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UNCLASSIFIED
CAPABILITY DEVELOPMENT DOCUMENT
FOR

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

Increment: Three

ACAT: 1A

Validation Authority: Joint Requirements Oversight Council (JROC)

Approval Authority: Commander, U.S. Joint Forces Command

Milestone Decision Authority: OSD (NII)

Designation: JROC Interest

Prepared for Milestone B Decision

December 2003

Executive Summary

TC-AIMS II is an Office of the Secretary of Defense (OSD) directed joint program designed to address joint interoperability among the Services and Agencies for the deployment and transportation of materiel and personnel in support of Department of Defense (DoD) operations. The Army is designated as Lead Service and is responsible for software development, initial training, and life cycle maintenance for the system. The individual Services and Agencies are responsible for hardware procurement. The Commander, U.S. Joint Forces Command is the functional proponent for TC-AIMS II, chairs the Joint TC-AIMS II Requirements Board (JRB) and represents the user community to the acquisition milestone decision authority.

Force structure changes within DoD have created a need for more rapid and effective force projection to accomplish United States defense objectives. To achieve these objectives, the Department must rely on Information Technology (IT) systems to reduce the time required to request, execute, and track movement of joint forces. TC-AIMS II will facilitate interoperability among the Services and Agencies by providing the IT system that enables the Joint Deployment Process. TC-AIMS II will continue to provide users the ability to source Time Phased Force Deployment Data in support of OPLANS and contingency operations and Block Three will provide the capability to register, manage and track theater movements. The Department must transform and re-engineer the IT systems that support the Joint Deployment Process. TC-AIMS II provides greater capability than any single service or agency IT system to meet the unit movement and transportation IT requirements of the Combatant Commander in peace and during war.

This CDD defines the capabilities that will be provided in Block Three of software development. TC-AIMS II, Block Three, will incorporate and enhance the Theater Movement Management functions presently found in the Transportation Information Systems – Theater Operations (TIS-TO) module, formerly the Department of the Army Movement Management System -Revised (DAMMS-R). When fielded, TC-AIMS II,

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46 Block Three will allow the Army to retire the DAMMS-R legacy system. Inclusion of a
47 limited vehicle dispatch capability, in addition to Block Two capabilities, will allow
48 retirement of the USMC MDSS II system. Block Three will also increase joint
49 interoperability beyond Blocks One and Two (Unit Movement) and allow management of
50 common user-land transportation assets. Concentrating on theater distribution and
51 deployment related transportation management functions, Block Three will extend
52 transportation planning and execution capability forward from fort to foxhole or the
53 tactical assembly area in theater to serve a diverse joint user community.

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196 **1.0 Capability Discussion**

197
198 1.1 Applicable Capabilities Documents.

199 There is no Initial Capabilities Document (ICD) for TC-AIMS II Block Three. Two
200 ORDs are the basis of this CDD:

201 1.1.1 Operational Requirements Document (ORD) for the Transportation Coordinators'
202 Automated Information Management System (TC-AIMS II), 29 June 1999.

203 1.1.2 Operational Requirements Document (ORD) for the Transportation Coordinators'
204 Automated Information Management System (TC-AIMS II), ACAT 1A, prepared for
205 Milestone III Decision, 4 December 2002.

206
207 1.2 Capability Gaps.

208 Gaps exist for supporting Theater Reception, Staging, Onward Movement, and
209 Integration (RSO&I). These gaps encompass theater movements, theater distribution,
210 movement control, a portion of convoy operations, and management and control of
211 organic and common user transportation assets capabilities as well as interface to specific
212 external systems unique to the RSO&I environment, convoy operations, or to specific
213 theaters.

214
215 1.2.1 Current systems fielded in individual DoD components do not provide the DTS
216 with an efficient joint support capability for RSO&I and sustainment actions.

217
218 1.2.2 Individual DoD component systems support individual Service's needs to varying
219 extents, but they do not adequately support joint or composite operations.

220
221 1.2.3 DoD's ability to create an accurate common information picture of the status of
222 deployments and DTS movements is hampered through the operation by each of the
223 Services and DoD activities of separate systems that are not integrated to provide
224 uniformity of information and which lack standardization in data elements, data
225 transmission formats, accessibility to information and source data capture capabilities.

226
227 1.2.4. Theater convoy capabilities lack map graphics.

228
229 1.2.5. No theater system exists to support control of organic and common user
230 transportation assets.

231
232 1.2.6. The Army Transportation Information Systems – Theater Operations (TIS-TO),
233 formerly the DAMMS-R system, exists specifically to support Theater Operations;
234 however, it lacks visibility of inbound shipments via strategic lift.

235
236 1.2.7. The Marine Corps relies on MDSS II to support the theater operations mission
237 with an integrated interface with ATLASS for supply, an automated export interface to
238 WPS, two-way load planning interfaces with ICODES and AALPS, and a manual
239 (spreadsheet) export to CMOS for transportation. It employs manual methods to request
240 or task common user transportation.

241

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242

243 1.3 Block Three Capabilities.

244 Required Block Three capabilities are outlined below and are more fully specified in the
245 Joint Forces Command Joint Requirements Office (JRO) /Joint Requirements Board
246 (JRB) Block Three Requirements List attached at Appendix (E).

247

248 1.3.1 For RSO&I in theater of operations and general Service use provides enhanced
249 unit move planning and scheduling capabilities with new interfaces to Service supply and
250 personnel systems.

251

252 1.3.2 For RSO&I in theater of operations provides theater movements control activities
253 the capabilities to gain visibility of inbound units and cargo, supported by new interface
254 enhancements, to extend in transit visibility within theater, to task available assets, and to
255 schedule, manage, and track multiple convoy movements.

256

257 1.3.3 For RSO&I in theater of operations provides capability for theater mode
258 operations to manage Common User Land transportation (CULT) management, will
259 interface with tracking systems, and theater distribution management operations, and
260 produce theater-specific documentation.

261

262 1.3.4 For RSO&I in theater and for general Service use provides military truck mode
263 basic unit dispatch capability to maintain and report unit vehicle fleet and driver
264 availability/status, receive equipment support tasks, dispatch vehicles and drivers, and
265 produce associated documentation.

266

267 1.3.5 For RSO&I in theater provides Movement Control Team (MCT) capability to
268 receive, create, maintain, and transmit data to control, document, and manage assets
269 moving via the DoD transportation system into, within, and out of the theater.

270

271 1.3.6 For RSO&I in theater provides capability to coordinate transportation services,
272 move passengers, procure commercial carrier support, capture historical shipment
273 information, prepare shipment documentation, and track funds for movement of freight,
274 and includes additional and enhanced interfaces.

275

276 1.3.7 For RSO&I in theater and for CONUS convoy operations provides capability for
277 map graphics.

278

279

280 1.4 Operating Environment.

281 TC-AIMS II will be employed by unit logistics sections, embarkation officers, unit
282 movement officers (UMO), and unit movement coordinators (UMC), through each level
283 of command up to major (MAJCOM/MACOM) or joint task force (JTF), and also by
284 theater movements control activities to include movement control teams (MCT), in-
285 theater movements managers, trans-shippers, and mode operators supporting military
286 operations. It is used in all garrison or installation and forward deployed locations where

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287 deployment planning, transportation execution, and RSO&I operations are accomplished,
288 including aboard ship and at remote ports, beaches, airfields, and traffic nodes. It will
289 operate on existing information infrastructure networks, remote SATCOM enabled
290 networks, or in a stand-alone mode, for occasions where robust communications are not
291 available. TC-AIMS II Block Three will directly support unit and force commanders of
292 all services, in-theater movements managers, trans-shippers, and mode operators
293 supporting military operations. It will provide an automated transportation planning and
294 execution capability for unit and individual cargo movements, support RSO&I operations
295 within the theater of operations, and enhance convoy operations. TC-AIMS II Block
296 Three will provide the source data to create in-transit visibility (ITV) for the Global
297 Transportation Network (GTN) and the Global Command and Control System
298 (GCCS)(JOPES modules) that are to be replaced by the Joint Command and Control
299 (JC2) system. TC-AIMS II is essential to the successful development and fielding of the
300 Future Combat Systems (FCS) – equipped Unit of Action (UA).

301

302 1.5 Relationship with Family of Systems

303

304 Based on the Joint Deployment System (JDS) Capstone Requirements Document
305 TC-AIMS II interfaces with that family of systems in Block Three via the JFRG II
306 system for TPFDD deployment planning and execution, with GTN, both, directly, and
307 indirectly through systems supporting POE/POD and APOE/APOD operations, WPS and
308 GATES, respectively, and the Army CONUS and theater ITV servers to provide ITV
309 from fort to assembly areas in theater. TC-AIMS II also interfaces with Service-unique
310 personnel, equipment, supply, ammunition, deployment planning, transportation
311 management, traffic management systems and DTS load planning systems. As several of
312 these interfacing systems are subsumed by emerging, “to be” systems; e.g., GCSS, the
313 TC-AIMS II interface will transition to the “to be” system and be adapted as necessary to
314 meet the operational requirements of both systems as they then exist.

315

316

317 1.6 Approved TC-AIMS II JCIDS Documents include the following:

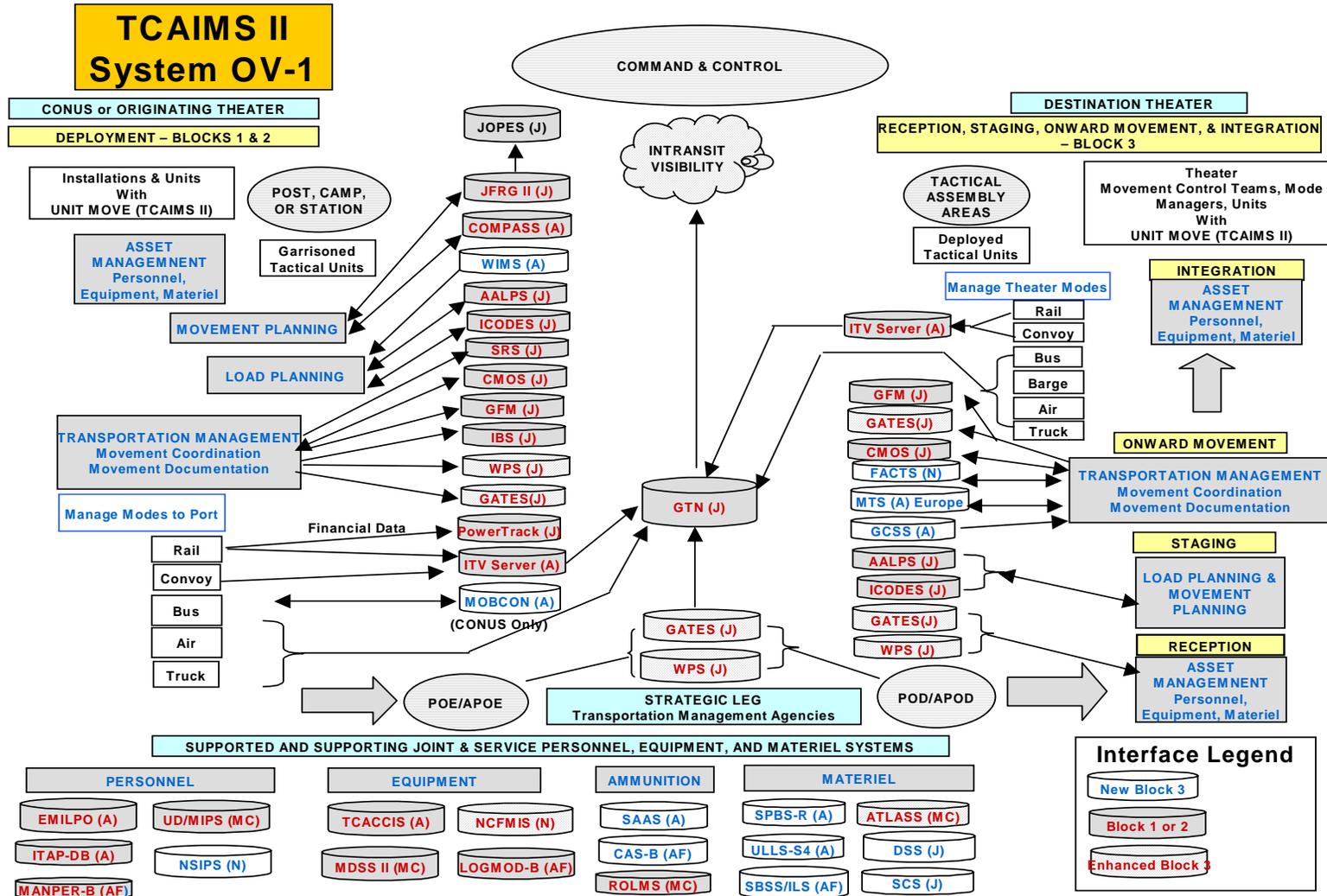
318 1.6.1. TC-AIMS II Mission Needs Statement (MNS), 7 August 1997.

319 1.6.2. Operational Requirements document (ORD) for the transportation Coordinators'
320 Automated Information Management System (TC-AIMS II), 29 June 1999.

321 1.6.3. Operational Requirements Document (ORD) for the Transportation Coordinators'
322 Automated Information Management System (TC-AIMS II), ACAT 1A, prepared for
323 Milestone III Decision, 4 December 2002.

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2.0 Analysis Summary.

The JRO requirements originally allocated to Block Three; i.e., IDP 2, Plan Sourcing, and IDP 3, Movements Control, were reviewed to determine whether requirements might be satisfied wholly or in part by COTS or GOTS solutions. Results largely identified legacy systems from which the JRO requirements had originated, or identified the system with which the Block Three requirement specified an interface. In addition, TIPS, a GOTS product and Infomaker, a COTS product both of which are already used in TC-AIMS II Block Two, were recommended for consideration for specific functions. However, no existing COTS or GOTS solutions were found to address the spectrum of Block Three requirements. An extract from the report is attached at Appendix F - Block Three (IDP 2, Plan Sourcing, and IDP 3, Movements Control) Requirements Review for GOTS and COTS Applications. The requirement for a map graphics capability added to Block Three subsequent to completion of this study is an obvious candidate for a GOTS or COTS solution although no specific solution has been identified.

3.0 Concept of Operations Summary.

3.1 Mission Areas.

TC-AIMS II Block Three contributes to the mission areas of Deployment/Redeployment and Focused Logistics.

3.2 Operational Outcomes.

TC-AIMS II Block Three will expedite the RSO&I process to provide integrated combat units to the supported theater commander.

3.3 Affects Produced.

Personnel and unit equipment arriving in theater will be received at POD and/or APOD, staged to reunite personnel with unit equipment and all will be transported forward to tactical assembly areas (TAA) using organic (convoy) or common user land transportation resources for integration into combat effective units. ITV will be provided as required through theater transportation nodes and convoy checkpoints.

3.4 Enabling Capabilities Required.

Required are communications sufficient to allow TC-AIMS II interface with systems used for port operations and for advanced shipment notification, WPS and GATES, interface with ITV systems, GTN and ITV server, and interface between various TC-AIMS II nodes supporting tactical units and other movement control team activity. Also required are the AIT resources needed to read CAC cards, read and write shipping labels and RF tags.

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369 **4.0 Threat Summary.**

370
371 The battlefield threats to TC-AIMS II Block Three include physical damage and
372 destruction, computer network attack and computer network exploitation, electronic
373 warfare (EW), directed energy weapons and nuclear weapons, and their electromagnetic
374 pulse effects. It is possible that a threat force could detect, locate, and target TC-AIMS II
375 from the radio frequency emissions of supporting communications, or from the low
376 power emissions of RF tags and interrogators, to include the emissions of integrated or
377 collocated, interfacing movement tracking systems. Radio frequency weapons can
378 degrade, damage, or destroy critical command, control, and communications systems,
379 computers, and automated information systems. Other threats to the TC-AIMS II system
380 may be computer network attack and computer network exploitation that could include
381 malicious code insertion, remote insertion of false data, internet protocol spoofing,
382 unauthorized computer access, interference or tampering with cable communications,
383 direct signal attack, and indirect signal attack. TC-AIMS II has been validated by the
384 National Security Agency (NSA)  achieved security accreditation for Block One in
385 October 2002.

386
387 **5.0 Program Summary.**

388 5.1 Overall Program View.

389 TC-AIMS II is to be completed in five blocks. Blocks One and Two address basic unit
390 move and system capabilities including web-enable. Block Three focuses on theater
391 capabilities. Block Four addresses maritime preposition force (MPF) management and
392 enhanced theater capabilities. Block Five provides full installation transportation
393 office/transportation management office functionality.

394
395 5.2 Block One.

396 Block One provided basic unit move capability which included unit asset management,
397 movement planning including the 72 hour TPFDD requirement, load planning, a basic
398 convoy function, Joint Data Library functionality for common reference data, support for
399 preparing movement documentation, and both standard and ad hoc reporting capabilities.
400 Also included were interfaces for Service asset data (SIDPERS, TCACCIS, UD/MIPS,
401 MDSS II, MANPER-B, LOGMOD-B, and NCFMIS), for materiel management data
402 (ROLMS and ATLASS), for transportation (GATES, GFM, CMOS, IBS, WPS), for load
403 planning (CALM, CAEMS, AALPS, and ICODES), and for planning (JFRG II,
404 COMPASS, and MAGTF II). (Milestone three for the Army/Navy Dec 02)

405
406 5.3 Block Two.

407 Block Two provides an enhanced Unit Move functionality that includes Web-
408 Enablement, Handheld Terminal (HHT) with wireless and added print capabilities,
409 Common Access Card (CAC) integration, added reference data source options, enhanced
410 system Help, enhanced deployment, movement coordination and movement
411 documentation capabilities, and improvements for the AALPS, GATES, GTN, CMOS,
412 GFM, TC-AIMS II V3 and JFRG interfaces, new interfaces with the SAAM Request
413 System, EMILPO, to be followed by ITAP-DB, and an interim PowerTrack interface.

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414 Block Two retains Block One interfaces with exceptions of SIDPERS, CALM, CAEMS,
415 and MAGTF II, which are obsolete. (Milestone C scheduled Dec 03)

416

417 5.4 Block Three.

418 Block Three provides enhanced unit move planning and scheduling capabilities to
419 support CONUS deployment and RSO&I activities in a theater of operations, provides
420 movements control capability for port operators to gain visibility of inbound units and
421 cargo, to extend in transit visibility within theater, to task available assets, and to
422 schedule, manage, and track multiple convoy movements, provides theater mode
423 operations capabilities including Common User Land transportation (CULT)
424 management, interface to theater truck tracking system, and theater distribution
425 management operations including theater-specific documentation, provides military truck
426 mode basic unit dispatch capability to maintain and report unit vehicle fleet and driver
427 availability/status, receive equipment support tasks, dispatch vehicles and drivers, and
428 produce associated documentation, provides capability to receive, create, maintain, and
429 transmit data to control, document, and manage assets moving via the DoD transportation
430 system into, within, and out of the theater, provides theater capability to coordinate
431 transportation services, move passengers, procure commercial carrier support, capture
432 historical shipment information, prepare shipment documentation, and track funds for
433 movement of freight, provides enhanced convoy capabilities including multiple convoy
434 management and map graphics, provides enhanced reporting and new or enhanced
435 interfaces with AALPS, ATLASS, CAS-B, SCS, DSS, WPS, ULLS-S4, SAAS, NSIPS,
436 NCFMIS MTS, MOBCON, GTN, ICODES, FACTS, GCCS, SPBS-R, WIM - TrAMS
437 and GATES. (Mar 05)

438

439 5.5 Block Four.

440 Block Four will provide maritime preposition force (MPF) management, prepositioning
441 stock management, additional theater mode management capability and theater
442 distribution capabilities, complete vehicle dispatch capability, enhanced documentation
443 and reporting capabilities, and include new or enhanced interfaces with ATLASS,
444 AWRDS, US Customs, WPS, and DMLSS. (Mar 07)

445

446 5.6 Block Five.

447 Block Five will provide installation transportation office/traffic management office
448 (ITO/TMO) full functionality for CONUS and OCONUS operations, specifically the
449 capability to receive, create, maintain, and transmit data to control, document, and
450 manage assets moving in the DoD transportation system, to coordinate transportation
451 services, move passengers, procure commercial carrier support, capture historical
452 shipment information, prepare shipment documentation, and track funds for movement of
453 freight, new or enhanced interfaces with SCS, ILSMIS, UDAPS-2, SARSS, CAS-B,
454 MTMS, FACTS, ATLASS, AMSS, G009, GATES, GCCS, DTTS, ILS-S, ATAC, SBSS,
455 DSS, DAAS, GFM, GOPAX, Commercial Carriers, ADNET, Sup MIS, NIMMS, MMS,
456 SPS, GTN, IAPS, ROLMS, AALPS, CAS-D, SATS, PowerTrack, GCSS-A, WPS, and
457 US Customs. (Oct 09)

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459 **6.0 System Capabilities Required for the Current Increment.**
460

461 The attributes required for TC-AIMS II Block Three are detailed in the following
462 subsections. The Key Performance Parameters (KPPs) are summarized at the end of the
463 section. The attributes are specified with both a development threshold, which is the
464 minimum achievement required for Block Three, and a development objective, which is
465 the target.
466

467 6.1 Reception and Export of Data with Interfacing Systems.

468
469 TC-AIMS II Block Three must interface with the systems identified as Block
470 Three inputs and outputs in the following Information Exchange Requirements (IER)
471 matrix in accordance with the systems interface agreements (SIAs) from those systems
472 with "Yes" in the Critical column. The table includes interfaces developed for Blocks
473 One and Two as well as new interfaces for Block Three.
474

| Attribute | Development Threshold | Development Objective |
|--|---|--|
| Reception of Data from Interfacing Systems | 100% of systems marked Block Three and Yes in the Critical Column in the IER matrix | 100% of systems marked Block Three in the IER matrix |
| Export of Data from Interfacing Systems | 100% of systems marked Block Three and Yes in the Critical Column in the IER matrix | 100% of systems marked Block Three in the IER matrix |

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Interface Exchange Requirement (IER) Matrix

| IER | Rationale/ UJTL Number | Event/Action | Information Characterization | Sending Node | Receiving Node | Bi- directional | Critical | Format | Timeliness | Classifica tion | Remarks |
|-----|--|-----------------------|---|--------------|------------------------|--------------------|----------|--------|-------------------|--------------------|--|
| 1 | SN 1.2, SN 1.2.1 SN 1.2.4, SN 1.2.5 SN 6.4.1, ST 4.3.1 | Manage Unit Personnel | Maintain organizational personnel roster. Information includes identification, skills, training, and assigned tasks. Becomes source data for deployment planning. | UNIT ASSETS | UNIT MOVE (TC-AIMS II) | Yes | No | Data | 10 Min | (U) | MANPER-B (AF) |
| | | | | | | No | Yes | | 10 Min | | NSIPS (N) to TC AIMS II (Block Three) Critical |
| | | | | | | No | Yes | | 5 Min | | EMILPO (A) to TC AIMS II Critical |
| | | | | | | No | Yes | | 10 Min | | UD/MIPS (MC) to TC AIMS II |
| | | | | | | No | Yes | | 5Min | | ITAP-DB (A) to TC AIMS II Critical |
| 2 | SN 1.2, SN 1.2.1 SN 1.2.4, SN 1.2.5 SN 6.4.1, ST 1.1.6 ST 4.3.1 | Manage Unit Assets | Maintain organizational equipment list. Information includes identification, maintenance status, and deployment configuration. Becomes source data for deployment planning. | UNIT ASSETS | UNIT MOVE (TC-AIMS II) | No | No | Data | 5 Min - 5 Hours | (U) | GCSS-A (A) to TCAIMS II (Block Three) Non-Critical |
| | | | | | | Yes | No | | 5 Min - 5 Hours | | LOGMOD (AF) |
| | | | | | | Yes | Yes | | 24 hours | | MDSS II (MC) to TCAIMS II Critical |
| | | | | | | No | Yes | | 10 Min | | NCFMIS (N) to TCAIMS II (Block Three) Critical |
| | | | | | | No | Yes | | 10 Min - 10 Hours | | TC ACCIS (A) to TCAIMS II Critical |
| 3 | | | | | | | | | | | |

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Interface Exchange Requirement (IER) Matrix (Continued)

| IER | Rationale/ UJTL Number | Event/Action | Information Characterization | Sending Node | Receiving Node | Bi- directional | Critical | Format | Timeliness | Classifica tion | Remarks |
|-----|------------------------------|------------------------|---|-----------------|----------------------------|--------------------|----------|--------|----------------------|--------------------|---|
| | SN 1.2, SN 1.2.4 | Material Management | Manage equipment, supplies, and war reserve stocks that are moving in support of deployment or day- to-day operations. Includes status, location and quantity on hand. | MATERIAL MGT | UNIT MOVE (TC- AIMS II) | No | Yes | Data | 10 Min | (U) | ATLASS (MC) to TC AIMS II Critical |
| 4 | SN 1.2.5, SN 6.4.1 | | | | | No | No | | 10 Min | | CAS-B (AF) (Block Three) to TCAIMS II Non-Critical |
| 5 | ST 1.1.6, ST 4.3.1 | | | | | No | No | | 10 Min | | DSS (J) (Block Three) to TCAIMS II Non-Critical |
| | OP 4.5.1 | | | | | No | No | | 10 Min | | ROLMS (MC) to TCAIMS II Non- Critical |
| | | | | | | No | No | | 10 Min - 10 Hours | | SAAS (A) (Block Three) to TCAIMS II Non-Critical |
| 6 | | | | | | No | No | | 10 Min - 10 Hours | | SPBS-R (A) (Block Three) to TCAIMS II Non-Critical |
| 7 | | | | | | No | No | | 10 Min | | SBSS/ILS (AF) (Block Three) to TCAIMS II Non- Critical |
| 8 | | | | | | No | No | | 10 Min | | SCS (J) (Block Three) to TCAIMS II Non-Critical |
| 9 | | | | | | No | No | | 10 Min - 10 Hours | | ULLS-S4 (A) (Block Three) to TCAIMS II Non-Critical |

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Interface Exchange Requirement (IER) Matrix (Continued)

| IER | Rationale/ UJTL Number | Event/Action | Information Characterization | Sending Node | Receiving Node | Bi- directional | Critical | Format | Timeliness | Classifica tion | Remarks | | | |
|-----|-----------------------------------|------------------|---|---------------------------|----------------|--------------------|----------------------------|--------|------------|---|------------------------------------|-----|--|-------|
| | SN 1.2, sn 1.2.2 | Load Planning | Plan the movement of personnel, equipment, and supplies. Includes developing load lists for air, sea, truck, pallet, and container. | UNIT MOVE (TC-AIMS II) | LOAD PLAN | Yes | Yes* | Data | 5 Min | (U) | TC AIMS II to AALPS(J) Critical | | | |
| | SN 1.2.3, SN 1.2.6 | | | | | | | | | | | | | |
| | SN 6.4.1, ST 1.1.2 | | | | | | | | | | | | | |
| | ST 1.1.6, ST 4.3.1 | | | | | | | | Yes | | | Yes | | 5 Min |
| 10 | OP 1.1.2, OP 1.1.3 OP 4.5.1 | | | | | LOAD PLAN | UNIT MOVE (TC- AIMS II) | No | No | | | | | 5 Min |
| | | | UNIT MOVE (TC-AIMS II) | LOAD PLAN | No | No | | | 5 Min | TrAMS (A) (Block Three) to TCAIMS II (Non-Critical) | | | | |
| | | | | | | | | | | | TCAIMS II to SRS (Non-Critical) | | | |

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Interface Exchange Requirement (IER) Matrix (Continued)

| IER | Rationale/ UJTL Number | Event/Action | Information Characterization | Sending Node | Receiving Node | Bi- directional | Critical | Format | Timeliness | Classifica tion | Remarks |
|-----|--|---------------------------|---|------------------------|----------------|--------------------|----------|------------------|---|---|------------------------------|
| 11 | SN 1.2, SN 1.2.1, SN 1.2.2, SN 1.2.3, SN 1.2.4, SN 1.2.5, SN 1.2.6, SN 6.4.1, SN 6.4.2, SN 6.4.3, ST 1.1.2, ST 1.1.6, ST 4.3.1, OP 1.1.2, OP 1.1.3, OP 4.5.1 | Transportation Management | Provide management of, surface/air freight passenger movement, and actual movement from Point of Origin (POO) through the Point of Embarkation (POE), and from the Point of Debarkation (POD) to final destination. | UNIT MOVE (TC-AIMS II) | TRANS MGT | Yes | Yes | Data | 5 Min - 10 Hours | (U) | TCAIMS II to CMOS (Critical) |
| | TRANS MGT | | | UNIT MOVE (TC-AIMS II) | Yes | No | | 5 Min - 10 Hours | CMOS to TCAIMS II (Non-Critical) | | |
| | UNIT MOVE (TC-AIMS II) | | | TRANS MGT | No | Yes | | 10 Min | TCAIMS II to GFM (Critical) | | |
| | UNIT MOVE (TC-AIMS II) | | | TRANS MGT | Yes | No | | 10 Min | TCAIMS II to FACTS (N) (Block Three) Non-Critical | | |
| | TRANS MGT | | | UNIT MOVE (TC-AIMS II) | Yes | No | | 10 Min | FACTS (N) to TCAIMS II (Block Three) Non-Critical | | |
| | UNIT MOVE (TC-AIMS II) | | | TRANS MGT | Yes | Yes | | 10 Min | TC AIMS II to GATES(J) Critical | | |
| | TRANS MGT | | | UNIT MOVE (TC-AIMS II) | Yes | Yes | | | GATES to TCAIMS II (Block Three) Critical | | |
| | UNIT MOVE (TC-AIMS II) | | | TRANS MGT | No | Yes | | 10 Min | TC AIMS II to GFM(J) Critical | | |
| | UNIT MOVE (TC-AIMS II) | | | TRANS MGT | Yes | No | | 10 Min | TCAIMS II to MTS (A) (Block Three) Non-Critical | | |
| | TRANS MGT | | | UNIT MOVE (TC-AIMS II) | | No | | 10 Min | MTS (A) to TCAIMS II (Block Three) (Non-Critical) | | |
| | | | | UNIT MOVE (TC-AIMS II) | ITV (MGT) | No | No | | 8 Hours | TCAIMS II to ITV Server via TIPS (Non-Critical) | |
| | | | | UNIT MOVE (TC-AIMS II) | TRANS MGT | Yes | Yes | | 10 Min | TCAIMS II to IBS (J) Critical | |

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| IER | Rationale/ UJTL Number | Event/Action | Information Characterization | Sending Node | Receiving Node | Bi- directional | Critical | Format | Timeliness | Classifica tion | Remarks |
|-----|------------------------------|--------------|---------------------------------|---------------------------|----------------------------|--------------------|----------|--------|----------------------|--------------------|--|
| 16 | | | | UNIT MOVE (TC-AIMS II) | TRANS MGT | Yes | No | | 10 Min | | TCAIMS II to MOBCON (A) (Block Three) Non- Critical |
| 17 | | | | TRANS MGT | UNIT MOVE (TC- AIMS II) | Yes | No | | 10 Min | | MOBCON (A) to TCAIMS II (Block Three) Non-Critical |
| | | | | UNIT MOVE (TC-AIMS II) | TRANS MGT | No | Yes | | 10 Min - 10 Hours | | TCAIMS II to TC ACCIS (A) Critical |
| | | | | UNIT MOVE (TC-AIMS II) | TRANS MGT | Yes | Yes | | 10 Min | | TC AIMS II to WPS(J) Critical |
| 18 | | | | TRANS MGT | UNIT MOVE (TC- AIMS II) | Yes | Yes | | 10 Min | | WPS to TCAIMS II (Block Three) Critical |
| | | | | UNIT MOVE (TC-AIMS II) | TRANS MGT | No | Yes | | 5 Min | | PowerTrack (Critical) |
| | | | | | | | | | | | |

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| IER | Rationale/ UJTL Number | Event/Action | Information Characterization | Sending Node | Receiving Node | Bi- directional | Critical | Format | Timeliness | Classifica tion | Remarks |
|-----|---|--------------|--|--------------|----------------|--------------------|----------|--------|------------|--------------------|---------|
| | 1.1.2 ST 1.1.6, ST 4.3.1 OP 1.1.2, OP 1.1.3 | | operations by making hold, expedite, or divert decisions. | | TRANS MGT | | | | | | |

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6.2 Reception of Data via Automatic Identification Technology (AIT Input)

The system must have a capability to receive input from peripheral AIT media according to the following attributes:

| Attribute | Development Threshold | Development Objective |
|---|--|--|
| Bar Codes in accordance with MIL STD 129P | Completeness: .90 Accuracy: .95 Speed: N/A | Completeness: .95 Accuracy: .98 Speed: N/A |
| Radio Frequency ID Tags for Equipment | Completeness: .85 Accuracy: .90 Speed: ability to completely read a tag fixed to a vehicle traveling <= 25 mph | Completeness: .90 Accuracy: .98 Speed: ability to completely read a tag fixed to a vehicle traveling <= 45 mph |
| CAC cards | Completeness: .90 Accuracy: .95 Speed: N/A | Completeness: .95 Accuracy: .98 Speed: <= 1 second per card |

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Notes:

1. Completeness measures the thoroughness of sought information. The database must be designed such that all required information elements necessary to produce specified outputs or read defined inputs are included. This is not a measure of data quality.
2. Accuracy describes the format, content, compatibility, and validity (size, class or type) consistent with the TC-AIMS II data dictionary. The DoD data model (DDM) should be used as a guideline to facilitate data compatibility and interoperability with other systems. Beyond these definitions, TC-AIMS II will not be responsible for editing faulty information.
3. Speed: Some items are "not applicable" since laser scan reads occur at light-speed.
4. TC-AIMS II will facilitate the administrative processing and manifesting of passengers through the ability to read DoD standard manifest data elements from DoD standard CAC cards.

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6.3 Generate Movement Documentation, Reports, Radio Frequency Tags, Forms, and Labels

TC-AIMS II Block Three must properly generate reports, forms, labels, and Radio Frequency (RF) tag data as listed in table three below. "Properly" means that correct data is placed in the appropriate fields, that text is readable by humans, or that barcodes, labels, or RF tags are readable by appropriate automatic identification technology (AIT) devices. The parameters below assume that an appropriate printers, label printers, or Radio Frequency Identification (RFID) tag read/write devices are accessible to the system. The system will support both wired and wireless peripherals.

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521

| Attribute | Development Threshold | Development Objective |
|--|---|---|
| Reports (Ad Hoc or Standard pre-formatted) | Completeness: .95 Accuracy: .95 Speed: <= 1 minute per page | Completeness: .98 Accuracy: .98 Speed: <= 30 seconds per page |
| Standard forms (DD, SF, NAVMC, AF, AE and other paper outputs) | Completeness: .95 Accuracy: .95 Speed: <= 1 minute per page | Completeness: .98 Accuracy: .98 Speed: <= 30 seconds per page |
| Labels (LOGMARS, Military Shipping Labels, Equipment ID Labels) | Completeness: .95 Accuracy: .95 Speed: <= 30 seconds per label Durability: | Completeness: .98 Accuracy: .98 Speed: <= 10 seconds per label Durability: |
| Radio Frequency Tags (write data)8 and 128 Kb or larger capacity | Completeness: .875 Accuracy: .875 Speed: <= 1 minute per tag | Completeness: .90 Accuracy: .90 Speed: <= 30 seconds per tag |

522

523

524 6.4 Attributes Derived from the GIG and JDS CRDs

525 TC-AIMS II inherits the following attributes specified in the Global Information
 526 Grid (GIG) and Joint Deployment Systems (JDS) CRD Crosswalks in Appendix A.

527

528 6.4.1 JTA Compliance

529 TC-AIMS II Block Three shall conform to the Joint Technical Architecture
 530 (JTA). When a standard for a function expressed in Block Three exists in the most
 531 current JTA, the implementation of the function shall be in compliance with that
 532 standard.

533

| Attribute | Development Threshold | Development Objective |
|------------------|---|--|
| JTA Compliance | The system must be compliant with the most current JTA at the start of Block Three. | The system must be compliant with the most current JTA at Block Three fielding time. |

534

535 Threshold = Objective

536

537 6.4.2 DII COE Compliance

538 Block Three shall be compliant with the Defense Information Infrastructure
 539 Common Operating Environment (DII COE) Level six, with the objective of Level eight
 540 compliance. The system shall be compliant with the latest version of the DII COE
 541 Integration & Run-Time Standard (I&RTS).

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542

| Attribute | Development Threshold | Development Objective |
|--------------------|---|--|
| DII COE Compliance | Level six of the latest version of the DII COE at the start of Block Three. | Level eight of the latest version of the DII COE at Block Three fielding time. |

543

544 6.4.3 Processing Efficiency and Effectiveness

545 All computing processes of the system shall optimize the use of constrained
 546 computing and dissemination resources. In other words, the Block Three software design
 547 shall not introduce unnecessary inefficiencies in computing or communication.
 548

| Attribute | Development Threshold | Development Objective |
|---|---------------------------------|---------------------------------|
| Processing Efficiency and Effectiveness | All processes must be efficient | All processes must be efficient |

549

550 Threshold = Objective

551

552 6.4.4 Reuse of Information Products

553 The system's previously generated, shareable information products (i.e.,
 554 processed data) shall be reused to maximize consistency and efficiency, and to minimize
 555 process redundancy. That is, redundant data shall be eliminated as much as possible
 556 without seriously degrading Processing Efficiency and Effectiveness.
 557

| Attribute | Development Threshold | Development Objective |
|-------------------------------|--|--|
| Reuse of Information Products | The system must eliminate all redundant data to the degree that it does not seriously degrade efficiency | The system must eliminate all redundant data to the degree that it does not seriously degrade efficiency |

558

559 Threshold = Objective

560

561 6.4.5 Processing Mode

562 The system shall have processes to accommodate an interactive and multimedia
 563 processing environment. The need for processing modes other than interactive and
 564 multimedia, especially batch processing, shall be clearly demonstrated and justified prior
 565 to adoption.
 566

| Attribute | Development Threshold | Development Objective |
|------------------------|--|--|
| Interactive processing | All processes must be interactive except where otherwise justified | All processes must be interactive except where otherwise justified |

567

568 Threshold = Objective

569

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570 6.4.6 Cohesiveness

571 Each process of the system shall accomplish a well-defined single function so as
 572 to achieve cohesion and enhance process reusability and system maintainability.
 573

| Attribute | Development Threshold | Development Objective |
|---------------------------|--|--|
| Single-function processes | Each process shall accomplish one well-defined single function | Each process shall accomplish one well-defined single function |

574
 575 Threshold = Objective

576 6.4.7 Modularity

577 The system's processes shall be modular to reduce maintenance and promote
 578 reusability.
 579

| Attribute | Development Threshold | Development Objective |
|------------------|--|--|
| Modularity | System functionality shall be logically grouped into cohesive modules. Communications among modules shall be accomplished only through well-defined interfaces. | System functionality shall be logically grouped into cohesive modules. Communications among modules shall be accomplished only through well-defined interfaces. |

580
 581 Threshold = Objective

582 6.4.8 Process Reusability

583 The system shall have, to the maximum extent possible, processes that are
 584 designed (using off-the-shelf standard components built according to an open standard)
 585 and implemented to be reusable in multiple systems and computing environments as
 586 plug-and-play rather than custom-built.
 587

| Attribute | Development Threshold | Development Objective |
|---------------------|---|---|
| Process Reusability | No custom-built processes where processes are available within TC-AIMS II that provides equivalent functionality and performance. | No custom-built processes where processes are available within other TIS applications that provides equivalent functionality and performance. |

588 6.4.9 Reliability

589 The system shall have processes that are classified either as deterministic or non-
 590 deterministic, with each deterministic process producing consistent and definite results,
 591 and each non-deterministic process specifying a range with boundary limits and the
 592 expected average for each output generated.
 593
 594

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| Attribute | Development Threshold | Development Objective |
|------------------|---|---|
| Reliability | All non-deterministic processes shall be documented with boundary and average outputs | All non-deterministic processes shall be documented with boundary and average outputs |

595
 596 Threshold = Objective

597 6.4.10 Validation

598
 599 The accuracy of outputs from the system's processes, deterministic or otherwise,
 600 shall be testable, meaning that processes shall be executable and the actual outputs
 601 generated by a process shall conform to expected outputs governed by operational
 602 requirements. In the case of the system's non-deterministic processes, it shall be
 603 possible to predict all outputs within specified limits.

604

| Attribute | Development Threshold | Development Objective |
|------------------|---|---|
| Validation | Test cases shall be developed to validate outputs of all system processes against operational requirements. | Test cases shall be developed to validate outputs of all system processes against operational requirements. |

605
 606 Threshold = Objective

607 6.4.11 Verifiability

608 The system shall have processes that facilitate verification, and verification
 609 activities shall be performed to discover design errors and demonstrate the conformance
 610 of the system to the specified requirements.

611

| Attribute | Development Threshold | Development Objective |
|------------------|---|---|
| Verifiability | All system functionalities shall be testable, where testing shall include unit testing, integration testing, system testing, and operational testing. | All system functionalities shall be testable, where testing shall include unit testing, integration testing, system testing, and operational testing. |

612
 613 Threshold = Objective

614 6.4.12 Interprocess Communications

615 To achieve interoperability among the system's processes, all processes shall use
 616 standardized mechanisms to communicate with each other, and process interfaces shall
 617 follow established standards for interprocess communication regardless of whether they
 618 are communicating with processes residing within the same computing system or with
 619 processes residing on remote systems.

620

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| Attribute | Development Threshold | Development Objective |
|-----------------------------|--|--|
| Interprocess Communications | Processes shall use standard interprocess communication mechanisms | Processes shall use standard interprocess communication mechanisms |

621

622 Threshold = Objective

623 6.4.13 Process Prioritization

624 The system's processes shall be responsive to task prioritization dynamically.

625

| Attribute | Development Threshold | Development Objective |
|------------------------|---|---|
| Process Prioritization | All processes must accommodate reprioritization | All processes must accommodate reprioritization |

626

627 Threshold = Objective

628 6.4.14 Process Adaptability

629 All critical processes of the system shall have the capability to monitor the
 630 available resources and dynamically adjust their processing characteristics and behavior
 631 in accordance with the resources made available for their use.

632

| Attribute | Development Threshold | Development Objective |
|----------------------|---|---|
| Process Adaptability | All processes must operate correctly in a limited resource environment. | All processes must operate correctly in a limited resource environment. |

633

634 Threshold = Objective

635 6.4.15 6.4.15 Standards-Based Processing

636

637 All processes of the system shall demonstrate compliance with existing directives,
 638 instructions, and prescribed standards, to include appropriate performance-based
 639 standards.

640

| Attribute | Development Threshold | Development Objective |
|----------------------------|--|--|
| Standards-based Processing | All processes must comply with all applicable DoD Directives, DoD Instructions, and DoD standards in effect at the start of Block Three. | All processes must comply with all applicable DoD Directives, DoD Instructions, and DoD standards in effect at the time of Block Three fielding. |

641 6.4.16 Process Security

642 All processes of the system shall be protected and secured at appropriate levels
 643 and be visible to and cooperate with all information assurance operations.

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644

| Attribute | Development Threshold | Development Objective |
|------------------|---|---|
| Process Security | All processes shall be protected at the appropriate levels and cooperate with IA operations | All processes shall be protected at the appropriate levels and cooperate with IA operations |

645

646 Threshold = Objective

647 6.4.17 Robust and Flexible Processing

648 All process failures and processing exceptions of the system shall be handled
 649 through error handling and recovery mechanisms which are consistent with threat and
 650 risk levels associated with the processing task.

651

| Attribute | Development Threshold | Development Objective |
|--------------------------------|--|--|
| Robust and Flexible Processing | All errors and exceptions must be handled appropriately and consistently | All errors and exceptions must be handled appropriately and consistently |

652

653 Threshold = Objective

654 6.4.18 Information Management Support

655 The system's processing shall accommodate all Information Management (IM)
 656 tasks related to creation, acquisition, transmission, organization, storage, dissemination,
 657 presentation, protection and disposition of information, as well as other information
 658 processing tasks guided by and in compliance with the DoD CIO IM Strategic Plan.

659

| Attribute | Development Threshold | Development Objective |
|--------------------------------|--|--|
| Information Management Support | The system shall be compliant with the DoD CIO IM Strategic Plan | The system shall be compliant with the DoD CIO IM Strategic Plan |

660

661 Threshold = Objective

662 6.4.19 Interface Definition

663 All process interfaces of the system shall be well defined and clearly specified to
 664 include at a minimum all input specifications, output specifications, and specifications for
 665 controls required for triggering the process.

666

| Attribute | Development Threshold | Development Objective |
|----------------------|--|--|
| Interface Definition | All process interfaces shall be fully defined and documented | All process interfaces shall be fully defined and documented |

667

668 Threshold = Objective

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669 6.4.20 Process Availability

670

671 The system's processing components shall ensure that the overall system
 672 availability is not compromised due to run-time process failures.

673

| Attribute | Development Threshold | Development Objective |
|----------------------|---|--|
| Process Availability | The system shall be available at least 95% of the time. | The system shall be available at least 97.5% of the time |

674

675 6.4.21 Data Interoperability

676 The system shall use common standards for data and metadata representation.

677

678 All of the system's data that will be exchanged, or has the potential to be
 679 exchanged, shall be tagged in accordance with the JTA standard for tagged data items
 680 (e.g., Extensible Markup Language [XML], the current JTA standard), and tags shall be
 681 registered in accordance with the DoD XML Registry and Clearinghouse policy and
 682 implementation plan.

683

| Attribute | Development Threshold | Development Objective |
|-------------------------|--|--|
| Data Interoperability 1 | System shall use common standards for data and metadata representation. | System shall use common standards for data and metadata representation. |
| Data Interoperability 2 | Data exchanged with other systems shall be tagged and registered according to JTA standards and DoD policy | Data exchanged with other systems shall be tagged and registered according to JTA standards and DoD policy |

684

685 Threshold = Objective

686 6.4.22 Information Integrity

687 The system's storage processes shall not alter stored data in a manner that
 688 comprises the integrity of the data/information.

689

| Attribute | Development Threshold | Development Objective |
|-----------------------|--|--|
| Information Integrity | Data storage shall not compromise data/information integrity | Data storage shall not compromise data/information integrity |

690

691 Threshold = Objective

692 6.4.23 Infrastructure Management

693 The system shall provide visibility of storage infrastructure to efficiently manage
 694 storage capacity and provide the capability to remove, discard, and stored data as
 695 required.

696

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697

| Attribute | Development Threshold | Development Objective |
|---------------------------|--|--|
| Infrastructure Management | The system shall permit visibility and management of storage capacity. | The system shall permit visibility and management of storage capacity. |

698

699

Threshold = Objective

700

701

6.4.24 Data Distribution

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The system's data shall be stored in a manner that facilitates distribution in accordance with processing and transport needs and supports the rapid retrieval of information by the user. Each item of stored data in the system shall have a single discrete source of reference so that future updates of that data, while being stored in other locations, will be able to refer back to the single reference source, thus ensuring that the information is being updated with the most current available version.

| Attribute | Development Threshold | Development Objective |
|-------------------|--|--|
| Data Distribution | Each data item shall have a single, traceable reference source | Each data item shall have a single, traceable reference source |

709

710

Threshold = Objective

711

6.4.25 Data Survivability

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716

The system's data shall be stored in a manner that assures the required access to and use of all needed data, and in a way that prevents the loss of stored data from physical threats such as fire, water damage, information operation threats, and Electromagnetic Pulse (EMP) as appropriate to the information being stored.

| Attribute | Development Threshold | Development Objective |
|--------------------|---|---|
| Data Survivability | System data shall be protected from physical threat | System data shall be protected from physical threat |

717

718

Threshold = Objective

719

6.4.26 Data Security

720

721

722

The system's data being stored shall include its classification and releasability criteria within the semantic tag or associated schema.

| Attribute | Development Threshold | Development Objective |
|------------------|---|---|
| Data Security | All data shall include classification and releasability metadata in tags or schemas | All data shall include classification and releasability metadata in tags or schemas |

723

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724 Threshold = Objective
725

726 6.4.27 Data Disposal

727 The system's data that is no longer required shall be disposed of effectively and
728 efficiently, so that the storage space that was used by the disposed data can be used for
729 the storage of new data without the user having to do any additional actions once the
730 decision to dispose has been made.
731

| Attribute | Development Threshold | Development Objective |
|------------------|--|--|
| Data Disposal | All unneeded data shall be disposed of effectively and efficiently | All unneeded data shall be disposed of effectively and efficiently |

732
733 Threshold = Objective

734 6.4.28 Data Retention

735 The system's data shall be retained in a manner that meets all mission and
736 regulatory guidance and is transparent to the user.
737

| Attribute | Development Threshold | Development Objective |
|------------------|---|---|
| Data Retention | Data retention shall be transparent to the user and consistent with mission and regulatory guidance | Data retention shall be transparent to the user and consistent with mission and regulatory guidance |

738
739 Threshold = Objective

740 6.4.29 Output/Input

741 The system's Human System Interaction (HSI) shall present to and accept
742 information from humans using a combination of visual, aural, tactile, and/or other
743 sensory methods.
744

| Attribute | Development Threshold | Development Objective |
|------------------|--|--|
| Output/Input | System HSI shall use a combination of human senses | System HSI shall use a combination of human senses |

745
746 Threshold = Objective

747 6.4.30 Feedback

748 The system's HSI shall provide unobtrusive confirmations of user input and
749 actions, to include implicit visual, aural and/or tactile feedback in response to user
750 actions, as well as explicit notifications that entered data was properly entered and
751 accepted by the system and/or errors were detected.
752
753

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754

| Attribute | Development Threshold | Development Objective |
|------------------|--|--|
| Feedback | System HSI shall provide sensory feedback to user actions, and explicit notification of proper data entry and errors | System HSI shall provide sensory feedback to user actions, and explicit notification of proper data entry and errors |

755

756 Threshold = Objective

757 6.4.31 Usability

758 The system's HSI shall be usable by all end user skill levels in the aspects of
 759 learnability, flexibility, and tailorability, which shall be verified by iterative user testing.

760

| Attribute | Development Threshold | Development Objective |
|------------------|--|--|
| Usability | System HSI shall be sufficiently learnable, flexible, and tailorable for multiple skill levels based on user testing | System HSI shall be sufficiently learnable, flexible, and tailorable for multiple skill levels based on user testing |

761

762 Threshold = Objective

763 6.4.32 Task Efficiency

764 The system's HSI shall provide decision aids and tools as necessary to maximize
 765 users' efficiency and performance of their task, with operator aids designed to support
 766 specific user tasks and tailored to the information needs of the targeted user.

767

| Attribute | Development Threshold | Development Objective |
|------------------|--|--|
| Task Efficiency | System HSI shall provide aids and tools to support user tasks and user information needs | System HSI shall provide aids and tools to support user tasks and user information needs |

768

769 Threshold = Objective

770 6.4.33 User-Centered Design

771 The system's HSI shall employ a user-centered design process and user testing to
 772 ensure that the end-user's cognitive framework and expectations are accommodated by
 773 the system design.

774

| Attribute | Development Threshold | Development Objective |
|----------------------|--|--|
| User-Centered Design | System HSI shall be user-centered and tested accordingly | System HSI shall be user-centered and tested accordingly |

775

776 Threshold = Objective

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777

778 6.4.34 Neutrality

779 The system's HSI presentation format shall not change the intended meaning of
 780 the information being presented; thus all data shall be clearly labeled to avoid
 781 misinterpretation or confusion.

782

| Attribute | Development Threshold | Development Objective |
|------------|-----------------------------------|-----------------------------------|
| Neutrality | All data shall be clearly labeled | All data shall be clearly labeled |

783

784 Threshold = Objective

785 6.4.35 Ergonomics

786 The system's HSI hardware and software elements shall be ergonomically
 787 designed with respect to the user's operating environment.

788

| Attribute | Development Threshold | Development Objective |
|------------|--|--|
| Ergonomics | The system shall be ergonomically designed | The system shall be ergonomically designed |

789

790 Threshold = Objective

791 6.4.36 Errors

792 The system's HSI shall be designed to minimize user input/mechanical/perception
 793 errors.

794

| Attribute | Development Threshold | Development Objective |
|-----------|--|--|
| Errors | The system's HSI shall be designed to minimize user input/mechanical/perception errors | The system's HSI shall be designed to minimize user input/mechanical/perception errors |

795

796 Threshold = Objective

797 6.4.37 On-line Help

798 The system's HSI shall provide context-sensitive on-line help at the user's
 799 request, thus eliminating/reducing the need for offline support or documentation that may
 800 distract the user from the intended task.

801

| Attribute | Development Threshold | Development Objective |
|--------------|---|---|
| On-line help | The system's HSI shall provide context-sensitive on-line help | The system's HSI shall provide context-sensitive on-line help |

802

803 Threshold = Objective

804

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805 6.4.38 Information Integrity and Availability

806 The system shall be robust, survivable, and capable of rapid restoration to support
 807 Information Assurance (IA). The system shall have an IA capability to define, control,
 808 and defend enclave boundaries. It shall have an IA capability to provide timely, reliable
 809 access to processes and data even in the event of a denial of service (DoS) attack. It shall
 810 have an IA capability to ensure information and process integrity throughout the system
 811 (during storage, processing, transmission, and presentation) to prevent unauthorized or
 812 unintended changes in accordance with mission specific criteria.
 813

| Attribute | Development Threshold | Development Objective |
|--|---|---|
| Information Integrity and Availability One | The system shall be robust, survivable, and capable of rapid restoration | The system shall be robust, survivable, and capable of rapid restoration |
| Information Integrity and Availability Two | The system shall have an integral IA capability to define, control, and defend enclave boundaries | The system shall have an integral IA capability to define, control, and defend enclave boundaries |
| Information Integrity and Availability Three | The system shall have an integral IA capability to resist a DoS attack | The system shall have an integral IA capability to resist a DoS attack |
| Information Integrity and Availability Four | The system shall have an integral IA capability to prevent 99.99% of unauthorized or unintended changes to data | The system shall have an integral IA capability to prevent 99.999% unauthorized or unintended changes to data |

814 6.4.39 Prevent Opportunity to Attack

815 The system shall be developed in accordance with IA Defense in Depth standards
 816 (CJCSI 6510.01C) to prevent or at least minimize the opportunity for attack; and shall
 817 have, in the event of an attack, the IA capability to immediately define, detect and
 818 respond appropriately to anomalies/attacks/disruptions from external threats, internal
 819 threats and natural causes.
 820

| Attribute | Development Threshold | Development Objective |
|-------------------------------|---|---|
| Prevent Opportunity to Attack | The system shall be compliant with CJCSI 6510.01C | The system shall be compliant with CJCSI 6510.01C |

821
 822 Threshold = Objective

823 6.4.40 Access Control

824 The system shall have an IA capability that provides adequate protection from
 825 user attempts to circumvent system access controls, accountability or procedures for the
 826 purpose of performing unauthorized system operations.
 827
 828
 829

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| Attribute | Development Threshold | Development Objective |
|------------------|---|---|
| Access Control | The system shall provide adequate protection from user attempts to circumvent access controls | The system shall provide adequate protection from user attempts to circumvent access controls |

830
 831 Threshold = Objective

832 6.4.41 Detection and Response

833 The system shall incorporate a detection, reporting and response IA infrastructure
 834 that enables rapid detection of and reaction to anomalous events, and enables operational
 835 situation awareness and responses.

836

| Attribute | Development Threshold | Development Objective |
|------------------------|--|--|
| Detection and Response | The system shall provide an organic fault and intrusion detection capability | The system shall provide an organic fault and intrusion detection capability |

837
 838 Threshold = Objective

839 6.4.42 Security Domains

840 The system shall have an IA capability for operating within each security domain
 841 and across any security domains while ensuring that all operations are compliant with
 842 existing security requirements.

843

| Attribute | Development Threshold | Development Objective |
|------------------|---|---|
| Security Domains | The system shall have the capability to operate properly in different and multiple security domains | The system shall have the capability to operate properly in different and multiple security domains |

844
 845 Threshold = Objective

846 6.4.43 Authentication/Confidentiality/Non-Repudiation

847 The system shall meet and maintain minimum IA Defense in Depth standards,
 848 including certification and accreditation in accordance with DITSCAP processes (e.g.
 849 CJCSI 6510.01C, DODI 5200.40). The system shall utilize and interoperate with the
 850 security management infrastructure (e.g. key management and DoD Public Key
 851 Infrastructure [PKI]). The system shall provide proof of information origin and receipt as
 852 required.

853

| Attribute | Development Threshold | Development Objective |
|---|--|--|
| Authentication/ Confidentiality/ Non- Repudiation | The system shall be DITSCAP certified and accredited | The system shall be DITSCAP certified and accredited |
| Authentication/ Confidentiality/ Non- | The system shall use and interoperate with DoD PKI | The system shall use and interoperate with DoD PKI |

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| | | |
|---|--|--|
| Repudiation | | |
| Authentication/ Confidentiality/ Non- Repudiation Three | The system shall provide proof of information origin and receipt | The system shall provide proof of information origin and receipt |

854

855 Threshold = Objective

856 6.4.44 Confidentiality Services

857 The system shall have an IA capability that ensures information is not disclosed to
 858 unauthorized entities or processes on the network and infrastructure so as to protect
 859 against passive intercept attacks, including against unauthorized disclosure of information
 860 and traffic analysis.

861

| Attribute | Development Threshold | Development Objective |
|--------------------------|--|--|
| Confidentiality Services | The system shall protect against unauthorized information disclosure and traffic analysis | The system shall protect against unauthorized information disclosure and traffic analysis |

862

863 Threshold = Objective

864 6.4.45 Content-Based Encryption

865 The system shall have an IA capability to perform content-based encryption of
 866 information objects at the host instead of depending on the bulk encryption of the entire
 867 network in order to secure the information, and this capability shall also be available for
 868 operations involving allied and coalition forces.

869

| Attribute | Development Threshold | Development Objective |
|--------------------------|---|---|
| Content-Based Encryption | The system shall have the capability to perform content-based encryption at the host | The system shall have the capability to perform content-based encryption at the host that is compatible with allied and coalition forces |

870

871 6.5 Additional Attributes Derived from TC-AIMS II ORD

872 The following attributes have been derived from the TC-AIMS II ORD, which
 873 have significance for Block Three development.

874 6.5.1 Wireless Communications

875 The system shall be capable of operation over user-supplied wireless networks
 876 that are secured and encrypted in accordance with Army and DoD policy and regulations.

877

| Attribute | Development Threshold | Development Objective |
|-------------------------|---|---|
| Wireless Communications | The system shall operate over wireless networks in accordance with Army and | The system shall operate over wireless networks in accordance with Army and |

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| | | |
|--|------------|------------|
| | DoD policy | DoD policy |
|--|------------|------------|

878

879 Threshold = Objective

880 6.5.2 Commercial Carrier Interfaces

881 The system shall be capable of supporting common electronic interfaces to
 882 commercial carrier systems to support Unit Move Operations (UMO).
 883

| Attribute | Development Threshold | Development Objective |
|-------------------------------|--|--|
| Commercial Carrier Interfaces | The system shall support commercial carrier interfaces for UMO | The system shall support commercial carrier interfaces for UMO |

884

885 Threshold = Objective

886 6.5.3 Handheld Scanners

887 The system shall be capable of interfacing with handheld barcode scanners for
 888 origination, transshipment, and receiving.
 889

| Attribute | Development Threshold | Development Objective |
|-------------------|---|---|
| Handheld Scanners | The system shall interface with handheld barcode scanners for origination, transshipment, and receiving | The system shall interface with handheld barcode scanners for origination, transshipment, and receiving |

890

891 Threshold = Objective

892 6.5.4 Backup/Maintenance Availability

893 The system shall not interrupt user access to the system in the regionalized
 894 configuration due to backups and routine system maintenance.
 895

| Attribute | Development Threshold | Development Objective |
|---------------------------------|---|---|
| Backup/Maintenance Availability | The system shall have no user downtime to support backups and routine maintenance | The system shall have no user downtime to support backups and routine maintenance |

896

897 Threshold = Objective

898 6.5.5 Operational Availability: Day-to-Day

899 TC-AIMS II shall be capable of being employed during day-to-day traffic
 900 management and unit movement activities 12 hours a day, seven days a week.
 901

| Attribute | Development Threshold | Development Objective |
|--------------------------------------|---------------------------------------|---------------------------------------|
| Operational Availability: Day-to-Day | 12 hours per day, seven days per week | 12 hours per day, seven days per week |

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902
 903 Threshold = Objective

904 6.5.6 Operational Availability: Deployment/Contingency

905 TC-AIMS II shall be capable of being employed during deployment exercises and
 906 real-world contingencies for traffic management and unit movement activities 24 hours a
 907 day, seven days a week with surges of activity occurring at the beginning of deployments,
 908 and again during redeployment or onward movement of forces.
 909

| Attribute | Development Threshold | Development Objective |
|---|--|--|
| Operational Availability: Deployment/Contingency | 24 hours per day, seven days per week | 24 hours per day, seven days per week |

910
 911 Threshold = Objective

912 6.5.7 Mean Time between Operational Mission Failure (MTBOMF)

913 TC-AIMS II shall have a threshold and objective maximum failure rate. The
 914 mission duration for one crew is 12 hours. An operational mission failure is defined as
 915 that condition in which the system cannot perform or accomplish the stated mission.
 916 Failure can be due to software, hardware, or operator error.
 917

| Attribute | Development Threshold | Development Objective |
|--|-----------------------|-----------------------|
| Mean Time between Operational Mission Failure | 300 hours | 500 hours |

918

919 6.5.8 Mean Time to Repair (MTTR): System Operation

920 TC-AIMS II mean time to repair (MTTR) at the organizational level (system
 921 operation) shall be according to threshold and objective values.
 922

| Attribute | Development Threshold | Development Objective |
|---|-----------------------|-----------------------|
| Mean Time to Repair (MTTR): System Operation | 1 hour | 30 minutes |

923

924 6.5.9 Mean Time to Repair (MTTR): Lost Information

925 TC-AIMS II mean time to repair (MTTR) at the organizational level (lost
 926 information) shall be according to threshold and objective values.
 927

| Attribute | Development Threshold | Development Objective |
|---|-----------------------|-----------------------|
| Mean Time to Repair (MTTR): Lost Information | 8 hours | 1 hour |

928

929 6.6 Key Performance Parameter Summary

930 The Key Performance Parameters (KPPs) are reiterated and summarized below.
 931

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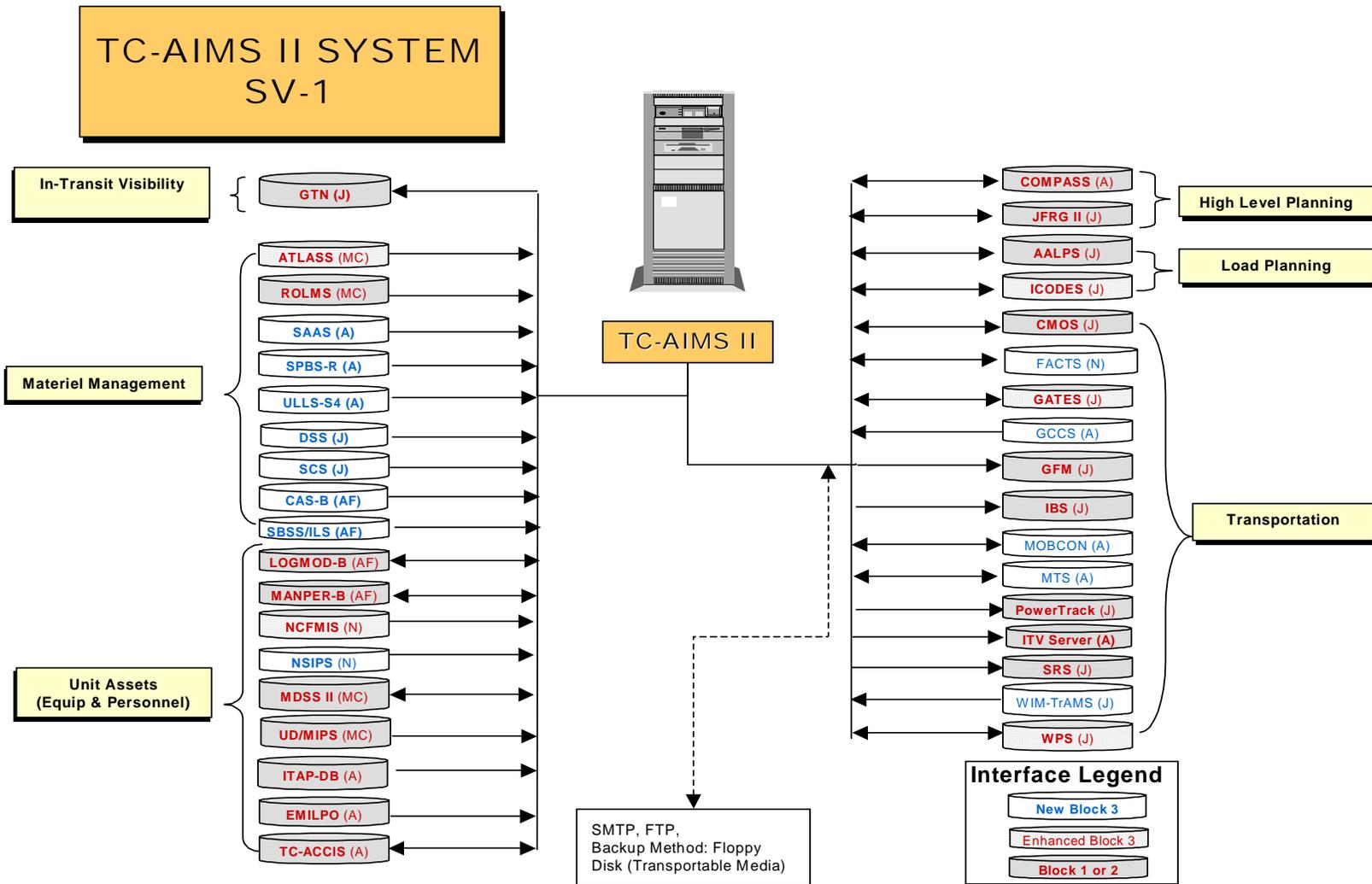
| Key Performance Parameter | Development Threshold | Development Objective |
|--|---|---|
| KPP 1 Reception of Data from Interfacing Systems | 100% of systems marked Block Three with Yes in the Critical column of the IER matrix of Section 6.1 | 100% of systems marked Block Three in the IER matrix of Section 6.1 |
| KPP 2 Export of Data to Interfacing Systems | 100% of systems marked Block Three with Yes in the Critical column of the IER matrix of Section 6.1 | 100% of systems marked Block Three in the IER matrix of Section 6.1 |
| KPP 3 Reception of Data via Automatic Identification Technology | 100% of attributes in the Development Threshold column of Section 6.2 | 100% of attributes in the Development Objective column of Section 6.2 |
| KPP 4 Movement Documentation, Reports, Radio Frequency Tags, Forms, and Labels | 100% of attributes in the Development Threshold column of Section 6.3 | 100% of attributes in the Development Objective column of Section 6.3 |

932
 933
 934
 935
 936
 937
 938
 939
 940

7.0 Family of System and System of System Synchronization.

TC-AIMS II interfaces with the Joint Deployment System (JDS) family of systems in Block Three via the JFRG II system for TPFDD deployment planning and execution, with GTN, both, directly, and indirectly through POE and APOE systems and the Army ITV servers, to provide ITV from fort to assembly areas in theater. It also interfaces with load planning systems and with Service-unique personnel, equipment, supply, and planning systems. Graphic views are detailed in the OV-1 and SV-1.

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942

943 **8.0 National Security System and Information Technology System (NSS and**
944 **ITS) Supportability.**

945 8.1 TC-AIMS II requires connectivity to the users and interfacing systems.

946 TC-AIMS II interfaces use HyperText Transfer Protocol (HTTP), File Transfer Protocol
947 (FTP) and email to transfer information. These protocols are widely used on DoD
948 networks and have no special quality-of-service requirements.

949

950 8.2 TC-AIMS II connectivity between the enterprise and the users.

951 Connectivity is implemented via a web browser connected to a Citrix server. In general,
952 Citrix assumes a minimum of 20 kilobits per second per user (20 kbps), and the server
953 enforces a maximum of 160 kbps per user. However, operation near the minimum
954 bandwidth will be poor.

955

956 8.3 Similarity to Block Two Interfaces.

957 Interfaces between TC-AIMS II Block Three and other information systems are similar to
958 those implemented in Block Two.

959

960 8.4 NIPRNET

961 NIPRNET connectivity is required between the systems, and is tolerant of delay.
962 Bandwidth estimates for new Block Three capability will be available later in
963 development.

964

965 **9.0 Intelligence Supportability.**

966

967 9.1 Security Strategy.

968 The strategy for Block Three will be based on guidance in DoDD 5200.28, International
969 Common Criteria (ICC) and by public law, U.S. government information assurance
970 community policy, directives, and instructions. Hardware and software must meet the
971 requirements established for the highest classification of data accessible in accordance
972 with applicable standards and regulations. Block Three will provide a two-way interface
973 to JFRG, the Joint feeder system to JOPES. Block Three will not directly exchange data
974 with a classified system. Although Block Three is not a classified system, its data is
975 sensitive. TC-AIMS II Block Three will receive or process information according to the
976 guidelines set forth by DoD, including protection for data aggregation at a higher level if
977 directed.

978

979 9.2 Information Assurance.

980 TC-AIMS shall meet and maintain minimum IA Defense in Depth standards, including
981 certification and accreditation IAW the DITSCAP process; e.g., CJCSI 6510.01C, DoDI
982 5200.40) (Threshold).

983

984

985

986

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987 **10.0 Electromagnetic Environmental Effects (E3) and Spectrum Supportability.**

988

989 10.1 Electromagnetic Interference (EMI)

990 The TC-AIMS servers and clients are Commercial Off-the-Shelf (COTS) products that
991 exchange information via the NIPRNET and installation or tactical Local Area Networks
992 (LANs). These devices only emit Electromagnetic Interference (EMI) as detailed in their
993 documentation.

994

995 10.2 Wireless Interface

996 The TC-AIMS system can interface to portable wireless handheld clients. These devices
997 radiate in the 2.4 to 2.4835 gigahertz (GHz) Industrial Scientific and Medical (ISM)
998 spectrum band. Information transmitted over this interface will be encrypted with FIPS
999 140 certified techniques. The units may be susceptible to jamming attacks.

1000

1001 10.3 RF/ID Tags

1002 TC-AIMS interrogates and reads Radio Frequency Identification (RF/ID) tags for
1003 container identification. These devices operate at 433 megahertz (MHz) and have an
1004 operational range of 300 feet. These units may be susceptible to jamming attacks.

1005

1006 **11.0 Assets Required to Achieve Initial Operational Capability (IOC).**

1007

1008 11.1 Assets

1009 There are no planned hardware acquisitions for Block Three. Hardware was funded
1010 under Blocks One and Two including the servers needed to operate the enterprise
1011 management system that supports the web-enable version of TC-AIMS II. Block Three
1012 is to consist only of a software upgrade from Block Two.

1013

1014 11.2 Operational Units

1015 Specific operational units will be determined by the Services and may be expected to
1016 include the units to which Blocks One and Two were fielded.

1017

1018 **12.0 Schedule and IOC/Full Operational Capability (FOC) Definitions.**

1019

1020 12.1 IOC/Full Operational Capability (FOC) Definitions

1021 12.1.1 IOC.

1022 IOC will be achieved following successful operational test, receipt of approval to field,
1023 completion of new equipment training, and accomplishment of fielding of Block Three to
1024 initial operational units of each Service.

1025 12.1.2 FOC.

1026 FOC will be achieved following successful operational test, receipt of approval to field,
1027 completion of new equipment training, and completion of fielding to all operational units
1028 of each Service designated to receive Block Three.

1029

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1030 12.2 Schedule.

1031 Table 4 displays the Block Three schedule.

1032

1033

1034

Table 4 Block Three Schedule

| Event | Start date | End date |
|--|--------------------------|--------------|
| Block Three development | 2nd QTR FY04 | 2nd QTR FY05 |
| Operational test & evaluation | 2nd QTR FY05 | 3rd QTR FY05 |
| Fielding decision review | | 4th QTR FY05 |
| Fielding Block Three | 4 th QTR FY05 | 4th QTR FY08 |

1035

1036 **13.0 Other Doctrine, Organization, Training, Materiel, Leadership and**
 1037 **Education, Personnel, and Facilities (DOTMLPF) Considerations.**

1038

1039 13.1 Support Concept.

1040 TC-AIMS II Block Three is an IT system designed to operate in conformance with
 1041 Defense Information Infrastructure (DII) Common Operating Environment (COE). The
 1042 Joint Program Management Office (JPMO) will be responsible for software development
 1043 and installation while each service will be responsible for site preparation and hardware
 1044 installation. The JPMO will operate the enterprise management system and centralized
 1045 servers in support of the web-enabled capability. The JPMO will coordinate and manage
 1046 distribution of software and software updates to users, provide a technical assistance
 1047 capability, and develop and provide initial training. Sustainment training will be a
 1048 service responsibility.

1049

1050 13.2 Logistics Supportability Objective.

1051 TC-AIMS II Block Three must be logistically supportable.

1052

1053 13.2.1. TC-AIMS II Block Three will be fielded on commercial off the shelf (COTS)
 1054 computers that meet JTA compliance standards, and service specific computer hardware
 1055 acquisition requirements.

1056

1057 13.2.2. TC-AIMS II Block Three will be supported using standard service systems
 1058 support programs in place for automated information systems at the time of fielding.

1059

1060 13.3 Reliability, Availability, and Maintainability Objective.

1061 13.3.1 Reliability.

1062 TC-AIMS II Block Three must be reliable. It shall have a mean time between operational
 1063 mission failure (MTBOMF) of 300 hours (threshold), 500 hours (objective). An
 1064 operational mission failure is defined as that condition in which the system cannot
 1065 perform or accomplish the stated mission. Failure can be due to software, hardware, or
 1066 operator error.

1067 13.3.2 Availability.

1068 TC-AIMS II Block Three must be available.

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- 1069
- 1070 13.3.2.1 TC-AIMS II Block Three availability will be 0.95 (threshold); 0.975
- 1071 (objective).
- 1072
- 1073 13.3.2.2 TC-AIMS II Block Three non-availability will be correctable 90% of the
- 1074 time by simply rebooting the computer or reconnecting to the NIPR net and the reboot or
- 1075 reconnect will take less than three minutes.
- 1076
- 1077 13.3.2.3 When TC-AIMS II Block Three non-availability is not correctable by a
- 1078 reboot or reconnect, the TC-AIMS help desk must be able to respond to and correct the
- 1079 problem within two hours 80% of the time. For help desk calls that cannot be
- 1080 successfully corrected within two hours, the problem will be corrected within 24 hours
- 1081 99% of the time.
- 1082
- 1083 13.3.3 Maintainability.
- 1084 TC-AIMS II Block Three must be maintainable.
- 1085
- 1086 13.3.3.1 Maintenance will be conducted in accordance with the maintenance
- 1087 concept, the Supportability Strategy (SS) and the service annexes to the SS.
- 1088
- 1089 13.3.3.2 Mean time to repair (MTTR) at the organizational level (system operation)
- 1090 will be one hour (threshold); 30 minutes (objective).
- 1091
- 1092 13.3.3.3 Mean time to repair (MTTR) at the organizational level (lost information)
- 1093 is eight hours (threshold); one hour (objective). 
- 1094
- 1095 13.4 Organizational Impact Objective.
- 1096 13.4.1 Impact
- 1097 TC-AIMS II Block Three should have no impact on the structure of the unit to which
- 1098 fielded.
- 1099
- 1100 13.4.1 Operation of TC-AIMS II Block Three will not require additional occupational
- 1101 specialties; however, it is designed to support personnel trained on the processes used in
- 1102 the Joint Deployment Process and the DTS.
- 1103
- 1104 13.5 Personnel Selection and Training Objective.
- 1105 13.5.1 Training Requirements
- 1106
- 1107 13.5.1.1 TC-AIMS II Block Three can replace stand-alone systems that were not
- 1108 built to operate in a network environment. TC-AIMS II requires minimal additional
- 1109 training for users having the appropriate MOS, beyond that currently taught for the
- 1110 legacy systems being replaced.
- 1111
- 1112 13.5.1.2 TC-AIMS II Block Three system operators should require no more than
- 1113 two weeks (threshold); one week (objective) system training to become proficient

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1114 operators of the system.

1115

1116 13.5.1.3 TC-AIMS II Block Three system administrator/database administrators
1117 should require no more than two weeks (threshold); one week (objective) training to
1118 allow them to become proficient system administrators of the system.

1119

1120 13.6 Logistics and Facilities Considerations.

1121 TC-AIMS II Block Three will be an integral part of the operational Defense
1122 Transportation System (DTS). TC-AIMS II Block Three must interface and exchange or
1123 share information with appropriate service and joint transportation, material, supply,
1124 munitions, personnel, finance, command and control and other systems identified in the
1125 TC-AIMS II configuration management board-approved joint requirements office
1126 database. The Joint Potential Designator for TC-AIMS II is Joint.

1127

1128 13.6.1 Overall Maintenance Concept.

1129 TC-AIMS II Block Three will use currently available commercial off-the-shelf (COTS)
1130 technology. Services will administer and oversee equipment and software maintenance
1131 and replacement. The joint program management office (JPMO) will maintain software,
1132 distribute software upgrades, and maintain a help desk to resolve user problems.

1133 Software support and maintenance will be required for the life of the program.

1134 13.6.2 JPMO Help Desk.

1135 13.6.2.1. Users will be able to contact the help desk by web site, e-mail, fax, or
1136 phone.

1137 13.6.2.2. Help desk personnel will ensure that all problem reports are captured,
1138 prioritized, and resolved on a consistent and timely basis.

1139 13.6.2.3. JPMO will provide the user with interactive access to a current list of
1140 known system problems and solutions. JPMO will document unresolved software
1141 problems and create software change requests as described in the configuration
1142 management plan.

1143 13.6.2.4. Hardware and communications problems unique to services will be
1144 referred to the appropriate service representative for resolution.

1145 13.6.3 Support Equipment.

1146 No support equipment unique to TC-AIMS II is anticipated.

1147

1148 **14.0 Other System Attributes.**

1149

1150 14.1 Cost/Risk drivers

1151 14.1.1 Development of RSO&I Capability.

1152 The primary cost and risk driver for Block Three is the incorporation of RSO&I
1153 capability. This capability requires new business logic to implement, plus requires

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1154 interfaces to several Army logistics systems that do not exist as of Block Two. The
1155 existing functionality will need to be re-implemented in TC-AIMS, as well as the
1156 necessary new functionality needed to totally integrate with other TC-AIMS functions.

1157 14.1.2 Maintenance of Human System Interaction (HSI) Consistency

1158 As the functionality of TC-AIMS II grows, Human System Interaction (HSI) becomes
1159 more critical and complex. System operation will need to be consistent and clear across a
1160 growing range of operation, regardless of the function performed by the user or the state
1161 of the system (enterprise, client/server, or standalone). Map graphics must be
1162 implemented in an intuitive manner, and correspond as much as possible to the users'
1163 previous experience with web graphical interfaces.

1164 14.1.3 Security Requirements

1165 Security requirements for Block Three are similar to those of the previous Blocks.
1166 Information must be secured at the Sensitive but Unclassified (SBU) level. Incorporation
1167 of wireless Local Area Network (LAN) links must follow DoD and Army wireless
1168 security guidance.

1169
1170 14.2 Other Logistics Considerations.

1171 TC-AIMS II Block Three will introduce nothing new into the national supply system, and
1172 there will be no central provisioning. The system will not require special packaging,
1173 handling, or transportation considerations. The software shall be designed, developed,
1174 and delivered using software quality assurance standards to allow future competitiveness
1175 of software support for the entire software system.

1176
1177 14.3 Transportation and Basing.

1178 There are no lift constraints. Standard systems can be purchased and palletized for
1179 deployment on an as needed basis. TC-AIMS II Block Three will be employed as both a
1180 garrison and a deployment-capable system. In garrison, the system will be installed and
1181 used in existing facilities with no change to the basing concept. The only criteria for
1182 deployment of the system are communications connectivity and power availability.
1183 Block Three shall be compatible with existing C4I systems and equipment, and interface
1184 with other U.S. and Allied nations' functionally related C4I systems and equipment.

1185
1186 14.4 Geospatial Information and Services.

1187 Where required, National Imagery and Mapping Agency standard products will be used.

1188
1189 14.5 Environmental Support.

1190 When TC-AIMS II Block Three operates outside of an enclosed garrison environment, it
1191 shall be protected from the elements by an appropriate cover. Block Three will operate
1192 on COTS hardware, which must be capable of being powered by U.S. military mobile
1193 electric power (MEP) power sources and host nation household/ commercial power
1194 supply. Block Three shall be capable of operation from standard MEP generators,
1195 shipboard, aircraft, or vehicle-generated power. It will be in compliance with all
1196 applicable standards' categories within the DoD JTA to include, but not limited to:
1197 information processing standards category, information transfer standards category,

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1198 information modeling and information standards category, human-computer interface
1199 standards category, and information systems security standards category.

1200

1201 **15.0 Program Affordability.**

1202

1203 15.1 Total Block Three Program Cost.

1204 TC-AIMS II continues an evolutionary acquisition strategy. Succeeding Blocks add
1205 capability via software upgrades and will culminate in FOC upon completion of fielding
1206 of Block Five. The numbers referenced below as the Block Three "Objective" costs are
1207 based on the cost analysis done in the Economic Analysis (EA) that supported the Block
1208 One Milestone III Review. These Block Three numbers will be updated in the Oct-Nov
1209 2003 period as the Block Two Update to the EA is approved for the Milestone II Review
1210 of Block Three and the Milestone III Review of Block Two. The stated Block Three
1211 "Threshold" costs are simply Objective Cost plus 10% of Objective Cost or 110% of the
1212 "planned for" cost.

1213

1214 These numbers reflect only the specific costs that can be said to be Block Three -related;
1215 all other costs (i.e., program management, hardware procurement, fielding, training and
1216 sustainment of all system software up to the fielding of Block Three) were approved as
1217 part of the Block One Milestone III approval in September 2002. At that time, fielding
1218 and sustainment of hardware and software to all Army and Navy users was approved.
1219 Under the Milestone III approval for Block Two, fielding and sustainment of hardware
1220 and software to Marine Corps users should be approved.

1221

1222 Block Three will only result in providing an updated system capability based on new
1223 functionality in the system software. It does not require any specific hardware, fielding,
1224 or sustainment costs other than the delta in software maintenance costs between the cost
1225 of maintaining Blocks One and Two, and the cost of maintaining Blocks One, Two and
1226 Three.

1227

1228 Costs for Block Three cover the period FY 2004 through FY 2020, the end of the system
1229 life cycle. Table five displays the Block Three costs expressed in FY02 constant dollars
1230 in thousands. These numbers reflect only the specific costs associated with Block Three.
1231 The objective is the preferred value. The threshold number represents an upper control
1232 boundary that should not be exceeded.

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Table 5 - Block Three Cost

| Block Three (Constant FY 02 \$ in Thousands) | Objective | Threshold |
|---|------------------|------------------|
| RDT&E | \$ | \$ |
| Procurement | | |
| USA | \$0 | \$0 |
| USAF | \$0 | \$0 |
| USMC | \$0 | \$0 |
| USN | \$0 | \$0 |
| Total Procurement | \$0 | \$0 |
| Acquisition O&M | | |
| USA | \$0 | \$0 |
| USAF | \$0 | \$0 |
| USMC | \$0 | \$0 |
| USN | \$0 | \$0 |
| Total Block three Acquisition O&M | \$0 | \$0 |
| Total Block three Acquisition cost | \$ | \$ |
| (RDT&E + Procurement + Acquisition O&M) | | |
| Operations & support | | |
| USA | \$ | \$ |
| USAF | \$ | \$0 |
| USMC | \$ | \$0 |
| USN | \$ | \$0 |
| Total Block three operations & support | \$ | \$ |
| Total Block three Life Cycle Cost | \$ | \$ |

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15.2 Sponsor Funding Level Estimate.

The Program is fully-funded at the objective level as of the Joint Cost Position (JCP) established for the Block One Milestone Review. Full funding will be verified as the program prepares for the Milestone Reviews of Block Two and Block Three.

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1247 **16.0 Mandatory Appendices**

1248 Appendix A. CRD/CDD/CPD Crosswalk(s).

1249 Appendix B: Integrated Architecture products

1250 Appendix C: References

1251 Appendix D: Acronym List

1252 Appendix E Joint Forces Command Joint Requirements Office (JRO) /Joint

1253 Requirements Board (JRB) Requirements List

1254 Appendix F - Block Three (IDP two, Plan Sourcing, and IDP three, Movements Control)

1255 Requirements Review for GOTS and COTS Applications

1256 Points of Contact

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Appendix A. CRD Crosswalks

JDS CRD COMPLIANCE CHECKLIST

| CRD Section Heading | CRD Para # | CROSSWALK ITEMS | TC-AIMS II CDD Para # | YES, NO, N/A |
|--|------------|---|-----------------------|--------------|
| FAMILY OF SYSTEMS | | | | |
| | D.6 | Has the CDD correctly used the JDS FoS Decision Matrix on page I-13 to determine applicability to the JDS? | 1, 7 | YES |
| | | Is the CDD part of the JDS FoS? *If 'Yes', then it must comply with the JDS CRD. | 1, 7 | YES |
| | | Are there applications, functions or capabilities within the CDD that feed into the JDS FoS? | N/A | N/A |
| | | *If 'Yes', then those applications, functions or capabilities that feed into the JDS FoS must comply with the JDS CRD. | | |
| | | Does the CDD have common or otherwise related joint tasks (UJTL) that support Joint Deployment operations? | N/A | N/A |
| | | *If 'Yes', then those applications, functions or capabilities that support those UJTLs must comply with the JDS CRD. | | |
| | | Does the CDD support common or otherwise related issues or operational requirements that are consistent with the JDS CRD? | N/A | N/A |
| | | *If 'Yes', then those common or related issues or operational requirements must comply with the JDS CRD. | | |
| CHAPTER I: operational capability | | | | |
| Introduction | | Is the CDD based on a validated Mission Need / Mission Needs Statement? | 1, app C | YES |
| | | Does the CDD support the Joint Deployment System? | 1, 7 | YES |
| | | Does the CDD support joint deployment planning and / or execution? | 1, 3 | YES |
| | | Is the CDD interoperable with or does it otherwise support any aspect within the end-to-end joint deployment process? | 1, 3 | YES |

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| CRD Section Heading | CRD Para # | CROSSWALK ITEMS | TC-AIMS II CDD Para # | YES, NO, N/A |
|---|-------------------|---|------------------------------|---------------------|
| Mission Area Description | C.6 | Does the CDD support the Joint Missions Areas of Dominant Maneuver, Deployment / Redeployment, Overseas Presence and Force Projection, Joint Command and Control, Information Superiority, Focused Logistics, or Multinational Operations / Interagency Coordination? | 1, 3 | YES |
| | C.8 | Does the CDD document information exchange requirements that are supported by Universal Joint Task List (UJTL) tasks unique to the JDS CRD? | app B | YES |
| | D.2 | Does the CDD identify operational requirements related to joint deployment? | 1, 3, 6 | YES |
| | D.2 | Does the CDD identify operational requirements related to sustainment of forces? | 1, 3 | YES |
| | D.2 | Does the CDD address logistic requirements? | 13 | YES |
| | D.2 | Does the CDD identify or otherwise address the command and control of the operational capabilities relating to scheduling and movement, and integration of deploying personnel and material? | 1, 3, 6 | YES |
| | D.3 | Does the CDD address and / or support the Defense Transportation System? | 1, 3 | YES |
| CHAPTER II: THREAT | | | | |
| Threat | II. | If information exchange is fundamental to the CDD, does Chapter II mention Information Operations, Computer Network Attack, Computer Network Exploitation, Electronic Warfare, and Electromagnetic Pulse threat? | 4 | YES |
| CHAPTER III: SHORTCOMINGS IN MISSION AREA AND EXISTING SYSTEMS | | | | |
| Shortcomings | III | Does the CDD describe shortcomings or absence of existing capabilities and systems that fulfill the needs of the JDS functions described in Chapter I? | 1 | YES |

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| CRD Section Heading | CRD Para # | CROSSWALK ITEMS | TC-AIMS II CDD Para # | YES, NO, N/A |
|---|------------|--|--------------------------|--------------|
| | | As applicable, are JDS shortcomings addressed such as: lack of interoperable applications; limited ability to rapidly catalog, search, and retrieve required information; limited ability to effectively and efficiently use existing RF spectrum; limited ability to move digital information seamlessly; lack of asset visibility resulting in limited ability to effectively manage a common user network; limited means to prioritize information and establish profiles; lack of ability to support multiple security level operations? | | |
| | B.2 | Does the CDD address data exchange requirements that support the joint deployment process? | app B, 6 (IKPP) | YES |
| | B.2 | Does the CDD address data exchange requirements between joint deployment systems and joint command and control (C2) systems? | app B, 6 (IKPP) | YES |
| | B.6.a | Does the CDD support data standardization between Service deployment systems? | 14 | YES |
| | B.6.c | Does the CDD address systems interoperability between Service joint deployment planning systems? | app B, 6 (IKPP) | YES |
| | D.6.c | Does the CDD address data supporting transportation planning and execution? | 14 | YES |
| | D.6.i | Does the CDD support systems interoperability between combat support systems and command and control systems? | app B | YES |
| CHAPTER IV: CAPABILITIES REQUIRED – PROCESS FUNCTION | | | | |
| JDS FoS | B.4 | Does the CDD comply with existing operational requirements established by the Global Information Grid (GIG) CRD of 30 August 2001? | app A, GIG CRD Crosswalk | YES |
| | B.5.a | Does the CDD comply with the DOD's Physical Security Program? | 14 | YES |
| | B.5.a | Does the CDD provide the capability to support Multiple Security Level (MSL) technology? | N/A | N/A |
| | B.5.b | Does the CDD address survivability through hardened networks and / or commercial power sources? | 14 | YES |
| | B.5.b | Does the CDD address functionality through wireless systems and out-of-sector communications networks? | 10 | YES |

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| CRD Section Heading | CRD Para # | CROSSWALK ITEMS | TC-AIMS II CDD Para # | YES, NO, N/A |
|---------------------|------------|--|-----------------------|--------------|
| | D.5.d | Does the CDD support the capability to ensure data accuracy and process integrity , in order to prevent unauthorized / unintended changes? | 14 | YES |
| | D.5.e | Does the CDD support cross-functional or cross-Service capabilities to manage Service-specific deployment data within and across joint deployment systems? | 14 | YES |
| | D.5.e.1 | Does the CDD offer the capability to share data elements, sources, and information sources, consistent with DoDD 8320.1 and the Defense Data Dictionary System (DDDS)? | 14 | YES |
| | D.5.e.2 | Is the CDD capable of operating in a collaborate environment (synchronous or asynchronous) that facilitates an electronic exchange of information? | app B | YES |
| | D.6.a | Does the CDD address the capability to meet the needs and requirements for the Joint Operations Planning and Execution System (JOPES)? | app B | YES |
| | D.6.b | Does the CDD address the capability of supporting deployment requirements in a joint and / or multinational environment? | 1, 3 | YES |
| | D.6.b.1 | Does the CDD support the capability to operate across combat support and combat service support functions, and between command and control functions? | 1, 3 | YES |
| | D.6.b.1 | Does the CDD support functionality in both deliberate planning and crisis action planning / execution environments? | 3 | YES |
| | D.6.b.1 | Does the CDD provide authorized users with access to readiness and sustainment data, and other pertinent information to support deployment planning and execution? | 1 | YES |
| | D.6.b.2 | Does the CDD allow for accessing and manipulating deployment-related information? | 1 | YES |
| | D.6.b.2 | Does the CDD allow for access regardless of Service or location? | 14 | YES |
| | D.6.b.2 | Does the CDD comply with the Defense Information Infrastructure (DII) Common Operating Environment (COE, the Defense Information Systems Agency's (DISA's) GCCS / GCSS architecture, and Net-Centric Enterprise Services (NCES)? | 6 | YES |

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| CRD Section Heading | CRD Para # | CROSSWALK ITEMS | TC-AIMS II CDD Para # | YES, NO, N/A |
|---|----------------------|---|-----------------------|--------------|
| | D.c.2 | Does the CDD comply with the global infrastructure of the Joint Command and Control (JC2) architecture? | N/A | N/A |
| | B.6.f | Does the CDD support the objectives of Total Asset Visibility (TAV) and In-Transit Visibility (ITV) Planning, Receiving and Accounting, at Level-VI detail. | 5 | YES |
| | B.6.g | Does the CDD provide the capability of operating in a common environment, in order to share deployment data and other deployment-related information? | 5 | YES |
| Joint Deployment Systems – Key Performance Parameters (KPPs) | | | | |
| Interoperability | | 100% of critical, high-level information exchange requirements (IERs) outlined in Table IV-2 will be satisfied (Threshold, Objective). | 6 (IKPP) | YES |
| | Relevancy / Currency | Integrate corporate deployment data into a common operational picture providing real-time situation awareness, with data accuracy and data age > 95% accurate from the authoritative source (Threshold), 100% accurate from the authoritative source (Objective). | N/A | N/A |
| | Responsiveness | Integrate corporate deployment data into a common operational picture providing real-time situation awareness, providing timely responses to queries, with Asset Visibility < 60 seconds 95% of the time (Threshold) and < 30 seconds 95% of the time (Objective). | N/A | N/A |
| | Availability | Integrate corporate deployment data into a common operational picture providing real-time situation awareness, with JDST < 120 seconds 95% of the time (Threshold) and JDST < 60 seconds 95% of the time (Objective). | N/A | N/A |
| | Availability | Integrate corporate deployment data into a common operational picture providing real-time situation awareness, with accessibility and connectivity to data > 95% of the time (Threshold) and > 99% of the time (Objective) down to the deployed JTF headquarters level. | N/A | N/A |

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| CRD Section Heading | CRD Para # | CROSSWALK ITEMS | TC-AIMS II CDD Para # | YES, NO, N/A |
|-----------------------|--|--|-----------------------|--------------|
| Data Interoperability | Information Dissemination Management | All of a system's data that will be exchanged, or has the potential to be exchanged, shall be tagged in accordance with the JTA standard for tagged data items, and tags shall be registered in accordance with the DOD XML registry and clearinghouse policy and implementation plan (Threshold, Objective) | 6 | YES |
| | | Systems shall have a GIG capability to acquire needed information by search queries, with successful searches yielding 85% of available, needed information based on the user query and with no more than 20% being irrelevant / unusable (waste) or failed searches (Threshold), 95% of available, needed information based on the user query and with no more than 10% being irrelevant / unusable (waste) or failed searches (Objective). | N/A | N/A |
| Security | | Provide a deployable AIS capability to control filtering of information into a Common Operational Picture (COP) and process data between different levels of security, with the AIS capability to access and pass 95% (Threshold) 100% (Objective) of all applicable data across Service and functional deployment systems in a multilevel security environment. | N/A | N/A |
| | Authentication / Confidentiality / Non-repudiation | Does the system meet and maintain minimum Information Assurance Defense in Depth standards, including certification and accreditation in accordance with the DITSCAP process (e.g., CJCSI 6510.01C, DODI 5200.40) (Threshold, Objective) | 14 | YES |
| | | Does the system utilize / interoperate with security management and the DOD public key infrastructure (Threshold, Objective). | 14 | YES |
| | | Does the system provide proof of information origin and receipt, as required (Threshold, Objective) | 14 | YES |

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| CRD Section Heading | CRD Para # | CROSSWALK ITEMS | TC-AIMS II CDD Para # | YES, NO, N/A |
|---------------------|--|---|-----------------------|--------------|
| Survivability | Survival Information Dissemination | Systems shall have a GIG capability that, utilizing a standard schema, IAW the commander's dissemination policies and user profiles, will support the means for prioritization of information flows within a theater, using theater apportioned resources, and able dissemination of survival information, limiting survival information to less than 12 kb (Threshold) and 0.5 seconds 95% of the time (Objective) . | N/A | N/A |
| Survivability | Transport. Information Integrity and Availability. | Systems shall have the Information Assurance capability to define, control, and defend enclave boundaries, maintaining > 99.99% (Threshold) > 99.999% (Objective) integrity of all exchanged information elements. | N/A | N/A |

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GIG CRD COMPLIANCE CHECKLIST

| CRD Section Heading | CRD Para # | CROSSWALK ITEMS | TC-AIMS II CDD Para # | YES, NO, N/A |
|---|------------|--|-----------------------|--------------|
| CHAPTER I: GENERAL DESCRIPTION OF OPERATIONAL CAPABILITY | | | | |
| GIG Reference | I.B.3 | Does the GIG CRD appear in the Related Documents section? | Appendix C | YES |
| Operational Concept | I.D | If the OV-1 depicts information exchange relationships, are the producer, user, and command node entities identifiable? | Appendix B | YES |
| | | Does the operational concept include external information exchange? | Appendix B | YES |
| GIG Implementation Guidelines | I.E | Have each of the following GIG implementation guidelines been considered and applied in the CDD as appropriate? | See Below | YES |
| | | GIG implementation done in accordance with the standards included in the most current version of the <i>DoD JTA</i> ? | 6 | YES |
| | | All new Command, Control, Communications, Computers and Intelligence (C4I) emerging systems and upgrades to be fielded as level 6 DII COE compliant with the goal of achieving level 8 compliance? | 6 | YES |
| | | System is either standards-based or employs commercial-off-the-shelf (COTS) technologies to: | 6 | YES |

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| CRD Section Heading | CRD Para # | CROSSWALK ITEMS | TC-AIMS II CDD Para # | YES,NO , N/A |
|---|------------|--|-----------------------|---|
| | | Facilitate joint, allied, and coalition interoperability? | | |
| | | Simplify integration? | | |
| | | Reduce both long and short-term costs? | | |
| | | System is to be scalable, affordable, sustainable and extensible with respect to its functionality? | 15 | YES |
| | | System is designed to accommodate change and facilitate the integration of future systems and technologies as they evolve? | 1 | YES |
| | | System is consistent with current DoD, IC, and commercial efforts regarding data and metadata standardization? | 6 | YES |
| | | Additional manpower requirements are minimized? | 13 | YES |
| | | Reliability, availability, survivability, and maintainability features of the system are designed to support all functions necessary to meet the requirements documented in Chapter IV, including the ability to recover from critical failures? | 6 | YES |
| | | Emphasis is placed on reducing the complexity, time, and cost of training? | 13 | YES |
| | | GIG Implementation Guidelines | I.E | Software design is aimed at enhancing interoperability and commonality among GIG-enabled systems? |
| System designed using an open systems approach and adhering to applicable standards within the JTA? | 6 | | | YES |
| Bandwidth and throughput requirements along with implications to strategic, fixed, theater, and tactical architectures are considered? | 8 | | | YES |
| United States Imagery and Geo-spatial Information Service (USIGS) standards used for the processing and display of imagery and geospatial data across the GIG ? | 6 | | | YES |
| System will be developed, tested, and deployed in a manner that is compliant with all appropriate treaties and international agreements? | N/A | | | YES |
| System will be tested and certified for interoperability IAW Joint Interoperability Test Command (JITC) procedures? | 6 | | | YES |

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| CRD Section Heading | CRD Para # | CROSSWALK ITEMS | TC-AIMS II CDD Para # | YES,NO , N/A |
|---|------------|--|-----------------------|--------------|
| | | System enables users to operate in a multilingual environment to overcome the inherent language barriers of multinational and coalition operations? | N/A | N/A |
| | | System mitigates security risks and meets all current security provisions articulated in appropriate DoD and IC policies, procedures, and instructions including DoDD 8500.aa? | 14 | YES |
| | | System uses standards-based rather than system-unique security mechanisms? | 14 | YES |
| | | CDD considers ongoing developments and evolving specifications in the following areas (as applicable): | 14 | YES |
| | | Joint Operational Architecture (JOA)? | | |
| | | Nuclear C2 Systems Technical Performance Criteria (NTPC)? | | |
| | | GIG Architecture? | | |
| | | Mission Information Management (MIM) Architecture? | | |
| | | Time-phased requirements developed in CDD, with associated objectives and thresholds, IAW DoDI 5000.2? | 1 | YES |
| CHAPTER II: THREAT | | | | |
| Threat to be Countered | II. | If information exchange is fundamental to the CDD, does Chapter II mention Information Operations, Computer Network Attack, Computer Network Exploitation, Electronic Warfare, and Electromagnetic Pulse? | 10 | YES |
| CHAPTER III: SHORTCOMINGS IN MISSION AREA AND EXISTING SYSTEMS | | | | |
| Shortcomings | III | Does the CDD describe shortcomings or absence of existing capabilities and systems to fulfill the needs of the GIG functions described in Chapter I? | 1 | YES |
| | | As applicable, are GIG shortcomings addressed such as: lack of interoperable applications; limited ability to rapidly catalog, search, and retrieve required information; limited ability to effectively and efficiently use existing RF spectrum; limited ability to move digital information seamlessly; lack of asset visibility resulting in limited ability to effectively manage a common user network; limited means to prioritize information and establish profiles; limited ability to support multilevel security operations? | | |

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| CRD Section Heading | CRD Para # | CROSSWALK ITEMS | TC-AIMS II CDD Para # | YES,NO , N/A |
|---|------------|--|-----------------------|--------------|
| CHAPTER IV: CAPABILITIES REQUIRED – PROCESS FUNCTION | | | | |
| Processing Efficiency and Effectiveness | IV.B.2b | All computing processes of system shall optimize the use of constrained computing and dissemination resources (Threshold)? | 6 | YES |
| Reuse Of Information Products | IV.B.2c | System's previously generated, shareable information products (i.e., processed data) shall be reused to maximize consistency and efficiency, and to minimize process redundancy (Threshold)? | 6 | YES |
| Processing Mode | IV.B.2d | System shall have processes to accommodate an interactive and multimedia processing environment (Threshold)? System's need for processing modes other than interactive and multimedia, especially batch processing, shall be clearly demonstrated and justified prior to their adoption (Threshold)? System shall use time-critical processing when dealing with survival information, in order to meet stringent timeliness requirements (Threshold)? | 6 | YES |
| Cohesiveness | IV.B.2e | Each process of the system shall accomplish a well-defined single function so as to achieve cohesion and enhance process reusability and system maintainability (Threshold)? | 6 | YES |
| Modularity | IV.B.2f | System's processes shall be modular to reduce maintenance and promote reusability (Threshold)? | 6 | YES |
| Process Reusability | IV.B.2g | System shall have, to the maximum extent possible, processes that are designed (using off-the-shelf standard components built according to an open standard) and implemented to be reusable in multiple systems and computing environments as plug and play "commodities" or "generics" rather than custom built from scratch each time (Threshold)? | 6 | YES |
| Reliability | IV.B.2h | System shall have processes that are classified either as deterministic or non-deterministic, with each deterministic process producing consistent and definite results, and each non-deterministic process specifying a range with boundary limits and the expected average for each output generated (Threshold)? | 6 | YES |

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| CRD Section Heading | CRD Para # | CROSSWALK ITEMS | TC-AIMS II CDD Para # | YES,NO , N/A |
|-----------------------------|-------------------|--|------------------------------|---------------------|
| Validation | IV.B.2i | The accuracy of outputs from the system's processes, deterministic or otherwise, shall be testable, meaning that processes shall be executable and the actual outputs generated by a process shall conform to expected outputs governed by operational requirements (Threshold)? In the case of the system's non-deterministic processes, it shall be possible to predict all outputs within specified limits (Threshold)? | 6 | YES |
| Verifiability | IV.B.2j | System shall have processes that facilitate verification, and verification activities shall be performed to discover design errors and demonstrate the conformance of the system to the specified requirements (Threshold)? | 6 | YES |
| Interprocess Communications | IV.B.2k | To achieve interoperability among the system's processes, all processes shall use standardized mechanisms to communicate with each other, and process interfaces shall follow established standards for interprocess communications regardless of whether they are communicating with processes residing within the same computing system or with processes residing on remote systems (Threshold)? | 6 | YES |
| Process Prioritization | IV.B.2l | System's processes shall be responsive to task prioritization dynamically (Threshold)? | 6 | YES |
| Process Adaptability | IV.B.2m | All critical processes of the system shall have the capability to monitor the available resources and dynamically adjust their processing characteristics and behavior in accordance with the resources made available for their use (Threshold)? | 6 | YES |
| Standards-Based Processing | IV.B.2n | All processes of the system shall demonstrate compliance with existing directives, instructions, and prescribed standards, to include appropriate performance-based standards (Threshold)? | 6 | YES |
| Process Security | IV.B.2o | All processes of the system shall be protected and secured at appropriate levels and be visible to and cooperate with all information assurance operations (Threshold)? | 6 | YES |

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|---|-------------------|--|------------------------------|---------------------|
| Non-GIG Interoperability | IV.B.2p | System's processing shall accommodate non-DoD (Threshold) and allied and coalition (Objective) operations when necessary? | N/A | N/A |
| Robust & Flexible Processing | IV.B.2q | All process failures and processing exceptions of the system shall be handled through error handling and recovery mechanisms which are consistent with threat and risk levels associated with the processing task (Threshold)? | 6 | YES |
| Analytical and Collaboration Services | IV.B.2r | System's processing shall support analytical and collaboration capabilities through services that support collaborative planning, decision-making aids, modeling and simulation, data mining, intelligent agents and virtual workspaces (Threshold)? | N/A | N/A |
| Information Management Support | IV.B.2s | System's processing shall accommodate all Information Management (IM) tasks related to creation, acquisition, transmission, organization, storage, dissemination, presentation, protection and disposition of information, as well as other information processing tasks guided by and in compliance with the DoD CIO IM Strategic Plan (Threshold)? | 6 | YES |
| Interface Definition | IV.B.2t | All process interfaces of the system shall be well defined and clearly specified to include at a minimum all input specifications, output specifications, and specifications for controls required for triggering the process (Threshold)? | 6 | YES |
| Cross-Platform Functionality | IV.B.2u | System's processes shall be independent of the computing platform regardless of the programming or scripting (Threshold)? | 6 | YES |
| Process Availability | IV.B.2v | System's processing components shall ensure that the overall system availability is not compromised due to run-time process failures (Threshold)? | 6 | YES |
| CHAPTER IV: CAPABILITIES REQUIRED – STORE FUNCTION | | | | |
| Data Interoperability | IV.B.3b | System shall identify and use common standards for data and metadata representation (Threshold)? | 6 | YES |

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|----------------------------|-------------------|---|------------------------------|---------------------|
| | IV.B.3c | All of a system's data that will be exchanged, or has the potential to be exchanged, shall be tagged in accordance with the JTA standard for tagged data items (e.g., Extensible Markup Language [XML], the current JTA standard), and tags shall be registered in accordance with the DoD XML Registry and Clearinghouse policy and implementation plan (Threshold, KPP)? | 6 | YES |
| Information Integrity | IV.B.3d | System's storage process shall not alter stored data in a manner that compromises the integrity of the data/information (Threshold)? | 6 | YES |
| Infrastructure Management | IV.B.3e | System shall provide visibility of storage infrastructure to efficiently manage storage capacity and provide the capability to remove/discard stored data as required (Threshold)? | 6 | YES |
| Data Distribution | IV.B.3f | System's data shall be stored in a manner that facilitates distribution IAW processing and transport needs and supports the rapid retrieval of information by the user (Threshold)? Each item of stored data in the system shall have a single discrete source of reference so that future updates of that data, while being stored in other locations, will be able to refer back to the single reference source, thus ensuring that the information is being updated with the most current available version (Threshold)? | 6 | YES |
| Data Survivability | IV.B.3g | System's data shall be stored in a manner that assures the required access to and use of all needed data, and in a way that prevents the loss of stored data from physical threats such as fire, water damage, information operation threats, and Electromagnetic Pulse (EMP) as appropriate to the information being stored (Threshold)? | 6 | YES |
| Data Security | IV.B.3h | System's data being stored shall include its classification and releasability criteria within the semantic tag or associated schema (Threshold)? | 6 | YES |

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|---|------------|--|-----------------------|--------------|
| Data Disposal | IV.B.3i | System's data that is no longer required shall be disposed of effectively and efficiently, so that the storage space that was used by the disposed data can be used for the storage of new data without the user having to do any additional actions once the decision to dispose has been made (Threshold)? | 6 | YES |
| Data Retention | | System's data shall be retained in a manner that meets all mission and regulatory guidance and is transparent to the user (Threshold)? | 6 | YES |
| CHAPTER IV: CAPABILITIES REQUIRED – TRANSPORT FUNCTION | | | | |
| Switching/Routing/Transmission | IV.B.4b | System providing switching, routing, and transmission control capabilities/mechanisms shall be fully interoperable and work seamlessly across the entire GIG in accordance with <i>DoD JTA</i> (Threshold)? | N/A | N/A |
| Spectrum Supportability/ Electromagnetic Environmental Effects | IV.B.4c | System shall optimize use of the available electromagnetic spectrum through efficient frequency reuse and advanced modulation, compression and filtering techniques, and shall comply with DoD, National and International spectrum management policies as applicable (Threshold)? System shall be mutually compatible with other systems, including allied and coalition systems, in the operational environment and shall not be degraded by electromagnetic environmental effects (Objective)? | N/A | N/A |
| Quality of Service | IV.B.4d | Transport system shall provide QoS capabilities that ensure that information identified as priority is delivered ahead of regular traffic 99% of the time (Threshold, KPP) and 99.9% of the time (Objective, KPP)? Required QoS factors include: | N/A | N/A |
| | | Prioritization. End users shall be able to assign priority to information targeted for transport (Threshold)? | | |
| | | Response Time. All transport capabilities shall be designed to meet or exceed customer stated response times (Threshold)? | | |

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|-----------------------|------------|---|-----------------------|--------------|
| | | Precedence. Data shall receive expedited handling during transport in accordance with the commander's policy and user assigned priority (Threshold)? | | |
| | | Reliability. Delivery of information shall be guaranteed in accordance with its assigned broadcast level (Threshold)? | | |
| | | Latency. It shall be possible to deliver information in real and/or near real time as required (Threshold)? | | |
| Information Integrity | IV.B.4e | System shall maintain and guarantee during transport the integrity of all information elements exchanged throughout the GIG to enable user confidence; information integrity shall be 99.99% (Threshold, KPP) and 99.999% (Objective, KPP). | N/A | N/A |
| Standards | IV.B.4f | To ensure system interoperability across the GIG and to support uninterrupted service, all GIG transport capabilities shall be standards-based using <i>DoD JTA</i> and DoD CIO prescribed standards, as applicable (Threshold)? | N/A | N/A |
| Connectivity | IV.B.4g | Transport system shall provide connectivity on demand to all fixed and deployed locations/users (Threshold)? Transport systems shall have the ability to maintain network connectivity on-the-move to meet Service/JTF requirements in all warfighting environments (afloat, sub-surface, airborne, in space, on the ground) (Objective)? | N/A | N/A |
| Capacity | IV.B.4h | With minimal exceptions, GIG transport capacity shall be viewed as an open system that is available to transport information from all domains utilizing unicast, multicast, and broadcast techniques to provide information on demand to the warfighter/decision maker (Threshold)? Transport system shall have the reserve capacity to accommodate surge loading and support multiple military operations as described in Defense Planning Guidance (Objective)? | N/A | N/A |

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|------------------------------|-------------------|--|------------------------------|---------------------|
| Technology Insertion | IV.B.4i | To effectively keep pace with advances in technology that have the potential to render existing systems obsolete shortly following acquisition, the GIG shall enable and support the seamless and efficient insertion and incorporation of emerging (future) technologies into the transport domain (Threshold)? | N/A | N/A |
| Security | IV.B.4j | System shall provide link and transmission security based on the level of risk acceptable to the user, and the GIG security architecture shall support use of clear headers if and when necessary (Threshold)? | N/A | N/A |
| Robustness | IV.B.4k | To avoid any single point of failure, the GIG shall use multiple connectivity paths (not susceptible to the same threat) and media (Threshold)? | N/A | N/A |
| Scalability | IV.B.4l | Transport capability shall be scalable and adaptable to meet dynamic needs of users (Threshold)? | N/A | N/A |
| Survivability | IV.B.4m | Transport system shall be protected against all potential threats commensurate with the operating environment and the criticality of the information being transported, and shall also ensure connectivity through the total threat environment (i.e. conventional and nuclear) (Threshold)? | N/A | N/A |
| Availability/ Reliability | IV.B.4n | Transport capabilities shall be available to provide reliable information exchange services to the warfighter/decision maker on demand and shall be responsive to the criticality of the information to be exchanged (Threshold)? | N/A | N/A |
| Tactical Deployability | IV.B.4o | Transport system supporting tactical forces shall minimize lift requirements and be transportable using existing JTF/Service notional lift capability (Threshold)? | N/A | N/A |
| Transport Element Status | IV.B.4p | All transport elements (e.g., switches, routers, etc.) shall be capable of providing status changes to network management devices by means of an automated capability in near real time 99% (Threshold, KPP) and 99.9% (Objective KPP) of the time? | N/A | N/A |

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|---|-------------------|---|------------------------------|---------------------|
| Secure Voice Interoperability | IV.B.4q | Strategic and tactical secure voice systems shall be interoperable, with a 99% (Threshold, KPP) and 99.9% (Objective, KPP) call throughput success rate? | N/A | N/A |
| Secure Voice with Allied and Coalition Forces | IV.B.4r | Secure voice cryptography shall be provided to or developed with allied forces that enable interoperability (Threshold)? Secure voice systems shall be interoperable with coalition forces (Objective)? A secure voice system shall be able to be provided to coalition forces that is interoperable with the U.S. version using coalition releasable technology (Threshold)? | N/A | N/A |
| Information Over Tactical Data Links | IV.B.4s | Systems transporting/exchanging information over tactical data links (TDLs) shall use one or more members of the J-Series Family of Tactical Data Links in accordance with the DoD Joint Tactical Data Link Management Plan (JTDLMP) and the DoD Joint Technical Architecture (JTA) (Threshold)? | N/A | N/A |
| CHAPTER IV: CAPABILITIES REQUIRED – HUMAN-GIG INTERACTION (HGI) FUNCTION | | | | |
| Output/Input | IV.B.5b | System's HGI shall present to and accept information from humans using a combination of visual, aural, tactile, and/or other sensory methods (Threshold)? | 6 | YES |
| Feedback | IV.B.5c | System's HGI shall provide unobtrusive confirmations of user input and actions, to include implicit visual, aural and/or tactile feedback in response to user actions, as well as, explicit notifications that entered data was properly entered and accepted by the system, and/or errors were detected (Threshold)? | 6 | YES |
| Specialized Environments | IV.B.5d | System's HGI shall functionally accommodate use in a nuclear, biological, and chemical (NBC) or other specialized operating environment as designated by mission needs (Threshold)? | N/A | N/A |
| Usability | IV.B.5e | System's HGI shall be useable by all end user skill levels in the aspects of learnability, flexibility, and tailorability, which shall be verified by iterative user testing (Threshold)? | N/A | N/A |

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|---|-------------------|---|------------------------------|---------------------|
| Task Efficiency | IV.B.5f | System's HGI shall provide decision aids and tools as necessary to maximize users' efficiency and performance of their task, with operator aids designed to support specific user tasks and tailored to the information needs of the targeted user (Threshold)? | 6 | YES |
| User-Centered Design | IV.B.5g | A user-centered design process and user testing shall be employed for the system's HGI to ensure that the end-user's cognitive framework and expectations are accommodated by the system design (Threshold)? | 6 | YES |
| Standards | IV.B.5h | System's HGI shall be compliant with the DoD JTA (Threshold)? | 6 | YES |
| Neutrality | IV.B.5i | System's HGI presentation format shall not change the intended meaning of the information being presented; thus all data shall be clearly labeled to avoid misinterpretation or confusion (Threshold)? | 6 | YES |
| Ergonomics | IV.B.5j | To minimize user fatigue and discomfort, the system's HGI hardware and software elements shall be ergonomically designed with respect to the user's operating environment (Objective)? | 6 | YES |
| Errors | IV.B.5k | System's HGI shall be designed to minimize user input/mechanical/perception errors (Threshold)? | 6 | YES |
| On-line help | IV.B.5l | System's HGI shall provide context-sensitive on-line help at the user's request, thus eliminating/reducing the need for off-line support or documentation that may distract the user from the intended task (Threshold)? | 6 | YES |
| CHAPTER IV: CAPABILITIES REQUIRED – NETWORK MANAGEMENT (NM) FUNCTION | | | | |
| Situational Gig End to End Awareness | IV.B.6.a. (2) | To accomplish GIG end-to-end situational awareness, system shall have the NM capability of automatically generating and providing an integrated/correlated presentation of network and all associated network assets (Threshold)? | N/A | N/A |
| Dynamic, Predictive Planning | IV.B.6.a. (3) | System shall have the NM capability to perform dynamic, predictive planning by gathering, storing and using knowledge about GIG assets/resources, so as to optimize their utilization (Threshold)? | N/A | N/A |

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|--|---------------|--|-----------------------|--------------|
| | | System shall have the NM capability to create/modify/distribute network plans and orders IAW user requirements (Threshold)? | N/A | N/A |
| Distributed and Partitioned Network Control | IV.B.6.a. (4) | System shall have the NM capability to rapidly transfer control of one or more objects or groups of varying size, and reestablish control when relinquished without hindering end-to-end visibility by the senior network manager, while maintaining continuous control (Threshold)? | N/A | N/A |
| Remote Object and Network, Control and Configuration | IV.B.6.a. (5) | System shall have a NM capability that leverages existing and evolving technologies and has the ability to perform remote network device configuration/reconfiguration of objects that have existing DoD JTA management capabilities (Threshold)? | N/A | N/A |
| Network Status | IV.B.6.a. (6) | System shall have an automated NM capability to obtain the status of networks and associated assets in near real time 99% (Threshold, KPP) and 99.9% (Objective, KPP) of the time. | N/A | N/A |
| Automated Fault Management | IV.B.6.a. (7) | Systems shall have the NM capability to perform automated fault management of the network, to include problem detection, fault correction, fault isolation and diagnosis, problem tracking until corrective actions are completed, and historical archiving (Threshold)? | N/A | N/A |
| CHAPTER IV: CAPABILITIES REQUIRED – INFORMATION DISSEMINATION MANAGEMENT (IDM) FUNCTION | | | | |
| Requirement Identification | IV.B.6.b. (2) | System shall have an IDM capability to assist users in efficiently identifying their information requirements in a manner that captures key attributes associated with these requirements (e.g., timeliness, quantity, confidence level, etc.) (Threshold)? | N/A | N/A |

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|----------------------------|-------------------|---|------------------------------|---------------------|
| Search Driven Information | IV.B.6.b. (3) | System shall have an IDM capability to acquire needed information by search queries, with successful searches yielding 85% of available, needed information based on the user query and with no more than 20% of the received information being irrelevant/unusable (waste) or failed searches (Threshold, KPP); and yielding 95% of available, needed information and with no more than 10% of the received information being irrelevant/unusable (waste) or failed searches (Objective, KPP)? | N/A | N/A |
| | | System shall have an IDM capability to locate and characterize available information of interest that minimizes information overload (Threshold)? | N/A | N/A |
| Information Advertisement | IV.B.6.b. (4) | System shall have an IDM capability through which an information producer's products become known to the user population (Threshold)? | N/A | N/A |
| Quality of Advertisements | IV.B.6.b. (5) | System shall have an IDM capability that will enable information producers to describe their information products accurately using established search words and level of description 90% of the time (Threshold)? | N/A | N/A |
| Product Descriptions | IV.B.6.b. (6) | System shall have an IDM capability that enables information producers to label their products using standardized metadata (including classification) (Threshold)? | N/A | N/A |
| Source Cataloging | IV.B.6.b. (7) | System shall have an IDM capability that enables information producers to automatically build catalogs of information products and product updates based on available information products and users' profile requests (Objective)? | N/A | N/A |

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|-------------------------------|-------------------|--|------------------------------|---------------------|
| Profile Management | IV.B.6.b. (8) | System shall have an IDM capability that supports building profiles based on collaboration of information requests from users (through their profile requests), the commander's IM policy, and on information producers applying appropriate rule sets (e.g. security) (Threshold). System shall have an IDM capability that enables profiles to be transferable and reusable (Threshold). System shall have an IDM capability that enables automatic recognition of a change in Commander's Dissemination Policy (CDP) during profile creation, alerting the customer to that change and adjusting/modifying the profile to conform to the CDP (Threshold)? | N/A | N/A |
| Profile Driven Information | IV.B.6.b. (9) | System shall have an IDM capability that enables the user to identify information requirements (Threshold). System shall have an IDM capability that, once a profile is posted, enables information producers to automatically disseminate a minimum of 95% of available, needed information, with no more than 15% of the information received being irrelevant/unusable (waste) (Threshold); and a minimum of 99% of available, needed information, with no more than 10% of the information received being irrelevant/unusable (waste) (Objective)? | N/A | N/A |
| Filtering of Multiple Sources | IV.B.6.b. (10) | System shall have an IDM capability that provides a means to filter out superfluous information to the level of fidelity as determined by the local commander (Threshold)? | N/A | N/A |
| Geographic Areas | IV.B.6.b. (11) | System shall have an IDM capability that enables information producers to disseminate information to a specific geographic area and to the users who are within that area (Threshold)? | N/A | N/A |

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|---|-------------------|--|------------------------------|---------------------|
| Commander's Dissemination Policy Generation | IV.B.6.b. (12) | System shall have an IDM capability that provides a means for assisting commanders in rapidly building effective and intuitive information dissemination policies and to automate readjustment of subordinate commands' dissemination policies with appropriate alerts to those commands that policy has changed (Threshold)? | N/A | N/A |
| Information Flow Awareness | IV.B.6.b. (13) | System shall have an IDM capability through which commanders become aware of the information flowing within their AOR to facilitate adjustments to meet operational mission requirements (Threshold)? | N/A | N/A |
| | | System shall have an IDM capability for monitoring and tracking information flows to identify trends; for forecasting volume, content, and quality of service consistent with information and mission requirements; and for predicting the results of information control policies to optimize available resources consistent with mission priorities (Objective)? | N/A | N/A |
| Allied Access | IV.B.6.b. (14) | System shall have an IDM capability that supports US/allied (Threshold)/coalition (Objective) accessibility to information, conforming to a commander's dissemination policy and DoD and IC security regulations? | N/A | N/A |
| Status | IV.B.6.b. (15) | System shall have an IDM capability to track and report the status of the satisfaction of information requirements from the point of information request to delivery of requested information (Threshold)? | N/A | N/A |
| Resource Monitor | IV.B.6.b. (16) | System shall have capability to monitor and control IDM core services and distribute system status information to IDM administrators (Threshold)? | N/A | N/A |
| Controlled Access | IV.B.6.b. (17) | System shall have an IDM capability to regulate access to information in accordance with information assurance policies and procedures, and a commander's dissemination policy, to include the ability to constrain/control the awareness of the existence of information (Threshold)? | N/A | N/A |

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|----------------------------|-------------------|--|------------------------------|---------------------|
| Information Description | IV.B.6.b. (18) | System shall have an IDM capability to access information from the GIG using standard metadata (Threshold)? | N/A | N/A |
| Delivery Plan | IV.B.6.b. (19) | System shall have an IDM capability to build an end-to-end delivery plan based on user information requirements, mission priorities, dissemination policy, and available transport resources (Threshold)? | N/A | N/A |
| | | System shall have an IDM capability to dynamically adjust delivery plans based on changes to user information requirements, mission priorities, dissemination policy, and available transport resources (Objective)? | N/A | N/A |
| Information Retrieval | IV.B.6.b. (20) | System shall have an IDM capability to retrieve information of interest that has been located (Threshold)? | N/A | N/A |
| Collection Request | IV.B.6.b. (21) | Systems shall have an IDM capability to request the collection and production of information that is required by a user but that is not already available (Threshold)? | N/A | N/A |
| Dynamic Profiling | IV.B.6.b. (22) | System shall have an IDM capability to activate/deactivate information requirements based on external influences such as mission, role, time, location, situation, and environment (Threshold)? | N/A | N/A |
| Delivery Management | IV.B.6.b. (23) | System shall have an IDM capability to assign attributes (e.g., priority, QoS) to information that will govern its dissemination and also provide a means to convey the attributes (e.g., priority, QoS, etc.) of information to the transport system (Threshold)? | N/A | N/A |
| | | System shall have an IDM capability to assign precedence for information, which will govern its dissemination throughout the GIG, and shall ensure that the priority for an information requirement shall be carried with all the elements of information required to satisfy that information requirement, to include the ability to apply precedence to blocks of information packets for digital voice service to ensure QoS (Threshold)? | N/A | N/A |

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| Policy Management | IV.B.6.b. (24) | System shall have an IDM capability for commanders, and those delegated information flow authority within an organization, to dynamically adjust their information dissemination policies (Threshold)? | N/A | N/A |
| Survival Information Dissemination | IV.B.6.b. (25) | Systems shall have an IDM capability that, utilizing a standard schema, IAW the commanders' dissemination policies and user profiles, will support the means for prioritization of information flows within a theater, using theater apportioned resources, and enable dissemination of survival information (limiting survival information to less than 12 kb) within the time frames of the matrix portrayed in Figure 5, 95% of the time (Threshold, KPP) and 0.5 seconds 95% of the time (Objective, KPP)? | N/A | N/A |
| Correlation | IV.B.6.b. (26) | System shall have an IDM capability to minimize the delivery of redundant information as well as the capability to identify complimentary, parallel or reciprocal relationships among information elements (Threshold)? | N/A | N/A |
| Notification | IV.B.6.b. (27) | System shall have IDM capabilities (Threshold) for notification of: | N/A | N/A |
| | | changes in policy? | N/A | N/A |
| | | changes in user information requirements? | N/A | N/A |
| | | information becoming available or changing? | N/A | N/A |
| | | changes in network status? | N/A | N/A |
| | | changes in provider and user system status? | N/A | N/A |
| | | the delivery/receipt of information? | N/A | N/A |
| | | status of IDM services? | N/A | N/A |
| | | product availability? | N/A | N/A |
| | | a conflict within the delivery plan? | N/A | N/A |

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| | | System shall have an IDM capability that gives the user the option of being notified when information related to his/her requirements becomes available or when changes occur; in the case of survival information, notification will be automatic (Threshold)? | N/A | N/A |
| Flexibility | IV.B.6.b. (28) | System shall have IDM capabilities that can be applied from the strategic to the tactical levels without major software modifications (Threshold)? | N/A | N/A |
| Scalability | IV.B.6.b. (29) | System shall have IDM capabilities that are scalable to meet system and operational user requirements (Threshold)? | N/A | N/A |
| Directory Services | IV.B.6.b. (30) | System shall have an IDM capability that provides directory services with minimal personal intervention (Threshold)? | N/A | N/A |
| CHAPTER IV: CAPABILITIES REQUIRED – INFORMATION ASSURANCE (IA) FUNCTION | | | | |
| Information Integrity and Availability | IV.B.6.c. (2) | System shall be robust, survivable and capable of rapid restoration, to support IA across the GIG (Threshold)? | 6 | YES |
| | | System shall have an IA capability to define, control, and defend enclaves boundaries (Threshold)? | 6 | YES |
| | | System shall have an IA capability to provide timely, reliable access to processes and data even in the event of a denial of service attack (Threshold)? System shall have an IA capability to ensure information and process integrity throughout the system (during storage, processing, transmission and presentation) to prevent unauthorized or unintended changes, in accordance with mission specific criteria (Threshold)? | 6 | YES |
| Prevent Opportunity to Attack | IV.B.6.c. (3) | System shall be developed in accordance with IA Defense in Depth standards (CJCSI 6510.01C) to prevent or at least minimize the opportunity for attack; and shall have, in the event of an attack, the IA capability to immediately define, detect and respond appropriately to anomalies/attacks/disruptions from external threats, internal threats and natural causes (Threshold)? | 6 | YES |

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|--|---------------|--|-----------------------|--------------|
| Access Control | IV.B.6.c. (4) | System shall have an IA capability that provides adequate protection from user attempts to circumvent system access controls, accountability or procedures for the purpose of performing unauthorized system operations (Threshold)? | 6 | YES |
| Detection and Responses | IV.B.6.c. (5) | System shall incorporate a detection, reporting and response IA infrastructure that enables rapid detection of and reaction to anomalous events, and enables operational situation awareness and responses (Threshold)? | 6 | YES |
| Security Domains | IV.B.6.c. (6) | System shall have an IA capability for operating within each security domain and across any security domains while ensuring that all operations are comply with existing security requirements (Threshold)? | 6 | YES |
| Authentication/ Confidentiality/N on-repudiation | IV.B.6.c. (7) | System shall meet and maintain minimum IA Defense in Depth standards, including certification and accreditation IAW DITSCAP process (e.g., <i>CJCSI 6510.01C</i> , <i>DoDI 5200.40</i>) (Threshold/Objective, KPP)? | 6 | YES |
| | | System shall utilize/interoperate with the security management infrastructure (e.g., key management and DoD public key infrastructure) (Threshold)? | 6 | YES |
| | | System shall provide proof of information origin and receipt as required (Threshold)? | 6 | YES |
| Confidentiality Services | IV.B.6.c. (8) | System shall have an IA capability that ensures information is not disclosed to unauthorized entities or processes on the network and infrastructure so as to protect against passive intercept attacks, including against unauthorized disclosure of information and traffic analysis (Threshold)? System shall have an IA capability to share data among users operating at different and /or multiple security levels as appropriate, and at the same time protect the data from unauthorized disclosure (Threshold)? | 6 | YES |

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| CRD Section Heading | CRD Para # | CROSSWALK ITEMS | TC-AIMS II CDD Para # | YES,NO , N/A |
|---|---------------|---|-----------------------|--------------|
| Content-Based Encryption | IV.B.6.c. (9) | System shall have an IA capability to perform content-based encryption of information objects at the host instead of depending on the bulk encryption of the entire network in order to secure the information (Threshold), and this capability shall also be available for operations involving allied and coalition forces (Objective)? | 6 | YES |
| CHAPTER IV: CAPABILITIES REQUIRED – INTEROPERABILITY | | | | |
| Interoperability | IV.C | System shall satisfy all critical IER attributes to the threshold level (Threshold, KPP) and satisfy all IER attributes to the objective level (Objective, KPP)? | 6 | YES |

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GCSS CRD COMPLIANCE CHECKLIST

| CRD Section Heading | CRD Para # | CROSSWALK ITEMS | TC-AIMS II CDD Para # | YES,NO , N/A |
|---------------------|------------|--|-----------------------|--------------|
| Compliance | 4.a | The GCSS FoS shall be developed in accordance with the Joint Technical Architecture (JTA) and be compliant with the Defense Information System Agency (DISA) DII COE. Threshold = Level 6. Objective = Level 8. | 6 | Yes |
| Security | 4.a | The GCSS FoS shall provide for security management services. Provide for sensitive but unclassified information in accordance with the minimum standards set forth in DoD 5200.28-STD. | 6 | Yes |
| Interoperability | 4.a | The GCSS FoS shall treat data as a corporate asset and all top-level Information Exchange Requirements (IERs) outlined at Table 3 of the GCSS CRD will be satisfied to the standards specified in the Threshold and Objective values. Threshold = 100% of top-level IERs designated as critical. Objective = 100% of all top-level IERs. | app B, 6 (IKPP) | Yes |

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| CRD Section Heading | CRD Para # | CROSSWALK ITEMS | TC-AIMS II CDD Para # | YES,NO, N/A |
|---|------------|--|-----------------------|-------------|
| CHAPTER I: GENERAL DESCRIPTION OF OPERATIONAL CAPABILITY | | | | |
| GIG Reference | I.B.3 | Does the GIG CRD appear in the Related Documents section? | Appendix C | YES |
| Operational Concept | I.D | If the OV-1 depicts information exchange relationships, are the producer, user, and command node entities identifiable? | Appendix B | YES |
| | | Does the operational concept include external information exchange? | Appendix B | YES |
| GIG Implementation Guidelines | I.E | Have each of the following GIG implementation guidelines been considered and applied in the CDD as appropriate? | See Below | YES |
| | | GIG implementation done in accordance with the standards included in the most current version of the <i>DoD JTA</i> ? | 6 | YES |
| | | All new Command, Control, Communications, Computers and Intelligence (C4I) emerging systems and upgrades to be fielded as level 6 DII COE compliant with the goal of achieving level 8 compliance? | 6 | YES |
| | | System is either standards-based or employs commercial-off-the-shelf (COTS) technologies to: Facilitate joint, allied, and coalition interoperability? Simplify integration? | 6 | YES |
| | | Reduce both long and short-term costs? | | |
| | | System is to be scalable, affordable, sustainable and extensible with respect to its functionality? | 15 | YES |
| | | System is designed to accommodate change and facilitate the integration of future systems and technologies as they evolve? | 1 | YES |
| | | System is consistent with current DoD, IC, and commercial efforts regarding data and metadata standardization? | 6 | YES |
| | | Additional manpower requirements are minimized? | 13 | YES |

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| CRD Section Heading | CRD Para # | CROSSWALK ITEMS | TC- AIMS II CDD Para # | YES,NO, N/A |
|-------------------------------------|---------------|--|---------------------------------|----------------|
| GIG Implementation Guidelines | I.E | Reliability, availability, survivability, and maintainability features of the system are designed to support all functions necessary to meet the requirements documented in Chapter IV, including the ability to recover from critical failures? | 6 | YES |
| | | Emphasis is placed on reducing the complexity, time, and cost of training? | 13 | YES |
| | | Software design is aimed at enhancing interoperability and commonality among GIG-enabled systems? | 6 | YES |
| | | System designed using an open systems approach and adhering to applicable standards within the JTA? | 6 | YES |
| | | Bandwidth and throughput requirements along with implications to strategic, fixed, theater, and tactical architectures are considered? | 8 | YES |
| | | United States Imagery and Geo-spatial Information Service (USIGS) standards used for the processing and display of imagery and geospatial data across the GIG ? | 6 | YES |
| | | System will be developed, tested, and deployed in a manner that is compliant with all appropriate treaties and international agreements? | N/A | YES |
| | | System will be tested and certified for interoperability IAW Joint Interoperability Test Command (JITC) procedures? | 6 | YES |
| | | System enables users to operate in a multilingual environment to overcome the inherent language barriers of multinational and coalition operations? | N/A | N/A |
| | | System mitigates security risks and meets all current security provisions articulated in appropriate DoD and IC policies, procedures, and instructions including DoDD 8500.aa? | 14 | YES |
| | | System uses standards-based rather than system-unique security mechanisms? | 14 | YES |
| | | CDD considers ongoing developments and evolving specifications in the following areas (as applicable): | 14 | YES |

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| CRD Section Heading | CRD Para # | CROSSWALK ITEMS | TC-AIMS II CDD Para # | YES,NO, N/A |
|---|------------|--|-----------------------|-------------|
| | | Joint Operational Architecture (JOA)? Nuclear C2 Systems Technical Performance Criteria (NTPC)? GIG Architecture? Mission Information Management (MIM) Architecture? | | |
| | | Time-phased requirements developed in CDD, with associated objectives and thresholds, IAW DoDI 5000.2? | 1 | YES |
| CHAPTER II: THREAT | | | | |
| Threat to be Countered | II. | If information exchange is fundamental to the CDD, does Chapter II mention Information Operations, Computer Network Attack, Computer Network Exploitation, Electronic Warfare, and Electromagnetic Pulse? | 10 | YES |
| CHAPTER III: SHORTCOMINGS IN MISSION AREA AND EXISTING SYSTEMS | | | | |
| Shortcomings | III | Does the CDD describe shortcomings or absence of existing capabilities and systems to fulfill the needs of the GIG functions described in Chapter I? As applicable, are GIG shortcomings addressed such as: lack of interoperable applications; limited ability to rapidly catalog, search, and retrieve required information; limited ability to effectively and efficiently use existing RF spectrum; limited ability to move digital information seamlessly; lack of asset visibility resulting in limited ability to effectively manage a common user network; limited means to prioritize information and establish profiles; limited ability to support multilevel security operations? | 1 | YES |
| CHAPTER IV: CAPABILITIES REQUIRED – PROCESS FUNCTION | | | | |
| Processing Efficiency and Effectiveness | IV.B.2b | All computing processes of system shall optimize the use of constrained computing and dissemination resources (Threshold)? | 6 | YES |

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| CRD Section Heading | CRD Para # | CROSSWALK ITEMS | TC-AIMS II CDD Para # | YES,NO, N/A |
|-------------------------------|------------|---|-----------------------|-------------|
| Reuse Of Information Products | IV.B.2c | System's previously generated, shareable information products (i.e., processed data) shall be reused to maximize consistency and efficiency, and to minimize process redundancy (Threshold)? | 6 | YES |
| Processing Mode | IV.B.2d | System shall have processes to accommodate an interactive and multimedia processing environment (Threshold)? System's need for processing modes other than interactive and multimedia, especially batch processing, shall be clearly demonstrated and justified prior to their adoption (Threshold)? System shall use time-critical processing when dealing with survival information, in order to meet stringent timeliness requirements (Threshold)? | 6 | YES |
| Cohesiveness | IV.B.2e | Each process of the system shall accomplish a well-defined single function so as to achieve cohesion and enhance process reusability and system maintainability (Threshold)? | 6 | YES |
| Modularity | IV.B.2f | System's processes shall be modular to reduce maintenance and promote reusability (Threshold)? | 6 | YES |
| Process Reusability | IV.B.2g | System shall have, to the maximum extent possible, processes that are designed (using off-the-shelf standard components built according to an open standard) and implemented to be reusable in multiple systems and computing environments as plug and play "commodities" or "generics" rather than custom built from scratch each time (Threshold)? | 6 | YES |
| Reliability | IV.B.2h | System shall have processes that are classified either as deterministic or non-deterministic, with each deterministic process producing consistent and definite results, and each non-deterministic process specifying a range with boundary limits and the expected average for each output generated (Threshold)? | 6 | YES |

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|-----------------------------|------------|--|-----------------------|-------------|
| Validation | IV.B.2i | The accuracy of outputs from the system's processes, deterministic or otherwise, shall be testable, meaning that processes shall be executable and the actual outputs generated by a process shall conform to expected outputs governed by operational requirements (Threshold)? In the case of the system's non-deterministic processes, it shall be possible to predict all outputs within specified limits (Threshold)? | 6 | YES |
| Verifiability | IV.B.2j | System shall have processes that facilitate verification, and verification activities shall be performed to discover design errors and demonstrate the conformance of the system to the specified requirements (Threshold)? | 6 | YES |
| Interprocess Communications | IV.B.2k | To achieve interoperability among the system's processes, all processes shall use standardized mechanisms to communicate with each other, and process interfaces shall follow established standards for interprocess communications regardless of whether they are communicating with processes residing within the same computing system or with processes residing on remote systems (Threshold)? | 6 | YES |
| Process Prioritization | IV.B.2l | System's processes shall be responsive to task prioritization dynamically (Threshold)? | 6 | YES |
| Process Adaptability | IV.B.2m | All critical processes of the system shall have the capability to monitor the available resources and dynamically adjust their processing characteristics and behavior in accordance with the resources made available for their use (Threshold)? | 6 | YES |
| Standards-Based Processing | IV.B.2n | All processes of the system shall demonstrate compliance with existing directives, instructions, and prescribed standards, to include appropriate performance-based standards (Threshold)? | 6 | YES |

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|---------------------------------------|------------|--|-----------------------|-------------|
| Process Security | IV.B.2o | All processes of the system shall be protected and secured at appropriate levels and be visible to and cooperate with all information assurance operations (Threshold) ? | 6 | YES |
| Non-GIG Interoperability | IV.B.2p | System's processing shall accommodate non-DoD (Threshold) and allied and coalition (Objective) operations when necessary? | N/A | N/A |
| Robust & Flexible Processing | IV.B.2q | All process failures and processing exceptions of the system shall be handled through error handling and recovery mechanisms which are consistent with threat and risk levels associated with the processing task (Threshold) ? | 6 | YES |
| Analytical and Collaboration Services | IV.B.2r | System's processing shall support analytical and collaboration capabilities through services that support collaborative planning, decision-making aids, modeling and simulation, data mining, intelligent agents and virtual workspaces (Threshold) ? | N/A | N/A |
| Information Management Support | IV.B.2s | System's processing shall accommodate all Information Management (IM) tasks related to creation, acquisition, transmission, organization, storage, dissemination, presentation, protection and disposition of information, as well as other information processing tasks guided by and in compliance with the DoD CIO IM Strategic Plan (Threshold) ? | 6 | YES |
| Interface Definition | IV.B.2t | All process interfaces of the system shall be well defined and clearly specified to include at a minimum all input specifications, output specifications, and specifications for controls required for triggering the process (Threshold) ? | 6 | YES |
| Cross-Platform Functionality | IV.B.2u | System's processes shall be independent of the computing platform regardless of the programming or scripting (Threshold) ? | 6 | YES |

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|---|------------|---|-----------------------|-------------|
| Process Availability | IV.B.2v | System's processing components shall ensure that the overall system availability is not compromised due to run-time process failures (Threshold)? | 6 | YES |
| CHAPTER IV: CAPABILITIES REQUIRED – STORE FUNCTION | | | | |
| Data Interoperability | IV.B.3b | System shall identify and use common standards for data and metadata representation (Threshold)? | 6 | YES |
| | | All of a system's data that will be exchanged, or has the potential to be exchanged, shall be tagged in accordance with the JTA standard for tagged data items (e.g., Extensible Markup Language [XML], the current JTA standard), and tags shall be registered in accordance with the DoD XML Registry and Clearinghouse policy and implementation plan (Threshold, KPP)? | 6 | YES |
| Information Integrity | IV.B.3c | System's storage process shall not alter stored data in a manner that compromises the integrity of the data/information (Threshold)? | 6 | YES |
| Infrastructure Management | IV.B.3d | System shall provide visibility of storage infrastructure to efficiently manage storage capacity and provide the capability to remove/discard stored data as required (Threshold)? | 6 | YES |
| Data Distribution | IV.B.3e | System's data shall be stored in a manner that facilitates distribution IAW processing and transport needs and supports the rapid retrieval of information by the user (Threshold)? Each item of stored data in the system shall have a single discrete source of reference so that future updates of that data, while being stored in other locations, will be able to refer back to the single reference source, thus ensuring that the information is being updated with the most current available version (Threshold)? | 6 | YES |

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|---|------------|---|-----------------------|-------------|
| Data Survivability | IV.B.3f | System's data shall be stored in a manner that assures the required access to and use of all needed data, and in a way that prevents the loss of stored data from physical threats such as fire, water damage, information operation threats, and Electromagnetic Pulse (EMP) as appropriate to the information being stored (Threshold) ? | 6 | YES |
| Data Security | IV.B.3g | System's data being stored shall include its classification and releasability criteria within the semantic tag or associated schema (Threshold) ? | 6 | YES |
| Data Disposal | IV.B.3h | System's data that is no longer required shall be disposed of effectively and efficiently, so that the storage space that was used by the disposed data can be used for the storage of new data without the user having to do any additional actions once the decision to dispose has been made (Threshold) ? | 6 | YES |
| Data Retention | IV.B.3i | System's data shall be retained in a manner that meets all mission and regulatory guidance and is transparent to the user (Threshold) ? | 6 | YES |
| CHAPTER IV: CAPABILITIES REQUIRED – TRANSPORT FUNCTION | | | | |
| Switching/ Routing/ Transmission | IV.B.4b | System providing switching, routing, and transmission control capabilities/mechanisms shall be fully interoperable and work seamlessly across the entire GIG in accordance with <i>DoD JTA</i> (Threshold) ? | N/A | N/A |

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|---|------------|---|-----------------------|-------------|
| Spectrum Supportability/ Electromagnetic Environmental Effects | IV.B.4c | System shall optimize use of the available electromagnetic spectrum through efficient frequency reuse and advanced modulation, compression and filtering techniques, and shall comply with DoD, National and International spectrum management policies as applicable (Threshold)? System shall be mutually compatible with other systems, including allied and coalition systems, in the operational environment and shall not be degraded by electromagnetic environmental effects (Objective)? | N/A | N/A |
| Quality of Service | IV.B.4d | <p><i>Transport system shall provide QoS capabilities that ensure that information identified as priority is delivered ahead of regular traffic 99% of the time (Threshold, KPP) and 99.9% of the time (Objective, KPP)? Required QoS factors include:</i></p> <p style="text-align: right;">Prioritization.</p> <p>End users shall be able to assign priority to information targeted for transport (Threshold)?</p> <p style="text-align: right;">Response Time. All</p> <p>transport capabilities shall be designed to meet or exceed customer stated response times (Threshold)?</p> <p style="text-align: right;">Precedence.</p> <p>Data shall receive expedited handling during transport in accordance with the commander's policy and user assigned priority (Threshold)?</p> <p style="text-align: right;">Reliability.</p> <p>Delivery of information shall be guaranteed in accordance with its assigned broadcast level (Threshold)?</p> | N/A | N/A |

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|-----------------------|------------|---|-----------------------|-------------|
| | | Latency. It shall be possible to deliver information in real and/or near real time as required (Threshold)? | | |
| Information Integrity | IV.B.4e | System shall maintain and guarantee during transport the integrity of all information elements exchanged throughout the GIG to enable user confidence; information integrity shall be 99.99% (Threshold, KPP) and 99.999% (Objective, KPP). | N/A | N/A |
| Standards | IV.B.4f | To ensure system interoperability across the GIG and to support uninterrupted service, all GIG transport capabilities shall be standards-based using <i>DoD JTA</i> and DoD CIO prescribed standards, as applicable (Threshold)? | N/A | N/A |
| Connectivity | IV.B.4g | Transport system shall provide connectivity on demand to all fixed and deployed locations/users (Threshold)? Transport systems shall have the ability to maintain network connectivity on-the-move to meet Service/JTF requirements in all warfighting environments (afloat, sub-surface, airborne, in space, on the ground) (Objective)? | N/A | N/A |
| Capacity | IV.B.4h | With minimal exceptions, GIG transport capacity shall be viewed as an open system that is available to transport information from all domains utilizing unicast, multicast, and broadcast techniques to provide information on demand to the warfighter/decision maker (Threshold)? Transport system shall have the reserve capacity to accommodate surge loading and support multiple military operations as described in Defense Planning Guidance (Objective)? | N/A | N/A |

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|--------------------------|------------|---|-----------------------|-------------|
| Technology Insertion | IV.B.4i | To effectively keep pace with advances in technology that have the potential to render existing systems obsolete shortly following acquisition, the GIG shall enable and support the seamless and efficient insertion and incorporation of emerging (future) technologies into the transport domain (Threshold)? | N/A | N/A |
| Security | IV.B.4j | System shall provide link and transmission security based on the level of risk acceptable to the user, and the GIG security architecture shall support use of clear headers if and when necessary (Threshold)? | N/A | N/A |
| Robustness | IV.B.4k | To avoid any single point of failure, the GIG shall use multiple connectivity paths (not susceptible to the same threat) and media (Threshold)? | N/A | N/A |
| Scalability | IV.B.4l | Transport capability shall be scalable and adaptable to meet dynamic needs of users (Threshold)? | N/A | N/A |
| Survivability | IV.B.4m | Transport system shall be protected against all potential threats commensurate with the operating environment and the criticality of the information being transported, and shall also ensure connectivity through the total threat environment (i.e. conventional and nuclear) (Threshold)? | N/A | N/A |
| Availability/Reliability | IV.B.4n | Transport capabilities shall be available to provide reliable information exchange services to the warfighter/decision maker on demand and shall be responsive to the criticality of the information to be exchanged (Threshold)? | N/A | N/A |
| Tactical Deployability | IV.B.4o | Transport system supporting tactical forces shall minimize lift requirements and be transportable using existing JTF/Service notional lift capability (Threshold)? | N/A | N/A |

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|---|------------|---|-----------------------|-------------|
| Transport Element Status | IV.B.4p | All transport elements (e.g., switches, routers, etc.) shall be capable of providing status changes to network management devices by means of an automated capability in near real time 99% (Threshold, KPP) and 99.9% (Objective KPP) of the time? | N/A | N/A |
| Secure Voice Interoperability | IV.B.4q | Strategic and tactical secure voice systems shall be interoperable, with a 99% (Threshold, KPP) and 99.9% (Objective, KPP) call throughput success rate? | N/A | N/A |
| Secure Voice with Allied and Coalition Forces | IV.B.4r | Secure voice cryptography shall be provided to or developed with allied forces that enable interoperability (Threshold) ? Secure voice systems shall be interoperable with coalition forces (Objective) ? A secure voice system shall be able to be provided to coalition forces that is interoperable with the U.S. version using coalition releasable technology (Threshold) ? | N/A | N/A |
| Information Over Tactical Data Links | IV.B.4s | Systems transporting/exchanging information over tactical data links (TDLs) shall use one or more members of the J-Series Family of Tactical Data Links in accordance with the DoD Joint Tactical Data Link Management Plan (JTDLMP) and the DoD Joint Technical Architecture (JTA) (Threshold) ? | N/A | N/A |
| CHAPTER IV: CAPABILITIES REQUIRED – HUMAN-GIG INTERACTION (HGI) FUNCTION | | | | |
| Output/Input | IV.B.5b | System's HGI shall present to and accept information from humans using a combination of visual, aural, tactile, and/or other sensory methods (Threshold) ? | 6 | YES |
| Feedback | IV.B.5c | System's HGI shall provide unobtrusive confirmations of user input and actions, to include implicit visual, aural and/or tactile feedback in response to user actions, as well as, explicit notifications that entered data was properly entered and accepted by the system, and/or errors were detected (Threshold) ? | 6 | YES |
| Specialized | IV.B.5d | System's HGI shall functionally | N/A | N/A |

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|----------------------|------------|--|-----------------------|-------------|
| Environments | | accommodate use in a nuclear, biological, and chemical (NBC) or other specialized operating environment as designated by mission needs (Threshold)? | | |
| Usability | IV.B.5e | System's HGI shall be useable by all end user skill levels in the aspects of learnability, flexibility, and tailorability, which shall be verified by iterative user testing (Threshold)? | 6 | YES |
| Task Efficiency | IV.B.5f | System's HGI shall provide decision aids and tools as necessary to maximize users' efficiency and performance of their task, with operator aids designed to support specific user tasks and tailored to the information needs of the targeted user (Threshold)? | 6 | YES |
| User-Centered Design | IV.B.5g | A user-centered design process and user testing shall be employed for the system's HGI to ensure that the end-user's cognitive framework and expectations are accommodated by the system design (Threshold)? | 6 | YES |
| Standards | IV.B.5h | System's HGI shall be compliant with the DoD JTA (Threshold)? | 6 | YES |
| Neutrality | IV.B.5i | System's HGI presentation format shall not change the intended meaning of the information being presented; thus all data shall be clearly labeled to avoid misinterpretation or confusion (Threshold)? | 6 | YES |
| Ergonomics | IV.B.5j | To minimize user fatigue and discomfort, the system's HGI hardware and software elements shall be ergonomically designed with respect to the user's operating environment (Objective)? | 6 | YES |
| Errors | IV.B.5k | System's HGI shall be designed to minimize user input/mechanical/perception errors (Threshold)? | 6 | YES |

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|---|--------------|--|-----------------------|-------------|
| On-line help | IV.B.5I | System's HGI shall provide context-sensitive on-line help at the user's request, thus eliminating/reducing the need for off-line support or documentation that may distract the user from the intended task (Threshold) ? | 6 | YES |
| CHAPTER IV: CAPABILITIES REQUIRED – NETWORK MANAGEMENT (NM) FUNCTION | | | | |
| Situational Gig End to End Awareness | IV.B.6.a.(2) | To accomplish GIG end-to-end situational awareness, system shall have the NM capability of automatically generating and providing an integrated/correlated presentation of network and all associated network assets (Threshold) ? | N/A | N/A |
| Dynamic, Predictive Planning | IV.B.6.a.(3) | System shall have the NM capability to perform dynamic, predictive planning by gathering, storing and using knowledge about GIG assets/resources, so as to optimize their utilization (Threshold) ? | N/A | N/A |
| | | System shall have the NM capability to create/modify/distribute network plans and orders IAW user requirements (Threshold) ? | N/A | N/A |
| Distributed and Partitioned Network Control | IV.B.6.a.(4) | System shall have the NM capability to rapidly transfer control of one or more objects or groups of varying size, and reestablish control when relinquished without hindering end-to-end visibility by the senior network manager, while maintaining continuous control (Threshold) ? | N/A | N/A |
| Remote Object and Network, Control and Configuration | IV.B.6.a.(5) | System shall have a NM capability that leverages existing and evolving technologies and has the ability to perform remote network device configuration/reconfiguration of objects that have existing DoD JTA management capabilities (Threshold) ? | N/A | N/A |
| Network Status | IV.B.6.a.(6) | System shall have an automated NM capability to obtain the status of networks and associated assets in near real time 99% (Threshold, KPP) and 99.9% (Objective, KPP) of the time. | N/A | N/A |

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|--|---------------|--|-----------------------|-------------|
| Automated Fault Management | IV.B.6.a. (7) | Systems shall have the NM capability to perform automated fault management of the network, to include problem detection, fault correction, fault isolation and diagnosis, problem tracking until corrective actions are completed, and historical archiving (Threshold)? | N/A | N/A |
| CHAPTER IV: CAPABILITIES REQUIRED – INFORMATION DISSEMINATION MANAGEMENT (IDM) FUNCTION | | | | |
| Requirement Identification | IV.B.6.b. (2) | System shall have an IDM capability to assist users in efficiently identifying their information requirements in a manner that captures key attributes associated with these requirements (e.g., timeliness, quantity, confidence level, etc.) (Threshold)? | N/A | N/A |
| Search Driven Information | IV.B.6.b. (3) | <i>System shall have an IDM capability to acquire needed information by search queries, with successful searches yielding 85% of available, needed information based on the user query and with no more than 20% of the received information being irrelevant/unusable (waste) or failed searches (Threshold, KPP); and yielding 95% of available, needed information and with no more than 10% of the received information being irrelevant/unusable (waste) or failed searches (Objective, KPP)?</i> | N/A | N/A |
| | | <i>System shall have an IDM capability to locate and characterize available information of interest that minimizes information overload (Threshold)?</i> | N/A | N/A |
| Information Advertisement | IV.B.6.b. (4) | System shall have an IDM capability through which an information producer's products become known to the user population (Threshold)? | N/A | N/A |

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| CRD Section Heading | CRD Para # | CROSSWALK ITEMS | TC-AIMS II CDD Para # | YES,NO, N/A |
|---------------------------|----------------|--|-----------------------|-------------|
| Quality of Advertisements | IV.B.6.b. (5) | System shall have an IDM capability that will enable information producers to describe their information products accurately using established search words and level of description 90% of the time (Threshold) ? | N/A | N/A |
| Product Descriptions | IV.B.6.b. (6) | System shall have an IDM capability that enables information producers to label their products using standardized metadata (including classification) (Threshold) ? | N/A | N/A |
| Source Cataloging | IV.B.6.b. (7) | System shall have an IDM capability that enables information producers to automatically build catalogs of information products and product updates based on available information products and users' profile requests (Objective) ? | N/A | N/A |
| Profile Management | IV.B.6. b. (8) | System shall have an IDM capability that supports building profiles based on collaboration of information requests from users (through their profile requests), the commander's IM policy, and on information producers applying appropriate rule sets (e.g. security) (Threshold) . System shall have an IDM capability that enables profiles to be transferable and reusable (Threshold) . System shall have an IDM capability that enables automatic recognition of a change in Commander's Dissemination Policy (CDP) during profile creation, alerting the customer to that change and adjusting/modifying the profile to conform to the CDP (Threshold) ? | N/A | N/A |

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| CRD Section Heading | CRD Para # | CROSSWALK ITEMS | TC- AIMS II CDD Para # | YES,NO, N/A |
|---|-------------------|---|---------------------------------|----------------|
| Profile Driven Information | IV.B.6.b. (9) | System shall have an IDM capability that enables the user to identify information requirements (Threshold). System shall have an IDM capability that, once a profile is posted, enables information producers to automatically disseminate a minimum of 95% of available, needed information, with no more than 15% of the information received being irrelevant/unusable (waste) (Threshold); and a minimum of 99% of available, needed information, with no more than 10% of the information received being irrelevant/unusable (waste) (Objective)? | N/A | N/A |
| Filtering of Multiple Sources | IV.B.6.b. (10) | System shall have an IDM capability that provides a means to filter out superfluous information to the level of fidelity as determined by the local commander (Threshold)? | N/A | N/A |
| Geographic Areas | IV.B.6.b. (11) | System shall have an IDM capability that enables information producers to disseminate information to a specific geographic area and to the users who are within that area (Threshold)? | N/A | N/A |
| Commander's Dissemination Policy Generation | IV.B.6.b. (12) | System shall have an IDM capability that provides a means for assisting commanders in rapidly building effective and intuitive information dissemination policies and to automate readjustment of subordinate commands' dissemination policies with appropriate alerts to those commands that policy has changed (Threshold)? | N/A | N/A |
| Information Flow Awareness | IV.B.6.b. (13) | System shall have an IDM capability through which commanders become aware of the information flowing within their AOR to facilitate adjustments to meet operational mission requirements (Threshold)? | N/A | N/A |

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| CRD Section Heading | CRD Para # | CROSSWALK ITEMS | TC-AIMS II CDD Para # | YES,NO, N/A |
|-------------------------|----------------|---|-----------------------|-------------|
| | | System shall have an IDM capability for monitoring and tracking information flows to identify trends; for forecasting volume, content, and quality of service consistent with information and mission requirements; and for predicting the results of information control policies to optimize available resources consistent with mission priorities (Objective)? | N/A | N/A |
| Allied Access | IV.B.6.b. (14) | System shall have an IDM capability that supports US/allied (Threshold) /coalition (Objective) accessibility to information, conforming to a commander's dissemination policy and DoD and IC security regulations? | N/A | N/A |
| Status | IV.B.6.b. (15) | <i>System shall have an IDM capability to track and report the status of the satisfaction of information requirements from the point of information request to delivery of requested information (Threshold)?</i> | N/A | N/A |
| Resource Monitor | IV.B.6.b. (16) | <i>System shall have capability to monitor and control IDM core services and distribute system status information to IDM administrators (Threshold)?</i> | N/A | N/A |
| Controlled Access | IV.B.6.b. (17) | <i>System shall have an IDM capability to regulate access to information in accordance with information assurance policies and procedures, and a commander's dissemination policy, to include the ability to constrain/control the awareness of the existence of information (Threshold)?</i> | N/A | N/A |
| Information Description | IV.B.6.b. (18) | <i>System shall have an IDM capability to access information from the GIG using standard metadata (Threshold)?</i> | N/A | N/A |
| Delivery Plan | IV.B.6.b. (19) | <i>System shall have an IDM capability to build an end-to-end delivery plan based on user information requirements, mission priorities, dissemination policy, and available transport resources (Threshold)?</i> | N/A | N/A |

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| CRD Section Heading | CRD Para # | CROSSWALK ITEMS | TC-AIMS II CDD Para # | YES,NO, N/A |
|-----------------------|----------------|--|-----------------------|-------------|
| | | System shall have an IDM capability to dynamically adjust delivery plans based on changes to user information requirements, mission priorities, dissemination policy, and available transport resources (Objective)? | N/A | N/A |
| Information Retrieval | IV.B.6.b. (20) | System shall have an IDM capability to retrieve information of interest that has been located (Threshold)? | N/A | N/A |
| Collection Request | IV.B.6.b. (21) | Systems shall have an IDM capability to request the collection and production of information that is required by a user but that is not already available (Threshold)? | N/A | N/A |
| Dynamic Profiling | IV.B.6.b. (22) | System shall have an IDM capability to activate/deactivate information requirements based on external influences such as mission, role, time, location, situation, and environment (Threshold)? | N/A | N/A |
| Delivery Management | IV.B.6.b. (23) | <i>System shall have an IDM capability to assign attributes (e.g., priority, QoS) to information that will govern its dissemination and also provide a means to convey the attributes (e.g., priority, QoS, etc.) of information to the transport system (Threshold)?</i> | N/A | N/A |
| | | <i>System shall have an IDM capability to assign precedence for information, which will govern its dissemination throughout the GIG, and shall ensure that the priority for an information requirement shall be carried with all the elements of information required to satisfy that information requirement, to include the ability to apply precedence to blocks of information packets for digital voice service to ensure QoS (Threshold)?</i> | N/A | N/A |
| Policy Management | IV.B.6.b. (24) | <i>System shall have an IDM capability for commanders, and those delegated information flow authority within an organization, to dynamically adjust their information dissemination policies (Threshold)?</i> | N/A | N/A |

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| CRD Section Heading | CRD Para # | CROSSWALK ITEMS | TC- AIMS II CDD Para # | YES,NO, N/A |
|--|-------------------|--|---------------------------------|----------------|
| Survival Information Dissemination | IV.B.6.b. (25) | Systems shall have an IDM capability that, utilizing a standard schema, IAW the commanders' dissemination policies and user profiles, will support the means for prioritization of information flows within a theater, using theater apportioned resources, and enable dissemination of survival information (limiting survival information to less than 12 kb) within the time frames of the matrix portrayed in Figure 5, 95% of the time (Threshold, KPP) and 0.5 seconds 95% of the time (Objective, KPP)? | N/A | N/A |
| Correlation | IV.B.6.b. (26) | System shall have an IDM capability to minimize the delivery of redundant information as well as the capability to identify complimentary, parallel or reciprocal relationships among information elements (Threshold)? | N/A | N/A |
| Notification | IV.B.6.b. (27) | System shall have IDM capabilities (Threshold) for notification of: | N/A | N/A |
| | | changes in policy? | N/A | N/A |
| | | changes in user information requirements? | N/A | N/A |
| | | <i>information becoming available or changing?</i> | N/A | N/A |
| | | changes in network status? | N/A | N/A |
| | | changes in provider and user system status? | N/A | N/A |
| | | the delivery/receipt of information? | N/A | N/A |
| | | status of IDM services? | N/A | N/A |
| | | product availability? | N/A | N/A |
| | | <i>a conflict within the delivery plan?</i> | N/A | N/A |
| System shall have an IDM capability that gives the user the option of being notified when information related to his/her requirements becomes available or when changes occur; in the case of survival information, notification will be automatic (Threshold)? | N/A | N/A | | |

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| CRD Section Heading | CRD Para # | CROSSWALK ITEMS | TC-AIMS II CDD Para # | YES,NO, N/A |
|--|----------------|--|-----------------------|-------------|
| Flexibility | IV.B.6.b. (28) | <i>System shall have IDM capabilities that can be applied from the strategic to the tactical levels without major software modifications (Threshold)?</i> | N/A | N/A |
| Scalability | IV.B.6.b. (29) | System shall have IDM capabilities that are scalable to meet system and operational user requirements (Threshold)? | N/A | N/A |
| Directory Services | IV.B.6.b. (30) | <i>System shall have an IDM capability that provides directory services with minimal personal intervention (Threshold)?</i> | N/A | N/A |
| CHAPTER IV: CAPABILITIES REQUIRED – INFORMATION ASSURANCE (IA) FUNCTION | | | | |
| Information Integrity and Availability | IV.B.6.c. (2) | System shall be robust, survivable and capable of rapid restoration, to support IA across the GIG (Threshold)? | 6 | YES |
| | | System shall have an IA capability to define, control, and defend enclave boundaries (Threshold)? | 6 | YES |
| | | System shall have an IA capability to provide timely, reliable access to processes and data even in the event of a denial of service attack (Threshold)? System shall have an IA capability to ensure information and process integrity throughout the system (during storage, processing, transmission and presentation) to prevent unauthorized or unintended changes, in accordance with mission specific criteria (Threshold)? | 6 | YES |
| Prevent Opportunity to Attack | IV.B.6.c. (3) | System shall be developed in accordance with IA Defense in Depth standards (CJCSI 6510.01C) to prevent or at least minimize the opportunity for attack; and shall have, in the event of an attack, the IA capability to immediately define, detect and respond appropriately to anomalies/attacks/disruptions from external threats, internal threats and natural causes (Threshold)? | 6 | YES |

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| CRD Section Heading | CRD Para # | CROSSWALK ITEMS | TC-AIMS II CDD Para # | YES,NO, N/A |
|--|---------------|--|-----------------------|-------------|
| Access Control | IV.B.6.c. (4) | System shall have an IA capability that provides adequate protection from user attempts to circumvent system access controls, accountability or procedures for the purpose of performing unauthorized system operations (Threshold)? | 6 | YES |
| Detection and Responses | IV.B.6.c. (5) | System shall incorporate a detection, reporting and response IA infrastructure that enables rapid detection of and reaction to anomalous events, and enables operational situation awareness and responses (Threshold)? | 6 | YES |
| Security Domains | IV.B.6.c. (6) | System shall have an IA capability for operating within each security domain and across any security domains while ensuring that all operations are comply with existing security requirements (Threshold)? | 6 | YES |
| Authentication/ Confidentiality/ Non-repudiation | IV.B.6.c. (7) | System shall meet and maintain minimum IA Defense in Depth standards, including certification and accreditation IAW DITSCAP process (e.g., <i>CJCSI 6510.01C</i> , <i>DoDI 5200.40</i>) (Threshold/Objective, KPP)? | 6 | YES |
| | | System shall utilize/interoperate with the security management infrastructure (e.g., key management and DoD public key infrastructure) (Threshold)? | 6 | YES |
| | | System shall provide proof of information origin and receipt as required (Threshold)? | 6 | YES |
| Confidentiality Services | IV.B.6.c. (8) | System shall have an IA capability that ensures information is not disclosed to unauthorized entities or processes on the network and infrastructure so as to protect against passive intercept attacks, including against unauthorized disclosure of information and traffic analysis (Threshold)? System shall have an IA capability to share data among users operating at different and /or multiple security levels as appropriate, and at the same time protect the data from unauthorized disclosure (Threshold)? | 6 | YES |

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| CRD Section Heading | CRD Para # | CROSSWALK ITEMS | TC-AIMS II CDD Para # | YES,NO, N/A |
|---|---------------|---|-----------------------|-------------|
| Content-Based Encryption | IV.B.6.c. (9) | System shall have an IA capability to perform content-based encryption of information objects at the host instead of depending on the bulk encryption of the entire network in order to secure the information (Threshold), and this capability shall also be available for operations involving allied and coalition forces (Objective)? | 6 | YES |
| CHAPTER IV: CAPABILITIES REQUIRED – INTEROPERABILITY | | | | |
| Interoperability | IV.C | System shall satisfy all critical IER attributes to the threshold level (Threshold, KPP) and satisfy all IER attributes to the objective level (Objective, KPP)? | 6 | YES |

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1277 Appendix B. Integrated Architecture Products.

1278 OV-1, SV-1, and OV-3 are inserted in document. If they remain inserted and no new
1279 requirement arises, appendix can be deleted.

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1281 Appendix C. References

1282 a. CJCSI 3170.01C Joint Capabilities Integration and Development System, 24 June
1283 2003

1284 b. Capstone Requirements Document Global Information Grid, JROCM 134-01, 30
1285 August 2001

1286 c. Capstone Requirements Document Joint Deployment Systems (JDS) JROC 183-
1287 01, April 2003

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1290 Appendix D. Acronym List

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1292 **Acronyms** 

1293

| | | |
|------|---------|--|
| 1294 | AALPS | Automated Air Load Planning System |
| 1295 | ADNET | GSA / Depot Transportation System (ADNET) |
| 1296 | AIS | automated information system |
| 1297 | AIT | automatic identification technology |
| 1298 | AMSS | Ammunition Management Standard System |
| 1299 | ATAC | Advanced Traceability and Control |
| 1300 | ATLASS | Asset Tracking Logistics Automated Supply System |
| 1301 | AWRDS | Army War Reserve Deployment Stocks |
| 1302 | C2 | command and control |
| 1303 | CAC | common access card |
| 1304 | CAEMS | Computer-Aided Embarkation Management System (Retired) |
| 1305 | CALM | Computer-Aided Load Manifesting (Retired) |
| 1306 | CAS-B | Combat Ammunition System Base level |
| 1307 | CAS-D | Combat Ammunition System - Deployable |
| 1308 | CBL | commercial bill of lading |
| 1309 | CINC | commander in chief |
| 1310 | CMOS | Cargo Movement Operations System |
| 1311 | COE | common operating environment |
| 1312 | COMPASS | Computerized Movement Planning and Status |
| 1313 | CONUS | Continental United States |
| 1314 | COTS | commercial off-the-shelf |
| 1315 | DAAS | DoD Activity Address System |
| 1316 | DAMMS-R | Department of the Army Movement Management System – |
| 1317 | | Revised, AKA: TIS-TO |
| 1318 | DDM | DoD data model |
| 1319 | DIA | Defense Intelligence Agency |
| 1320 | DII | Defense Information Infrastructure |
| 1321 | DMLSS | Defense Medical Logistics Standard System |
| 1322 | DoD | Department of Defense |
| 1323 | DSS | Distribution Standard System |
| 1324 | DTS | Defense Transportation System |
| 1325 | DTTS | Defense Transportation Tracking System |
| 1326 | EMILPO | Electronic Military Personnel Office (Replaces SIDPERS) |
| 1327 | EW | electronic warfare |
| 1328 | FACTS | Financial and Air Clearance Transportation System |
| 1329 | | full operational capability |
| 1330 | G009 | System provides defense contractors MILSTAMP capability |
| 1331 | GATES | Global Air Transportation & Execution System |
| 1332 | GBL | government bill of lading (Abolished in favor of bill of lading) |
| 1333 | GCCS | Global Command and Control System |
| 1334 | GCSS | Global Combat Support System |

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| | | | |
|------|----------------|---|--------|
| 1335 | GFM | Global Freight Management | |
| 1336 | GIG | Global Information Grid | |
| 1337 | GTN | Global Transportation Network | |
| 1338 | GOPAX | Group Operational Passenger System | |
| 1339 | HCI | human computer interface | |
| 1340 | HGI | human GIG (Global Information Grid) interaction | |
| 1341 | HHT | handheld terminal | |
| 1342 | IAPS | Integrated Accounts Payable System | |
| 1343 | IBS | Integrated Booking System | |
| 1344 | IER | Information Exchange Requirements | |
| 1345 | ICODES | Integrated Computerized Deployment System | |
| 1346 | ILSMIS | Integrated Logistics Support Management Information System | |
| 1347 | ILS-S | Integrated Logistics System - Supply | |
| 1348 | ILSP | integrated logistics support plan | |
| 1349 | IOC | initial operational capability | |
| 1350 | ITAP-DB | Integrated Total Army Personnel-Data Base (Replaces EMILPO) | |
| 1351 | ITO | installation transportation officer | |
| 1352 | ITV | in transit visibility | |
| 1353 | ITV Server | Intransit Visibility Server | |
| 1354 | JDS | Joint Deployment System/Joint Data Standards | |
| 1355 | JFRG | Joint Force Requirements Generator | |
| 1356 | JITC | Joint Interoperability Test Command | |
| 1357 | JOPEs | Joint Operation Planning and Execution System | |
| 1358 | JPMO | joint program management office | |
| 1359 | JTA | Joint Technical Architecture | |
| 1360 | JTF | joint task force | |
| 1361 | KPP | key performance parameter | |
| 1362 | LHA | a general purpose amphibious assault ship | |
| 1363 | LOGMARS | logistics marking and reporting symbols | |
| 1364 | LOGMOD-B | Logistics Module – Base level | |
| 1365 | MACOM | major command | |
| 1366 | MAGTF II | Marine Ground Task Force II (Retired) | |
| 1367 | MAJCOM | major command | |
| 1368 | MANPER-B | Manpower Personnel Readiness Module – base level | |
| 1369 | MDA | Milestone Decision Authority | |
| 1370 | MDSS II | MAGTF Deployment Support System MEP | mobile |
| 1371 | electric power | | |
| 1372 | MMS | Material Management System | |
| 1373 | MOBCON | Mobilization Control | |
| 1374 | MOPP | mission-oriented protective posture | |
| 1375 | MOS | military operational specialty | |
| 1376 | MSL | military shipping label | |
| 1377 | MTMS | Munitions Traffic Management System | |
| 1378 | MTS | Movement Tracking System | |
| 1379 | NADEP | naval aircraft depot | |
| 1380 | NCFMIS | Naval Construction Force Management Information System | |

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|------|--------------------|---|
| 1381 | NIMMS | NADEP Inventory Material Management System |
| 1382 | NSA | National Security Agency |
| 1383 | NSIPS | Navy Standard Integrated Personnel System |
| 1384 | OMC | optical memory card |
| 1385 | OSD | Office of the Secretary of Defense |
| 1386 | PowerTrack | US Bank system for payments for rail shipments |
| 1387 | RF | radio frequency |
| 1388 | RFID | radio frequency identification |
| 1389 | ROLMS | Retail Ordnance Logistics Management System |
| 1390 | RSO&I | reception, staging, onward movement and integration |
| 1391 | SAAS | Standard Army Ammunition System |
| 1392 | SARSS | Standard Army Supply System |
| 1393 | SATS | Supply Asset Tracking System |
| 1394 | SPBR-S | Standard Property Book System - Redesign |
| 1395 | SBSS/ILS | Standard Base Supply System /Integrated Logistics System - |
| 1396 | | Supply |
| 1397 | SCS | Stock Control System |
| 1398 | SHADE | shared data environment  |
| 1399 | SIA | systems interface agreement |
| 1400 | SIDPERS | Standard Installation Divisional Personnel System |
| 1401 | SPS | Standard Procurement System |
| 1402 | SRS | SAAM Request System |
| 1403 | Sup MIS | Standard Procurement System |
| 1404 | TCC | transportation component command |
| 1405 | TC-ACCIS | Transportation Coordinators' Automated Command and Control |
| 1406 | Information System | |
| 1407 | TCMD | transportation control and movement document |
| 1408 | TCN | transportation control number |
| 1409 | TDR | tonnage distribution register |
| 1410 | TIS-TO | Transportation Informations Systems – Theater Module (Formerly |
| 1411 | DAMMS-R) | |
| 1412 | TMO | traffic management officer |
| 1413 | TPFDD | time-phased force and deployment data |
| 1414 | UDAPS-2 | Uniform Automated Data Processing System |
| 1415 | UD/MIPS | Unit Diary/Marine Corps Integrated personnel System |
| 1416 | ULLS-S4 | Unit Level Logistics System |
| 1417 | ULN | unit line number |
| 1418 | UMO | unit movement officer |
| 1419 | USTRANSCOM | United States Transportation Command |
| 1420 | WIM - TrAMS | Weigh in Motion –Transportable Automated Measurement System |
| 1421 | WPS | Worldwide Port System |
| 1422 | | |

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Appendix E - Joint Forces Command Joint Requirements Office (JRO) /Joint
 Requirements Board (JRB) Block Three Requirements List
 [List reflects best available information as of 27 August 2003]

| JRO # | Title | Description |
|-------|---|---|
| 201 | Ad Hoc Report | <p>Cat I-The system must be able to provide an ad-hoc report generating capability to produce and sort mission unique reports to include the ability to:</p> <ol style="list-style-type: none"> 1. Print a report as it is displayed on the screen using any of the printers supported by the Windows (COE) environment. 2. Edit a column header's text and position. 3. Add columns to the saved and printed report. 4. Delete columns from the saved and printed report. 5. Include up to a four line header title, a single line footer, page numbers and a time and date and set the margins for the report. 6. Save a new or modified Ad Hoc report format. 7. Sort columns in an Ad Hoc Reports by adjusting the position of columns to the saved and printed report. 8. Modify an existing Ad Hoc report format. 9. Create a "free form" report on a page, i.e., place fields in other than column format. Includes capability to "wrap" answer fields horizontally on the page in cases when there are more fields than will fit on a single line, they must carry over to subsequent lines. 10. Group, subtotal, and set automatic page breaks for query answer sets by user specified criteria. 11. Place logical or calculated expressions, including totals, subtotals, max, min, sum, count, and average values in a specified range on the report. 12. Export the report "answer" in other formats such as Lotus and Excel Spreadsheets, ASCII Text Files, Paradox, Dbase, or other conventional file types. Software must include ODBC drivers to support export of data sets to other systems. 13. Specify the delimiter types of records and fields of the exported answer sets. 14. Must be point and click. 15. Must not require user to create own SQL statements. 16. Create shipment reports by contract number. 17. Build Movement Control Element (MCE) 18. Exercise Report. (M-75) This report contains information applicable to specific TACS/Project Codes. 19. Productivity Improvement report. (M-76) This report includes management information such as MSC Measurement tons, number of pieces shipped, rail short tons, airlifted pieces, etc. 20. Shipment Control Weekly Report.(M-77) This report contains Breakdown of truckloads, Breakdown of rail loads, and the daily combined Total's of Item's shipped. <p>OUTPUT: Ad Hoc Report</p> |
| 30 | Conduct Fleet Management-Movement (Movement Coordination) | <p>Fleet Management involves internal direction, coordination, and maintenance of organic equipment, in order to match resources to mission & movement tasks. Inputs are: Manual asset status update, interface with Maintenance Management systems for asset status, Receipt of Support Requests, Driver/Operator lists - updated from Personnel Rosters. Outputs are: Availability reports, Dispatch forms for drivers, Operator Logs, Master Logs, Mission (task) Schedules, Archive data.</p> |
| 56 | Plan Convoy Route (RSO&I) | <p>The route selection is based on an evaluation of the road net, the tactical situation, available vehicles, external support requirements and availability, and the purpose of the convoy. Two factors control routes selection: route classifications (open, supervised, dispatch, reserve, prohibited) and movement credit. (Motor Trans., Chap. 4-1, 4108)</p> <p>This process includes creating and maintaining routes for subsequent use for planning convoys.</p> <p>Inputs: Map data, user inputs, origins, destinations, nodes, other user defined parameters.</p> <p>Outputs: Standard convoy routes, reports, strip maps, time and distance summaries, route parameters.</p> |
| 68 | Receiving (Water Port Ops) | <p>Activities comprising receipt of advance notification of inbound shipment, coordinating the delivery, unloading the conveyance, in-checking, inspecting, verifying shipment status, and completion of necessary documents.</p> |
| 96 | Generate Reports | <p>This process includes generating standrd reports for TCAIMS II. (Ad Hoc reports are captured</p> |

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| JRO # | Title | Description |
|-------|------------------------------------|--|
| | (Execution) | in 201.) [All references to reports will be rolled under this requirement] |
| 103 | Expedite | The system must be able to provide the user with the ability to change priorities of cargo movement. |
| 105 | Report Arrival at TAA | Provide user the capability to transmit unit closure report to a movement control agency. |
| 122 | Movements Schedules | This task comprises requirements to enter current immunization data, training status, unit (UIC level) unique deployment requirements, and to assign personnel to tasked positions and modes of transportation. |
| 132 | Movement Schedules | The system must be able to provide the user with the capability to develop and maintain movement schedules to ensure units complete the appropriate movement leg of the deployment/redeployment at the proper time/date according to assigned movement priorities. |
| 182 | Transportation Requests (Pre-Move) | Cat I-The Movement Coordination Center (MCC) establishes the location, identity, and communications facility of nodes in the transportation system. It also promulgates tasking procedures, cycles, and deadlines. The routine request process for all nodes of transportation flows through Service component logistics channels. The components validate each request and forward it to the MCC. (Joint Tactics, Techniques, and Procedures for Movement Control, Chap. 3-5, 4) This process address the requirements of the unit to request additional support (bus, rail, truck, air) to support the deployment flow. |
| 246 | Task Reports - (Run Sheets) | The system must be able to produce Detailed Task Reports. These reports are created by the Movement Control Center, or the HQ responsible for tasking supporting units. The Detailed Task Report provides: 1. At listing of the detailed view of a task. 2. The task detail header information. 3. The cargo movement requirements, with subtotal length, width, height, SQFT, CUFT, WT, and HAZMAT characteristics. 4. The assets types tasked to support the movement requirement. The user must be able to print multiple tasks. 5. Billing data. OUTPUT: Detail Task Report (MC) (M-21, M-22, T-4) |
| 249 | Convoy-Checkpoint Tracking | Cat 1-The system must be capable of supporting tracking of convoys by critical checkpoints. |
| 250 | Convoy-Checkpoint Alarms | Cat 1-The system should be capable of tracking AIT tag equipped : 1. Convoy progress past checkpoints. 2. Material carried by the convoy. |
| 253 | Convoy – Preferred Routes | The system must be able to store and maintain preferred (pre-planned) convoy routes. |
| 254 | Convoy – PAX Duties | Must be able to assign specific personnel to a convoy and to depict their function(s). Provide the ability to designate (and unassign) personnel as Trail Officer, Pacesetter, Serial Commander or March Unit Commander within the convoy. The Trail Officer is in the last march unit of the last serial in the convoy. The Pacesetter is in the first march unit of the first serial in the convoy. If there is more that one march unit in a serial, there will be more than one march unit commander. OUTPUT: Convoy Manifest Report (T-10) |
| 257 | Convoy- ETA | The system should automatically update the convoy time of arrival estimation based on information from MITLA/AIT input of actual convoy progress past alarmed checkpoints on the convoy route. |
| 258 | Convoy – Summary | The system must be capable of generating a convoy summary report to effect closure of the convoy movement. The current MC format could be used for the report. Provide a report listing a "rolled up" display of the convoy. Information such as total number of officers, enlisted, females, vehicles and cargo are provided. Refer to FM 55-10, figure E-8 on page E-12. OUTPUT: Convoy Rollup Report (MC) (M-33, T-9) Road Movement Table (MC) (M-34) |
| 261 | Tracking cargo by conveyance | Cat 1-The system must be able to: 1. Link cargo to conveyance. 2. Use AIT to view cargo that will be transported by a particular conveyance. 3. Track cargo by TCN or by UIC, ULN, GBL number, TMR number, item serial number. |

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| 262 | Convoy – Validation | When the convoy validation process determines that a route is invalid, the system should show, in some fashion, the offending node or nodes. |
| 263 | Convoy – Route Merge | The system must allow the user to combine existing routes in the order selected to create a longer route. |
| 264 | Convoy – Checkpoints by leg | The system must allow for the insertion of critical checkpoints for a particular route leg |
| 266 | Convoy Route Conversion | The system must provide the user with the ability to select kilometer or statute mile measurement factors in route planning. |
| 267 | Convoy – Milestone Calculation | Must be capable of convoy planning actions to include forward and backward calculation of milestones from convoy start or completion. |
| 275 | Transportation Request- CULT | Cat 1-The system must allow the viewing of all the selected items transportation movement requests in Common User Land Transportation (CULT). DEV COMMENT: CULT is a policy and a set of procedures that address theater movement. There is a pool of common user theater command assets that may include organic vehicles, commercial leased vehicles, captured vehicles, etc. This requirement relates to in-theater movement. If the supported unit needs transportation support, it submits the lift request to the theater movement coordination center (MCC) where the request is prioritized and filled using the CULT pool of transportation assets. |
| 279 | STANAG – Convoy Clearance Request or DD Form 1265- Convoy Clearance Request | Cat 1-The system should provide the user with the ability to: 1. Create and print DD Form 1265 (Convoy Clearance Request), 2. Transmit request and receive approval from approving authority, 3. Print blocks of requests by convoy or by date of movement. OUTPUT: DD Form 1265 (Convoy Clearance Request) (A-2, A-14, A-51, M-25, M-27, T-8) |
| 280 | DD Form 1249 – SAAM Request | Cat 1-The system must be able to: 1. Generate an accurate, automated SAAM request. 2. Populate from plan data, such as the UDL, HAZMAT, and carrier tables to minimize manual data entry and perform any subtotaling and conversion arithmetic. 3. Autofill HAZMAT data from on-line hazardous material references, such as HMIS on CDROM. 4. Control the electronic transfer of the SAAM request to ensure that only authorized users (command level, validators) can manipulate the request. 5. Provide information read only access to designated users who require the information (similar to GCCS newsgroup concept). 6. Electronically receive a Mission Operating Directive to validator from AMC. 7. Allow the Systems Administrator to establish user permissions, and control access for SAAM exports if sent electronically (i.e., non-MTF/GENSER traffic) to AMC. 8. Populate an MTF "template" for record message traffic release. OUTPUT: DD Form 1249 (Special Assignment Airlift Mission (SAAM) Request) (J-4) (Added from 639: SAAM- Modify Load Lines) 9. Provide the ability to add, delete or edit the cargo load for a designated itinerary leg of the SAAM Request. |
| 294 | Interface - Unit Level Logistics System (ULLS-S4) | The system must interface with ULLS-G to import/receive vehicle dispatch data, PLL data, and maintenance data. The system must interface with ULLS-S4 to import/receive Transportation Request and Unit Property and Equipment data. The system must interface with ULLS-SA to import/receive Aircraft maintenance data. 2/27/98 Comment: Service-Army to provide additional information. |
| 310 | Interface- Ship Load Planning Update Precedents | Cat 4-When updating ICODES with latest equipment loading data, the data should be passed as updates only, not a repeat of the whole data file. |
| 346 | Cargo – Pull Sheets | Cat 1-The system must be able to provide the user with the capability to: 1. Display and print a listing of TCNs to be pulled for loading on a conveyance. 2. Allow selection of TCNs by chalk, movement document number, conveyance number, or mission number. OUTPUT: Cargo Pull Sheets (C-35) |
| 348 | Cargo – Status | Cat 1-The system must be able to: 1. Provide information on exact location of cargo being processed. 2. Provide information on order ship time for cargo being processed. [P3I] 3. Create user defined staging locations. 4. Accept user query for cargo location by TCN and nested TCNs. |
| 387 | Diversion/Reconsignments | Cat 1,3-The system must provide the capability to: 1. Enter proper consignment data for diverted or misconsigned shipments. |

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| | | 2. Transfer shipment information for diverted, misconsigned, or transshipped cargo from the Inbound process to the Outbound process. 3. Create diversion notices that either change the mode/priority to expedite shipment and/or change the destination.-Cat 3 4. Send diversion notices electronically (with manual backup) to both original and new destination, as well as any intransit points. OUTPUTS: Diversion Notice (Formatted Text Message)-Cat 3 GBL Correction Notice (SF 1200) (M-43, C-7) |
| 388 | DODAAC by Name-State or City | Cat 1-The system must perform searches on addresses data on multiple criteria by name, state, or city |
| 452 | Detention / Demurrage | Cat 4-The system must be able to assist you in determining demurrage/ detention costs based on the time/date carrier equipment is received/released. previously called "OS&D, costs" USMC Exhibit: Southern Railway System Averaging Agreement Report (M-84), provides an example. |
| 471 | RDD – Required Delivery Date | Cat 1-The system should electronically identify shipments of like priority/required delivery date (RDD) and destination |
| 490 | SEAVAN / MILVAN Consolidation | Cat 1-The system must be able to consolidate compatible like items within a consolidated container, both containerized (SeaVan/MILVAN) and shipment container consolidations (small items packed within a container or box). |
| 500 | Split Shipments | Cat 6-The system must be able to identify and track split shipments. |
| 512 | Weight and Size of Planned Shipment | Cat 1-When planning to move unit equipment, the system must be able to calculate the weight and size of the planned shipment. User must be capable of editing weight and size of the planned shipment. AF: Information is in LOGMOD-B. |
| 572 | Convoy Map Graphics | Cat 2-Provide the ability to display and manipulate map graphics for routing and conveying purposes. |
| 575 | Convoy- Tracking Multiples | Provide a way to track more than one convoy at a time. Need a GUI view where you can select many convoys and have them on the screen at once. The user will have the ability to see any one convoy in detail. Will use bar graphs and/or pie type charts to show the progress of convoys. |
| 613 | Convoy Sequencing | Cat 1-The system must provide the user with the capability to: 1. Assign/sequence individual vehicles in a March Unit, 2. Sequence March Unit in a Convoy Serial. 3. Sequence Convoy serial in a convoy. |
| 626 | TCP – Traffic Circulation Plan | Cat 4-The system must provide the user with the ability to: 1. Print a Traffic Circulation Plan (TCP), 2. Transmit copies of the TCP to other units. OUTPUT: Traffic Circulation Plan (TCP) (A-104, J-6) |
| 648 | Consolidation Sort | Cat 1-The system must have the ability to sort and consolidate shipments by a variety of user-selected parameters (i.e., consignee, consignor, shipper, receiver, multiple stop-off/pickup points, etc.). |
| 671 | Convoy Critical Points | Cat 1-The system must allow the user to query individual critical points. The user must ensure the system is displaying a map with overlay before beginning this process. Army: Already in DAMMS-R. This requirement goes hand in hand with the Traffic Circulation plan within a Theater of Operations. It addresses critical points along a route such as bridges with restricted weight/height capacity. The user should be able to identify restriction by clicking on a particular critical point. |
| 676 | Convoy – Map Road Names | Cat 1-The system must allow the user to elect to display road names and the size of the text used to do so. |
| 680 | Exercise Name | Cat 1-The system must allow the user to manage and maintain exercise names and descriptions. AF: Plan ID used in LOGMOD-B and MANPER-B. |
| 692 | Convoy Map Types | Cat 1-The system must allow the user to specify the background map type. The types the user may select from are: 1. Blank; 2. TL 1:50K (Topographic Line Map 1:50,000); 3. JOG-G 1:250K (Joint Operations Graphic - Ground 1:250,000); 4. JOG-A 1:250K (Joint Operations Graphic - Aerial 1:250,000); 5. TPC 1:500K (Tactical Pilot Chart 1:500,000) and 6. ONC 1:1,000K (Operational Navigation Chart 1:1,000,000). |
| 697 | Convoy Map Control | Cat 1-The system must cause the Map Control to be hidden from view until the user recalls it. |

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| 698 | Convoy- Map Overlays | Cat 1-The system must allow the user to select which attributes will be overlaid on the displayed map with appropriate labels. Listed Overlays are: 1. Main Supply Route (MSR) 2. Control Routes 3. Route Restrictions 4. Traffic Control Points 5. Check Points 6. Halts 7. Critical Points 8. Cities 9. Boundaries |
| 699 | Convoy – Map Pan Buttons | Cat 1-The system must allow the user to pan the background map in the indicated direction. The amount that the background map will be panned is determined by the setting of the Pan Menu. |
| 700 | Convoy – Map Pan Menu | Cat 1-The system must allow the user to specify the amount the background map will be moved when one of the Pan Buttons is pressed. The amount is specified as a percentage of the window size. The values that may be selected are 15, 25, 50, 75 and 100 percent. |
| 738 | Shipment Modes | Cat 1-The system must be able to switch a shipment between surface and air modes (enabling the TMO to take advantage of opportune airlift for outbound cargo) |
| 778 | Consolidation Process | Cat 1-The system must have the capability to: 1. Modify consolidation/configuration units. 2. Assign lead TCN. |
| 783 | UM Plan- TPFDD by UTCs | Cat 1-The system must be able to provide the following in an unclassified manner based on the Component Information Security procedures: 1. Total Plan Time Phased Force and Deployment Data (TPFDD). 2. Portions of TPFDD by Force Module. 3. Portions of TPFDD by ULN groupings (range of ULNs). 4. Portions of TPFDD by UIC or UTC. 5. Portions of TPFDD by POE and POD. 6. Portions of TPFDD by Origin. |
| 860 | Lot Number Data | Cat 1-The system must provide the capabilities to enter Lot/NALC Number data and create the appropriate Trailer records. DEV COMMENT: This information is not required for HAZMAT. It is required to fill in the Trailer information for an ammunition manifest Transportation Control and Movement Document (TCMD) (Ref DoD 4500.32-R, page N-2). |
| 877 | Pallet Build Up Via HHT | Cat 1-The system must provide the user with the capability to accomplish the following actions from a PC or HHT. 1. View/print a listing of items to be loaded. 2. View existing and create new pallet Ids. 3. Assign/remove TCNs to specified pallet. 4. Print AF Form 2279, pallet placard, for specified pallet. OUTPUT: Pallet Load List AF Form 2279, Pallet Placard (A-109, C-12) |
| 899 | Record Types | Cat 1-The system will provide the capabilities to create the following shipment records: MILSTRIP, Non-MILSTRIP, Increment, Code B Baggage, Van, and Other. In addition, the system will provide the capability to enter piece data, shipment control processing indicators, reusable container data. System will furnish table maintenance capabilities for the Reusable Container Tracking and provide the capability to maintain address, National Stock Numbers, and Dangerous Goods Information. Data Consistency Checks will validate data and produce data error information, if errors were present |
| 914 | Cargo – Serial Numbered Items | Cat 1-The system must provide the capabilities to enter Serial numbered items to be able to track them (Trailer cards). |
| 923 | Shipment Status | Cat 1-The system must provide the ability to check status on a shipment (e.g., find out date, time, and carrier when/to which a shipment was released (audit trail, like Shipstat screen in CMOS) in either the Active, Historical or Exercise/Training instances. AF: Should be GTN; ATAC-AF (this is also a TC-AIMS II requirement). |
| 948 | Move Bid Number | The system automatically generates the Move Bid Number, Status code, and Creation Date found in the first section of the form. |
| 951 | Convoy Halts | The system must allow the user to query individual halt locations. (The user must ensure the system is displaying a map with overlay before beginning this process.) |
| 955 | Convoy – Map | The system must allow the user to move the background map to the center of the current |

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| | Recenter Button | Area of Operations (AOP). |
| 993 | UM Plan-Equipment List Summary Unit | The system must be capable of printing the Equipment List Summary Report for unit. OUTPUT: TC ACCIS Equipment List Rollup Summary Report (A-6, A-55) TC ACCIS Equipment List Summary Report by UIC for Wheeled/Tracked (A-7) TC ACCIS Equipment List by SQ FT and Measurement Tons (A-8) TC ACCIS Equipment List Summary Report by UIC (A-9) TC ACCIS Equipment List Summary Report (A-12) Unit Audit List (Cargo, Personnel, Vehicle) (M-7, 8, 9, T-40, 41, 42) |
| 994 | UM Plan-Equipment List-Changes Made by ITO | The system must be capable of adding, modifying, maintaining, deleting and printing records to and from the temporary equipment characteristics register table |
| 995 | UM Plan-Equipment List Summary- ITO | The system must be capable of viewing Equipment List Summaries for ITO Equipment List processing. |
| 1043 | Interface- MTS | The system must be capable of receiving, sending and manipulating data from the Movement Tracking System (MTS). DEVCOMMENT: This is the Europe unique satellite tracking system. |
| 1069 | Interface SPBS-R | *****NOTE THIS AN UNLINKED REQUIREMENT.***** Previous parents were requirements 34,1706,1838 Separate interface not required as this function can be accomplished through the interface with ULLS-S4. Add to the data elements required for ULLS-S4 interface. Previous parents were 34,1706,11838. The system must be capable of importing SPBS-R (Army equipment files - similar to AF LOGMOD-B, MC supply and maintenance ATLASS) data to TC-AIMS II files. INPUT: TC ACCIS Standard Property Book System (SPBS) Data Input (A-23) |
| 1070 | Special Handling Equipment | Add, modify and delete Special Handling Equipment (SHE) list, including ECR Table modifications, using copy option for all and including those without LIN/LIN index in an Equipment List. |
| 1073 | Vehicle Wheel/Tracked Report | The system must be capable of printing the Summary by Echelon for Wheel/Track Report for unit and ITO equipment list processing. OUTPUT: TCACCIS Equipment List Summary by Echelon for Wheel/Track Report (A-115) |
| 1077 | Convoy Equipment | The system must provide the user with the ability to: 1. Select equipment for assignment to a convoy from either the DEL (Deployment Equipment List) or ECDF (Equipment Characteristic Data File). 2. Add vehicles that are not on in the DEL or ECDF. 3. Match a trailer to a prime mover. |
| 1091 | SAAS | Need to interface with SAAS (Standard Army Ammunition System). Provide the ability to import and manipulate Class V(W) data from appropriate Service ammunition system. The import will be processed through a series of validation checks insuring information is consistent with existing reference data. Inconsistent or questionable records will be rejected for later review. Purpose of interface is to : 1. Populate the deployment database with ammunition data for load planning and manifesting, and estimating movement requirements. 2. Track containerized ammunition for unit move and non-unit resupply (freight shipments). 3. Generate GBL continuation sheets and GBLs for surface movements of ammunition containers moving to an Ammunition Supply Point from a port of debarkation. The interface must: 1. Allow option to update system reference tables containing DODIC and NSN data. 2. Allow option to update location of containers/ammunition in appropriate location tables. 3. Allow option to re-process rejected records. INPUT: Class V (W) (Ground Ammunition) Data |
| 1102 | Interface – Weigh In Motion | The shed is a device for automatically collecting dimensional and weight data on items of cargo and vehicles. The system must be able to: 1. Accept data, and make real time changes to the appropriate designated database tables with the data from the profilometer. |

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| | | 2. In real time, be able to change the designated AIT item attached to the vehicle that is in the "shed". 3. Populate the RF Tag or print a new MSL with the accurate dimension and weight data. OUTPUT: DD Form 1387 (Military Shipping Label) (A-1, M-36, C-2, T-20, 24) |
| 1111 | Loaded Cargo – Automatically Calculated | When the user inputs cargo/vehicle dimensions, the cube (cubic foot) should automatically be filled in on TCMD (Transportation Control Movement Document) for secondary loads unless secondary loads have their own separate TCMDs generated for them. |
| 1205 | Interface AALPS | (Cat-1) 1. The system must provide a two way interface in order update manifest tables to facilitate GTN interface. (Cat-1) 2. Capability to process interactively from the pre-load plan. (Cat-1) 3. System must be capable of populating the Automated Air Load Planning System (AALPS) database with cargo dimensional data from the deployment database. Capability to override AALPS cargo data with current TC-AIMS II UDL data. (Cat-1) 4. Purpose of the interface is to eliminate manual data entry of cargo dimensional data into AALPS. (Cat-1) OUTPUT: AALPS Load Plan (A-113) (Added from Requirement 818: (Cat-4) Center of Balance Calculation) COMBINE W/1205--The system should have the capability to automatically populate all required data elements necessary for the Automated Air Load Planning System (AALPS), so that AALPS can compute the center of balance of cargo, supplies and equipment. All non-variable data elements should be populated from source reference data (JDL)." Intent is to coordinate the JDL w/AALPS calculation (Added from requirement 1058: (Cat-4) AALPS Update to DEL *****NOTE: Army Recommended Change to 4 from a 5.*****When changes occur to the equipment list/characteristics, those changes should update the DEL (Deployment Equipment List). System must ask the user if DEL update is desired. |
| 1252 | Interface ICODES | The system must be capable of interfacing the Integrated Computerized Deployment System (ICODES) and CAEMS for providing the user with the ability to: 1. Download ICODES and CAEMS stow location data to the TC-AIMS II deployment database. 2. Validate the loaded equipment data against the submitted equipment to be loaded data as it is being downloaded, flagging errors/mismatches (i.e., Item ID, UIC, NSN, serial number/package ID, stow locations) and edit checks on adds, modifications, and/or deletes. 3. Allow user to manage exceptions between planned and "as stowed" items. 4. Allow for attribute changes made to data elements while in ICODES and CAEMS to be refreshed and updated into the TCAIMSII deployment database. |
| 1313 | Consolidate (Outbound) | Provide capability to consolidate shipment units into a single shipment with a lead TCN, without losing the visibility of individual document numbers. |
| 1330 | Select Mode (Outbound) | Provide the capability to select modes for shipments. |
| 1333 | Clear Shipment (Outbound) | This process involves requesting and receiving authorization for onward movement of cargo. |
| 1357 | Outbound Passenger/Cargo | These processes provide the capability to receive movement requirements for outbound cargo and passengers , plan movement, prepare cargo and passengers for movement, document movement, and monitor movement actions. The inputs are: The MRO (DD Form 1348-1A), DD Form 250, or DD Form 1149; the technical data accompanying the items (e.g., special packaging requirements, hazardous material requirements); and the items to be shipped. The outputs are: Properly packaged and marked cargo tendered to the carrier, completed documentation, and electronic shipping data to all applicable DoD activities. The controls constraining the process are: Funding (DBOF-T and O&M); the delivered commercial industry tariffs, tenders and contracts; DoD, Service, and Agency policies, procedures and laws. The mechanisms facilitating the process are: The availability/use of facilities/equipment; the personnel; the systems; and the mode operators. |
| 1364 | Receive Data (Inbound) | Provide the capability to receive due-in shipment data via electronic means, diskette, or manually. Provide the capability to display and maintain data received. |

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| 1365 | Suspense/ Due-In File / Trace Inbound | This task comprises requirements to present inbound information, highlighting past-due items, and management of that information (e.g., suspense notification). |
| 1371 | Delivery/Pickup (Inbound) | Provide the capability to schedule and monitor the delivery of cargo to the ultimate consignee and record receipt of cargo by the customer. The inputs are: Updated shipment records and inchecked cargo. The outputs are: Delivered cargo and updated shipment records. |
| 1377 | Receive and Verify Data (Outbound) | Provide the capability to receive movement requirements via electronic means, diskette, or manually. Provide the capability for TC-AIMS II customers to provide requirements using a diskette input for non-MILSTAMP shipments. |
| 1380 | Update Status (Outbound) | Provide the capability to report to all appropriate agencies the status of cargo moved. This will be via electronic file, diskette, or manual transfer. |
| 1387 | Assign Accounting (Outbound) | Provide the capability to assign accounting data to shipments and maintain data to track TAC, accounting classification, and/or advice numbers for movement documents. |
| 1410 | Input Shipment Request | The system should have the capability to input shipment request information (i.e. DD 1348 or 1149). INPUT: DD Form 1348-1 (Single Line Item Release/Receipt) DD Form 1149 (Requisition and Invoice/Shipping Document) |
| 1428 | Verify Equipment | The system must provide the user with the ability to record arrival time, quantity, and type of equipment ordered. |
| 1492 | Populate Outbound Shipment Record | System must create a new shipping requirement upon receipt of electronic data from one of the following systems: ATLASS SASSY GCSS-A SBSS CAS-B SCS DSS NOTE: Per the 15-16 Dec 97 JRO Requirements Scrub: "link to 1117" |
| 1494 | Load & Equipment ID | Ability for the unit to identify secondary loads and nested equipment on unit vehicles. |
| 1496 | Consolidate Shipment Units | Ability to consolidate shipment units into a single container or shipping unit with a lead TCN without losing the visibility of individual document numbers. |
| 1498 | Prioritize Request | System must provide the capability to prioritize shipments based on ULN, RDD, consignee, transportation priority, or other, user defined criteria. |
| 1533 | Interface with ULLS | The system must be able to accept MILSTRIP formatted tracer requests from the Service retail supply system. Tracer will be uploaded with the latest status of the transaction within the transportation system and be passed back to the Service retail supply system in a MILSTRIP format. This will search the local server database only. |
| 1588 | Notify Consignee of Availability | Need to be able to notify ultimate consignee of availability of cargo and maintain a record of all notifications. Need to track correspondence with consignee. |
| 1602 | Payment Process (Manage Resources) | This process addresses the activities related to paying for transportation services including tracking, managing, archiving, and verifying payment. |
| 1607 | Convoy Clearance Numbers | Ability to generate site specific convoy clearance numbers for issuing approval. |
| 1612 | Uploading from AMS Disk | Need ability to upload from disk/Common Access Card (AMS data) for incheck via automatic acceptance or individual scanning of documents. Air Force comment: "Ability to read/write AMS card must be optional." |
| 1713 | NSIPS - Interface | Provide the user with the capability to populate a TC-AIMS II unit personnel table with personnel data from a Navy personnel file. The system must be designed to accept a simple ASCII flat file from a MicroSoft Excel format. INPUT: Data elements from Navy Service personnel records files. |
| 1725 | Convoy- Status Screen | System should provide an on-screen matrix which displays a "one page" picture of convoy movement status. Intuitive objects/symbols representing the location of convoys at nodes with status or "thermometer" bars should be used to depict the closure of convoys to a destination. User should be able to "drill down" to obtain detailed information not available on |

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| | | <p>the summary screen. Information depicted should include:</p> <ul style="list-style-type: none"> · Convoy Name/ Serial or Movement Number · Unit/ Formation Description · ULN · Origin · Actual Departure Time(s) at checkpoints · Estimated Time of Arrival(s) (at checkpoint) · Actual Arrival Time(s) at checkpoints · Number of vehicles in convoy · Number of drivers/passengers in convoy · Completion Time · March Rate <p>If this requirement cannot be satisfied, then the Road Movement Table from FM 55-10, (figure E-8) should be automated as the requirement.</p> |
| 1730 | Convoy- Planning and Tracking | <p>The system must provide the user with the ability to:</p> <ol style="list-style-type: none"> 1. Export convoy routes, convoy movement plans, and convoy movement reports to other system users. 2. Import and consolidate/merge convoy routes, movement plans, and movement reports for transportation planning, deconfliction, coordination and control purposes. 3. Selectively import user specified movement data only, not the entire plan. |
| 1756 | Maintain Asset Status (Fleet Mgmt) | This process involves updating, tracking, and maintaining equipment availability by vehicle registration or control number. |
| 1757 | Schedule Equipment (Fleet Mgmt) | This process addresses scheduling equipment to fulfill commitments. |
| 1758 | Schedule Drivers (Fleet Mgmt) | This process involves assigning qualified and available drivers and/or equipment operators to fulfill commitments. |
| 1759 | Review Commitments /Task (Fleet Mgmt) | This process involves receiving tasks, prioritizing and reviewing commitments, deconflicting commitments, and assigning dispatches. |
| 1776 | Calculate Availability | The system requires the ability to allow higher HQ to "merge" transportation support asset availability reports received from multiple units. |
| 1777 | Asset Availability Reports | The system requires the ability to create daily transportation support asset availability reports and transmit them to higher headquarters (UMCC/LMCC/ FMCC/ or G-4). |
| 1781 | Task Supporting Organization | The system must provide the ability for UMCC/ LMCC/ FMCC/ or G-4 to task supporting organizations to fulfill the request. UMCC/ LMCC/ FMCC/ or G-4 must be able to "split" a request into multiple tasks in situations when separate organizations are providing support. (For example, Landing Support Bn provides fork-lifts, Motor Transport Battalion provides Trucks, Base Motors provides busses for passengers). Allow for a task to be sent down at least three layers to the dispatching organization. |
| 1783 | Intermediate Stops | The system requires the ability to allow the user to set intermediate stops between origin and destination, with free-text remarks for stop-off instructions to the drivers. |
| 1784 | Status Reports | Provide for automatic status updates based on information requests submitted from the UMCC/ LMCC/ FMCC/ or G-4. |
| 1825 | Receive Data (Outbound) | Provide the capability to receive movement requirements via electronic means, diskette, or manually. Provide the capability for TC-AIMS II customers to provide requirements using a diskette input for non-MILSTAMP shipments. |
| 1826 | Arrival Reporting | <p>The system requires the following Arrival Reporting capabilities:</p> <ol style="list-style-type: none"> 1. Provide the ability to automatically update the GEOLOC or Local Location in TC-AIMS II when the movement status of a ULN changes; i.e., arrival at the POE. 2. Provide capability to update movement records in TC-AIMS II at the LMCC when movement to the POE is complete, and automatically update FMCC movement 3. Status reports. 4. Provide capability for the LMCC/FMCC to obtain arrival/departure, and manifested ULN data for air and sealift operations. 5. Develop capability to UMCCs from major subordinate commands (Div/Wing/ FSSG level) to obtain movement and manifest information by name/ULN during deployment and redeployment phases. Unit Commanders, crisis action centers require the capability to track and report the movement status of their forces and to update manpower systems. 6. System must interface GTN and/or GCCS to reconcile closure of ULNs. |
| 1841 | Interface FACTS | The system must be able to interface with the Navy Material Transportation Office Operations |

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| JRO # | Title | Description |
|-------|--|--|
| | | and Management Information System (FACTS) to accomplish the following: 1. Send cargo offerings for clearance. 2. Receive air clearance authority (ACA). 3. Receive and track transportation charges incurred for all route segments for a shipment. |
| 1923 | Container Vessel and Port Arrival Information | Provide the capability to report port arrival and discharge information and compute estimated time of arrival to the consignee(s) of the container(s). |
| 1924 | Theater Intransit Container Status Information | Provide the capability to report arrival, discharge, release, and pickup status information on the container(s) as the contents are delivered to the consignee(s). |
| 2080 | Process WPS Advanced Ocean Cargo Manifests | Process WPS Advanced Ocean Cargo Manifests Provide the capability to receive WPS advance ocean cargo information and capture the detailed shipment unit data associated with the cargo as well as the container information. |
| 2081 | Mass Hold Cargo | Provide the capability to add, modify, and delete requests and responses for cargo to be held based on general instructions rather than specific TCNs i.e. commodity, destination, or other criteria (e.g. supply class, NSN, etc.). |
| 2097 | Changes to Original DEL/Plan | The system must be able to flag equipment/cargo changes in the DEL and/or plan by highlight, bold, etc. As the mission planning continues to include actual loading, changes occur. For example, the plan requires one type of vehicle, but the user substitutes another type. This change should be flagged so the user doesn't have to search the entire equipment list to identify these changes. |
| 2101 | Road Movement Bids | The system must create, transmit, and print road movement bids to obtain highway clearance from host nation movement control authorities. OUTPUT: AE Form 1060 |
| 2124 | Interface-MOBCON | The system must be able to interface with MOBCON to request convoy approvals and receive convoy clearances. |
| 2170 | All Data Collection Device Program | <p>Narrative: TC-AIMS II will import data from AIT devices. The user will be given the option to automatically update records in the database, or view and accept/reject the imported data before posting to records in the database.</p> <p>a. Brief operational context. Based on a Oct 98 demonstration of the TC-AIMS II AIT capability, it was noted that data received by AIT devices was downloaded to a file. The user then had to open TC-AIMS II, locate the file, then use the data in the file to update the appropriate data fields. As legacy systems, such as CMOS, already provide the capability to automatically update the correct fields through AIT devices, we need the same capability in TC-AIMS II.</p> <p>b. Inputs. Not applicable.</p> <p>c. Process. Not applicable.</p> <p>d. Outputs. Not applicable.</p> <p>e. Enablers and Constraints. Not applicable.</p> <p>f. Operational /Procedural Reference. Not applicable.</p> <p>g. Performance Requirements. A user should be able to automatically update the correct field in the database at the time of entry via an AIT device.</p> <p>h. Special Provisions. None.</p> <p>i. Quality Attributes. Not applicable.</p> <p>j. CLDM/TLDM Context. Not applicable.</p> <p>Cost As an Independent Variable (CAIV) Factors: Unknown.</p> <p>Keywords: AIT.</p> <p>Originator: Capt Pappas, 703-697-4742, DSN 227-4742.</p> |

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| JRO # | Title | Description |
|-------|----------------------------------|--|
| | | Submitted by: Capt Pappas, 703-697-4742, DSN 227-4742 Date submitted: 23 Feb 99. |
| 2173 | Request for Convoy/Outsized | <p>Narrative: The current method of obtaining clearances for convoys and outsized overweight equipment is the DD form 1265 (convoys clearance) and the DD form 1266 (outsized/over weight equipment). A new form the Request for Convoy/Outsized and Overweight Clearance (DD FORM 2777) combines the data of the DD form 1265 and DD form 1266 and has been introduced to the services for optional use.</p> <p>? Brief operational context. This document will be prepared by units required to move groups of vehicles or oversized/overweight vehicles over highways. The new form allows the user to speed up the process by completing one document.</p> <p>? Inputs. When this document is being used in conjunction with a unit move, TC-AIMS II will be required to pull previously entered data (such as: plan header data and automatically populate the origin, destination, name of unit and UIC etc). The user will be required to enter the remaining data in accordance with unit SOP or the appropriate regulation.</p> <p>? Process. Upon completion the unit will transmit data to the local Installation Transportation Office for further transmission to the STARC.</p> <p>? Outputs. After the process is complete the unit should receive an approved DD Form D2777 from the approval authority.</p> <p>? Enablers and Constraints. Not applicable</p> <p>? Operational/Procedural Reference. Not applicable</p> <p>? Performance Requirements. TC-AIMS II is required to auto populate data from data existing on the system. Miles per hour, rate of march, stops, halts and distance between critical points will be entered by the user. TC-AIMS II must correctly calculate various convoy information such as pass times, times from start point to destination (including stops and halts). The system is required to identify loaded vehicles and based on the cargo load data it must calculate loaded weight by axle.</p> <p>? Special Provisions. Not applicable</p> <p>? Quality Attributes. Not applicable</p> <p>? CLDM/TLDM Context. Not applicable</p> <p>Originator: Ike Reid 757-878-5906</p> <p>Submitted by: John Metzgar</p> <p>Date submitted: September 6, 00</p> |
| 2096 | DUIC Override | <p>The system must provide the ability to accept MACOM-designated derivative UICs (DUICs) that have not completed the Army Status of Resources and Training System/GCCS Status of Resources and Training System (ASORTS/GSORTS) registration process.</p> <p>The system must be able to:</p> <ol style="list-style-type: none"> 1. Allow manual entry of the DUIC without rejection. 2. Automatically post a pop-up window or warning flag when a DUIC is entered, providing the user with an option to either continue or cancel the transaction. 3. Allow manual entry of the unit name or abbreviated name (ANAME), maintaining its association with the DUIC. |
| 286 | Daily Availability Report/Screen | <p>Cat 3-The system must be able to produce an Availability Report which is a roll-up of daily availability of assets at organic units. The following requirements apply:</p> <ol style="list-style-type: none"> 1. Must be able to "roll up" daily availability reports from subordinate units in a LAN or Standalone mode. Should not require unit to pass an entire plan or database to higher HQ, but merely a table with daily availability. 2. Must allow for user defined asset status, such as deployed, temporary loan, administrative storage, Not Mission Capable (NMC) - Maintenance/Supply, committed or other such "understandable" statuses. (MUMMS Materiel Condition Codes not acceptable). 3. Availability should be determined by; a. Whether the item is dispatched, b. Whether it has been "reserved", c. not available due to maintenance/storage/deployed status. |

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| | | <p>4. System must allow LMCC to "merge" daily reports from multiple units into one "spreadsheet" for asset visibility by unit.</p> <p>5. System should also account for availability of unit equipment which may be located at multiple sites.</p> <p>6. Display availability of different model numbers (NSNs) of the same Item Type. For example, Item ID (TAMCN) of "D1059" includes model numbers M813, M923 and M925 variant 6x6 Five Ton Cargo Trucks.</p> <p>7. System must be able to provide interactive forecasting from the current day out 20 days, down to the hour, of asset availability. Forecasted availability must be available when creating both tasks and dispatches. System must display assets as available during periods when they are not committed to missions/requests or tasks. (Note: system should not display an unwieldy "matrix" as the solution, but rather a one page "rollup" as shown in the exhibit which can be "drilled down" as required to see detailed level availability.</p> <p>8. Display total unit and section on hand totals, non-availability in each status, and total net availability.</p> <p>9. Display report to screen with print option.</p> <p>10. Allow edits on report which cascade to related tables.</p> <p>OUTPUT: Daily Availability Report (MC) (M-15)</p> <p>Whitt's comment: Re-engineered ATUDL</p> |
| 576 | Convoy- PAX | <p>Cat 1-The system must provide the user with the ability to:</p> <ol style="list-style-type: none"> 1. Assign personnel to a specific vehicle in a convoy. 2. Assign convoy duties (Driver, Assistant Driver, Convoy Commander, etc.). 3. Integrate this capability with dispatching capability. |
| 1780 | Asset to Task Linkage | <p>The system must provide the user with the capability to:</p> <ol style="list-style-type: none"> 1. Link a transportation asset to a task. 2. Display all tasks with associated linked assets. 3. Display tasks that have no linked assets against them and/or assets that are not linked to a task. |
| 1785 | Archive Requests | The system must provide the user with the ability to archive completed transportation requests, tasks or dispatches. |
| 1935 | Maintain Movement Request | Provide the capability to add, modify, delete, copy, and consolidate movement request records. |
| 1936 | Maintain Movement Events | Provide the capability to add, modify, and delete movement event information which associates specific transportation identification numbers with the movement request. |
| 1937 | Maintain Movement Request Remarks | Provide the capability to add, modify, and delete movement request remarks information. |
| 1938 | Maintain Movement Request Assets Available | Provide the capability to add, modify, and delete mode assets associated with a movement request record. |
| 1939 | Maintain Movement Request Intermodal Assets | Provide the capability to add, modify, and delete intermodal assets associated with a movement request record. |
| 1940 | Maintain Movement Request Cargo Information | Provide the capability to add, modify, and delete cargo data associated with a movement request record. |
| 1942 | Maintain Shipment Unit Information | <p>The System must provide the user with the capability to add, modify, and delete shipment unit:</p> <ol style="list-style-type: none"> 1. Information. 2. Air/water data. 3. Remarks data. 4. Unit dimensions data. 5. Ammunition lot number data. 6. Hazardous cargo (round count) data. |
| 1950 | Assign Shipment Units to Movement Request Records | Provide the capability to assign shipment unit records to movement request records. |
| 1952 | Manipulate Movement Release Records | <p>The system must provide the user the capability to manipulate movement release records as follows:</p> <ol style="list-style-type: none"> 1. Edit (add, modify, cancel) and copy single and multi-stop records. 2. Edit and copy single and multi-stop standing transportation records. 3. Add, modify, and delete remarks. 4. Assign a different mode to existing records that have been rejected by the original mode |

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| JRO # | Title | Description |
|-------|---|---|
| | | operator. 5. Add, modify, and delete event information which associates specific transportation identification numbers with the movement release. 6. Add, modify, and delete mode and intermodal assets associated with the records. |
| 1960 | Assign Movement Req to Movement Release Records | Provide the capability to assign movement request records to movement release or standing movement release records. |
| 1963 | Adjust Mode Asset Forecasts | Provide the capability to adjust (increment/ decrement) the asset forecast as assets are committed/ uncommitted against movement release records. |
| 1965 | Post Transportation Identification Number (TIN) | Provide the capability to add, modify, or delete mode asset records which are used to report the identification and location of the assets by TIN and DoDAAC to the owning mode unit. |
| 1969 | Positive Inbound Clearance Report | Provide the capability to produce a report of all inbound and outbound movement release records contained in the database which require a positive inbound clearance date. |
| 1970 | Positive Inbound Clearance Update | Provide the capability to update the positive inbound clearance date of movement release records requiring a positive inbound clearance. |
| 1973 | Correct Invalid DoDAACs | Provide the capability to correct invalid DoDAACs which are not present in the transportation addressing subsystem, were entered in error, or are tied to cargo that has been misrouted. |
| 1974 | Terminating DoDAACs | Provide the capability to add and delete DoDAACs which are supported by the host aerial port (i.e., aerial port supply accounts, Code J baggage, shipments under the control of the host TMO, and non-army administered local pick-up accounts). |
| 1981 | Stops Past RDD | Provide the capability to close and display movement release records which exceed the required delivery date (RDD) by a specified number of days. |
| 1984 | Maintain MCE Serial Sequence Numbers | Provide the capability to add and modify serial sequence numbers in a parameter table which are assigned to movement release and movement request number to keep them unique. |
| 1986 | Trace Cargo | Provide the capability to add, modify, and delete trace requests and responses to trace requests. |
| 1988 | Hold Cargo | Provide the capability to add, modify, and delete hold requests and responses to hold requests (e.g. approval, denial, disposition instructions, etc.). |
| 1997 | Display Tables | Provide the capability to display all code tables in the system and validate all applicable data entries against the applicable code tables. |
| 1998 | Display Errors | Provide the capability to display error messages when invalid data is entered or the system malfunctions in some way. The message should include corrective actions the user must take to correct the entry or recover from the malfunction. |
| 1999 | All Reports | Provide the capability to display all reports/worksheets on the computer screen, print hard copies of the reports/worksheets, or save the reports/worksheets to external media e.g. diskette. |
| 2000 | Maintain Activity Address | Provide the capability to add, modify, delete, copy, rename and batch update activity addresses and associated transportation information e.g. supporting break bulk points, water and aerial ports, MCE, etc. |
| 2002 | Maintain Activity Capabilities | Provide the capability to add, modify, and delete air, highway, rail, and water receiving, and/or shipping capabilities of each activity address record in the database. |
| 2004 | Maintain Activity Points of Contact (POC) | Provide the capability to add, modify, and delete activity points of contact for each activity address record in the database. (Cat 1) Added text from 2005: "Maintain Activity Remarks" Provide the capability to add, modify, and delete activity free text remarks for each activity address record in the database. (Cat 5) |
| 2006 | Maintain Activity Route Distribution | Provide the capability to add, modify, and delete activity route distribution information (e.g. sequence Id, cluster code, route code, etc..) for each activity address record in the database. |

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| JRO # | Title | Description |
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| 2007 | Maintain Activity Supply Support Activity (SSA) | Provide the capability to add, modify, and delete all supply support activity DoDAAC of each activity address record in the database. |
| 2009 | Maintain Transportation Address Unique Codes | Provide the capability to add, modify, and delete transportation address unique codes consisting of the following: APO, Breakbulk Points, Distribution Drop Point, Forecast Identifiers, Major Army Command, Materiel Management Center, Movement Control Element, Mode Unit, Port, and Supply Support Activity. |
| 2010 | Maintain Transportation Address Codes | Provide the capability to add, modify, and delete transportation address codes consisting of the following: Capability Type, Country, Direct Supply Support/Air Line of Communication, Movement Control Element Type, and Trailer Transfer Point. |
| 2017 | Create/Assign Mode Management Task | Provide the capability for senior mode units to create tasks for each mode event (e.g. spot, pull, etc.) and assign these tasks to subordinate mode units. |
| 2019 | Plan Missions | Provide the capability for mode units to add, modify, and delete mission plans. Included in this capability is the capability to add events, remove events, sequence tasks, and add tasks. |
| 2021 | Maintain Mode Operations Events | Provide the capability add modify, and delete mode operations events. Included in this capability is the ability to record depart date and time, arrival date and time, locations, added tasks, driver, prime mover, and any mission mistakes. |
| 2036 | Maintain Trailer | Provide the capability to add, modify, and delete trailer information e.g. identification number, type, description, last service date, location, etc. |
| 2038 | Maintain Mode Codes | Provide the capability to add, modify, and delete mode codes consisting of the following: Asset Status, Driver Qualification, Driver Status, Mistake, Mode Event, Mode Record Status, Non-Confirmation, Responsibility, Type Asset, Unit Type, and Violation. |
| 2040 | Maintain Mode Serial Sequence Numbers | Provide the capability to add and modify serial sequence numbers in a parameter table which are assigned to mode missions, tasks, and operation orders to keep them unique. |
| 2042 | Maintain Mode Transaction Distribution Parameters | Provide the capability to modify the system parameters for distribution of mode transactions. |
| 2060 | Maintain Movements Management Codes | Provide the capability to add, modify, and delete movements management codes consisting of the following: Air Commodity, Air Dimension, Asset Status, Cargo Disposition, Cargo Type, Commercial Carrier Name, Commodity Abbreviation Container Detention Cost Parameters, Container Owner, Container Size, Container Type, Cost Favorable, Currency Exchange Rate Records, Day Abbreviation, Denial, Discrepancy, Export Clearance Required, Highway Clearance Intermodal Asset, Military Carrier, Mode Method, Month, Movement Number Type, Movement Type, Movement Release Record Status, Non-confirmation, Ocean Carrier Name, Ordinal Number, Passenger Type, Personal Property Special Handling Codes-Air, Special Handling Codes-Water, Special Interest, Supply Category Materiel, Transportation Priority, Type Bill of Lading, Type Pack, Type Shipment, and Unit Type. |
| 2064 | Correct Manifest Data | Provide the capability to correct or delete any advance transactions that are found to contain either an invalid DoDAAC or Ocean Carrier for the consignee. |
| 2069 | Manifest Parameters- Supply Class | Provide the capability to add, modify, and delete supply class parameters which link commodity codes to the appropriate supply category code. |
| 2103 | DD Form 1970- Motor Vehicle Utilization Record | The system must be able to produce a DD Form 1970, Motor Vehicle Utilization Record for daily equipment dispatch. OUTPUT: DD Form 1970, Motor Vehicle Utilization Record (N-2) |
| 429 | Bill of Lading - Korean | Cill 1-The system must be able to create, maintain, print and re-print the Korean Bill Of Lading for commercial movements in the Republic of Korea. OUTPUT: JK Form 332-3-1EK (Korean Bill Of Lading) (A-41, C-15) |
| 1573 | Convoy Commander's Check List | The system must have the ability to produce a convoy commander and/or troop commander check list. OUTPUT: Convoy/Troop Commander Check List (A-111) |
| 2071 | Security Classification | Provide the capability to protect overall data integrity and data availability with a system sensitivity designation of unclassified-sensitive two (US2). |
| 2072 | Security Access | Provide the capability to restrict use of the software to authorized individuals only. |
| 2076 | Transmit Reports | Provide the capability to transmit and receive ad hoc reports. |

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| JRO # | Title | Description |
|-------|--------------------------|---|
| 2077 | On-line Training | Provide an on-line training capability. |
| 2078 | On-line Diagnostocs | Provide an on-line trouble shooting capability for the user. |
| 2087 | Truck Loadplan Worksheet | Provide the capability to add, modify, delete, and print truck load plan worksheets which identifies the specific cargo to be loaded on specific conveyances. |

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1427 Appendix F – Block Three (IDP 2, Plan Sourcing, and IDP 3, Movements Control)
1428 Requirements Review for GOTS and COTS Applications

1429
1430 Data in following tables summarize analysis performed for the individual requirements
1431 initially designated for Block Three. No valid GOTS or COTS solutions were identified
1432 to satisfy the requirements examined. Although this requirement set does not fully match
1433 the currently planned set for Block Three as listed in Appendix E, it does support the
1434 conclusion that new development rather than acquisition of GOTS or COTS products is
1435 required to satisfy the operational needs encompassed by the Block Three requirement
1436 set. Additional supporting data in the form of the complete analysis is available and can
1437 be provided for review.

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RECOMMENDATIONS SUMMARY

IDP 2 – PLAN SOURCING

| JRO | REQUIREMENT | RECOMMENDED GOTS FOR FURTHER REVIEW | RECOMMENDED COTS FOR FURTHER REVIEW |
|------------|--|---|--|
| 132 | Movement Schedules | None | None |
| 294 | Interface-Unit Level Logistics System (ULLS-S4) | None | None |
| 310 | Interface-Ship Load Planning Update | WPS, CAEMS, ICODES | None |
| 783 | UM Plan-TPFDD by UTCs | JFRG Interface | None |
| 992 | ECDF-List Header Summary | *TCACCIS | None |
| 993 | ECDF-List Summary Unit | *TCACCIS | None |
| 994 | UM Plan-Equipment List-Changes Made by ITO | *TCACCIS | None |
| 995 | UM Plan-Equipment List Summary-ITO | *TCACCIS | None |
| 1091 | Interface-Standard Army Ammunition System (SAAS) | None | None |
| 1612 | Uploading from AMS Disk | None | None |
| 1713 | Interface-NSIPS | None | None |
| 2096 | DUIC Override | Requirement superceded by v3.01 development capabilities. | None |
| 2097 | Changes to Original DEL/Plan | TCACCIS | None |
| 2109 | HAZMAT Worksheet | TCACCIS | None |
| 2124 | Interface-MOBCON | *DAMMS | None |
| 2170 | All Data Collection Device Program | TCACCIS, TIPS Requirement superceded by v3.01 development initiatives. | None |
| 2173 | Request for Convoy/Outsized Overweight | TCACCIS | None |

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RECOMMENDATIONS SUMMARY (cont'd)

IDP 3 – MOVEMENTS CONTROL

| JRO | REQUIREMENT | RECOMMENDED GOTS FOR FURTHER REVIEW | * RECOMMENDED COTS FOR FURTHER REVIEW |
|------------|--|---|--|
| 105 | Report Arrival at TAA | None | None |
| 246 | Task Reports (Run Sheets) | ULSS-G, MDSS II, DAMMS | None |
| 249 | Convoy Checkpoint Tracking | TIPS, MTS | TIPS. |
| 250 | Convoy Checkpoint Alarms | MTS | None |
| 257 | Convoy-ETA | DAMMS | None |
| 275 | Transportation Request (CULT) | DAMMS | None |
| 575 | Convoy Tracking Multiples | MOBCON | None |
| 948 | Move Bid Number | DAMMS, USAREUR process, FM 55-10 (process guidance) | None |
| 1043 | Interface-MTS | None | None |
| 1573 | Convoy Commander's Checklist | None | None |
| 1607 | Convoy Clearance Numbers | DAMMS | None |
| 1725 | Convoy-Screen Status | DAMMS | None |
| 1730 | Convoy-Planning and Tracking | None | None |
| 1776 | Calculate Availability | DAMMS-R Block 3 | None |
| 1777 | Asset Availability Reports | DAMMS-R Block 3 | None |
| 1781 | Task Supporting Organization | DAMMS-R Block 3 | None |
| 1784 | Status Reports | DAMMS | None |
| 1826 | Arrival Reporting | DAMMS | None |
| 1921 | Process WPS Advanced Ocean Cargo Manifests | DAMMS-R Block 3 | None |
| 1923 | Container Vessel and Port Arrival Information | DAMMS-R Block 3 | None |
| 1924 | Theater Intransit Container Status Information | DAMMS-R Block 3 | None |
| 2080 | Process WPS Advanced Ocean Cargo Manifests | DAMMS-R Block 3 | None |
| 2081 | Mass Hold Cargo | DAMMS-R Block 3 | None |
| 2082 | Mass Hold Cargo Report | DAMMS-R Block 3 | None |
| 2083 | Mass Divert Cargo | DAMMS-R Block 3 | None |
| 2084 | Mass Divert Cargo Report | DAMMS-R Block 3 | None |

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| JRO | REQUIREMENT | RECOMMENDED GOTS FOR FURTHER REVIEW | * RECOMMENDED COTS FOR FURTHER REVIEW |
|------|--------------------------------|---|--|
| 2085 | Mass Expedite Cargo | DAMMS-R Block 3 | None |
| 2086 | Mass Expedite Cargo Report | DAMMS-R Block 3 | None |
| 2101 | Road Movement Bids | DAMMS | None |
| 2185 | Convoy Scheduler | DAMMS-R Block 2 | None |
| 2186 | Tasking Support of the Request | DAMMS-R Block 3 | None |

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GENERAL COMMENTS

COTS ISSUES

Due to the unique nature of functional requirements of the above JROs, specific COTS solutions aimed at one particular JRO have not been identified for cost effective integration into TC-AIMS II. However, the developer should consider integrating COTS applications which enhance interfacing functions and database architectures. Examples of this include Infomaker to handle queries and the two currently used versions of Sybase for database issues. Middleware, such as TIPS (identified as a potential candidate for JRO 249 and 2170) should also be considered for integration.

The type of software used requires the consideration of the overall application environment. As an example, TC-AIMS II will achieve a fully web-enabled environment as a result of Blocks 2 and 3 and any COTS applications must “fit” the web architecture.

LEGACY ISSUES

The Department of Defense possesses numerous legacy systems to fulfill a myriad of requirements. Existing legacy systems such as IRIS (Integrated Risk Information System, an EPA Risk Management application) and GTN (Global Transportation Network) should be investigated for their data gathering schemes.

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1486 Point of Contact:
1487
1488 ADUSD (TP)
1489 (703) 601-4461 EXT.105
1490
1491 USJFCOM, JDPO
1492 (757) 836-7589
1493 DSN 836-7589
1494
1495 JOINT STAFF, J-4
1496 (703) 695-2308
1497 DSN 225-2308
1498
1499 HQDA, DALO-FPM
1500 (703) 692-5920
1501 DSN 222-5920
1502
1503 PEO-TIS
1504 (703) 572-0756
1505
1506 NAVTRANS
1507 (757) 443-5404
1508 DSN 646-5404
1509
1510 HQMC
1511 (703) 695-8868
1512 DSN 225-8868
1513
1514 AIR FORCE
1515 (703) 697-4744
1516 DSN 227-4744
1517