.1.3.2 Target Categorization
  - 2.1.4 ISR Dissemination

Engage

- 3.1.1 MTE
  - 3.1.1.1 Air
  - 3.1.1.3 Land
  - 3.1.1.4 Maritime

Assess

- 2.1.2 Collection
  - 2.1.3 Processing & Exploitation
  - 2.1.4 Analysis & Production

UNTls DEFINE THE NAVAL REQUIREMENTS
Complete Mission Context

**Complete Mission Context**

**DEFINES WHAT NEEDS TO BE ACCOMPLISHED**

**DEFINES THE CONDITIONS TO COMPLETE THE MISSION**

**MISSION INSTANCES**

- Doctrine Differences
- Physics based Differences
System Agnostic Mission

Naval (NTA) Oper Template

System Agnostic Mission Thread

Sensor: NTA #.##

Observer: NTA #.##

Strike Platform:

Tactical Fires C2:

Operational Fires C2:

Defines a common context to:

- Conduct CBA
- Conduct AoA
- Feed ICD

Prevents Community Bias to Solution

DEFINE THE CONOPS IN COMMON CONTEXT
Provide a Common Blue Print

MISSION AREA TEMPLATES

SYSTEM AGNOSTIC

COTF: Integrated Evaluation Framework

TRAINING

ACQUISITION DoDADF MISSION THREAD

SUPPORTS
ACQUISITION

MISSION AREA TEMPLATES

Maintain Operational Picture and Situational Awareness

2.1 DR
2.1.1 DR Planning & Direction
2.1.2 Collection
2.1.3 Enterprise Services
2.1.3.1 Pos., Nav., & Timing

2.1.3.2 Target
2.1.4 DR Dissemination
2.1.5 Info Sharing & Computing

Exercise Tactical C2

5.1 Organize
5.2 Understand
5.3 Planning
5.4 Decide
5.5 Direct
5.6 Monitor
6.1 Enterprise Services
6.2.3 Pos., Nav., & Timing

Prepare For Mission

Surveillance

Detect

Track

ID

Engage

Assess

SYSTEM AGNOSTIC

Sensor:
NTA

Observer:
NTA

Strike Platform:
NTA

Tactical Fires C2:
NTA

Operational Fires C2:
NTA

Mission Thread

OV-5/6c
Combines:
- Activities
- Human decisions
- Exchanges
Allocated Functions for Activities

Functionally Allocate Activities in OV-5/6c
- Creates a common baseline to compare system performance
- Identifies seaming point between training and system performance
- Enables Open Architecture applications
- Becomes the sourcing of the ICD
POLICY

• Needs to support Network Standards
  — NETWORK STANDARDS
    • Gov’t Managed – Govern migration plan
    • Enforced
    • Software test tools to test conformance
      — Eliminates conformance differences in engineering DT
      — Conducts boundary condition testing
    • Provided to Program of Record
      — Reduces engineering hours
      — Becomes Enterprise responsibility
      — Defines the Net Ready Key Performance Parameters
POLICY

• Another Policy won’t solve the problem
  – Need to take Enterprise Responsibility of the Mission Space
    • Joint Mission Threads are enabling this

• Change the Culture
  – Planning upfront will accelerate delivery
  – Remove the lightning bolts to cloud mentality
    • Digital requires definition
• We don’t need to change our Acquisition Process:
  – Need to think Holistic in our approach and solution set
    • Do we have a structure that can support our policies?

• We need to establish a mission level definition
  – The process needs to support the Program Manager not place the burden on them
  – JMT’s and Mission-Level products are the start

• Operational Test should become the Graduation Exercise not the discovery point
  – Software test tools check for conformance during engineering Developmental Testing
Questions

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