

## Chapter 2

# Current Capabilities

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### INTRODUCTION

The JTAV Office has made steady progress and achieved regular successes since it was initiated in 1995. For several years many DoD organizations had developed asset visibility capabilities, creating *islands* of visibility within the DoD logistics system. JTAV has bridged the legacy systems and is facilitating the development of new capabilities to fill voids in those systems.

### HISTORY OF PROGRESS

This strategic plan continues to follow the concepts and intent of the *DoD Total Asset Visibility Plan*<sup>1</sup> published in 1992. The plan served as an excellent first document to lay the foundation for the current effort. It established many JTAV ideas, such as the concept of establishing visibility of in-storage, in-process, and in-transit assets, that continue today.

In March 1993, OSD formed a DoD Asset Visibility Integration Group composed of all military services, Defense Logistics Agency (DLA), Joint Logistics Systems Center, U.S. Transportation Command (USTRANSCOM), Joint Staff, and Defense Information Systems Agency (DISA). The group capitalized on related DoD component efforts, began the integration of the Logistics Information Processing System (LIPS) with the Global Transportation Network (GTN), and sponsored fast payback efforts that could be implemented by legacy systems. For example, one effort was the visibility of consumable items at Navy and Air Force retail units by DLA. This effort required agreements on visibility and business rules as well as the integration of data in legacy systems. The agreements were achieved by making the process a win-win experience for all participants. The Asset Visibility Integration Group was disbanded in October 1993.

In March 1994, the Deputy Under Secretary of Defense (Logistics), DUSD(L), sponsored a total asset visibility (TAV) conference that generated significant interest and support for TAV by the DoD components. In September 1994, the DUSD(L) established the TAV Joint Task Force (TAVJTF) with the mission to update the original TAV plan. The new plan was drafted in April 1995 and published in November 1995 as the *Defense Total Asset Visibility Implementation*

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<sup>1</sup> U.S. Department of Defense, *DoD Total Asset Visibility Plan*, April 1992.

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*Plan.*<sup>2</sup> The TAVJTF also began development of the prototype in-theater module that eventually became “JTAV–IT (in-theater)” as well as development of the Defense Transportation Reporting and Control System (DTRACS), an in-theater tracking system similar to the CONUS based Defense Transportation Tracking System (DTTS).

In April 1995, DUSD(L) selected the Army as the Executive Agent for JTAV and established the JTAV Office. The office continued the development of JTAV–IT and deployed it to U.S. European Command (USEUCOM) in March 1996 in support of Operation Joint Endeavor and other peacekeeping operations in Bosnia and central Europe. In addition to JTAV–IT, the office has sponsored initiatives to redistribute repairable assets among the military services and monitor convoys and trains supporting Operation Joint Endeavor with radio frequency identification (RFID) devices and satellite technology under DTRACS.

In June 1998 the executive agency for JTAV was transferred from the Army to DLA.

## CURRENT STATUS

The current status of the JTAV initiative is best described in terms of JTAV–IT, Global JTAV, and JTAV’s relationship to the GCSS. JTAV–IT is the capability being developed for a CINC, joint task force (JTF) commander, and service component to use in an overseas theater. Global JTAV consists of additional functions, including wholesale supply and depot maintenance, for which the JTAV Office is working to improve asset visibility.

### JTAV–IT

JTAV–IT provides CINCs, JTF commanders, and service components with a view of the assets in a theater. Initially, JTAV–IT included assets in the retail storage facilities of all four military services as well as war reserves in the theaters. As JTAV–IT has matured, the customer requirements have increased. Today, JTAV–IT strives to include wholesale and worldwide retail visibility. Additionally, GTN provides information on assets in-transit to a theater. Automatic identification technology (AIT) devices, through associated AISs, provide enhanced asset visibility to a theater of operation and ensure assets can be tracked from industry to foxhole. GTN and JTAV incorporate AIT capabilities into their system architectures, thus providing continental United States (CONUS) to theater asset visibility tracking information.

JTAV–IT was deployed to USEUCOM and U.S. Central Command (USCENTCOM) in 1996 and to U.S. Atlantic Command (USACOM) in 1997.

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<sup>2</sup> U.S. Department of Defense, *Defense Total Asset Visibility Implementation Plan*, November 1995.

Although operationally oriented, the deployments to USCENTCOM and USACOM were also intended as part of a rapid prototyping strategy. The deployment to USEUCOM, on the other hand, was aimed primarily at providing operational support to Operation Joint Endeavor. In February 1998, JTAV-IT was also deployed to the U.S. Pacific Command (USPACOM).

## Global JTAV

The Global JTAV mission is to ensure the required level of JTAV capability is provided to DoD's sustaining base organizations, operational units, defense agencies, and their commercial counterparts. When fully deployed, Global JTAV will track in-storage, in-process, and in-transit assets and assist in improving DoD's logistics practices. Primary Global JTAV redistribution initiatives include the interservice visibility of consumables, reparable, and maintenance activities.

The capability to provide interservice visibility of consumables has been operational since August 1994. Originally the Air Force and Navy agreed to give visibility to DLA item managers and allow them to transfer retail assets among the military services and offset procurements with retail excesses. The Army began participating in 1995. Business rules concerning stock levels and reimbursement were developed. Although participation by all military services is limited, the initiative has produced more than \$30 million in lateral redistributions and more than \$15 million in procurement offsets.

The capability to provide interservice visibility of reparable is being improved. Repairables are more expensive and generally considered more mission-critical than consumables. Parts repair accounts for 55 percent of logistics expenditures, which, in turn, are one-third of DoD's total budget and uses nearly half of the total manpower. Moreover, business rules for transfer and reimbursement of assets were difficult to develop. Once business rules were determined, DoD tested the concept from April–September 1997. The test bed consisted of one Navy and one Army primary inventory control activity (PICA) and one Army and one Marine Corps secondary inventory control activity (SICA). That limited test was successful in providing almost \$500,000 in lateral redistributions.

Another important aspect of the Global JTAV mission is to integrate data from service legacy systems that show the capabilities of maintenance facilities and the commercial sector. The information will facilitate the repair of weapon systems and other end items in a timely, efficient, and cost-effective manner.

## Relationship to GCSS

GCSS is part of the Command, Control, Communications, Computers, and Intelligence (C4I) for the Warrior (C4IFTW) concept to provide combat support information. It is a DoD initiative to provide a common data environment that allows functional combat support communities to share data and information. The

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common data environment consists of standards and conventions to share data. Depending on the technologies involved, GCSS will also probably consist of data dictionaries and directories, mediator software, translation capabilities, a communications infrastructure, and hardware. Currently GCSS is focusing on the following:

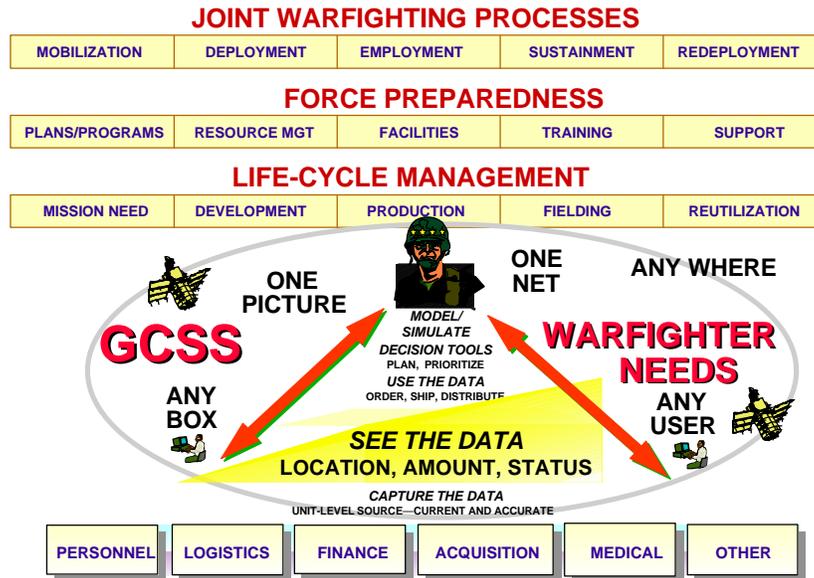
- ◆ *JTAV*. One of the first applications to be made available via GCSS is asset visibility. Currently, seven CINC Integrated Priority Lists request this capability. With links to GTN that provides intransit visibility, JTAV will be able to meet warfighters' data needs.
- ◆ *Joint decision support tools*. Joint decision support tools are computer tools and processes that meet CINC and user requirements to plan, execute, and monitor logistics operations and provide a common operational picture of the battlespace. The Joint Logistics Technology Office of the Defense Advanced Research Projects Agency (DARPA) is developing the tools based on CINC requirements.
- ◆ *Common Operational Picture (COP)*. The COP is a key tool for commanders in planning and conducting joint operations. The value of the COP is the display of detailed battlespace information in a graphical manner that other operational reports are unable to display. The GCSS strategy includes developing the combat support component of the COP that incorporates data from the Joint Operational Planning and Execution System (JOPES), GTN, JTAV, and other systems.<sup>3</sup>

GCSS uses the same tools, approach, methodology, and integration processes as the Global Command and Control System to provide C4I information. The C4IFTW concept is a commitment to meeting the warfighter's needs for information to achieve victory in any mission at any time and at any place. GCSS will achieve interoperability across combat support functions as much as JTAV will provide interoperability for logistics and personnel. The JTAV data environment forms the cornerstone of the GCSS data environment. Asset visibility is at the core of the GCSS model as depicted in Figure Chapter 2 -1.

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<sup>3</sup> GCSS Informational Brochure at <http://gcss.jsj4.com/projects/gcss/gcss-brochure.html>.

Figure Chapter 2 -1. JTAV–GCSS Relationship



Functionally, the GCSS concept incorporates personnel, logistics, finance, acquisition, medical, and other support elements in a cross-functional environment. Technically, GCSS is consistent with the “any box, any user, one net, and one picture” concept. JTAV directly supports GCSS in the following three ways:

- ◆ JTAV provides the capability to *see data* in terms of identity; status; location; and movement for units, personnel and materiel. Additionally, the AIT associated with an AIS provides the automated means to *capture data* in the GCSS context.
- ◆ JTAV increases access to information for both the warfighters and corporate DoD managers.
- ◆ JTAV’s operational architecture was developed using the same architectural framework as GCSS to verify functional requirements and identify information requirements.

## YEAR 2000 COMPLIANCE

The JTAV Office is fully aware of the risks posed by the year 2000 (Y2K) compatibility concerns and has been proactive in ensuring minimal impact on the JTAV capability. The JTAV Office fully supported the OSD requirement to achieve Y2K validation testing of mission-critical systems by the end of 1998.

JTAV used two sets of independent auditors for overseeing the testing. The first was Lock Harbor contractors, and the second was the J4 and J6 staffs of the unified commands (e.g., USACOM, USEUCOM, USPACOM, and USCENCOM).

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The testing strategy included validation testing of the JTAV application and interface testing with CINC operational sites.

One concern raised is JTAV's ability to satisfy the validation testing requirement. The security guard hardware that supports JTAV has an e-mail function that is not Y2K-compliant. Two means can resolve the noncompliance. The first is to use the hardware platforms currently available in the JTAV inventory as a replacement; the second is to initiate a new procurement for the guard that DISA uses for its secure databases. The JTAV Program Director will make the final decision. If the decision is to adopt the strategy using the JTAV hardware platform, the security guard hardware will be replaced during the second quarter of FY99. If the decision is to acquire the DISA guard, security guard hardware will be replaced during the third quarter of FY99.

The JTAV system software is Y2K-compliant, and JTAV is capable of supporting software upgrades required at the various sites. The only outstanding action is the decision concerning the replacement of the non-compliant security guard.

## SUMMARY

DoD has made steady progress toward the goal of providing accurate and timely logistics information to a wide range of users. The original TAV plan provided the foundation and underlying concepts, such as in-storage, in-transit, and in-process components that remain valid today. The *Defense Total Asset Visibility Implementation Plan* provided the direction and guidance to begin development of the prototype JTAV-IT system and its transition to operational capability.

JTAV-IT has been fielded and is working for the warfighter. JTAV-IT provides information to CINCs, JTFs, and service component commanders concerning the location, movement, status, and identity of in-storage assets in the theater. JTAV-IT also provides information on assets traveling to, through, and within a theater, if they are equipped with the appropriate AIT. Not only is JTAV-IT providing theater information to a CINC, the system is capable of accessing and providing CONUS wholesale data to a CINC for planning purposes.