



HQ USNORTHCOM

**COALITION WARRIOR INTEROPERABILITY
DEMONSTRATION 2005
(CWID '05)**

AFTER ACTION REPORT

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EXECUTIVE SUMMARY

The terrorist attacks of September 11, 2001, completely refocused our national security attention. The Global War on Terrorism had come to the US – a war that knows no boundaries, has no traditional “fronts,” and can impact any of our national interests at any time, anywhere in the world. National leadership founded USNORTHCOM in the shadow of the rise in international terrorism as one of the pillars in our national security umbrella – charged with a traditional defense mission and a mission to assist civil authorities when directed. Immediately, sharing information among the new national security coalition became a serious command challenge in supporting the new mission. To meet the challenge, USNORTHCOM has pursued innovative concepts and technologies to bridge the information gap between DoD and the civil sector.

USNORTHCOM’s participation in the Chairman’s Annual Joint Warrior Interoperability Demonstration 2004 (JWID '04) series was an excellent opportunity to address the command’s shortfalls. Last year, USNORTHCOM hosted JWID '04, bringing a Homeland Security/Defense (HLS/D) focus to the demonstration series. The Chairman’s action to change the name from Joint to Coalition underscores a further commitment to address the issues confronting all of us in the world-wide fight against terrorism. This year’s USNORTHCOM-hosted Coalition Warrior Interoperability Demonstration 2005 (CWID '05) recognized the broad scope of organizations involved in the Global War on Terrorism (GWOT). CWID '05 participants included our traditional military allies as well as a large contingent of non-DoD government agencies, national and international law enforcement organizations, and the first responder community.

Cultural differences between the DoD and its HLS/D coalition partners continue to present daunting operational challenges. USNORTHCOM’s primary objective for CWID '05 was to actively seek out systemic seams and gaps that prevent us from taking full advantage of our shared trusted information exchange environment. This year our coalition partners were very active collaborative planning participants. Their viewpoints were key to the development of CWID '05 objectives, which provided excellent criteria for guiding the selection of technologies. In all, CWID '05 had 49 trials with 39 of them applicable to USNORTHCOM and its HLS/D coalition partners’ missions. This After Action Report (AAR) details the assessment results for 26 trials we identified as most promising from a HLS/D perspective.

Of the 26 trials, USNORTHCOM recommends 3 trials for JFCOM consideration as input to the Transformation Change Proposal (TCP) process for further evaluation and funding. The nominated trials highlighted in this AAR are:

- Weapons of Mass Destruction Common Operational Picture (WMD COP)
- Multi-level-secure Information Infrastructure (MI2)
- Incident Commander Radio Interface (ICRI)

USNORTHCOM found CWID '05 to be an invaluable venue for showcasing technologies that enhance its ability to defeat the global terrorism threat. Historically,

USJFCOM funded a number of the technologies that proved their value during the demonstration and moved them into operational use within 18 months. Last year's funds were devoted to Operation Iraqi Freedom. This reprioritization of funds had serious consequences on our ability to garner commitment from several companies to return to CWID '05. It is imperative that DoD supports not only the showcase venue but also the fielding of relevant new capabilities.

CWID '05 was far more than a technology showcase. It was an effective venue for USNORTHCOM to strengthen relationships with its day-to-day HLS/D partners. It also provided an opportunity for the US Coast Guard to work with others in refining and rapidly demonstrating, a solution to their requirement to integrate several disparate maritime track feeds, to include container ship tracking information, into a fused web-based Common Operational Picture. Additionally, the National Guard Bureau honed their Joint Operations Center concept at venues in Colorado Springs, CO, and Dahlgren, VA, to take full advantage of the robust set of HLS/D scenarios.

The global terrorism threat requires a continuing effort to integrate DoD and all U.S. Federal Agencies' capabilities – at home and abroad. Our recommendation is that future CWIDs continue to include the HLS/D communities as coalition partners to ensure that we address the entire national security spectrum and further resolve cultural differences. USNORTHCOM gained much from its participation in JWID '04 and CWID '05. As the Chairman's demonstration series continues, USNORTHCOM is poised to become a permanent participant working the issues presented by the GWOT.

Section 2 – Trial Descriptions, Assessments and Recommendations

USNORTHCOM hosted 26 trials during CWID '05. Based on operator observations and raw data provided by the assessors, three trials demonstrated the operational value and technical maturity that will enhance USNORTHCOM's Trusted Information Exchange concept (Figure 1). The three trials, in order of priority, are

- Weapons of Mass Destruction Common Operational Picture (WMD COP)
- Multi-level-secure Information Infrastructure (MI2)
- Incident Commanders' Radio Interface (ICRI)

These trials directly support and map to USNORTHCOM's critical capabilities and Joint Mission Essential Tasks required to support the Homeland Defense and Defense Support to Civil Authorities and enhance USNORTHCOM's trusted information exchange and situational awareness strategies. They fall within the USNORTHCOM Command Program Priorities. **USNORTHCOM recommends these three trials for inclusion in the JFCOM Transformation Change Proposal (TCP) package for JROC consideration.**

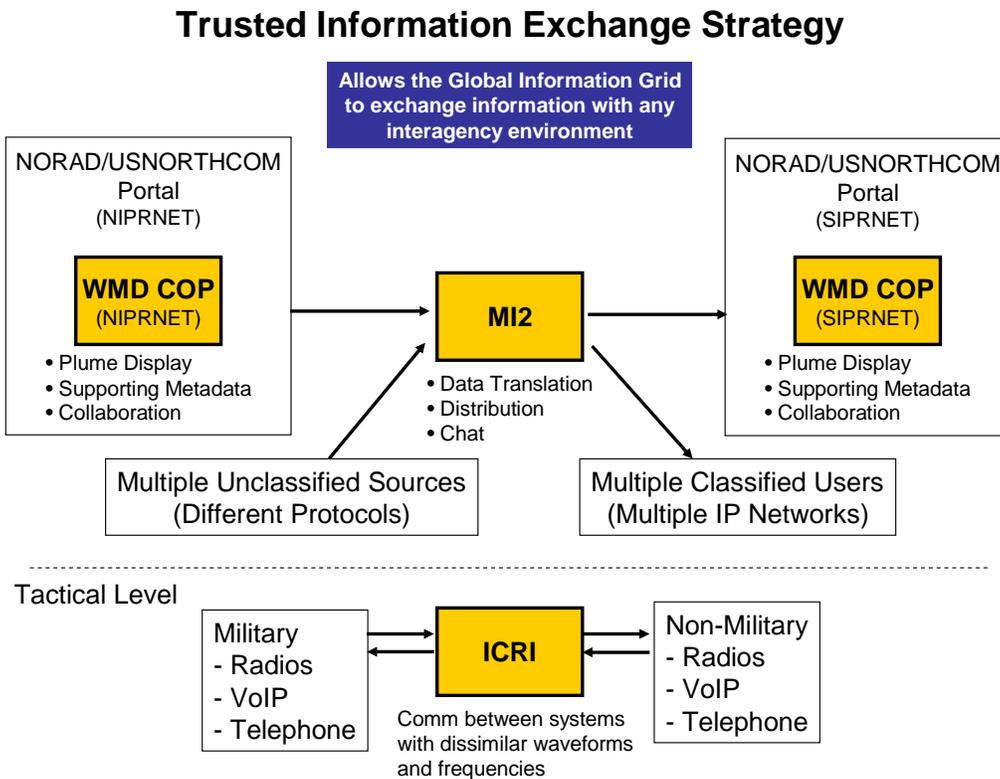


Figure 1. Enhancements to USNORTHCOM Trusted Information Exchange

In addition to recommending TCP inclusion, USNORTHCOM will seek funding to include these trials in future exercises such as Vigilant Shield 06 and 07 and Ardent Sentry 06 in order to refine operational concepts and validate military utility. Exercise objectives and selected JMETs will determine which trial capabilities are used.

2.1.3 Incident Commanders' Radio Interface (ICRI)

2.1.3.1 ICRI Description

2.1.3.1.1 System Description: ICRI is a physically small, rapidly deployable device to permit users of dissimilar coalition radios to communicate between them. ICRI supports linking non-military radios and telephones providing interoperability between military services and their civilian 1st responder counterparts. Additionally, ICRI can be linked to VoIP gateways and telephone networks.

2.1.3.1.2 Technical attributes: ICRI provides a rugged, highly portable, radio cross-band (VHF, UHF, 800MHz), cross platform (digital/analog, trunked/talk-around, M/FM) capability for mutual aid operations. It enhances the radio link between an emergency response team operating in areas of poor RF propagation (inside-outside buildings, tunnels) and remotely located C2 personnel by serving as a rapidly field-able “repeater.” The device provides an audio matrix interface between multiple commercial/military land mobile radios (LMRs) and a land-line/ cellular telephone.

2.1.3.1.3 CWID experience (user and assessor comments): ICRI provided a solution to voice communications between unmodified radios with dissimilar wave forms and/or operating in different parts of the frequency spectrum. Previous software based solutions could not be rapidly deployed, thus preventing agencies, units or teams from gaining and maintaining real-time situational awareness. ICRI is appropriate to most levels of government that play in military and state/municipal crisis response operations, to include: Governmental Department/Agency (DHS, DOJ, DOT, FEMA, USCG, FBI, CIA, etc.), Combatant Command Theater (USNORTHCOM, USEUCOM, etc.), Coalition Task Force (CTF) Commander and/or CTF Staff (e.g., CDR, C3 (Operations), C2 (Intel), C4 (Log), C6 (Comms/Computers), etc.), Component Level (e.g., Air, Land, Maritime, Special Operations Forces (SOF), etc.) and Sub-component Tactical Level (e.g., Division, Ship, Aircraft, etc.).

2.1.3.1.4 USNORTHCOM Critical Capabilities/JMETs addressed by ICRI:

Coordinate Interagency Activities is one of the 17 USNORTHCOM Command Critical Capabilities (dated 22 Sep 03). To reach this capability, the enablers are:

1. Establish and maintain timely and comprehensive collaboration with departments and agencies in order to optimize assessment, understanding and response

2. Expeditiously and synergistically apply resources essential to the deterrence, defense against or resolution of events in the NORTHCOM Area of Responsibility
3. Assess escalating incidents and anticipate action requests from other federal departments and agencies in order to provide timely and tailored responses
4. Quickly and comprehensively assess capabilities of non-DoD agencies and activities in order to develop, provide and proactively exercise interoperable tactics, techniques and procedures, standard operating procedures, processes and methodologies
5. Identify, train and embed DoD response capabilities within inter-agency and civil planned responses to events, situations and contingencies
6. Coordinate DoD support and expertise with private sector (acquire expertise and information the military is now precluded from accessing)

ICRI addresses the fourth and fifth enabling objectives for this critical capability by providing the capability to link the disparate communications systems used by civil and military first responders.

ICRI also supports the main category of “Relationships with key homeland security and homeland defense partners” from the USNORTHCOM Command Program Priorities letter (dated 22 Dec 04). Specifically, ICRI can be used to “Establish and mature our synchronization with federal, state, local, international and nongovernmental organizations in homeland defense and civil support operations.”

ICRI also supports the following USNORTHCOM JMETs:

ST 8.4.2 – Assist in Combating Terrorism

ST 8.4.5 – Coordinate Civil Support in the US

ST 8.5 – Coordinate and Integrate Regional Interagency Activities

ST 9.5 – Coordinate Consequence Management in Theater

2.1.3.1.5 Relationships/Partnerships: Use of ICRI will enhance relationships between USNORTHCOM, its subordinate JTFs, the National Guard and local and state emergency operations centers by providing the ability to rapidly link the communications systems used by civil agencies and those systems used by military first responders.

2.1.3.1.6 Gaps/CONOPS addressed: ICRI addresses capabilities required to execute paragraph 6.4 “Civil Support” of the USNORTHCOM CONOPS dated 13 June 05. Specifically, it addresses paragraphs 6.4.2 “Military Assistance” and 6.4.4 “Response Capabilities and Procedures.” ICRI provides the ability to rapidly link disparate communications systems generally in use by civil agencies and military organizations that would be most likely deployed to provide support to civil authorities.

2.1.3.2 ICRI Recommendation

2.1.3.2.1 Results: Peterson AFB Security Forces used ICRI during a June 05 air show. ICRI successfully bridged the gap between the legacy 150 MHz system and the follow on

trunked radio system. ICRI allowed the Security Forces Squadron to operate with one seamless communications infrastructure rather than two. Additionally, during CWID '05, ICRI permitted voice collaboration. Inter-Agency interoperability was performed between: an analog VHF radio (XTS-3000) from the Peterson AFB Security Office, an analog HF radio (XTS-5000) from the Peterson AFB Security Office, an analog 800 MHz radio (XTS-5000) from the Colorado Springs Police Department, an analog VHF radio (HT-750) from the Air Force Academy, an analog UHF (F43GS) Army Theater Squad Radio, an ICRI radio operator handset, and an ICRI external speaker.

2.1.3.2.2 Shortfall in current product: None identified.

2.1.3.2.3 Fielding availability and proposed cost to integrate/deploy: Available now.

2.1.3.2.4 Overall recommendation: Recommend consideration by JFCOM for input to the Transformation Change Proposal (TCP) process for further evaluation and funding.