JMNO
JOINT MOBILE NETWORK OPERATIONS

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Phase I Plan
13 July 2006

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Joint Test Director
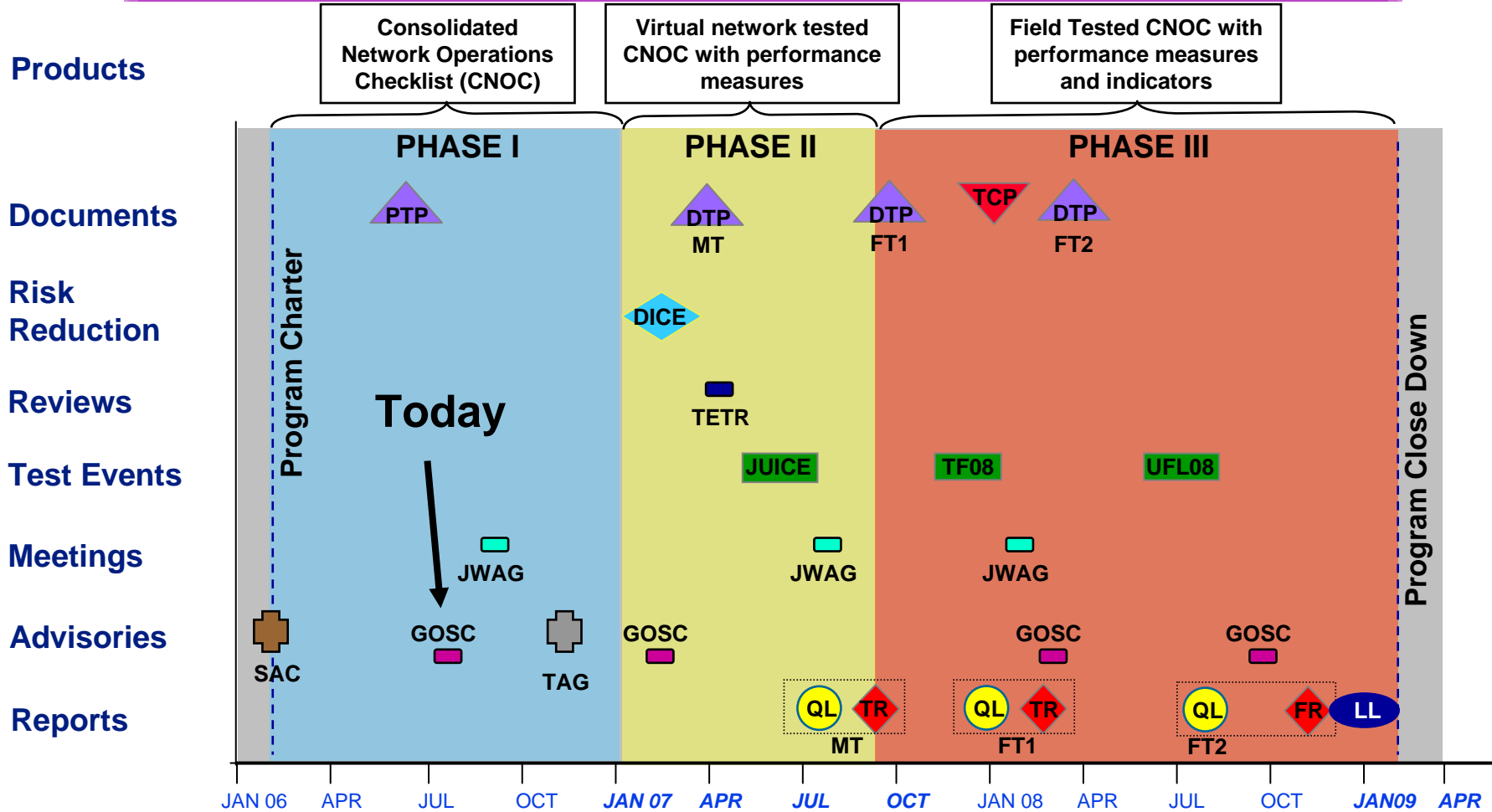**kavin.kowis@jmno.net**

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Schedule

Products

Consolidated Network Operations Checklist (CNOC)

Virtual network tested CNOC with performance measures

Field Tested CNOC with performance measures and indicators

PHASE I **PHASE II** **PHASE III**

Program Charter

Program Close Down

Documents

PTP — DTP MT — DTP FT1 — TCP — DTP FT2

Risk Reduction

DICE

Reviews

Today

TETR

Test Events

JUICE — TF08 — UFL08

Meetings

JWAG — JWAG — JWAG

Advisories

SAC — GOSC — TAG — GOSC — GOSC — GOSC

Reports

QL TR MT — QL TR FT1 — QL FT2 FR LL

JAN 06 — APR — JUL — OCT — *JAN 07* — *APR* — *JUL* — *OCT* — JAN 08 — APR — JUL — OCT — *JAN09* — *APR*

PTP = Program Test Plan	DTP = Detailed Test Plan	TR = Test Report
MT = Mini-Test	FT = Field Test	QL = Quick-Look Report
LL = Lessons Learned Report	FR = Final Report	SAC = Senior Advisory Committee
RR = Risk Reduction	TAB = Technical Advisory Board	GOSC = General Officer Steering Committee
TAG = Technical Advisory Group	TCP = Test Closedown Plan	JWAG = Joint Warfighter Advisory Group
TF = Terminal Fury	TETR = Test Event Technical Review	UFL = Ulchi-Focus Lens

DICE = DoD Interoperability Communications Exercise   JUICE = Joint Users Interoperability Communications Exercise

Overview

- **Situation**
  - Orientation
  - Purpose
- **Mission**
  - Objectives
- **Execution**
  - Research methodology
  - General Office Steering Committee (GOSC)
  - Joint Warfighter Advisory Group (JWAG)
  - DODAF Development (OV & SV)
  - Joint TTP/CNOC Development
  - Technical Advisory Group (TAG)
  - Tabletop event
  - Phase I report
- **Administration & Logistics**
  - References
  - Tools
- **Command & Signal**
  - Process
  - Schedule

- **Orientation:**
  - JMNO is chartered for three years to investigate, evaluate, and make recommendations to improve mobile network access and maintain current performance by identifying and developing joint doctrine and recommending DOTMLPF changes
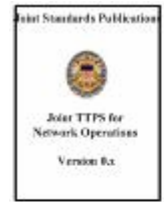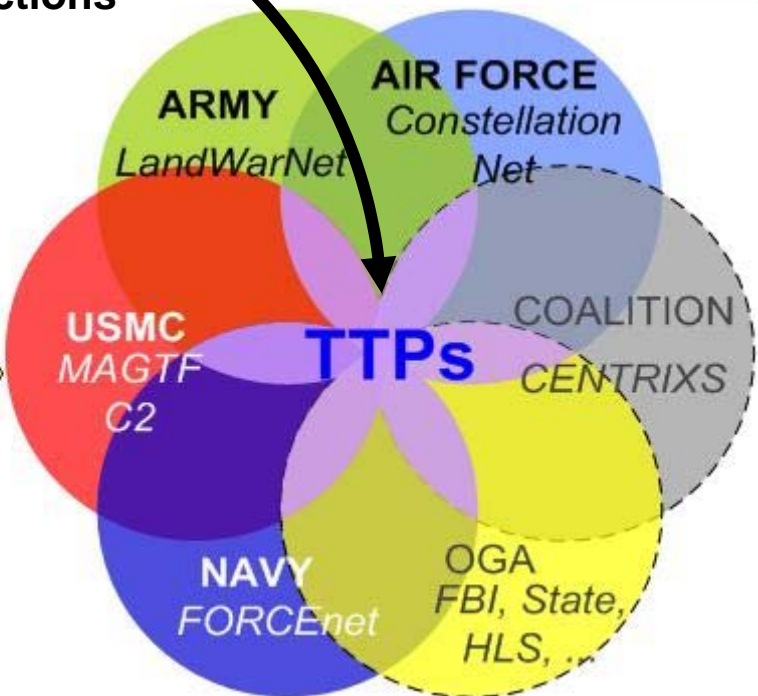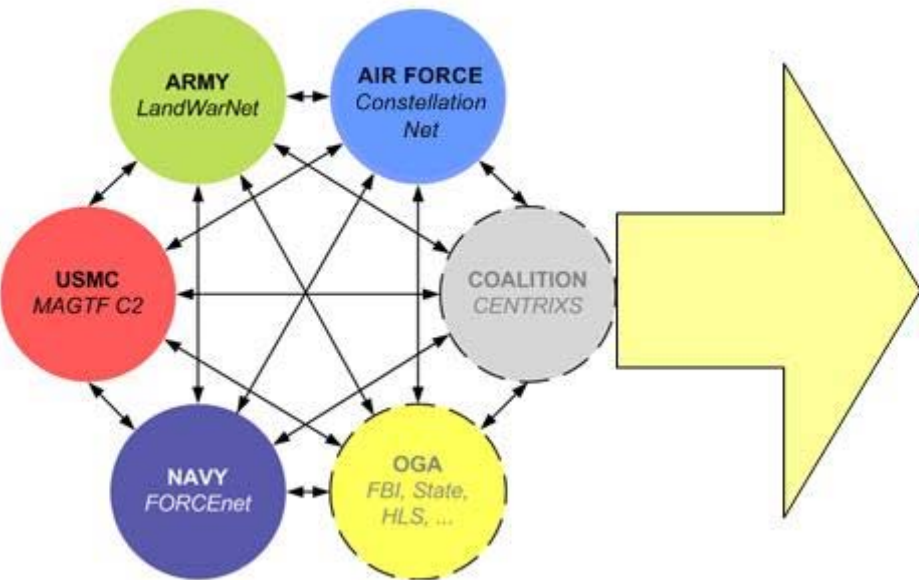
- **Mission: The mission of Phase I is to develop:**
  - Consolidated Network Operations Checklist (CNOC) as the JMNO test article
  - CNOC must be developed in order to proceed on to the events of Phase II and beyond

Plan of Attack

Joint TTP
Standards Handbooks
For Network Operations

Joint Standards and Procedures allow access through a "Joint zone"

- **Separate and multiple "bi-lateral" connections**
- **Negotiation time about 6 months**

OPLAN XXXX
Annex K

OPLAN XXXX
Annex B

ARMY
LandWarNet

AIR FORCE
Constellation
Net

USMC
MAGTF C2

COALITION
CENTRIXS

NAVY
FORCEnet

OGA
FBI, State,
HLS, ...

ARMY
LandWarNet

AIR FORCE
Constellation
Net

USMC
MAGTF
C2

TTPs

COALITION
CENTRIXS

NAVY
FORCEnet

OGA
FBI, State,
HLS, ...

Standardized
Annexes
Across
COCOMS

Coordinated
TTPs between
DoD and
OGA/Coalitions

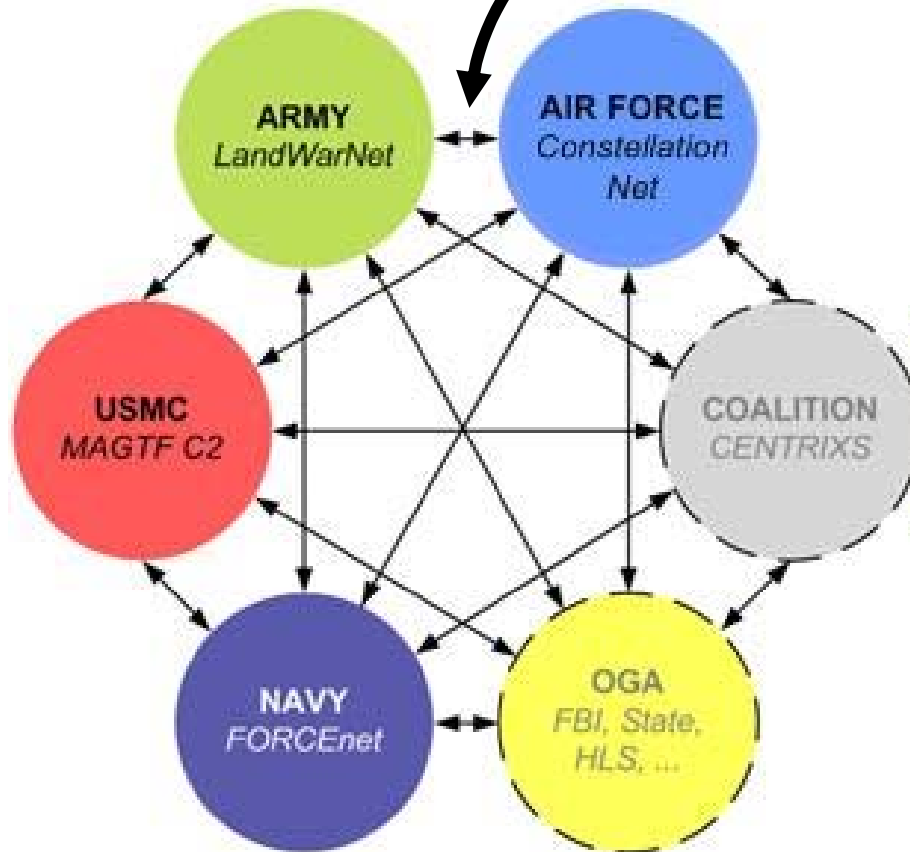Possible CJCS
Manual or
Instructions

Basic Premises:
- **Will not change Service (OGA or Coalition) internal networks**
- **No specific materiel solutions**

What is a Joint TTP?

Each arrow line represents a potential joint TTP that JMNO will investigate and test.

These joint TTP come from the Operating Forces where smart, aggressive communicators have used their equipment in innovative ways to increase network communications capability

JMNO is coordinating to collect these joint TTP from CENTCOM and each service

Additional joint TTP will come from academia and from the civilian business community

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Once tested on a virtual network, the aggregated joint TTP form the JMNO "Purple Zone"

The "Purple Zone" is the "Consolidated Network Operations Checklist" (CNOC)

- The CNOC will undergo rigorous testing to identify the network performance envelope

- JMNO will provide an understanding of the impacts of connecting to "other networks"
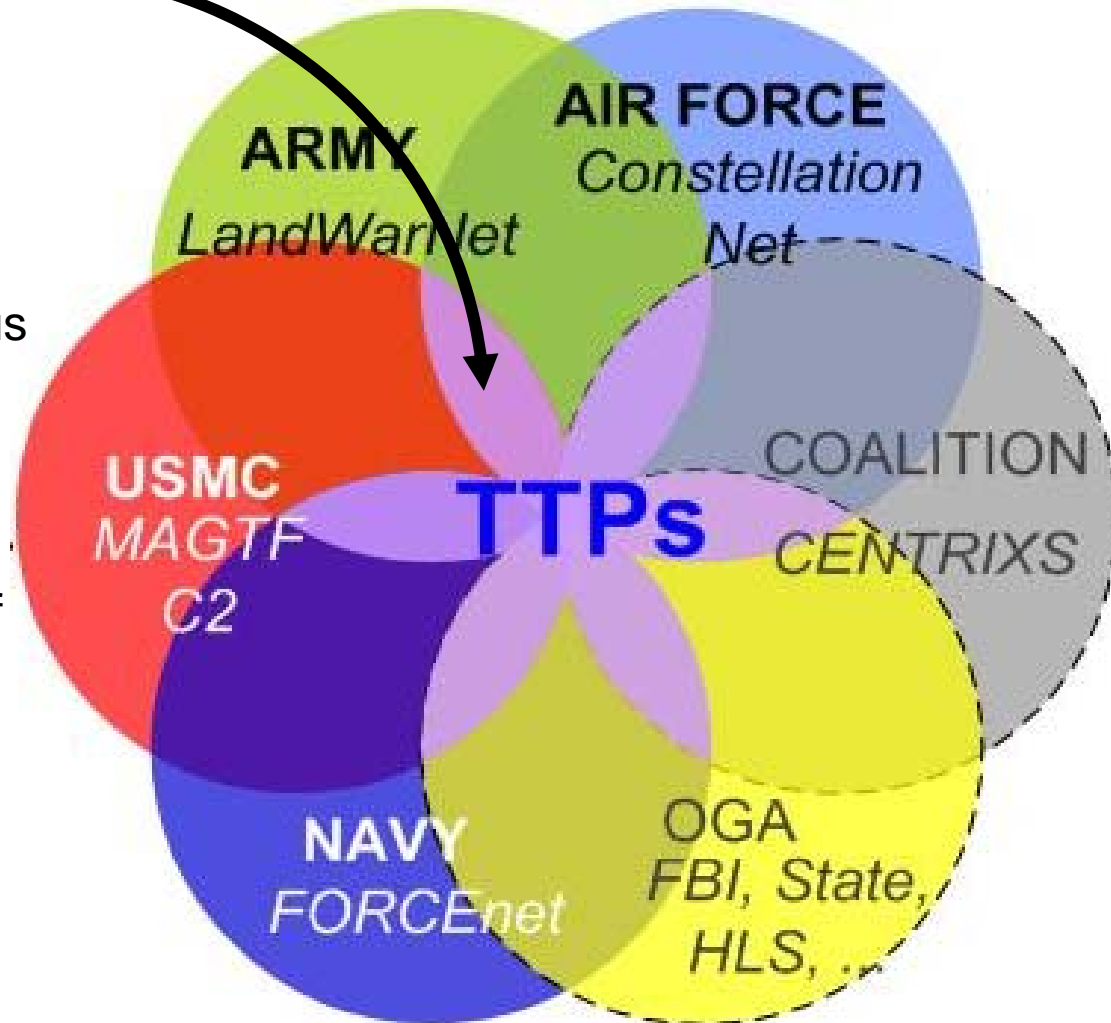
Mission Objectives

- **Objective One: Develop and implement research methodology**
  - Identify the concepts for mobile NetOps that have been **successfully employed** by the four Services in a joint environment, and **similar concepts** that have been employed by industry and academia
  - Identify gaps and overlaps between Service architectures, policies, and procedures

- **Objective Two: Develop joint TTP/CNOC**
  - Develop initial mobile NetOps joint TTP. The initial joint TTP is the Consolidated Network Operations Checklist (CNOC) that will include the **step-by-step procedures and processes** for the access, transfer, and routing of services and information for network-to-network connectivity and user cross-network support
  - The CNOC will compile **Services' best practices** for network-to-network connectivity and user cross-network support

- **Objective Three: Test and analyze the initial joint TTP/CNOC**
  - Develop JMNO test lab to analyze and refine initial joint TTP/CNOC
  - Analyze CNOC on representative architectures

- **Objective Four: Phase I Report**
  - Prepare and deliver the Phase I report to:
    - Technical Advisory Group (TAG)
    - Joint Program Office (JPO)
    - GOSC

Execution

- **The objectives of Phase I will be accomplished through the continuous effort of the JMNO team using the following venues:**

  1. **Research methodology:** Developed by JMNO and vetted through the GOSC (Objective 1)

  2. **General Officers Steering Committee (GOSC):** Senior advisory council to provide overarching program guidance and feedback (Objectives 1-4)

  3. **Joint Warfighter Advisory Group (JWAG):** Provides warfighter perspective and input as primary stakeholders (Objectives 1-3)

  4. **Joint TTP/CNOC Development:** Product of research, DODAF analysis, Service SMEs, and JWAG (Objectives 2-3)

  5. **DODAF Development (OV & SV):** Developed by Service SMEs and JMNO staff based on research methodology (Objectives 1-2)

  6. **Technical Advisory Group (TAG):** Provides technical recommendations and guidance (Objective 4)

  7. **Tabletop Event:** Test & validate initial joint TTP/CNOC (Objectives 2-3)

  8. **Phase I report:** Documents results of research and JMNO test article for follow-on phases (Objective 4)

v1

Do you mean "four" objectives in the first line?
virginia.tompkins, 7/6/2006

- **"Top Down"**
  - **DISA/JTF-GNO: Digital ROE**
    - **Understand issues & policies**
    - **Collect important data**
  - **Army Marine Corps Architecture Systems Engineering Group**
    - **Systems functional decomposition**
    - **Collect Service architectures & IER requirements**

(Objectives 1 & 2)

- **"Bottom Up"**
  - **USMC: 8th Communications BN**
  - **USA: 311th TSC, Battle Command Battle Lab**
  - **USAF: TBD**
  - **USN: TBD**

  Understand which COCOM or service policies the "tactical level" communicators used and collect data on what they specifically did in order to implement the policies

(Objectives 1 & 2)

Leverage the appropriate external efforts to maximize mutual progress and speed access to information

- **JMNO TTP Development**
  - **MIT Lincoln Labs**
  - **Naval Post Graduate School**
  - **JMNO Network Lab**

(Objectives 2 & 3)

Combine the "Top Down" and "Bottom Up" efforts and test the CNOC in the lab

Involve the "Tactical Experts"- JMNO will present a coherent picture of the HHQ and adjacent issues and get their input

Administration & Logistics

References

- JMNO Charter
- JMNO Program Test Plan
- Per JMNO JT&E SOP
- JT&E Handbook

JMNO training

All daily activities are conducted utilizing structured data collection and test analysis methods

Potential tools

- Joint C4ISR Architecture Analysis Team (JCAAT)
- System Architect Version 1.0 (current version)
- Combined Media Battle Analysis Tool (COMBAT)
- SIMPROCESS
- Statistical Package for the Social Sciences (SPSS)
- Statistical Analysis Software (SAS)
- Media Library System (MLS)
- NETWARS / OPNET
- C4ISR Toolkit

JMNO Testing Is a Daily Event

Command & Signal

- ## Process

  - Request GOSC endorse this plan and provide guidance and support throughout execution

- ## Schedule

  - The derived Phase I Schedule organizes activities to achieve the objectives listed in the Phase I Plan

JMNO Phase I: Objectives & Schedule

	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07
Objective 1: Research												
Develop Research Methodology	▓	▓	▓									
Refine methodology			▓	▓								
Conduct/archive Research			▓	▓	▓	▓	▓	▓				
Objective 2: Develop TTP/CNOC												
Brief Research Methodology to GOSC				▓								
Brief Research to JWAG					▓							
Develop DODAF OV/SV Products					▓	▓	▓					
Develop/refine TTP/CNOC					▓	▓	▓	▓	▓			
Brief Draft TTP/CNOC to TAG							▓					
Conduct Tabletop with Draft TTP/CNOC								▓				
Validate and refine TTP/CNOC								▓	▓	▓		
Objective 3: Test & Analyze TTP/CNOC												
Plan JMNO Lab layout			▓	▓	▓							
Construct Lab			▓	▓	▓	▓						
Analyze TTP/CNOC					▓	▓	▓	▓	▓	▓		
Objective 4: Phase I Final Report												
Develop final report shell		▓	▓									
Brief Draft final report to TAB										▓		
Brief Draft final report to GOSC											▓	
Brief Draft final report to JT&E JPO												▓

Requests

JMNO requests GOSC member endorsement of the Phase I plan

- **JMNO requests GOSC member support to coordinate execution of the Phase I plan**
  - When JMNO encounters obstacles, we wish to contact your office to coordinate your advocacy on behalf of JMNO