

Your National or  
Organizational Emblem



# Multinational Experiment Five (MNE 5)



## Results and Products

*Distribution: Approved for Public Release 16 March 2009*  
*Joint Concept Development and Experimentation*  
*U.S. Joint Forces Command*  
*115 Lakeview Parkway Suffolk, VA 23435-2697*  
*Attn: Ms. Barbara Reagan, Phone: 757-203-3133*

# Report Documentation Page

Form Approved  
OMB No. 0704-0188

Public reporting burden for the collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to a penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.

1. REPORT DATE <b>16 MAR 2009</b>		2. REPORT TYPE <b>Summary</b>		3. DATES COVERED <b>-</b>	
4. TITLE AND SUBTITLE <b>Multinational Experiment 5 (MNE 5) Results and Products</b>				5a. CONTRACT NUMBER	
				5b. GRANT NUMBER	
				5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S)				5d. PROJECT NUMBER	
				5e. TASK NUMBER	
				5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) <b>USJFCOM J9 Joint Concept Development and Experimentation, Suffolk, VA</b>				8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)				10. SPONSOR/MONITOR'S ACRONYM(S)	
				11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION/AVAILABILITY STATEMENT <b>Approved for public release, distribution unlimited</b>					
13. SUPPLEMENTARY NOTES					
14. ABSTRACT <b>This brief provides an overview of the Multinational Experiment 5 campaign of experiments, the experiment results, and products produced.</b>					
15. SUBJECT TERMS <b>multinational, experiment, MNE, Multinational Interagency Strategic Planning (MNISP), Cooperative Implementation Planning (CIP), Management and Evaluation (CIME), Information Strategy / Information Operations (IS), Knowledge Development (KD), Information Exchange Architecture and Technology (IEAT), Shared Information Framework and Technology (SHIFT), Multinational logistics, Effects Based Approach and Assessment (EBAO)</b>					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT <b>UU</b>	18. NUMBER OF PAGES <b>27</b>	19a. NAME OF RESPONSIBLE PERSON
a. REPORT <b>unclassified</b>	b. ABSTRACT <b>unclassified</b>	c. THIS PAGE <b>unclassified</b>			

# *Purpose of this Brief*

- To inform you of the extensive work accomplished in Multinational Experiment 5 (MNE 5)
- To make the results of this work available to you





# *Multinational Experimentation (MNE)*

- MNE series is the premier multinational concept development and experimentation program.
- MNE provides opportunities for participating nations and organizations to explore new concepts and capabilities for multinational and interagency operations.
- Products provide improved capabilities to harmonize civilian and military efforts on a multinational basis.
- Multinational and interagency participation leverages unique strengths, builds trusted relationships, and provides real-time learning.



# MNE Series History



**MN LOE\* 1:** November 2001 (AUS, DEU, GBR, USA)

⇒ Technical Distributed Collaboration  
(South Pacific Vignettes)



**MN LOE\* 2:** February 2003 (added CAN and NATO)

⇒ Multinational Information Sharing  
(Pacific Rim Vignettes)



**MNE 3:** February 2004 (added FRA)

⇒ Effects-Based Planning  
(Afghanistan Scenario)



**MNE 4:** February / March 2006 (added FIN and SWE)

⇒ Effects-Based Operations  
(Afghanistan Scenario)



**MNE 5:** Spring 2008/December 2008

⇒ Comprehensive Approach (African Scenario) +  
Effects-Based Approach to Multinational Operations  
(military portion)

## MNE 5 Partners

- Canada
- Finland
- France
- Germany
- Sweden
- United Kingdom
- United States
- NATO ACT

## MNE 5 Participants

- Australia
- Austria
- Denmark
- Spain

## MNE 5 Observers

- Czech Republic
- Greece
- Hungary
- Japan
- Poland
- South Korea
- Singapore
- European Union

\* LOE is a Limited Objective Experiment

# MNE 5 Campaign Plan Overview

**Problem Statement:** *Coalition partners require improved methods to conduct interagency and multinational planning, coordination, and evaluation*

## Desired Outcomes:

- Improve civil-military cooperation in developing coalition *strategic and implementation planning guidance*
- Improve coalition *information sharing and knowledge* development capabilities
- Improve coalition ability to develop and conduct *information activities*
- Improve cooperation among coalition partners in *logistics planning and implementation*

## Campaign Schedule Overview

### Concept Development (all areas)

Limited Objective Experiments/Workshops

Jun 2006 – Oct 2007

### Shared Awareness

Minor Integrating Event

Nov 2007

### Strategic Planning & Shared Assessments

Major Integrating Experiment

Feb 2008

### Cooperative Implementation Planning

Major Integrating Event

Apr 2008

### Comprehensive Approach Seminar

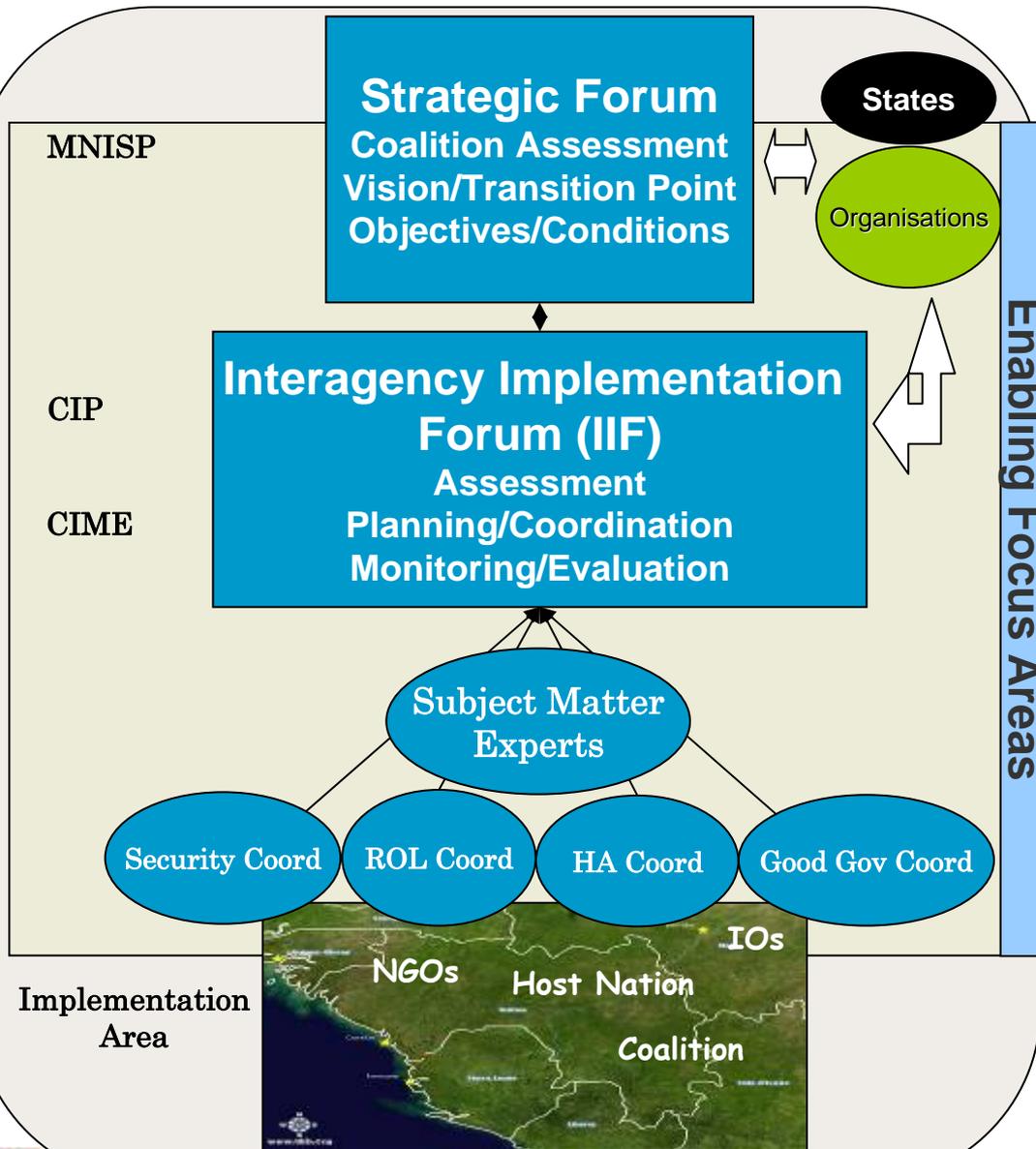
★ 17 Jun 2008 ★

### Enabling Capabilities – Info Sharing

Major Integrating Event

Dec 2008

# MNE 5 Focus Areas



## Principal Focus Area Leads



Multinational Interagency Strategic Planning (MNISP)



Cooperative Implementation Planning (CIP), Management & Evaluation (CIME)



## Enabling Focus Area Leads



Information Strategy / Information Operations (IS)



Knowledge Development (KD)



Information Exchange Architecture & Technology (IEAT)



Shared Information Framework & Technology (SHIFT)



Logistics



Effects Based Approach and Assessment



# MNE 5 Outcomes

- Strategic Plans
- Info Sharing
- Info Activities
- MN Logistics

- Strategic and Implementation Planning Guidance:
  - Made significant contributions to harmonizing individual national whole-of-government approaches in forming a coalition comprehensive approach
- Information Sharing and Knowledge Development:
  - Developed processes and technical architectures that facilitate multinational information sharing and knowledge development
    - within military element of a coalition, and
    - among coalition military and non-military elements
- Information Activities
  - Developed concepts and processes to conduct information operations which influenced NATO and EU policy and being incorporated into Allied Joint Pub 3.10
- Multinational Logistics Planning and Implementation
  - Developed methods to integrate legacy and future NATO logistics information systems to support operations within a comprehensive approach framework





# *MNE 5 Key Findings (1 of 2)*

- Coalition Focus: Develop, support, and sustain legitimate, indigenous governance through use of all available instruments of power.
- Strategic Guidance: Needed early to clearly convey the coalition's shared focus and intent, which enables coherence and ensures appropriate resources and authorities are provided to leaders in theater.
- Dialog: Active dialog among civilian and military organizations within and external to the coalition, and at all levels of activity, is important to sharing perspectives and information. This dialog enables cooperative planning by expanding the coalition's scope of awareness and facilitates cooperation among actors.
- Understanding Differences: Differences in motives, objectives, perspectives and cultures among various actors must be understood and taken into account. This understanding contributes to flexibility in thinking, adaptability in planning, and compromise in developing objectives – essential elements of a Comprehensive Approach.



# *MNE 5 Key Findings (2 of 2)*

- Cooperative Relationships: Collaboration among voluntary participants should be based on cooperative relationships, not command relationships alone. This cooperation requires willingness to relinquish control; making authority, responsibility and accountability for execution more challenging.
- Shared Assessments: In developing a coalition assessment it is beneficial to share national assessments while keeping different perspectives in view.
- Complementary Approaches: Complementary approaches to analysis, planning, management and evaluation across organizations are needed to achieve coherence. Pursuit of a single approach is not necessarily desired as it might alienate some and discount unique strengths available in different approaches.
- Measuring Results: Civilian and military organizations often measure their own project-level activities well, but lack adequate methods to evaluate the broader impact of their collective efforts. Ultimately, coalition leadership must determine if overall efforts are contributing to achieving strategic objectives.





# MNE 5 Products and Impact (1 of 4)

- Strategic Plans
- Info Sharing
- Info Activities
- MN Logistics

- **(All) MNE 5 Report of Synthesized Findings**

High-level findings based on two and a half year MNE 5 campaign

- **Impact:** Baseline input to NATO Comprehensive Approach Task Force and influenced recent NATO Operational Planning Process revision

- **(USA) The Comprehensive Approach: Framework for MNE 5**

Conceptual framework for comprehensive approach to international crisis

- **Impact:** Provided comprehensive approach framework in coalition context

- **(FRA) Strategic Planning Guide (SPG)**

Describes framework for high-level government actors to develop a unified strategy and implementation guidance to engage crisis or conflict resolution

- **Impact:** Strategic engagement among diplomatic, defense, and development agencies in multinational partner capitols informed the coalition SPG development; making it compatible with national processes

- **(GBR, USA) Cooperative Implementation Planning, Management and Evaluation (CIP/CIME) Concept**

Describes method for multinational/interagency partners to collaborate on implementation planning for an intervention (method integrated with SPG)

- **Impact:** Made significant contributions to harmonizing individual national whole-of-government approaches in implementing & evaluating a comprehensive approach. Elements of concept applied in HQ ISAF to develop interagency district stabilization plans with UNAMA





# MNE 5 Products and Impact (2 of 4)

- Strategic Plans
- Info Sharing
- Info Activities
- MN Logistics

- **(DEU) Knowledge Development Generic Framework Concept Paper:**  
Provides integrated methods and technologies to enable decision-makers to gain a more comprehensive understanding of the operational environment.
  - **Impact:** Multinational Knowledge Development (KD) concept and technologies accepted in NATO and KD Handbook being considered for NATO implementation; parts of concept and tools already in use in Kosovo and ISAF
- **(FIN) Shared Information Framework and Technology (SHIFT) White paper, Draft Concept, Handbook, and Technical Demonstrator:**  
Supports shared situational awareness among actors using a trusted and neutral information sharing environment, replacing ad hoc arrangements.
  - **Impact:** Demonstrated method to share information across various military, governmental and non-governmental information domains
- **(SWE) Information Exchange Architecture and Technology Concept:**  
Describes principles for information exchange, supporting architecture and possible technologies in support of a comprehensive response.
  - **Impact:** Service Oriented Architecture approach accommodates legacy systems and is time & fiscally efficient; implemented in many nations and organizations





# MNE 5 Products and Impact (3 of 4)

- Strategic Plans
- Info Sharing
- Info Activities
- MN Logistics

- **(DEU) Multinational Information Operations Experiment**
  - **Framework Concept: Information Factor within a Comprehensive Approach to Multinational Crisis Management**  
Enhances understanding information factor among civil and military partners in developing a comprehensive approach
  - **Analytic Concept “Development and Implementation of a Multinational Information Strategy”**  
Outlines processes & structures to implement strategic guidance
  - **Applied Concept “The Military Information Operations Function within a Comprehensive and Effects Based Approach”**  
Describes methods for implementing multinational military information strategy
    - **Impact:** New conceptual approach influenced NATO and EU policy and doctrine. Allied Joint Publication 3.10 substantially revised based on concept development and experimentation and being used in part in ISAF Afghanistan





# MNE 5 Products and Impact (4 of 4)

- Strategic Plans
- Info Sharing
- Info Activities
- MN Logistics

- **(USA) Multinational Logistics Handbook & Method for Expanding NATO Logistics Data Base:**

Provides method for developing interoperable baseline from which multinational partners can share focused logistics information and guidance for supporting civilian led humanitarian assistance and disaster relief operations.

- **Impact:** Developed methods to integrate legacy and future NATO logistics information systems to support operations within a comprehensive approach framework

- **(NATO-ACT) Effects Based Approach to Multinational Operations Concept of Operations (CONOPS):**

Provides the multinational military contribution to a comprehensive application of various instruments of power during a coalition/alliance operation.

- **Impact:** Refined EBAO CONOPS includes substantial methods to measuring effectiveness of efforts at broader level. Contributed to revised NATO operations planning process, which will be used by the NATO operational chain of command



# Summary

- MNE 5:
  - Brought together interagency participants from eleven nations and NATO
  - Developed products that can assist in advancing a Comprehensive Approach to solving complex contingencies
- MNE 5 Products are available for use in your area of interest
- We stand ready to assist in any way we can



# ***MNE 5 Focus Areas and Products***

## ***Expanded Information***

### ***Supporting Slides***

#### **Description, Key Findings and Impact**

- Multinational Strategic Planning (MNISP)
- Cooperative Implementation Planning, Management and Evaluation (CIP/CIME)
- Information Strategy / Information Operations (IS)
- Knowledge Development (KD)
- Shared Information Framework and Technology (SHIFT)
- Information Exchange Architecture and Technology (IEAT)
- Multinational Logistics
- Effects-Based Approach to Multinational Operations (EBAO)



# *Multinational Interagency Strategic Planning (MNISP)*

- Product: Strategic Planning Guide (SPG): Describes guidance that facilitates civilian and military policy-makers in producing a unified strategy and implementation guidance. SPG includes:
  - Coalition analysis and assessment of the situation
  - Identification of strategic objectives and desired transition points
  - Considerations for achieving & assessing progress towards transition points
- Key Findings:
  - Strategic Planning Guide was a viable tool to enable collaborative civilian and military planning towards a comprehensive strategy: facilitates cohesive coalition of the willing
  - Recommend against developing one common coalition assessment. Better to share national assessments and keep differing perspectives in full view.
  - Strategic guidance that is too detailed may hamper subsequent planning
  - Needs to be an active and dynamic relationship between strategic level and implementation forum to best translate strategic intent into planning guidance
- Impact: Strategic planning among diplomatic, defense, and development agencies in several national capitols reflected and informed MNISP development efforts, which makes the coalition SPG highly compatible with national processes.



# ***Cooperative Implementation Planning, Management and Evaluation (CIP/CIME) Concept***

- **Product: Cooperative Implementation Planning, Management and Evaluation (CIP/CIME) Concept:** Provides method for Multinational/Interagency (MN/IA) partners to collaborate in a country or regional intervention
  - Develops MN/IA Implementation Plan that supports coalition strategy
  - Develops mission-level indicators to monitor/evaluate the MN/IA Plan
  - Enables dialogue to help develop coherent activity plans
- **Key Findings:**
  - Collaboration must focus on key stakeholders rather than all interested parties
  - Collaboration in IA venue must be based on cooperation rather than command
  - Embrace impact of different partner organization's cultures and practices
  - Coalition planning / implementation has to account for organizations / nations already operating in the region
  - Open dialog between empowered representatives of key stakeholders is best enabled by a trained facilitation team
  - "Vertical" collaboration more effective when CIP senior reps involved in developing strategic guidance – helps implementation planners to understand strategic intent
  - "Horizontal" collaboration best enabled by providing desired outcomes to appropriate actors and facilitating dialogue among them
- **Impact:** Made significant contributions to harmonizing individual national whole-of-government approaches in implementing and evaluating a comprehensive approach. Elements of concept were applied in HQ ISAF to develop interagency district stabilization plans with UNAMA



# ***Information Strategy / Information Operations (IS)***

- Product: Framework, Analytic and Applied Concepts: Promote understanding information factor among civil and military partners, outlines processes & structures to implement strategic guidance, and describes methods for implementing multinational military information strategy
- Key Findings:
  - All capabilities able to affect the information environment should be integrated through institutionalized coordinated procedures. This includes analysis, planning, execution and assessment
  - Integration demands all decision-makers understand appropriately the possible effects of their actions in the information environment
  - New mindset requires comprehensive education and training rather than restructuring military organizations
- Impact: New conceptual approach influenced EU and NATO policy and doctrine. Allied Joint Publication 3.10 substantially revised based on concept development and experimentation



# Knowledge Development (KD)

- Product: Knowledge Development (KD) Generic Framework  
Concept: Provides compatible integrated methods, processes, structures, and technologies to enable civilian or military decision-makers to gain a more comprehensive understanding of the operational environment.
- Key Findings:
  - KD supported cross-MN/IA dialogue within the implementation forum, which led to developing the MN/IA framework plan
  - KD enhanced the operational understanding of the individual members of the implementation forum
  - KD added value to developing MN/IA framework plan at the implementation forum level and at the sub-group level for activity plans
- Impact:
  - KD concept evaluated successful in HQ KFOR field experiment
  - KD now being evaluated in German Response Forces Operations Command (RFOC)
  - Multinational KD concept accepted as NATO-KD concept, and draft KD Handbook under consideration for NATO implementation



# ***Information Exchange Architecture and Technology (IEAT)***

- **Product: Information Exchange Architecture and Technology**  
**Concept:** Describes principles for information exchange, supporting architecture and possible technologies in support of a comprehensive response.
- **Key Findings:**
  - Proven technical network functionality w/Service Oriented mechanisms
  - Service Oriented Architecture (SOA) approach enabled building “ad hoc” networks rapidly
  - Facilitated information exchange between different kinds of organizations (military, governmental, NGO, etc)
  - Policy & legal restraints remain limiting factor to information exchange
- **Impact:**
  - SOA approach, like that in IEAT Concept, being implemented in many nations and organizations
  - Contributed to NATO Network Enabling Capabilities program
  - Using these and other future systems will require commitment to train
  - SOA approach accommodates legacy systems; time & fiscally efficient



# ***Shared Information Framework and Technology (SHIFT)***

- Product: Shared Information Framework and Technology (SHIFT) White Paper, Concept, Handbook and Technology Demonstrator :  
Supports shared situational awareness among actors using a trusted and neutral information sharing environment, replacing ad hoc arrangements
  - Method of acting in common social networks /environment for mutual benefits
- Key Results:
  - A process framework overlaying technical services is required to enable meaningful use of any shared environment
  - Common processes support actors by guiding their use of services for collective collaboration needs
  - The change of mindset from decision support and command & control systems towards collaboration support systems is key when acting in networked multidisciplinary environment
- Impact:
  - New paradigm in information sharing based on mutual benefit and common goals; encourages collaborative sharing (need to share) while maintaining community self-monitoring and control (need to know)
  - Demonstrated way to share information across various military, governmental and non-governmental information domains
  - SHIFT portal toolset commercially available for interested parties



# ***Effects-Based Approach to Multinational Operations***

- Effects-Based Approach to Multinational Operations (EBAO): Provides the multinational military contribution to a comprehensive application of various instruments of power during a coalition/alliance operation.
- Key Findings:
  - EBAO offers a philosophy for military cooperation with non-military actors
  - Cultural differences observed across participants and organizations assigned missions with different priorities
  - A forum to collaborate between military and non-military actors is essential
  - Common terminology is paramount when working together
  - Technology helps the process, but doesn't own it
- Impact: Refined EBAO CONOPS
  - Includes methods to measure effectiveness at broader level
  - Incorporates terminology agreed to by different actors/communities
  - Incorporates cultural awareness of host nation and other actors



# Logistics

- Product: Methods Expanded NATO LOGFAS Database: Provides an interoperable baseline from which multinational partners can share focused logistics information.
- Key Findings. Demonstrated proof of concept validating:
  - Expanded Information Requirements (IR) methodology
  - Ability to develop Logistics Common Operational Picture (LOGCROP)
  - Intuitive and easy use of LOGCROP tools
- Product: Multinational Logistics Handbook: Logistics support to civilian led, military supported humanitarian aide, disaster relief (HA/DR) operations
- Key Findings:
  - Coalition Logistics Coordinator (civilian) was essential to operations/logistics collaboration in all operational planning
- Impact: Expanded IR methodology being used to integrate legacy and future NATO logistics information systems to support operations within a comprehensive approach framework



***Additional Information***  
***Experimentation Defined***  
***List of Products***  
***Supplemental Observations***





# *Multinational Experimentation (MNE)*

## Experimentation:

- An experiment is a means of evaluating, in a controlled environment, how new concepts and capabilities can address real-world problems
  - Provides a non-threatening environment
  - Evaluates proposed solutions, not organizations or people
  - Provides learning even from new concepts/prototype capabilities that “fail”
- Different than a military exercise, which evaluates units, personnel and their ability to implement current doctrine and procedures



# MNE 5 Experiment Products

- **(All)** MNE 5 Report of Synthesized Findings (12 Feb 09)
- **(USA)** Comprehensive Approach White Paper (10 Feb 09)
- **(FRA)** Multinational Interagency Strategic Planning – v8 (17 Oct 08)
- **(GBR, USA)** Cooperative Implementation Planning, Management and Evaluation: Draft Concept Paper v3.0 (1 Oct 08)
- **(NATO-ACT)** Effects Based Approach to Multinational Operations CONOPS v2.0 (20 Jan 09)
- **(DEU)** MNIOE Framework Concept: The Information Factor within a Comprehensive Approach to Multinational Crisis Management, Coordination Draft v3.0 (19 Dec 08)
- **(DEU)** MNIOE Analytical Concept "Development and Implementation of a Multinational Information Strategy" Final Draft v1.0 (31 Oct 08)
- **(DEU)** MNIOE Applied Concept "The Military Information Operations Function within a Comprehensive and Effects Based Approach," Second Draft v3.0 (19 Dec 08)
- **(DEU)** Knowledge Development: Generic Framework Concept Paper v1.30 (18 Dec 08)
- **(FIN)** Shared Information Framework and Technology (SHIFT): White paper (20 Mar 08)
- **(FIN)** Shared Information Framework and Technology (SHIFT): Draft Concept v.9 (Feb 09)
- **(FIN)** Shared Information Framework and Technology (SHIFT): Handbook v1.0 (Feb 09)
- **(FIN)** Shared Information Framework and Technology (SHIFT): Technical solution v.2 Demonstrator for MNE 5 (26 Nov 08)
- **(SWE)** Information Exchange Architecture & Technology: Reference Architecture for MNE 5 Technical System v.77 (30 May 07)
- **(SWE)** Information Exchange Architecture and Technology Concept v1.0 (30 Sep 08)
- **(USA)** MNE 5 Coalition Logistics Information Sharing (NATO Information Requirements Decomposition Methodology) (Jun 08)
- **(USA)** Guide to Multinational Logistics within a Comprehensive Approach (30 Jan 09)

Legend: **(Lead Country)** Product Name **(Final Review Date)**





# ***MNE 5 Supplemental Observations***

- Sharing Information in an Open Network: Assumes members perceive common benefits. Risks to sharing can be mitigated by bottom-up, self-regulating approach which includes user feedback.
- Leadership: Cooperative approach is a critical factor in achieving practicable collaborative solutions in a Comprehensive Approach.
- Whole of Government Approach (WGA): Independent activities of national WGAs will not likely result in an effective Comprehensive Approach. Individual national WGAs must be complementary and mutually supportive within a coalition effort.
- Cause and Effect: Take care presuming causality between actions and results in a complex environment. Determining such links, if possible, requires methodology and data not often available. Evaluation should not be overly scientific as subjective evaluations and awareness of popular sentiments may prove just as important.
- Bridging Cultural Barriers: Creating a culture of trust among actors in the field can bridge many barriers and reduce false presumptions.
- Local Ownership: Involvement of the legitimate indigenous authority in all aspects of a stability operation is necessary for a Comprehensive Approach to succeed.

