

# **Ordnance Information System (OIS)**



## **Operational Concept Description (OCD)**

**OIS-OCD-1.0**

**Version 1.0**

**Prepared by:  
Naval Ammunition Logistics Center**







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## 1. Scope.

This Operational Concept Description (OCD) provides a high level conceptual description of the proposed Ordnance Information System (OIS). The concept is to integrate the current Naval Ammunition Logistics Center (NAVAMMOLOGCEN) and Marine Corps Systems Command (MARCORSYSCOM)-sponsored Automated Information Systems (AIS) used throughout the Navy and Marine Corps into a single, integrated, distributed system. This OCD forms the basis of the operational and functional requirements of OIS.

### 1.1 Identification.

The Ordnance Information System (OIS), Version 1.0, Computer Software Configuration Item (CSCI), hereinafter referred to as OIS, encompasses NAVAMMOLOGCEN and MARCORSYSCOM-sponsored AIS used throughout the Navy and Marine Corps for conventional ammunition asset management, inventory management, and asset accountability.

### 1.2 OIS overview.

The proposed OIS will integrate current NAVAMMOLOGCEN and MARCORSYSCOM-sponsored AIS into one cost effective, cost efficient system taking advantage of emergent technologies designed to account for and manage ammunition assets.

#### 1.2.1 Purpose.

The OIS Version 1.0 is a major initiative that will provide a modern AIS to support the ammunition management community's current ammunition management business processes and operations, while reducing the ammunition management costs and risks realized from inefficiencies in inventory accuracy, visibility, and traceability.

#### 1.2.2 History.

To satisfy the ammunition management requirement and mission, the ammunition management community currently relies on the following standalone CSCIs, which are further described in paragraph 3.0 Current system or situation:

- a. Ammunition Disposal Inventory Management System (ADIMS), used to support the inventory management functions for the worldwide management and control of non-nuclear ordnance material that has been authorized for demilitarization and shipped to a Navy Demilitarization Special Defense Property Disposal Account.
- b. Naval Ordnance Asset Visibility System (OrdVis), used to geographically locate ordnance, ships, fleets, and battle groups associated with specific ammunition items.

- c. Conventional Ammunition Integrated Management System (CAIMS), used to support the inventory management functions required for the worldwide management and control of non-nuclear ordnance materiel.
- d. Defense Transportation Tracking System (DTTS), used to monitor the transport of ammunition assets to and from geographical locations.
- e. Global Naval Ordnance Positioning Plan (GNOPP), used to provide available positioning quantities of naval ordnance and daily deficits of naval ordnance for one or more given scenarios.
- f. Load Plan, used to plan and report worldwide ammunition storage facility space utilization and capabilities of Navy and Marine Corps storage activities.
- g. Marine Corps Ammunition Accounting/Reporting System (MAARS), used to support Inventory Control Point (ICP) functions for worldwide management and control of Marine Corps-owned ammunition assets.
- h. Naval Asset Utilization Tracking Inventory Logistics User-friendly System (NAUTILUS), used to project weapon system supply support, replenishment and maintenance budget requirements.
- i. Ordnance Assessment Portfolio (OAP), used to create a series of assessment displays that provide statistics regarding data integrity, readiness, and other stockpile profiles.
- j. Ordnance Data Warehouse (ODW), used to store official reports and data files, and to facilitate the re-use of existing ordnance summary data.
- k. Retail Ordnance Logistics Management System (ROLMS), used to receive, maintain, and issue conventional ordnance at the retail level in support of ordnance management activities.
- l. Receipt, Segregation, Storage, and Issue (RSS&I), used to simulate the tonnage of ammunition handled by ordnance activities and the flow of tons required to support fleet operations.
- m. Tomahawk Asset Inventory Management System (TAIMS), used to maintain, provide total asset visibility, and ensure data accuracy of Tomahawk transactions received from the CAIMS.
- n. Service-Wide Transportation (SWT), used to automate the development of actual and projected budget tracking charts for tonnage and traffic management.

### 1.3 Document overview.

The following paragraphs summarize the purpose and contents of this OCD and describe the security or privacy considerations associated with its use.

### 1.3.1 Purpose.

This OCD has been prepared to provide the broad requirements and to form the basis of the operational and functional requirements of OIS. This OCD addresses the following objectives:

- Establish a reference for OIS functional and operational requirements.
- Establish a reference for software engineering processes to be followed for OIS software development.
- Establish a reference for project schedules, organization, and resources.
- Establish minimum acceptability levels and performance requirements for various components used in development and testing activities.
- Establish the basis for the requirements gathering (fact-finding), requirements management, and requirements analysis activities for the OIS software and database.

### 1.3.2 Content description.

This OCD is in accordance with the documentation processes cited in IEEE 12207 and the NAVAMMOLOGCEN Software Engineering Process Standard (SEP-STND). The general OIS requirements to be addressed in completing plans for development activities, and for developing and maintaining requirements of the OIS are defined herein. The development plans, test plans, and requirements specifications established hereafter shall be used to determine the qualification of the OIS to meet the objectives stated above in paragraph 1.2 System overview, and in the OIS Operational Requirements Document (ORD).

Section 1, Scope, provides the full identification of the OIS CSCI to which this OCD applies.

Section 2, Referenced documents, lists the documents referenced within this OCD.

Section 3, Current system or situation, describes the NAVAMMOLOGCEN and MARCORSYSCOM-sponsored ammunition management AIS as they currently exist.

Section 4, Justification for and nature of changes, describes new aspects of user needs, missions, and interfaces and summarizes deficiencies and limitations in the current NAVAMMOLOGCEN and MARCORSYSCOM-sponsored ammunition management AIS that make them unable to respond to these factors.

Section 5, Concept for a new or modified system, describes how the OIS will effectively and efficiently satisfy the Department of Navy (DoN) requirements associated with accounting for and managing ordnance assets.

Section 6, Operational scenarios, provides operational scenarios that illustrate the role of the OIS, its interaction with users, and interfaces with other systems.

Section 7, Summary of impact, summarizes anticipated operational impacts on the user, developer and NAVAMMOLOGCEN and MARCORSYSCOM stakeholders.

Section 8, Analysis of the proposed system, summarizes the advantages, limitations, and trade-offs considered with the use of OIS.

Section 9, Notes, provides a descriptive list of acronyms and abbreviations used or referenced in this OCD in addition to any general information that aids in its understanding.

Appendices are provided for convenience in the maintenance of information published separate from this OCD.

## 2. Referenced documents.

CSC-STD-003-85	Computer Security Requirements, Guidance for Applying the Department Of Defense Trusted Computer System Evaluation Criteria in Specific Environments, dated 25 June 1985.
DoD 4160.21-M	Defense Materiel Disposition Manual (DMDM), dated 18 August 1997.
DoD 8320.1-M-1	Data Standardization Procedures, dated April 1998.
DoDD 5000.1	Defense Acquisition System, dated 23 October 2000.
DoDD 5200.28	Security Requirements for Automated Information Systems (AISs), dated 21 March 1988.
IEEE/EIA 12207.0-1996	Industry Implementation of International Standard ISO/IEC 12207-1995: Standard for Information Technology - Software Life Cycle Processes, dated 31 March 1998.
NAVSEAINST 8023	Standard Operating Procedures for the Processing of Expendable Ordnance at Navy and Marine Activities, dated 13 March 1991.
NAVSUP P-724	Naval Supply Systems Command (NAVSUP) Publication 724; Conventional Ordnance Stockpile Management Policies and Procedures, dated April 2001.
NCSC-TG-024	Guide to Procurement of Trusted Systems, dated December 1992.
OIS-ORD-1.0	OIS Operational Requirements Document, dated 4 May 2001.
OIS-SDD-1.0	OIS Software Design Document, under development.
OIS-SDP-1.0	OIS Software Development Plan, under development.

OIS-SRS-1.0	OIS Software Requirements Specification, under development.
OPNAVINST 8010.12F/ MCO 8010.12	Naval Conventional Ordnance Operational Logistics Policy, dated 28 March 2000.
MIL-STD-461	Electromagnetic Emissions and Susceptibility, Requirements for the Control of Electromagnetic Interference, dated 20 August 1999.
MIL-STD-464	DoD Interface Standard -- Electromagnetic Environmental Effects for Systems, dated 15 April 1997.
SEP-STND-1.0	NAVAMMOLOGCEN Software Engineering Process Standard, dated 14 January 2001.

### **3. Current system or situation.**

#### **3.1 Background.**

The current DoN ammunition management logistics environment consists of independent and unique legacy systems/applications supporting the ammunition logistics business processes. These legacy systems/applications were not designed to be fully integrated with one another, and are deployed on different development platforms, further complicating both internal and external standardization issues.

Today's AIS requirements must adjust to support a smaller, highly mobile, high technology, adaptive force. The pressures of fiscal and asset limits, combined with the demands of multiple regional conflicts, humanitarian support, and other non-traditional missions, places a premium on operational logistics support performance and flexibility.

Coincident with military downsizing, ammunition management functions must provide more flexible and responsive support with fewer resources. The DoN ammunition management community must harmoniously manage and leverage its remaining resources in the most effective and efficient manner.

#### **3.2 Operational policies and constraints.**

Current conventional ammunition management operational policies are set forth in NAVSUP P-724. This publication describes the ammunition stockpile management and distribution policies and procedures within the Navy. Additionally, this publication describes ammunition reporting, accounting and management practices for Marine Corps-owned assets stored at Navy activities and ships.

NAVAMMOLOGCEN and MARCORSYSCOM-sponsored ammunition management AIS contains information classified as UNCLASSIFIED, Sensitive But UNCLASSIFIED (SBU) CONFIDENTIAL, and SECRET, therefore granted access to these AIS is limited to personnel having the proper clearance, authorization, and valid need-to-know.

### **3.3 Description of current NAVAMMOLOGCEN and MARCORSYSCOM-sponsored AIS.**

Ammunition management is reliant upon the maintenance of independent applications and database management systems (DBMS). The following paragraphs describe the NAVAMMOLOGCEN and MARCORSYSCOM-sponsored AIS as they currently exist.

#### **3.3.1 Ammunition Disposal Inventory Management System (ADIMS).**

##### **3.3.1.1 ADIMS overview.**

ADIMS is a centralized DBMS that supports the Navy's Special Defense Property Disposal Account (SDPDA). ADIMS provides inventory accountability and asset visibility of all Ammunition, Explosives and other Dangerous Articles (AEDA), inert conventional ammunition accepted by Navy Special Account Property Disposal Officers (SAPDOs) worldwide and transferred to the SDPDA.

ADIMS provides an audit trail that includes the visibility and recording of all reutilization screening, donations, shipments, material transfers between Navy SAPDOs, disposal operations, sales, returns to service stock, shipment in-transit status, and the transfer of unclassified inert items or residual materials (including hazardous waste), to the servicing Defense Reutilization Management Office (DRMO).

ADIMS tracks material by Disposal Release Order (DRO) document number, stock number, Condition Code, lot and/or serial number, and storage location from the date material is accepted into the SDPDA until the date of final disposition.

ADIMS provides total visibility and current status of all assets held and provides information necessary for completion of the annual Program Administrators Report as required by DoD 4160.21-M.

##### **3.3.1.2 ADIMS operational environment.**

ADIMS is an UNCLASSIFIED real-time reporting system that updates asset data and applicable report data as each disposal and demilitarization transaction is entered. ADIMS operates on a Microsoft Windows NT 4.0 operating system and uses a Structured Query Language (SQL) database on a Dell Poweredge 6300 Server. The menu system utilizes the Visual Basic 6.0 programming language.

### 3.3.1.3 ADIMS general functions and capabilities.

ADIMS uses electronic files downloaded from CAIMS to supplement the ADIMS master National Stock Number (NSN) file and electronic files of Army activity demilitarization receipts. These activity receipts are received via email from the Single Manager for Conventional Ammunition (SMCA), Rock Island, IL, on a monthly basis to verify the receipt of ADIMS shipments.

ADIMS also converts electronic transaction files sent via email on a daily basis from Crane Army Ammunition Activity (CAAA), Crane, IN to the format required for ADIMS transactions, and processes the receipt/gain and asset maintenance transactions automatically.

### 3.3.1.4 ADIMS external interfaces.

ADIMS external system interfaces are as depicted in Figure 1.

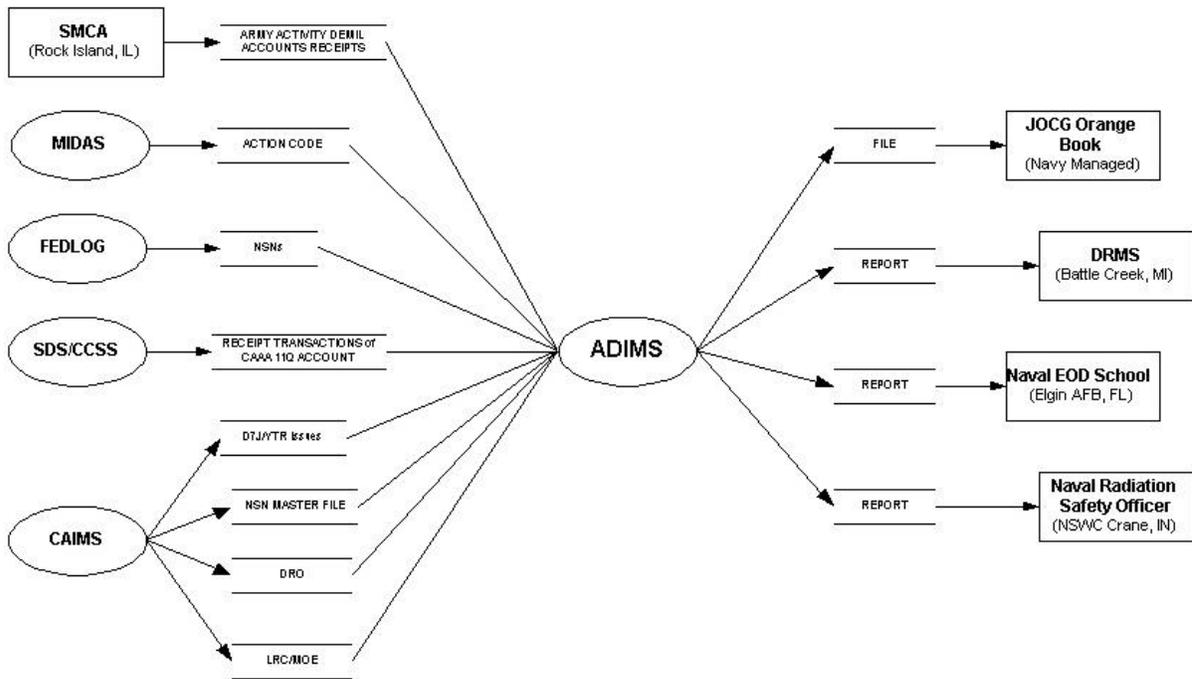


Figure 1 ADIMS External Interfaces

### 3.3.1.5 **ADIMS data.**

ADIMS consists of five basic groups of data:

- Master NSNs
- AEDA assets
- AEDA transaction history
- Inert assets
- Inert transaction history

ADIMS tracks material by Document Number, Stock Number, Condition Code, Lot and/or Serial Number, Location, Planned Disposal Method and Status from the date of receipt through to final disposition. This provides an audit trail that includes the following:

- Visibility and recording of all donations
- Shipments
- Material transfers between Navy SDPDAs
- Processing operations (reclamation, demilitarization, declassification or destruction)
- Sales
- Returns to service stock
- Transfer of unclassified inert items to the servicing DRMO

ADIMS maintains transactions for historical purposes for users, statistical research projects, and special requirements of the Navy Demilitarization Program Manager.

### 3.3.1.6 ADIMS major components.

Table 1 identifies and summarizes the major components of the ADIMS application.

<b>Component</b>	<b>Purpose</b>
<b>Asset Transactions</b>	This component is used to support ADIMS inventory asset transaction data regarding Receipts, Issues, Quantity Adjustments, Shipments, and Asset Maintenance.
<b>Tech Data</b>	This component is used to support and maintain technical data related to demilitarization, disposal, and disposition of assets.
<b>Queries</b>	This component provides customizable views of ADIMS asset data.
<b>Reports</b>	This component provides specified formatted reports on ADIMS transaction history, AEDA and inert ammunition financial information, due-in activity and tonnage information, NSNs, unauthorized receipts, and CAIMS DJ7 and YTR transaction matches.
<b>Navy Demil Contact</b>	This component provides Point of Contact (POC) information on SAPDO personnel and demil reporting activities.
<b>ADIMS Information</b>	This component provides ADIMS version and Navy Munitions Disposal Program Office information.
<b>Administrative Functions</b>	This component allows authorized ADIMS users to add and delete users, edit user permissions and profiles, and perform data import, data download, and certain data edit and maintenance functions.

Table 1 ADIMS Major Computer Software Components

### 3.3.1.7 ADIMS users and involved personnel.

ADIMS users consist of SAPDOs at SDPDA sites and activities responsible for the reclamation, demilitarization, declassification or destruction of conventional ammunition.

- Activities using ADIMS information include:
- Navy Radiation Safety Officer, to track ammunition items containing depleted uranium
- Naval Surface Warfare Center (NAVSURFWARCEN) Crane, to ensure assets are included in the Navy Propellant Surveillance Program
- NAVAMMOLOGCEN, to query open DROs
- Naval Explosive Ordnance Disposal Technology Division (NAVEODTECHDIV) and the Naval School Explosive Ordnance Disposal Detachment (NAVSCOLEODDET) at Eglin AFB, to identify material required for training purposes.

### **3.3.1.8 ADIMS support concept.**

The Navy Munitions Disposal Program Office, Crane Division located at the Naval Surface Warfare Center (NSWC) in Crane, Indiana is responsible for the development, configuration and maintenance of ADIMS. Support issues concerning ADIMS transactions, computer software components and configuration items are directed to NSWC Crane Code 4022. Currently, changes to ADIMS configuration items are made on an as-needed basis.

Authenticated users are connected to the DEMIL server through the NSWC Crane network domain via a Local Area Network (LAN) or Remote Access Server (RAS) connection.

Technical questions on ADIMS and ADIMS transactions or reports, as well as requests for password assignments, are directed to the Demilitarization Program Manager, NSWC Crane (Code 4022), DSN 482-5580/1577 or (812) 854-5580/1577.

### **3.3.2 Naval Ordnance Asset Visibility System (OrdVis).**

#### **3.3.2.1 OrdVis overview.**

The OrdVis System provides users with timely and accurate information on the location, movement, status and identity of units, personnel, equipment and supplies. The OrdVis system provides users with visibility of global ammunition data across all service lines.

#### **3.3.2.2 OrdVis operational environment.**

The OrdVis System is a classified SECRET, Secret Internet Protocol Router Network (SIPRNET)-hosted system that provides users access via a Web browser (Netscape or Internet Explorer). The OrdVis System uses a secure Web server to provide authorized users the capability to perform standard and unique queries for visibility information.

#### **3.3.2.3 OrdVis general functions and capabilities.**

The OrdVis System identifies the exact location of conventional ammunition assets, ships, battle groups, and fleets associated with ammunition items. The OrdVis provides authorized users regional map views having latitudinal and longitudinal positioning of afloat and ashore ordnance assets.

The OrdVis System provides users with timely and accurate information on the location, movement, status and identity of units, personnel, equipment and supplies. The OrdVis system provides users with visibility of global ammunition data across all service lines.

The OrdVis System provides users the capability to map objects (e.g., ordnance assets, ships, battle groups, and fleets) to specific geographical locations, with options to “drill-down” and zoom in from world views to more detailed regional views.

The OrdVis System provides spatial and plotted Graphical-User Interface (GUI) mappings of Navy ships and shore-based Weapons Stations. Maps are arranged in drop-down hierarchies from world to ship and/or port views. Users have the capability to query locations of a requested National Item Identification Number (NIIN) or Navy Ammunition Logistics Code (NALC) as well as ordnance in mobile status from Unit Identification Codes (UICs).

#### 3.3.2.4 OrdVis external interfaces.

OrdVis external system interfaces are as depicted in Figure 2.

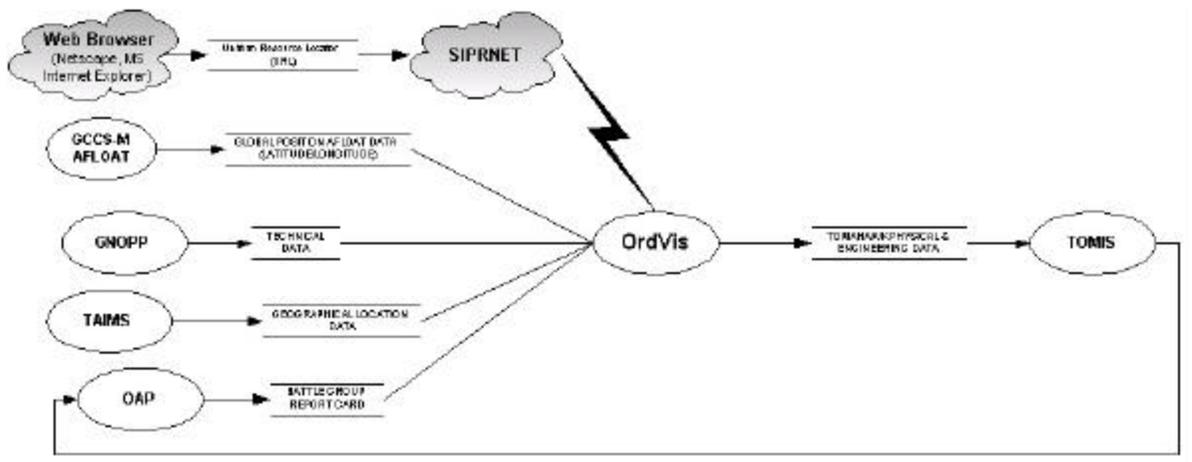


Figure 2 OrdVis External Interfaces

#### 3.3.2.5 OrdVis data.

The data contained in the OrdVis system is updated and made available on a secure Web site on a daily basis. The OrdVis system uses ordnance logistics data to provide asset visibility and logistics management in global and theater operations. The primary areas of visibility provided by the OrdVis system include the following:

- **Assets In-Storage.** Assets in-storage at retail intermediate storage sites, at disposal activities, or in wholesale inventories, to include ashore and afloat prepositioned assets.
- **Assets In-Process.** Assets on order, or due in from Department of Defense (DoD) vendors and not yet shipped, assets in repair at depot-level organic or commercial repair facilities, and assets in repair at intermediate repair facilities.
- **Assets In-Transit.** Assets between storage locations, either wholesale or retail, assets shipped from vendors after acceptance by the government but not yet received by the Stockpile Manager, and assets that cannot be properly identified or categorized.

**3.3.2.6 OrdVis major components.**

Table 2 identifies and summarizes the major components of OrdVis.

<b>Component</b>	<b>Purpose</b>
<b>Areas Of Responsibility</b>	This component provides visibility to ordnance asset data based on the command elements such as Commander-In-Chief Atlantic Fleet (CINCLANTFLT), Commander-In-Chief Atlantic Fleet Pacific Fleet (CINCPACFLT), Commander-In-Chief Atlantic Fleet Navy Europe (CINCNAVEUR), etc.
<b>Themes</b>	This component allows the user to view ordnance assets at the worldwide and regional levels based on input parameters for Forward Deployed Naval Forces (FDNF), Battle Groups, Shore Sites, Ship Ports, Airports, and Independent Steamers.
<b>Reports</b>	This component provides specified formatted and adhoc reports on OrdVis assets at the Worldwide, AOR, ACOM, Fleet, and Battle Group levels

Table 2 OrdVis Major Computer Software Components

**3.3.2.7 OrdVis users and involved personnel.**

OrdVis system users consist of Commander in Chief/Joint Task Force Commanders, DoD logisticians at all levels, Acquisition/Program Managers, Stockpile Managers, and warfighters. Navy-specific OrdVis system users/customers include OPNAV (N411) and NAVAMMOLOGCEN.

**3.3.2.8 OrdVis support concept.**

The OrdVis system is developed and maintained by the NAVAMMOLOGCEN Mechanicsburg, PA. Access to the OrdVis system is obtained via a valid UserID and password. Verification of clearance from the NAVAMMOLOGCEN security officer is required in addition to a completed user account application and a security brief. OrdVis system support is available through the NAVAMMOLOGCEN Help Desk from 0730 to 1630 Eastern Standard Time (EST) (Monday-Friday).

### **3.3.3 Conventional Ammunition Integrated Management System (CAIMS).**

#### **3.3.3.1 CAIMS overview.**

CAIMS is the single repository for worldwide status of Navy expendable non-nuclear ordnance requirements, assets, production, expenditures, costs, and technical inventory management data, regardless of inventory management or ownership responsibilities. All Navy ammunition assets, regardless of inventory management or ownership responsibilities, are reported to and recorded in CAIMS with the exception of assets that have been authorized for demilitarization and receipted into ADIMS.

#### **3.3.3.2 CAIMS operational environment.**

CAIMS is a classified CONFIDENTIAL system that currently resides on an IBM 3090-300E mainframe computer. Access to CAIMS applications and data is made through a worldwide secure remote network. Users can access the system by utilizing personal computers equipped with 3270 emulation capability. CAIMS terminals are located in 21 geographical areas and are under the cognizance of 33 different commands. Currently there are 215 terminals at 68 sites including Continental United States (CONUS) activities, England, Italy, Singapore and Guam. These sites provide access for approximately 726 CAIMS users worldwide. Afloat units access CAIMS via STU-III dial-up.

Development efforts of CAIMS Open System Environment (OSE) to make CAIMS a Web-enabled system are under way. The CAIMS-OSE version will be a client-server system using an Oracle DBMS hosted on a Sun Solaris operating system.

The CAIMS-OSE client workstation is an IBM compatible personal computer (PC) using Microsoft Windows NT 4.0 or later operating system. The physical location of the client workstation and connectivity to CAIMS-OSE is subject to NAVAMMOLOGCEN security requirements and users must have prior accreditation from the Defense Information Systems Agency (DISA) Defense Information System Network (DISN) before establishing a connection to CAIMS-OSE. Access to CAIMS-OSE will be made via a Web browser (Netscape or Internet Explorer) through SIPRNET.

#### **3.3.3.3 CAIMS general functions and capabilities.**

CAIMS serves as a central repository of worldwide inventory and technical data supporting the information requirements of all Naval managers of expendable non-nuclear ordnance material, regardless of inventory management, ownership or custodial responsibilities. ADIMS contains asset data for material that has been authorized for demilitarization and receipted into ADIMS. CAIMS provides the capabilities to:

- Maintain a central record of stock status information (including serviceable and non-serviceable assets) updated daily by transaction reports from all holders of Navy-owned assets.

- Maintain a central record of worldwide asset positions and expenditures updated at appropriate intervals in accordance with current requirements.
- Maintain a central record of material in-transit between contractors and Naval activities, and in-transit among Naval activities, updated daily.
- Maintain a central stock status and configuration record of serialized weapons and components, updated daily.
- Maintain a central record of material in production, procurement, or under renovation, updated daily.
- Maintain a central technical data file for inventory management functions as a source for Navy Stock Lists; change notice cards; All-Up-Round (AUR) dictionary; packaging, safety and transportation management publications; and for use in stratification, budgeting, readiness determinations, and component requirement computations, and as a basis for selecting or recommending substitutions or alternate items for requisitioning, stratification, or budgeting process.
- Maintain a central record of ammunition storage capabilities for use in measuring storage capabilities against requirements.
- Maintain a central record of actual and potential production capabilities of Navy and selected commercial producers.
- Maintain a central record of individual units by serial number or aggregate units by lot designation, using the Serial/Lot Item number (applied to high-value items such as missiles, mines, and torpedoes).

### 3.3.3.4 CAIMS external interfaces.

CAIMS external system interfaces are as depicted in Figure 3.

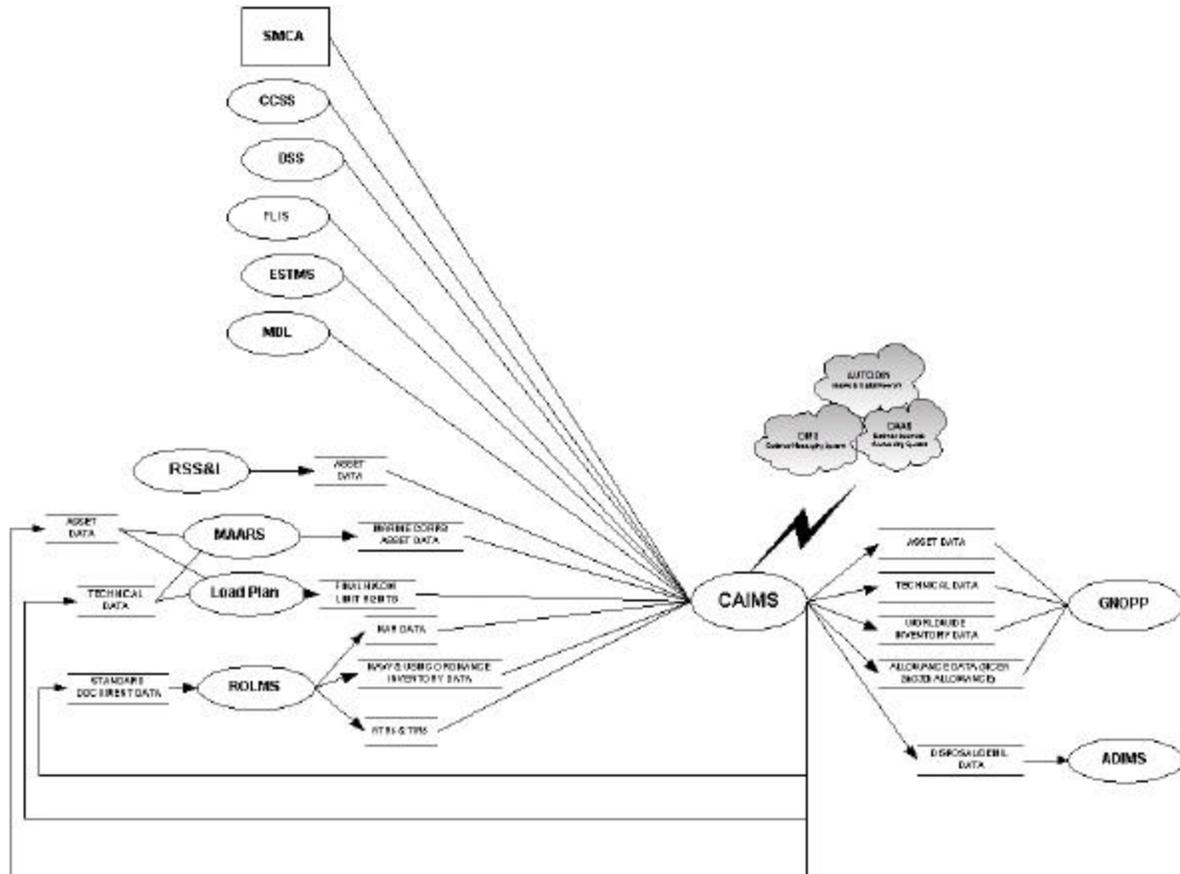


Figure 3 CAIMS External Interfaces

### 3.3.3.5 CAIMS data.

CAIMS contains the various elements of data required to support requisition processing, asset accountability, requirements determination, procurement and renovation tracking, cataloging, transportation, stratification, and disposal of conventional ammunition. The primary areas of data provided by CAIMS include the following:

- New stock number, NALC and Department of Defense Identification Code (DODIC) assignments, Change Notice Bulletins, and technical characteristics.
- Quantity on hand, location (including in-transit) due-in, condition, receipts, issues, serial number and configuration data for serialized weapons/components, reservations or restrictions.

- Due-In tracking data based on scheduled delivery dates, Prepositioned Material Receipt Cards (PMRCs), shipment/performance notifications, and administrative and production lead-time computations.
- Data for tracking of requisitions, modifications, referrals, follow-ups, shipping status, issues, receipts, cancellations, Material Release Orders (MROs), and results of the cross-decking of assets.
- Data for Serial and Lot reporting of lead components for Sidewinder, Sparrow, Harpoon, Phoenix, Hellfire, Walleye, SLAM, Stinger, Maverick, HARM, Tomahawk, Standard Missile and AMRAAM.
- Financial inventory accounting and billing data.
- Receipt transaction data from commercial procurement, receipt from storage locations, issue of material from stock, increase/decrease adjustments, dual adjustment transactions, re-identification of stock, asset status cards, for further transfer, material movement for repair/test, demilitarization, and disposal.
- History data of items, segments or lots of explosive, ordnance/material declared as a safety hazard, unsuitable for use or suspended for any reason.
- Data for identification and documenting transfer of unserviceable or excess/surplus material from inventory to disposal account.
- Data for identification and tracking ammunition loads to support ship and organizational mission.
- Data for distribution of major CONUS assets based on requirements and the fairsharing of assets held by the Major Commands.
- Data for monthly reporting of CAIMS assets by Lot Number.
- Data for tracking and budgeting Outside Continental United States (OCONUS) transportation requirements/shipments.
- Data for comparing ammunition to inventory asset requirements to determine excess inventory.
- Data for processing, monitoring, reconciliation and generation of physical inventory transactions for current stock records.
- Data for tracking training requirements, allocations and expenditures.

3.3.3.6 CAIMS major components.

Table 3 identifies and summarizes the major components of CAIMS.

<b>Component</b>	<b>Purpose</b>
Supply Transaction Processing ( <b>STP</b> )	This component supports the functions necessary for on-line retrieval and hard copy reports of worldwide, command, and area-grouped asset and expenditure data for the current and prior eleven months and fiscal year-end data for the last five years.
Requisition Processing ( <b>REQN</b> )	This component supports the functions required to manage the total life cycle, (i.e. retrieval, validation, error correction, and reporting) of the ammunition requisitioning process.
Transportation Processing ( <b>TRANS</b> )	This component supports the functions required to plan and track materiel shipments for overseas requisitions debarking from the CONUS.
NAVAMMOLOGCEN Ordnance Routing Manager ( <b>NORM</b> )	This component supports the functions necessary to establish, distribute, delete, and review, on-line, action item records. It provides for the routing of action items to a particular CAIMS user, and allows authorized users to delete the connection between source programs and transactions to users.
Procurement, Renovation, Production Processing ( <b>PRP</b> )	This component supports the functions required to establish, and maintain procurement, renovation, and production schedule data.
Allowance/ Non-Combat Expenditure Allocation ( <b>ALO</b> )	This component supports the functions required for on-line retrieval, maintenance, and reports of Allowance, Load Plan, Non-Combat Expenditure Allocation (NCEA), and Training, Testing, and Current Operational Requirements (TTCOR) data.
Control Number Processing ( <b>CTN</b> )	This component supports the functions required to establish and maintain assigned Control Numbers for Prepositioned War Reserve Material Requirement (PWRMR) quantities. It uses Control Numbers to cross-reference related NALCs that are within the same Cognizance (COG) area to support the fair share of limited assets and the stratification of excess material.
Notice of Ammunition Reclassification ( <b>NAR</b> )	This component supports the functions required for the worldwide reclassification of Navy conventional ammunition due to malfunction or defect experienced during production or use.
Supply Document (SUPDOC) Batch History Retirement ( <b>SRH</b> )	This component supports the functions necessary to archive superseded and unmatched data from the CAIMS database, and generate a list of keywords from Supply Document History data.
Stratification ( <b>STR</b> )	This component supports the functions required to identify conventional ammunition assets that are in excess of inventory requirements, or the 'stratification' process. It supports on-demand stratification following the annual stratification period occurring on or about October 1.

<b>Component</b>	<b>Purpose</b>
Technical Data Maintenance ( <b>TDM</b> )	This component supports the functions required to establish and maintain ammunition standard technical data. It provides a means for reconciliation of CAIMS inventory management data with the Defense Logistics Service Center (DLSC), ROLMS, and the activity address data received from the Defense Automatic Addressing System (DAAS).
Automatic Digital Network ( <b>AUTODIN</b> ) Messaging	This component supports the functions required to interface with the AUTODIN messaging system. It supports the processing, formatting, and disbursement of CAIMS transactions intended for the AUTODIN messaging system.
Data Download ( <b>DDL</b> )	This component supports the functions required to download CAIMS data to the user for further manipulation.
CAIMS On-line <b>Help</b>	This component provides an on-line Help system CAIMS that gives screen tutorials and user documentation.
Miscellaneous ( <b>MSC</b> )	This component provides miscellaneous functions that support reporting requirements of assets for weekly, monthly, and other time-specific specialized reports.

Table 3 CAIMS Major Computer Software Components

### 3.3.3.7 CAIMS users and involved personnel.

CAIMS customers and users consist of:

- Atlantic Ordnance Command (AOC) activities
- Weapons Support Activities
- Naval Weapons Stations
- Naval Air Stations
- Naval Warfare Centers
- Chief of Naval Operations (OPNAV) Staff
- Fleet Commander-in-Chief (FLTCINCS)
- Headquarters, United States Marine Corps (HQ USMC)
- Marine Air Wings
- Acquisition/Program Managers Unified Commands
- System Commands
- Type Commands (TYCOMs)
- Battle Groups
- Aircraft carriers

### 3.3.3.8 CAIMS support concept.

CAIMS is developed and maintained by the NAVAMMOLOGCEN Mechanicsburg, PA. Access to CAIMS is obtained via a valid UserID and password. Requests for CAIMS user accounts must be submitted in accordance with NAVSUP P-724.

Technical assistance for access/connection may be obtained from NAVAMMOLOGCEN, 5450 Carlisle Pike, P.O. Box 2011, Mechanicsburg, PA 17055-0735. (Telephone 1-800-204-1802, (717) 605-5350 or 6532, or DSN 430-5350 or 6532). Both a telephone number and fax number must be included in all requests.

Requests for CAIMS assistance, problem reports, or requirements for system changes may also be made by contacting NAVAMMOLOGCEN, 5450 Carlisle Pike, P.O. Box 2011, Mechanicsburg PA 17055-0735. (Telephone 1-800-204-1802, (717) 605-5350 or 6532, or DSN 430-5350 or 6532). Disposition of requests are provided to originators within 30 days of receipt.

## 3.3.4 Defense Transportation Tracking System (DTTS).

### 3.3.4.1 DTTS overview.

The DTTS is a DoD system that uses satellite positioning and communications technology, digitized mapping, and 24-hour oversight to monitor the movement of shipments of sensitive Arms, Ammunition and Explosives (AA&E) being transported in CONUS by specially approved commercial motor carriers. DTTS is a component of the DoD master plan for Total Asset Visibility (TAV) capability for DoD material and provides increased safety and security for AA&E being shipped via commercial carrier. DTTS operates on a 24-hour a day basis, continuously monitoring 400 – 600 movements of AA&E.

The primary mission of DTTS is the safety and security of in-transit ordnance. The secondary mission to support the DoD In-Transit Visibility (ITV) initiative by forwarding ordnance movement and positioning data to the U.S. Transportation Command (USTRANSCOM) Global Transportation Network (GTN) on an hourly basis.

### 3.3.4.2 DTTS operational environment.

DTTS is an UNCLASSIFIED system that operates on a UNIX System V operating system using Hewlett Packard (HP) 9000 mini-computers. Application programs contain a combination of INFORMIX-4GL, INFORMIX-SQL and “C” languages. Communication requirements are supported by 28 toll-free telephones, 19 regular telephones, and 2 dedicated data lines.

### 3.3.4.3 DTTS general functions and capabilities.

The DTTS is used to monitor in-transit ammunition assets and other sensitive CONUS shipments to and from geographical locations. The DTTS tracks shipments from shipping point, to loading and unloading points, to receiving point. DTTS provides quick emergency response, alerting proper authority in the event of an accident or when a shipment becomes overdue.

### 3.3.4.4 DTTS external interfaces.

DTTS external system interfaces are as depicted in Figure 4.

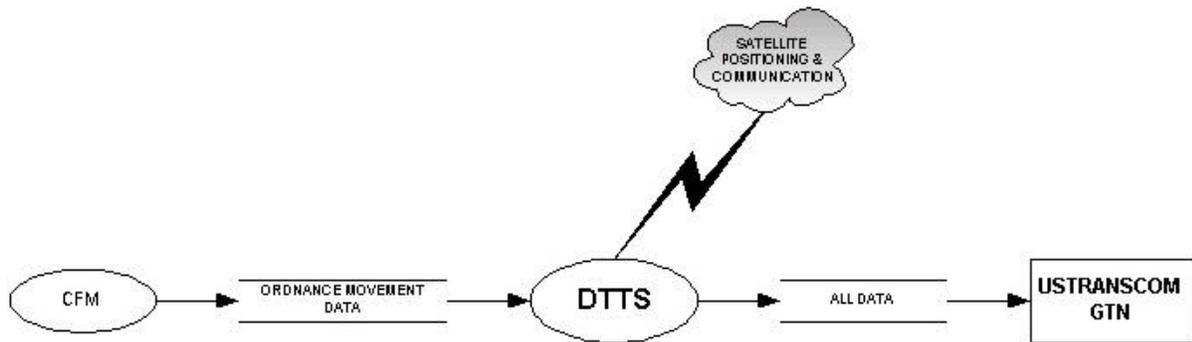


Figure 4 DTTS External Interfaces

### 3.3.4.5 DTTS data.

The transportation information in DTTS provides the ability to identify vehicle departure, receipt confirmation, carrier information. DTTS offers a variety of ordnance movement information for two different levels of access:

- Ordnance shipping/receiving activities
- DoD management activities

Movement information includes such level of detail as Security Risk Category, Hazard Class/Division, and Net Explosive Weight (NEW) used by ordnance shipping and receiving activities to obtain details on ordnance shipments or receipts.

Management activities such as NAVAMMOLOGCEN, USTRANSCOM, the U. S. Army's Operations Support Command (OSC), Headquarters U. S. Air Force, and authorized users use DTTS to obtain broad reports involving total movements.

### 3.3.4.6 DTTS major components.

Table 4 identifies and summarizes the major components of DTTS.

<b>Component</b>	<b>Purpose</b>
<b>Shipment</b>	This component provides for the creation, modification, and query of shipment information.
<b>Email</b>	This component allows the user to view, copy, and delete electronic mail in their DTTS mailbox, and to send electronic mail to other DTTS users.
<b>Admin</b>	This component allows users to change their personal passwords.
<b>Reports</b>	This component provides specified formatted reports and queries on DTTS active and completed shipments.

Table 4 DTTS Major Computer Software Components

### 3.3.4.7 DTTS users and involved personnel.

DTTS services a wide variety of customers, including DoD ordnance shipping activities, many commercial AA&E manufacturing/maintenance contractors, commercial truck drivers responsible for transporting ammunition and hazardous materiel, Commanders-in-Chief (CINCs), TYCOMs, and various ordnance logistics and transportation command elements.

### 3.3.4.8 DTTS support concept.

DTTS is developed and maintained at the Central Computer Facility (CCF) located at the Norfolk Naval Base in Norfolk, VA. Access to DTTS requires a UserID and password.

Technical assistance and problem reports are directed to the DTTS Chief, Systems and Technology Branch, DSN 565-2493 or 757-445-2493.

DTTS change or modification requests are directed to DTTS Program Manager, DSN 354-6058 X174 or 301-744-6058 X174.

## 3.3.5 Global Naval Ordnance Positioning Plan (GNOPP).

### 3.3.5.1 GNOPP overview.

The GNOPP-Tool provides users with timely and accurate information on the positioning quantities of conventional ordnance to include the following:

- Required end items
- Components and subassemblies
- Daily deficit of conventional ordnance in support of one or more operational scenarios

- Combat usable assets available to apply against the positioning requirement as well as combat scenarios
- Complete round information on all conventional ordnance assets
- Programmable logistics analyses
- Ordnance information and management metrics

The GNOPP Tool is used to provide available positioning quantities of Naval ordnance and daily deficits of Naval ordnance for one or more given scenarios. Additionally, the GNOPP Tool provides to both the logistics and operating forces a single system for near real-time naval ammunition logistics planning and inventory evaluation and assessment.

#### **3.3.5.2 GNOPP operational environment.**

The GNOPP Tool is a classified SECRET, SIPRNET-hosted system that provides users access via a Web browser (Netscape or Internet Explorer). The GNOPP Tool uses a secure Web server to provide authorized users read-only access to Naval ammunition logistics planning and inventory evaluation information.

#### **3.3.5.3 GNOPP general functions and capabilities.**

The GNOPP Tool is a menu-driven system providing data element comparisons, quantity calculations, identified reports on demand, and ad hoc data searches and reports. The GNOPP Tool allows for the downloading of information into standard desktop applications, and for producing metrics used in ordnance management and systems maintenance.

The GNOPP Tool is designed to sort and aggregate the ordnance inventory based on user selections and inputs. The GNOPP Tool links the ordnance inventory database and the Non-Nuclear Ordnance Requirements (NNOR) document to provide scenario-driven shortfalls/excesses.

### 3.3.5.4 GNOPP external interfaces.

System interfaces with the GNOPP Tool are as depicted in Figure 5.

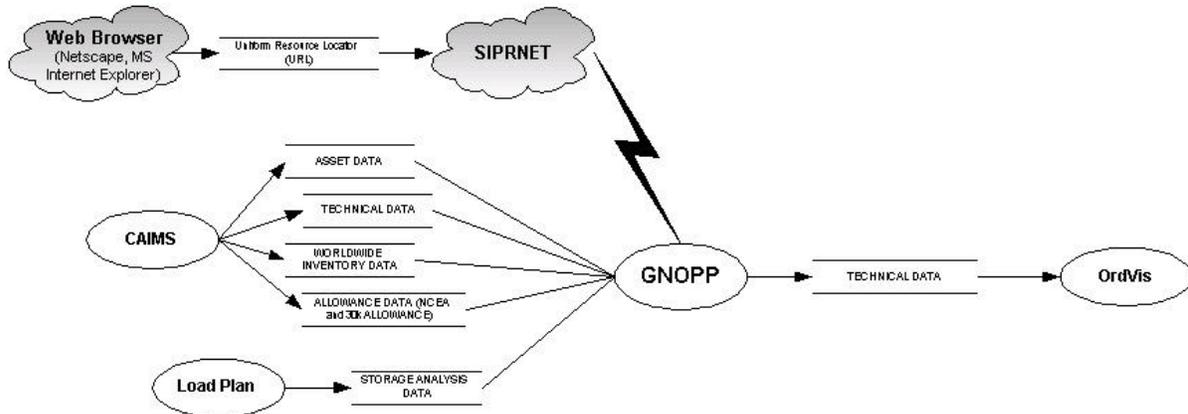


Figure 5 GNOPP External Interfaces

### 3.3.5.5 GNOPP data.

The GNOPP Tool contains information on all required ordnance assets to include AUR configurations. It also contains the components/sub-components required to deploy the AUR as planned for Combat Expenditure, Training, Testing, Current Operations, and reconstitution, e.g., the Strategic Readiness Requirements (SRR) and the Residual Readiness Requirement (RRR) of the forces in accordance with DoD Planning Guidance (DPG). The primary areas of data provided by the GNOPP Tool include the following:

- AUR configuration data accessible as a function of worldwide availability and/or by major command and specific location, afloat and ashore.
- Positioning quantities of AURs and equivalent AURs in support of global Naval positioning based on assets reported in CAIMS.
- The quantity of GNOPP Constrained Assets (GCA) related to information resident in the complete round dictionary.
- The computed daily deficit of each ordnance item and its substitutes based on the requirements of the selected scenario.

### 3.3.5.6 GNOPP major components.

Table 5 identifies and summarizes the major components of the GNOPP Tool.

<b>Component</b>	<b>Purpose</b>
<b>CRIS</b> (Complete Round Information System)	This component allows queries based upon tactical and training AUR configuration, or individual components, to include all related components, alternates, and substitutes.
<b>GCA</b> (GNOPP Constrained Assets)	This component allows queries by the condition code assigned to the inventory item.
<b>PQR</b> (Positioning Quantity Requirement)	This component compares, by item, the user defined requirement against the user-defined inventory to provide a quantity that will be used in later calculations.
<b>DDM</b> (Daily Deficit Module)	This component compares the time-phased in-theater assets against the Operation Plan (OPLAN) combat expenditure requirement and computes any deficit.

Table 5 GNOPP Major Computer Software Components

### 3.3.5.7 GNOPP users and involved personnel.

Specific GNOPP customers and users are currently being identified. The Chief of Naval Operations (CNO) (N41) sponsors the overall GNOPP, and development of software support tools that are designed, developed and deployed by the Naval Supply Systems Command. The NAVAMMOLOGCEN is designated as the Functional Sponsor and Project Manager to coordinate with the GNOPP Working Group, Fleet Commanders, and Marine Corps Force Commanders to outline the specific requirements for the system.

### 3.3.5.8 GNOPP support concept.

Access and communication with the GNOPP Tool is through the use of a client IBM compatible PC and a Web browser (Netscape or Microsoft Explorer). Access is controlled and allowed for read-only capability for accounts having valid UserIDs and passwords.

GNOPP Tool customer support access procedures are currently being developed.

### **3.3.6 Load Plan.**

#### **3.3.6.1 Load Plan overview.**

The Load Plan application is used to plan and report worldwide ammunition storage facility space utilization and capabilities of Navy and Marine Corps storage activities. The Load Plan application provides an automated means for developing load plans for ordnance storage activities, for assisting with special logistics projects, and for reporting compliance in accordance with OPNAVINST 8010.12F.

The Load Plan application supports business processes associated with analysis, projection, control, use, and reporting on worldwide ammunition storage facility capabilities for activities and duties defined in NAVSEAINST 8023.

#### **3.3.6.2 Load Plan operational environment.**

The Load Plan application is a classified CONFIDENTIAL client-server application that uses an Oracle DBMS hosted on a SunOS operating system. Users access Load Plan through the use of a client IBM compatible PC and a Web browser (Netscape or Microsoft Explorer).

#### **3.3.6.3 Load Plan general functions and capabilities.**

The Load Plan application provides interoperability, portability, and scalability for the following functional areas:

- Space Utilization
- Magazine Hazard Class Capacity
- Load Plan Compliance
- Load Plan Storage Validation
- Load Plan Distribution Model
- Load Plan Assets and Tonnage

### 3.3.6.4 Load Plan external interfaces.

System interfaces with the Load Plan application are as depicted in Figure 6 Load Plan External Interfaces.

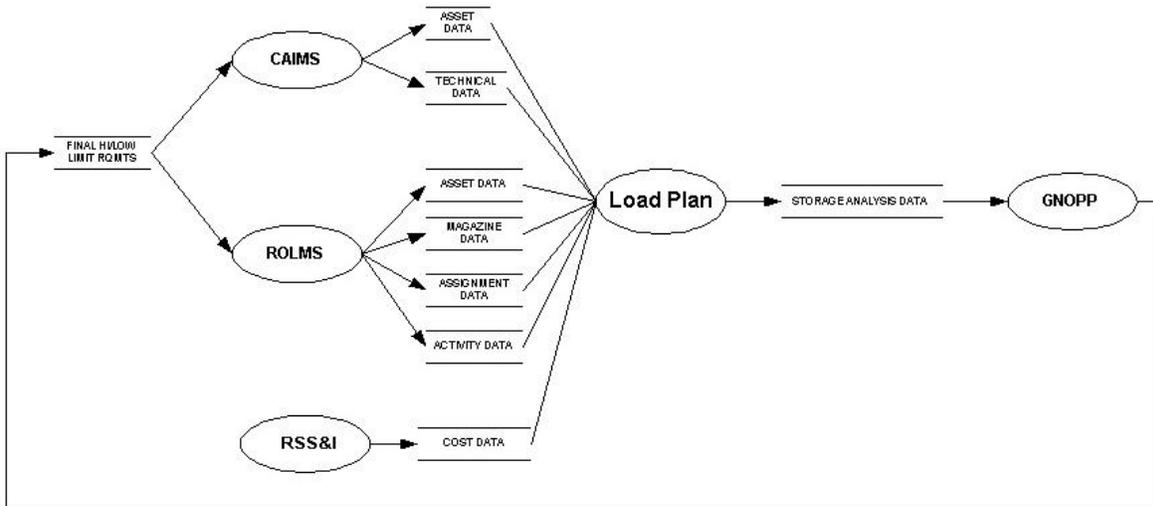


Figure 6 Load Plan External Interfaces

### 3.3.6.5 Load Plan data.

The primary areas of data provided by the Load Plan application include the following:

- Data that supports the restrictions on magazines to store ammunition.
- Data used to support compliance metrics for stocking levels versus actual on-hand assets.
- Data used to analyze proposed stock levels against warehouse space.
- Data used to support transportation efficiency models for the redistribution of assets under proposed stocking plans.

### 3.3.6.6 Load Plan major components.

Table 6 identifies and summarizes the major components of the Load Plan application.

Component	Purpose
<b>Space Utilization Module</b>	This component provides the capability to maintain a complete and accurate index of space utilization.
<b>Magazine Hazard Class Capacity Module</b>	This component provides the capability to maintain a complete and accurate index of magazine capacity.
<b>Load Plan Compliance Module</b>	This component provides the capability to determine tonnage amounts required at specified stations to meet Load Plan levels.
<b>Load Plan Storage Validation Module</b>	This component provides the capability to validate storage by determining if ordnance required by the Load Plan could feasibly be stored at each facility.
<b>Load Plan Distribution Model Module</b>	This component provides the capability to optimize asset storage locations and minimize transportation costs associated with Load Plan High or Low values.
<b>Load Plan Assets and Tonnage Module</b>	This component provides the capability to generate various reports that measure the performance of the Load Plan.

Table 6 Load Plan Major Computer Software Components

### 3.3.6.7 Load Plan users and involved personnel.

Load Plan customers and users consist of Navy, Marine Corps and Coast Guard activities involved with handling and storing conventional ammunition.

### 3.3.6.8 Load Plan support concept.

Load Plan is developed and maintained by the NAVAMMOLOGCEN Mechanicsburg, PA. NAVAMMOLOGCEN is responsible for the maintenance of the Space Utilization and Stowage data; Magazine Hazard Class Capacity reporting; maintenance and publishing of the Load Plan, space validation, and distribution modeling; and Fleet Positioning assistance. Access to Load Plan is obtained via a valid UserID and password. Requests for Load Plan assistance, problem reports, or requirements for system changes may be made by contacting NAVAMMOLOGCEN, 5450 Carlisle Pike, P.O. Box 2011, Mechanicsburg PA 17055-0735. (Telephone (717) 605-8602 or DSN 430-8602).

### **3.3.7 Marine Corps Ammunition Accounting/Reporting System (MAARS)-II.**

#### **3.3.7.1 MAARS-II overview.**

MAARS-II provides support for record keeping and inventory management functions for all Marine Corps-owned ammunition worldwide, regardless of physical location. It provides the conventional inventory management functions and communication links for interchanging data among Marine Corps, Navy, Army, and other Governmental ammunition and record-keeping systems. MAARS-II supports ammunition life-cycle management, research and development, quality control and assurance, and various operational planning functions for the Program Manager, stockpile/item managers, and Marine Forces.

#### **3.3.7.2 MAARS-II operational environment.**

MAARS-II is a Sensitive but UNCLASSIFIED (SBU) system that currently resides on an IBM AS/400 mid-range computer. Access to MAARS-II applications and data is made through the Local Area Network (LAN) for internal users and the Non-Classified Internet Protocol Routing Network (NIPRNET) for external/remote users. Individuals can access the MAARS-II by utilizing PCs equipped with IBM's 5250 Terminal Emulation programs with appropriate Secure Socket Layer (SSL) enabled or by accessing the approved Marine Corps IBM Host on Demand (HOD) web site.

The MAARS-II client workstation is an IBM compatible PC using Microsoft Windows NT 4.0 or later operating system. Client workstation connectivity to MAARS-II is subject to the Marine Corps Information Technology & Network Operations Center (MITNOC) security requirements. Access to MAARS-II can be made via a Web browser (Internet Explorer 4.0 or above) with 128-bit cipher strength through the NIPRNET or by a properly configured PC with an approved secure TN5250 terminal emulation program.

#### **3.3.7.3 MAARS-II general functions and capabilities.**

MAARS-II serves as the ICP for all Marine Corps-owned ammunition worldwide. The functions include processing requisitions, issues, redistributions, asset and procurement data, and provides the capability to plan, procure, position, and distribute ammunition for the entire Marine Corps. MAARS-II provides the capabilities to:

- Maintain a central record of stock status information (including serviceable and non-serviceable assets) updated daily by MILSTRIP/MILSTRAP transactions from all holders of Marine Corps owned assets.
- Maintain a central record of worldwide asset positions.
- Maintain a central record of material in-transit between storage activities (SMCA Depots, Naval activities, and Marine Corps Ammunition Supply Points (ASPs)), updated daily.

- Maintain a central stock status of serialized controlled ammunition items, updated daily.
- Maintain a central record of material in production, procurement, or under renovation, updated daily.
- Maintain a central technical data file for inventory management functions; which includes packaging, safety, and transportation.

### 3.3.7.4 MAARS-II external interfaces.

MAARS-II external system interfaces are as depicted in Figure 7.

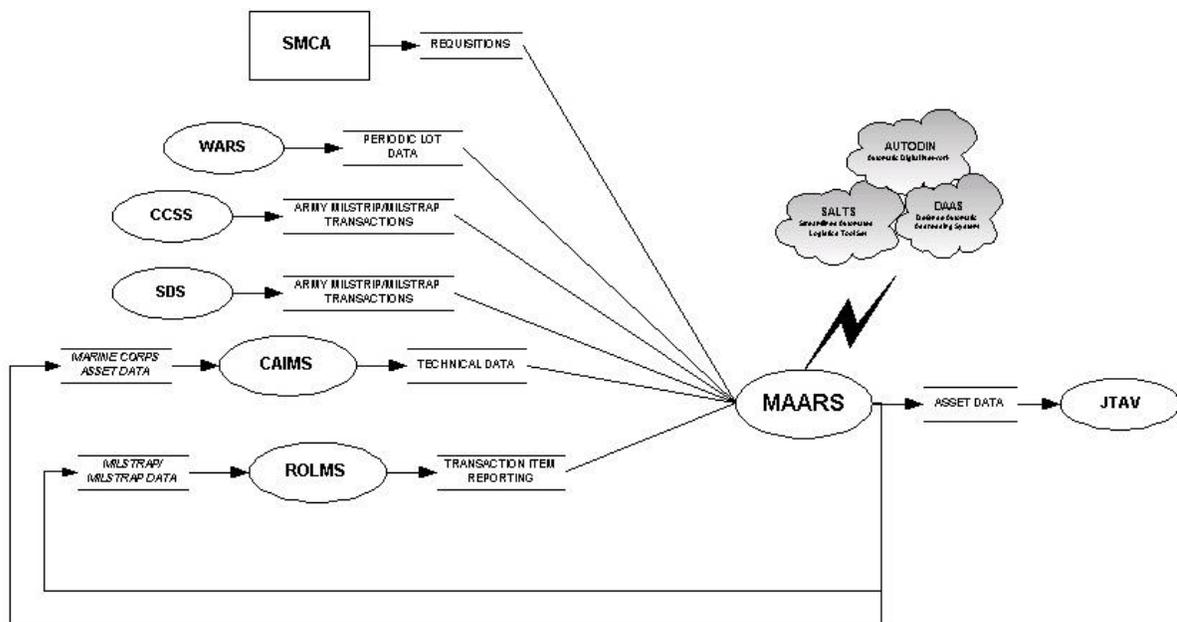


Figure 7 MAARS-II External Interfaces

### 3.3.7.5 MAARS-II data.

MAARS-II contains the various elements of data required to support requisition processing, asset accountability, procurement and renovation tracking of Marine Corps owned ammunition. The primary areas of data provided by MAARS-II include the following:

- Quantity on hand, location (including in-transit), due-out, due-in, condition, receipts, issues, serial number and configuration data for serialized weapons/components, reservations, or restrictions.
- Data for tracking of requisitions, modifications, referrals, follow-ups, shipping status, issues, receipts, cancellations, reversals, and Material Release Orders (MROs).

- Receipt transaction data from commercial procurement, receipt from storage locations, issue of material from stock, increase/decrease adjustments, dual adjustment transactions, re-identification of stock, for further transfer, material movement for repair/test, demilitarization, and disposal.
- History data of items, segments or lots of explosive, ordnance/material declared as a safety hazard, unsuitable for use or suspended for any reason.
- Data for identification and documenting transfer of unserviceable or excess/surplus material from inventory to disposal account.
- Data for comparing ammunition to inventory asset requirements to determine excess inventory.
- Data for processing, monitoring, reconciliation and generation of physical inventory transactions for current stock records.

#### 3.3.7.6 MAARS-II major components.

Table 7 identifies and summarizes the major components of MAARS-II.

<b>Component</b>	<b>Purpose</b>
<b>Item Management</b>	This component supports the acquisition, transportation, remanufacture, and demilitarization of ammunition items.
<b>Inventory Control</b>	This component supports the accurate recording and reporting of inventory for asset visibility.
<b>Procurement Management</b>	This component supports the procurement and allocation of ammunition items.
<b>Query</b>	This component provides online queries to inventory status.
<b>Reports</b>	This component provides the capability to obtain reports needed for day-to-day operations.
<b>Lot /Serial Ammunition Tracking</b>	This component provides the capability to track the movement of controlled ammunition items at the serial number and lot number level.
<b>Waste Accounting Tracking</b>	This component provides the capability to track the movement of ammunition items that have been declared as Hazardous Waste.
<b>Reference Data Management</b>	This component supports the maintenance of various reference files used to control the MAARS-II database.
<b>System Administration</b>	This component is used to control user access, database maintenance, and batch job submission.
<b>Online Help</b>	This component provides an on-line Help system that provides the user documentation.

Table 7 MAARS-II Major Computer Software Components

### **3.3.7.7 MAARS-II users and involved personnel.**

MAARS-II users consist of:

- Program Manager for Ammunition (MARCORSYSCOM) personnel
- Marine Corps Liaison Offices
  - Operations Support Command (OSC)
  - Single Manager for Conventional Ammunition (SMCA) Depots
  - Naval Weapons Stations
  - Naval Surface Warfare Centers (NSWC)
  - Naval Magazines
  - Naval Fleet Activities
- Marine Forces Pacific (MARFORPAC)
- Marine Forces Atlantic (MARFORLANT)
- Marine Forces Reserve (MARFORRES)
- Marine Corps Programs Department (MCPD)

### **3.3.7.8 MAARS-II support concept.**

MAARS-II is developed and maintained at the Program Manager for Ammunition (PMAMMO), MARCORSYSCOM located at the Marine Corps Base in Quantico, VA. Access to MAARS-II is obtained via a valid UserID and password.

Technical assistance, access requests, training requests, and problem reports are directed to the PMAMMO MARCORSYSCOM Systems Branch. Current mailing address and telephone numbers can be obtained from the MARCORSYSCOM WEB site at <http://www.marcorsyscom.usmc.mil/am/ammunition/index.htm>

## **3.3.8 Naval Asset Utilization Tracking Inventory Logistics User-friendly System (NAUTILUS).**

### **3.3.8.1 NAUTILUS overview.**

The NAUTILUS application provides the capability to develop ten-year projections and models of weapon system replenishment and maintenance budget requirements.

### **3.3.8.2 NAUTILUS operational environment.**

NAUTILUS is an UNCLASSIFIED standalone application that operates on a Microsoft Windows operating system and uses a Microsoft Access database on IBM compatible PCs.

### 3.3.8.3 NAUTILUS general functions and capabilities.

The NAUTILUS application provides the capability to develop models, generate reports, and maintain information on the following:

- Costs/quantities of replenishment “buys” and repairs.
- War reserve shortfalls and availability
- Monthly/yearly listings of issues, depot assets, repair returns, and new procurement deliveries.
- Monthly/yearly stock level projections over the lifecycle of a weapon system for up to ten years.
- Asset level comparisons.

### 3.3.8.4 NAUTILUS external interfaces.

The NAUTILUS application is a PC-based system and has no external system interfaces.

### 3.3.8.5 NAUTILUS data.

The NAUTILUS application contains information required to develop projections of weapons systems replenishment and maintenance budget requirements. The primary areas of data provided by the NAUTILUS application include the following:

- Depot asset levels.
- Operating schedules and usage history.
- Item failure rates.
- Procurement and repair lead-times.
- Depot scrap rates.
- Unit and repair costs.

### 3.3.8.6 NAUTILUS major components.

Table 8 identifies and summarizes the major components of the NAUTILUS application.

<b>Component</b>	<b>Purpose</b>
<b>System</b>	This component provides the capability to name and maintain databases.
<b>Add</b>	This component provides the capability to create new or add to existing databases.
<b>Edit</b>	This component provides the capability to modify previously entered data.
<b>Model Control</b>	This component provides the capability to set build parameters and constraints on the models being developed.
<b>Run Control</b>	This component provides the capability to set run parameters and constraints on the models being developed.
<b>Output</b>	This component supports the display and print functions.
<b>P-18</b>	This component supports the importing and preparation of P-18 Spreadsheets.

Table 8 NAUTILUS Major Computer Software Components

### 3.3.8.7 NAUTILUS users and involved personnel.

NAUTILUS customers and users consist of Inventory Managers (IMs) at the Navy ICPs.

### 3.3.8.8 NAUTILUS support concept.

NAUTILUS is developed and maintained by the NAVAMMOLOGCEN Mechanicsburg, PA. Access to NAUTILUS is obtained via a valid UserID and password. Requests for NAUTILUS assistance, problem reports, or requirements for system changes may be made by contacting NAVAMMOLOGCEN, 5450 Carlisle Pike, P.O. Box 2011, Mechanicsburg PA 17055-0735. (Telephone (800) 788-9002).

## 3.3.9 Ordnance Assessment Portfolio (OAP).

### 3.3.9.1 OAP overview.

The OAP application is a series of assessment displays that provide statistics regarding data integrity, readiness and other stockpile profiles via the Web.

### 3.3.9.2 OAP operational environment.

The OAP application is a classified CONFIDENTIAL, SIPRNET-hosted system that provides users access via a Web browser (Netscape or Internet Explorer). The OAP application operates in a read-only mode on a Windows operating system using an Oracle DBMS. Reports may be converted into Adobe Acrobat Portable Document Format (PDF) and Microsoft Excel files, and transferred to the SIPRNET website for viewing.

### 3.3.9.3 OAP general functions and capabilities.

The OAP application facilitates the accessibility of OAP data through report transmission to the NAVAMMOLOGCEN SIPRNET web site. Produced reports are posted on the web site according to a predetermined schedule. Reports maintained by the OAP application consist of the following:

- Joint Monthly Readiness Review (JMRR)
- Readiness Summary Report (RSR)
- Quick Look (QL) Report
- Weapon Readiness Seven Year Projection
- Fleet Report Card
- Weighted Ordnance Metrics Assessment
- Weapons Cross Reference
- Marine Corps Asset Data

### 3.3.9.4 OAP external interfaces.

OAP external system interfaces are as depicted in Figure 8.

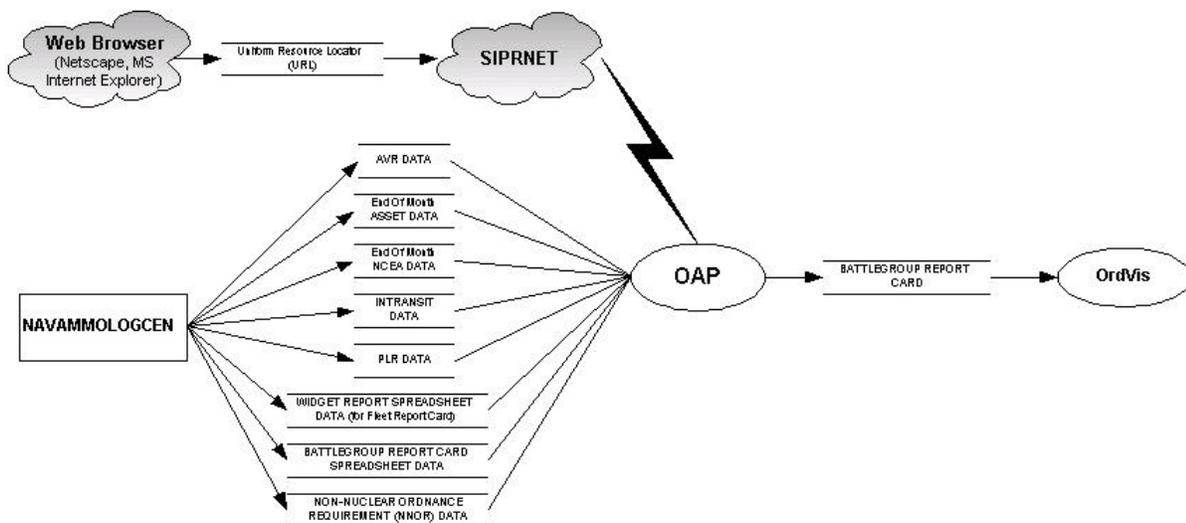


Figure 8 OAP External Interfaces

### 3.3.9.5 OAP data.

OAP data is checked for accuracy before the reports are generated and posted to the NAVAMMOLOGCEN SIPRNET web site.

### 3.3.9.6 OAP major components.

Table 9 identifies and summarizes the major components of the OAP application.

<b>Component</b>	<b>Purpose</b>
<b>JMRR</b>	Displays the end of the previous month CAIMS reported inventory and the projected twelve-month inventory expectations.
<b>RSR</b>	Displays the end of the previous month CAIMS reported inventory, the requirements cited in the NNOR, and the end of the previous month asset, material, and requirements readiness position.
<b>Quick Look Report</b>	Displays the requirement cited in the NNOR, the end of the previous month CAIMS reported inventory and the current and projected end of current Fiscal Year asset, material, wartime, and requirements readiness position.
<b>Weapon Readiness Seven Year Projection</b>	Displays the requirement cited in the NNOR, the end of last fiscal year CAIMS reported inventory, fact-of-Life changes to the inventory baseline, and the projected inventory and asset, material, wartime, and requirements readiness positions as a function of the Future Years Defense Plan (FYDP).
<b>Fleet Report Card</b>	Displays an assessment of an activity's inventory reporting record consisting of Intransit reports, Periodic Lot Reporting (PLR) fulfillment experience, Ammunition Transaction Report (ATR) error reports, Out-of-Balance Reports, Battle Group Report Card, Explosive Safety Inspection (ESI) results, and Gains & Losses Reports.
<b>Weighted Ordnance Metrics Assessment</b>	Displays Fleet Report Cards by FLTCINC/MARFOR/SPECWAR.
<b>Weapons Cross Reference</b>	Provides the OAP user with the ability to cross-reference the nomenclature, control numbers, and the NALC strings contained in OAP products Health of the Stockpile Displays the health of the stockpile as a function of National Security strategy for all NNOR items.
<b>Marine Corps Asset Data</b>	Displays monthly MARFOR level Marine Corps OT Cog ammunition by location.

Table 9 OAP Major Computer Software Components

### 3.3.9.7 OAP users and involved personnel.

OAP customers and users consist of CINCs, TYCOMs, and various ordnance logistics activities.

### **3.3.9.8 OAP support concept.**

Access to the OAP application is through the use of a client IBM compatible PC and a Web browser (Netscape or Microsoft Explorer). Access is controlled and allowed for read-only capability for accounts having valid UserIDs and passwords.

SIPRNET access is provided by the DISA and may be requested by contacting the SIPRNET Support Center at (800) 582-2567 or (703) 821-6260.

A UserID and password can be obtained by contacting the NAVAMMOLOGCEN classified website support center at (800) 300-5442, DSN) 953-7297, Fax at (757) 887-4841, or by unclassified Email to csc@ssg.navy.mil.

### **3.3.10 Ordnance Data Warehouse (ODW).**

#### **3.3.10.1 ODW overview.**

The ODW application is used to store official reports and data files, and to facilitate the re-use of existing ordnance classified and unclassified summary data for NAVAMMOLOGCEN-sponsored AIS.

#### **3.3.10.2 ODW operational environment.**

The ODW application is a classified CONFIDENTIAL system. The ODW application operates in a read-only mode on a Windows operating system. Reports may be converted into Adobe Acrobat Portable Document Format (PDF) and Microsoft Excel for viewing.

#### **3.3.10.3 ODW general functions and capabilities.**

The ODW application facilitates the re-use of existing summary data from ordnance systems. It stores official reports and data files developed by ordnance systems, and makes them available to the ODW user through ad hoc query tools.

#### **3.3.10.4 ODW external interfaces.**

The ODW application has no external system interfaces.

#### **3.3.10.5 ODW data.**

The data maintained in the ODW application is as specified by the OIS Configuration Control Board (CCB). The data is catalogued and loaded into the ODW application as specified to support budget analysis, asset requirements, and program assessments.

### 3.3.10.6 ODW major components.

Table 10 identifies and summarizes the major components of the ODW application.

<b>Component</b>	<b>Purpose</b>
<b>Data Warehouse Catalog</b>	This component provides access to reports and files contained in the ODW.
<b>Data Element Dictionary</b>	This component provides individual ordnance items contained in the ODW.
<b>Query</b>	This component provides online queries to ordnance report and file data.

Table 10 ODW Major Computer Software Components

### 3.3.10.7 ODW users and involved personnel.

ODW customers and users consist of various ordnance logistics activities requiring access to historical ordnance data.

### 3.3.10.8 ODW support concept.

ODW is developed and maintained by the NAVAMMOLOGCEN Mechanicsburg, PA. Access to ODW is obtained via a valid UserID and password. Requests for ODW assistance, problem reports, or requirements for system changes may be made by contacting NAVAMMOLOGCEN, 5450 Carlisle Pike, P.O. Box 2011, Mechanicsburg PA 17055-0735. (Telephone (800) 788-9002).

## 3.3.11 Retail Ordnance Logistics Management System (ROLMS).

### 3.3.11.1 ROLMS overview.

ROLMS is an integrated system of application software designed for retail ammunition asset management and reporting of conventional ammunition. ROLMS is used by all Navy and Marine Corps ashore and afloat activities and contractors holding Navy cognizance ordnance to locally manage ammunition inventory and report to CAIMS or MAARS.

### 3.3.11.2 ROLMS operational environment.

ROLMS is an UNCLASSIFIED, multi-platform, open system that provides the capability to receive, maintain, and issue conventional ordnance at the retail level. Full-level ROLMS supports ordnance management activities at the Naval Weapon Stations.

ROLMS operates as both a stand-alone PC-based application and in a client/server networked environment. The ROLMS application programs operate on a Microsoft Windows operating system. The ROLMS application server operates on both a UNIX and a Windows NT Server operating system. The ROLMS application database is an Oracle DBMS.

### 3.3.11.3 **ROLMS general functions and capabilities.**

ROLMS provides for the automation of the receipt, issue, inventory record keeping, and reporting of ammunition assets and movements with the ultimate objective being the enhancement of Fleet readiness and stockpoint ordnance management. ROLMS replaced four legacy systems, Ordnance Management System (OMS), Fleet Optical Scanning Ammunition Marking System (FOSAMS), the Standardized Conventional Ammunition Automated Inventory Record (SCAAIR) and the Ammunition Logistics System (AMMOLOGS).

ROLMS supports all ship and shore activity asset management and reporting requirements. ROLMS automates ammunition logistics management and reporting functions performed by the stockpoints and end users, specifically:

- Inventory
- Requisitioning
- Issue/Receipt Reporting
- Expenditure Reporting
- Asset Maintenance
- NAR processing
- Ammunition Transaction Reporting and Transaction Item Reporting (ATR and TIR)
- Space Management – including NEW Management for Explosive Arc and Compatibility Management
- Load Plan Management
- Excess/Disposal Processing
- DD Form 1348-1A and shipping labels
- Bar Code processing

3.3.11.4 ROLMS external interfaces.

ROLMS external system interfaces are as depicted in Figure 9.

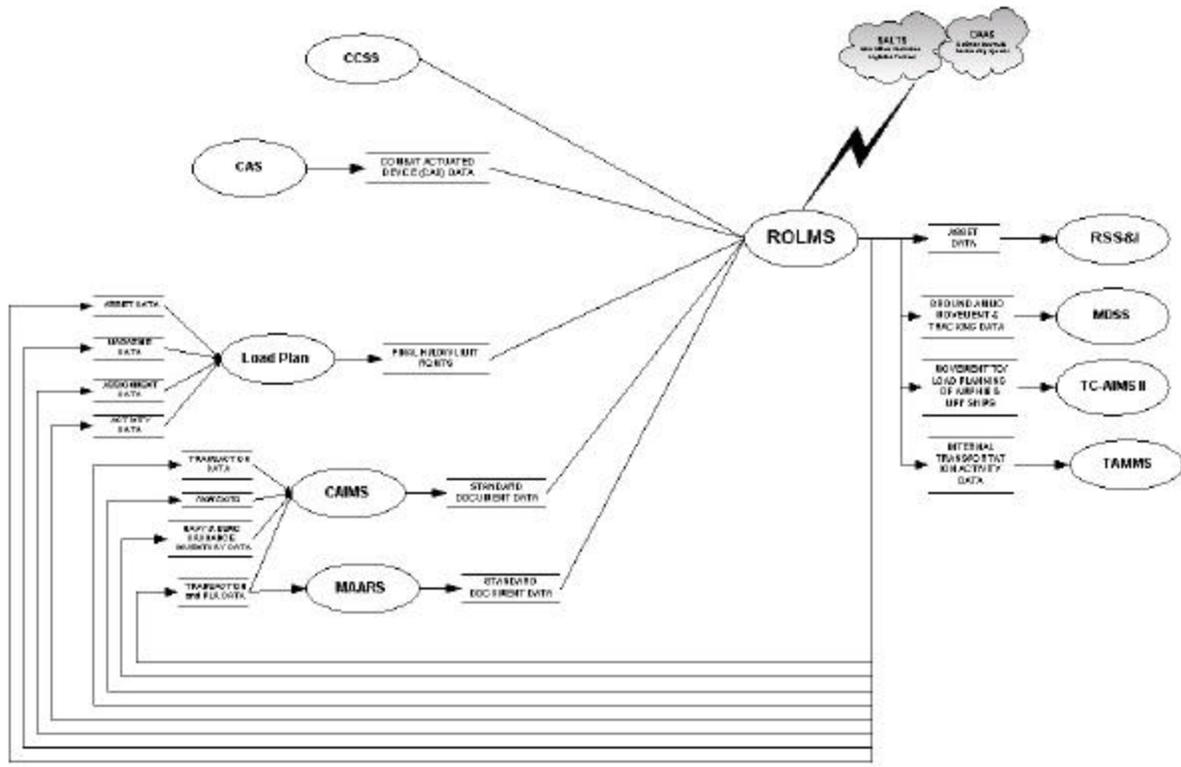


Figure 9 ROLMS External Interfaces

**3.3.11.5 ROLMS data.**

ROLMS contains the various elements of data required to support requisition processing, asset accountability, transaction reporting, procurement and renovation tracking, cataloging, transportation of conventional ammunition. The primary areas of data provided by ROLMS include the following:

- Requisitioning
- Issue/Receipt Reporting
- Expenditure Reporting
- Asset Maintenance
- Inventory Management
- Bar Code and Scanner Processing
- Storage Utilization
- Technical and Reference Data Maintenance
- NAR processing

**3.3.11.6 ROLMS major components.**

Table 11 identifies and summarizes the major components of ROLMS.

<b>Component</b>	<b>Purpose</b>
<b>Reports/Retrievals</b>	This component supports the functions for on-line retrieval and generation of hard copy reports of the data contained in ROLMS.
<b>Allowance/Allocation</b>	This component supports the functions for processing information for NAVSEA 30,000 Series Combat allowances and Non-Combat expenditure allocations for ensuring up-to-date maintenance of ammunition stock to support asset requirements.
<b>Requisitions</b>	This component supports the functions necessary for creating, modifying, and canceling MILSTRIP formatted requisitions and requisitions received via Naval message.
<b>Receipts</b>	This component supports the functions for processing receipt transactions for the accounting and visibility of ordnance assets.
<b>Issues/Expenditures</b>	This component supports the functions for processing issues resulting from requisitions, turn-ins, offloads, or via Reports of Excess, as well as expenditures due to training or combat.
<b>Asset Maintenance</b>	This component supports the functions necessary for maintaining asset record accuracy and visibility.

<b>Component</b>	<b>Purpose</b>
<b>Inventory</b>	This component supports the functions necessary for maintaining the physical inventory of ammunition.
<b>Excess and Disposal</b>	This component supports the functions necessary for processing inert and explosive ordnance deemed unserviceable/ condemned, obsolete, or in excess of allowed stock levels.
<b>Tech Data File Maintenance</b>	This component supports the functions necessary for maintaining the accuracy of technical data associated with ammunition items.
<b>Transaction Reporting</b>	This component supports the functions necessary to for the timely processing and reporting of ammunition transactions.

Table 11 ROLMS Major Computer Software Components

**3.3.11.7 ROLMS users and involved personnel.**

ROLMS is used by over 700 activities holding Navy ammunition. Additionally, ROLMS is used by Marine Corps Ammunition Supply Points (ASP). Customers include activities within the following:

- Commander-in-Chief Atlantic Fleet (CINCLANTFLT)
- Commander-in- Chief Pacific Fleet (CINCPACFLT)
- Commander in Chief U.S. Navy Europe (CINCUSNAVEUR)
- Naval Sea Systems Command (NAVSEASYSKOM)
- Naval Air Systems Command (NAVAIRSYSKOM)
- Naval Special Warfare Command (NAVSPECWARCOM)
- US Marine Corps
- Naval Reserve Force (NAVRESFOR)
- US Coast Guard
- Chief of Naval Education and Training (CNET)
- Military Sealift Command (MSC)
- Contractors

**3.3.11.8 ROLMS support concept.**

ROLMS provides for numerous ways of exchanging data with other systems, including File Transfer Protocol (FTP), Streamlined Automated Logistics Transmission System (SALTS), and DAAS. Activity communication access is dependent upon the activity's communication capabilities.

ROLMS is developed and maintained by the NSWC located in Crane, IN. The ROLMS Customer Support Desk (CSD) is assigned to address customer support questions. The ROLMS CSD can be contacted at DSN 482-3957 or commercial (812) 854-3927, facsimile extension 3322. Electronic voice mail is used to receive calls when personnel are not available. The site initiating the call will be contacted that day or no later than the next working day. The ROLMS email address is "help\_rolms@crane.navy.mil".

### **3.3.12 Receipt, Segregation, Storage, and Issue (RSS&I).**

#### **3.3.12.1 RSS&I overview.**

The RSS&I consists of two components: 1) The RSS&I Model application is used to simulate the tonnage of ammunition handled by ordnance activities and the flow of ammunition tons required to support fleet operations. The RSS&I Model is used by the NAVAMMOLOGCEN for forecasting ammunition receipt, segregation, storage, and issue requirements and for right-sizing the work force required for RSS&I activities. 2) RSS&I 8010 application is the processing of financial (dollars and workhours) and tonnage information.

#### **3.3.12.2 RSS&I operational environment.**

The RSS&I 8010 application is an unclassified system that provides users access via a Web browser (Netscape or Internet Explorer). The RSS&I 8010 application operates on a Windows NT operating system using a Microsoft SQL Server DBMS. Data used to help generate the models are transferred via FTP to a HP9000/750 minicomputer where the RSS&I Model application resides. This computer's operating system is HP-UX 10.2 and all data is collected and manipulated in an Ingres DBMS. The Model's results are then transferred via FTP back to the Web for reporting. In addition, the Model and 8010 data is FTP'd to a file server with a Novell operating system and Paradox DBMS where "Lightship" files are produced. Lightship is an Executive Information System software that provides various charts and program indicators for program management. These "Lightship" files are copied to the Web for users to download.

#### **3.3.12.3 RSS&I general functions and capabilities.**

The RSS&I Model application simulates the tonnage of ammunition handled by ordnance activities and the flow of tons required to support fleet operations. The events simulated include ship offload/load, segregation, over-the-road receipts and issues, and re-warehousing of ammunition. The simulation rolls up the results by tonnage moved, work hours required, and the associated cost. The RSS&I 8010 application collects the actual tonnage handled for ship offload/load/receipt/issue/segregation/re-warehousing associated with the workhours/dollars and related administrative dollar costs to formulate the 8010 and Ship Reports on a monthly basis.

### 3.3.12.4 RSS&I external interfaces.

RSS&I Model external system interfaces are as depicted in Figure 10.

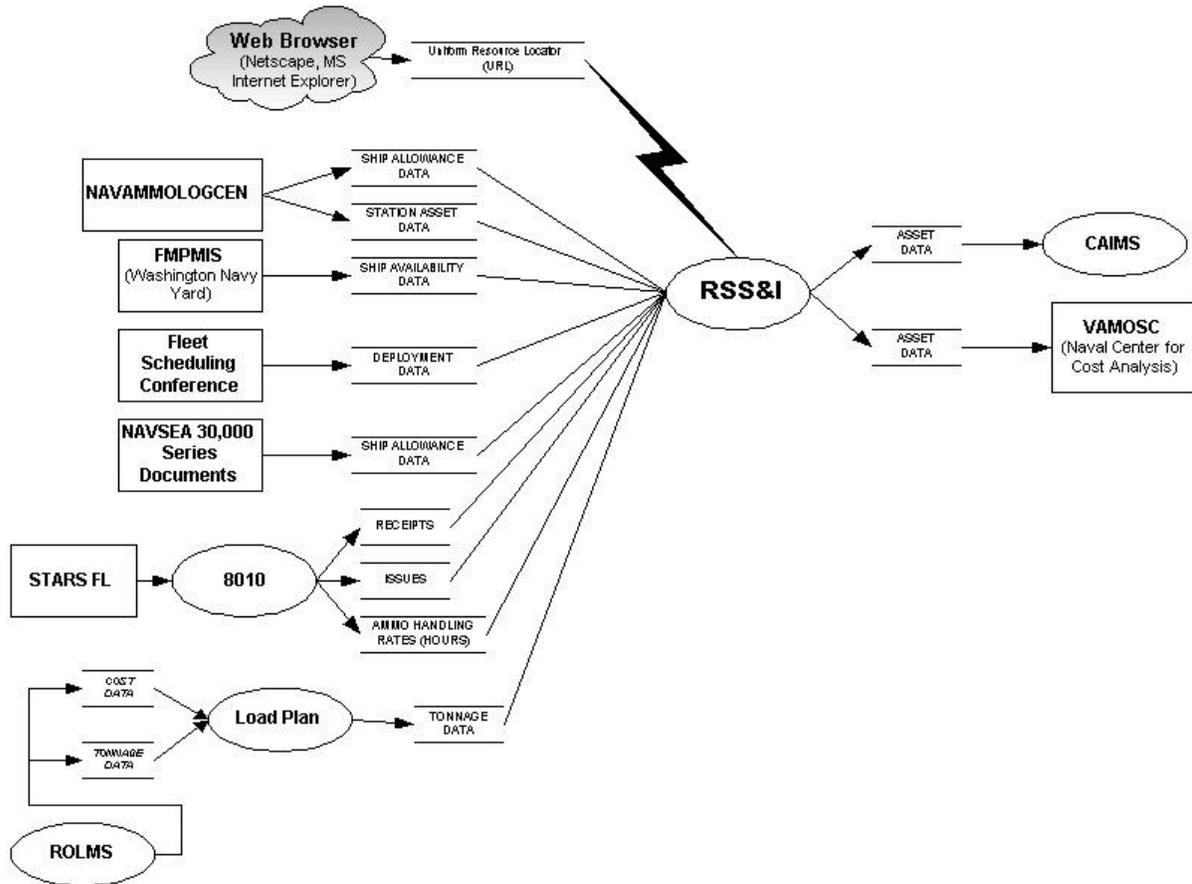


Figure 10 RSS&I External Interfaces

### 3.3.12.5 RSS&I Model data.

The data maintained in the RSS&I application include:

- Ship Allowances
- Station Assets
- Load Plan
- Ship Availability Schedules
- Ammunition Handling Rates
- Receipt and Issue Tons
- Ships Serviced

### 3.3.12.6 RSS&I major components.

Table 12 identifies and summarizes the major components of the RSS&I application.

<b>Component</b>	<b>Purpose</b>
<b>Model</b>	This component supports the functions necessary for loading and processing the data required to build the RSS&I Model.
<b>8010</b>	This component support of operational requirements for ammunition loading, storage, and logistical information in accordance with OPNAVINST 8010.12F
<b>Downloads and Reports</b>	This component supports the functions for downloading model and 8010 data and producing RSS&I reports.

Table 12 RSS&I Model Major Computer Software Components

### 3.3.12.7 RSS&I users and involved personnel.

RSS&I users and customers and users consist of:

- CINCLANTFLT
- CINCPACFLT
- AOC Yorktown
- Southwest Region
- Northwest Region
- Naval Weapons Stations
- Load Plan
- NSWC Crane

### 3.3.12.8 RSS&I support concept.

The RSS&I application is developed and maintained by the Naval Surface Warfare Center (NSWC) located in Crane, IN. Code 402 of the Ammunition Engineering Department in the Ordnance Engineering Directorate. Contact (812) 854-4097 for functional support or (812) 854-4699 for technical support. The DSN prefix is 482. The fax is extension 6138.

### **3.3.13 Tomahawk Asset Inventory Management System (TAIMS).**

#### **3.3.13.1 TAIMS overview.**

TAIMS is used to support inventory management accuracy for Tomahawk Cruise Missiles (2D Cognizance material). This data is required for the worldwide management and control of TOMAHAWK AUR missiles. TAIMS provides the NAVAMMOLOGCEN with the inventory management tools and utilities necessary for performing overall inventory control functions.

#### **3.3.13.2 TAIMS operational environment.**

TAIMS is a classified SECRET, SIPRNET-hosted, multi-tier client/server system that provides client access via a Web browser (Netscape or Internet Explorer) through a Microsoft Windows operating system. The TAIMS server operates on a Sun Operating System platform using an Oracle DBMS.

#### **3.3.13.3 TAIMS general functions and capabilities.**

TAIMS provides the NAVAMMOLOGCEN with the inventory management tools and utilities necessary for performing overall inventory control functions to include the following:

- Requisition processing
- Asset accountability
- Asset readiness
- Availability and load-out projections
- Production
- Maintenance status and tracking
- Shipping status
- Detailed asset location information

### 3.3.13.4 TAIMS external interfaces.

TAIMS external system interfaces are as depicted in Figure 11.

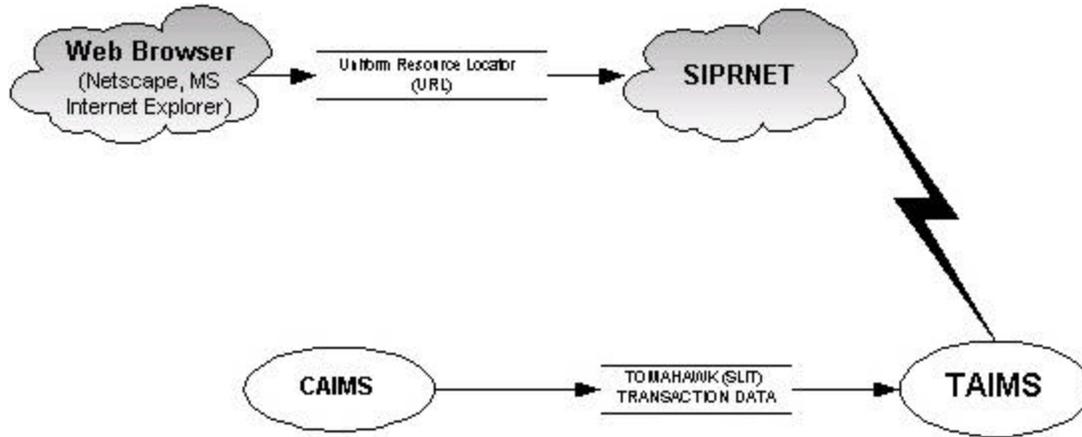


Figure 11 TAIMS External Interfaces

### 3.3.13.5 TAIMS data.

TAIMS contains the various elements of data required to support inventory management of Tomahawk Cruise Missiles (2D Cognizance material). The primary areas of data provided by TAIMS include the following:

- Serial/Lot Item processing data
- Requisition processing data
- Asset data
- Asset readiness data
- Availability and load-out data
- Production data
- Maintenance status and tracking data
- Shipping data
- Asset location data

### 3.3.13.6 TAIMS major components.

Table 13 identifies and summarizes the major components of TAIMS.

<b>Component</b>	<b>Purpose</b>
<b>All-Up-Round Production (AURP) Maintenance</b>	This component supports the functions necessary for processing and maintaining AUR production missile data.
<b>Location Maintenance</b>	This component provides support for modifications to missile location information at Weapon Stations, Surface locations and Subsurface locations.
<b>NALC Maintenance</b>	This component supports the functions necessary for viewing, editing and adding NALC information.
<b>AURP Audit History</b>	This component supports the requirement for missile audit history trail of the Tail Numbers; recording the date, the user identification, the name of the field that changed, and the data that changed for missiles.
<b>CAIMS Transaction Processing</b>	This component supports the processing of incoming CAIMS transactions into TAIMS. Records received are processed and flagged to be <i>deferred for later</i> , <i>marked deleted</i> , or immediately updated and processed into TAIMS
<b>CAIMS Error Processing</b>	This component supports the functions necessary for viewing updating CAIMS transactions that could not be processed due to tail number errors, NALC/NIIN errors, NALC change errors, and/or Supplementary Address (SUPPADD) errors.
<b>CAIMS Designator Change Alert</b>	This component supports the notification of CAIMS missile transactions whose designator is changing from surface to sub-surface or from sub-surface to surface.
<b>CAIMS Combat Expenditure</b>	This component supports maintenance of changes to missile combat expenditure data.

Table 13 TAIMS Major Computer Software Components

### 3.3.13.7 TAIMS users and involved personnel.

The TAIMS Program Manager is the TOMAHAWK AUR Program Office (PMA-280), who is also the Designated Acquirer.

### 3.3.13.8 TAIMS support concept.

TAIMS is developed and maintained by the NAVAMMOLOGCEN located in Mechanicsburg, Pennsylvania. The Support Agency is the DISA Defense Enterprise Computing Center (DECC) Mechanicsburg.

### 3.3.14 Service-Wide Transportation (SWT) System

#### 3.3.14.1 SWT overview.

The SWT System is used to automate the development of actual and projected budget tracking charts for tonnage and traffic management of conventional ammunition. The SWT System automates the processes used to generate 900 Budget Tracking Charts represented over a three-year trend for Projected versus Actual Tonnage.

#### 3.3.14.2 SWT operational environment.

The SWT System is an UNCLASSIFIED, IBM compatible, PC-based system that operates on a Microsoft Windows operating system.

#### 3.3.14.3 SWT general functions and capabilities.

The SWT System provides the NAVAMMOLOGCEN the ability to generate budget tracking charts that provide tonnage analyses for weapon systems over a three-year period. Reports and charts generated are stored for future modifications by the user.

#### 3.3.14.4 SWT external interfaces.

The SWT System has no external system interfaces.

#### 3.3.14.5 SWT data.

The SWT System contains the various elements of data required to generate projected tonnage reports.

#### 3.3.14.6 SWT major components.

Table 14 identifies and summarizes the major components of the SWT System.

Component	Purpose
<b>SWTS Input</b>	This component supports the functions necessary for processing location input files.
<b>SWTS Add</b>	This component supports the functions necessary for adding COGs, weapon systems, and Transportation Account Codes (TACs).
<b>SWTS Modify</b>	This component supports the functions necessary for modifying existing COGs, weapon systems, and TACS.
<b>SWTS Delete</b>	This component supports the functions necessary for deleting existing COGs, weapon systems, and TACS.
<b>SWTS Reports</b>	This component supports the generating detailed and summary graph reports.

Table 14 SWT Major Computer Software Components

### **3.3.14.7 SWT users and involved personnel.**

SWT customers and users consist of Inventory Managers (IMs) at the Navy ICPs.

### **3.3.14.8 SWT support concept.**

SWT is developed and maintained by the NAVAMMOLOGCEN Mechanicsburg, PA. Access to SWT is obtained via a valid UserID and password. Requests for SWT assistance, problem reports, or requirements for system changes may be made by contacting NAVAMMOLOGCEN, 5450 Carlisle Pike, P.O. Box 2011, Mechanicsburg PA 17055-0735. (Telephone (800) 788-9002).

## **4. Justification for and nature of changes.**

### **4.1 Justification for change.**

With the end of the Cold War, future Naval AIS requirements must adjust to support a smaller, highly mobile, high technology, adaptive force. Precision guided munitions offer opportunities for decreased sorties and collateral damage. However, these high cost munitions dictate intense, individual asset visibility. The pressures of fiscal and asset limits, combined with the demands of multiple regional conflicts, humanitarian support, and other non-traditional missions, places a premium on joint operational logistics support performance and flexibility.

Coincident with the recent military downsizing, ammunition management functions must provide more flexible and responsive support with fewer resources. The Naval ammunition management community must harmoniously manage and leverage its remaining resources in the most effective and efficient manner. In spite of these draw-downs, the Naval ammunition management community must deal with the realities affecting management of the commodity, such as:

- Warfighting capability of the inventory
- Demilitarization processes
- Safety, security, and environmental processes
- Specialized storage, handling and transportation processes
- Personnel training and certification processes
- Management of organic production base
- World-wide stockpile stratification, verification and visibility
- Specialized handling equipment
- Response to the current military situation

## **4.2 Description of needed changes.**

The ammunition management community requires an ammunition management system that will facilitate the determination and collection of ordnance data for conventional ammunition and provide a means of conveying that data to the Navy, Marine Corps, and DoD community. This system must fully integrate the functionality of the AIS described in Section 3 of this document and provide a single point, centrally controlled, and global access where a single action results in system-wide update.

## **4.3 Priorities among the changes.**

The OIS will be modularly developed and implemented in the manner and phases identified in the Software Development Plan (SDP). The OIS Software Support Group is currently performing Quarterly Design Reviews (QDRs) and holding bi-annual CCB meetings to ensure all requirements and software design issues are captured. The OIS SDP will be prepared to prioritize the implementation of each OIS module and capability.

### **4.3.1 Initial Operational Capability (Phase I).**

The purpose of Phase I is to develop an Initial Operational Capability (IOC) for all OIS users in accordance with the SDP.

### **4.3.2 Full Operational Capability (Phase II).**

The purpose of Phase II is to develop Full Operational Capabilities (FOCs) for the functionality described in the SDP.

### **4.3.3 Sustainment (Phase III).**

The purpose of Phase III is to sustain the objective OIS. OIS components will be incrementally enhanced, upgraded and replaced based on anticipated changes to requirements initiated by the user/customer, DoD and DoN regulations and mandates, and technological advancements.

## **4.4 Changes considered but not included.**

The OIS is based on the concept of leveraging communication and information technology to provide on-time and accurate ordnance inventory management and visibility. Integrating all ammunition management capabilities and software into one open system is the final decision, and will ensure OIS uses state-of-the-art technology and will avoid obsolescence by allowing it to incorporate future technologies.

#### **4.5 Assumptions and constraints.**

The following paragraphs identify the assumptions applicable to the changes made for OIS development.

##### **4.5.1 Assumptions regarding functional requirements.**

The following lists the assumptions made in for OIS development regarding functional requirements.

- a. OIS must provide 100% asset visibility and intransit visibility.
- b. OIS will internally track all material movements to the Serial/Lot Item Tracking (SLIT) level.
- c. OIS will provide full visibility of items to the SLIT level, eliminating the need for PLR capability.
- d. OIS will maintain visibility of material moving from active stock to demilitarization status.
- e. The shipping activity will be accountable for the material that is intransit.
- f. OIS will minimize the need for manual reporting capabilities.
- g. All activities using manual reporting capabilities will follow one common standard format.
- h. Data entry by the end user will be minimized.
- i. Valuation reporting of financial data in the OIS inventory will be Chief Financial Officer (CFO) compliant.
- j. All processes performed in OIS will be performed in one common and consistent manner (i.e. the processing of receipted items will be performed one way for all activities.)
- k. OIS will simplify requisitioning processes.
- l. In OIS, the receipt quantity posted will reflect the physical asset count.
- m. Out-Of-Balance is defined as: the difference between computed and reported quantities between CAIMS and ROLMS. Assumptions are:
  - As a single system, OIS will have no out-of-balances.
  - OIS will have no internal requirements for reconciliation.

- n. OIS will maintain visibility of material from procurement/production through expenditure/demilitarization.
- o. The FISCs will no longer handle Sonobouys; the handling of Sonobouys will be the responsibility of the Naval Weapons Stations.

#### 4.5.2 Programmatic assumptions.

The following lists the programmatic assumptions made in for OIS development.

- a. Sufficient funding will be available to implement the OIS in accordance with NAVAMMOLOGCEN software engineering process and standards.
- b. Efforts will be taken to ensure effective communication amongst the development team across multiple geographical locations.
- c. Consistent with the high-level requirements in this OCD, the NAVAMMOLOGCEN will leverage the functions and capabilities across the ammunition management community to fulfill the necessary security and external system interfaces.
- d. Supporting government activities and contractors will use products, gateways, and communication interfaces consistent with the NAVAMMOLOGCEN architecture standards.
- e. OIS will follow the guidelines cited in DoD 8320.1-M-1, Data Standardization Procedures, for all data and data elements contained in OIS.
- f. The user base for OIS will increase over the user base for the current legacy systems.
- g. Instructions, regulations, and operational policies may be changed to accommodate the OIS development.
- h. Customer involvement and support in defining requirements will be provided.

#### 4.5.3 Technical and design assumptions.

The following lists the technical and design assumptions made in for OIS development.

- a. A SIPRNET classified LAN will be implemented for all classified OIS components. All OIS users operating in this environment will require a secret clearance.
- b. OIS will employ a High-Assurance Guard (HAG) to handle data security classification.
- c. OIS applications will be Navy Marine Corps Intranet (NMCI) compliant.
- d. The NMCI will apply to all of CONUS.

- e. Users will log on only once to access all authorized OIS capabilities within their identified security level, role, responsibility, etc.
- f. For activities having partial connectivity with OIS, applications and data storage requirements will be reduced to the extent possible – to only what is required when continuous connectivity cannot be guaranteed.
- g. Application and data storage will be global to the greatest extent possible.
- h. Each issuing and receiving activity for Navy and Marine Corps assets will have access to OIS.
- i. Control Number assignment will be covered in the implementation and design decisions for OIS.
- j. Intransit Process Hits:

	Activity A		Activity B		INTRANSIT Value
	DUE-IN Value	ON-HAND Quantity	QUANTITY ON-HAND		
			AVAILABLE FOR ISSUE	RESERVATION	
Asset Posture			100	0	
REQUISITION	100	0	0	100	
ISSUE	100	0	0	0	100
RECEIPT	0	100	0	0	

Used for ordnance processes - i.e. positioning planning.  
Not used for inventory asset computations.

Used for inventory asset computations

- k. OIS will eliminate the use of Activity Classification Codes (ACCs). ACCs and Purpose Codes will be merged into a new “OIS Code” that will accommodate all applicable requirements. The objective is to reduce the number of data elements used in OIS.
- l. OIS will eliminate the use of Document Identifier Codes (DICs), ATR Transaction Codes, and ATR Source Codes. These codes will be merged into a new “OIS Code” that will accommodate all applicable requirements.
- m. The need for ATR and TIR capability will be eliminated for the Navy, Marine Corps, and Coast Guard by December 2003.
- n. OIS will need to maintain TIR capability for external activities (i.e. Air Force, Army, Contractors).

- o. Data in OIS will be maintained at the lowest possible security classification level.
- p. The end user will not need to enter Signal/Fund/Financial Item Report (FIR) Codes and Distribution Codes; financial data will be system generated and transparent to the user.

#### 4.5.4 Constraints.

System characteristics for OIS center primarily on system performance and security. The following paragraphs identify the constraints on performance and security of OIS, establishing the minimum acceptability levels to be considered during development and testing.

##### 4.5.4.1 Security constraints.

The following identify the security constraints applicable to OIS development and testing:

- a. Security Accreditation. The OIS detailed security environment shall be defined and approved through the security certification and Designated Approving Authority (DAA) accreditation process. Required certification activities including security policy development, risk analysis, and security test and evaluation shall be performed in accordance with NCSC-TG-024. OIS must be capable of at least interim DAA accreditation by the IOC date and final DAA accreditation by the FOC date.
- b. Protection of Data. The data maintained in OIS is to be protected commensurate with its sensitivity and mission criticality in accordance with appropriate security directives and by the continuous employment of security measures dedicated to the protection of AIS resources. Data stored within OIS must be protected from possible compromise, sabotage, attack, unauthorized disclosure, alteration, or destruction.
- c. Access Controls. OIS must have access controls and audit trails in accordance with Controlled Access Protection (CAP)/C2 requirements for Level I data (SECRET and CONFIDENTIAL) and Level II data (UNCLASSIFIED/SENSITIVE) in place prior to becoming operational. The OIS shall provide the capability for user-defined, role-based access.
- d. Automated Data Processing (ADP) Security. The OIS shall have ADP security in accordance with applicable directives for classifications, up to and including the Class C2 Trusted Computing Base (TCB) functionality in accordance with DoDD 5200.28, "Security Requirements for Automated Information Systems", and CSC-STD-003-85, "Computer Security Requirements".
- e. Communications Security. The OIS host computer facility must ensure that data transmitted over all communications links is in accordance with prescribed National Security Agency and DoD regulations.

- f. Physical Security. Physical security of the OIS host computer facilities and production work areas, including badges, card readers, door locks, and other means not provided by the computer or communications segments shall be governed by applicable service provider standards and DoD standards. Product distribution and other areas in direct support of OIS production that process sensitive or critical data must be sufficiently secured to protect the processed information at the level of protection required by that sensitivity or criticality. Physical security measures for each OIS workstation shall meet the security requirements for the highest classification of data that is accessed from or stored at that terminal and shall meet local security and accreditation requirements.

#### 4.5.4.2 Performance constraints.

The following identify the performance constraints applicable to OIS development and testing:

- a. Initial Nuclear Weapon Effects. The OIS facilities, computer components, and transmission paths are vulnerable to electromagnetic pulse (EMP) effects. Therefore, EMP limiting countermeasures shall be based on localized threats. National assets (e.g. DECCs) shall be protected to the maximum extent possible.
- b. Nuclear, Biological and Chemical (NBC) Survivability. Countermeasures against NBC attack are not OIS requirements. However, routine disaster preparedness procedures will be used to protect personnel from an NBC attack (i.e., shelter, radiation monitoring) and help assure continued warfighting support (i.e., decontamination, reconstitution, and so on).
- c. Natural Environmental Factors. The OIS computer systems will be located worldwide. As such, they will be susceptible to extreme climatic conditions that require a controlled environment to meet the system's minimum and maximum heat and humidity tolerances as prescribed by vendor specifications. Likewise, consistent with the geographic location, the facilities housing OIS components must withstand sustained winds and water associated with tornadoes, hurricanes, typhoons, floods, and other severe weather phenomena. Siting and civil engineering standards must, accordingly, be taken into account.
- d. Hazards of Electromagnetic Radiation to Ordnance (HERO) Requirements. An interfacing system/technology using RF emitters shall not impose a hazard to ordnance. To accomplish this, safe separation distances shall be calculated and maintained between the emitter and ordnance items. Design, test, and evaluation criteria shall be in accordance with all applicable Electromagnetic Compatibility (EMC) standards (e.g. MIL-STD-461 and MIL-STD-464).

- e. Expected Mission Capability. Features, such as automated recovery, must be implemented to permit selective “after-the-fact” system updates rather than time consuming, complete restoration actions. In extreme cases, resorting to short-term manual accounting procedures may be necessary to sustain operational continuity in the event massive outages occur.

## **5. Concept for OIS.**

### **5.1 Background, objectives, and scope.**

The OIS will integrate systems application programs and commercially available operating systems, relational database management systems (RDBMS), and communication software to support the ammunition management functions as described in Paragraph 5.3.

### **5.2 Operational policies and constraints.**

Ammunition management operational policies are set forth in NAVSUP P-724, describing the Navy ammunition stockpile management and distribution policies and, additionally, reporting, accounting and management practices for Marine Corps assets stored at Navy activities and ships.

The OIS Concept of Operations (CONOPS) document, approved by the Ordnance Chief Information Officer (OCIO), sets forth the framework for managing the OIS Program and provides guidance on the roles and responsibilities of the OIS stakeholders.

### **5.3 Description of the new system.**

The OIS will standardize the functions and data used in the Department of Navy (DoN) ammunition management functions to provide timely, accurate ammunition data, eliminating the deficiencies realized from maintaining standalone ordnance applications. The OIS will provide the total worldwide visibility required for timely response to the need of the warfighter.

#### **5.3.1 Major OIS components.**

##### **5.3.1.1 Activity Profile.**

###### **5.3.1.1.1 Allowance/Allocation Maintenance.**

The OIS will provide a capability common across all activities to support the creation, update, and deletion of allowance/allocation data by Activity for ensuring up-to-date maintenance of ammunition stock to support asset requirements.

###### **5.3.1.1.2 Storage/Location Characteristics Maintenance.**

The OIS will provide a capability common across all activities to support the establishment and maintenance of characteristics of buildings used to store ammunition at an Activity.

#### **5.3.1.1.3 Activity Address Data Maintenance.**

The OIS will provide a capability common across all activities to support the establishment and maintenance of Activity Address data on Activities involved in the ammunition management of conventional ordnance maintained in the DoN inventory.

#### **5.3.1.1.4 Activity Planning/Scheduling Maintenance.**

The OIS will provide a capability common across all activities to support the creation, update, and deletion of Activity equipment and material handling for ordnance movement and scheduling.

#### **5.3.1.2 Item Profile.**

##### **5.3.1.2.1 Technical Data Processing.**

The OIS will provide a capability common across all activities to support the creation, update, and deletion of standard catalog data on conventional ordnance maintained in the DoN inventory.

##### **5.3.1.2.2 NAR/AIN/OHF/MALF Processing.**

The OIS will provide a capability common across all activities to support the generation of suspense/reclassification notices and the application of those notices against assets in the DoN inventory.

#### **5.3.1.3 Item Control.**

##### **5.3.1.3.1 Requisition Processing.**

The OIS will provide a capability common across all activities to support the processing of requests for material to include cancellations, modifications, follow-ups, and status validation.

##### **5.3.1.3.2 Issues Processing.**

The OIS will provide a capability common across all activities to support the posting and processing of the decrement of assets from an activity.

##### **5.3.1.3.3 Receipts Processing.**

The OIS will provide a capability common across all activities to support the posting and processing of receipt and custody of material.

##### **5.3.1.3.4 Expenditures Processing.**

The OIS will provide a capability common across all activities to support the processing and tracking of material moving out of the DoN inventory to include issues to Army Activities from Demilitarization Accounts and Foreign Military Sales (FMS).

#### 5.3.1.3.5 **Asset Maintenance.**

The OIS will provide a capability common across all activities to support the processing of actions that update asset posture but do not change the quantity of the overall asset in an Activity's inventory.

#### 5.3.1.3.6 **Inventory Maintenance.**

The OIS will provide a capability common across all activities to support the verification of system records against physical assets. This capability will include:

- determining, scheduling, and performing counts
- inventory verification
- reconciliation and adjustments for Ammunition Management & Accountability Review (AMAR)

#### 5.3.1.3.7 **Financial Inventory Management.**

The OIS will provide a capability common across all activities to support the determination of financial inventory accounting and billing data by transaction and the reporting of financial data in accordance with the CFO.

### 5.3.1.4 **Positioning.**

#### 5.3.1.4.1 **Stratification Processing.**

The OIS will provide a capability common across all activities to support the identification of assets that are applied to an activity's NNOR.

#### 5.3.1.4.2 **Load Plan Maintenance.**

The OIS will provide utilities for creating, updating, deleting and simulating the minimum and maximum allowance quantities stored at activities of the total ordnance stockpile throughout worldwide storage facilities.

#### 5.3.1.4.3 **GNOPP.**

The OIS will provide a capability common across all activities to support the identification of positioning quantities of conventional ordnance and daily deficits of ordnance for given scenarios used in naval ammunition logistics planning, inventory evaluation, and assessments.

#### 5.3.1.4.4 **Disposition Processing.**

The OIS will provide a capability common across all activities to support the processing of data for the generation of Requests for Disposition and the Master Repairable Item List (MRIL).

#### 5.3.1.4.5 **RSS&I Model.**

The OIS will provide utilities for budget forecasting annual ordnance tonnage flows handled by various coastal ordnance storage activities in support of fleet operations.

#### 5.3.1.4.6 **8010 Processing.**

The OIS will provide a capability common across all activities to support the processing of financial and tonnage information.

#### 5.3.1.5 **Movement.**

##### 5.3.1.5.1 **Transportation Maintenance.**

The OIS will provide a capability common across all activities to support the maintenance of data used in ordnance transportation tracking between shipping and receiving ordnance facilities in the CONUS and Canada.

##### 5.3.1.5.2 **Intransits Processing.**

The OIS will provide a capability common across all activities to support the monitoring of material moving activity to activity.

##### 5.3.1.5.3 **Directives to Ship.**

The OIS will provide a capability common across all activities to support the processing of shipping documents including DROs, Material Release Orders MROs, Redistributions, and Referrals.

#### 5.3.1.6 **Manufacturing/Sales.**

##### 5.3.1.6.1 **Production/Renovation/Maintenance Breakdown.**

The OIS will provide a capability common across all activities to support the processing of the receipt and issue of items from production, renovation, and/or maintenance in an Activity's inventory.

##### 5.3.1.6.2 **Production/Renovation/Procurement Processing.**

The OIS will provide a capability common across all activities to support the processing of production, renovation, and procurement schedule data establishment.

##### 5.3.1.6.3 **FMS Maintenance.**

The OIS will provide a capability common across all activities to support the maintenance of assets procured for FMS.

### **5.3.1.7 Utilities.**

#### **5.3.1.7.1 Reports/Retrievals.**

The OIS will provide utilities for retrieving data contained in OIS and for generating required reports as specified.

#### **5.3.1.7.2 Incoming/Outgoing Data Transmission Processing.**

The OIS will provide a capability common across all activities to support the processing of data coming from and going to systems external to OIS.

#### **5.3.1.7.3 Miscellaneous.**

The OIS will provide utilities for maintaining site defaults, database maintenance, user access, and archiving data in the OIS database.

### **5.4 Users/affected personnel.**

Navy users and affected personnel include, but are not limited to, those involved in conventional ammunition inventory management functions for the following commands and their subordinate activities:

- CNO
- CINCLANTFLT
- CINCPACFLT
- CINCUSNAVEUR
- NAVSPECWARCOM
- COMNAVSYSCOM
- COMNAVSEACOM
- COMNAVAIRCOM
- COMNAVRESFOR

Marine Corps users and affected personnel include, but are not limited to, those involved in conventional ammunition inventory management functions for the following commands and their subordinate activities:

- Commandant, USMC Pentagon
- HQMC
- MARCORSYSCOM
- COMMARFORLANT
- COMMARFORPAC

- I MEF, 1st MarDiv, 1st FSSG
- II MEF, 2nd MarDiv, 2nd FSSG
- III MEF, 3rd MarDiv, 3rd FSSG
- MARFORRES
- MCCDC
- MCLNO-RIA
- MCLNO-SA
- MCPD-FB
- MCPD-CR
- Marine Corps ASPs

Coast Guard users and affected personnel are those involved in conventional ammunition inventory management functions.

### **5.5 Support concept.**

The OIS will be capable of meeting mission requirements for each site, to include contingency surge support. The OIS will provide interactive user support 24 hours a day, seven days a week for all locations. A centralized “Help Desk” will be staffed to help operational sites resolve problems with the equipment, software, and/or documentation.

When the OIS contingency plan is executed, critical components of OIS will be fully operational within 12 hours. Non-critical system components such as ad hoc query software will be made available within 48 hours. Critical components will be as specified in the OIS Software Requirements Specification (SRS).

## **6. Operational scenarios.**

The OIS will be capable of supporting the normal business day, based on 40 percent of the users on-line at any one time and approximately 270,000 ICP transactions within a 24-hour period.

The OIS will be capable of supporting contingency scenario day, based on 95 percent of the users on-line at any one time and approximately 540,000 transactions within a 24-hour period for a minimum of 60 consecutive days.

### **6.1 Scenario I – Receipts Processing.**

- a. The amount of data (fields) entered via the keyboard will be minimized in that the majority of the data required to process the receipt of material would have been previously contained in the Item issue.

- b. The need for processing Out-of-Balances will be no longer be required, the assumption being there will be no Out-of-Balances.
- c. Since real and full visibility of assets will be provided, there will be no need for ATR/TIR/PLR processing.
- d. Inconsistencies and mismatches between asset records and SLIT records will be eliminated.
- e. The need to reconcile retail and wholesale data will be eliminated.
- f. Exceptions in data occurring during the processing of an item receipt will be presented online.
- g. Communication between activities, DMS messaging, etc. will be reduced.

#### **6.2 Scenario II – Tech Data/Cataloging/Maintenance.**

- a. Real-time standard catalog data as creation, updates, and deletions occur.
- b. Online visibility of the status of any conventional ammunition item contained in the OIS database.

#### **6.3 Scenario III – Directives to Ship.**

- a. Full visibility of items reserved for local issue.
- b. No waiting to identify the status of requisitions, as the information will be provided online.
- c. Except for warehouse denials, Bounce-backs will be eliminated.
- d. Immediate online notification of requests for issue will be provided, shortening Required Delivery Dates (RDDs).
- e. Full visibility of the location and material movement of the physical asset.

### **7. Summary of impacts.**

#### **7.1 Operational impacts.**

The OIS will have significant impacts on the ammunition inventory community users, communications support, and interfaces with other systems.

### **7.1.1 User impacts.**

Activities must provide physical security for facilities utilizing the OIS. The environment requires controlled access to software, data, and security of equipment and software. UserIDs and passwords will require control and management.

### **7.1.2 Acquirer impacts.**

The OIS developers must ensure the hardware and software are DII COE compliant. The OIS must interface with existing external systems. System interface Memorandums of Agreements (MOAs) must be established and maintained between the OCIO and the Program Managers of external systems with which OIS must interface.

## **7.2 Organizational impacts.**

The OIS users, developers and support organizations will be impacted in their respective areas of responsibility.

### **7.2.1 User impacts.**

OIS user involvement and support in defining OIS requirements will be required during Phase I.

Access to OIS development artifacts will be limited on a need to know basis.

OIS will be deployed on a multi-level security (MLS) infrastructure to allow for the deployment of existing unclassified systems on an unclassified network and classified systems on a classified network. The unclassified network for OIS will be the Non-Classified Internet Protocol Routed Network (NIPRNET). The classified network for OIS will be the SIPRNET, which will require a SIPRNET account UserID and password.

SIPRNET access is provided by DISA and may be requested by contacting the SIPRNET Support Center at (800) 582-2567 or (703) 821-6260. A password will be required that can be obtained by contacting the NAVAMMOLOGCEN classified website support center at (800) 300-5442, DSN 953-7297, Fax at (757) 887-4841, or by unclassified Email to [csc@ssg.navy.mil](mailto:csc@ssg.navy.mil).

### **7.2.2 Developer impacts.**

OIS developers must perform full business case analyses on each functional area identified in the OIS major components. The NAVAMMOLOGCEN developers must plan, design, phase OIS implementation, and deploy in accordance with the Operational Requirements Document (ORD), the SDP, and this OCD.

### **7.3 Impacts during development.**

The OIS will be implemented in three phases as described in paragraph 4.3 of this OCD. The OIS must arrange for and allow affected personnel to develop the required skills to take full advantage of the OIS. The OIS using activities must encourage the use of the System Change Request (SCR) process from those activities using OIS so that the OIS can be developed, modified and enhanced when necessary.

## **8. Analysis of the proposed system.**

### **8.1 Summary of advantages.**

The advantages of OIS are :

- a. The integration of NAVAMMOLOGCEN-sponsored AIS projects.
- b. The promotion of efficient OIS management and data integrity, interoperability, portability, and scalability.
- c. Re-engineered processes to effect maximum use of system to reduce manual intervention.
- d. Migration and optimization of DoN ordnance legacy systems and the promotion of a seamless interface between DoN and DoD systems.
- e. Migration of AIS projects from vendor-dependent and sole-source environments to the DoD-mandated OSE.
- f. Defense Information Infrastructure (DII) and Common Operating Environment (COE) compliant.
- g. Enforcement of NAR/AIN/OHF/MALF compliance.
- h. Total and real-time visibility of the Navy and Marine Corps ordnance inventory.
- i. Total and real-time visibility of SLIT Items and Serial Number Tracking (SNT).
- j. Total and real-time visibility identification of the proper ownership of ammunition items.
- k. Customer involvement and support in defining requirements.
- l. Reliability and consistency in accessibility of data.
- m. Full support of user requirements.
- n. Promotion of high functionality and system performance.

- o. Reduction in cycle time of program development and upgrades.

## **8.2 Summary of disadvantages/limitations.**

There are no clear disadvantages to the use of OIS. Limitations are those typically associated with the implementation and deployment of a new system and changes to established procedures.

## **8.3 Alternatives and trade-offs considered.**

Alternatives and trade-offs will be identified in the Software Design Document (SDD) and the SDP.

## **9. Notes.**

### **9.1 Acronyms.**

See Appendix A for a list of acronyms used in this document.



## **Appendix A -- Acronym List**

AA&E	Arms, Ammunition and Explosives
ACC	Activity Classification Code
ADIMS	Ammunition Disposal Inventory Management System
ADP	Automated Data Processing
AEDA	Ammunition, Explosives and other Dangerous Articles
AIS	Automated Information System
ALO	Allowance/ Non-Combat Expenditure Allocation
AMAR	Ammunition Management & Accountability Review
AMMOLOGS	Ammunition Logistics System
AOC	Atlantic Ordnance Command
ASP	Ammunition Supply Point
ATR	Ammunition Transaction Report
AUR	All-Up-Round
AURP	All-Up-Round Production
AUTODIN	Automatic Digital Network
CAAA	Crane Army Ammunition Activity
CAIMS	Conventional Ammunition Integrated Management System
CAP	Controlled Access Protection
CCB	Configuration Control Board
CCF	Central Computer Facility
CFO	Chief Financial Officer
CINC	Commander-in-Chief
CINCLANTFLT	Commander-in-Chief Atlantic Fleet
CINCPACFLT	Commander-in- Chief Pacific Fleet
CINCUSNAVEUR	Commander in Chief U.S. Navy Europe
CNET	Chief of Naval Education and Training
CNO	Chief of Naval Operations
COE	Common Operating Environment
COG	Cognizance
CONUS	Continental United States

CRIS	Complete Round Information System
CSC	Computer Security Center or Computer Software Component
CSCI	Computer Software Configuration Item
CSD	Customer Support Desk
CTN	Control Number Processing
DAA	Designated Approving Authority
DAAS	Defense Automatic Addressing System
DBMS	Database Management System
DDL	Data Download
DDM	Daily Deficit Module
DECC	Defense Enterprise Computing Center
DIC	Document Identifier Code
DII	Defense Information Infrastructure
DISA	Defense Information Systems Agency
DISN	Defense Information System Network
DLSC	Defense Logistics Service Center
DMDM	Defense Materiel Disposition Manual
DoD	Department of Defense
DODIC	Department of Defense Identification Code
DoN	Department of Navy
DPG	DoD Planning Guidance
DRMO	Defense Reutilization Management Office
DRO	Disposal Release Order
EMC	Electromagnetic Compatibility
EMP	Electromagnetic Pulse
ESI	Explosive Safety Inspection
FDNF	Forward Deployed Naval Force
FIR	Financial Item Report
FISC	Fleet Industrial Supply Center
FLTCINCS	Fleet Commander-in-Chief
FMS	Foreign Military Sales
FOC	Full Operational Capability

FOSAMS	Fleet Optical Scanning Ammunition Marking System
FTP	File Transfer Protocol
FYDP	Future Years Defense Plan
GCA	GNOPP Constrained Asset
GNOPP	Global Naval Ordnance Positioning Plan
GTN	Global Transportation Network
GUI	Graphical-User Interface
HAG	High-Assurance Guard
HERO	Hazards of Electromagnetic Radiation to Ordnance
HOD	Host On Demand
HQ USMC	Headquarters, United States Marine Corps
IEC	International Engineering Consortium
IEEE	Institute of Electrical and Electronics Engineers
IM	Inventory Manager
IOC	Initial Operational Capability
ISO	International Organization for Standardization
ITV	In-Transit Visibility
JMRR	Joint Monthly Readiness Review
LAN	Local Area Network
MAARS	Marine Corps Ammunition Accounting/Reporting System
MARCORSYSCOM	Marine Corps Systems Command
MARFOR	Marine Forces
MARFORLANT	Marine Forces Atlantic
MARFORPAC	Marine Forces Pacific
MCPD	Marine Corps Programs Department
MITNOC	Marine Corps Information Technology & Network Operations Center
MLS	Multi-Level Security
MOA	Memorandums of Agreement
MRIL	Master Repairable Item List
MRO	Material Release Order
MSC	Miscellaneous

MSC	Military Sealift Command
NALC	Navy Ammunition Logistics Code
NAR	Notice of Ammunition Reclassification
NAUTILUS	Naval Asset Utilization Tracking Inventory Logistics User-friendly System
NAVAIRSYSCOM	Naval Air Systems Command
NAVAMMOLOGCEN	Naval Ammunition Logistics Center
NAVEODTECHDIV	Naval Explosive Ordnance Disposal Technology Division
NAVRESFOR	Naval Reserve Force
NAVSCOLEODDET	Naval School Explosive Ordnance Disposal Detachment
NAVSEASYSYSCOM	Naval Sea Systems Command
NAVSPECWARCOM	Naval Special Warfare Command
NAVSUP	Naval Supply Systems Command
NAVSURFWARCEN	Naval Surface Warfare Center
NBC	Nuclear, Biological and Chemical
NCEA	Non-Combat Expenditure Allocation
NCSC	National Computer Security Center
NEW	Net Explosive Weight
NIIN	National Item Identification Number
NIPRNET	Non-Classified Internet Protocol Routed Network
NMCI	Navy Marine Corps Intranet
NNOR	Non-Nuclear Ordnance Requirements
NORM	NAVAMMOLOGCEN Ordnance Routing Manager
NSA	National Security Agency
NSN	National Stock Number
NSWC	Naval Surface Warfare Center
OAP	Ordnance Assessment Portfolio
OCD	Operational Concept Description
OCONUS	Outside Continental United States
ODW	Ordnance Data Warehouse
OIS	Ordnance Information System
OMS	Ordnance Management System

OPLAN	Operation Plan
OPNAV	Chief of Naval Operations
ORD	Operational Requirements Document
OrdVis	Naval Ordnance Asset Visibility System
OSC	Operations Support Command
OSE	Open System Environment
PC	Personal Computer
PDF	Portable Document Format
PLR	Periodic Lot Report
PMAMMO	Program Manager, Ammunition
PMRC	Prepositioned Material Receipt Card
POC	Point of Contact
PQR	Positioning Quantity Requirement
PRP	Procurement, Renovation, Production Processing
PWRMR	Prepositioned War Reserve Material Requirement
QDR	Quarterly Design Review
QL	Quick Look
RAS	Remote Access Server
RDBMS	Relational Database Management System
RDD	Required Delivery Date
REQN	Requisition Processing
ROLMS	Retail Ordnance Logistics Management System
RRR	Residual Readiness Requirement
RSR	Readiness Summary Report
RSS&I	Receipt, Segregation, Storage, and Issue
SALTS	Streamlined Automated Logistics Transmission System
SAPDO	Special Account Property Disposal Officer
SBU	Sensitive But Unclassified
SCAIR	Standardized Conventional Ammunition Automated Inventory Record
SCR	System Change Request
SDD	Software Design Document

SDP	Software Development Plan
SDPDA	Special Defense Property Disposal Account
SIPRNET	Secret Internet Protocol Router Network
SLIT	Serial/Lot Item Tracking
SMCA	Single Manager for Conventional Ammunition
SNT	Serial Number Tracking
SPECWAR	Special Warfare
SQL	Structured Query Language
SRH	SUPDOC Batch History Retirement
SRR	Strategic Readiness Requirement
SRS	Software Requirements Specification
SSL	Secure Socket Layer
STP	Supply Transaction Processing
STR	Stratification
SUPDOC	Supply Document
SUPPADD	Supplementary Address
SWT	Service-Wide Transportation
TAC	Transportation Account Code
TAIMS	Tomahawk Asset Inventory Management System
TAV	Total Asset Visibility
TCB	Trusted Computing Base
TDM	Technical Data Maintenance
TIR	Transaction Item Report
TRANS	Transportation Processing
TTCOR	Training, Testing, and Current Operational Requirement
TYCOM	Type Command
UIC	Unit Identification Code
USTRANSCOM	U.S. Transportation Command

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## **Appendix B -- Vertical Integration Business Process Model**



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1.0 ACTIVITY PROFILE

1.1 ALLOWANCE/ALLOCATION	
Definition: The creation, update, and deletion of allowance/allocation data by Activity.	CHARNOB: L. G. Jones
	DEPN MODEL EFF: MCO, SA, 1
	TECH WRITER: TM, SA, 1
	LEGACY SYS EPR: R. G. Jones
	T. G. Jones
	R. G. Jones
	B. G. Jones
	COMPL. DATE: 1999
	Local Application (required for Part or No Connectivity): NO
	Date Location on IAD (Security Classification): UNCLASSIFIED
OPN Development: ( )	
Start: 01 Jun 02	
End: 01 Jun 02	
1.2 STORAGE/LOCATION CHARACTERISTICS	
Definition: The creation, update, and deletion of all building characteristics for storing conventional ammunition at an Activity.	CHARNOB: D. Jones
	DEPN MODEL EFF: MCO, SA, 1
	TECH WRITER: TM, SA, 1
	LEGACY SYS EPR: T. G. Jones
	B. G. Jones
	COMPL. DATE: 01 Jun 02
	Local Application (required for Part or No Connectivity): YES
	Date Location on IAD (Security Classification): UNCLASSIFIED
	OPN Development: ( )
	Start: 01 Jun 02
End: 01 Jun 02	
1.3 ACTIVITY ADDRESS DATA	
Definition: The maintenance of all required data pertaining to Activity identification.	CHARNOB: D. G. Jones
	DEPN MODEL EFF: MCO, SA, 1
	TECH WRITER: TM, SA, 1
	LEGACY SYS EPR: T. G. Jones
	B. G. Jones
	COMPL. DATE: 01 Jun 02
	Local Application (required for Part or No Connectivity): NO
	Date Location on IAD (Security Classification): UNCLASSIFIED
	OPN Development: ( )
	Start: 01 Jun 02
End: 01 Jun 02	
1.4 ACTIVITY PLANNING/SCHEDULING	
Definition: The creation, update, and deletion of Activity equipment and material handling for entrance movement and scheduling.	CHARNOB: M. G. Jones
	DEPN MODEL EFF: MCO, SA, 1
	TECH WRITER: TM, SA, 1
	LEGACY SYS EPR: T. G. Jones
	B. G. Jones
	COMPL. DATE: 01 Jun 02
	Local Application (required for Part or No Connectivity): NO
	Date Location on IAD (Security Classification): UNCLASSIFIED
	OPN Development: ( )
	Start: 01 Jun 02
End: 01 Jun 02	

2.0 ITEM PROFILE

2.1 TECH DATA	
Definition: The creation, update, and deletion of standard catalog data on conventional ammunition.	CHARNOB: R. G. Jones
	DEPN MODEL EFF: MCO, SA, 1
	TECH WRITER: TM, SA, 1
	LEGACY SYS EPR: T. G. Jones
	B. G. Jones
	COMPL. DATE: 01 Jun 02
	Local Application (required for Part or No Connectivity): NO
	Date Location on IAD (Security Classification): UNCLASSIFIED
	OPN Development: ( )
	Start: 01 Jun 02
End: 01 Jun 02	
2.2 NARS/NORTHROP	
Definition: The process for generating suspended activation notices and the application of these notices against assets.	CHARNOB: R. G. Jones
	DEPN MODEL EFF: MCO, SA, 1
	TECH WRITER: TM, SA, 1
	LEGACY SYS EPR: T. G. Jones
	B. G. Jones
	COMPL. DATE: 01 Jun 02
	Local Application (required for Part or No Connectivity): YES
	Date Location on IAD (Security Classification): UNCLASSIFIED
	OPN Development: ( )
	Start: 01 Jun 02
End: 01 Jun 02	

3.0 ITEM CONTROL

3.1 REQUISITIONS	
Definition: Requests for material to include out-of-stock, modifications, follow-up, and status validation.	CHARNOB: R. G. Jones
	DEPN MODEL EFF: MCO, SA, 1
	TECH WRITER: TM, SA, 1
	LEGACY SYS EPR: T. G. Jones
	B. G. Jones
	COMPL. DATE: 01 Jun 02
	Local Application (required for Part or No Connectivity): YES
	Date Location on IAD (Security Classification): UNCLASSIFIED
	OPN Development: ( )
	Start: 01 Jun 02
End: 01 Jun 02	
3.2 ISSUES	
Definition: The posting of action showing movement of assets from an activity.	CHARNOB: R. G. Jones
	DEPN MODEL EFF: MCO, SA, 1
	TECH WRITER: TM, SA, 1
	LEGACY SYS EPR: T. G. Jones
	B. G. Jones
	COMPL. DATE: 01 Jun 02
	Local Application (required for Part or No Connectivity): YES
	Date Location on IAD (Security Classification): UNCLASSIFIED
	OPN Development: ( )
	Start: 01 Jun 02
End: 01 Jun 02	
3.3 RECEIPTS	
Definition: The posting of action showing outflow of material.	CHARNOB: R. G. Jones
	DEPN MODEL EFF: MCO, SA, 1
	TECH WRITER: TM, SA, 1
	LEGACY SYS EPR: T. G. Jones
	B. G. Jones
	COMPL. DATE: 01 Jun 02
	Local Application (required for Part or No Connectivity): YES
	Date Location on IAD (Security Classification): UNCLASSIFIED
	OPN Development: ( )
	Start: 01 Jun 02
End: 01 Jun 02	
3.4 EXPENDITURES	
Definition: Material moving out of OIS inventory, including issues to the Army from Demol Account.	CHARNOB: R. G. Jones
	DEPN MODEL EFF: MCO, SA, 1
	TECH WRITER: TM, SA, 1
	LEGACY SYS EPR: T. G. Jones
	B. G. Jones
	COMPL. DATE: 01 Jun 02
	Local Application (required for Part or No Connectivity): YES
	Date Location on IAD (Security Classification): UNCLASSIFIED
	OPN Development: ( )
	Start: 01 Jun 02
End: 01 Jun 02	
3.5 ASSET MAINTENANCE	
Definition: Actions that update asset posture but do not change the quantity of the overall asset.	CHARNOB: R. G. Jones
	DEPN MODEL EFF: MCO, SA, 1
	TECH WRITER: TM, SA, 1
	LEGACY SYS EPR: T. G. Jones
	B. G. Jones
	COMPL. DATE: 01 Jun 02
	Local Application (required for Part or No Connectivity): YES
	Date Location on IAD (Security Classification): UNCLASSIFIED
	OPN Development: ( )
	Start: 01 Jun 02
End: 01 Jun 02	
3.6 INVENTORY	
Definition: The verification of system records against physical assets. Includes: - Subscribing, checking, and printing cards - Verifying - Accounting (activity selection, item history, account, etc.) - Review (FMM)	CHARNOB: R. G. Jones
	DEPN MODEL EFF: MCO, SA, 1
	TECH WRITER: TM, SA, 1
	LEGACY SYS EPR: T. G. Jones
	B. G. Jones
	COMPL. DATE: 01 Jun 02
	Local Application (required for Part or No Connectivity): YES
	Date Location on IAD (Security Classification): UNCLASSIFIED
	OPN Development: ( )
	Start: 01 Jun 02
End: 01 Jun 02	
3.7 FINANCIAL INVENTORY	
Definition: The determination of financial data by transaction and the reporting of same in accordance with the CFO (Chief Financial Officer).	CHARNOB: R. G. Jones
	DEPN MODEL EFF: MCO, SA, 1
	TECH WRITER: TM, SA, 1
	LEGACY SYS EPR: T. G. Jones
	B. G. Jones
	COMPL. DATE: 01 Jun 02
	Local Application (required for Part or No Connectivity): YES
	Date Location on IAD (Security Classification): UNCLASSIFIED
	OPN Development: ( )
	Start: 01 Jun 02
End: 01 Jun 02	

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4.0 POSITIONING

<b>4.1 STRATIFICATION</b> Definition: Identification of assets that are applied to an activity's NMOR (Non-Nuclear Ordnance Requirement). Local application (required for Partial or No Connectivity): NO Date Location on HAO (Security Classification): <b>NO</b> BPM Development: NO		<b>4.2 LOAD PLAN</b> Definition: The creation, update, deletion, and simulation of minimum/maximum allowance quantities placed at Activities. Local application (required for Partial or No Connectivity): NO Date Location on HAO (Security Classification): <b>NO</b> BPM Development: NO	
<b>4.3 BROPP &amp; REPLENISHMENT</b> Definition: Refueler/NAUTELUS, OAP, Complete/Aband Dictionary. Local application (required for Partial or No Connectivity): NO Date Location on HAO (Security Classification): <b>NO</b> BPM Development: NO		<b>4.4 DISPOSITION</b> Definition: Generation of Requests for Disposition and the Master Replenish Item List (MRIL). Local application (required for Partial or No Connectivity): NO Date Location on HAO (Security Classification): <b>NO</b> BPM Development: NO	
<b>4.5 BSC MODEL</b> Definition: Budget forecasting tool for ordnance operations. Local application (required for Partial or No Connectivity): NO Date Location on HAO (Security Classification): <b>NO</b> BPM Development: I		<b>4.6 BORO PROCESSING</b> Definition: The processing of financial and storage information. Local application (required for Partial or No Connectivity): NO Date Location on HAO (Security Classification): <b>NO</b> BPM Development: I	

5.0 MOVEMENT

<b>5.1 TRANSPORTATION</b> Definition: Maintenance of data used in ordnance transportation tracking. Local application (required for Partial or No Connectivity): NO Date Location on HAO (Security Classification): <b>NO</b> BPM Development: NO		<b>5.2 INTRANSITS</b> Definition: Material moving activity to activity (includes Due-In processing). Local application (required for Partial or No Connectivity): NO Date Location on HAO (Security Classification): <b>NO</b> BPM Development: NO	
<b>5.3 DIRECTIVE TO SHIP</b> Definition: Shipping documents including Disposal Release Order (DRO), Material Release Order (MRO), Redistributive, and Referrals. Local application (required for Partial or No Connectivity): YES Date Location on HAO (Security Classification): <b>NO</b> BPM Development: NO			

6.0 MANUFACTURING/SALES

<b>6.1 PROBLEMDOWN/INTELLDOWN</b> Definition: Integral to an activity, the receipt and issue of items from production, reactivation, and/or maintenance. Local application (required for Partial or No Connectivity): NO Date Location on HAO (Security Classification): <b>NO</b> BPM Development: I		<b>6.2 PROBLEMDIV/PROCUREMENT</b> Definition: Production, reactivation, and procurement schedule data establishment and processing. Local application (required for Partial or No Connectivity): NO Date Location on HAO (Security Classification): <b>NO</b> BPM Development: NO	
<b>6.3 FMS</b> Definition: Maintenance of assets procured for Foreign Military Sales. Local application (required for Partial or No Connectivity): NO Date Location on HAO (Security Classification): <b>NO</b> BPM Development: NO			

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## STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL

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