### Report Documentation Page

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<td>Systems and Technical Architectures</td>
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<td>Weisskopf, Mike</td>
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**Supplementary Notes**
Proceedings from Armaments for the Navy Interoperability Workshop, 30-31 May 2001 sponsored by NDIA.

**Abstract**

**Subject Terms**

**Report Classification**
unclassified

**Classification of Abstract**
unclassified

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**Classification of this page**
unclassified

**Limitation of Abstract**
UU
N70/RDA CHENG FOCUS

Horizontal Mission Focus to Improve Interoperability

(Notional Organization)

N70

Assessment

Mission Capability 1
TCS

Mission Capability 2
TAMD

Mission Capability N
Warfighting

Integration

Mission Capability 1
TCS

Mission Capability 2
TAMD

Mission Capability N
Warfighting

Technology & Doctrine

Mission Capability 1
TCS

Mission Capability 2
TAMD

Mission Capability N
Warfighting

Programs

Mission Capability 1
TCS

Mission Capability 2
TAMD

Mission Capability N
Warfighting

MAC

Mission Capability 1
TCS

Mission Capability 2
Power Projection

Mission Capability 3
ASW

Mission Capability 4
TAMD

Mission Capability 5
M/C

Architectures

LSSEP

SPG

NCEE

Mission Capability 1
TCS

Mission Capability 2
Power Projection

Mission Capability 3
ASW

Mission Capability 4
TAMD

Mission Capability 5
M/C
The Basic Approach

Given this is where we want to go...

MCP Requirements Integration

Concepts & CONOPS → Operational Architectures + CRDs → System-of-Systems AOAs

How do we make things happen in the near term?
Vision

WARFARE MISSION
OPERATIONAL ARCHITECTURE
Fleet defines how they want to fight across a warfare mission area

WARFARE MISSION
SYSTEM ARCHITECTURE
Developed to align with operational architecture

Have a master Warfare Plan to drive the process

Drive
Requirements
Drive
Budget

BAMs
CPAM
SPPs
PPBS
End Game
FMP
Operational Architectures Drive the Management and System Engineering of Interrelated Acquisition Programs
One of the POM04 Priorities is... TIME CRITICAL STRIKE
Naval Targeting Operational Architecture Seminar

Conducted 1-2 May at JHU/APL under sponsorship of Afloat Targeting IPT

Primary participants:
- CINCLANTFLT
- MARFORLANT
- COMSECONDFLT
- COMTHIRDFLT
- COMSIXTHFLT

Other participants:
- OPNAV, MCCDC, NWDC, NSAWC, SWDG, NAVSEA, NAVAIR, MARCORSYSCOM, HQMC

The fleet answered in a collaborative environment how they want to do targeting in 2006.
Major Fleet Articulated Themes

Common Operating Picture

*One* common picture, accessible to all, CJTF responsible for COP production

Processing-Exploitation-Production

*Distributed* based on unit capabilities, shared with all

Information Distribution

*Smart Push*

*User Pull*

*Accessible Databases*

Aimpoint Generation

All levels capable of generating aimpoints based on their organic weapons capability.

Deconfliction

Responsibility of major component controlling the battlespace

Flexibility

Architecture must support a range of options.

Manpower and Training

Take into account when creating the Naval Targeting Architecture
Resulting Operational Views

Operational Concept

Commander’s Estimate
Prepare Plans & Orders
Prioritize Subordinate Commander Requirements
Allocate Information Resources (Personnel & Systems)
Select or Modify Courses of Action
Develop Courses of Action
Determine Operational Endstate
Determine and Plan Actions and Operations
Identify Mapping Requirements
Maintain Operational Information & Force Status
Communicate Operational Information

PLANNED TARGETING EVENTS AND ACTIVITIES

Identify and Change Intelligence Areas Needing Improvement
Assess How Well Each Phase of the Intelligence Cycle Met Requirements
Access Intelligence Support for Combat Assessment

COMBAT ASSESSMENT
Conduct Electronic Attack
Conduct Fire Support
Attack/Engage Targets (Lethal & Nonlethal)
Suppress Enemy Air Defenses
Provide Updated Aimpoint When Required
Request/Receive Force Application Adjustment
Provide Fused Intelligence for Battle Management and Execution
Collect Sensor Information on the Target and Situation
Provide Unexploited Information Directly to Selected Users

INTELLIGENCE DISSEMINATION AND INTEGRATION
Store Intelligence in Trusted Databases
Prepare Intelligence Products (Oral, Hard or Softcopy I&W, Current, General Military, Target, S&T, & CI)
Process and Exploit Collected Information
Screen Information for Planned or Possible Targets

INFORMATION PROCESSING AND EXPLOITATION
Receive Verbal Information
Receive Logistics Information
Receive Hardcopy Information

Operational Nodes

TARGETING PROCESS
Target Development
Weaponizing Assessment
Weapon Application
Execution Planning & Execution Assessment
Command Support

INFORMATION ANALYSIS AND INTELLIGENCE PRODUCTION
Identify and Nominate Specific Target Vulnerabilities
Associate Signal Technical Parameters with Specific Target Systems
Evaluate, Integrate, Analyze and Interpret Processed and Exploited Information

INFORMATION EXCHANGE REQUIREMENTS

Targeting A26 External Targeting A41 PPCC TBD TBD TBD TBD TBD TBD TBD
Targeting A41 GPC Targeting A421 IC TBD TBD TBD TBD TBD TBD TBD
Targeting A41 MPC Targeting A43 FPC TBD TBD TBD TBD TBD TBD TBD
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Targeting A41 MPC Targeting A43 FPC TBD TBD TBD TBD TBD TBD TBD
Targeting A213 IC Targeting A41 MPC TBD TBD TBD TBD TBD TBD TBD

Operational Activities

COMBINED TARGETING/INTELLIGENCE ACTIVITIES LIST

Operational Sequences

D-Day TCS TACSIT 1

NTOA OV-3

Information Exchange Requirements
How Will We Influence POM Decisions?

Start with the way the Fleet wants to fight

Operational Architecture Views

Technical Architecture Profile

Mapping

System Functional View

Functions of Current Naval Family of Systems

POM 04 Recommendations

Recommendation: KEEP

Recommendation: CUT

Recommendations (New Systems, Upgrades & Non-Material Solns)

Sole Capability (Critical)

Necessary Duplications

Unnecessary Duplications

Duplications

Non-Critical Capability

Gaps

Assessments

Recommendations

Start with the way the Fleet wants to fight
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Assessments

Recommendations

Proposed Timeline and Pressure Points
(TCS for POM-04)

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<td>IWAR Focus Area Analysis</td>
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<td>Arch Assessments</td>
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<td>Assess CEDs</td>
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<td>Generate IWAR Focus Area Inputs</td>
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**Legend**

1. Influence / Leverage IWAR Focus Area Assessments
2. Bring Architectures / CEDs to NROC/CEB for approval
3. CEDs Inform CPAM Analysis, SPPs, APBs, FMP and N80 Planning
4. CEDs / Architectures inform EndGame and Acquisition Mgt

NTOA will be used to drive POM-04 TCS
Goal is to get TCS Programs to Align

Capability Sponsors

- Tactical C2 MCP (N6)
- ISR MCP (N2)
- Navigation MCP (N096)
- USW MCP (N74)
- TAMD MCP (N70)
- Time-Critical Strike MCP (N70)

Current Navy Warfare Sponsors

- EXW N75
- SUW N76
- USW N77
- AW N78
- T&E N79

Architectures aligned to these capability packages

Capability Sponsors accountable
Summary

• Requirements and Acquisition communities are committed to work with the fleet (Afloat Targeting IPT) to influence POM 04
  – Specific commitment is to work with IPT to guide Navy investment for a significant improvement in Time Critical Strike

• This is a pilot effort with the following goals:
  – Improve Interoperability
  – Focus horizontally on Naval Mission Areas
  – Strengthen fleet input to mission needs to compete with platform/system centric priorities
  – Will expand to other mission areas if successful