



DEPARTMENT OF THE NAVY

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Ser N8/N9/013
3 Nov 14

From: Commander, U.S. Fleet Forces Command
To: Chief of Naval Operations (N2/N6)

Subj: OPERATIONAL LEVEL UNCLASSIFIED/NON-PUBLIC KEY
INFRASTRUCTURE (NON-PKI) MARITIME DOMAIN AWARENESS (MDA)
REQUIREMENTS

Ref: (a) OPNAV N2/N6E3 ltr dtd 13 Apr 12
(b) COMUSNAVSO Message DTG 231258Z JUL 13
(c) COMUSFLTFORCOM Message DTG 242000Z SEP 13
(d) CUSFFC ltr 3000 Ser N00/S005 dtd 12 Apr 13
(e) CUSFFC ltr 5000 Ser N01/S013 dtd 03 Feb 14
(f) CUSFFC ltr 5000 Ser N01/068 dtd 24 Sep 14
(g) Email from OPNAV N2N6 to COMUSNAVCENT, 11 July 2014

Encl: (1) Coordinated Fleet-Wide Unclassified and Non-PKI MDA
Requirements Statements

1. This letter articulates a Fleet requirement for enterprise access to maritime data, automated analytics and information sharing capabilities to support operational level MDA in an Unclassified/Non-PKI environment.

2. Background

a. Per reference (a), the Department of Defense Executive Agent for MDA (DoD EAMDA) provided one-year trial licenses for the Computer Assisted Maritime Threat Evaluation System (CAMTES) to Maritime Operations Centers (MOCs) at the Naval Component Commands (NCC) and Numbered Fleet Commands (NFC) to evaluate its utility to enhance MDA.

b. Per reference (b), COMUSNAVSO articulated a continued requirement for an unclassified automated maritime threat analysis, tracking and information sharing capability similar to CAMTES. COMUSFLTFORCOM endorsed reference (b) with reference (c) and also articulated unclassified MDA requirements in references (d), (e), and (f).

c. In response to a COMUSNAVCENT request for continued CAMTES access, OPNAV N2/N6 (reference (g)) acknowledged the need

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to develop near-term and long-term solutions for an unclassified MDA capability that aligns with MOC standardization; COMUSFLTFORCOM funded a one year CAMTES enterprise license for all NCC/NFCs; and, USFF N8 collaborated with DoD EAMDA and NCC/NFC stakeholders through a series of working group meetings to refine operational level requirements for Unclassified/Non-PKI MDA capabilities.

3. Discussion

a. The Maritime Domain Awareness Requirements Working Group (MDA RWG) produced Enclosure (1), which is a compilation of overarching Fleet-wide requirements as agreed by all participating stakeholders. A summary statement of operational level Unclassified/Non-PKI requirements for access to data sources, analytics, and information sharing capabilities follows:

In support of missions of Maritime Security, Forward Presence, and Humanitarian Assistance/Disaster Response, NCC/NFCs have a requirement for an unclassified MDA capability that is accessible by mission partners. Further, in support of Theater Security Cooperation, NCC/NFCs need to provide access to some disadvantaged mission partners without resources to fund their own participation. This should be an enterprise-wide capability that will be implemented regionally and provide the following:

- Ability to operate in a low-bandwidth and unclassified/Non-PKI environment.
- Sharing and managing maritime data via standard exchange models and security attributes.¹
- Automatic population of data, to include ship position, characteristics, movement history, ownership, cargo, crew, interest, port visit, voyage information, and imagery, as well as information on port facilities and regional economic trends. Data sources include, but are not limited to, space and terrestrial Automated Identifications System (AIS), commercial radar satellite, Lloyds of London, etc.
- Ability for mission partners to contribute their own data sets using defined exchange models (e.g. coastal radar tracks).

¹ The National Information Exchange Model (NIEM) is the Department of Defense (DoD) Chief Information Officer preferred model for standards based exchanges.

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- Geographic presentation of a common maritime picture and the ability to develop a user-defined operational picture.
- Ability to develop user-defined queries using automated business rules to integrate and correlate data to conduct risk assessments, highlight anomalies, generate alerts and warnings.
- Two-way, automated exchange of standardized information (e.g. text, queries, etc.) on a one-to-one or one-to-many basis.

4. Request Office of the Chief of Naval Operations (OPNAV N2N6) formally recognize the Fleet-wide requirement for enterprise access to maritime data, automated analytics and information sharing capabilities to support operational activities in an Unclassified/Non-PKI environment herein and identify and fund a program to provide the long-term solution. As an interim solution, request OPNAV N2N6 continue to fund CAMTES or a similar information sharing capability until the long-term solution is in place.

5. My POC is Mr. John "Russ" Fitzgerald, USFF N83 OLW/MOC Requirements, COMM: 757-836-2615 or email: john.r.fitzgerald@navy.mil.



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**Coordinated Fleet-Wide Unclassified and Non Public Key
Infrastructure (Non-PKI) MDA Requirements Statements**

ACCESS TO NON-PUBLIC KEY INFRASTRUCTURE (PKI) ENVIRONMENT

- 1. Top Level Requirement:** For missions of Theater Security Cooperation (TSC), Capacity building and Outreach, NCCs/NFCs have a requirement to support Combatant Commanders by providing an enterprise-wide Non-CLAS low bandwidth environment to low-end users without resources to fund themselves (e.g., African partners in Nigeria, Morocco, Senegal). Access to this environment shall increase our mission partners' situational awareness (e.g., port arrivals/departures, suspicious activity, vessel movement/identification) and foster collaboration.

ACCESS TO DATA / DATA FEEDS

- 2. Top Level Requirement:** For missions of Maritime Security, NCCs/NFCs have a requirement for data from various sources to include, but not be limited to Global, Space & Terrestrial Automatic Identification System (AIS), commercial radar satellite, and other open source commercial sites (e.g., Lloyds of London, Journal of Commerce, GCaptain.com) that provide: ship position, characteristics, movement, history, identification, ownership, cargo, crew, imagery, port facilities and economic trends within a designated AOR.

ANALYSIS CAPABILITY

- 3. Top Level Requirement:** NCCs/NFCs have a requirement for an advanced, automated analytical capability to integrate and correlate data and information in an Unclassified/Non-PKI environment in order to effectively collaborate with mission partners. Analysis includes providing the ability to develop a standardized set of user-defined queries and include automated business rules to integrate and correlate data necessary to conduct risk assessments, highlight anomalies, generate alerts and warnings that will assist in identifying potential threats and automatically notify users vice requiring analysts to pull assessment data from the system.

INFORMATION SHARING

4. Top Level Requirement: For missions of maritime forward presence (FP), maritime homeland defense (MHD), maritime homeland security (MHS), defense support of civil authorities (DSCA), and foreign humanitarian assistance (FHA), NCCs/NFCs have a requirement for automated two-way sharing of information (e.g., text, imagery, queries, etc.) with mission partners on a one-to-one or a one-to-many basis, to enable collaboration in support of Combatant Commander (CCDR) TSC Plans. Additionally, mission partners should be able to contribute their own agreed sets of data (e.g. coastal radar tracks) in a standardized format to the information sharing environment.

COMMON MARITIME PICTURE (CMP)

5. Top Level Requirement: For missions previously stated, NCCs/NFCs have a requirement for data to be made available for display, which includes presentation in a common maritime picture (CMP) on a geographic presentation. The data should also allow for generation of a user-defined operational picture.