Tactics, Techniques, and Procedures (TTP) for the

BATTLEFIELD COORDINATION DETACHMENT (BCD)

HEADQUARTERS
DEPARTMENT OF THE ARMY

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PREFACE

"We must begin now to change the way we think and organize staffs, information flow, procedures and possibly organizations. Existing and evolving information technologies will support and shape the evolution of procedures and processes."

Training and Doctrine Command (TRADOC)
Pamphlet 525-5, Force XXI Operations

I. WHAT FIELD MANUAL (FM) 100-13-1 IS:

- A snapshot of the current status of the automated Battlefield Coordination Detachment (BCD) initiative.
- A more detailed explanation of the command, control, communications, computers, and intelligence (C4I) systems described in FM 100-13, and their application to the BCD’s mission within an automated architecture.
- A requirements document for functionality required but not yet available on fielded systems.
  ➞ Volume 1: FM 100-13, BCD (Sep 96)
  ➞ Volume 2: FM 100-13-1, Tactics, Techniques, and Procedures (TTP) for the Battlefield Coordination Detachment (Oct 97)
  ➞ Volume 3: BCD Technical Bulletin (TB) (to be published (TBP) by Program Manager (PM) Field Artillery Tactical Data System (FATDS))
  ➞ Volume 4: C4I Device Operators Manuals
  ➞ Volume 5: C4I Device Maintenance Manuals
  ➞ Volume 6: BCD Unit Standard Operating Procedure (SOP)

II. WHAT FM 100-13-1 IS NOT:

- An operator’s manual for a C4I device. (Read Volume 4)
- A replacement for unit’s SOP. (Read Volume 6)
- A device or network trouble shooting manual. (Read Volume 3)
- The only way to apply the fielded systems to the BCD mission.

III. WHAT FM 100-13-1 IS BASED UPON:

- Publications: FM5s, Joint Manuals, BCD SOPs, existing device Technical Manuals (TM), Course Handouts (Air/Ground Operations School (AGOS), Device Operators Course).
- Insights captured from 1st BCD exercises and Depth and Simultaneous Attack Battle Lab (DSABL) integration testing.
• After Action Reviews (AAR) published by 1st BCD participating Army Forces (ARFOR), TRADOC System Managers (TSM), and PMs.
• Comments about working drafts from BCDs, PMs, TSMs, Device Representatives, and TRADOC organizations (AGOS and Battle Labs).

IV. TO WHOM FM 100-13-1 APPLIES:

• All BCDs from a core task perspective as outlined in FM 100-13 and augmented through research. BCDs should apply existing functionality to theater-specific missions and identify requirements not satisfied by existing architecture.
• Units assigned as the ARFOR, regardless of size (Army, Corps, or Division). Note the ARFOR actions required to maximize the effectiveness of the BCD’s automation suite.
• Joint Force Air Component Command (JFACC) Joint Air Operations Center (JAOC) personnel, regardless of service (US Air Force (USAF), US Navy (USN), US Marine Corps (USMC)), in a BCD awareness context only and is not, nor should it be construed as, a binding document on the other services. This document may be used as a baseline for Memorandums of Understanding (MOU) or Memorandums of Agreement (MOA) between the services involved.

V. HOW FM 100-13-1 IS ORGANIZED:

• Chapters 2 through 7 lists the operational tasks of a BCD section (operations, plans, intelligence, air defense, and airspace management) from FM 100-13. The automated capabilities relating to each operational task are listed including device limitations and workarounds.
• Appendices include the capabilities of the automated devices as they pertain to the BCD, related hardware and software, and training contacts. Other appendices detail information needed from outside agencies.
• A glossary of acronyms as well as a list of references, to include associated web sites, is also included.

VI. FM 100-13-1 REVISIONS:

• Share lessons learned/insights gained through exercises, new equipment training (NET) or research with the Commander USAFAS, Warfighter Integration and Development Directorate (WIDD), ATTN: ATSF-DD, Ft Sill, OK 73503. POC is Mr. Belinski, DSN 639-5644/ (405) 442-5644.
Chapter 1

Introduction

I. AUTOMATED BCD ARCHITECTURE.

The BCD accomplishes its mission with organic unit equipment and JAOC-provided systems. It task-organizes its systems to meet operational constraints (personnel, working space) and theater-specific requirements. Normally, BCDs operate with the equipment in Table 1.1 below.

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II. DEVICE FUNCTIONALITY.

General capabilities of the C4I systems identified in Table 1.1 are described below. More information about BCD applications of the systems can be found in the device's associated appendix.
ADVANCED FIELD ARTILLERY TACTICAL DATA SYSTEM (AFATDS).

AFATDS is a multi-service (Army and Marine Corps) fire support software system that operates on the Army’s common hardware for the Army Battle Command System (ABCS). It interfaces with the Contingency Theater Automated Planning System (CTAPS) in support of JAOA Air Tasking Order (ATO) production; provides visual situational awareness displaying: unit locations, range fans, fire support coordination measures (FSCM), airspace coordination measures (ACM), target overlays, battlefield geometry, enemy locations, and common reference systems; and processes incoming Army Tactical Missile System (ATACMS) fire missions received from Air and Missile Defense Workstation (AMDWS).

GLOBAL COMMAND & CONTROL SYSTEM - ARMY (GCCS-ARMY).

GCCS-Army provides a single seamless command and control (C2) system built around the Defense Information Infrastructure Common Operating Environment (DII COE) and is being integrated with the Department of Defense (DoD) Global Command and Control System (GCCS). GCCS-Army is fundamentally GCCS with additional Army functionality.

GCCS-Army exhibits the Joint globally shared common operational picture (COP). The COP includes both blue and red ground, air, and sea forces as well as battlefield geometry. Air tracks can be color-coded to reflect different ATO sorties. Because the ground, air, and sea pictures are received from different sources other than BCD automated systems (EXCEPTION: GCCS-Army may also get red ground from BCD All-Source Analysis System-Remote Workstation (ASAS-RWS) and refreshed at different intervals, the GCCS-Army picture may differ from these systems' pictures.

MANEUVER CONTROL SYSTEM (MCS).

MCS provides the principle operational interface between ABCS devices and is the hub of information distribution for the BCD. It receives, processes, and displays automated, on-line, near real-time information from a variety of tactical C2 systems. MCS integrates the maneuver function with the C2 systems of the other four functional areas (Fire Support (FS), Air Defense (AD), Intelligence/Electronic Warfare (IEW), and Combat Service Support (CSS)).

ALL SOURCE ANALYSIS SYSTEM - REMOTE WORKSTATION (ASAS-RWS).

ASAS-RWS is the IEW subelement of ABCS. It provides the fused intelligence picture as received from the supporting Analysis Control Element (ACE). ASAS-RWS displays friendly and enemy units, receiving enemy units from the ACE at ARFOR and friendly units through MCS. The ASAS-RWS disseminates the enemy picture to MCS. ASAS-RWS is used for target validation and battle damage assessment (BDA).
Chapter 2

Operations

I. PRE-DEPLOYMENT, HOME-STATION TASKS.

Tasks are to be completed at home-station to prepare devices for operations in theater and for shipping. Prior to shipping, AFATDS, GCCS-Army, and MCS should be loaded with:

- Digital maps and map overlays for the area of operations received from ARFOR G3.
- Databases with friendly unit designs, unit identification codes (UIC), and locations received from ARFOR G3.
- Internet protocol (IP) addresses for BCD, JAOC, and ARFOR counterpart devices.

II. PRE-HOSTILITY, IN-THEATER TASKS.

Tasks completed in theater to configure the device for operations and verify connectivity with all agencies (BCD, JAOC, and ARFOR):

- Inspect systems for obvious damage during shipping.
- Connect systems to internal local area network (LAN).
- Power-up and initialize systems (reset IP addresses, if necessary).
- Ping other BCD systems, once all are on-line.
- Set-up onto the JAOC LAN.
- Login/Addressing/Affiliation.
- Operational checks.
- Verify/update friendly and enemy databases.

III. OPERATIONAL TASKS.

Tasks and associated subtasks conducted during combat operations, with supporting device functionality. Includes device capabilities, known limitations in brackets [], and suggested workarounds in parentheses ( ).

OPS-1. MONITOR EXECUTION OF THE CURRENT ATO IN REGARD TO SORTIES PLANNED AGAINST LAND FORCE NOMINATED TARGETS.

- CTAPS displays ATOs by various operator selectable sorts.
- AFATDS prints the air status chart (ASC) for BCD Operations to track missions.
OPS-2. COORDINATE WITH THE ARFOR TACTICAL OPERATIONS CENTER (TOC), DEEP OPERATIONS COORDINATION CELL (DOCC), THEATER MISSILE DEFENSE (TMD) CELL (FOR THEATER MISSILE TARGETS), AND JAOC COMBAT OPERATIONS SECTION ON CANCELED, DIVERTED, OR REROLED MISSIONS PLANNED AGAINST ARFOR TARGETS.

Manual Task

OPS-3. REPORT ARFOR TARGET VALIDATION AND REFINEMENT (USUALLY 8 AND 4 HOURS BEFORE TIME ON TARGET) FOR AIR INTERDICTION (AI) AND ELECTRONIC WARFARE (EW) SUPPORTING THE ARFOR.

- CTAPS sorts the ATO by various operator selectable fields (time on target (TOT), Request #, etc.) to facilitate 8 and 4 hour validation tracking. [Operator sort and copy into an American Standard Computer II (ASCII) file and print list on personal computer (PC) or print directly to JAOC LAN printer.]
- ASAS-RWS queries intelligence database for current target locations.

OPS-4. COORDINATE WITH THE JAOC COMBAT OPERATIONS DIVISION ON ARFOR IMMEDIATE REQUESTS FOR AI, EW, AND RECONNAISSANCE (RECCE) FLIGHTS.

- AFATDS receives immediate Air Support Request (ASR) from ARFOR.
- CTAPS displays ATO for BCD Operations to determine if a change, divert or retargeting can meet ARFOR ASR.
- BCD Operations conducts face-to-face coordination with the Chief, Combat Operations (CCO).
- AFATDS disseminates approval/disapproval and reason to ARFOR via free text message.

OPS-5. GET THE CURRENT FRIENDLY GROUND FORCE SITUATIONS FROM THE ARFOR G3 OPERATIONS/G3 AIR SECTION.

- GCCS-Army receives and displays Ground COP from the Joint Forces Commander’s (JFC) GCCS. [Ground COP not real-time. The timeliness of the COP depends upon the JFC guidance contained in]
the Information Management Plan (IMP). The IMP will detail the COP management, reporting times, and auto-forward requirements.

- MCS receives and displays ARFOR's Blue Force picture (S507L) and battlefield graphics (S201) from ABCS devices. MCS broadcasts this information to most other BCD ABCS systems (with limitations).

OPS-6. INTERPRET THE ENEMY AND FRIENDLY GROUND FORCES SITUATION (MAINTAIN CURRENT SITUATION MAP (SITMAP) FOR THE JAOC). INFORM THE JAOC COMBAT OPERATIONS DIVISION OF SIGNIFICANT CHANGES IN OPERATIONS, OBJECTIVES, AND PRIORITIES.

- GCCS-Army displays Ground COP from the JFC's GCCS. GCCS-Army contains Microsoft (MS) Office Professional for creating briefing presentations.
- MCS displays ARFOR's Blue Force picture (S507L) and battlefield graphics (S201). MCS contains MS Office for creating briefing presentations.
- AFATDS displays ARFOR's Blue Force picture (S507L) and battlefield graphics (S201). [AFATDS does not contain MS Office to prepare PowerPoint briefing presentations to JFACC. (BCD must export information to MCS, GCCS-Army, or PC.)]
- [As a back-up, BCDs maintain manual SITMAP using information available on systems.]

OPS-7. PROVIDE GROUND LIAISON OFFICERS (GLOs) AND OTHER BCD SECTIONS WITH PERIODIC UPDATES ON THE CURRENT SITUATION.

- AFATDS (Operations) receives ARFOR information and updates Plans AFATDS and Airspace Management (ASM) AFATDS.
- GCCS-Army (Operations) receives JFC COP and updates GCCS-Army (Plans).
- ASAS-RWS (Operations) receives ARFOR ACE Information and updates ASAS-RWS (Plans). ASAS transmits this information.
- GLOs located at AF Wings with GCCS should use GCCS COP, Newsgroups/web pages, and E-mail to retrieve ARFOR and BCD information. [Other GLOs receive telephonic/facsimile (FAX) situational awareness updates.]

OPS-8. COORDINATE FIRING OF IMMEDIATE ATACMS MISSIONS WITH THE JAOC COMBAT OPERATIONS SECTION AND BCD ASM.

- AFATDS receives ATACMS launch request notification from ARFOR DOCC.
- AFATDS (time permitting) receives ACM requests from ARFOR Army Airspace Command and Control (A2C2). [If ARFOR A2C2 doesn't
have AFATDS, another ARFOR AFATDS must be used when available.

- ARFOR ACM requests (restrictive operational zone (ROZ) at PAH and TAH) are passed to the JAOC Airspace Management Section and they are built into the CTAPS airspace deconfliction system (ADS).

\[\text{No digital interface between AFATDS and CTAPS ADS.} \text{ BCD ASM must convert ACM grids from Universal Transverse Mercator (UTM) to latitude/longitude (LAT/LONG) and manually input into CTAPS.}\]

NOTE: Since this is an immediate mission, there may not be time to build the ACM request in CTAPS. "Bullseye" call, Grid Reference System, or some other local SOP may apply in this case.

- CTAPS ADS checks ARFOR ACMs for conflicts identifies what agency controls any conflicting ACMs. [The JAOC and BCD ASM coordinates manually with the agency.]

- [BCD Operations coordinates and deconflicts the ATACMS launch request with Combat Operations.]

- AFATDS transmits approval of ACMs via "hand-shake" message to ARFOR A2C2 AFATDS. [If ARFOR A2C2 doesn't own AFATDS, another ARFOR AFATDS must be used when available.]

**OPS-9. COORDINATE IMMEDIATE SPECIAL ELECTRONIC MISSION AIRCRAFT (SEMA) WITH THE JAOC COMBAT OPERATIONS SECTION AND BCD ASM.**

- AFATDS receives immediate ASR from ARFOR.
- CTAPS displays ATO for BCD Operations to determine if an alert launch change, divert or retargeting can meet ARFOR ASR.
- BCD Operations conducts face-to-face coordination with the CCO.
- AFATDS disseminates approval/disapproval and reason to ARFOR via free text message.

**OPS-10. REPORT THE USE OF AIRCRAFT DELIVERABLE MINES (I.E. Cluster-Bomb Unit (CBU)-89) TO THE ARFOR.**

Manual Task

**OPS-11. COORDINATE CHANGES TO THE FIRE SUPPORT COORDINATION LINE (FSCL) AND OTHER FSCMS WITH THE JFACC STAFF.**

- MCS displays ARFOR's Blue Force picture (S507L) and battlefield graphics (S201). MCS contains MS Office for creating briefing presentations.
- AFATDS displays ARFOR's Blue Force picture (S507L) and battlefield graphics (S201). [AFATDS does not contain MS Office to prepare
PowerPoint briefing presentations to JFACC. (BCD must export information to MCS, GCCS-Army or PC.)

- [BCD Operations coordinates FSCM changes with CCO face-to-face.]

OPS-12. PASS JFACC REQUESTS FOR IMMEDIATE ATACMS AND OTHER SUPPORT TO THE ARFOR DOCC, TMD CELL (FOR TM TARGETS), OR FIRE SUPPORT ELEMENT (FSE) AS DIRECTED.

- [CCO notifies BCD Operations of immediate ATACMS request.]
- AFATDS transmits ATACMS call for fire (CFF) to ARFOR DOCC.
- AFATDS receives approval/disapproval and reason from ARFOR DOCC.
- Corresponding ACMs are built into ADS by BCD Operations (ROZ at PAH and TAH). ['No digital interface between AFATDS and CTAPS ADS. 2BCD ASM must convert ACM grids from UTM to LAT/LONG and manually input into CTAPS.]

NOTE: Since this is an immediate mission, there may not be time to build the ACM request in CTAPS. "Bullseye" call, Grid Reference System, or some other local SOP may apply in this case.

- CTAPS ADS checks ARFOR ACMs for conflicts identifies what agency controls any conflicting ACMs. [The JAOC and BCD ASM coordinates manually with the agency.]
- AFATDS transmits approval of ACMs via "hand-shake" message to ARFOR A2C2 AFATDS. [If ARFOR A2C2 doesn't own AFATDS, another ARFOR AFATDS must be used when available.]

OPS-13. COORDINATE AND SYNCHRONIZE CURRENT ARFOR AVIATION AND DEEP ATTACK (AIRBORNE, AIR ASSAULT, ATTACK AVIATION) OPERATIONS WITH THE BCD ASM AND JAOC COMBAT OPERATIONS.

- MCS receives operations order/fragmentary order (OPORD/FRAGO) defining mission information (timeline, route, target location) from ARFOR G3.
- [BCD Operations coordinates ARFOR deep missions with CCO face-to-face.]
- AFATDS receives ACM requests from ARFOR A2C2. [If ARFOR A2C2 doesn't own AFATDS, another ARFOR AFATDS must be used when available.]
- BCD Operations personnel (air corridors) build ARFOR ACMs in ADS. ['No digital interface between AFATDS and CTAPS ADS. 2BCD ASM must convert ACM grids from UTM to LAT/LONG and manually input into CTAPS.]
CTAPS ADS checks ARFOR ACMs for conflicts identifies what agency controls any conflicting ACMs. [The JAOC and BCD ASM coordinates manually with the agency.]

AFATDS transmits approval of ACMs via "hand-shake" message to ARFOR A2C2 AFATDS. [If ARFOR A2C2 doesn't own AFATDS, another ARFOR AFATDS must be used when available.]

OPS-14. COORDINATE WITH PSYOP PLANNERS IN THE INTEGRATION OF LEAFLET DROPS AND COMMANDO SOLO BROADCASTS INTO THE ATO CYCLE.

Manual Task

OPS-15. DECONFLICT PROPOSED ATO MISSION CHANGES BEYOND THE FSCL WITH FRIENDLY FORCES (FOR EXAMPLE SPECIAL OPERATIONS FORCES (SOF)) FORWARD OF THE FORWARD LINE OF OWN TROOPS (FLOT) AND WITH RESTRICTIVE FSCMs (PROTECTED AND RESTRICTED TARGETS).

Manual Task

IV. POST-HOSTILITIES, IN-THEATER TASKS.

Tasks completed in theater to prepare the devices for redeployment:

- Backup all system files.
- Purge all un-needed classified files.
- Power-down.
- Turn in the hard drive, classified diskettes and tapes to the BCD Security Manager.
- Place all hardware and software in shipping containers.

V. POST-DEPLOYMENT, HOME-STATION TASKS.

Tasks completed at home-station to prepare the devices for sustainment training and future combat operations:

- Inspect systems for obvious damage during shipping.
- Connect systems to internal LAN.
- Power-up and initialize systems (reset IP addresses, if necessary).
- Ping other BCD systems once all are on-line.
Chapter 3

Plans

I. PRE-DEPLOYMENT, HOME-STATION TASKS.

Tasks are to be completed at home-station to prepare the device for operations in theater and for shipping.

- Digital maps and map overlays for the area of operations received from the ARFOR G3.
- Databases with friendly unit designations, UICs and locations received from the ARFOR G3.
- IP addresses for BCD, JAOC, and ARFOR counterpart devices.

II. PRE-HOSTILITY, IN-THEATER TASKS.

Tasks completed in theater to configure devices for operations and verify connectivity with all agencies (BCD, JAOC, and ARFOR).

- Inspect systems for obvious damage during shipping.
- Connect systems to internal LAN.
- Power-up and initialize systems (reset IP addresses, if necessary).
- Ping other BCD systems once all are on-line.
- Set-up onto the JAOC LAN.
- Login/Addressing/Affiliation.
- Operational checks.

III. OPERATIONAL TASKS.

Tasks and associated subtasks conducted during combat operations, with supporting device functionality. This section includes device capabilities, known limitations in brackets [ ], and suggested workarounds in parentheses ( ).

PLN-1. OBTAIN AS APPROPRIATE FROM THE ARFOR G3 AIR AND PLANS SECTION THE FOLLOWING:

PLN-1A. Operational plans (OPLAN) and Operations orders (OPORDs).

- AFATDS receives OPLANS by free text message (S302) from the ARFOR G3.
- GCCS-Army receives OPLANS by E-mail, GCCS-Army NewsGroups, or Homepages (MS Office products). The interface with MCS results in the OPORD product.
PLN-1B. Overlays.

- MCS receives overlays for future plans.
- AFATDS receives future fire support (24-96 hours) friendly graphics message (S201) from the DOCC. Within the BCD, AFATDS provides the graphics to ASAS-RWS, AMDWS, and MCS.
- GCCS-Army receives future (24-96 hours) friendly graphics from the ARFOR GCCS-Army. [Graphics are not provided to other systems by GCCS-Army. 2Graphics do not narrow as zoom is increased.]

PLN-1C. 24-96 hour projections of the Commander Army Forces (COMARFOR) concept of operation, targeting priorities, and target nominations for AI, close air support (CAS), RECCE, and EW.

- GCCS-Army receives OPORDs by E-mail, GCCS-Army NewsGroups, or MCS interface from the ARFOR G3.
- AFATDS receives OPORDs by free text message (S302) from ARFOR G3.
- AFATDS and GCCS-Army receive projected CAS requests by free text message (S302) from the DOCC.
- GCCS-Army receives ARFOR targeting guidance, ARFOR EW priorities, ARFOR priorities of fires, and COMARFOR RECCE requests by PowerPoint briefing charts that are E-mailed, posted to a homepage, or FTP to the BCD from the ARFOR.
- GCCS-Army receives ARFOR targeting guidance by free text message (S302) from the DOCC.
- GCCS-Army receives ARFOR EW priorities by free text message (S302) from the DOCC.
- AFATDS and GCCS-Army receive ARFOR priorities of fires by free text message (S302) from the DOCC.
- GCCS-Army receives COMARFOR RECCE requests by free text message (S302) from the DOCC.
- AFATDS receives ARFOR prioritized AI, EW, and preplanned CAS/ Joint Air Attack Team (JAAT) by free text message (S302) from the DOCC.
- AFATDS receives future Fire Support (24-96 hours) friendly graphics message (S201) from the DOCC. Within the BCD, AFATDS provides the graphics to ASAS-RWS, AMDWS, and MCS. [AMDWS receives graphics as text, not as a graphic.]
- GCCS-Army receives future (24-96 hours) friendly graphics from the ARFOR GCCS-Army. [Graphics are not provided to other systems by GCCS-Army. 2Graphics do not narrow as zoom is increased.]
- GCCS-Army can display the current common SITMAP of current friendly/enemy locations, and ATO targets and target nominations as a COP. Picture is automatically updated. [Enemy locations are
AIR and MISSILE DEFENSE WORKSTATION (AMDWS).

AMDWS is the Army Air Defense common automated system from battery through echelons above corps (EAC). AMDWS displays the air picture, ground forces, naval forces, battlefield geometry, and air defense system coverage. Displayed in real-time, the air picture includes air breathers, unmanned aerial vehicles/cruise missiles, and tactical ballistic missiles (TBM). Air defense system coverage includes air defense artillery (ADA) unit positioning with sensor and weapon system coverage as received from the Army Air and Missile Defense Command (AAMDC).

TBM launch point, projected impact area, and flight path are displayed in real-time. If requested by the JFACC through the JAOC TBM Cell, AMDWS can send a call for fire for ATACMS against a TBM target to AFATDS for execution.

CONTINGENCY THEATER AUTOMATED PLANNING SYSTEM (CTAPS).

CTAPS is currently in use by the Air Force, Navy, and Marine Corps for construction, dissemination, and execution of the ATO and Airspace Control Order (ACO). CTAPS interfaces with AFATDS in support of production of the ATO. The JAOC provides CTAPS to the BCD during deployments.

COMMAND AND CONTROL INFORMATION PROCESSING SYSTEM (C2IPS).

C2IPS is the USAF C4I system used by the Airlift Coordination Cell (ALCC) within the JAOC. The system manages the request and execution of in theater airlift requests. C2IPS receives airlift requests (ARLIFTREQ) from the Joint Movement Control Center (JMCC) and tracks their status. BCD Airlift Section collocates with the JAOC’s ALCC and has access to the information within C2IPS to track ARFOR airlift requests from submission through execution. The C2IPS is not a part of the BCD digitization architecture.

AIR DEFENSE SYSTEM INTEGRATOR (ADSI).

ADSI is a general-purpose interface system that can resolve many data-link and radar interface requirements. Within the BCD, the ADSI sends the near-real-time air picture through Tactical Digital Information Link (TADIL) formats and TBM data from Tactical Information Broadcast Service (TIBS) and Tactical Related Applications (TRAP) to AMDWS. The JAOC provides the ADSI used by the BCD and is not a part of the BCD digitization architecture.

TACTICAL RECEIVE EQUIPMENT (TRE)

TRE receives and provides the ADSI with TRAP and TIBS data. The JAOC provides the TRE used by the BCD and is not part of the BCD digitization architecture.
updated as determined by the Intelligence Staff through ASAS-RWS.

Target nominations must be manually entered for display.)

PLN-2. GIVE THE COMARFOR AND STAFF THE CONCEPT OF OPERATIONS AND WEIGHT OF EFFORT FOR CAS AND AI TARGET PRIORITIES, RECCE, EW, BATTLE STATUS, AND NUCLEAR WEAPONS EMPLOYMENT INFORMATION FROM THE JAOC.

- AFATDS sends the JAOC Alternate Target List (ATL) by free text message (S302) to the DOCC.
- AFATDS sends the JAOC approved targets/packages by free text message (S302) to the DOCC.
- AFATDS sends the JAOC EW Tactical Air Request (TAR) missions by free text message (S302) to the DOCC.
- AFATDS sends the JAOC targeting guidance and priorities by free text message (S302) to the DOCC.

PLN-3. MAINTAIN GROUND SITMAPS PORTRAYING CURRENT ENEMY SITUATION, PROJECTED FRIENDLY AND ENEMY SITUATION (24-96 HOURS) WITH SUPPORTING GRAPHICS, AND AI, CAS, RECCE, AND EW TARGET NOMINATIONS.

- AFATDS receives future Fire Support (24-96 hours) friendly graphics message (S201). Within the BCD, AFATDS provides the graphics to ASAS-RWS, AMDWS, and MCS. [AMDWS receives graphics as text, not as a graphic.]
- GCCS-Army receives future (24-96 hours) friendly graphics from the ARFOR GCCS-Army. [Graphics are not provided to other systems. Graphics do not narrow as zoom is increased.]
- GCCS-Army can display the current common SITMAP of current friendly/enemy locations, and target nominations as a COP. Picture is automatically updated. [Enemy locations are as determined by the Intelligence Staff through ASAS-RWS. Target nominations must be manually entered for display.]
- GCCS-Army receives OPORDs by free text message (S302), GCCS-Army NewsGroups, or MCS interface from the ARFOR G3. AFATDS receives OPORDs by free text message (S302) from DOCC.
- CTAPS sorts the ATO by fields (TOT, Army Request Number, etc.) to facilitate 8 and 4-hour validation tracking. [Operator copies desired sorts into an ASCII file and prints list on PC.]
- ASAS-RWS queries intelligence database for current target locations. [ASAS-RWS updates the units as determined by the Intelligence Staff.]
• GCCS-Army receives enemy locations (S309) from ASAS-RWS. Locations are automatically updated.

**PLN-4. COORDINATE WITH BCD ASM ON OPERATIONS 24-96 HOURS OUT AND THEIR IMPACT ON CURRENT AND PLANNED ACM.**

• GCCS-Army provides situational awareness for operational planning and analysis.

• GCCS-Army and AFATDS provide battlefield geometry and grid determination to assist in airspace clearance requirements. [*GCCS-Army battlefield geometry graphics do not narrow as zoom is increased.*]

• [CTAPS ADS is used for manual input of Army requirements for airspace into the ATO/ACO cycle.]

**PLN-5. COORDINATE PLANNED ATACMS MISSIONS WITH THE JAOC COMBAT PLANS SECTION AND THE BCD AIRSPACE MANAGEMENT SECTION.**

• AFATDS receives ATACMS launch request notification from ARFOR DOCC.

• AFATDS receives ACM requests from ARFOR Army Airspace Command and Control (A2C2). [*If ARFOR A2C2 doesn’t have AFATDS, another ARFOR AFATDS must be used when available.*]

• ARFOR ACM requests (ROZ at PAH and TAH) are passed to the JAOC Airspace Management Section and they are built into the CTAPS airspace deconfliction system (ADS). [*No digital interface between AFATDS and CTAPS ADS. BCD ASM must convert ACM grids from Universal Transverse Mercator (UTM) to latitude/longitude (LAT/LONG) and manually input into CTAPS.*]

• CTAPS ADS checks ARFOR ACMs for conflicts identifies what agency controls any conflicting ACMs. [*The JAOC and BCD ASM coordinate manually with the agency.*]

• [BCD Operations coordinates and deconflicts the ATACMS launch request with Combat Operations.]

• AFATDS transmits approval of ACMs via "hand-shake" message to ARFOR A2C2 AFATDS. [*If ARFOR A2C2 doesn’t own AFATDS, another ARFOR AFATDS must be used when available.*]

**PLN-6. PASS PROJECTED JFACC REQUESTS FOR ATACMS AND OTHER FIRE SUPPORT TO THE COMARFOR.**

• AFATDS sends ATACMS and other Army fire support target nominations to the DOCC by CFF message. TBM target nominations
may be initiated through BCD Air Defense or other agencies, as appropriate.

**PLN-7. INFORM JAOC PLANS OF ARFOR AVIATION OPERATIONS.**

- AFATDS receives Army aviation deep attack information (target location, TOT, flight corridors) to be included into ATO/Air Coordination Order (ACO). Army Aviation missions planned after ATO/ACO productions are transferred to BCD Operations for coordination.
- [CTAPS ADS is used for manual input of Army requirements for airspace into the ATO/ACO cycle.]

**PLN-8. ENSURE ARFOR TARGET NOMINATIONS ARE SUBMITTED WITHIN TIMELINES OF THE ESTABLISHED ATO PLANNING CYCLE.**

- AFATDS receives ASRs by D670 from ARFOR DOCC.
- BCD Plans CTAPS receives E-mail ASRs from AFATDS reviews ASRs and forwards ASRs via E-mail to JAOC RAAP operator who manually inputs data.
- CTAPS transmits approved ATOCONF and ACO to AFATDS using E-mail.
- AFATDS creates and displays an ASC and UTARL based upon comparison of Tactical Air Request List (TARL) and ATO.
- AFATDS transmits ATO message to all ARFOR AFATDS. ARFOR AFATDS creates ASC and UTARL at that echelon.
- AFATDS receives changes to land force targets and priorities by free text message (S302) from the DOCC.

**PLN-9. ENSURE ARFOR TARGET NOMINATIONS ARE DECONFICTED THROUGHOUT THE ATO PLANNING PROCESS.**

*Manual tasks performed by BCD Plans during Guidance, Apportionment, and Targeting (GAT). ASR printout from AFATDS as a working document for deconfliction at working groups.*

**PLN-10. REPRESENT ARFOR INTERESTS DURING GAT AND MASTER AIR ATTACK PLANS (MAAP) MEETINGS WITH THE COMBAT PLANS AND INTELLIGENCE SECTIONS OF THE JAOC. PROVIDE FEEDBACK TO THE ARFOR ON TARGET NOMINATIONS APPROVED FOR ATO PLANNING.**

- AFATDS receives candidate target list (CTL) by free text message (S302) from ARFOR DOCC and prints CTLs for BCD representatives at the GAT.
• AFATDS transmits approved target nominations to DOCC by free text message (S302).

PLN-11. BRIEF THE JFACC AND THE COMBAT PLANS AND INTELLIGENCE SECTIONS DURING THE GAT AND MAAP MEETINGS.

PLN-11A. Brief current and projected enemy situation.
• ASAS-RWS automatically provides enemy situation updates. [BCD Intelligence prepares slides for GAT and MAAP briefs via PowerPoint on PC.]

PLN-11B. Brief current and projected friendly situation.
• GCCS-Army receives OPORDs by E-mail, GCCS-Army NewsGroups, or MCS interface from the ARFOR G3.
• AFATDS receives OPORDs by free text message (S302) from ARFOR G3.
• AFATDS receives the target list by E-mail from the DOCC. AFATDS can send target status and approved target nominations to the DOCC by E-mail.
• [BCD Plans prepares slides for GAT and MAAP briefs via PowerPoint on PC.]

PLN-11C. Brief ARFOR's intent, planned concept of operation, targeting guidance, target nominations for AI, and phase lines anticipated to be designated as FSCLs during the conduct of operations.
• GCCS-Army receives OPORDs by E-mail, GCCS-Army NewsGroups, or MCS interface from the ARFOR G3.
• AFATDS receives OPORDs by free text message (S302) from ARFOR G3.
• MCS receives OPORDs and OPLANs.
• GCCS-Army displays the current common SITMAP of current friendly/enemy locations, and target nominations as a COP. Picture is automatically updated. [1]Enemy locations are updated as determined by the Intelligence Staff through ASAS-RWS. 2Target nominations must be manually entered for display.]
• [PowerPoint not available on AFATDS or ASAS-RWS. (Use PowerPoint on GCCS-Army, MCS, or PC.)]
• AFATDS receives COMARFOR prioritized AI, EW, and preplanned CAS/JAAT by free text message (S302) from the DOCC.
• AFATDS receives the CTL via free text message (S302) from the DOCC AFATDS. AFATDS sends target status and approved target nominations to the DOCC via free text message (S302).
• AFATDS receives Fire Support battlefield geometry (S201) from the DOCC.
PLN-12. GIVE GLOs AND OTHER BCD SECTIONS INFORMATION ON COMARFOR’S PLANNED OPERATIONS.

- GCCS-Army receives OPORDs by E-mail, GCCS-Army NewsGroups, or MCS interface from the ARFOR G3.
- AFATDS receives OPORDs by free text message (S302) from ARFOR G3.

IV. POST-HOSTILITIES, IN-THEATER TASKS.

Tasks completed in theater to prepare the devices for redeployment:

- Backup all system files.
- Purge all un-needed classified files.
- Power-down.
- Turn in the hard drive, classified diskettes and tapes to the BCD Security Manager.
- Place all hardware and software in shipping containers.

V. POST-DEPLOYMENT, HOME-STATION TASKS.

Tasks completed at home-station to prepare the device for sustainment training and future combat operations:

- Inventory shipped equipment.
- Perform operational checks.
Chapter 4

Intelligence

I. PRE-DEPLOYMENT, HOME-STATION TASKS.

Tasks are to be completed at home-station to prepare device for operations in theater and for shipping.

- Load the digital map of the area of operation on both ASAS-RWS devices received from ARFOR G-2.
- Load IP addresses on both ASAS-RWS devices received from the ARFOR G-2.
- Load the ACE All Source Analysis System-All Source (ASAS-AS) IP address on both ASAS-RWS devices from the ARFOR ACE.
- Load the initial External Database Coordination (EDC) for units, facilities, and equipment along with any military intelligence integrated data system/integrated database (MIIDS/IDB) updates prior to packing both ASAS-RWS devices from the ARFOR ACE.

NOTE: Must back-up, then “flush” SITMAP, INSTAL, EQUIP, ECHELON_NAMES, and ROLE_NAMES before receiving the EDC.

- Normalize system symbology after loading the initialization EDCs.
- Load ARFOR digital map overlays on both ASAS-RWS devices received via S201 Battlefield Geometry message (the message cannot be parsed) from MCS, GCCS-Army, or AFATDS. Load IP addresses of BCD automation equipment received from the BCD System Manager.
- Create digital intelligence templates for projected enemy units based upon received information.
- Build web page for dissemination of products.


- Enter UICs for all ARFOR units and receive an initial S507L Friendly Unit Locations message (the message cannot be parsed) from either MCS or GCCS-Army.
- Submit requests for Air or Air Defense Intelligence to the JAOC's Numbered Air Force.

II. PRE-HOSTILITY, IN-THEATER TASKS.

Tasks completed in theater to configure ASAS-RWS for operations and verify connectivity with all agencies (BCD, JAOC, and ARFOR):

- Inspect systems for obvious damage during shipping.
- Connect systems to internal LAN.
- Power-up and initialize systems (reset IP addresses, if necessary).
- Ping other BCD systems once all are on-line.
- Coordinate with the JAOC System Administrator personnel to have all mission reports (MISREP), tactical electronic intelligence (TACELINT), intelligence summaries (INTSUM), and daily intelligence summaries (DISUM) messages addressed and sent electronically to the ASAS-RWS.

NOTE: ASAS-RWS does not parse MISREPs or the INTSUM/DISUM but can manipulate them and forward them electronically if received on the ASAS-RWS.

- Get and load Domain Net Server (DNS) information from JAOC server personnel to access uniform resource locators (URL) that are plain text IPs instead of numeric IPs.
- Set-up onto the JAOC LAN.
- Log-in/Addressing/Affiliation.
- Operational checks.
- Ping other systems.
- Coordinate with JAOC Intel analysis cell on overall ground picture.
- Establish what reports JAOC analysis receives that the BCD requires.
- Determine what reports/products the JAOC Intel Analysis Cell produces and coordinate on review procedures for BCD input.
- Determine how/when messages will be passed with the JAOC Intel Analysis Cell.
- Establish critical and time sensitive information and the procedures for passing information from the JAOC analysis cell to the BCD.

III. OPERATIONAL TASKS (OPERATIONS INTELLIGENCE SECTION).

Tasks and associated subtasks conducted during combat operations, with supporting device functionality. This section includes device capabilities, known limitations in brackets [ ], and suggested workarounds in parentheses ( ).

INT/O-1. SUPPORT BCD OPERATIONS IN TARGET VALIDATION AND REFINEMENT (USUALLY 8 AND 4 HOURS BEFORE TIME ON TARGET) FOR ALL MISSIONS SUPPORTING THE ARFOR.
INT/O-1A. Receive and disseminate significant intelligence activities.

- ASAS-RWS retrieves this information from ARFOR G-2 Intelligence Home Page using a net browser such as NETSCAPE/MOSAIC or by forwarded US Message Text Format (USMTF) message.
- ASAS-RWS can send this information to other ABCS devices using INTELINK-S’s mail tool. [Since the ARFOR G-2 Home Page is not set up in USMTF message format, the ASAS-RWS must cut/paste or retype the message in S302 form.]

INT/O-1B. Receive spot reports.

- ASAS-RWS retrieves this information from ARFOR G-2 Intelligence Home Page using a net browser such as NETSCAPE/MOSAIC or by forwarded USMTF message.
- This information is printed using the INTELINK-S Print Tools and is available for review.

INT/O-1C. Receive ARFOR intelligence reports.

- ASAS-RWS retrieves this information from ARFOR G-2 Intelligence Home Page using a net browser such as NETSCAPE/MOSAIC or by forwarded USMTF message.
- This information may be sent to other ABCS devices using the INTELINK-S Mail Tool. [Since the ARFOR G-2 Home Page is not set up in USMTF message format, the ASAS-RWS must use S302 message to send this information to other ABCS devices, requiring cut/paste or retyping in the required format.]

INT/O-1D. Receive and report JAOC INSUMs.

- ASAS-RWS can receive E-mail and can use the UNIX Talk Utility to “chat” with CTAPS. [CTAPS must initiate the “chat”. ASAS-RWS does not use X-CHAT to chat with CTAPS. (This information may be found on the BCD Operations GCCS-Army in the Newsgroups.)]
- ASAS-RWS sends the JAOC INSUMs to ARFOR ACE and ARFOR G-2 Intelligence using INTELINK-S file transfer protocol (FTP). [Information must be manually input from written media.]

INT/O-1E. Receive and report significant Combat Operations Intelligence Division (COID) intelligence activities.

- ASAS-RWS can receive E-mail and can use the UNIX Talk Utility to “chat” with CTAPS. [CTAPS must initiate the “chat”. ASAS-RWS does not use X-CHAT to chat with CTAPS.]
- ASAS-RWS can send the JAOC COID intelligence activities to ARFOR ACE, ARFOR G-2 Intelligence, and BCD Future Intelligence using INTELINK-S FTP. [Information must be manually input from written media.]
INT/O-1F. Receive and disseminate in-flight MISREPs.

- ASAS-RWS can receive E-mail and can use the UNIX Talk Utility to "chat" with CTAPS. [CTAPS must initiate the "chat". ASAS-RWS does not use X-CHAT to chat with CTAPS.]
- ASAS-RWS can send the JAOC COID intelligence activities to ARFOR ACE and ARFOR G-2 Intelligence using INTELINK-S FTP. [Information must be manually input from written media.]

INT/O-1G. Receive ARFOR INTSUMs.

- ASAS-RWS retrieves this information from ARFOR G-2 Intelligence Home Page using a net browser such as NETSCAPE/MOSAIC or by forwarded USMTF message.
- This information is printed using the INTELINK-S Print Tools and is available for review.

INT/O-1H. Receive enemy capabilities advice.

- ASAS-RWS receives from ARFOR ACE by Deployable Intelligence Support Element (DISE). ARFOR Intelligence Home Page using a net browser such as NETSCAPE/MOSAIC or by forwarded USMTF message.
- This information is printed using the INTELINK-S Print Tools and is available for review.

INT/O-1I. Receive and distribute ARFOR INTSUM/DISUM analysis and briefing.

- ASAS-RWS receives PowerPoint briefing slide file from ARFOR ACE. ASAS-RWS retrieves this information from ARFOR Intelligence Home Page using a net browser such as NETSCAPE/MOSAIC or by forwarded USMTF message.
- ASAS-RWS puts PowerPoint briefing slide file on 3.5" floppy diskette-make 2 copies; one for Plans and one for Operations. [ASAS-RWS is not able to print, view, or modify these slides. (1Use PC/laptop to print information. 2This information may be found on the BCD Operations Section GCCS-Army in the Newsgroups.)]

INT/O-1J. Receive and assess ARFOR targets.

- ASAS-RWS retrieves overlay from ARFOR G-2 Intelligence Home Page using a net browser such as NETSCAPE/MOSAIC or by forwarded USMTF message.
- FTP Overlay. (ACE may make overlay and post on secure intelligence web page or Current Intelligence may have to make it. In either case, the overlay must also be placed on the map on the wall.)

INT/O-1K. Send requests for target validation.

- ASAS-RWS sends requests to ARFOR ACE and ARFOR G-2 Intelligence using message traffic and FTP.
INT/O-1L. Report status of target validation.
- ASAS-RWS receives target validations from ARFOR G-3 DOCC via FTP or free text message (S302).

INT/O-2. SUPPORT BCD OPERATIONS COORDINATION WITH THE JAOC COMBAT OPERATIONS DIVISION ON ARFOR IMMEDIATE REQUESTS.

Manual Task

INT/O-3. RELAY REAL-TIME SIGNIFICANT INTELLIGENCE INFORMATION RECEIVED BY JOINT SURVEILLANCE AND TARGET ACQUISITION RADAR SYSTEM (J-STARS), GUARDRAIL, U-2S, UNMANNED AERIAL VEHICLE (UAV), AND OTHER COLLECTION PLATFORMS.

INT/O-3A. Receive and report significant COID intelligence activities.
- ASAS-RWS can receive E-mail and can use the UNIX Talk Utility to “chat” with CTAPS. [CTAPS must initiate the “chat”. ASAS-RWS does not use X-CHAT to chat with CTAPS.]
- ASAS-RWS receives the information and sends the JOAC COID intelligence activities to ARFOR ACE, ARFOR G-2 Intelligence, and BCD Future Intelligence using INTELINK-S FTP and message traffic. [Information must be manually input from written media.]

INT/O-3B. Receive and report Air Force INTSUMs.
- ASAS-RWS can receive E-mail and can use the UNIX Talk Utility to “chat” with CTAPS. [CTAPS must initiate the “chat”. ASAS-RWS does not use X-CHAT to chat with CTAPS]. (This information may be found on the BCD Operations GCCS-Army in the Newsgroups.)
- ASAS-RWS receives the information and sends the JAOC INTSUMs to ARFOR ACE and ARFOR G-2 Intelligence using INTELINK-S FTP. [Information must be manually input from written media.]

INT/O-3C. Receive and disseminate MISREPs.
- ASAS-RWS can receive E-mail and can use the UNIX Talk Utility to “chat” with CTAPS. [CTAPS must initiate the “chat”. ASAS-RWS does not use X-CHAT to chat with CTAPS].
- ASAS-RWS receives the information and sends the JAOC COID intelligence activities to ARFOR ACE and ARFOR G-2 Intelligence using INTELINK-S FTP. [Information must be manually input from written media.]
INT/O-4. COORDINATE EMERGING TARGETS INFORMATION WITH THE ARFOR TOC AND VALIDATE THEM FOR IMMEDIATE DIVERTS. KEEP BCD OPERATIONS INFORMED OF THE TARGETS.

INT/O-4A. Relay intelligence data to support diverts/retargeting.
- ASAS-RWS receives data from ARFOR ACE using INTELINK-S FTP and message traffic.
- ASAS-RWS prints hard copy for BCD Operations.

INT/O-4B. Receive and report Air Force INTSUMs.
- ASAS-RWS can receive E-mail and can use the UNIX Talk Utility to "chat" with CTAPS. [CTAPS must initiate the "chat". ASAS-RWS does not use X-CHAT to chat with CTAPS. (This information may be found on the BCD Operations GCCS-Army in the Newsgroups.)]
- ASAS-RWS sends the JAOC INTSUMs to ARFOR ACE and ARFOR G-2 Intelligence using INTELINK-S FTP and message traffic. [Information must be manually input from written media.]

INT/O-4C. Receive and distribute ARFOR INTSUM/DISUM analysis and briefing.
- ASAS-RWS receives PowerPoint briefing slide file from ARFOR ACE. ASAS-RWS retrieves this information from ARFOR Intelligence Home Page using a net browser such as NETSCAPE/MOSAIC or by forwarded USMTF message.
- ASAS-RWS puts PowerPoint briefing slide file on 3.5" floppy diskette-make 2 copies; one for Plans and one for Operations. [ASAS-RWS does not print, view, or modify these slides. ('Use PC/laptop to print information. 
This information may be found on the BCD Operations Section GCCS-Army in the Newsgroups.)]

INT/O-4D. Relay status of diverts.
- ASAS-RWS transmits data to ARFOR ACE using INTELINK-S FTP and message traffic.

INT/O-4E. Send requests for target validation.
- ASAS-RWS sends requests to ARFOR ACE and ARFOR G-2 Intelligence using FTP.

INT/O-4F. Report status of target validation.
- ASAS-RWS transmits data to ARFOR ACE using INTELINK-S FTP and message traffic.

INT/O-5. GET THE MOST CURRENT ENEMY GROUND FORCE SITUATION FROM THE ARFOR G2 OPERATIONS SECTION.

INT/O-5A. Receive and disseminate significant intelligence activities.
- ASAS-RWS retrieves this information from ARFOR G-2 Intelligence Home Page using a net browser such as NETSCAPE/MOSAIC or by forwarded USMTF message.
• ASAS-RWS can send this information to other ABCS devices using INTELINK-S’s mail tool. [Since the ARFOR G-2 Home Page is not set up in USMTF message format, the ASAS-RWS must cut/paste or retype the message in S302 form.]

**INT/O-5B. Receive spot reports.**

• ASAS-RWS retrieves spot reports from ARFOR G-2 Intelligence Home Page using a net browser such as NETSCAPE/MOSAIC or by forwarded USMTF message.
• The Spot Reports are printed using the INTELINK-S Print Tools and is available for review by the Intelligence Section.

**INT/O-5C. Receive ARFOR intelligence reports.**

• Receives intelligence reports on the Home Page using a net browser such as NETSCAPE/MOSAIC or by forwarded USMTF message.
• The intelligence reports may be sent to other ABCS devices using the INTELINK-S Mail Tool. [Since the ARFOR G-2 Home Page is not set up in USMTF message format, the ASAS-RWS must use S302 message to send this information to other ABCS devices, requiring cut/paste or retying in the required format.]

**INT/O-5D. Receive and plot enemy SITMAP updates.**

• ASAS-RWS can receive EDC from the ARFOR ACE.
• ASAS-RWS requires an EDC from ARFOR ASAS-AS to generate an S309 message for other BCD ABCS devices.
• ASAS-RWS in BCD Operations disseminates the S309 message to BCD MCS for forwarding to other BCD devices.

**INT/O-5E. Exchange of enemy front line trace.**

• ASAS-RWS receives overlay from BCD Operations AFATDS in S201 message. [ASAS-RWS cannot parse the S201 message received from AFATDS.]
• ASAS-RWS can receive E-mail and can use the UNIX Talk Utility to “chat” with CTAPS. [CTAPS must initiate the “chat”. ASAS-RWS does not use X-CHAT to chat with CTAPS.]

**INT/O-5F. Receive and distribute briefings on Command, Control, and Communications (C3) nodes and enemy strengths.**

• ASAS-RWS receives PowerPoint briefing slide file from ARFOR ACE using INTELINK-S FTP.
• ASAS-RWS puts PowerPoint briefing slide file on a 3.5” floppy diskette. [ASAS-RWS does not print, view, or modify these PowerPoint slides. (Use PClaptop to print. A hardcopy is taken to JAOC Combat Intelligence Division (CID)).]

**INT/O-5G. Receive and relay BDA.**

• ASAS-RWS can receive E-mail and can use the UNIX Talk Utility to “chat” with CTAPS. [CTAPS must initiate the “chat”. ASAS-RWS does not use X-CHAT to chat with CTAPS.]
- ASAS-RWS sends BDA for air strikes to ARFOR ACE and BCD Plans Intelligence using INTELINK-S FTP and message traffic. [The information must be typed into the device]
- ASAS-RWS receives ARFOR ACE BDA information using INTELINK-S FTP.
- ASAS-RWS sends ARFOR BDA to BCD Plans Intelligence using INTELINK-S FTP and message traffic.
- ASAS-RWS can receive E-mail and can use the UNIX Talk Utility to "chat" with CTAPS. [CTAPS must initiate the "chat". ASAS-RWS does not use X-CHAT to chat with CTAPS.]

IV. OPERATIONAL TASKS (PLANS INTELLIGENCE SECTION).

Tasks and associated subtasks conducted during combat operations, with supporting device functionality. This section includes device capabilities, known limitations in brackets [], and suggested workarounds in parentheses ():

INT/P-1. INTERPRET THE ENEMY GROUND FORCES SITUATION (MAINTAIN CURRENT ENEMY SITMAP), INFORM BCD OPERATIONS AND BCD PLANS OF APPARENT CHANGES IN ENEMY OPERATIONS, OBJECTIVES, AND PRIORITIES.

INT/P-1A. Receive and plot enemy SITMAP updates.
- ASAS-RWS can receive EDC from the ARFOR ACE.
- ASAS-RWS requires an EDC from ARFOR ASAS-AS to generate an S309 message for other BCD ABCS devices.
- ASAS-RWS in BCD Operations disseminates the S309 message to BCD MCS for forwarding to other BCD devices.

INT/P-1B. Receive and brief ARFOR INTSUM/DISUM analysis and briefing.
- ASAS-RWS receives PowerPoint briefing slide file from ARFOR ACE using INTELINK-S FTP.
  - ASAS-RWS puts PowerPoint briefing slide file on 3.5" floppy diskette. [ASAS-RWS does not print, view, or modify these PowerPoint slides. (Use PC/laptop to print.)]

INT/P-1C. Relay Enemy Ground Order of Battle (GOB) including units and locations.
- ASAS-RWS receives enemy GOB from ARFOR ACE in an updated EDC. [ASAS-RWS does not relay this information to the USAF CID digitally.]
- ASAS-RWS requires an EDC from ARFOR ASAS-AS to generate an S309 message for other BCD ABCS devices.
- ASAS-RWS in BCD Operations disseminates the S309 message to BCD MCS for forwarding to other BCD devices.
INT/P-1D. Receive enemy GOB updates for BCD Plans briefings.

- ASAS-RWS receives PowerPoint briefing slide file from ARFOR ACE using INTELINK-S FTP.
- ASAS-RWS puts PowerPoint briefing slide file on 3.5" floppy diskette. 
  [ASAS-RWS does not print, view, or modify these PowerPoint slides. 
  (Use PC/laptop to print.)]

INT/P-1E. Plot SITMAP displays.

- ASAS-RWS receives SITMAP displays from ARFOR G-2 Intelligence 
  or ARFOR ACE using message traffic.
- ASAS-RWS can receive E-mail and can use the UNIX Talk Utility to
  "chat" with CTAPS.  [CTAPS must initiate the "chat".  ASAS-RWS
  does not use X-CHAT to chat with CTAPS.]

INT/P-2. PROCESS MISREPS AND OTHER BDA. FORWARD BDA INFORMATION
TO ANSWER COMBAT ASSESSMENT AND BDA QUESTIONS.

INT/P-2A. Receive and relay BDA.

- ASAS-RWS can receive E-mail and can use the UNIX Talk Utility to
  "chat" with CTAPS.  [CTAPS must initiate the "chat".  ASAS-RWS
  does not use X-CHAT to chat with CTAPS.]
- ASAS-RWS sends BDA for air strikes to ARFOR ACE and BCD Plans 
  Intelligence using INTELINK-S FTP and message traffic.  [The 
  information must be typed into the device.]
- ASAS-RWS receives ARFOR ACE BDA information using INTELINK-
  S FTP and message traffic.
- ASAS-RWS sends ARFOR BDA to BCD Plans Intelligence using 
  INTELINK-S FTP and message traffic.
- ASAS-RWS can receive E-mail and can use the UNIX Talk Utility to
  "chat" with CTAPS.  [CTAPS must initiate the "chat".  ASAS-RWS
  does not use X-CHAT to chat with CTAPS.]

INT/P-3. INTEGRATE COMARFOR REQUIREMENTS FOR INTELLIGENCE
COLLECTION AND EW WITH JFACC REQUIREMENTS.

INT/P-3A. Receive ARFOR intelligence annexes and estimates.

- ASAS-RWS retrieves intelligence annexes and estimates from 
  ARFOR Home Pages using a net browser such as 
  NETSCAPE/MOSAIC.

INT/P-3B. Receive and post ARFOR Priority Intelligence Requirements (PIR) and priorities.

- ASAS-RWS receives PowerPoint slide file from ARFOR G-2 
  Intelligence using INTELINK-S FTP.
• ASAS-RWS puts PowerPoint slide file on 3.5" floppy diskette. [ASAS-RWS does not print, view, or modify these PowerPoint slides. (Use PC/laptop to print.)]

INT/P-3C. Receive and distribute ARFOR collection requirements that can be satisfied by Air Force assets.

• ASAS-RWS receives collection requirements from ARFOR G-2 Intelligence using INTELINK-S FTP.
• ASAS-RWS sends file to printer for hardcopy.
• ASAS-RWS sends to other ABCS using INTELINK-S, if other systems have INTELINK-S capability. (If no INTELINK-S capability, the message can be cut/pasted into S302 message and sent.)
• ASAS-RWS can receive E-mail and can use the UNIX Talk Utility to "chat" with CTAPS. [CTAPS must initiate the "chat". ASAS-RWS does not use X-CHAT to chat with CTAPS].

INT/P-3D. Relay USAF Electronic Preparation of the Battlefield (EPB).

• ASAS-RWS can receive E-mail and can use the UNIX Talk Utility to "chat" with CTAPS. [CTAPS must initiate the "chat". ASAS-RWS does not use X-CHAT to chat with CTAPS.]
• ASAS-RWS sends updates to ARFOR G-2 Intelligence and ARFOR ACE using INTELINK-S FTP and message traffic. [ASAS-RWS operator may manually enter the information.]

INT/P-4. GET THE PIRs, COLLECTION PLAN, TARGETING DATA, 24-96 HOUR ENEMY SITUATION PROJECTION, AND NOMINATIONS FOR RECCE AND INTELLIGENCE EW SUPPORT FROM ARFOR G-2 PLANS SECTION.

INT/P-4A. Receive ARFOR intelligence annexes and estimates.

• ASAS-RWS retrieves intelligence annexes and estimates from ARFOR Home Pages using a net browser such as NETSCAPE/MOSAIC.

INT/P-4B. Receive and post ARFOR PIR and priorities.

• ASAS-RWS receives PowerPoint slide file from ARFOR G-2 Intelligence using INTELINK-S FTP and message traffic.
• ASAS-RWS puts PowerPoint slide file on 3.5" floppy diskette. [ASAS-RWS does not print, view, or modify these PowerPoint slides. (Use PC/laptop to print.)]

INT/P-4C. Receive and distribute ARFOR collection requirements that can be satisfied by Air Force assets.

• ASAS-RWS receives collection requirements from ARFOR G-2 Intelligence using INTELINK-S FTP.
• ASAS-RWS sends file to printer for hardcopy.
• ASAS-RWS sends to other ABCS using INTELINK-S, if other systems have INTELINK-S capability. (If no INTELINK-S capability exists, the message can be cut/pasted into S302 message and sent.)
• ASAS-RWS can receive E-mail and can use the UNIX Talk Utility to "chat" with CTAPS. [CTAPS must initiate the "chat". ASAS-RWS does not use X-CHAT to chat with CTAPS.]

INT/P-4D. Receive and brief ARFOR INSUM/DISUM analysis and briefing.
• ASAS-RWS receives PowerPoint briefing slide file from ARFOR ACE using INTELINK-S FTP.
• ASAS-RWS puts PowerPoint briefing slide file on 3.5" floppy diskette. [ASAS-RWS does not print, view, or modify these PowerPoint slides. (Use PC/laptop to print.)]

INT/P-5. SUPPORT THE BCD PLANS BY MAINTAINING GROUND SITMAPs OF CURRENT AND PROJECTED ENEMY SITUATIONS (24-96 HOURS) WITH SUPPORTING GRAPHICS, RECCE, AND EW TARGET NOMINATIONS.

INT/P-5A. Plot SITMAP displays.
• ASAS-RWS receives SITMAP displays from ARFOR G-2 Intelligence or ARFOR ACE using message traffic.
• ASAS-RWS can receive E-mail and can use the UNIX Talk Utility to "chat" with CTAPS. [CTAPS must initiate the "chat". ASAS-RWS does not use X-CHAT to chat with CTAPS.]

INT/P-5B. Receive and plot enemy SITMAP updates.
• ASAS-RWS can receive EDC from the ARFOR ACE.
• ASAS-RWS requires an EDC from ARFOR ASAS-AS to generate an S309 message for other BCD ABCS devices.
• ASAS-RWS in BCD Operations disseminates the S309 message to BCD MCS for forwarding to other BCD devices.

INT/P-6. SUPPORT BCD PLANS BRIEFINGS TO THE JAOC STAFF ON THE CURRENT AND PROJECTED ENEMY SITUATION.

INT/P-6A. Receive ARFOR intelligence annexes and estimates.
• ASAS-RWS retrieves intelligence annexes and estimates from ARFOR Home Pages using a net browser such as NETSCAPE/MOSAIC.

INT/P-6B. Receive and disseminate significant JAOC intelligence reports, estimates, and mission reports.
• ASAS-RWS can receive E-mail and can use the UNIX Talk Utility to "chat" with CTAPS. [CTAPS must initiate the "chat". ASAS-RWS does not use X-CHAT to chat with CTAPS.]
INT/P-6C. Receive and brief ARFOR INTSUM/DISUM analysis and briefing.

- ASAS-RWS receives PowerPoint briefing slide file from ARFOR ACE using INTELINK-S FTP.
- ASAS-RWS puts PowerPoint briefing slide file on 3.5" floppy diskette. [ASAS-RWS does not print, view, or modify these PowerPoint slides. (Use PC/laptop to print.)]

INT/P-6D. Receive enemy GOB updates for BCD Plans briefings.

- ASAS-RWS receives PowerPoint briefing slide file from ARFOR ACE using INTELINK-S FTP.
- ASAS-RWS puts PowerPoint briefing slide file on 3.5" floppy diskette. [ASAS-RWS does not print, view, or modify these PowerPoint slides. (Use PC/laptop to print.)]

INT/P-6E. Exchange of enemy front line trace.

- ASAS-RWS receives overlay from BCD Operations AFATDS in S201 message. [ASAS-RWS cannot parse the S201 message received from AFATDS.]

V. POST-HOSTILITIES, IN-THEATER TASKS.

Tasks completed in theater to prepare the devices for redeployment:

- Backup all system files.
- Purge all un-needed classified files.
- Power-down.
- Turn in the hard drive, classified diskettes and tapes to the BCD Security Manager.
- Place all hardware and software in shipping containers.

VI. POST-DEPLOYMENT, HOME-STATION TASKS.

Tasks completed at home-station to prepare the device for sustainment training and future combat operations:

- Inspect systems for obvious damage during shipping.
- Connect systems to internal LAN.
- Power-up and initialize systems.
- Ping other BCD systems once all are on-line.
Chapter 5

Air Defense

I. PRE-DEPLOYMENT, HOME-STATION TASKS.

Tasks are to be completed at home-station to prepare the device for operation in theater and for shipping:

- Load digital operational Air Defense (AD) maps into the AMDWS.
- Plot location and orientation of air defense assets received from ARFOR G3. In theater, this information is available via data link from AAMDC and/or ARFOR ADE.
- Plot location of ATACMS capable units received from ARFOR G3.
- Load IP addresses of BCD automation equipment received from BCD System Manager.

II. PRE-HOSTILITY, IN-THEATER TASKS.

Tasks completed in theater to configure the device for operations and verify connectivity with all agencies (BCD, JAOC, AAMDC, and ARFOR).

- Inspect systems for obvious damage during shipping.
- Connect systems to internal LAN.
- Power-up and initialize systems.
- Ping other BCD systems, once all are on-line.
- Set up onto the BCD LAN/JAOC wide area network (WAN).
- Perform log-in/addressing/affiliation.
- Perform operational checks with BCD systems, AAMDC, ARFOR systems, and JAOC systems.
- Input or transfer from another AMDWS the unit task organization.

III. OPERATIONAL TASKS.

Tasks and associated subtasks conducted during combat operations, with supporting device functionality. This section includes device capabilities, known limitations in brackets [ ]; and suggested workarounds in parentheses ( ) :

ADA-1. COORDINATE WITH THE ARFOR AIR DEFENSE ELEMENT (ADE) AND/OR THE AAMDC THEATER ARMY AIR DEFENSE ELEMENT (TAADE) FOR THE FOLLOWING:

ADA-1A. Location of ADA assets.

- AMDWS displays friendly locations received from MCS, AFATDS, GCCS-Army, or AMDWS (507L message). AMDWS receives EAC
ADA asset locations from another AMDWS in the ADA hierarchy. The operator can filter type units displayed. Filtering can be done by "echelon" and/or "branch". External unit locations update automatically in situational awareness mode. [If friendly force is manually input in plan mode, it will not automatically update location.  

For the unit designation to be displayed, UICs must be input in the unit task organization (UTO) by the AMDWS operator or the unit will appear as an unknown unit. The UTO can be transferred from one AMDWS to another.]  

ADA-1B. Engagement reporting.  

- AMDWS receives engagement reports in free text message (S302) or MS Office application from the ARFOR ADE or AAMDC TAADE.  

ADA-1C. ADA weapon engagement zones (WEZ).  

- AMDWS displays ADA WEZ. [Engagement zones will automatically reposition with the unit if the update is received from AMDWS. WEZs will not update (S507L) received from AFATDS, MCS, or GCCS-Army.]  

ADA-1D. Identification of friend or foe (IFF)/selective identification feature (SIF) procedures.  

- AMDWS receives IFF and SIF procedures by free text message (S302) or MS Office application from the ARFOR ADE or AAMDC TAADE.  

ADA-1E. Receipt of ADA annexes to OPLANS/OPORDS.  

- AMDWS receives OPLANs and OPORDs free text (S302) or MS Office application from the ARFOR ADE or AAMDC TAADE.  

ADA-2. ADVISE THE AREA AIR DEFENSE COMMANDER (AADC) ON ARMY AIR DEFENSE MATTERS APPROPRIATE TO DECONFLICTION OF AIR SUPPORT TO GROUND OPERATIONS.  

- AMDWS displays SITMAP with ADA WEZ. Screen can be printed.  

NOTE: AMDWS can send future planned missions' SITMAPS to other AMDWS. Additionally, SITMAPS can be shared between AMDWS when in client/server mode.  

- AMDWS receives AD tactical operational data by free text message (S302) or MS Office application from ARFOR ADE and AAMDC TAADE.  

ADA-3. COORDINATE WITH THE AAMDC THE FOLLOWING:  

ADA-3A. ADA unit status.  

- AMDWS passes ADA unit status by free text message (S302). The AMDWS can receive unit status from AMDWS, MCS, AFATDS, or GCCS-Army. [Initial unit status thresholds must be manually set.]
ADA-3B. Changes in AD warning.

- AMDWS passes AD warning changes by free text message (S302) or MS Office application received from JAOC Defensive Operations.

ADA-3C. Weapons control status (WCS).

- AMDWS passes WCS by free text message (S302) or MS Office application received from JAOC Defensive Operations.

ADA-3D. Rules of engagement (ROE).

- AMDWS passes ROE by free text message (S302) or MS Office application received from JAOC Combat Operations. [The ROE is part of the ATO. The ATO is received by E-mail]

NOTE: The ATO is not the primary resource for the ROE. The ATO may only cover parts of the ROE or discuss specific air defense procedures.

ADA-3E. Identification procedures.

- AMDWS receives IFF and SIF procedures by free text message (S302) or MS Office application from the ARFOR ADE or AAMDCTAADE.

ADA-3F. Early warning and TBM alert procedures.

- AMDWS passes the OPORD received by free text message (S302) or MS Office application from the JAOC Combat Operations Section.
- AMDWS passes the TMD SOP received by free text message (S302) or MS Office application from the JAOC Combat Operations Section.
- AMDWS passes TMD early warning matrix. [The matrix is received by FAX, E-mail, or MS Office application from the Missile Defense Command (MDC). If it is received as a FAX, it is manually input for transmission by E-mail. The matrix is manually input for display on the AMDWS and may be sent to another AMDWS as a geometry overlay (S201 message).]
- AMDWS passes Army TMD SOP received by free text message (S302) or MS Office application from the AMDCTAADE.
- AMDWS displays TBM launch, flight path, estimates time of impact, and targeted area. Information is received from ADSI/AAMDCT. A red launch warning light illuminates on the AMDWS when a TBM launch has been detected. [There is no audio alert of a TBM launch. Verification of receipt of the launch must be accomplished manually.]

ADA-4. ADVISE THE SENIOR AIR DEFENSE OFFICER (SADO) IN THE JAOC OF ARMY AIR DEFENSE STATUS TO INCLUDE PLACEMENT OF ADA WEAPONS IN DIRECT SUPPORT OF GROUND FORCES.

- AMDWS receives WEZ by battlefield geometry (S201), free text message (S302), or MS Office application from ARFOR ADE or the AAMDCTAADE.
- AMDWS displays ADA WEZ. \[1^{st} \text{Engagement zones will automatically reposition with the unit if the update is received from AMDWS.} \]^2 \text{WEZs will not update (S507L) received from AFATDS, MCS, or GCCS-Army.}

- AMDWS receives AD tactical operational data by free text message (S302) or MS Office application from ARFOR ADE, AAMDC TAADE, or the JAOC Combat Operations Squadron.

- AMDWS displays friendly locations received from MCS, AFATDS, GCCS-Army, or AMDWS (507L message). AMDWS receives EAC ADA asset locations from another AMDWS in the ADA hierarchy. The operator can filter units by "branch" and "echelon". External unit locations update automatically in situational awareness mode. \[^1 \text{If friendly force is manually input in plan mode, it will not automatically update location.} \]^2 \text{For the unit designation to be displayed, UICs must be input in the unit task organization (UTO) by the AMDWS operator or the unit will appear as an unknown unit. The UTO can be transferred from one AMDWS to another.}

- AMDWS receives ADA capabilities by free text message (S302) or MS Office application from the ARFOR ADE or the AAMDC TAADE.

- AMDWS receives ADA system and missile status (gumball) automatically updated from AMDWS, MCS, AFATDS, or GCCS-Army (S507 message). \[ \text{AMDWS cannot graphically display unit status (actively radiating) or missile count.} \]

- AMDWS receives changes to the ADA scheme of maneuver by free text message (S302) or MS Office application from ARFOR ADE or AAMDC TAADE.

- PowerPoint is available on AMDWS.

**ADA-5. PROVIDE THE AD COMMANDER WITH THE AADC'S INTENT.**

- AMDWS passes the AADC's intent by free text message (S302) or MS Office application to the ARFOR ADE and the AAMDC TAADE. \[ \text{The AADC's intent must be manually input for transmission by free text message (S302) unless electronically received.} \]

**ADA-6. COORDINATE WITH THE ARFOR TMD CELL FOR TBM ALERT DISSEMINATION PROCEDURES.**

- AMDWS passes changes to the TMD OPORD received by free text message (S302) or MS Office application from the Combat Operations Section.

- AMDWS passes the TMD SOP received by free text message (S302) or MS Office application from the JAOC Combat Operations Section.

- AMDWS passes TMD early warning matrix. \[ \text{The matrix is received by FAX, E-mail, or MS Office application from the MDC. If it is} \]
received as a FAX, it is manually input for transmission by E-mail. The matrix is manually input for display on the AMDWS and may be sent to another AMDWS as a geometry overlay.

- AMDWS passes Army TMD SOP received by free text message (S302) from the AAMDC TAADE.
- AMDWS displays TBM launch, flight path, estimates time of impact, and targeted area. Information is received from ADSI/AAMDC. A red launch warning light illuminates on the AMDWS when a TBM launch has been detected. [There is no audio alert of a TBM launch.]
- Verification of receipt of the launch must be accomplished manually.

ADA-7. EXCHANGE ADA OPERATIONAL DATA WITH JAOC COUNTERPARTS.

- AMDWS passes changes to the Airspace Control Plan (ACP) received by free text message (S302) or MS Office application from the JAOC Airspace Management Section. The ACP is passed to the ARFOR ADE and AAMDC TAADE.
- AMDWS receives AD tactical operational data by free text message (S302) or MS Office application from ARFOR ADE and AAMDC TAADE.
- AMDWS passes USAF engagement reports received in PowerPoint from JAOC Combat Operations. The USAF engagement reports are passed to the ARFOR ADE and the AAMDC TAADE in PowerPoint.
- AMDWS receives changes to the ACO by E-mail text file or MS Office application from the JAOC Airspace Management Section via CTAPS.
- AMDWS receives changes to the Operational Tasking Data Link (OPTASKLINK) information by free text message (S302) or MS Office application from the JAOC Combat Operations.
- AMDWS receives changes to the Air Defense Plan (ADP) by free text message (S302) or MS Office application and graphics via CTAPS from the JAOC Defensive Operations.
- AMDWS receives defensive control measures by free text message (S302) or MS Office application and graphics via CTAPS from JAOC Defensive Operations. [If the control measure graphics are in excess of 15 points, the AMDWS will not automatically display the graphics. The graphic message must be broken into messages with graphic segments of 15 points or less to be automatically plotted.]
- AMDWS can pass unit task organization only to another AMDWS. [It must be manually entered.]

ADA-8. COORDINATE ADA AIRSPACE NEEDS WITH THE JAOC AIRSPACE MANAGEMENT SECTION.

- AMDWS receives ADA airspace needs by free text message (S302) or MS Office application from ARFOR ADE and AAMDC TAADE.
ADA-9. SUPPORT INTEGRATION OF THE COMARFOR AD PLAN WITH THE JFACC COUNTERAIR EFFORT.

- AMDWS displays ADA WEZ. [*Engagement zones will automatically reposition with the unit if the update is received from AMDWS. WEZs will not update (S507L) received from AFATDS, MCS, or GCCS-Army.]*
- AMDWS displays friendly locations received from MCS, AFATDS, GCCS-Army, or AMDWS (507L message). AMDWS receives EAC ADA asset locations from another AMDWS in the ADA hierarchy. The operator can filter type unit displayed when in plan mode. External unit locations update automatically in situational awareness mode. [*If friendly force is manually input in plan mode, it will not automatically update location.* 2*For the unit designation to be displayed, UICs must be input in the unit task organization (UTO) by the AMDWS operator or the unit will appear as an unknown unit. The UTO can be transferred from one AMDWS to another.*]
- AMDWS receives ADA capabilities by free text message (S302) or MS Office application from the ARFOR ADE or the AAMDC TAADE.
- AMDWS receives ADA system and missile status (gumball) automatic update from AMDWS, MCS, AFATDS, or GCCS-Army. [*AMDWS cannot graphically display unit status (radiating) or missile count.*]
- AMDWS receives changes to the ADA scheme of maneuver by free text message (S302) or MS Office application from ARFOR ADE or AAMDC TAADE.
- AMDWS receives engagement reports by free text message (S302) or MS Office application from the ARFOR ADE or AAMDC TAADE.
- AMDWS receives ADA ACMs by S201 message from ARFOR ADE and AAMDC TAADE.

ADA-10. ATACMS COORDINATION.

- AMDWS displays ATACMS range fan and TBM near-real-time launch location. [*ATACMS range fan must be manually entered.*]
- AMDWS sends an ATACMS call for fire to the BCD Operations AFATDS (D210 message) against TBM targets. [*If an Initial Fire Support Automated System (IFSAS) is in the automated linkage to the ATACMS launcher, the AFATDS operator at BCD Operations must change the method of fire and control to AMC/CNO (At My Command/CanNot Observe) and change the method of engagement to ATACMS Anti-Personnel Automatic Mines (APAM).*]
ADA-11. AIRCRAFT WARNINGS.

- AMDWS displays near-real-time friendly and enemy aircraft, cruise missiles, remotely piloted vehicles (RPV) and TBM. [The air picture is limited to a 200 mile radius centered on the site control center (SCC). There may be more than one SCC in a theater.]

IV. POST-HOSTILITIES, IN-THEATER TASKS.

Tasks completed in theater to prepare the devices for redeployment:

- Backup all system files.
- Purge all un-needed classified files.
- Power-down.
- Turn in the hard drive, classified diskettes and tapes to the BCD Security Manager.
- Place all hardware and software in shipping containers.

V. POST-DEPLOYMENT, HOME-STATION TASKS.

Tasks completed at home-station to prepare the device for sustainment training and future combat operations:

- Inspect systems for obvious damage during shipping.
- Connect systems to internal LAN.
- Power-up and initialize systems.
- Ping other BCD systems once all are on-line.
Chapter 6
Airspace Management

I. PRE-DEPLOYMENT, HOME-STATION TASKS.

Tasks are to be completed at home-station to prepare devices for operations in theater and for shipping.

- Load AFATDS with digital maps of the area of operation received from ARFOR G3.
- Load AFATDS with digital map overlays received from ARFOR G3.
- Load AFATDS databases with friendly units' designation, UIC, and location received from ARFOR G3.
- Load AFATDS with IP addresses for BCD, JFACC, and ARFOR counterpart devices.

II. PRE-HOSTILITY, IN-THEATER TASKS.

Tasks completed in theater to configure devices for operations and verify connectivity with all agencies (BCD, JAOC, and ARFOR):

- Inspect systems for obvious damage during shipping.
- Connect systems to internal LAN.
- Power-up and Initialize systems.
- Ping other BCD systems, once all are on-line.
- Set-up onto the JAOC LAN.
- Login/Addressing/Affiliation.
- Operational checks.

III. OPERATIONAL TASKS.

Tasks and associated subtasks conducted during combat operations, with supporting device functionality. This section includes device capabilities, known limitations in brackets [], and suggested workarounds in parentheses ():

ASM-1. COORDINATE PLANNED ARFOR AIRSPACE USE REQUIREMENTS WITH THE JAOC AIRSPACE MANAGEMENT SECTIONS.

ASM-1A. Receive planned ARFOR ACM requests.

- AFATDS receives ACM requests from ARFOR A2C2. [AFATDS recognizes a limited number of ACMS: flight corridors, ACPs (operator-defined dimensions). If ARFOR A2C2 doesn't own AFATDS, the operator must use other ARFOR AFATDS when available.]
ASM-1B. Submit ARFOR planned ACM requests to JAOC Airspace Management for coordination and approval.

- ARFOR ACMs are manually input into the ADS by BCD ASM personnel. ["No digital interface between AFATDS and CTAPS' ADS. BCD ASM Section must convert ACM grids from UTM to LAT/LONG and manually input into CTAPS."

ASM-1C. Deconflict planned ACM requests.

- CTAPS ADS checks ARFOR ACMs for conflicts and BCD ASM personnel identify what agency controls any conflicting ACMs. [BCD ASM coordinates manually with agency.]

- AFATDS requires coordination when FSCMs and fire missions conflict with ACMs. ["AFATDS does not recognize conflicts between ACMs. AFATDS does not recognize all ACMs published in the ACO; CTAPS ACMs frequently do not follow USMTF and labeling; however, the ACO USMTF baseline, scheduled for 1998, will be USMTF compliant."

ASM-1D. Check ACO for ARFOR ACMs.

- AFATDS displays or prints the approved ACO. ["AFATDS currently cannot parse ACO to review only ARFOR requested ACMs. BCD ASM must manual sort ACO to find ARFOR requests."

- CTAPS displays or prints the approved ACO. [CTAPS cannot sort ACO to review only ARFOR requested ACMs. (Individual ARFOR ACMs may be searched for and identified.)"

ASM-1E. Provide ARFOR feedback on ACMs requested.

- AFATDS transmits ACO to ARFOR A2C2 AFATDS. [If ARFOR A2C2 doesn’t own AFATDS, the operator must use other ARFOR AFATDS when available.]

- CTAPS transmits ACO to Air Force Air Support Operations Center’s (ASOC) CTAPS remotes located with the ARFOR.

ASM-2. COORDINATE IMMEDIATE (DURING ATO EXECUTION) ARFOR AIRSPACE USE REQUIREMENTS (I.E. ATACMS LAUNCH) WITH THE JAOC AIRSPACE MANAGEMENT SECTIONS.

Due to time-sensitivity of immediate ACM requests, coordination is usually conducted via telephone, FAX, and face-to-face.

ASM-2A. Receive immediate ARFOR ACM requests.

- AFATDS receives ATACMS launch request notification from ARFOR. [BCD ASM AFATDS must have "Mission Monitor" window open."

- AFATDS (time permitting) receives ACM requests from ARFOR A2C2. [BCD ASM receives ATACMS PAH and TAH locations. If ARFOR A2C2 doesn’t own AFATDS, the operator must use other ARFOR AFATDS when available.]
ASM-2B. Submit ARFOR planned ACM requests to JAOC Airspace Management for coordination and approval.

- ARFOR ACM requests are built into (ROZ at PAH and TAH) ADS. [No digital interface between AFATDS and CTAPS ADS. BCD ASM must convert ACM grids from UTM to LAT/LONG and manually input into CTAPS.]

ASM-2C. Deconflict planned ACM requests.

- CTAPS ADS checks ARFOR ACMs for conflicts and BCD ASM personnel identify what agency controls any conflicting ACMs. [BCD ASM coordinates manually with agency.]

ASM-2D. Provide ARFOR feedback on ACMs requested.

- AFATDS transmits approval of ACMs via "hand-shake" message to ARFOR A2C2 AFATDS. [If ARFOR A2C2 doesn't own AFATDS, the operator must use other ARFOR AFATDS when available.]

ASM-3. COORDINATE SOF AIRSPACE REQUIREMENTS WHEN DIRECTED.

Task normally performed by JAOC Special Operations Liaison Element (SOLE), not BCD ASM.

ASM-4. INTEGRATE JOINT AIRSPACE REQUIREMENTS WITH APPROPRIATE A2C2 ELEMENTS.

Use requirements in ASM-1 and ASM-2 above.

ASM-5. INTEGRATE ARFOR AIRSPACE USER ACTIVITIES WITH THE JAOC AIRSPACE PLANS.

Use requirements in ASM-1 and ASM-2 above.

ASM-6. REPRESENT COMARFOR INTERESTS IN THE DEVELOPMENT AND APPROVAL OF ACMs AND RESTRICTIONS IN THE ACO.

Use requirements in ASM-1 above.

ASM-7. ADVISE THE ACA AND BCD COMMANDER OF SIGNIFICANT ACTIVITIES WHICH AFFECT THE JOINT USE OF AIRSPACE.

ASM-7A. Maintain A2C2 SITMAP.

Manual Task.

ASM-7B. Brief ACA and BCD Commander as required.

Manual Task via PowerPoint Slides produced on PC.
ASM-8. ADVISE THE ACA AND BCD COMMANDER ON THE IMPACT OF JOINT ACMs OR RESTRICTIONS ON THE CONDUCT OF THE GROUND BATTLE.

ASM-8A. Maintain A2C2 SITMAP.
   Manual Task.

ASM-8B. Brief ACA and BCD Commander as required.
   Manual Task via PowerPoint Slide produced on PC.

ASM-9. COORDINATE COMARFOR REQUESTS FOR ACMs AND RESTRICTIONS TO INCLUDE EW REQUIREMENTS.

   Use requirements in ASM-1 and ASM-2 above.

ASM-10 TO THE MAXIMUM EXTENT POSSIBLE, ENSURE ARMY AVIATION MISSIONS ARE INCLUDED IN THE JOINT ATO FOR THE PURPOSE OF COORDINATION. IN STABILITY AND SUPPORT OPERATIONS (SASO), ALL ROTARY WING AND FIXED WING AIRCRAFT ARE NORMALLY INCLUDED IN THE ATO. IN COMBAT OPERATIONS, SEMA AND OPERATIONAL SUPPORT AIRLIFT (OSA) WILL NORMALLY BE INCLUDED.

   Use requirements in ASM-1 and ASM-2 above.

ASM-11. ENSURE ALL A2C2 ELEMENTS HAVE THE NECESSARY IFF/SIF CODES.

   • AFATDS transmits ATO (which includes special instructions (SPINS) assigning IFF/SIF codes) to ARFOR A2C2 AFATDS. [If ARFOR A2C2 doesn’t own AFATDS, the operator must use other ARFOR AFATDS when available.]
   • CTAPS transmits ATO (which includes SPINS assigning IFF/SIF codes) to Air Force ASOC CTAPS located with the ARFOR. [Air Force ASOCs are not assigned to Division-Level ARFOR.]

ASM-12. PROVIDE TIMELY AND COMPLETE DISTRIBUTION OF THE ACO TO THE ARFOR TOC A2C2 ELEMENTS.

   • AFATDS transmits ACO to ARFOR A2C2 AFATDS. [If ARFOR A2C2 doesn’t own AFATDS, the operator must use other ARFOR AFATDS when available.]
   • CTAPS transmits ACO to Air Force ASOC CTAPS located with the ARFOR.
   • CTAPS transmits ACP to Air Force ASOC CTAPS located with the ARFOR.
ASM-13. MONITOR THE INTEGRATION OF ARMY AIR TRAFFIC SERVICES (ATS) FACILITIES INTO THE AIRSPACE CONTROL SYSTEM OF THE JAOC.

Manual Task.

ASM-14. REPRESENT THE ARFOR IN DEVELOPING THE ACO.

Use requirements in ASM-1 above.

ASM-15. PROVIDE THE ACA WITH THE LOCATION AND STATUS OF ARMY AIRFIELDS, NAVIGATION AIDS (NAVAIDS), STANDARD USE ARMY AVIATION FLIGHT ROUTES (SAAFR), AND ATS FACILITIES.

Manual Task.

IV. POST-HOSTILITIES, IN-THEATER TASKS.

Tasks completed in theater to prepare the devices for redeployment:

- Backup all system files.
- Purge all un-needed classified files.
- Power-down.
- Turn in the hard drive, classified diskettes and tapes to the BCD Security Manager.
- Place all hardware and software in shipping containers.

V. POST-DEPLOYMENT, HOME-STATION TASKS.

Tasks completed at home-station to prepare devices for sustainment training and future combat operations:

- Inspect systems for obvious damage during shipping.
- Connect systems to internal LAN.
- Power-up and initialize systems.
- Ping other BCD systems, once all are on-line.
Chapter 7

Airlift

I. PRE-DEPLOYMENT, HOME-STATION TASKS.

No C4I device assigned to the Airlift Section. All preparation is manual.

II. PRE-HOSTILITY, IN-THEATER TASKS.

No C4I device assigned to the Airlift Section. All preparation is manual.

III. OPERATIONAL TASKS.

Tasks and associated subtasks conducted during combat operations, with supporting device functionality. This section includes device capabilities, known limitations in brackets [], and suggested workarounds in parentheses ( ).

ALF-1. BRIEF THE ALCC AND STAFF ON COMARFOR OBJECTIVES, CONCEPT OF OPERATIONS, AND AIRLIFT REQUIREMENTS.

ALF-1A. Receive courtesy copy of ARFOR requests.
   - AIRLIFTREQs are transmitted via phone or FAX.

ALF-2. COORDINATE IMMEDIATE AIRLIFTREQs TO SUPPORT ARFOR OPERATIONS.

ALF-2A. Receive courtesy copy of ARFOR requests.
   - AIRLIFTREQs are transmitted via phone or FAX.

ALF-2B. Track ARFOR missions during execution.
   - C2IPS tracks ARFOR missions in the ALCC.
   - [Current BCD ABCS architecture does not interface with C2IPS.]

ALF-2C. Pass information to ARFOR G-3 Air/G-4 Transportation.

   Manual Task
   - Use phone, FAX or another section's ABCS device to send S302 free text message.
   - [Current BCD ABCS architecture does not interface with C2IPS.]
ALF-3. COORDINATE LOCATIONS OF DROP ZONES (DZ), PICK-UP ZONES (PZ), AND LANDING ZONES (LZ) TO INCLUDE THE PLANNED ACTIVITIES AND CONTROL PROCEDURES USED, WITH THE DIRECTOR OF MOBILITY FORCES (DIRMOBFOR).

ALF-3A. Pass information to ARFOR G-3 Air/G-4 Transportation.
   - Use phone, FAX or another section’s ABCS device to send S302 free text message.
   - [Current BCD ABCS architecture does not interface with C2IPS.]

ALF-4. NOTIFY THE DIRMOBFOR IMMEDIATELY OF CHANGES TO THE ARFOR PLAN THAT AFFECT AIRLIFT OPERATIONS.

   Manual Task

ALF-5. COORDINATE WITH THE ARFOR THEATER AIR TRAFFIC SERVICE (ATS) AND BCD ASM FOR ESTABLISHMENT OF NEW BASE DEFENSE ZONES (BDZ) AND CORRESPONDING INSTRUMENT APPROACH PROCEDURES.

   Manual Task

ALF-6. PROVIDE THE COMARFOR AND COMARFOR STAFF THE FOLLOWING:

ALF-6A. Feedback on COMARFOR requests for preplanned airlift routed through logistic channels.
   - Use phone, FAX or another section’s ABCS device to send S302 free text message.

ALF-6B. Feedback on COMARFOR requests for immediate airlift routed through command channels, to include “heads up” mission planning with USAF airlift planners.
   - Use phone, FAX or another section’s ABCS device to send S302 free text message.
   - [AIRLIFTREQ are not currently in USMTF message format.]

ALF-6C. Availability and operational status of airlift aircraft and airlift procedures as assigned by the JFC.
   - C2IPS receives request from JMCC in ALCC.
   - C2IPS tracks ARFOR missions in ALCC.
   - [Current BCD ABCS architecture does not interface with C2IPS.]

ALF-6D. Status of airlift missions being executed in support of ARFOR operations.
   - C2IPS tracks ARFOR missions in ALCC.
   - [Current BCD ABCS architecture does not interface with C2IPS.]
ALF-6E. Theater planning parameters (for example, airlift and staging capabilities, handling equipment availability, refueling capabilities that drive the size and sustainment of potential airlift, airdrop, airborne, and air assault operations).

- Use phone, FAX or another section's ABCS device to send S302 free text message.

ALF-7. COORDINATE WITH THE THEATER ARMY MOVEMENT CONTROL AGENCY (TAMCA) AND/OR THE ARFOR G-4 TO DETERMINE THE LOCATION OF ARRIVAL AND DEPARTURE AIRFIELD CONTROL GROUPS (A/DACGS) AND NUMBER AND TYPE OF MATERIAL HANDLING EQUIPMENT (MHE) AVAILABLE WITH EACH OF THEM.

Manual Task

ALF-8. PROVIDE THE STATUS OF AIRLIFT OPERATIONS TO THE BCD COMMANDER, INCLUDE THE FOLLOWING: AIRLIFT PRIORITIES, NUMBER AND TYPE OF AIRCRAFT AVAILABLE, NUMBER OF PREPLANNED AND IMMEDIATE AIRLIFT REQUESTS RECEIVED, CURRENT STATUS OF MISSIONS BEING FLOWN IN SUPPORT OF ARFOR OPERATIONS.

ALF-8A. Track JMCC-sent ARFOR requests in ALCC.

- C2IPS in ALCC receives request from JMCC.
- [Current BCD ABCS architecture does not interface with C2IPS.]

ALF-8B. Receive courtesy copy of ARFOR requests.

- [No USMTF message format is assigned to AIRLIFTREQ template.]

ALF-8C. Current status of missions being flown in support of ARFOR operations.

- C2IPS in ALCC tracks status of current missions being flown.
- [Current BCD ABCS architecture does not interface with C2IPS.]

ALF-9. COORDINATE WITH BCD OPERATIONS FOR FRIENDLY AND ENEMY GOB INFORMATION, AND GIVE THEM UPDATED AIRLIFT INFORMATION AS REQUIRED.

Manual Task

ALF-10. PERFORM THE FOLLOWING OPERATIONAL REQUIREMENTS:

ALF-10A. Facilitate, coordinate, and synchronize immediate and planned airlift requests with the JMCC, the TAMCA, and/or ARFOR G-3 Air and G-4 Transportation.

- Use phone, FAX or another section's ABCS device to send S302 free text message.
- [Current BCD ABCS architecture does not interface with C2IPS.]
ALF-10B. Get current ATOs from the ALCC and send them to the ARFOR G-3 Air and ARFOR G-4 Transportation.
   • Use phone, FAX or another section’s ABCS device to send S302 free text message.
   • [Current BCD ABCS architecture does not interface with C2IPS.]

ALF-11. TASK CURRENT AIRLIFT MISSIONS FLOWN IN SUPPORT OF ARFOR OPERATIONS.
   • C2IPS tracks ARFOR missions in the ALCC.
   • [Current BCD ABCS architecture does not interface with C2IPS.]

ALF-12. ENSURE GLOs AT AIRLIFT WINGS HAVE CURRENT INFORMATION ON THE FRIENDLY AND ENEMY SITUATIONS.

Manual Task

IV. POST-HOSTILITIES, IN-THEATER TASKS.

There is no C4I device assigned to the Airlift Section. All post-hostilities tasks are manual.

V. POST-DEPLOYMENT, HOME-STATION TASKS.

There is no C4I device assigned to the Airlift Section. All post-deployment tasks are manual.
Chapter 8

System Administration

I. PRE-DEPLOYMENT, HOME-STATION TASKS.

Tasks are to be completed at home-station to prepare device for operations in theater and for shipping.

- Identify correct digital map sheets for AO and ensure all workstations are loaded.
- Coordinate with higher, adjacent, and lower system administrators and J/G6 staffs to ensure all workstations information requirements are identified and deconflicted. (i.e. IP addresses if static IPs are required, Host names, O/R Names, etc.)
- Coordinate and plan for automated message/data flow between systems ensuring all requirements are satisfied and no message loops exist.

II. PRE-HOSTILITY, IN-THEATER TASKS.

Tasks completed in theater to configure devices for operations and verify connectivity with all agencies (BCD, JAOC, and ARFOR):

- Coordinate with higher, adjacent, and lower J/G6 staffs to ensure reliable LAN/WAN communications.
- Ensure system information flows are properly configured/implemented.
- Connect systems to LAN.

III. OPERATIONAL TASKS.

Tasks and associated subtasks conducted during combat operations, with supporting device functionality.

- Monitor ABCS systems.

IV. POST-HOSTILITIES, IN-THEATER TASKS.

Tasks completed in theater to prepare devices for redeployment:

- Monitor system maintenance.
- Purge all unneeded files and backup all system files.
V. POST-DEPLOYMENT, HOME-STATION TASKS.

Tasks completed at home-station to prepare for sustainment training and future combat operations:

- Document system performance (AAR) for system improvements.
Appendix A

Advanced Field Artillery Tactical Data System (AFATDS)

I. SYSTEM CAPABILITIES.

AFATDS is a multi-service (Army and USMC) fire support software system that operates on the Army’s common hardware for the ABCS. AFATDS provides the commander with a robust ability to conduct automatic digital coordination on all fire support requests including ATACMS, air attack, naval surface fire, and mortar/cannon/rocket missions. This coordination allows the commander to quickly and automatically prioritize and engage targets on multiple missions to ensure the most important missions are processed first. It also checks incoming fire missions against FSCM, ACM, and unit ZOR. AFATDS notifies the operator of any violations and electronically requests clearance from the unit that established the control measure. The unit must approve or deny the request before the mission is allowed to continue processing.

AFATDS provides visual situational awareness displaying: unit locations, range fans, FSCMs, ACMs, target overlays, battlefield geometry, enemy locations, and common reference systems. Graphics can be tailored to separate overlays to filter what is displayed on the screen at any particular time.

AFATDS hosts a Tactical Air Support Module (TASM) that provides an automated interface capability with the CTAPS. AFATDS electronically generates and receives ASRs and passes them into CTAPS for nomination into the ATO. After the ATO is approved, TASM receives the ATOCONF from CTAPS, and determines which nominations were included in the ATO and displays them in the ASC. Those nominations not supported are displayed in the UTARL.

The AFATDS plays a vital role within the BCD since it is located in the Plans, Operations and ASM sections. AFATDS serves as the force FA C2 system that integrates fire support through fire support systems on the ground, close air support, and naval surface fires.

By using TASM, the AFATDS processes the ATO in accordance with the needs of both the BCD and the supported ARFOR.

USED BY BCD.

The following are used capabilities:

- Processes ATO (receive from CTAPS, display, parse into ASC and UTARL, and transmit to other C4I systems).
- Processes ACO (receive from CTAPS, parse specific ACMs, display as geometries, and transmit to other C4I systems).
- Deconflicts ACMs with FSCMs.
- Transmit CFFs.
- Resolves duplication of fires on targets.

**OTHER CAPABILITIES.**

The AFATDS has the following additional capabilities available for use:

- Prioritize multiple missions to ensure most important missions are processed first.
- Screen and filter mission requests and recommend denying missions that do not meet commander's guidance and attack criteria.
- Check mission requests for violations to FSCMs and initiate automatic coordination.
- Recommend best attack method.

**II. HARDWARE COMPONENTS.**

The AFATDS consists of the hardware components shown below.

**Transportable Computer Unit (TCU).**

AFATDS software runs on a Version 2 Model 735 general processor operating at 125 megahertz (MHz) speed. It is equipped with 208 megabytes (MB) of random access memory (RAM) and a 2 gigabyte (GB) removable hard disk drive. It also has a 650 MB Magneto Optical (MO) Drive comes with a standard 1.44 MB floppy disk drive (FDD).

**Super High Resolution Display (SHRD).**

The SHRD is a 16" 1024x768 pixel, high resolution non-interlaced color monitor.

**Power Converter/Uninterruptable Power Supply (PC/UPS).**

This item is available in two configurations both will convert either 28 volts direct current (DC) (i.e. Vehicle Power) or 220 volts alternating current (AC) to 115 volts AC and provides 10 minutes of battery backup. It uses a standard AC power cord with a variety of outlet adapters for use in foreign countries.

**Tactical Communication Interface Module (TCIM).**

The TCIM has a small computer system interface (SCSI) and two software programmable communications channels. In AFATDS, normally one channel is programmed for combat net radio (CNR) systems. The other channel is programmed for all other communications.

**Fiber Optic Medium Attachment Unit (FOMAU).**

The FOMAU provides the interface between the AFATDS LAN connection and the fiber optic cable in certain LAN set-ups.
Electronic Printer (EP).

The EP is a standard 24 wire Dot Matrix Printer (DMP) and has both parallel and serial connections. It can be powered from the PC/UPS, uses a rechargeable battery as back-up, and has the capability to operate from 20 standard "AA" batteries. It can print at up to 300 characters per second.

III. SOFTWARE TOOLS.

- AFATDS software, A97T.0.2 (Hughes Build 5.5.C) is an UNIX-based HP operating system (OS) and is written in Ada computer language.
- TASM operates as a separate application that communicates with AFATDS.
- No web browsers are installed in AFATDS.

IV. DEVICE CONNECTIVITY REQUIREMENTS.

See BCD TB to be published by PM FATDS.
V. AFATDS INTERFACES.

Describes USMTF messages and functions that AFATDS passes to and receives from other devices within the BCD, ARFOR, and JAOC. "X" indicates interfaces successfully demonstrated during a BCD exercise. "?" indicates a stated capability but not yet observed at a BCD exercise. "-" indicates partial capability, with limitations stated under remarks.

Table A.1. Functionality Table

<table>
<thead>
<tr>
<th>USMTF</th>
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<th>REMARKS</th>
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VI. MAINTENANCE/SUSTAINMENT.

See BCD TB to be published by PM FATDS.

VII. INDIVIDUAL TRAINING.

TRAINING MANUALS.


OPERATORS COURSES.

The operator’s course is given at Fort Sill, Oklahoma. For a course schedule, contact Fire Support and Combined Arms Operations Department, Command/Control/Communications Division, Defense Switched Network (DSN): 639-3419/2082.

EMBEDDED TRAINING.

AFATDS possesses embedded training scenarios for individual training. Embedded training for the TASM module is not yet available.

VIII. POC/HOTLINE.

Office of the Program Manager (OPM) FATDS, Commercial: (908) 427-3322/3378; DSN: 987-3322/3378. Fort Monmouth, NJ.

TSM AFATDS Commercial: (405) 442-6836/6837; DSN: 639-6836/6837. Fort Sill, OK.

PM FATDS: http://134.80.68.53
Appendix B

Air and Missile Defense Workstation (AMDWS)

I. SYSTEM CAPABILITIES.

The AMDWS provides the Army commander the tools to plan his defense, assess the enemy’s intent, monitor air defenses during the course of engagement, and react once an attack begins.

The AMDWS receives and processes various intelligence data to determine accurate targeting information for forwarding to active defense components. It provides the commander with a thorough picture of the current situation; a fused ground and air picture of the current battlefield as well as a friendly and reported enemy air, ground and naval picture. Air threats displayed include air breathing, TBM threat, and cruise missile/UAV threat. These air threats flow into the AMDWS from various external sources where they are correlated and saved into a central repository. This repository provides the basis for air tracking over a digitized map in near-real-time or in retrospect using a playback mode.

Along with air events, friendly and enemy positions and recorded control measures are received into the central repository. The entire database provides the commander with a consolidated fused ground and air picture that can be graphically presented over military maps or false-colored terrain from Defense Mapping Agency (DMA) map data in both two dimensional and three dimensional. Air pictures are displayed in near-real-time as updates are received. AMDWS can assist in alerting units of impending threats such as a TBM launch or an NBC threat, as well as initiating a call for fire on the source of the threat.

The AMDWS provides the mission planner with the tools to effectively deploy forces and defend assets against a known threat. The AMDWS was developed to provide an automated tool in solving tactical/staff planning problems.

USED BY BCD.

Communications:

- Chat between AMDWSs.
- Automatic message passing.
- E-mail with CTAPS.

Mapping:

- Composite military maps/false colored terrain from DMA map data. Available mapping options are ARC Digitized Raster Graphics (ADRG), Digital Terrain Elevation Data (DTED) (gray scale or colored), satellite aerial image (currently not available), and no map.
- Two dimensional and three dimensional capability.
- Sensor coverage.
- Coordinate system.
- Coordinate conversion.
- Near-real-time (as received) display of friendly and enemy ground units.
- Near-real-time (as received) display of friendly and enemy aircraft, cruise missiles, and UAVs in flight.
- Near-real-time (as received) of display friendly and enemy ships.
- Near-real-time display of TBM launch points, flight paths, and impact areas.
- ACMs portrayed without a true width.
- Battlefield Graphics display.
- Draw capability.
- Point determination.
- Point to point distance and point to point sum determination.
- Line of Sight determination.

Call for Fire:
- CFF format.
- AFATDS connectivity.

Playback capability:
- Six hour playback of an event.

Security:
- User password.

OTHER CAPABILITIES.

The AMDWS has the following additional capabilities available for use:

NBC:
- Downwind hazard determination.

Mapping:
- Common picture from MCS.
- Shot opportunity analysis.

II. HARDWARE COMPONENTS.
- Sun Ultra 1 Model 170.
- 4.2 GB Hard Drive.
- V1 19" color monitor.
- Compact disk read only memory (CD ROM) drive.
- Mass Storage Expansion Unit (MSEU).

NOTE: Interface requirements are a mobile subscriber equipment (MSE) or secure telephone unit (STU-III) connection from the ADSI to Forward Area Air Defense Command and Control Intelligence (FAADC2I) system when working with divisions and a dedicated KY-68.

### III. SOFTWARE TOOLS.

- AMDWS Version A.
- Solaris 2.5.1.
- MS Office Professional.
- No web browsers are installed in AMDWS.

### IV. DEVICE CONNECTIVITY REQUIREMENTS.

See BCD TB to be published by PM FATDS.
V. AMDWS INTERFACES.

Describes USMTF messages and functions that AMDWS passes to and receives from other devices within the BCD, ARFOR, and JAOC. "X" indicates interfaces successfully demonstrated during a BCD exercise. "?" indicates a stated capability but not yet observed at a BCD exercise. "-" indicates partial capability, with limitations stated under remarks.

Table B.1. Functionality Table

<table>
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If using IFSAS, AFATDS must modify the original AMDWS D210.

AMDWS parses but can take only 15 points per message from AMDWS and CTAPS. From AFATDS the message is received as text.

Receive or transmit to AFATDS (Patriot positions). Requires a MSE switchboard and an ADI. Via LAN.

Requires serial feed. Via LAN.
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<th>USMTF</th>
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**AIR AND MISSILE DEFENSE WORKSTATION**

Can use X-Chat or Unix Talk utility.
VI. MAINTENANCE/SUSTAINMENT.

See BCD TB to be published by PM FATDS.

VII. INDIVIDUAL TRAINING.

TRAINING MANUALS.

*AIR and MISSILE DEFENSE WORKSTATION (AMDWS) Training Guide, not dated.*

OPERATOR COURSES.

Operator training is available from the 6th ADA Training Brigade, Fort Bliss, Texas.
POC at commercial: (915) 568-1904; DSN: 978-1904; FAX: XXX-2641.

EMBEDDED TRAINING.

There is currently no embedded training capability built into the AMDWS.

VIII. POC/HOTLINE.

OPM, Air Defense Command and Control Systems (ADCCS), Commercial: (205) 895-8666/4283; DSN: 788-4291/4283, Huntsville, AL.

TSM AMDWS at commercial: (915) 568-0117; DSN: 978-0117.
Appendix C

Maneuver Control System (MCS)

I. SYSTEM CAPABILITIES.

MCS provides Army tactical commanders and their staffs automated, on-line, near real-time systems for planning, coordinating and controlling tactical operations and for receiving, processing, and displaying tactical command and control information. MCS is the force level commander’s information system and integrates the maneuver function with the C2 systems of the other four functional areas (FS, AD, IEW, and CSS). The system provides the principal operational interface between ABCS systems. MCS provides automated support in the preparation and distribution of operational plans, orders, and reports through the chain of command to facilitate monitoring the execution of operations.

USED BY BCD.

The following are used capabilities:

- Overlay creation and distribution (Maps and Overlays).
- Filtering by unit type and size (Maps and Overlays).
- Overlay function for marking and labeling points of interest (Maps and Overlays).
- Can use a drawing tool (Show-me) on the digital map to show advances or other possible maneuver graphics freehand without creating a template or marking the map (Maps and Overlays).
- Map scale, map zoom, magnification of area, and choice of LAT/LONG or UTM coordinates (Maps and Overlays).
- Send the information on the MCS monitor using "Snap Shot" to AFATDS for comments, etc. (Toolbox).
- Pass the following messages frequently (Message Handler):
  - S302 Free text messages.
  - S507L Friendly unit locations.
  - S201 Battlefield geometry.
- Can create distribution lists and autofoward messages (Message Handler).
- Netscape Help files (Help/Netscape).
- Six different "desktops", placing most-used applications open on each of the desktops to allow for quick access of the information.
- Use MS Office Suite 4.3 for document and PowerPoint presentation preparation.
OTHER CAPABILITIES.

The MCS has the following additional capabilities available for use:

- The course of action function allowing the commander to schedule events by unit to insure proper coordination of effort (Synchronization Matrix).
- The wargaming function (Force Ratio Tool) allowing the user to pit units against each other to find the theoretical winner with all known information on both sides (Maps and Overlays).
- "3D Viewer" of terrain, line of sight analytical tool, as well as travel time tool (Maps and Overlays).
- Observation and fields of fire, cover and concealment, obstacles, key terrain, and avenues of approach (OCOKA) features allowing the operator to plan avenues of approach, etc. (Maps and Overlays).
- Attach OPORD to SITMAP (Maps and Overlays).
- Reports (Mercedes, 18-Wheeler, Chicklet, and Gumball) containing all unit logistical and personnel information received from CSSCS (Reports).
- OPORD/OPLAN creation (OPORD).
- The organization chart for the force units down to brigade (UTO).
- Modify units, command relationships in the organization chart (UTO).

II. HARDWARE COMPONENTS.

The MCS consists of the following hardware components:

- SPARC 20 Workstation.
- 9.1 GB Hard Drive.
- V1 19" color monitor.
- 3 ¼" FDD.
- CD ROM drive.
- Magneto Optical drive.
- MSEU.

III. SOFTWARE TOOLS.

- MCS version 12.01 with various builds to include 7.0K with two patches.
- Solaris 2.5.1 software.
- The MCS also has MS Office Professional software installed.
- Web browser is installed in MCS, limited to internal help functions.
IV. DEVICE CONNECTIVITY REQUIREMENTS.

See BCD TB to be published by PM FATDS.
V. MCS INTERFACES.

Describes USMTF messages and functions that MCS passes to and receives from other devices within the BCD, ARFOR, and IAOC. "X" indicates interfaces successfully demonstrated during a BCD exercise. "?" indicates a stated capability but not yet observed at a BCD exercise. "-" indicates partial capability, with limitations stated under remarks.

Table C.1. Functionality Table

<table>
<thead>
<tr>
<th>USMTF</th>
<th>Message/Function</th>
<th>MCS TO</th>
<th>REMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>A423</td>
<td>ORDERS</td>
<td>C G M A</td>
<td>AMDWS receives and can parse up to 15 points per message. ASAS-RWS receives but cannot parse.</td>
</tr>
<tr>
<td>A659</td>
<td>AIR TASKING ORDER</td>
<td>C T C C</td>
<td>?</td>
</tr>
<tr>
<td>C110</td>
<td>INTEL REPORT</td>
<td>C T C</td>
<td>?</td>
</tr>
<tr>
<td>D210</td>
<td>CALL FOR FIRE</td>
<td>A D A C</td>
<td></td>
</tr>
<tr>
<td>G131</td>
<td>INTEL SUMMARY</td>
<td>A D A C</td>
<td></td>
</tr>
<tr>
<td>S201</td>
<td>BTLFLD GEOM</td>
<td>A D A C</td>
<td></td>
</tr>
<tr>
<td>S302</td>
<td>FREE TXT MSG</td>
<td>X X X</td>
<td></td>
</tr>
<tr>
<td>S309</td>
<td>ENEMY INTEROP MSG</td>
<td>X X</td>
<td></td>
</tr>
<tr>
<td>S507L</td>
<td>RES LOC DATA</td>
<td>X X X</td>
<td></td>
</tr>
<tr>
<td>COP, BLUE GROUND</td>
<td>X X X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>COP, RED GROUND</td>
<td>X X X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FILE TRANSFER PROTOCOL</td>
<td>X X X X X X</td>
<td>Files are FTP to MCS to open in PowerPoint.</td>
<td></td>
</tr>
<tr>
<td>CHAT</td>
<td>X X X X X X X X</td>
<td>Can use X-Chat or Unix Talk utility.</td>
<td></td>
</tr>
<tr>
<td>SCREEN CAPTURE</td>
<td>X X X X</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
VI. MAINTENANCE/SUSTAINMENT.

See BCD TB to be published by PM FATDS.

VII. INDIVIDUAL TRAINING.

TRAINING MANUALS.

Volumes 1-10, Maneuver Control System (MCS) Performance Prove-Out Test 5.0, Software Test Procedures, 3 June 1996.

Maneuver Control System, PM Operations Tactical Data System (OPTADS), MCS Prototype V12.01, Software User's Manual (DRAFT), 10 June 96.

OPERATORS COURSES.

The operator's course is taught at Fort Hood, Texas. For a course schedule, contact Fort Monmouth, NJ, DSN: 992-6504.

EMBEDDED TRAINING.

Currently, there is no embedded training.

VIII. POC/HOTLINE.


TSM MCS, Commercial: (913)684-4546/4537/4514/4515; DSN: 552-4546/4537; FAX: -4542. Fort Leavenworth, KS.

Appendix D

All Source Analysis System – Remote Workstation (ASAS-RWS)

I. SYSTEM CAPABILITIES.

ASAS-RWS is the IEW sub-element of the ABCS. It provides combat leaders the all source intelligence needed to view the battlefield and more effectively conduct the battle. ASAS-RWS provides a tactically deployable system with a capability to receive and correlate data from strategic and tactical intelligence sensors/sources, produce enemy situation displays, and rapidly disseminate intelligence information. In addition, it nominates targets, manages collection requirements, and provides operations security support. ASAS-RWS is designed to operate in a joint environment across the spectrum of conflict.

USED BY BCD.

Situation Display.

Communications:
- Automatic message parsing, message fill, and routing.
- DNS allowing ASAS to access local command home pages.
- Net browser to allow access to INTELINK-S.
- Report and message creation, edit, review, and dissemination.

Maps and Graphics:
- Standard DMA products World Vector Shoreline (WVS), Digital Feature Analysis Data (DFAD), and DTED. The PM shop must provide modified ADRG.
- Coordinate conversion.
- Graphical chat between hosts.

Security:
- User and manager password; audit review/archive protected by special duty passwords.

Databases:
- Display of friendly and enemy databases.
- Automated database fills from ASAS-AS EDC message (and periodic updates), ABCS and USMTF messages.
- Event alarms alerting the operator of incoming messages based on database updates and other criteria to trigger auto-retrieval and auto-fill for messages and applications.
User Utilities:

- Coordinate conversions.
- File manipulation.

OTHER CAPABILITIES.

The ASAS-RWS has the following additional capabilities:

Communications:

- Encrypted interfaces with ASAS-AS, ABCS battlefield functional areas (BFA), theater system MSE, Enhanced Tactical Users Terminal (ETUT), Single-Source Processor, Army Command, Control, Communications, and Intelligence (C3I) Single Source Processor (SSP-S), Relocatable Army Processors for Intelligence Data Europe (RAPIDE), Tactical Simulation (TACSIM), and MCS interfaces.
- Enhanced Intelligence Preparation of the Battlefield (IPB) tools.
- Overlay creation, display, printing, unit plotting, and transmission to other systems.

Imagery:

- Receives, displays, and annotates national imagery transmission format (NITF) imagery.
- Displays live UAV video.

Situation/event planning:

- Creates and modifies areas of interest, no go/slow go areas, avenues of approach, mobility corridors and key terrain.
- Event planning includes named areas of interest (NAI), time-phase lines, and event matrix reports.

Target planning:

- Creates and maintains target databases and reports for NAIs/target areas of interest (TAI), high payoff targets (HPT), high value targets (HVT), and attack guidance.
- Event planning includes NAIs, time-phase lines, and event matrix reports.

Workstation system manager:

- System configuration and control.
- Disk maintenance, disk monitor.

Security:

- Anomalous security messages issued to Information Special Security Officer (ISSO).
- Audit trails.
• Formats diskettes for either sensitive compartmented information (SCI) or collateral dissemination.
• Meets Defense Intelligence Agency (DIA) security criteria.

User Utilities:

• Printing of windows, reports, overlays.
• Overlay plotting to map scales.

II. HARDWARE COMPONENTS.

• SPARC 20 Workstation.
• 2 ea 4.2 GB Hard Drives.
• V1 19" color monitor.
• Tape drive.
• CD ROM drive.
• MSEU.

III. SOFTWARE TOOLS.

• ASAS-RWS version 1 Block 1/RWSv1 SWE v2.1.
• Sun OS 4.1.3 software.
• No MS Office Professional is installed in ASAS-RWS.
• A web browser is installed in ASAS-RWS.

IV. DEVICE CONNECTIVITY REQUIREMENTS.

See BCD TB to be published by PM FATDS.
V. ASAS-RWS INTERFACES.

Describes USMTF messages and functions that ASAS-RWS passes to and receives from other devices within the BCD, ARFOR, and JAOC. "X" indicates interfaces successfully demonstrated during a BCD exercise. "?" indicates a stated capability but not yet observed at a BCD exercise. "-" indicates partial capability, with limitations stated under remarks.

<table>
<thead>
<tr>
<th>USMTF</th>
<th>Message/Function</th>
<th>ASAS-RWS TO ASAS-RWS TO</th>
<th>REMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>A423</td>
<td>ORDERS</td>
<td>X ? ?</td>
<td>X ?</td>
</tr>
<tr>
<td>C110</td>
<td>INTEL REPORT</td>
<td>X X X</td>
<td>X X X X</td>
</tr>
<tr>
<td>D210</td>
<td>CALL FOR FIRE</td>
<td>?</td>
<td>X X X X</td>
</tr>
<tr>
<td>D281</td>
<td>ARTY TGT INTEL CRITERIA</td>
<td>X X X</td>
<td>X X X X</td>
</tr>
<tr>
<td>G131</td>
<td>INTEL SUMMARY</td>
<td>X X X</td>
<td>X X X X</td>
</tr>
<tr>
<td>S201</td>
<td>BTLFLD GEOM</td>
<td>?</td>
<td>- X</td>
</tr>
<tr>
<td>S302</td>
<td>FREE TXT MSG</td>
<td>X X X X X X X X X X X X X</td>
<td>ASAS-RWS V2.2 should correct inability to parse.</td>
</tr>
<tr>
<td>S305</td>
<td>TGT INTEL DATA</td>
<td>X</td>
<td>X X X X</td>
</tr>
<tr>
<td>S309</td>
<td>ENEMY INTEROP MSG</td>
<td>X X X</td>
<td>X X X X</td>
</tr>
<tr>
<td>S507L</td>
<td>RES LOC DATA</td>
<td>X X X X</td>
<td>- X</td>
</tr>
<tr>
<td></td>
<td>EXT DB COORD (EDC)</td>
<td>X</td>
<td>X X X X X X X X X X X X X X X X X X X X X X X X</td>
</tr>
<tr>
<td></td>
<td>CHAT</td>
<td>X X X X X X X X X X X X X</td>
<td>Files are FTP to MCS to open in PowerPoint.</td>
</tr>
</tbody>
</table>
VI. MAINTENANCE/SUSTAINMENT.

See BCD TB to be published by PM FATDS.

VII. INDIVIDUAL TRAINING.

TRAINING MANUALS.

There are currently no specific Army training manuals for the ASAS-RWS. FM 34-25-3 All-Source Analysis System and the Analysis and Control Element covers the ASAS family of systems in general terms.

OPERATOR COURSES.

During initial fielding of ASAS, the Army Intelligence Center provides ASAS-RWS NET at the gaining units. The ASAS-RWS NET "Train-the-Trainer" is the foundation for NET for the ASAS-RWS. The NET consists of operator, supervisor, and leader training with a separate CSS operator course. Operator training includes technical and mission-oriented training. Technical training consists of hardware skills such as cabling, configuring LANs, calling up software applications, and operator level maintenance. Mission-oriented training addresses military occupational specialty (MOS) tasks, IEW tasks, and unit specific requirements. No formal TRADOC course is available for ASAS-RWS.

EMBEDDED TRAINING.

Currently, there is no embedded training capability built into the ASAS-RWS.

VIII. POC/HOTLINE.

OPM, Intelligence Fusion, Commercial: (703) 275-8151/8091; DSN: 235-XXXX; FAX: (703) 275-8251.

TSM ASAS-RWS, Commercial: (520) 333-3504/3507; DSN: 821-3504/3507

Appendix E

Global Command and Control System - Army (GCCS-Army)

I. SYSTEM CAPABILITIES.

GCCS-Army provides a single seamless command and control system built around the DII COE and is being integrated with the DoD GCCS. The GCCS-Army integrated acquisition strategy ensures software and technology reuse and eliminates duplication among intra-service as well as inter-service command and control systems. Integration will be partially achieved from the “best of breed” process as GCCS-Army and GCCS share and reuse software modules. The Joint Service/Agency GCCS engineering team, sponsored by DISA is identifying these software modules. GCCS-Army is fundamentally GCCS with additional Army functionality.

USED BY BCD.

Communications:

- Automated Message Handling System (AMHS), message parsing, message fill, and routing.
- NewsGroups provides the latest news-related information through a text-based, non-persistent, non-real-time news access.

Maps and Graphics:

- Standard DMA products including ADRG, WVS, DFAD, and DTED.
- Coordinate conversion.
- Real-time (as received) display of friendly and enemy ground units.
- Real-time (as received) display of friendly and enemy aircraft, cruise missiles, and UAVs in flight.
- Real time (as received) display of friendly and enemy ships.
- Real-time display of TBM launch points, flight paths, and impact areas.
- Battlefield graphics displayed.
- Draw capability.
- Point to point distance determination.

Security:

- User and manager password; audit review/archive protected by special duty passwords.
OTHER CAPABILITIES.

The GCCS-Army has the following additional capabilities available for use:

Communications:

- INTELINK-S, a single source for processed intelligence data.
- GCCS Status of Resource and Training System (GSORTS)/GSORTS application Information Queries (GIQ), accesses Joint Services SORTS (JS SORTS) data to develop courses of data.
- Secret E-mail, data point-to-point, using a group account.
- Zircon chat, real time communications by typed text.
- Internet Relay Chatter (IRC).

System Management:

- Chronological log (CHRONOLOG) provides positions to be incorporated into a chronological listing for that project.
- Monitor displays processor status, logged-in user information, error log, and sends and receives system alarms.

Workstation Management:

- Position Log (PLOG); capture of important events by positions and document action taken.
- Run Remote (RREM); accesses an application on a remote host.

Planning:

- ATO/ACO, provides complete graphical depiction of a particular airspace.
- Joint Operations, Planning and Execution System (JOPES) Tools, develops courses of action for crisis management.
- Dynamic Analysis and Replanning Tool (DART), generates, changes, and analyzes Time Phased Force Deployment Data (TPFDD).
- Requirements Decision Analyzer (RDA), replacement system for DART, displays available OPLANs.
- Logistics Sustainment Analysis and Feasibility Estimator (LOGSAFE), assesses sustainment feasibility of proposed OPLAN.
- Joint Flow and Analysis System for Transportation (JFAST); analyzes transportation from origin to debarkation.
- Force Augmentation Planning and Execution System (FAPES), identifies manpower resources to support a course of action.
- GSORTS; graphical interface to a common pool of information about the status and location of military forces through the world.
- Joint Maritime Command Information System (JMCIIS); tracks the status, location, projected movement, and threat status of ships, submarines, airplanes, and shore units.
• Theater Analysis and Replanning Graphical Execution Toolkit (TARGET); performs current assessment plan generation, scheduling, and analysis.

• Evacuation File Maintenance and Retrieval System (EVAC); database that provides answers to queries on evacuation plans.

• Joint Engineering Planning and Execution System (JEPES); assists in developing the Civil Engineering Support (CESP) annex to the OPLAN.

• Medical Planning and Execution System (MEPES); predicts and evaluates medical requirements in support of an OPLAN.

• Scheduling and Movement (S&M); in-transit tracking of all land, sea, and air carriers independent of OPLAN execution.

Intelligence:

• Joint Deployment Intelligence Support System (JDISS); connectivity and interoperability with intelligence systems.

Security:

• Audit Log; provides the Security Administrator access to audit information, workstation, user, granularity level, application, and audit event.

User Utilities:

• Netscape/http tools.

II. HARDWARE COMPONENTS.

• SPARC 20 Workstation.
• 4.2 GB Hard Drive.
• V1 19" color monitor.
• CD ROM drive.
• MSEU.
• Tape Drive.

III. SOFTWARE TOOLS.

• GCCS-Army version 2.2.1.
• Solaris 2.3 software.
• MS Office 4.3 Professional is installed in GCCS-Army.
• Net browser is installed in GCCS-Army.

IV. DEVICE CONNECTIVITY REQUIREMENTS.

See BCD TB to be published by PM FATDS.
V. GCCS-ARMY INTERFACES.

Describes USMTF messages and functions that GCCS-Army passes to and receives from other devices within the BCD, ARFOR, and JAOC. "X" indicates interfaces successfully demonstrated during a BCD exercise. "?" indicates a stated capability but not yet observed at a BCD exercise. "-" indicates partial capability, with limitations stated under remarks.

Table E.1. Functionality Table

<table>
<thead>
<tr>
<th>ARMY GLOBAL COMMAND AND CONTROL SYSTEM</th>
<th>GCCS-ARMY</th>
<th>GCCS-A TO</th>
<th>REMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>USMTF Message/Function</td>
<td>G C S C S</td>
<td>M A S T D R W S</td>
<td>G C S A S</td>
</tr>
<tr>
<td>A659 ATO</td>
<td>X X X X X X X X X</td>
<td>-</td>
<td>?</td>
</tr>
<tr>
<td>S201 BATTLEFIELD GEOMETRY</td>
<td>X X X X X X X X X</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>S302 FREE TXT MSG</td>
<td>X X X X X</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>S309 ENEMY INTEROP MSG</td>
<td>X X X X</td>
<td>X X X X</td>
<td>-</td>
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<td>S507L RES LOC DATA</td>
<td>X X X X</td>
<td>X X X X</td>
<td>-</td>
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<td>Chat</td>
<td>X X X X X X</td>
<td>X X</td>
<td>-</td>
</tr>
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<td>COP, RED GROUND</td>
<td>X X X X X</td>
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<td>-</td>
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<td>COP, BLUE GROUND</td>
<td>X X X X X</td>
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<td>-</td>
</tr>
<tr>
<td>COP, RED AIR</td>
<td>X X X X</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>FILE TRANSFER PROTOCOL</td>
<td>X X X X X X</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>COP, BLUE AIR</td>
<td>X X X X</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>
VI. MAINTENANCE/SUSTAINMENT.

See BCD TB to be published by PM FATDS.

VII. INDIVIDUAL TRAINING.

TRAINING MANUALS.


GCCS Workstation Familiarization, January 95, Handout (HO) 90P 004, Air Education Training Center, 81st Training Wing, 333d Training Squadron Keesler Air Force Base (AFB), MS, 39534-2402.

Desktop V2.0 Handout, April 14,1995, HO 90P 010, Air Education Training Center, 81st Training Wing, 333d Training Squadron Keesler AFB, MS, 39534-2402.

Note: GCCS-Army was formerly AGCCS. Training manuals are rapidly outdated due to the evolution of the GCCS-Army and GCCS software.

OPERATORS COURSES.

GCCS-Army POC for training is Mr. Andy West, (404) 362-7316. Training registration is available at www.forscom.army.mil. Coordination for a mobile training team is available through Mr. West.

TRADOC POC for GCCS slots and approval for resident course attendance is Mr. Jim Gibbons, DSN: 680-3001. The course provides instruction on database management, system administration, and networking.

GCCS Single Service Training Manager (SSTM) is Mr. Henry Wright, Keesler AFB, MS, DSN: 597-5377. Mr. Wright can provide resident course dates and information on mobile training teams (MTT). Resident training is available at Keesler AFB, MS and Sterling, VA.

EMBEDDED TRAINING.

There is currently no embedded training capability built into the GCCS-Army.

VIII. POC/HOTLINE.


TSM GCCS-Army, Commercial: (913) 684-4537/4546; DSN: 552-4537/FAX-4542.

Web Page: www.stccs-home.army.mil/
Appendix F

Integrated Operations

The BCD C4I Architecture operates as a “System of Systems”, passing information between numerous agencies: ARFOR and BCD, JAOC and BCD, and within BCD sections. This appendix describes the doctrinal techniques used to perform the BCD’s collective tasks as “threads”. During equipment fielding preparation, the NET Team and the NET’ed BCD will design theater-specific threads tailored to unit variables (C4I architecture, mission, personnel, coordinating agencies.) These threads will be validated and adjusted as necessary during the NET.

DOCTRINAL THREADS.

Doctrinal threads are divided into the categories below:

- Thread 1: ATO Production
- Thread 2: ACO Production
- Thread 3: Red Force Situational Awareness
  - 3a - Red Ground.
  - 3b - Red Air.
- Thread 4: Blue Force Situational Awareness
  - 4a - Blue Ground (Source: MCS).
  - 4b - Blue Ground (Source: GCCS-Army).
  - 4c - Blue Air.
- Thread 5: Airspace Control Measure (ACM) Requests
  - 5a - Planned.
  - 5b - Immediate (Request After ACO Published).
- Thread 6: ATACMS Missions
  - 6a - ARFOR Initiated (Planned).
  - 6b - ARFOR Initiated (Immediate).
  - 6c - JFACC Initiated (Planned).
  - 6d - JFACC Initiated (Immediate).
- Thread 7: Theater Missile Defense Attack Operations
Thread 1: ATO Production

![Diagram of ATO Production System]

**Figure F.1 Thread 1: ATO Production**

### Table F.1 Thread 1: ATO Production

<table>
<thead>
<tr>
<th>Task #</th>
<th>Source Organization</th>
<th>Source Device</th>
<th>Information</th>
<th>USMTF</th>
<th>Destination Organization</th>
<th>Receiving Device</th>
<th>Action Taken</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>ARFOR DOCC</td>
<td>AFAATDS</td>
<td>CTL</td>
<td>ADP</td>
<td>BCD Plans</td>
<td>AFAATDS</td>
<td>Check for dup's, no strikes</td>
</tr>
<tr>
<td>2</td>
<td>ARFOR DOCC</td>
<td>AFAATDS</td>
<td>ASR</td>
<td>ADP</td>
<td>BCD Plans</td>
<td>AFAATDS</td>
<td>Check for completeness</td>
</tr>
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<td>3</td>
<td>BCD Plans</td>
<td>AFAATDS</td>
<td>Resolve Conflicts</td>
<td>ADP</td>
<td>ARFOR DOCC</td>
<td>AFAATDS</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>BCD Plans</td>
<td>AFAATDS</td>
<td>ASR's</td>
<td>E-Mail</td>
<td>BCD Plans</td>
<td>CTAPS</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>BCD Plans</td>
<td>CTAPS</td>
<td>ASR's</td>
<td>NA</td>
<td>JAOC</td>
<td>CTAPS, RAAP</td>
<td>Enter manually</td>
</tr>
<tr>
<td>6</td>
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<td>CTAPS</td>
<td>ATO</td>
<td>NA</td>
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<td>CTAPS</td>
<td>E-mail to AFAATDS</td>
</tr>
<tr>
<td>7</td>
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<td>CTAPS</td>
<td>ATOCONF</td>
<td>A659</td>
<td>BCD Plans</td>
<td>AFAATDS</td>
<td>Does Parse w/ its ASR's</td>
</tr>
<tr>
<td>8</td>
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<td>ATOCONF</td>
<td>ADP</td>
<td>ARFOR DOCC</td>
<td>AFAATDS</td>
<td></td>
</tr>
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<td>ATOCONF</td>
<td>ADP</td>
<td>BCD ASM</td>
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</tr>
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<td>11</td>
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<td>ADP</td>
<td>ARFOR DOCC</td>
<td>AFAATDS</td>
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<td>12</td>
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<td>Parsed ATO</td>
<td>ADP</td>
<td>BCD Ops</td>
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<td>ADP</td>
<td>BCD ASM</td>
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<td>14</td>
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<td>ATOCONF</td>
<td>A659</td>
<td>BCD AD</td>
<td>AMDWS</td>
<td></td>
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<td>15</td>
<td>BCD Plans</td>
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<td>ATOCONF</td>
<td>A659</td>
<td>BCD OPS</td>
<td>ASAS-RWS</td>
<td></td>
</tr>
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<td>16</td>
<td>BCD Plans</td>
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<td>ATOCONF</td>
<td>A659</td>
<td>BCD OPS</td>
<td>GCCS-A</td>
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</table>
**Thread 2: ACO Production**

![Diagram of ACO Production Process]

Figure F.2 Thread 2: ACO Production

<table>
<thead>
<tr>
<th>Task #</th>
<th>Source Organization</th>
<th>Source Device</th>
<th>Information</th>
<th>USMTF</th>
<th>Destination Organization</th>
<th>Receiving Device</th>
<th>Action Taken</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>ARFOR DOCC</td>
<td>AFATDS</td>
<td>ACM Requests</td>
<td>ADP</td>
<td>BCD Plans</td>
<td>AFATDS</td>
<td>Check for completeness</td>
</tr>
<tr>
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<td>BCD Plans</td>
<td>AFATDS</td>
<td>ACM Requests</td>
<td>E-Mail</td>
<td>BCD Plans</td>
<td>CTAPS</td>
<td>E-mail to AFATDS</td>
</tr>
<tr>
<td>3</td>
<td>JAOIC</td>
<td>CTAPS</td>
<td>ACO</td>
<td>NA</td>
<td>BCD Plans</td>
<td>CTAPS</td>
<td>E-mail to AFATDS</td>
</tr>
<tr>
<td>4</td>
<td>BCD Plans</td>
<td>CTAPS</td>
<td>ACO</td>
<td>E-Mail</td>
<td>BCD Plans</td>
<td>AFATDS</td>
<td>Parse; Display Geom's</td>
</tr>
<tr>
<td>5</td>
<td>BCD Plans</td>
<td>AFATDS</td>
<td>ACO &amp; S201</td>
<td>ADP</td>
<td>BCD ADM</td>
<td>AFATDS</td>
<td>Parse; Display Geom's</td>
</tr>
<tr>
<td>6</td>
<td>BCD Plans</td>
<td>AFATDS</td>
<td>ACO &amp; S201</td>
<td>ADP</td>
<td>BCD OPS</td>
<td>AFATDS</td>
<td>Parse; Display Geom's</td>
</tr>
<tr>
<td>7</td>
<td>BCD Plans</td>
<td>AFATDS</td>
<td>ACO &amp; S201</td>
<td>ADP</td>
<td>BCD AD</td>
<td>AMDWS</td>
<td>Parse; Display Geom's</td>
</tr>
<tr>
<td>8</td>
<td>BCD Plans</td>
<td>AFATDS</td>
<td>ACO &amp; S201</td>
<td>ADP</td>
<td>BCD AD</td>
<td>AMDWS</td>
<td>Parse; Display Geom's</td>
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</table>
Thread 3a: Red Ground Forces Situational Awareness

Figure F.3 Thread 3a: Red Ground Forces Situational Awareness

Table F.3 Thread 3a: Red Ground Forces Situational Awareness

<table>
<thead>
<tr>
<th>Task #</th>
<th>Source Organization</th>
<th>Source Device</th>
<th>Information</th>
<th>USMTF</th>
<th>Destination Organization</th>
<th>Receiving Device</th>
<th>Action Taken</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>AR FOR ACE</td>
<td>ASAS-AS</td>
<td>EDC</td>
<td>No</td>
<td>BCD OPS</td>
<td>ASAS-RWS</td>
<td>Auto creates S309</td>
</tr>
<tr>
<td>2</td>
<td>BCD OPS</td>
<td>ASAS-RWS</td>
<td>Enemy Locations</td>
<td>DICE</td>
<td>BCD PLANS</td>
<td>ASAS-RWS</td>
<td>Auto forward to all BCD ABCS</td>
</tr>
<tr>
<td>3</td>
<td>BCD OPS</td>
<td>ASAS-RWS</td>
<td>Enemy Locations</td>
<td>S309</td>
<td>BCD OPS</td>
<td>MCS</td>
<td>Display, Filter</td>
</tr>
<tr>
<td>4</td>
<td>BCD OPS</td>
<td>ASAS-RWS</td>
<td>Enemy Locations</td>
<td>S309</td>
<td>BCD OPS</td>
<td>AFATDS</td>
<td>Display, Filter</td>
</tr>
<tr>
<td>5</td>
<td>BCD OPS</td>
<td>AFATDS</td>
<td>Enemy Locations</td>
<td>ADP</td>
<td>BCD PLANS</td>
<td>AFATDS</td>
<td>Display, Filter</td>
</tr>
<tr>
<td>6</td>
<td>BCD OPS</td>
<td>AFATDS</td>
<td>Enemy Locations</td>
<td>ADP</td>
<td>BCD ASM</td>
<td>AFATDS</td>
<td>Display, Filter</td>
</tr>
<tr>
<td>7</td>
<td>BCD OPS</td>
<td>MCS</td>
<td>Enemy Locations</td>
<td>S309</td>
<td>BCD AD</td>
<td>AMDWS</td>
<td>Display, Filter</td>
</tr>
<tr>
<td>8</td>
<td>BCD OPS</td>
<td>MCS</td>
<td>Enemy Locations</td>
<td>S309</td>
<td>BCD OPS</td>
<td>GCCS-A</td>
<td>Correlates w/GCCS COP</td>
</tr>
<tr>
<td>9</td>
<td>BCD OPS</td>
<td>MCS</td>
<td>Enemy Locations</td>
<td>S309</td>
<td>BCD PLANS</td>
<td>GCCS-A</td>
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Thread 3b: Red Air Forces Situational Awareness

Figure F.4 Thread 3b: Red Air Forces Situational Awareness

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<th>Receiving Device</th>
<th>Action Taken</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>JAOC</td>
<td>ADSI</td>
<td>Air Tracks</td>
<td>TADIL-B</td>
<td>BCD AD</td>
<td>AMDWS</td>
<td>Monitor, Active Defense</td>
</tr>
<tr>
<td>2</td>
<td>ARFOR</td>
<td>GCCS-A</td>
<td>Air Tracks</td>
<td>OTH-GOLD</td>
<td>BCD OPS</td>
<td>GCCS-A</td>
<td>MDX Channel, Forward</td>
</tr>
<tr>
<td>2</td>
<td>JAOC</td>
<td>ADSI</td>
<td>Air Tracks</td>
<td>TADIL-B</td>
<td>JAOC</td>
<td>GCCS</td>
<td>MDX Channel, Forward</td>
</tr>
<tr>
<td>3</td>
<td>JAOC</td>
<td>GCCS</td>
<td>Air Tracks</td>
<td>OTH-GOLD</td>
<td>BCD OPS</td>
<td>GCCS-A</td>
<td>MDX Channel, Forward</td>
</tr>
<tr>
<td>4</td>
<td>BCD OPS</td>
<td>GCCS-A</td>
<td>Air Tracks</td>
<td>NA</td>
<td>BCD PLANS</td>
<td>GCCS-A</td>
<td>MDX Channel, Forward</td>
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**Figure F.6 Thread 4b: Blue Ground Forces Situational Awareness (GCCS-Army)**

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<th>Action Taken</th>
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<tbody>
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<td>Friendly Locations</td>
<td>OTH-G</td>
<td>BCD OPS</td>
<td>GCCS-A</td>
<td></td>
</tr>
<tr>
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<td>BCD OPS</td>
<td>GCCS-A</td>
<td>Friendly Locations</td>
<td>S507L</td>
<td>BCD PLANS</td>
<td>GCCS-A</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>BCD OPS</td>
<td>GCCS-A</td>
<td>Friendly Locations</td>
<td>S507L</td>
<td>BCD OPS</td>
<td>MCS</td>
<td>Auto forward to all BCD ABCS</td>
</tr>
<tr>
<td>4</td>
<td>BCD OPS</td>
<td>MCS</td>
<td>Friendly Locations</td>
<td>S507L</td>
<td>BCD OPS</td>
<td>ASAS-RWS</td>
<td>Display, Filter</td>
</tr>
<tr>
<td>5</td>
<td>BCD OPS</td>
<td>ASAS-RWS</td>
<td>Friendly Locations</td>
<td>S507L</td>
<td>BCD PLANS</td>
<td>ASAS-RWS</td>
<td>Display, Filter</td>
</tr>
<tr>
<td>6</td>
<td>BCD OPS</td>
<td>MCS</td>
<td>Friendly Locations</td>
<td>S507L</td>
<td>BCD OPS</td>
<td>AFATDS</td>
<td>Display, Filter</td>
</tr>
<tr>
<td>7</td>
<td>BCD OPS</td>
<td>AFATDS</td>
<td>Friendly Locations</td>
<td>ADP</td>
<td>BCD PLANS</td>
<td>AFATDS</td>
<td>Display, Filter</td>
</tr>
<tr>
<td>8</td>
<td>BCD OPS</td>
<td>AFATDS</td>
<td>Friendly Locations</td>
<td>ADP</td>
<td>BCD ASM</td>
<td>AFATDS</td>
<td>Display, Filter</td>
</tr>
<tr>
<td>9</td>
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<td>MCS</td>
<td>Friendly Locations</td>
<td>S507L</td>
<td>BCD AD</td>
<td>AMDWS</td>
<td>Display, Filter</td>
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Thread 4c: Blue Air Forces Situational Awareness

![Diagram of Blue Air Forces Situational Awareness](image)

Figure F.7 Thread 4c Blue Air Forces Situational Awareness

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<th>Task #</th>
<th>Source Organization</th>
<th>Source Device</th>
<th>Information</th>
<th>USMTF</th>
<th>Destination Organization</th>
<th>Receiving Device</th>
<th>Action Taken</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>ARFOR</td>
<td>GCCS-A</td>
<td>Air Tracks</td>
<td>OTH-GOLD</td>
<td>BCD OPS</td>
<td>GCCS-A</td>
<td>MDX Channel, Forwards</td>
</tr>
<tr>
<td>2</td>
<td>JAOC</td>
<td>ADSI</td>
<td>Air Tracks</td>
<td>TADIL-B</td>
<td>JAOC</td>
<td>GCCS</td>
<td>MDX Channel, Forwards</td>
</tr>
<tr>
<td>3</td>
<td>JAOC</td>
<td>GACS</td>
<td>Air Tracks</td>
<td>OTH-GOLD</td>
<td>BCD OPS</td>
<td>GCCS-A</td>
<td>MDX Channel, Forwards</td>
</tr>
<tr>
<td>4</td>
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<td>GCCS-A</td>
<td>Air Tracks</td>
<td>-</td>
<td>BCD PLANS</td>
<td>GCCS-A</td>
<td>MDX Channel, Forwards</td>
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<tr>
<td>5</td>
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<td>AFADTS</td>
<td>ATO</td>
<td>AE59</td>
<td>BCD Ops</td>
<td>GCCS-A</td>
<td>Parse / Display ARFOR Tgts, Color Code and Track Missions</td>
</tr>
<tr>
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<td>BCD Ops</td>
<td>GCCS-A</td>
<td>Sorties for ARFOR Tgts</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>Color Code and Track Missions</td>
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</table>
Thread 5a: ACM Requests
(Planned)

Table F.8: Thread 5a: ACM Request (Planned)

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<th>Information</th>
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<th>Destination Organization</th>
<th>Receiving Device</th>
<th>Action Taken</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ARFOR G3 FSE</td>
<td>AFATDS</td>
<td>ACM Request (Air Corr)</td>
<td>ADP</td>
<td>BCD ASM</td>
<td>AFATDS</td>
<td>Provides to ACO Production Cell; Gets Approval</td>
</tr>
<tr>
<td>2</td>
<td>BCD ASM</td>
<td>AFATDS</td>
<td>Free Text Msg (App, Disa)</td>
<td>ADP</td>
<td>ARFOR G3 FSE</td>
<td>AFATDS</td>
<td>Disseminates approval to subord's via AFATDS</td>
</tr>
<tr>
<td>3</td>
<td>BCD ASM</td>
<td>AFATDS</td>
<td>ACO</td>
<td>ADP</td>
<td>ARFOR G3 FSE/A2C2</td>
<td>AFATDS</td>
<td>Disseminates ACO to subordinates via AFATDS</td>
</tr>
</tbody>
</table>
Thread 5b: ACM Request
(Immediate Request After ACO Published)

Figure F.9 Thread 5b: ACM Requests (Immediate Request After ACO Published)

<table>
<thead>
<tr>
<th>Task #</th>
<th>Source Organization</th>
<th>Source Device</th>
<th>Information</th>
<th>USMTF</th>
<th>Destination Organization</th>
<th>Receiving Device</th>
<th>Action Taken</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ARFOR G3 FSE</td>
<td>AFATDS</td>
<td>ACM Request (Air Corr)</td>
<td>ADP</td>
<td>BCD ASM</td>
<td>AFATDS</td>
<td>Hand-carries coordination</td>
</tr>
<tr>
<td>2</td>
<td>BCD ASM</td>
<td>AFATDS</td>
<td>Free Text Msg (Coord)</td>
<td>ADP</td>
<td>ARFOR G3 FSE/A2C2</td>
<td>AFATDS</td>
<td>Passes notification to subord AFATDS</td>
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</table>
Thread 6a: ATACMS
(Planned, ARFOR Initiated)

Figure F.10 Thread 6a: ATACMS (Planned, ARFOR Initiated)

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<th>Source Device</th>
<th>Information</th>
<th>USMTF</th>
<th>Destination Organization</th>
<th>Receiving Device</th>
<th>Action Taken</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ARFOR G3 FSE</td>
<td>AFATDS</td>
<td>ACM Request (PAH, TAH)</td>
<td>ADP</td>
<td>BCD ASM</td>
<td>AFATDS</td>
<td>Coordinates w/ ACO Production Cell</td>
</tr>
<tr>
<td>2</td>
<td>BCD ASM</td>
<td>AFATDS</td>
<td>Free Text Msg (Coord)</td>
<td>ADP</td>
<td>ARFOR G3 FSE</td>
<td>AFATDS</td>
<td>Disseminates coordination to subord AFATDS</td>
</tr>
<tr>
<td>3</td>
<td>BCD ASM</td>
<td>AFATDS</td>
<td>ACO</td>
<td>ADP</td>
<td>ARFOR G3 FSE</td>
<td>AFATDS</td>
<td>Disseminates ACO to subordinates via AFATDS</td>
</tr>
<tr>
<td>4</td>
<td>ARFOR G3 FSE</td>
<td>AFATDS</td>
<td>ASR (ATACMS Notification)</td>
<td>ADP</td>
<td>BCD Plans</td>
<td>AFATDS</td>
<td>Notify ATO Production of ATACMS</td>
</tr>
<tr>
<td>5</td>
<td>BCD Plans</td>
<td>AFATDS</td>
<td>ATO</td>
<td>ADP</td>
<td>ARFOR G3 FSE</td>
<td>AFATDS</td>
<td>Disseminates ATO to subordinates via AFATDS</td>
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</table>
Figure F.11 Thread 6b: ATACMS (Immediate, ARFOR Initiated)

<table>
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<th>USMTF</th>
<th>Destination Organization</th>
<th>Receiving Device</th>
<th>Action Taken</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ARFOR G3 FSE</td>
<td>AFATDS</td>
<td>ACM Request (PAH, TAH)</td>
<td>ADP</td>
<td>BCD ASM</td>
<td>AFATDS</td>
<td>Hand-carries request for coordination</td>
</tr>
<tr>
<td>2</td>
<td>BCD ASM</td>
<td>AFATDS</td>
<td>Free Text Msg (Coord Info)</td>
<td>ADP</td>
<td>ARFOR G3 FSE</td>
<td>AFATDS</td>
<td>Pass coordination to subord AFATDS</td>
</tr>
</tbody>
</table>
Figure F.12 Thread 6c: ATACMS (Planned, JFACC Initiated)

Table F.12 Thread 6c: ATACMS (Planned, JFACC Initiated)

<table>
<thead>
<tr>
<th>Task #</th>
<th>Source Organization</th>
<th>Source Device</th>
<th>Information</th>
<th>USMTF</th>
<th>Destination Organization</th>
<th>Receiving Device</th>
<th>Action Taken</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>JFACC</td>
<td>Voice</td>
<td>Request for ATACMS</td>
<td>NA</td>
<td>BCD Plans</td>
<td>Voice</td>
<td>Inputs request into AFATDS</td>
</tr>
<tr>
<td>2</td>
<td>BCD Plans</td>
<td>AFATDS</td>
<td>CFF</td>
<td>ADP</td>
<td>ARFOR DOCC</td>
<td>AFATDS</td>
<td>Determines App/Disapp</td>
</tr>
<tr>
<td>3</td>
<td>ARFOR G3 DOCC</td>
<td>AFATDS</td>
<td>Free Text Msg (App, Disapp)</td>
<td>ADP</td>
<td>BCD Plans</td>
<td>AFATDS</td>
<td>Relay Approval to JFACC</td>
</tr>
<tr>
<td>4</td>
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<td>AFATDS</td>
<td>ACM Request (PAH, TAH)</td>
<td>ADP</td>
<td>BCD ASM</td>
<td>AFATDS</td>
<td>Coordinates w/ ACO Production Cell</td>
</tr>
<tr>
<td>5</td>
<td>BCD ASM</td>
<td>AFATDS</td>
<td>Free Text Msg (Coord)</td>
<td>ADP</td>
<td>ARFOR G3 FSE</td>
<td>AFATDS</td>
<td>Disseminates coordination to subord AFATDS</td>
</tr>
<tr>
<td>6</td>
<td>BCD ASM</td>
<td>AFATDS</td>
<td>ACO</td>
<td>ADP</td>
<td>ARFOR G3 FSE</td>
<td>AFATDS</td>
<td>Disseminates ACO to subordinates via AFATDS</td>
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<td>7</td>
<td>ARFOR G3 FSE</td>
<td>AFATDS</td>
<td>ASR (ATACMS Notification)</td>
<td>ADP</td>
<td>BCD Plans</td>
<td>AFATDS</td>
<td>Notify ATO Production of ATACMS</td>
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<td>8</td>
<td>BCD Plans</td>
<td>AFATDS</td>
<td>ATO</td>
<td>ADP</td>
<td>ARFOR G3 FSE</td>
<td>AFATDS</td>
<td>Disseminates ATO to subordinates via AFATDS</td>
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</table>
Thread 6d: ATACMS
(Immediate, JFACC Initiated)

Figure F.13 Thread 6d: ATACMS (Immediate, JFACC Initiated)

Table F.13 Thread 6d: ATACMS (Immediate, JFACC Initiated)

<table>
<thead>
<tr>
<th>Task #</th>
<th>Source Organization</th>
<th>Source Device</th>
<th>Information</th>
<th>USMTF</th>
<th>Destination Organization</th>
<th>Receiving Device</th>
<th>Action Taken</th>
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<tbody>
<tr>
<td>1</td>
<td>JFACC</td>
<td>Voice</td>
<td>Request for ATACMS</td>
<td>NA</td>
<td>BCD OPS</td>
<td>Voice</td>
<td>Inputs request into AFATDS</td>
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<td>2</td>
<td>BCD OPS</td>
<td>AFATDS</td>
<td>CFF</td>
<td>ADP</td>
<td>ARFOR G3 FSE</td>
<td>AFATDS</td>
<td>Determines Approval/Disapproval</td>
</tr>
<tr>
<td>3</td>
<td>ARFOR G3 FSE</td>
<td>AFATDS</td>
<td>Free Text Msg (Approval, Disapproval)</td>
<td>ADP</td>
<td>BCD OPS</td>
<td>AFATDS</td>
<td>Relay Approval to JFACC</td>
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<td>4</td>
<td>ARFOR G3 FSE</td>
<td>AFATDS</td>
<td>ACM Request (PAH, TAH)</td>
<td>ADP</td>
<td>BCD ASM</td>
<td>AFATDS</td>
<td>Hand-carries request for coordination</td>
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<tr>
<td>5</td>
<td>BCD ASM</td>
<td>AFATDS</td>
<td>Free Text Msg (Coord Info)</td>
<td>ADP</td>
<td>ARFOR G3 FSE</td>
<td>AFATDS</td>
<td>Pass coordination to subord AFATDS</td>
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### Figure F.14 Thread 7: Theater Missile Defense (JFACC Initiated)

### Table F.14 Thread 7: Theater Missile Defense (JFACC Initiated)

<table>
<thead>
<tr>
<th>Task #</th>
<th>Source Organization</th>
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<th>Destination Organization</th>
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<tr>
<td>1</td>
<td>JAOC TMD Cell</td>
<td>ADSI TRE</td>
<td>Launch/Impact Pt, Vector</td>
<td>TIBS</td>
<td>BCD AD</td>
<td>AMDWS</td>
<td>Display, Analyze</td>
</tr>
<tr>
<td>2</td>
<td>JAOC TMD Cell</td>
<td>ADSI TRE</td>
<td>Launch/Impact Pt</td>
<td>TRAP</td>
<td>BCD AD</td>
<td>AMDWS</td>
<td>Display, Analyze</td>
</tr>
<tr>
<td>1</td>
<td>BCD AD</td>
<td>AMDWS</td>
<td>CFF</td>
<td>D210</td>
<td>BCD OPS</td>
<td>AFATDS</td>
<td>Forwards to ARFOR</td>
</tr>
<tr>
<td>2</td>
<td>BCD OPS</td>
<td>AFATDS</td>
<td>CFF</td>
<td>D210</td>
<td>ARFOR DOCC</td>
<td>AFATDS</td>
<td>Determines App/Dissapp</td>
</tr>
<tr>
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<td>ARFOR G3 DOC</td>
<td>AFATDS</td>
<td>Free Text Msg (App, Dissapp)</td>
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<td>BCD OPS</td>
<td>AFATDS</td>
<td>Relay Approval to BCD AD</td>
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<td>4</td>
<td>ARFOR G3 A2C2</td>
<td>AFATDS</td>
<td>ACM Request (PAH, TAH)</td>
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<td>Hand-carries request for approval</td>
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<tr>
<td>5</td>
<td>BCD ASM</td>
<td>AFATDS</td>
<td>Free Text Msg (App, Dissapp)</td>
<td>S302</td>
<td>ARFOR G3 A2C2</td>
<td>AFATDS</td>
<td>Relay approval to subord's via AFATDS</td>
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<td>AAMDC</td>
<td>AMDWS</td>
<td>Patriot Locations</td>
<td>S507L</td>
<td>BCD AD</td>
<td>AMDWS</td>
<td>Display Locations</td>
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<td>2</td>
<td>AAMDC</td>
<td>AMDWS</td>
<td>Range Fans (Geom)</td>
<td>S201</td>
<td>BCD AD</td>
<td>AMDWS</td>
<td>Display Fans</td>
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<tr>
<td>3</td>
<td>AAMDC</td>
<td>AMDWS</td>
<td>Unit / Wpn Status</td>
<td>Update 7 Update P</td>
<td>BCD AD</td>
<td>AMDWS</td>
<td>Data Base</td>
</tr>
</tbody>
</table>
Appendix G

BCD Requests Of The ARFOR

With the introduction of the BCD’s C4I suite of equipment, there are specific requests of the ARFOR to ensure success during preparation, equipment set-up and combat operations.

I. PRE-DEPLOYMENT, HOME-STATION TASKS.

Units designated as the ARFOR must become familiar with the responsibilities and timelines required to meet ATO development and execution. FM 100-13 provides the basis for learning more about the ARFOR’s roles in joint operations. Another technique is to invite the BCD to conduct a pre-deployment brief to outline the requirements.

- From the ARFOR G-2:
  - Digital map of the area of operation.
  - IP addresses for counterparts.
- From the ARFOR ACE:
  - IP addresses for counterparts.
  - Initial EDC for units, facilities and equipment along with any MIIDS/IDB.
- From the ARFOR G-3:
  - ARFOR digital map overlays.
  - Databases with ARFOR units’ designations, UICs, locations, and timetables for arrival in country.
  - Digital package of air defense assets, location and orientation.
  - Digital location and designation of ATACMS units.
  - IP addresses for counterparts.
  - The digital ARFOR OPORD/OPLAN.

II. PRE-HOSTILITY, IN-THEATER TASKS.

Tasks completed in-theater to configure for operations and verify connectivity with all associated agencies within the ARFOR:

- Log-in/Addressing/Affiliation.
- Operational checks.

III. OPERATIONAL TASKS.

In addition to normal ARFOR / BCD interface, important considerations are:

See the individual chapters for specific tasks.

G-1
Appendix H

BCD Requests Of The JAOC

To effectively employ the BCD’s C4I suite of equipment, the BCD will need additional support from the JAOC during mobilization, set-up, and combat operations. BCD personnel should work with JAOC staff to accomplish the following tasks:

I. PRE-DEPLOYMENT, HOME-STATION TASKS.

- Determine IP addresses for the BCD’s counterparts’ workstations.
- Determine the type of digital setup for C4I devices (i.e. parallel, series, optical cable, coax cable, etc).
- To the maximum extent possible, ensure all enemy units and significant targets are entered on the JTL prior to deployment.
- Basic Encyclopedia (BE) numbers should be assigned to all identified targets, mobile or stationary.

Note: BE numbers assigned to garrison headquarters locations may not apply to deployed units—these units should be assigned mobile BE numbers associated with their current battlefield location.

- Determine procedures for adding new targets and BE numbers to the JTL as needed.

II. PRE-HOSTILITY, IN-THEATER TASKS.

- Determine router information for critical C4I links/nodes.
- Verify IP addresses.
- Perform operational checks as part of the set-up process.

III. OPERATIONAL TASKS.

- When processing/entering ARFOR ASRs, RAAP operators should ensure the applicable Army Request Numbers are included. Failure to do so will result in loss of automated targets status update capability.
- Wherever possible, the BCD ASM should have a dedicated CTAPS workstation to allow timely processing of ARFOR ACM requests.
- BCD should have access to MISREPS flown against ARFOR-nominated targets. BDA should be available through intel databases.

See the individual chapters for section-specific tasks.
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Generaf: www.hqda.army.mil/webs/techarch/

AGCCS: www.stccs-home.army.mil/#orgstruc

ASAS: www.army.mil/pmif-pg/index.htm


MCS/P: http://134.80.72.74/

AMDWS: None available
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<th>Abbreviation</th>
<th>Description</th>
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<tr>
<td>AFFOR</td>
<td>Air Force headquarters</td>
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<tr>
<td>AGCCS</td>
<td>Army Global Command and Control System</td>
</tr>
<tr>
<td>AGOS</td>
<td>Air Ground Operations School</td>
</tr>
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<td>AI</td>
<td>Air interdiction</td>
</tr>
<tr>
<td>ARLIFTREQ</td>
<td>Airlift request</td>
</tr>
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<td>ALCC</td>
<td>Airlift coordination cell</td>
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<td>AMDWS</td>
<td>Air and Missile Defense Workstation</td>
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<tr>
<td>AME</td>
<td>Air mobility element</td>
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<tr>
<td>AMES</td>
<td>ATO mission entry system</td>
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<tr>
<td>AMHS</td>
<td>Automated message handling system</td>
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<tr>
<td>AML</td>
<td>Air mission list</td>
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<td>AMS</td>
<td>Air mission schedule</td>
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<td>Army Force headquarters</td>
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<td>ASAS</td>
<td>All Source Analysis System</td>
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<td>ASAS-AS</td>
<td>ASAS-All Source Workstation</td>
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<td>ASAS-RWS</td>
<td>ASAS-Remote Workstation</td>
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<td>Air support operation center</td>
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<td>Air support request</td>
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<td>ATACMS</td>
<td>Army Tactical Missile System</td>
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<td>ATCCS</td>
<td>Army Tactical Command and Control System</td>
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GLOSSARY-1
ATL
ATMDE

ATO
ATOCONF
ATS

B
BCD
Battlefield Coordination Detachment battle damage assessment

BDZ
base defense zone

BE
basic encyclopedia (number)

BFA
battlefield functional area

C
C2
command and control

C2IPS
Command and Control Information Planning System

C3
command, control, and communications

C4I
command, control, communications, computers, and intelligence

CAS
close air support

CCO
Combat Operations

CD ROM
compact disk read only memory

CECOM
Communications Electronics Command

civil engineering support

CESP
CFF
call for fire

CHRONOLOG
chronological log

CID
combat intelligence division

CINC
Commander-in-Chief

COID
combat operations intelligence division

COMARFOR
Commander Army Forces

COP
common operational picture control and reporting center

CRC
combat service support

CSS
Combat Service Support Control System

CSSCS
Contingency Theater Automated Planning System

CTAPS
candidate target list

CTL

D
DART
Dynamic Analysis and Replanning Tool
digital feature analysis data

DFAD
Defense Intelligence Agency

DIA
Director of Mobility Forces

DIRMOBFOR
Defense Information Systems Agency
deployable intelligence support element
daily intelligence summary

DISA
Defense Mapping Agency
dot matrix printer
domain net server

DISE
Deep Operations Coordination Cell

DISUM
Department of Defense

DOD

GLOSSARY-2
<table>
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<tr>
<th>Acronym</th>
<th>Definition</th>
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<tr>
<td>DSABL</td>
<td>Depth and Simultaneous Attack Battle Lab defense switched network</td>
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<td>DSN</td>
<td>digital terrain elevation data drop zone</td>
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<td>DTED</td>
<td>electronic database coordination electronic mail electronic printer Electronic Preparation of the Battlefield Enhanced Tactical Users System early user test evacuation file maintenance and retrieval system electronic warfare</td>
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<tr>
<td>IPB</td>
<td>Intelligence Preparation of the Battlefield Chatter Security Officer integrated tasking order</td>
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<td>IRC</td>
<td>Internet Relay Staff Course</td>
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<td>ISSO</td>
<td>Information Special Staff Course</td>
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<td>ITO</td>
<td>Joint Surveilliance Targeting Radar System targeting coordination board joint target list</td>
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<td>J-STARS</td>
<td>local area network latitude/longitude liaison officer logistics sustainment analysis and feasibility estimator landing zone</td>
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<td>JTCB</td>
<td>Joint Command, Staff Planning, and Execution System Command Staff Officer Joint Operations, Joint Development Intelligence Support System Joint Engineering Planning and Execution System Joint Force Air Component Commander Joint Flow and Analysis System for Transportation Joint Force Commander Joint Guidance, Apportionment and Targeting Joint Integrated Prioritized Target List Joint Movement Control Center Joint Maritime Command Information System Joint Operations, Planning and Execution System joint target list</td>
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<td>NAI</td>
<td>named area(s) of interest</td>
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<td>NAVAIDS</td>
<td>navigational aids</td>
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<tr>
<td>NBC</td>
<td>nuclear, biological, chemical</td>
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<td>NCO</td>
<td>noncommissioned officer</td>
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<td>NET</td>
<td>new equipment training</td>
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<tr>
<td>NETT</td>
<td>new equipment training team</td>
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<td>NGAT</td>
<td>night guidance, apportionment, and targeting</td>
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<tr>
<td>NGF</td>
<td>naval gunfire</td>
</tr>
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<td>NGLO</td>
<td>Naval Gunfire Liaison Officer</td>
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<tr>
<td>NITF</td>
<td>national imagery transmission format</td>
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<tr>
<td>NSF</td>
<td>naval surface fire (new for naval gunfire)</td>
</tr>
<tr>
<td>OCOKA</td>
<td>observation and fields of fire, cover and concealment, obstacles, key terrain, avenues of approach</td>
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<td>OPM</td>
<td>Office of the Program Manager</td>
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<td>OPORD</td>
<td>operations order</td>
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<td>OPTADS</td>
<td>Operations Tactical Data System</td>
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<td>OPTASKLINK</td>
<td>operational task link</td>
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<td>OS</td>
<td>operating system</td>
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<td>OSA</td>
<td>operational support airlift</td>
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<td>PAH</td>
<td>platoon airspace hazard</td>
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<td>PC</td>
<td>personal computer</td>
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<td>PC/UPS</td>
<td>power converter/ uninterruptible power supply</td>
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<td>priority intelligence requirements</td>
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<td>position log</td>
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<td>pick-up zone</td>
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<td>rapid application of airpower</td>
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<td>random access memory</td>
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<td>RAPIDE</td>
<td>Relocatable Army Processors For Intelligence Data Europe requirements</td>
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<td>RDA</td>
<td>decision analyzer reconnaissance rules of engagement</td>
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<td>RECCCE</td>
<td>restricted operational zone</td>
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<td>ROE</td>
<td>remotely piloted vehicle</td>
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<td>ROZ</td>
<td>run remote</td>
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<td>RREM</td>
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<td>S&amp;M</td>
<td>scheduling and movement</td>
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<td>SAAFR</td>
<td>standard army aviation flight route</td>
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<td>SADO</td>
<td>Senior Air Defense Officer</td>
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<td>SAM</td>
<td>surface-to-air missile</td>
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<td>SCC</td>
<td>site control center</td>
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<td>Definition</td>
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<tr>
<td>SCI</td>
<td>sensitive compartmented information</td>
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<td>SCSI</td>
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<td>TSM TRADOC System Manager</td>
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<td>TSS target selection standards</td>
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<td>unmanned aerial vehicle</td>
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By Order of the Secretary of the Army:

DENNIS J. REIMER
General, United States Army
Chief of Staff

JOEL B. HUDSON
Administrative Assistant to the Secretary of the Army

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