APPENDIX I

AUTOMATED MOBILITY SYSTEMS

The use of automated systems to support mobility operations for force projection is essential to maintaining data management and inputs into and interfaces between automated systems. The following systems are used to support mobility operations.

A. AUTOMATED AIR LOAD PLANNING SYSTEM (AALPS)

AALPS is a knowledge-based expert system that assists users in the complex task of planning and execution of aircraft loads for all types of deployments. It has been selected as the aircraft load planning system for the Department of Defense (DOD). AALPS is currently fielded to Army, Air Force, Navy and Marine Corps units. AALPS performs air load planning and execution for contingency planners and force designers. This entails the use of preplanned data (estimates) and the use of actual data for both "real-world" and "what-if" scenarios. AALPS is used for estimating airlift requirements (by specific aircraft type and delivery method), producing United States (US) Air Force (USAF) certified "flyable" load plans, and providing airlift/movement summary data and load reports ranging from a single mission to full-scale division deployments. AALPS automates the complex task of air load planning. AALPS considers all individual aircraft constraints, hazardous cargo compatibility, venting and shoring requirements, and delivery method. The system provides an extensive database of manufacturers' specifications and constraints for US Military, Civil Reserve Air Fleet, and North Atlantic Treaty Organization cargo aircraft, equipment, and accessories. The USAF adopted AALPS as the air-planning tool for air movement of cargo and passengers.

NOTE: Effective 1 May 2013, all DOD units and organizations are required to use ICODES for their load planning requirements as AALPS will no longer be supported.

B. AUTOMATED MANIFEST SYSTEM (AMS)

AMS is a Defense Logistics Agency (DLA) initiative that utilizes laser-readable Optical Memory Cards (OMC) in place of paper packing slips on the exterior of shipment containers. The card contains a detailed list of the contents of the multipack including Transportation Control Number (TCN), national stock numbers and document numbers. It is used at depots, Central Receiving Points (CRPs), and Supply Support Activities (SSAs) such as the direct support unit in a forward support battalion. AMS facilitates manifesting and tracking of multipack shipments from the depot to the CRP or SSA. The system provides "in the box" asset visibility and may be used as the source of In-Transit Visibility (ITV) data. The AMS reader can be connected directly to the Automated Information System (AIS) at the receiving unit, thereby increasing the accuracy of data by automating the input of source data.

C. AUTOMATED MANIFEST SYSTEM, TACTICAL (AMS-TAC)

The Army and Marine Corps share in responsibility for the development of this system. The AMS-TAC is designed to combine a user friendly software package and a state-of-the-art hardware system into an efficient, cost effective and compact shipping manifest and database management system. AMS-TAC utilizes the following hardware components: a personal computer, OMC reader/writer, OMC, bar code readers, a battery back-up uninterrupted power supply, RF tags, and printers.

In performing freight receipt functions, it transfers shipping manifest information from an OMC or Radio Frequency (RF) tag (Joint Total Asset Visibility [JTAV] format) into a local database for receipt confirmation and reconciliation; automates receipt of freight and small packages by allowing users to scan barcoded Military Shipping Labels (MSLs);maintains an automated log of all incoming

shipments; produces Management Reports listing detailed receipt information or summary data (including calculations of processing time); and reads both multipack and container level OMC using an OMC Reader Writer.

For freight dispatch, it permits automated dispatch of freight using barcode readers, generates Tally Sheets and Gate Passes for dispatched freight and writes an automated manifest on an OMC for dispatched freight using an OMC Reader Writer.

For supply receipt, AMS transfers shipping manifest information from an OMC or RF Tag (JTAV format) into a local database for receipt confirmation and reconciliation, automates receipt processing by allowing users to scan barcoded DD Form 1348-1A, Issue Release/Receipt Documents, and produces Management Reports listing detailed receipt information.

For supply issue, it generates automated Packing Lists and Gate Passes for issues/returns, writes an automated manifest on an OMC for issues/returns and generates barcoded (linear and two-dimensional) MSLs and DD Form 1348-1A.

D. COMPUTERIZED MOVEMENT PLANNING AND STATUS SYSTEM (COMPASS)

The COMPASS is an Army Command and Control support system that uses evolving computer technology with multiple system interfaces that facilitate collection and maintenance of Unit Movement Data (UMD) to support planning, strategic mobility analysis, movement execution, and command and control for mobilization and deployment purposes. The Army uses the COMPASS to satisfy Combatant Commander, Army and Joint Staff UMD information requirements for deliberate and crisis action planning, strategic mobility analysis, and mobilization and deployment movement execution. The COMPASS processed UMD is utilized within the Joint Operations Planning and Execution System (JOPES). The current COMPASS uses direct interfaces with the Army Global Command and Control System (AGCCS), Army Status of Operational Readiness and Training System and AGCCS Mobilization Planning and the AGCCS Mobilization, Operations, Deployment, Employment System as its primary source of unit movement data to satisfy command information needs for deployment.

E. CARGO MOVEMENT OPERATIONS SYSTEM (CMOS)

CMOS is a legacy system that supports processing and movement of unit related and sustainment cargo worldwide. CMOS prepares linear/2 dimensional bar-coded Military Shipping Labels and for Hazardous Cargo Shippers Declarations for Dangerous Goods. It electronically transmits required clearance information to Defense Transportation System (DTS) aerial and water port systems. CMOS prepares movement documentation (Commercial Bills of Lading, Freight Warrants, Military Air/Truck Manifests). CMOS sends initial receipt and movement data to the Integrated Data Environment (IDE)/Global Transportation Network (GTN) Convergence (IGC). Non-Air Mobility Command designated aerial ports use CMOS. CMOS is a combat support system that automates and streamlines installation level cargo movement processes for both peacetime and deployment/contingency cargo. Workstations in Transportation Office (TO) functional areas support one-time data capture for the preparation of documentation for all modes of shipment. The specific functional areas supported are the receipt (inbound and outbound), preparation and movement of cargo, the reporting of movement to Command and Control (C2) elements for ITV, and military airlift passenger travel. The receipt function covers originating cargo destined for outbound shipment and inbound cargo destined for local installation or onward movement. The preparation function covers shipment planning, packing, packaging, and preservation of material generated for the installation supply account or other units for outbound movement. The movement function involves shipment planning, loading cargo on the designated conveyance, generating the required movement

documentation, and furnishing movement data. The electronic reporting of cargo movement provides in-transit and asset visibility.

F. DELIBERATE CRISIS ACTION PLANNING AND EXECUTION SEGMENT (DCAPES)

DCAPES is an application of the Global Command and Control System (GCCS) that resides on a GCCS workstation and operates in a classified, shared data environment on the SECRET Internet Protocol Router Network. Integrating Operations, Logistics, Manpower, and Personnel C2 systems, DCAPES is used by the USAF to achieve the Chairman, Joint Chiefs of Staff goal to develop a Time-Phased Force and Deployment Data (TPFDD) within 72 hours. DCAPES links USAF planners with Joint War planners through GCCS JOPES. The purpose of DCAPES is to enable timely, employment-driven, USAF participation in the JOPES process supporting all levels of command, across the operational continuum using integrated tools, shared infrastructure, and common data consistent with the Joint and USAF Integrated C2 vision. The objective of DCAPES is to provide data and data manipulation capability to USAF planners and commanders to:

1. Perform rapid Operations Plan (OPLAN) development.

2. Conduct feasibility and capability analyses.

3. Support deployment, re-deployment, sustainment, mobilization, and reconstitution.

The DCAPES provides near real-time integrated C2, planning, and execution monitoring information to Air Force functional users in operations, logistics, manpower, and personnel, providing a single integrated planning environment. With DCAPES, Air Force planners can rapidly and accurately identify and source personnel, equipment, and sustainment capabilities to meet the combatant commander's operations plan requirements. Additionally, the DCAPES enables senior Air Force decision-makers to rapidly adjust operations plans to accommodate ever-changing scenarios. The evolution of DCAPES is swiftly replacing old stovepiped, domain-centric systems by producing a single, fully integrated, replicated database.

G. DEFENSE LOGISTICS AGENCY INTEGRATED DATA ENVIRONMENT (IDE) ASSET VISIBILITY (AV)

AV is the capability that provides commanders, military Services, and DOD components with timely and accurate information on the location, movement, status, and identity of all supplies, equipment, units, and personnel, whether they are in transit, in-storage, or in process. AV also facilitates the ability to use this information to improve the overall performance of DOD logistics practices. The AV capability is an essential component of the overall GCSS system. AV provides the capability to obtain access to distributed data across DOD, including data on nontraditional supply assets, such as program manager materiel, unit-level operations and maintenance assets, and contractor or vendor-managed materiel.

IDE AV, users, customers, and process owners are provided timely and accurate information on the location, movement, status, and identity of units, personnel, equipment and supplies. The system provides the capability for Executive Summary (charts) for reporting, sending data results to other AV users, within application data summaries, drill down capability throughout the application, streamlined ad-hoc capability, consolidated and pre-defined queries (In-Process, In-Storage, In-Transit, Total Asset Visibility, and Reference Data) and interactive, user friendly Computer Based Training.

H. DIRECT VENDOR DELIVERY ELECTRONIC DATA INTERCHANGE (DVD EDI)

Through a series of initiatives, DLA and the Military Surface Deployment and Distribution Command (SDDC) are working with direct vendor delivery candidates to establish a standard set of data elements that will allow vendors to provide detailed shipping status via electronic data interchange. This data exchange will provide information on the content of sustainment cargo moving outside the DTS. Vendors will pass data to DOD automated information systems providing the initial source data required for force tracking and ITV reporting. As these DVD sustainment supplies move to the theater of operation via vendor or commercial carrier modes of transport, the commercial carrier ITV system will provide ITV data to DLA and SDDC AISs.

I. FINANCIAL AND AIR CLEARANCE TRANSPORTATION (FACTS) SYSTEM

FACTS supports the objectives and strategies presented in the DOD Transportation Corporate Information Management Strategic Plan and Enterprise Integration Implementation Strategy. FACTS provides direct support to DOD Air Clearance Authorities (ACAs) and the Transportation Financial Management community. The goal of the FACTS system implementation effort is to eliminate redundant ACA and transportation financial management systems while retaining current systems functionality-thus providing cost effective integration of Air Force, Army, Marine Corps, and Navy ACA and transportation financial management system responsibilities. As a key communications link, it provides the shipper with improved ITV of air-eligible cargo by providing cleared Advanced Transportation Control Movement Document data to the DTS. FACTS is operational in all Continental United States (CONUS) ACAs and is being extended for use in Outside CONUS areas.

J. GLOBAL AIR TRANSPORTATION EXECUTION SYSTEM (GATES)

GATES automates support for receipt, movement and billing of cargo and passengers. GATES provides the Air Mobility Command, the DOD, and commercial partners with an automated management system to process and track cargo and passenger information, support management of resources, provide logistical support information, generate standard and ad hoc reports, and provide message routing and delivery service for virtually all aircraft movement data. In the force projection scenario, GATES is the AIS that sends aircraft arrival and departure ITV data to IGC.

K. GLOBAL COMBAT SUPPORT SYSTEM (GCSS)

GCSS is a DOD-level initiative to ensure interoperability across Combat Support (CS) AIS functions, as well as between CS and C2 AIS functions. It is neither an acquisition program nor a standard information system, but a strategy for enhancing CS effectiveness within and between the Services. GCSS requires each Service to implement common technical standards for their AIS in accordance with the Defense Information Infrastructure Common Operating Environment. This includes the use of standard data elements to improve interoperability and understanding when sharing information among the Services during joint operations. Each Service is in the process of upgrading to these new technical standards.

The Defense Information Systems Agency (DISA)-fielded GCSS provides commanders with web-based access to selected Service and Agency authoritative/preferred logistics and transportation databases. This avoids the need to lift and support a considerable Information Technology (IT) infrastructure in the area of operations. The GCSS provides end-to-end visibility of retail and unit level CS capability up through the National Strategic Level, facilitating information interoperability across and between CS and C2. GCSS for the Combatant Command/Joint Task Force Commander (COCOM/JTF) is fielded as a Global Command and Control System – Joint (GCCS-J) mission application, providing decision makers with fused CS data and C2 information on the same workstation. In conjunction with other Global Information Grid elements including Global

Command and Control System – Joint (GCCS-J), Defense Information System Network, Defense Message System, Defense Enterprise Computing Center Detachments, and the COCOM, Services, and Agencies information architecture, GCSS (COCOM/JTF) will provide the IT capabilities required to move and sustain joint forces throughout the spectrum of military operations. GCSS (COCOM/JTF) provides enhanced CS situational awareness to the joint warfighter by integrating CS information into the C2 environment, and facilitating communications between the forward deployed elements and the sustaining bases, ultimately resulting in faster, more efficient decision making by the joint warfighter. GCSS (COCOM/JTF) significantly increases access to information stored in disparate databases via a simple sign on, web Portal application, using a SIPRNET PKI certificate. The administration, data mediation, and enterprise management features provide the springboard for delivery of capabilities to meet the vision of the future Net-Centric environment.

L. GLOBAL COMMAND AND CONTROL SYSTEM (GCCS)

GCCS is the key Command, Control, Communications, Computers and Intelligence (C4I) system. It is a system of interconnected computers that provides an integrated C4I capability to the entire joint community. It provides up to SECRET-level information from a variety of applications that have migrated, or are in the process of migrating from other systems. GCCS is used by the Joint Planning and Execution Community to document movement requirements, transportation closure, and other significant force projection events. GCCS is flexible enough for combat operations or humanitarian assistance missions. GCCS integrates deliberate and crisis action planning, force deployment and employment, fire support, air operations and planning, intelligence, and force status. It is designed to allow the expansion of planning and execution capabilities as new systems are designed. GCCS is based on a common operating environment allowing greater software flexibility, reliability, and interoperability with other automated systems. GCCS receives logistics information from JTAV, GCSS, and IGC. It provides a single integrated C4I application environment on which JOPES resides; supports the planner and warfighter and provides the combatant commander a complete picture of the battlefield and the ability to order, respond and coordinate C2 information (i.e. to plan, manage and execute contingencies); and integrates deliberate and crisis action planning, force deployment and employment, and force status.

M. GLOBAL TRANSPORTATION NETWORK (GTN)

GTN is an automated C2 information system that provides transportation users and providers with an integrated view of transportation information. It gives the United States Transportation Command (USTRANSCOM) the ability to perform C2 operations, planning and analysis, and business operations, to meet customer requirements. GTN provides ITV for the DTS. GTN collects and integrates transportation information from selected DOD systems for use by transportation data customers, the Joint Staff, Combatant Commanders (CCDR), and the Services. The system provides these users the ability to monitor movement of forces, cargo, passengers, and patients and the movement of military and commercial airlift, sealift and surface assets. GTN is accessible on the World Wide Web. The time standards for updating GTN are established in Chapter 302, Table 302-2 (Timeliness Evaluation Criteria).

GTN gives its customers located anywhere in the world a seamless, near-real-time capability to access and employ transportation and deployment information. GTN is an automated C2 information system that supports the family of transportation users and providers, both DOD and commercial, by providing an integrated system of ITV information and C2 capabilities. GTN collects and integrates transportation information from selected transportation systems. The resulting information is provided to the Secretary of Defense, CCDR, USTRANSCOM, its component commands, and other DOD customers to support transportation planning and decision-making during peace and war.

N. INTEGRATED DATA ENVIRONMENT/GLOBAL TRANSPORTATION NETWORK (IGC)

An automated program providing supply chain, distribution, and logistics information fusion through common integrated data application services enabling development of cohesive business solutions both by and for the supported Combatant Commands (COCOMS), Components, Services, Joint Staff, Agencies, and other Federal organizations. IGC creates an environment where logistics and distribution data and information from both USTRANSCOM and DLA are accessible from a single place, leveraging work already being done by DLA's Integrated Data Environment (IDE) and USTRANSCOM's Global Transportation Network (GTN) programs. IGC enhances capability to interoperate, unifies IT development across the Domain, and eliminates legacy/redundant data stores and interfaces. USTRANSCOM J3 declared IGC the in-transit visibility (ITV) system of record.

O. INTEGRATED COMPUTERIZED DEPLOYMENT SYSTEM (ICODES)

ICODES is an AIS designed to support multi-modal load planning requirments in support of the DOD requirement for a Single Load Planning Capability. Responsibility for this function is shared among the SDDC, the US Army Forces Command Active and Reserve components, US Air Force, US Navy and US Marine Corps. ICODES is a joint decision-support system developed to assist users with the staging and load-planning requirements for multiple military and commercial modes of transportation. The combined functionality of ship, air, rail, and the other services, provided by ICODES, gives commanders, planners, and operators at all levels a single platform capable of producing and evaluating load plans and alternative actions for units of any size, using varied modes of transportation, in support of peacetime or wartime operations. The reporting and networking functions support the mission to provide Commanders with strict accountability of these cargoes during the loading, transshipment, and discharge operations at ports and terminals.

The system enables users to plan and track cargo stowage for air, ocean, rail, and truck in a single system that affords the capability of one time entry of the data. It enables the joint community to easily create, exchange and interpret cargo movement plans through a single software application. Other features assist users by providing high quality alternative solutions to complex load planning problems. ICODES integrates multiple knowledge-based expert systems, data storage, and a graphical user interface within a distributed and collaborative operational environment providing global services to the operating forces. ICODES currently interfaces with the Global Air Transportation Execution System (GATES), the Transportation Coordinator's Automated Information for Movement System II (TC-AIMS II), and the Marine Air-Ground Task Force Deployment Support System II (MDSS II).

P. INTEGRATED BOOKING SYSTEM (IBS)

IBS is the SDDC execution system of the DTS for movement of military cargo by surface overseas. IBS manages and conducts these responsibilities by providing a single, worldwide, automated booking system to support the peacetime and wartime movement of unit and sustainment cargo in an efficient and timely manner. IBS automates manual interfaces with other SDDC systems and DOD agencies. IBS allows shippers to automatically book requirements instead of manually processing them through SDDC booking offices. Automatic booking of requirements reduces the level of manual intervention required. TC AIMS II interfaces with IBS for movements originating from the CONUS. Unit Deployment Equipment Lists can be pushed to IBS to create the deployment export traffic release request in IBS. IBS has been extended to provide support to users worldwide.

Q. JOINT FORCE REQUIREMENTS GENERATOR II (JFRG II)

The Marine Corps is the lead service. JFRG II is a GCCS segmented software application designed to provide the DOD with a Joint Services, state-of-the-art, integrated, and deployable AIS that will support strategic force movements. JFRG II provides assistance in the notional planning process and allows the assignment of actual units to fill notional slots, and generates TPFDD for use in executing joint OPLANs. JFRG II is a TPFDD manipulating and editing application designed to facilitate deployment planning and execution while in garrison or forward deployed. It sources, analyzes, and refines TPFDDs and is capable of remote, low bandwidth operation or client/server operations via GCCS. It imports and exports JOPES executable TPFDDs and provides an interface between unclassified unit deployment planning systems and classified JOPES. JFRG II has been designated as the interim interface for all data movements between JOPES and TC-AIMS II.

R. JOINT OPERATION PLANNING AND EXECUTION SYSTEM (JOPES)

JOPES standardizes the joint planning system used to execute complex multi-service exercises, campaigns, and operations. It is a combination of joint policies, procedures, personnel, training, and a reporting structure supported by automated data processing systems, reporting systems, and GCCS. JOPES is a GCCS application. JOPES furnishes joint commanders and war planners, at all levels, standardized policy procedures and formats to execute a variety of required tasks. It assists planners in development of OPLANs, contingency plan, functional plans, campaign plans, and operations orders. JOPES is used for TPFDD management and development. It defines requirements and gains visibility of the movement of forces into the combatant commanders' area of responsibility. This system assists planners with the development of detailed deployment requirements, logistics estimates, transportation requirements, and assessment of the OPLAN for transportation feasibility. JOPES also tracks, plans, prioritizes, and monitors deployment status and requirements.

JOPES provides the foundation for conventional C2 by national and COCOM-level CDRs and their staffs. It is designed to satisfy their information needs in the conduct of joint planning and operations. JOPES includes joint operation planning policies, procedures, and reporting structures supported by communications and automated data processing systems. JOPES is used to monitor, plan, and execute mobilization, deployment, employment, sustainment, and redeployment activities associated with joint operations.

S. RADIO FREQUENCY IDENTIFICATION (RFID)

RFID is a family of technologies that enables hands-off processing of materiel transactions for cargo deploying through the DTS. RFID provides operators a means to remotely identify, categorize, and locate materiel automatically within relatively short distances. Data is digitally stored on RFID transponder devices, such as tags or labels. Remote interrogators (located a few inches to 300 feet from the transponder device) electronically retrieve the data via electromagnetic energy (radio or microwave frequency) and send the data to the AISs. The technology is divided into two categories of data storage and retrieval systems - passive and active. Active RFID systems are omni-directional and require moderately expensive high-capacity transponder devices. Active devices are effective portable databases and facilitate the rapid transfer of data to AISs with standoff capability. Passive systems generally require line-of-sight interrogation of powerless, inexpensive, low capacity transponder devices. Passive devices are adaptable for use at the item, case, and pallet level.

T. REGIONAL IN-TRANSIT VISIBILITY (RF-ITV) SERVERS

The RF-ITV Infrastructure is the worldwide network of RFID read and write stations and associated computers, servers, software, and communications capabilities used for tracking of RFID tagged shipments in the US military supply chain. RFID sites are typically found at supply and transportation nodes such as depots, terminals, ports, supply support activities, and even some manufacturing facilities. An RFID site consists generally of a reader and/or writer (interrogator or docking station), a central processing unit [computer], software, and communications means to transmit created or collected RF-ITV data to a regional server.

Regional servers are currently located in the US, Germany, Korea, and Kuwait. Mobile RFID stations, also known as Early Entry Deployment Support Kits (EEDSK), provide RF-ITV capabilities at remote locations or at locations where the capability is temporarily needed. There are currently over 1,500 RF-ITV read and write stations in the worldwide infrastructure, including EEDSKs and over 200 coalition partner sites. The CONUS server is responsible for providing data to IGC. This method is used to provide the Continuity of Operation Procedures in case of failure of a server. As the shipment transits one of the DOD nodes which has an ITV interrogator established for data collection, each tag is interrogated and the collected tag data is transmitted to the respective ITV server. Users wishing knowledge of a specific shipment can query the system using the Document Number, TCN, or other pre-established queries and be capable of determining the last reported ITV event and location for the shipment. The interrogator can be collocated with an AIS or as a standalone with a communications capability. Movements Tracking System utilizing a satellite transponder also has the ability to report ITV data to the ITV Server/Regional Server.

U. SATELLITE TRACKING SYSTEMS

1. Defense Transportation Tracking System (DTTS). The mission of DTTS is to ensure the safe and secure movement of all DOD sensitive conventional arms, ammunition and explosives and other sensitive material using satellite technology and 24-hour staff oversight, and to support DOD ITV and Total Asset Visibility initiatives. DTTS monitors all sensitive shipments including non-ordnance related classified, pilferable, hazardous, and high value cargo moving from consignor to consignee. Monitoring is accomplished by using periodic satellite positioning and other coded/text messages from equipped vehicles. DTTS also identifies and coordinates responses to in transit accidents/incidents. DTTS provides ITV and expedites movements within the CONUS for all military Services, and other DOD and government agencies and programs. The ITV data is also provided to IGC.

2. Defense Transportation Reporting and Control System (DTRACS). DTRACS is the satellite tracking system similar to DTTS but currently used in the US European Command theater of operations. US Forces Korea uses a similar satellite tracking system called OmniTRACS. The system has five components – a subscriber unit, a satellite, an earth station, a network control center, and logistics managers. A subscriber unit is installed on the transportation platform being tracked. The subscriber unit can be queried by satellite giving the transponder location as determined by triangulation or Global Positioning System (GPS). The satellite passes the information to the earth station, which the DTRACS server is connected. The control center stores information in the DTRACS server. Logistics managers access the server to receive information from subscriber units and send information to the subscriber unit. DTRACS monitors the transportation platform, not the associated cargo. For ITV reporting to work with DTRACS, the subscriber operator must currently key in essential data fields relating to the equipment being moved. Without this operator entry, ITV of moving equipment is not currently possible.

3. Movement Tracking System (MTS). MTS is a satellite tracking system that is installed on all common user logistic transport vehicles and selected CS tactical wheeled vehicles and Army watercraft. MTS supports force projection through the full spectrum of military operations. The system's integration with TC-AIMS II and GCSS-Army provides commanders and distribution managers an unprecedented movement tracking, control, and management capability. It provides real-time information on the location and status of distribution platforms using cabin console-mounted hardware and satellite technology. MTS incorporates various technologies including GPS, automatic identification technology, vehicle diagnostics, and non-line of sight communication and mapping. It provides flexibility and control over distribution operations to include the ability to re-route supplies to higher priority needs, avoid identified hazards, and inform operators of unit location changes. MTS is used primarily to enhance distribution operations from the Port of Debarkation to the brigade rear boundary. MTS control stations are established in Distribution Management Centers, movement control elements, distribution terminals, and mode operator headquarter locations. MTS provides the distribution system the capability to:

a. Track the location of vehicles and communicate with vehicle operators (US and Host Nation).

b. Provide real-time ITV of movements within a theater.

c. Redirect movements based on changes to battlefield requirements.

4. Intelligent Road and Rail Information System (IRRIS). IRRIS has been developed to enable rapid deployment of personnel, equipment and supplies and to improve the global deployability of forces. IRRIS is a Web-based system that uses information technology to enable military users to obtain detailed, timely, and relevant information about road conditions, construction, incidents, and weather that might interfere with the movement of personnel and cargo from origin to ports through a user-friendly browser interface on the Internet. It leverages the advances in information technology, Geographic Information Systems, and Location Based Services to provide decision-makers with critical, timely, and relevant information necessary for efficient and rapid deployment of personnel and equipment between origins and strategic ports. It provides planners with a real-time tool for efficient and effective routing of people and cargo and enables access to this information anytime, anywhere, and on any device.

IRRIS technology integrates transportation logistics, real-time tracking, and infrastructure data into a single, secure application accessible through the Internet. With real-time and relevant information about road conditions, construction, incidents, and weather from more than 150 worldwide data sets, IRRIS technology enables SDDC Transportation Engineering Agency (TEA) to visualize assets and perform spatial queries and analysis, such as plume modeling to depict the effects of hazardous materials and/or explosives on any geographic area. IRRIS allows decision makers at operation centers worldwide to visualize assets and to perform analysis and location-based queries. The core mapping and information aggregation functions provide a platform for real-time vehicle and cargo tracking.

It accesses multiple military databases at once including Strategic Seaports, Military Installations, National Bridge Inventory, National Railway Network, and the National Highway Planning Network. IRRIS tracks items like road characteristics, bridge locations, video logs of primary routes, feature attribute data, and aerial photo and satellite imagery. The system also provides real time travel information about traffic congestion, weather, road closures, and construction detours.

It uses the latest Web, geographic information systems, intelligent transportation systems, location-based services, wireless technologies, and global positioning systems to provide support

for effective logistics, emergency response, and management. The flexibility of IRRIS also allows SDDCTEA to proactively address issues related to tracking shipments and other assets.

V. TRANSPORTATION COORDINATOR'S-AUTOMATED INFORMATION FOR MOVEMENTS SYSTEM (TC-AIMS II)

1. TC-AIMS II replaces TC-ACCIS, Transportation Information System-Theater of Operations, and selected other transportation systems. It supports all unit deployment, redeployment, and retrograde operations requirements. TC-AIMS II will operate in conjunction with the GCSS to provide the automated tools needed for successful distribution management. TC-AIMS II produces linear bar codes, two-dimensional bar codes, military shipping labels, registers and reads RF tags, and reads Controlled Access Cards.

2. TC-AIMS II provides the capability to automate unit movement and TO planning and execution procedures in both garrison and deployed environments. It will provide an automated information management capability to managers involved with movement control and allocation of common-user land transportation in a theater of operations. TC-AIMS II exports data to IGC and C2 systems at various command levels.

3. TC-AIMS II future capabilities.

    a. TC-AIMS II operates to support daily military transportation and specific deployment-related deliberate planning and execution requirements. The home station configuration uses either an enterprise architecture or existing base local area network. TC-AIMS II has the capability to break away from hosts and operate in a stand-alone laptop platform to support users in a field environment (e.g. reception, staging, onward movement, and integration operations). Units deploy with their own TC-AIMS II hardware platforms.

    b. For movement control organizations, TC-AIMS II will provide an automated capability to forecast the arrival of personnel, intertheater cargo, containerized shipments, and intratheater shipments. It also maintains visibility of command-interest cargo throughout the theater. Movement control elements will have the capability to coordinate and provide transportation services to customers. Automated functions include documenting transportation movement requests, tasking mode operators, and reporting container and cargo movements. Mode operators will have the automated capability to receive commitments, task specific assets, and maintain fleet asset status data. Other capabilities include scheduling and deconflicting convoy movements, maintaining unit location data, and maintaining in transit unit or cargo visibility.