Mobile Tower System (MOTS) Block 0 Update

(version 3.0)

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USAACE - Aviation School

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This System Training Plan (STRAP) is preliminary.
Front end analysis (mission, task, job) is ongoing. USAACE - Aviation School will amend and update this STRAP as details solidify.

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1.0 System Description

The AN/MSQ-135 Mobile Tower System (MOTS), is a highly mobile, rapid-deployable Air Traffic Control (ATC) Tower and Airfield Lighting System (ALS) that quickly establishes Air Traffic Services (ATS) for arrival, departure and ground operations in all-weather conditions, night or day, for military and civilian aircraft during the initial phases of deployment and sustains those services throughout operations and redeployment. The MOTS is a modular system that includes the air traffic controllers' tower and power plant, modernized, jam-resistant communications, runway lighting system, landing/drop/pickup zone lighting system, and meteorological sensors. Equipment is included to remotely command airfield operations, including control of existing airfield lighting systems. The MOTS is designed to support military ATC and ALS operations and communicate with other Air Traffic Service (ATS) and Battle Command (BC) systems. The MOTS is also capable of supporting civilian ATC and ALS needs to include disaster relief, forest fire fighting operations, and other temporary airfield operations anywhere in the world. The Medium Tactical Vehicle (MTV) is the shelter prime mover and tows dual 18 Kilowatt (KW) generators mounted on a modified HP6G/18 IPT 2.5 Ton cargo trailer. The MOTS has two four-seat High Mobility Multipurpose Wheeled Vehicles (HMMWVs) which tow light tactical trailers for airfield lighting and miscellaneous equipment that is not necessary for initial deployment. The system is C-17 deployable, CH-47 transportable (Shelter only), meets international ATC standards, and contains modernized, digital jam-resistant communications. FUE occurred in 1 Qtr FY14.

2.0 Target Audience

TARGET AUDIENCE		
Category	**Job**	**Area of Concentration (AOC)** **Military Occupational Specialty (MOS)**
Operator		
Air Traffic Control Operator	Air Traffic Controller	15Q
Subject Matter Expert (SME)		
Air Traffic and Airspace Management Technician	Technician	150A
Electronic Systems Maintenance	Systems Maintenance Officer	948B
Supply		

Repairer		
Air Traffic Control Equipment Repairer	Electronic Maintenance	94D
Power Generation Repairer	Generator Maintenance	91D
Wheeled Vehicle Repairer	Wheeled Vehicle Maintenance	91B
Utilities Equipment Repairer	Air Conditioning Repair and Maintenance	91C
Trainer		
Aviation Enlisted Training Institute (AETI), Fort Rucker, AL	15Q Advanced Individual Training	Tactical Systems
Unit Training	Command Directed Training	MOTS Proficiency and Certification
US Army Communication and Electronics School, Fort Gordon, GA	94D ATC Equipment Repair School	MOTS Proficiency and Certification
Additional Information/Requirements:		

3.0 Assumptions

- The Army requires no new Military Occupational Specialties (MOSs) or Additional Skill Identifiers (ASIs) to operate, maintain, or support the system.
- Mobile Tower System resident training will not require an increase in overall course length for MOS 15Q. The MOTS resident training will also not require an increase in overall course length for MOS 94D.
- Tower simulators in the institutional training base must be updated to replicate in form and function the MOTS
- Introduction of the MOTS into US Army Aviation units will not require any increase in the physical, sensory, or mental abilities of the personnel who have responsibility for its operation, maintenance, or support.
- Department of the Army, Active, National Guard and Reserves will provide the necessary resources, personnel, and equipment required to implement and support the MOTS.
- There will not be an increase in total Army force structure to support the manning of the MOTS.
- Training resources will be programmed, budgeted, developed and available as required to implement the training program identified/designed in this STRAP and its annexes.
- All Technical Manuals (TMs) and Interactive Electronic Technical Manuals (IETMs) which conform to applicable military specifications, will be validated and verified by prior to delivery to the user.
- The MOTS must have the capability of being trained across all training domains (Institutional, Operational and Self-development).

4.0 Training Constraints

Constraint Type	Probable Impact	Mitigating Efforts
Budgetary		
NONE		
Equipment		
NONE		
Training Equipment		
NONE		
Personnel		
NONE		

Facilities		
The Mobile Tower System will be trained using existing training facilities	None	MOTS will require no unique or additional facilities requirements
Human Factors Engineering		
No known constraints		
System Safety		
No known constraints		
Doctrine		
No known constraints		

Environmental		
The MOTS must be Energy compliant	None	The MOTS will not create or add any unique energy requirements
Support Services		
PM funding to support tools, personnel training, training equipment, and Associated Support Items of Equipment (ASIOE) to support the training base for USAACE and CASCOM is dependent upon availability and accuracy of Qualitative and Quantitative Personnel Information (QQPRI).	The Program Manager (PM) is responsible for establishing the service and support contract for the initial fielding years and then will ensure that proper logistical support is established through the Training Requirements Analysis System (TRAS) and the normal Army Logistics System	Ensuring planning and system review involve logistical planning for out years of the MOTS
Command Guidance		

No known constraints		
Soldier Survivability		
No known constraints		
Other		
No known constraints		
Public Law		
No known constraints		

5.0 System Training Concept

- USAACE, as proponent for the MOTS, is responsible for the development and submission of this STRAP.
- Field Level Maintenance training will be conducted for both Operator/Crew Level and Field Maintainer Level System sustainment.
- USAACE, DOTD and U. S. Army Combined Arms Support Command (CASCOM) Systems Integration Division (SID) Sustainment Center of Excellence are responsible for the integration of training into USAACE and CASCOM proponent schools, resident/nonresident training programs, and for integration strategies into this STRAP.
- Material Developer (MATDEV) training material will be in compliance with and developed using the Analysis, Design, Development, Implementation, Evaluation (ADDIE) methodology, be input using the Training Development Capability (TDC) program, apply the concept of Distributed Learning (DL), and be Shareable Object Content Reference Model (SCORM) compliant. Interactive Multimedia training will also be provided with the MOTS system once developed. All Interactive Multimedia Instruction (IMI) software will be developed in accordance with ALPS TR 350-70 Army Learning Policy and Systems, TRADOC Pam 350-70-2 Multimedia Courseware Development Guide, TRADOC Pam 350-70-10 Systems Approach to Training Course and Courseware Validation, TRADOC Pam 350-70-12 The Army Distributed Learning (DL) Guide, Military Handbook (MIL-HDBK) 29612-4A Department of Defense Handbook Glossary for Training (Part 4), and DoD Instruction 1322.20 Development and Management of Interactive Courseware (ICW) for Military Training. The system will not require a change in skill or aptitude requirements, as described in Army Regulation (AR) 611-101.
- MOTS tasks will be added to the existing user courses 15Q (Air Traffic Control Operator) and 150A (Air Traffic and Airspace Management Technician Warrant Officer) conducted at Ft. Rucker, AL and for the maintainer course 94D (Air Traffic Control Equipment Repairer) and 948B (Electronic Systems Maintenance Technician) conducted at Ft. Gordon, GA. Procedures for the operation and maintenance of the MOTS will also be described in approved technical manuals issued with each MOTS. MOTS Technical Manuals will also be available for download from Defense Logistics Support Agency (LOGSA).
- USAACE has accepted the use of a non-embedded System TADSS device for use with the Mobile Tower System as an incremental approach to the fully embedded training requirements of the CPD. This portable TADSS simulation device may be used in the institutional and operational training domains to support Mobile Tower System Operator Air Traffic Control proficiency and training.

- The Mobile Tower System with the assigned TADSS simulation capability is capable for use in Live, Virtual, Constructive, Gaming-Integrated Training Environment (LVCG-ITE).
- MOTS training will be developed and conducted under the oversight, direction, and time-phased approvals of the USAACE Directorate of Training and Doctrine (DOTD) and CASCOM SID. Training products will be prepared in accordance with the SAT process. Task analysis and individual task development will be performed using the Training Development Capability (TDC) database software, provided as Government Furnished Equipment (GFE).
- The Aviation Proponent along with the Mobile Tower System Program Management Office will ensure the TSP remains current throughout the MOTS program life cycle and that any revisions are provided to the Army Training Support Center (ATSC) in addition to the regular MOTS distribution requirements.
- Training for Active and Reserve Component units will be identical.
- The introduction of the MOTS into the Army will require New Equipment Training (NET) and institutional and unit level training to include the use of Interactive Multimedia Instruction (IMI)/Computer-Based Instruction (CBI), extension training materials and TMs for certification and sustainment training. A New Equipment Training Team (NETT) will provide the necessary training for operators and maintainers in units/institutions receiving MOTS.
- Courseware will be developed and provided for the NETT IAW the SAT process. The Mobile Tower System will also have a course of instruction to be used in the Exportable Training Package (ETP). An ETP will be available at receiving units for unit/sustainment training after the NETT departs. The ETP will consist of CD ROM based IMI, automated technical manuals.
- USAACE and CASCOM Training Developers (TNGDEVs) will update institutional training of the MOTS when verified and validated training materials are received from the Program Management Office and instructor personnel have been trained and qualified on the MOTS.
- The introduction of the Mobile Tower System requires no change to DTT.
- The instructor personnel will be trained on the MOTS during Operator and Maintainer Instructors and Key Personnel Training (IKPT). The IKPT Instructor must provide instructor personnel a copy of the Master courseware to assist in identifying changes in existing institutional training.
- The Unit/Sustainment training will be accomplished using a combination of the MOTS NET and an ETP that will be left with the units identified in the New Equipment Training Plan (NETP).

- PM-MOTS is responsible for Funding of all NET Fielding events.

5.1 New Equipment Training Concept (NET)

The MATDEV will provide courseware for the NETT IAW the SAT process. The MATDEV will develop a course of instruction to be used in the Exportable Training Package ETP, which the NETT will leave with the units as they are trained IAW the NETP. The Program Manager, PM ATC, is responsible the funding for the NETT, to include travel funds. The MOTS PM Office will deliver a copy of all courseware materials to USAACE DOTD and CASCOM SID for review, revision (if needed), and approval prior to fielding.

The NET concept is implemented through the materiel developer's requirement to provide a TSP for NET, unit sustainment, and institutional training and is the basis for all training. NETT will use a train the trainer approach. NET will leverage computer based training, Interactive Multimedia Instruction, and Soldiers will train on the newly fielded systems, and TADSS.

NETT requirements include:

a. NET will be conducted by PM ATC or a PM selected contractor. Training will be monitored by the USAACE DOTD Training Directorate and CASCOM SID.

b. NET will be conducted at the receiving units when the system is delivered. The MOTS will require the receiving unit's operator and maintainer NET for IKPT and MOTS Fielding. The units will be responsible to conduct sustainment and ATC qualification and proficiency training on the system after receiving the NET. NET details will be in the NETP.

c. NET will be conducted in conjunction with the fielding of the MOTS. The MOTS will require operator and maintainer NET for IKPT and MOTS Fielding. PM ATC will provide USAACE DOTD and CASCOM SID with the training materials required to train operator and maintainer tasks IAW the training strategy developed for MOTS. The TNGDEV at CASCOM SID is responsible for the selection of the critical tasks to support the 94D training at the proponent school. The TNGDEV at USAACE DOTD is responsible for selection of the critical tasks to support the 15Q training at the proponent school.

d. The NET strategy is based on Army Regulation 350-1, Army Training and Leader Development, 18 Dec 2009 RAR in conjunction with the NET requirements and is the responsibility of PM ATC. The strategy will be coordinated with USAACE and CASCOM schools. NET development will, as a minimum, include a Total Task Inventory (TTI), NET TSP that includes multimedia in addition to POI's, lesson plans, technical manuals, student and instructor guides, and a course management plan. The TSP will include a tutorial "how to" module that

permits identification of Soldier training proficiency by module. The MOTS equipment and training subsystem, all devices and products must be available for NET. The following NET courses are required: (1) Test Player Training, (2) Instructor and Key Personnel (I&KP) Course, and (3) Unit NET.

e. Once the unit has been fielded and received NET, the materiel developer will remain on call, and continue to support the system until fielding is completed throughout the entire MACOM. Fielding and training to Reserve and National Guard units, will be conducted in the same manner and at the same time as active army, and provided at selected locations determined to be the most cost effective and feasible.

f. The NETP is available in the AMTAS NET Database.

5.2 Displaced Equipment Training (DET)

The MOTS does not displace any existing equipment, consequently there is no DET training. The system being replaced will be turned in to the Army Supply System for Disposition.

5.3 Doctrine and Tactics Training (DTT)

Not Applicable

5.4 Training Test Support Package (TTSP)

USAACE DOTD, CASCOM SID and PM ATC will develop a Test Training Support Package (TTSP). USAACE and CASCOM proponents will review and approve the TTSP. The Lesson Plans (LPs) developed by PM ATC for the NET TSP will be put in the Training Development Capability (TDC) at least one year prior to FUE.

The final TTSP consists of:

- Training schedule for player personnel.
- POI for each affected MOS
- List of training devices and embedded training components.
- Army training and evaluations program, draft mission training plan (MTP) or changes to the MTP.
- Target audience description
- Draft Soldiers’ Training Publications (STPs) or changes
- Lesson Plans (LP)
- Critical Task List (CTL)
- Field manuals (FM) or changes to FM’s (when not provided with the Doctrine and Organization Test Package) Technical Manuals (TM), which conform to applicable military and commercial specifications, will be validated and verified, prior to initial NET and delivered to the user not later than 60 days following updates to materials.

6.0 Institutional Training Domain

6.1 Institutional Training Concept and Strategy

MOTS Operator training will be integrated into the existing 15Q School at USAACE. Product Manager (PM) MOTS is required to develop TSP changes to MOTS training as the system matures IAW TR 350-70 Army Learning Policy and Systems. All training and training development will be IAW AR 350-1 Army Training, and Leader Development and TR 350-70 and TP 525-8-2 w/C1 06Jun2011. Training development will include institutional training, PD courses, exportable TSPs, IMI and other forms of Distributed Learning (DL). Training for the 15Q MOS 20, 30 and 40 levels will be to incorporate leader tasks on the proper techniques and tactics of the MOTS. There will not be an additional skill identifier (ASI) for the 15Q CMF. MOTS Maintenance training will be integrated into the existing 94D School at Ft. Gordon, GA. Instructors from the 15Q and 94D School will be trained during IKPT with sufficient time to support and assist in the development of all institutional training requirements. The system individual training will include all tasks associated with the operation and maintenance of the Mobile Tower System which will be derived from the TSP. A full complement of training support products is required to support training of the MOTS in the institutions. The complete MOTS training support package (TSP) will be placed on the Central Army Registry (CAR) https://atiam.train.army.mil/catalog/catalog/search.html (Login with CAC required) for unit use in certification and sustainment training after approval by the USAACE DOTD and CASCOM SID Training Directorates. Initial operator and maintainer training Skill Level 10 (SL10) for the MOTS consists of performance oriented, hands-on training. This training program shall include the necessary training to install, operate and prepare the MOTS for movement for the operator; and the required training to repair the MOTS for maintainers. Employment and leader training will cover characteristics and capabilities of the Mobile Tower System.

6.1.1 Product Lines

Product lines will consist of hardware, software, publications, courses, lessons, training aids, training facilities and management services that will provide the capabilities that trainers and Soldiers need to train in the institution, operational, and self-development domains.

6.1.1.1 Training Information Infrastructure

MOTS training infrastructure will require the use of the following items.

Department of Defense (DOD) standards such as Army Distributive Learning (Adl), Sharable Content Object Reference Model (SCORM), and Army Training Information Architecture-Migrated (ATIA-M) will be implemented in the design and development of the TSS products. MOTS Life Cycle Support will include training, training software and courseware design that will be developed in a reusable and maintainable format, i.e., SCORM compliant. PM ATC is responsible for the funding of support tools, personnel training, training equipment, and Associated Support Items of Equipment (ASIOE) to support the training base for CASCOM and USAACE. The amount is dependent upon availability and accuracy of Qualitative and Quantitative Personnel Requirements Information (QQPRI).Training Development Capability (TDC) or its TRADOC approved replacement will be used in this effort.

6.1.1.1.1 Hardware, Software, and Communications Systems

The Army Training Network (ATN) supports the DL concept and facilitates the dissemination and delivery of training support information.

6.1.1.1.2 Storage, Retrieval, and Delivery

Access and storage of MOTS training and information will be made available through one or more of the following locations:

- Training Development Capability Database (TDC)
- The Army Learning Management System (ALMS)
- Army Training Network (ATN)
- The Central Army Registry (CAR)

6.1.1.1.3 Management Capabilities

MOTS training products and information will be managed through the Standard Army Training System (SATS), Computer Assisted Instruction (CAI), TDC, and the Automated Instructional Management System – Personal Computer (AIMS-PC)

6.1.1.1.4 Other Enabling Capabilities

PM ATC Training Support Center
Toll Free: 1-866-585-8544
Comm: (256) 890-8763
DSN: 282-1048
Email: atcsupport@gdc4s.com

Interoperability and data exchange as required by the Training Support System (TSS) will exist with the Army Training Integrated Architecture (ATIA).

6.1.1.2 Training Products

The Materiel Developer will develop an exportable IMI TSP that will support dL and train-the-trainer training. For institutional, the live FTX portion of the institutional training base, and for unit training and sustainment in the Operational Training Domain, components will employ embedded training capabilities, be multimedia based, and/or use distance-learning technologies. The subsystem will contain (as a minimum) doctrinal manuals, system ETM, TMs, TADSS, IMI TSP and courses (complete with a digitized POI, lesson plans, student and instructor guides, course management plan, and an air traffic control tower simulator for embedded operator training). The package will be coordinated with USAACE and CASCOM training developers. This process will facilitate the production of training support products for delivery with the Training Support System and the ability to rapidly update tasks and their instructional products using digital information systems.

6.1.1.2.1 Courseware

The PM will provide an MOTS multi-media training support package that can be us support institutional training at Ft. Rucker (15Q) and Ft. Gordon (94D), unit sustainment training and distance learning training using the DTMS and CATS Government Systems. The PM will also be responsible for upgrading the TSP as ne versions of software become available and modifications are made to the MOTS sy

6.1.1.2.2 Courses

Course Name	Course Number
Initial Military Training	
Air Traffic Control Operator	222-15Q10
Air Traffic Control Equipment Repairer	102-94D10
Air Traffic and Airspace Management Technician	2G-150A
Electronic Systems Maintenance Technician	4F-948B

Professional Military Education (PME)	
ATC Operator Advanced Leaders Course (ALC)	222-15Q30-C45
ATC Operator Senior Leaders Course (SLC)	222-15Q40-C46
Functional And ASI	

Mobilization	

6.1.1.2.3 Training Publications

Publications	**Publication Date**
Field Manuals	
FM 1-02 Operational Terms and Graphics	21 Sep 04
FM 1-100 Army Aviation Operations	21 Feb 97
FM 3-04.111 Aviation Brigades	7 Dec 07
FM 3-04.120 Air Traffic Services Operations	16 Feb 07
FM 3-04.126 Attack, Reconnaissance Helicopter Operations	16 Feb 07
FM 3-04.300 Airfield and Flight Operations Procedures w/C1 and C2	8 Dec 08
FM 3-52 Airspace Control	8 Feb 13
5-19 Composite Risk Management	21 Aug 06

Technical Manuals	
TC 3-04.81 Air Traffic Control Facility Operations, Training, Maintenance and Standardization	29 Oct 10
Proposed TM 11-5894-1880-10	In publishing process
Proposed TM 11-5895-1880-23	In publishing process
Proposed TM 11-5895-1880-23P	In publishing process
Objective for Block 1 TM 11-5895-1895-23&P	Proposed

Soldier Training Publications	
STP 1-93C1-SM-TG Soldiers Manual and Trainers Guide, MOS 93C, Air Traffic Control, Skill Level 1	1 Apr 02
STP 1-93C24-SM-TG Soldiers Manual and Trainers Guide, MOS 93C, Air Traffic Control, Skill Levels 2/3/4	4 Jun 02
STP 9-94D12-SM-TG SOLDIER'S MANUAL AND TRAINER'S GUIDE, MOS 94D, AIR TRAFFIC CONTROL EQUIPMENT REPAIRER, SKILL LEVELS 1 AND 2	8 Jun 06
STP 9-94D34-SM-TG SOLDIER'S MANUAL AND TRAINER'S GUIDE, MOS 94D, AIR TRAFFIC CONTROL EQUIPMENT REPAIRER, SKILL LEVELS 3 AND 4	6 Apr 06

Special Texts	

6.1.1.2.4 Training Support Package (TSP)

The MOTS TSP will provide training products, materials, and information that supports individual and collective task that will be integrated into a training and management exercise. The multimedia TSP will be a tutorial 'how to' module that permits audiences to be self-taught, wherever feasible, and will include a diagnostic test module that permits identification of Soldier training proficiency by module. Certification and sustainment training will be facilitated by the multimedia TSP left with the unit following NET. The 3 Critical Individual Tasks for MOTS will be Install the Mobile Tower System; Operate the Mobile Tower System and Prepare the Mobile Tower System for Movement. The Full Test TSP is available from MOTS Integrated Logistics Support Manager.

The following Individual Tasks are developed in TDC and shall be placed into DTMS :

15Q

- 011-15Q-0071 Install the Mobile Tower System (MOTS), AN/MSQ-135
- 011-15Q-0072 Operate the Mobile Tower System (MOTS), AN/MSQ-135
- 011-15Q-0073 Prepare the Mobile Tower System (MOTS), AN/MSQ-135 for Movement

94D

- 091-94D-1931 Repair the Mobile Tower System (MOTS), AN/MSQ-135

6.1.1.3 TADSS

Soldiers will use the MOTS for training in ATS units and the institutional training base. MOS 15Q, ATC Operator Course, tower simulators in the institutional training base must be updated to replicate in form and function the MOTS. The PM is responsible for development, integration, and life cycle management of TADSS IAW AR 350-38.

6.1.1.3.1 Training Aids

The training aids used at the institution are: Projectors, laptops and mock-ups of the MOTS system.

Material Developer will develop 3-D objects that are fully interactive Free Play/Exploration mode, allowing user to attach/detach parts as desired. View internal components, rotate the equipment in all directions, view parts in context through semi transparency, view equipment in line drawing or X-Ray mode, disassemble and reassemble the equipment while experiencing constraints on parts, get detailed information, etc.

User can pause animation and move 3D model around freely, including any camera angle and part movements in real time. To perform a task, the user must be able to select parts and actually perform the actions to be done on the 3D model, such as removing/replacing parts in real time and perform multi-direction cross-sectioning in real time.

Movement constraints can be associated with parts (such as hinges, bolts, gauges) and user can move parts in constrained manner in real time. Parts can be linked to other 3D simulations, documents, and web pages. It may have the capability of being inserted into Microsoft Word, PowerPoint and
Adobe PDF via "insert" menus.

6.1.1.3.2 Training Devices

The PM’s strategy is to initially provide a solution that provides playback of voice communications, and the ability to train controllers using the depiction of electronic, visual control tower scenarios, incorporating voice and audio interaction. The ATC trainer will be incrementally integrated into the MOTS. A maintenance trainer interface will be incrementally integrated into with other aviation simulations including: ATNAVICS, TAIS, and the Aviation Combined Arms Tactical Trainer (AVCATT). Integration of both trainers will occur over the life-cycle of the program. Soldiers will use the MOTS for training in ATS units. The PM is responsible for development, integration, and life cycle management of TADSS IAW AR 350-38. The MOTS requirement for embedded training to provide an Air Traffic Control (ATC) tower simulator to be used for controller skill task qualification and proficiency training when live air traffic is not present at the airfield serviced by the MOTS has been satisfied in the interim by providing a stand-alone ATC Common Simulator (ACS) that will be issued to each ATC Unit by the PM for each system. The Training Simulator can be used inside the MOTS shelter or as a stand-alone training device during downtime at home-station or during training exercises.

6.1.1.3.3 Simulators

The PM in cooperation with TPO-AB Combat Developers have agreed to an incremental approach to a fully embedded training capability. In this incremental approach the ATC Common Simulator (ACS) will be used as Stand Alone TADSS Device assigned to the system. The ACS has the capability to train on Tower, ATNAVICS Radar and TAIS operations. The system will be capable of being interlinked with other aviation simulators to run scenarios with all facilities involved.

6.1.1.3.4 Simulations

Simulations need to support Equipment Training (ET), train the trainer courses, institutional and sustainment training and will included both individual and unit level training exercises which can be linked into a Joint and combined training environment. This will allow all levels of operators and system managers to conduct training and evaluation. PEO-STRI will be incorperated into the process and upgrade developments of all simulation systems to meet the needs of the Integrated Training and T&E environments.

6.1.1.3.5 Instrumentation

The Materiel Developer will ensure that the MOTS will have the capabilities to integrate with other ABCS systems as well as CTC facilities. This will allow the system to be placed into operation during battle simulations and virtual training centers use as well as CTC exercises. Interactive Multimedia Instruction on the AN/MSQ-135 Mobile Tower System will be developed to support Institutional , Operational and Self Development Training.

6.1.1.4 Training Facilities and Land

Institutional training for the MOTS will utilize existing classroom space that will support a class size of at least 9 students (Maximum of 12) at USAACE and 8 students at OEMTD, Fort Gordon, for lecture type instruction. Existing hanger space will be used for institutional FTX staging area, hands-on system maintenance training, and storage of the MOTS system. OEMTD will require additional power, ground connections and, cabling for the MOTS systems.

6.1.1.4.1 Ranges

Not Applicable

6.1.1.4.2 Maneuver Training Areas (MTA)

The MOTS user will utilize existing ranges/maneuver areas during Field training Exercises (FTX) that are cost efficient and training effective. These maneuver areas provide realistic representations (scenario’s designed by the user) and will provide realistic representation of the existing and projected threat, duplicate or replicate the time movement, and counter-measures.

6.1.1.4.3 Classrooms

- Institutional training will use existing classrooms.
- USAACE and CASCOM will require 2 each (4 total), complete MOTS for institutional required training and field training exercises.

6.1.1.4.4 CTCs

There are no Combat Training Center instrumentation and interface requirements beyond what is required to support participation in digitized exercises.

6.1.1.4.5 Logistics Support Areas

Existing hanger space will be used for institutional FTX staging areas, hands-on system maintenance training, and storage of the MOTS system. Units are responsible for Storage and Staging areas for the MOTS Systems and securing all sensitive and pilferable items during storage of the system

6.1.1.4.6 Mission Command Training Centers (MCTC)

Not Applicable

6.1.1.5 Training Services

PM MOTS is responsible for the New Equipment Training Plan (NETP):

- PM MOTS must provide resources for the most cost-effective training program and strategies for leaders, staff, crews, and maintainers. These must be determined as early as possible in the program, and ensure that the training enables those Soldiers to achieve the performance levels required for the MOTS and as specified in the requirement documents.
- Funding for training development of MOTS equipment, TADSS for the training bases and the field is a PM MOTS responsibility IAW AR 350-1.
- Embedded training will not adversely impact the operational requirements or capabilities of the system. The requirement should be identified early enough in the Life Cycle Management Model (LCMM) to be incorporated into prototype designs that analyze its capability to train individual tasks through force-level collective tasks, as required.
- PM MOTS, with active participation by the DOTD/CASCOM training developers, will require the contractor to develop or update a complete training system, e.g., institutional training devices, simulators, IKPT, and NET. The system will contain (as a minimum) ETM's, and TSPs and courses (complete with digitized lesson plans, student and instructor guides).
- PM MOTS will develop an Interactive Multimedia TSP consisting of instructor/operator and user training and manuals. The interactive multimedia TSP will include tutorial “how to” modules that permit audiences to be self-taught, where feasible, and include a diagnostic module that permits identification of DL in accordance with the SAT process that the government will validate during developmental and operational testing. PM MOTS will update all training materials when a software update/upgrade occurs.
- The MOTS NETP shall be developed via the Government Provided AMTAS Software IAW AR 350-1 and DA Pam 350-40.

6.1.1.5.1 Management Support Services

The PM must coordinate funding for the life cycle of the MOTS program management and sustainment for training programs. Standard Army management support services are available throughout the Army support system related to these requirements.

6.1.1.5.2 Acquisition Support Services

Acquisition support services will be needed to procure the MOTS using appropriate contract vehicles. Contract management services and other contract vehicles are a standard provided system for support. Product Manager MOTS must coordinate funding for the life cycle of the system.

6.1.1.5.3 General Support Services

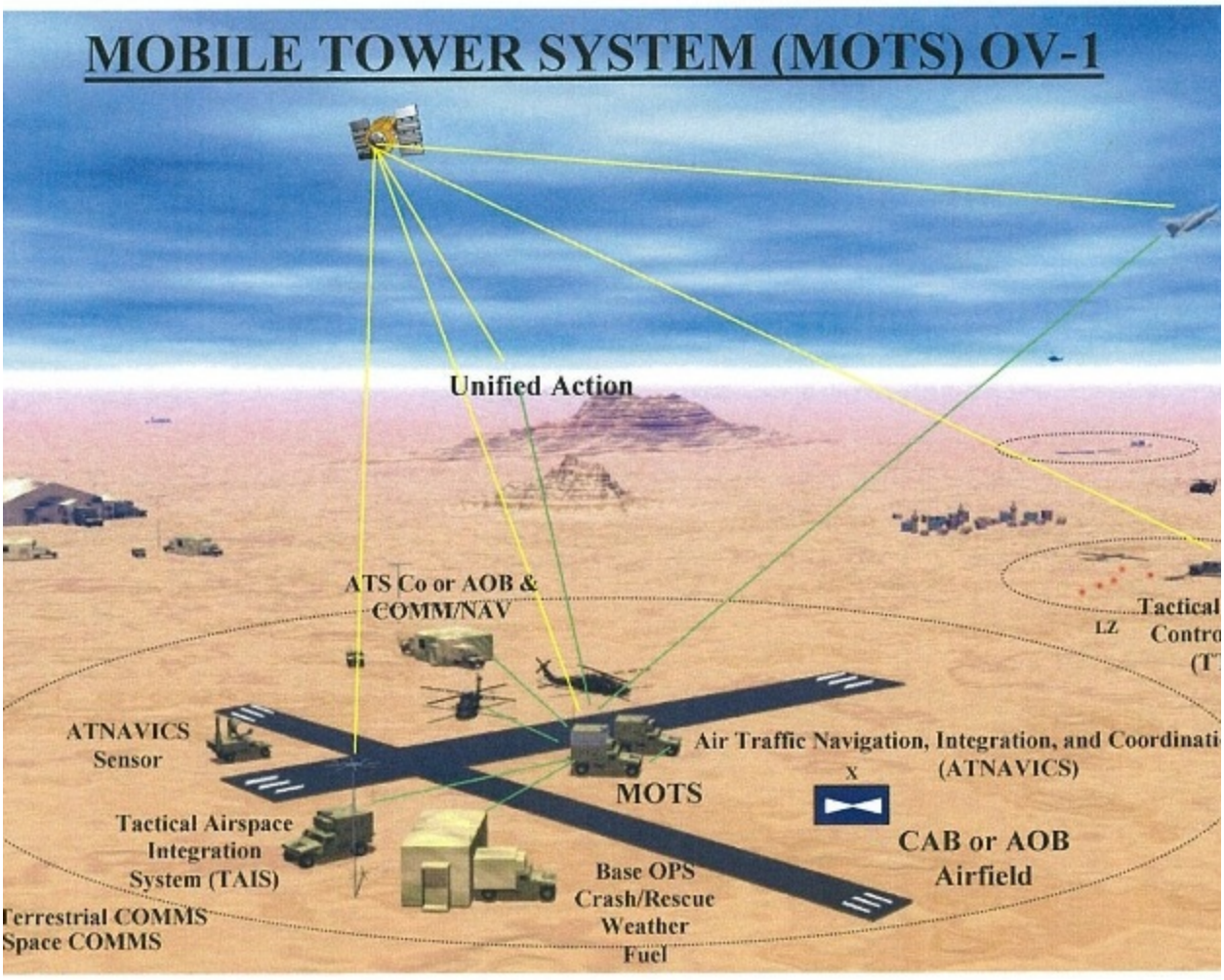
The PM is responsible for coordinating Army or contractor support and funding for the required general support services throughout the life cycle of the MOTS and to ensure coordination to include any and all support items and or systems.

6.1.2 Architectures and Standards Component

The Mobile Tower System is part of an overall ATS capability which includes the ATNAVICS, TAIS, and TTCS. Together these systems form a network of airspace information and aviation force protection capabilities across the operational environment. MOTS serves as an enabler for aviation by providing visual and non-precision aircraft deconfliction and airspace information services by voice and data radio transmissions to unified action aircraft operating from, to, and through its airfield and terminal airspace areas of responsibility. The ATNAVICS is collocated and electronically linked by landline and radio, and objectively by Local Area Network (LAN), with the MOTS to provide aircraft radar guidance and precision recovery capabilities from the edges of terminal airspace to the landing area. The TAIS, the area airspace manager and Airspace Control (AC) facilitator, is electronically linked to the MOTS' automation system and voice/data capable radios to provide air mission planning data and airspace control information that could affect the terminal airspace. TAIS will also be the MOTS' electronic link to Army Battle Command System (ABCS). When required by METT-TC, MOTS will be electronically linked to joint, multinational, and civil ATC systems and facilities to coordinate and transfer responsibility for aircraft in the various stages of flight. A seamless, electronic linkage between Army ATS systems should be facilitated by an ATS network as an objective capability. An ATS network capability will enable cooperative ATS systems to effectively operate without dependency on competitive, non-ATS network resources and bandwidth.

6.1.2.1 Operational View (OV)

The MOTS OV-1 depicts how the MOTS will control the landing area and terminal airspace within the Joint Operations Area and Theater areas of responsibility. Air Traffic Service (ATS) includes the visual and procedural sequencing and separation of arriving, departing, and transitioning aircraft, coordinating the instrument meteorological condition recovery of aircraft, and coordinating in-flight emergencies and personnel recovery actions. The MOTS will be assigned to the ATS company and airfield operations battalion of the combat aviation brigade and theater airfield operations group. The ATNAVICS or other ground controlled approach system will be collocated and electronically linked by landline and radio with the MOTS to provide aircraft radar guidance and precision recovery capabilities from the edges of terminal airspace to the landing area. The TAIS, the area airspace manager and airspace command and control facilitator, will be electronically linked to the MOTS' automation system and voice/data capable radios to provide air mission planning data and airspace control information that could affect the terminal airspace. TAIS will also be the MOTS' electronic link to the Army Battle Command System. When required, the MOTS will be electronically linked to unified action air traffic control systems (including the TTCS) and facilities to coordinate and transfer responsibility for aircraft in the various stages of flight. The MOTS will also be tasked with the rapid restoral of air terminal operations during stability and civil support operations.



MOTS OV-1

Operational View

6.1.2.2 Systems View (SV)

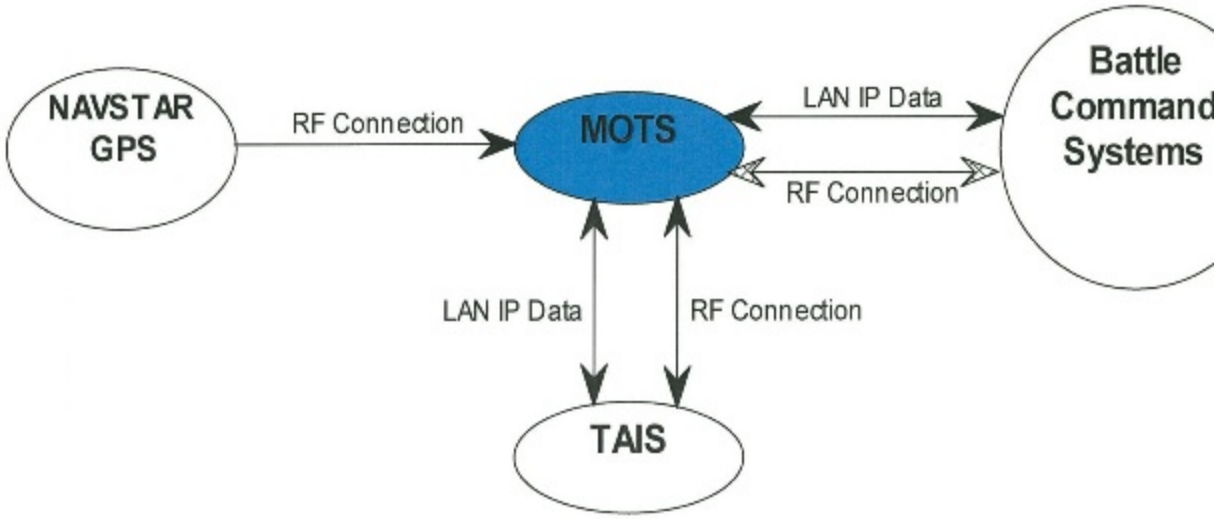
The MOTS will be a key player in the US Army's net-centric battlefield and the products associated with this architecture depict the current operational activities, information exchanges, and systems functionality required in the tactical employment of MOTS.

SV-2 Communications Description

, graphically depicts the major nodes required for MOTS data communication connectivity and the interfacing local area n
equency (RF) networks.

SV-2 Systems Communications: MOTS

Voice Interfaces are 'human-to-human',
not 'system-to-system', and are thus not depicted.



MOTS SV-2

System View

6.1.2.3 Technical View (TV)

The MOTS will be Joint Technical Architecture (JTA) compliant. The MOTS embedded training should incorporate defined technical standards, implementation conventions, business rules and criteria that govern the architecture.

TV-1 Technical Standards Profile

Unclassified

Technical Standards View

Standards Profile for MOBILE TOWER SYSTEM

DISR System Profile: MOTS
System Description: Mobile Tower System
System Profile Classification: Unclassified
Created by: Angela Hughes
Published Date: 2006-04-04
Waiver Granting Authority:
Waiver Date:

IT Profile: IPv6
IT Description: SWB3 standards required for IPv6
IT Profile Classification: Unclassified
Last Updated: 2006-04-04

Service Area	Standard Identifier	Title of Standard	Published Status	Sunset	Current Status	Sunset
Network Technologies	IETF RFC 1570	PPP LCP Extensions, 11 January 1994.	Mandated		Mandated	
Network Technologies	IETF RFC 1738	Uniform Resource Locators (URL), 20 December 1994.	Mandated		Mandated	
Network Technologies	IETF RFC 1771	A Border Gateway Protocol 4 (BGP-4), 21 March 1995.	Mandated		Mandated	
Network Technologies	IETF RFC 1772	Application of the Border Gateway Protocol in the Internet, 21 March 1995.	Mandated		Mandated	
Platform Communications Services	IETF RFC 1870	Simple Mail Transfer Protocol Services Extension for Message Size Declaration, November 1995	Mandated		Mandated	
Network Technologies	IETF RFC 1989	PPP Link Quality Monitoring (LQM), 16 August 1996.	Mandated		Mandated	
Network Technologies	IETF RFC 1994	PPP Challenge Handshake Authentication Protocol (CHAP), 30 August 1996.	Mandated		Mandated	
Network Technologies	IETF RFC 2126	ISO Transport Service on Top of TCP (ITOT), March 1997.	Mandated	X	Mandated	X
Platform Communications Services	IETF RFC 2136	Dynamic Updates in the Domain Name System, April 1997.	Mandated		Mandated	
Platform Communications Services	IETF RFC 2231	MIME Parameter Value and Encoded Word Extensions: Character Sets, Languages, and Continuations, November 1997.	Mandated		Mandated	
Network Technologies	IETF RFC 2460	Internet Protocol, Version 6 (IPv6) Specification, December 1998.	Mandated		Mandated	
Network Technologies	IETF RFC 2461	Neighbor Discovery for IP Version 6, (IPv6), December 1998.	Mandated		Mandated	
Network Technologies	IETF RFC 2462	IPv6 Stateless Address Autoconfiguration, December 1998.	Mandated		Mandated	
Network Technologies	IETF RFC 2463	Internet Control Message Protocol (ICMPv6) for the Internet Protocol Version 6 (IPv6) Specification, December 1998.	Mandated		Mandated	
Network Technologies	IETF RFC 2464	Transmission of Ipv6 Packet Over Ethernet Networks, December 1998.	Mandated		Mandated	
Network Technologies	IETF RFC 2581	TCP Congestion Control, April 1999.	Mandated		Mandated	
Network Technologies	IETF RFC 2616	Hypertext Transfer Protocol - HTTP 1.1, June 1999.	Mandated		Mandated	

Unclassified

Technical Standards View

Standards Profile for MOBILE TOWER SYSTEM

Service Area	Standard Identifier	Title of Standard	Published Status	Sunset	Current Status	Sunset
Platform Communications Services	IETF RFC 2822	Internet Message Format, April 2001.	Mandated		Mandated	
Network Technologies	IETF RFC 3315	Dynamic Host Configuration Protocol for IPv6 (DHCPv6), July 2003.	Mandated		Mandated	
Network Technologies	IETF RFC 3596	DNS Extensions to Support IPv6	Mandated		Mandated	
Network Technologies	IETF Standard 51/RFC 1661/RFC 1662	Point-to-Point Protocol (PPP), July 1994.	Mandated		Mandated	
Network Technologies	IETF Standard 6/RFC 768	User Datagram Protocol, 28 August 1980.	Mandated		Mandated	
Network Technologies	IETF Standard 8/RFC 854/RFC 855	TELNET Protocol, May 1983.	Mandated		Mandated	
Network Technologies	IETF Standard 9/RFC 959	File Transfer Protocol, October 1985, with the following FTP commands mandated for reception: Store unique (STOU), Abort (ABOR), and Passive (PASV).	Mandated		Mandated	

Technical View

6.1.3 Management, Evaluation, and Resource (MER) Processes Component

1. USAACE and CASCOM SID are responsible for managing the training requirem for the proponent schools.
2. Periodic reviews of course POI and lessons plans will be conducted to ensure the most up to date and relevant information is taught in training facilities. The proponent will ensure that unit supply personnel are familiar with the ALP warranty program (found in the Technical Manual) which is as follows:

- The Mobile Tower System warranty for the product purchased is detailed in full in the applicable Government contract. The MOTS is covered under a one year Manufactures Warranty from date of Issue. Following warranty period the MOTS will be maintained using either the current two level maintenance system or PBL. PM CBA is still being conducted.
- If the inspection or test reveals defects covered by the warranty, the manufacturer will repair or replace the unit at the discretion of the manufacturer.
- If the manufacturer determines that the unit is not defective or not covered by warranty, the Program Manager will be notified for action.
- The warranty does not extend to any unit which: (1) has been subject to misuse or neglect.
- The manufacturer will not be responsible for the costs of repairs performed by and/or replacement parts or material supplied by anyone other than the manufacturer.
- Warranty repairs are provided at no charge on qualified systems.

3. MACOM is responsible for reserving resources to cover the cost of non-warranty repairs and replacements, including shipping cost.

6.1.3.1 Management

Where possible, MOTS will use existing facilities and support infrastructure. The staff training estimate in support of MOTS will focus on the most efficient use of existing resources and precisely identify and quantify any expected shortfalls. Training development will focus on producing products that are capable of being used both in the institution and operational use. Students and evaluators will be routinely asked to evaluate training events and products to determine how best to improve the quality and efficiency of instruction while maximizing available resources.

6.1.3.1.1 Strategic Planning

Planning will be conducted in accordance with:

- National Defense strategies
- Joint Vision 2020
- Army Transformation Campaign Plan (ATCP)
- TRADOC plan
- USAACE Campaign Plan

6.1.3.1.2 Concept Development and Experimentation (CD&E)

The Mobile Tower System concept is already proven as this system is a replacement to the AN/TSW-7A, Air Traffic Control Central, NSN: 5895-01-018-1246 which currently holds the Air Traffic Control Tower Tactical Mission in a Tactical Field Environment.

6.1.3.1.3 Research and Studies

Requirements for a Capabilities Based Assessment will be determined at a later date following training integration of the system into Government inventory.

6.1.3.1.4 Policy and Guidance

The following documents are to provide guidance and direction for the TSS:

- AR 350-1 and AR 350-38
- TRADOC Regulations 350-70 and 71-20
- TRADOC Pamphlet 71-20
- TRADOC Pamphlet 525-8-2 w/C1 06Jun2011

6.1.3.1.5 Requirements Generation

The following documents support requirements generated during the JCIDS process for the MOTS system.

- ORD (8 Nov 99)
- CPD (23 Sep 09)
- STRAP

6.1.3.1.6 Synchronization

The fielding of MOTS will be synchronized with the following as applicable to ensure that NET occurs as units are fielded and with the following considerations:

- TADSS Distribution Plans
- Power projection platforms
- Training institutions
- RSO sites

6.1.3.1.7 Joint Training Support

There are no initiatives that support the alignment of the Army TSS with joint training support emplaced at this time.

6.1.3.2 Evaluation

The USAACE QAO will conduct periodic internal and external course and training evaluations.

6.1.3.2.1 Quality Assurance (QA)

QA plans will be utilized IAW each installations existing QA plan to ensure proper course auditing is complete.

6.1.3.2.2 Assessments

Post-Fielding Training Effectiveness Analysis (PFTEA). When resources permit and USAACE and CASCOM SID have the manpower to support the PFTEA processes, a PFTEA will be conducted not later than 18 months after First Unit Equipped (FUE). The WARMOD Branch, DOTD, USAACE and CASCOM Training Developers will conduct the analysis with the assistance from the Directorate of Evaluation and Standardization, Fort Rucker, AL. The analysis will be conducted using a written survey developed by the NETT and selected MOTS SMEs. The survey will be distributed to units fielded the MOTS and will recognize the need for product or training improvements. The analysis includes coordinating the evaluations of POIs, LPs, personnel selection criteria, and Situation Training Exercises (STXs). The NETT analysis, of demonstrated skills by unit personnel provides data for the evaluation. The data collected by the NETT and the results of the analysis will be staffed throughout USAACE and CASCOM. The PFTEA will recognize the need for product improvements and training improvements if required

6.1.3.2.3 Customer Feedback

The following tools will be used to seek and receive feedback

- Written surveys
- Interviews
- Focus groups
- Questionnaires

6.1.3.2.4 Lessons Learned/After-Action Reviews (AARs)

AARs will be used as described in paragraph 6.1.3.2.3 above to provide feedback on course material, as well as functional use evaluations. The Center for Army Lessons Learned (CALL) documentation will be analyzed for lessoned learned from the field and incorporated into MOTS training as needed.

6.1.3.3 Resource

Item Resourced	Prior	FY14 Yrs or $K	FY15 Yrs or $K	FY16 Yrs or $K	FY17 Yrs or $K	FY18 Yrs or $K	FY19 Yrs or $K
Manpower - TD							
Contractor		0.5MY	0.5MY	0.1MY	0.1MY	0.1MY	0.1MY
Civilian		0.5MY	0.2MY	0.1MY	0.1MY	0.1MY	0.1MY
Enlisted							
Warrant							
Officer							
Contract/Spt		0.1MY	0.1MY	0.1MY	0.1MY	0.1MY	0.1MY
Civ Pay		23K	3K	3K	3K	3K	3K

Trvl/Per Diem							
Other							

Rationale:

Item Resourced	Prior	FY14 Yrs or $K	FY15 Yrs or $K	FY16 Yrs or $K	FY17 Yrs or $K	FY18 Yrs or $K	FY19 Yrs or $K
New Equipment Training							
Contractor		660K	396K	396K	396K	*1	
Contract/Spt		100K	60K	60K	70K	*1	
Trvl/Per Diem							

Classrooms							
Equipment Shipping		145K	87K	87K	102K	*1	
AC/DC Power							
Printing		10K	6K	6K	7K	*1	
Other							

Rationale: *1- FIELDING DEPENDENT ON SCHEDULE AND PROCUREMENT

Item Resourced	Prior	FY14 Yrs or $K	FY15 Yrs or $K	FY16 Yrs or $K	FY17 Yrs or $K	FY18 Yrs or $K	FY19 Yrs or $K
Training Products							

Training Pubs		10K					
TSP		0.2MY					
IMI			*1	*1			
ETM		10K					
STP			0.3MY				
IETM			0.3MY				
ARTEP/MTP							
Printing			2K	2K	2K	2K	2K
Distribution							
Other							

Rationale:

Item Resourced	Prior	FY14 Yrs or $K	FY15 Yrs or $K	FY16 Yrs or $K	FY17 Yrs or $K	FY18 Yrs or $K	FY19 Yrs or $K
TADSS							
Training Aids		2K			2K		
Devices							
Simulators		1,300K	1,300K	*1	*1	*1	*1
Simulations							
GTA		3K			3K		
Software							
Trng Equip							
Equipment							

Printing		1K	1K	1K	*1	*1	*1
Shipment		5K	5K	*1	*1	*1	*1
Sustainment							
Other							

Rationale: *1- FIELDING DEPENDENT ON SCHEDULE AND PROCUREMENT

Item Resourced	Prior	FY14 Yrs or $K	FY15 Yrs or $K	FY16 Yrs or $K	FY17 Yrs or $K	FY18 Yrs or $K	FY19 Yrs or $K
Facilities/Land							
Facilities							
Land							

Site Surveys							
Concrete Pad							
AC/DC Power							
Equipment							
Maintenance							
Other							

Rationale:

Item Resourced	Prior	FY14 Yrs or $K	FY15 Yrs or $K	FY16 Yrs or $K	FY17 Yrs or $K	FY18 Yrs or $K	FY19 Yrs or $K
Training Services/TII							

LMS							
Services							
Servers							
Licenses							
IT Support							
Other							

Rationale:

Item Resourced	Prior	FY14 Yrs or $K	FY15 Yrs or $K	FY16 Yrs or $K	FY17 Yrs or $K	FY18 Yrs or $K	FY19 Yrs or $K
Eval/QA							

Contractor							
Civilian							
Enlisted							
Warrant							
Officer							
Contract/Spt							
Civ Pay							
Trvl/Per Diem							
Facilities							
Equipment							
Printing							
TEA							

PFTEA							
Other							

Rationale:

7.0 Operational Training Domain

The operational domain encompasses training activities that individuals, units and organizations undertake. These activities include training conducted at home station, during major training events (to include Joint exercises) at combat training centers and other locations (to include mobilization centers), and while operationally deployed. Unit leaders are responsible for the proficiency of their subordinates (Soldiers and Army civilians), subordinate leaders, teams/crews, and the unit as a whole. The objective of Operational Training continues to the combat readiness of the unit to provide lethal brigade combat teams to supporting units with versatile, agile, and knowledgeable battle staffs.

7.1 Operational Training Concept and Strategy

Unit training will be conducted initially through NET when MOTS is fielded to the recieving units. All NET training materials will be provided to the unit so that the unit can develop its sustainment training program. Unit sustainment training will be conducted on two levels, individual and collective, and will be progressive from initial to sustainment. Each MOTS will have an Embedded Training (ET) capability to allow sustainment training in either a garrison or field environment. Collective training skills will be acquired and sustained through repetitious application of crew drills, STX, CPX, FTX, and similar exercises.

7.1.1 Product Lines

Product lines will consist of hardware, software, publications, courses, lessons, training aids, training facilities and management services that will provide the capabilities that trainers and Soldiers need to train in the operational domain.

Required Unit Product lines are listed briefly below:

1. Training Devices: The system will be used in the training of Soldiers in the Unit
2. Simulators: MOTS-T Simulator (to be replaced by the ATC Common Simulator (ACS))
3. Simulations: The MOTS System is capable of being incorporated into Simulation Scenarios using voice communications as its primary source of data transfer and coordination.

7.1.1.1 Training Information Infrastructure

MOTS training infrastructure will require the use of the following items:

- Training Development Capability (TDC) or its TRADOC approved replacement

Department of Defense (DOD) standards such as Sharable Content Object Reference Model (SCORM), and Army Training Information Architecture-Migrated (ATIA-M) will be implemented in the design and development of the TSS products. MOTS Life Cycle Support will include training, training software and courseware design that will be developed in a reusable and maintainable format, i.e., SCORM compliant. PM MOTS is responsible for the funding of support tools, personnel training, training equipment, and Associated Support Items of Equipment (ASIOE) to support the training base for CASCOM and USAACE. The amount is dependent upon availability and accuracy of Qualitative and Quantitative Personnel Requirements Information (QQPRI). Digital Training Management System (DTMS) Combined Arms Training Strategies (CATS) will also be used.

7.1.1.1.1 Hardware, Software, and Communications Systems

The Mobile Tower System will provide digital connectivity to TAIS and BC systems through LAN, Tactical Packet Network (TPN) access, and data capable radios. The PM will provide life-cycle software support for MOTS.

7.1.1.1.2 Storage, Retrieval, and Delivery

Digital access and storage of MOTS operational training and information will be made available through one or more of the following locations:

- Army Training Network (ATN)
- The Central Army Registry (CAR)
- Army Learning Management System (ALMS)

7.1.1.1.3 Management Capabilities

MOTS training products and information will be managed through the Standard Army Training System (SATS), dL, and the Automated Instructional Management System Personal Computer (AIMS-PC), and the Training Development Capability (TDC) Software.

7.1.1.1.4 Other Enabling Capabilities

Additional capabilities for the Mobile Tower System include:

- Joint Training Information Management System (JTIMS)
- Command, Control, Communications, and Computers Intelligence, Surveillance, Reconnaissance (C4ISR)
- Lifelong Learning

7.1.1.2 Training Products

Operational training will be accomplished with the NET TSP, including the IMI TSP and is to be left with the unit following NET. Embedded training will be an integral part of the MOTS training and leader development strategies. The embedded operator training intent is for MOTS to provide an ATC tower simulated environment to be used for controller skills task qualification and proficiency training when live air traffic in not present at the airfield serviced by the MOTS.

7.1.1.2.1 Courseware

Operational courseware developed for the MOTS will contain instructional packages such as Computer Aided Instruction (CAI), Computer Based Instruction (CBI), Computer Managed Instruction (CMI), Interactive Courseware, (ICW) and Interactive Multimedia Instruction (IMI) to support and sustain operational training at home-station or while deployed. These instructional packages will accessible through Army dL, ALMS and Army Training Network (ATN), the Digital Training Management System (DTMS) and the Central Army Registry(CAR) .

7.1.1.2.2 Courses

Course Name	Course Number
Initial Military Training	
Air Traffic Control Operator	222-15Q10
Air Traffic Control Equipment Repairer	102-94D10
Air Traffic and Airspace Management Technician	2G-150A
Electronic Systems Maintenance Technician	4F-948B

Professional Military Education (PME)	
ATC Operator Advanced Leaders Course (ALC)	222-15Q30-C45
ATC Operator Senior Leaders Course (SLC)	222-15Q40-C46
Functional And ASI	

Mobilization	

7.1.1.2.3 Training Publications

Publications	**Publication Date**
Field Manuals	
FM 1-02 Operational Terms and Graphics	21 Sep 04
FM 1-100 Army Aviation Operations	21 Feb 97
FM 3-04.111 Aviation Brigades	7 Dec 07
FM 3-04.120 Air Traffic Services Operations	16 Feb 07
FM 3-04.126 Attack, Reconnaissance Helicopter Operations	16 Feb 07
FM 3-04.300 Airfield and Flight Operations Procedures w/C1 and C2	8 Dec 08
FM 3-52 Airspace Control	8 Feb 13
FM 5-19 Composite Risk Management	21 Aug 06

Technical Manuals	
TC 3-04.81 Air Traffic Control Facility Operations, Training, Maintenance and Standardization	29 Oct 10
Proposed TM 11-5894-1880-10	In publishing process
Proposed TM 11-5895-1880-23	In publishing process
Proposed TM 11-5895-1880-23P	In publishing process

Soldier Training Publications	
STP 1-93C1-SM-TG Soldiers Manual and Trainers Guide, MOS 93C, Air Traffic Control, Skill Level 1	1 Apr 02
STP 1-93C24-SM-TG Soldiers Manual and Trainers Guide, MOS 93C, Air Traffic Control, Skill Levels 2/3/4	4 Jun 02
STP 9-94D12-SM-TG SOLDIER'S MANUAL AND TRAINER'S GUIDE, MOS 94D, AIR TRAFFIC CONTROL EQUIPMENT REPAIRER, SKILL LEVELS 1	8 Jun 06

AND 2	
STP 9-94D34-SM-TG SOLDIER'S MANUAL AND TRAINER'S GUIDE, MOS 94D, AIR TRAFFIC CONTROL EQUIPMENT REPAIRER, SKILL LEVELS 3 AND 4	6 Apr 06
Special Texts	

7.1.1.2.4 TSP

The MOTS TSP will provide training products, materials, and information that supports individual and collective task that will be integrated into a training and management exercise. The multimedia TSP will be a tutorial 'how to' module that permits audiences to be self-taught, wherever feasible, and will include a diagnostic test module that permits identification of Soldier training proficiency by module. Certification and sustainment training will be facilitated by the multimedia TSP left with the unit following NET. The 3 Critical Individual Tasks for MOTS will be Install the Mobile Tower System; Operate the Mobile Tower System and Prepare the Mobile Tower System for Movement. The Full Test TSP is available from MOTS Integrated Logistics Support Manager.

The following Individual Tasks are developed in TDC and available for viewing:

15Q

- 011-15Q-0071 Install the Mobile Tower System (MOTS), AN/MSQ-135
- 011-15Q-0072 Operate the Mobile Tower System (MOTS), AN/MSQ-135
- 011-15Q-0073 Prepare the Mobile Tower System (MOTS), AN/MSQ-135 for Movement

94D

- 091-94D-1931 Repair the Mobile Tower System (MOTS), AN/MSQ-135

7.1.1.3 TADSS

The MOTS will be used as the training equipment in the Operational Domain. The MOTS-T which will be replaced by the ATC Common Simulator will be used to maintain controller skill task qualification and proficiency training when live air traffic is not present at the airfield serviced by the MOTS has been satisfied by providing a stand-alone ACS that will be issued to each ATC Unit by the PM for each system. The Training Simulator can be used from Inside the MOTS Tower or as a stand-alone training device during downtime at homestation or during training exercises.

7.1.1.3.1 Training Aids

Material Developer will develop 3-D objects that are fully interactive Free Play/Exploration mode, allowing user to

attach/detach parts as desired. View internal components, rotate the equipment in all directions, view parts in context

through semi transparency, view equipment in line drawing or X-Ray mode, disassemble and reassemble the equipment

while experiencing constraints on parts, get detailed information, etc. User can pause animation and move 3D model

around freely, including any camera angle and part movements in real time. To perform a task, the user must be able to

select parts and actually perform the actions to be done on the 3D model, such as removing/replacing parts in real time

and perform multi-direction cross-sectioning in real time. Movement constraints can be associated with parts (such as

hinges, bolts, gauges) and user can move parts in constrained manner in real time. Parts can be linked to other 3D

simulations, documents, and web pages. It may have the capability of being inserted into Microsoft Word, PowerPoint

and Adobe PDF via "insert" menus.

7.1.1.3.2 Training Devices

The PM’s strategy is to initially provide a solution that provides playback of voice communications, and the ability to train controllers using the depiction of electronic, visual control tower scenarios, incorporating voice and audio interaction. The ATC trainer will be incrementally integrated into the MOTS. A maintenance trainer interface will be incrementally integrated into with other aviation simulations including: ATNAVICS, TAIS, and the Aviation Combined Arms Tactical
Trainer (AVCATT). Integration of both trainers will occur over the life-cycle of the program. Soldiers will use the MOTS for training in ATS units. The PM is responsible for development, integration, and life cycle management of TADSS IAW AR 350-38. The MOTS requirement for embedded training to provide an air traffic control (ATC) tower simulator to be used for controller skill task qualification and proficiency training when live air traffic is not present at the airfield serviced by the MOTS has been satisfied by providing a stand-alone ATC Common Simulator (ACS) that will be issued to each ATC Unit by the PM for each system. The Training Simulator can be used from Inside the MOTS Tower or as a stand-alone training device during downtime at homestation or during training exercises.

7.1.1.3.3 Simulators

The PM in cooperation with TPO-AB have agreed to an incremental approach to fully embedded training capability. In this incremental approach the ATC Common Simulator will be used as Stand-alone TADSS Device assigned to the system. The ACS has the capability to train on Tower, ATNAVICS Radar and TAIS operations. The system is capable of being interlinked with other ACS Systems to run scenarios with all facilities involved.

7.1.1.3.4 Simulations

Simulations will support ET, train the trainer courses, operational and sustainment training and will include both individual and unit level training exercises which can be linked into a Joint and combined training environment. This will allow all levels of operators and system managers to conduct training and evaluation.

7.1.1.3.5 Instrumentation

The Materiel Developer will ensure that the MOTS will have the capabilities to integrate with other ABCS systems as well as

CTC facilities. This will allow the system to be placed into operation during battle simulations and Mission Training Complex

(MTC) use as well as CTC exercises. IMI on the AN/MSQ-135 Mobile Tower System will be developed to support Institutional ,

Operational and Self Development Training.

7.1.1.4 Training Facilities and Land

At the operational level, the MOTS training will be conducted at the homestation facilities, classrooms, training areas, CTCs, and land that support training.

7.1.1.4.1 Ranges

The MOTS does not require any unique range, complex, course or areas to perform and train its mission.

7.1.1.4.2 Maneuver Training Areas (MTA)

The MOTS user will utilize existing maneuver areas that are cost efficient and training effective. These maneuver areas provide realistic representations (scenario’s designed by the user) and will provide realistic representation of the existing and projected threat, duplicate or replicate the time movement, and counter-measures. Existing maneuver areas are environmentally non-destructive and support live or simulated fires. Every effort should be made to exercise/utilize the MOTS capabilities in a simulated environment, a live Situational Training Exercise (STX), or Field Training Exercise (FTX).

7.1.1.4.3 Classrooms

Not Applicable

7.1.1.4.4 CTCs

MOTS must have the operational capability to fully integrate with CTCs. This capability must ensure the system can participate in realistic joint and combined arms training within the four primary training centers.

- National Training Center (NTC)
- Joint Readiness Training Center (JRTC)
- Combat Maneuver Training Center (CMTC)
- Mission Command Training Program (MCTP)

7.1.1.4.5 Logistics Support Areas

Logistics support areas are facilities used for logistics processing, support, storage and staging. The home station unit is responsible for storing training devices and systems, both classified and unclassified.

7.1.1.4.6 Mission Command Training Centers (MCTC)

MOTS must be capable of exchanging data messages with the TAIS using MOTS capabilities and applicable connectivity. The Materiel Developer must ensure that the MOTSâ??s capabilities will allow for the system to be placed into operation during battle simulation and Mission Training Complex (MTC) use, as well as, live training events and during operations in a NET facility.

7.1.1.5 Training Services

- PM ATC is responsible for the New Equipment Training Plan (NETP).
- PM ATC must provide resources for the most cost-effective training program and strategies for leaders, staff, crews, and maintainers.

7.1.1.5.1 Management Support Services

Training Management and support services will be provided by Air Traffic Services Command (ATSCOM) Inspection and QA Teams. Courseware Management Services will be provided and sustained by USAACE and TRADOC agencies. PM ATC is responsible to ensure the any and all software and hardware updates and changes are updated and provided to the Proponent for incorporation into the Course Management System.

7.1.1.5.2 Acquisition Support Services

No requirements for acquisition support services at the operational level.

7.1.1.5.3 General Support Services

The PM is responsible for coordinating contractor support and funding for the required general support services throughout the initial warranty period of the Mobile Tower System. Units and Commands will assume costing for GSS following transition of the MOTS to the 2 tier maintenance system should that be the course of action decided by the PM CBA effort which is ongoing at this time.

7.1.2 Architectures and Standards Component

MOTS is part of an overall ATS capability which includes the ATNAVICS, TAIS, and TTCS. Together these systems form a network of airspace information and aviation force protection capabilities across the operational environment. MOTS serves as an enabler for aviation by providing visual and non-precision aircraft deconfliction and airspace information services by voice and data radio transmissions to unified action aircraft operating from, to, and through its airfield and terminal airspace areas of responsibility. The ATNAVICS is collocated and electronically linked by landline and radio, and objectively by Local Area Network (LAN), with the MOTS to provide aircraft radar guidance and precision recovery capabilities from the edges of terminal airspace to the landing area. The TAIS, the area airspace manager and AC facilitator, is electronically linked to the MOTS' automation system and voice/data capable radios to provide air mission planning data and airspace control information that could affect the terminal airspace. TAIS will also be the MOTS' electronic link to Army Battle Command System (ABCS). When required by METT-TC, MOTS will be electronically linked to joint, multinational, and civil ATC systems and facilities to coordinate and transfer responsibility for aircraft in the various stages of flight. A seamless, electronic linkage between Army ATS systems should be facilitated by an ATS network as an objective capability. An ATS network capability will enable cooperative ATS systems to effectively operate without dependency on competitive, non-ATS network resources and bandwidth.

7.1.2.1 Operational View (OV)

See Paragraph 6.1.2.1

7.1.2.2 Systems View (SV)

See Paragraph 6.1.2.2

7.1.2.3 Technical View (TV)

See Paragraph 6.1.2.3

7.1.3 Management, Evaluation, and Resource (MER) Processes Component

The following sections (7.1.3.1 thru 7.1.3.3) identify and describe the MER processes required for the Mobile Tower System in the operational domain.

7.1.3.1 Management

Where possible, MOTS will use existing facilities and support infrastructure. The staff training estimate in support of MOTS will focus on the most efficient use of existing resources and precisely identify and quantify any expected shortfalls. Training development will focus on producing products that are capable of being used in the operational domain as well as the institutional domain. Students and evaluators will be routinely asked to evaluate training events and products to determine how best to improve the quality and efficiency of instruction while maximizing available resources. Use of the CALL is highly encouraged to address changing tactics and procedures in the tactical environment.

7.1.3.1.1 Strategic Planning

Planning will be conducted in accordance with:

- National Defense strategies
- Joint Vision 2020
- Army Transformation Campaign Plan (ATCP)
- TRADOC plan
- USAACE Campaign Plan

7.1.3.1.2 Concept Development and Experimentation (CD&E)

The Mobile Tower System concept is already proven as this system is a replacement to the AN/TSW-7A, Air Traffic Control Central, NSN:5895-01-018-1246 which currently holds the Air Traffic Control Tower Tactical Mission in a Tactical Field Environment.

7.1.3.1.3 Research and Studies

Requirements for a Capabilities Based Assessment will be determined at a later date following training integration of the system into Government inventory.

7.1.3.1.4 Policy and Guidance

The following documents provide guidance and direction for the TSS:

AR 350-1 and AR 350-38

TRADOC Regulations 350-70 and 71-20

TRADOC Pamphlet 71-20

TRADOC Pamphlet 525-8-2 w/C1 06Jun2011

7.1.3.1.5 Requirements Generation

The following documents support requirements generated during the JCIDS process for the MOTS system.

- ORD
- CPD
- STRAP

7.1.3.1.6 Synchronization

The fielding of MOTS will be synchronized with the following as applicable to ensure that NET occurs as units are fielded and with the following considerations:

- TADSS Distribution Plans
- Power projection platforms
- Training institutions
- RSO sites

7.1.3.1.7 Joint Training Support

Not Applicable

7.1.3.2 Evaluation

The Air Traffic Services Command (ATSCOM) will conduct periodic internal and ex training evaluations and standardization inspections.

7.1.3.2.1 Quality Assurance (QA)

The Air Traffic Services Command (ATSCOM) will conduct internal and external tr
QA evaluations.

7.1.3.2.2 Assessments

Post Fielding Training Effectiveness Analysis (PFTEA). When resources permit and USAACE and CASCOM SID have the manpower to support the PFTEA processes, a PFTEA will be conducted not later than 18 months after First Unit Equipped (FUE). The WARMOD Branch, DOTD, USAACE and CASCOM Training Developers will conduct the analysis with the assistance from the Directorate of Evaluation and Standardization, Fort Rucker, AL. The analysis will be conducted using a written survey developed by the NETT and selected MOTS SMEs. The survey will be distributed to units fielded the MOTS and will recognize the need for product or training improvements. The analysis includes coordinating the evaluations of POIs, LPs, personnel selection criteria, and Situation Training Exercises (STXs). The NETT analysis, of demonstrated skills by unit personnel provides data for the evaluation. The data collected by the NETT and the results of the analysis will be staffed throughout USAACE and CASCOM. The PFTEA will recognize the need for product improvements and training improvements if required.

7.1.3.2.3 Customer Feedback

The following tools will be used to seek and receive feedback; written surveys, interviews, focus groups, and questionnaires.

7.1.3.2.4 Lessons Learned/After-Action Reviews (AARs)

AARs will be used as described in paragraph 6.1.3.2.3 above to provide feedback on course material, as well as functional use evaluations. The Center for Army Lessons Learned (CALL) documentation will be analyzed for lessoned learned from the field and incorporated into MOTS training as needed.

7.1.3.3 Resource Processes

Not Applicable

8.0 Self-Development Training Domain

Paragraphs 8.1 thru 8.1.3 discuss the Mobile Tower System in the Self Development Domain

8.1 Self-Development Training Concept and Strategy

This strategy applies to all MOTS operators and maintainers. Learning is a lifelong process. Institutional, organizational, and operational training alone cannot provide the insight, intuition, imagination, and judgment needed in combat. This requires commanders at all levels to create an environment that encourages subordinates to establish personal and professional development goals. Further refinement of those interests should occur through personal mentoring by commanders and first line leaders. Conduct of battle-focused officer and NCO professional development programs are essential to leader development. Exploiting reach-back, distributed learning, and continuing education technologies support these programs. PM will provide exportable Interactive Multimedia Instruction (IMI), dL and train-the-trainer material. These items will be packaged so that individual Soldiers can conduct self-taught, self-paced learning. The package will monitor the Soldier’s progress and level of understanding. The training will include IMI and computer based training (CBT) to provide the student with virtual hands on experience. The training will encompass both operator and maintainer training. The courseware will comply with Army Training Information System Architecture and be distributed over the Central Army Registry (CAR) and the Digital Training Management System (DTMS) Network.

8.1.1 Product Lines

Product lines will consist of hardware, software, publications, courses, lessons, training aids, training facilities and management services that will provide the capabilities that trainers and Soldiers need to train in the self-development domain.

8.1.1.1 Training Information Infrastructure

Not Applicable

8.1.1.2 Training Products

Trainers and Soldiers will have the same access to training products as explained in paragraph 6.1.1.2 and 7.1.1.2 for self-development.

8.1.1.2.1 Courseware

Trainers and Soldiers will have the same access to training products as explained in paragraph 6.1.1.2.1 and 7.1.1.2.1 for self-development.

8.1.1.2.2 Courses

Not Applicable

8.1.1.2.3 Training Publications

Not Applicable

8.1.1.2.4 Training Support Package (TSP)

Not Applicable

8.1.1.3 Training Aids, Devices, Simulators and Simulations (TADSS)

Not Applicable

8.1.1.4 Training Facilities and Land

Not Applicable

8.1.1.5 Training Services

Not Applicable

8.1.2 Architectures and Standards Component

Not Applicable

8.1.3 Management, Evaluation, and Resource (MER) Processes Component

The following sections (8.1.3.1 thru 8.1.3.3) identify and describe the MER processes required for the Mobile Tower System in the operational domain.

8.1.3.1 Management

Where possible, MOTS will use existing facilities and support infrastructure to support Self Development on the Mobile Tower System. The staff training estimate in support of MOTS will focus on the most efficient use of existing resources and precisely identify and quantify any expected shortfalls. Training development will focus on producing products that are capable of being used in all levels of the training domain to include self development. Students will be routinely asked to evaluate training events and products to determine how best to improve the quality and efficiency of instruction while maximizing available resources.

8.1.3.1.1 Strategic Planning

Planning will be conducted in accordance with:

National Defense strategies

Joint Vision 2020

Army Transformation Campaign Plan (ATCP)

TRADOC plan

USAACE Campaign Plan

8.1.3.1.2 Concept Development and Experimentation (CD&E)

Not Applicable

8.1.3.1.3 Research and Studies

Not Applicable

8.1.3.1.4 Policy and Guidance

Products provided for self development will be in compliance with applicable TRADOC and U.S. Army Regulatory guidance.

8.1.3.1.5 Requirements Generation

Not Applicable

8.1.3.1.6 Synchronization

Not Applicable

8.1.3.1.7 Joint Training Support

Not Applicable

8.1.3.2 Evaluation

The Air Traffic Services Command (ATSCOM) along with USAACE DOTD and CASCOM SID will conduct periodic internal and external course and training evaluations.

8.1.3.2.1 Quality Assurance (QA)

The USAACE QAO will conduct periodic training evaluations.

8.1.3.2.2 Assessments

Assessments will be conducted by USAACE Directorate of Training and Doctrine every 3 years.

8.1.3.2.3 Customer Feedback

The following tools will be used to seek and receive feedback; written surveys, interviews, focus groups, and questionnaires.

- Electronic media for surveys, help desks, collaboration
- Interviews
- Focus Groups

8.1.3.2.4 Lessons Learned/After-Action Reviews (AARs)

AARs will be incorporated into any IMI or Distance Learning materials to ensure courseware and materials are up to date,
relevant and viable to the Soldiers for Self development training.

8.1.3.3 Resource Processes

Not Applicable

A Milestone Annex

TRAINING DEVELOPMENT MILESTONE SCHEDULE - SHEET A	PAGE 1 OF 1 PAGES	REQUIREM S

SYSTEM	ACAT	OFFICE SYMBOL	AS OF DATE
MOTS	III	ATZQ-TDT-N	8 JAN 2014

POINTS OF CONTACT	NAME	OFFICE SYMBOL
MATERIEL COMMAND	PEO Aviation- PM ATC	SFAE-AV-AS-ATC
TRADOC PROPONENT	USAACE	
CD:	Mr. Nicholas T. Ciranni	ATZQ-CDA-T
TD:	Mr. Andrew Lecuyer	ATZQ-TDT-N
SUPPORTING PROPONENTS:		
CD:	Mr. Alvin Taswell	ATCL-CDM-I
SID:	Mr. Ronnie Custis	ATCL-TS
TD:	SSG Rodney Hudson	ATCS-TSS

ITEM	DATE	RESPONSIBLE AGENCY/POC	
MNS:	HQDA deemed N/A 3 Apr 96	USAACE TPO-AB	Mr. Nicholas Ciranni
SMMP:	12 Aug 05	PM ATC	Anthony Frails
ORD:	8 Nov 99	USAACE TPO-AB	Mr. Nicholas Ciranni
ILSMP:	24 Sep 07 **DRAFT**	PM ATC	Anthony Frails
TTSP:	17 Sep 07	USAACE TPO-AB	Mr. Thomas Hammett
QQPRI:	31 May 07	PM ATC	Anthony Frails
BOIP:	2 May 05	PM ATC	Anthony Frails
NETP:	2 Jul 13	PM ATC	Anthony Frails

COMMENTS:

TRAINING DEVELOPMENT MILESTONE SCHEDULE - SHEET B	PAGE 1 OF 2 PAGES	REQUIREMENTS CONTROL SYMBOL
SYSTEM: Mobile Tower System (MOTS)	TRADOC SYMBOL: ATZQ	AS OF DATE: JAN 2014
TRAINING PACKAGE ELEMENT/PRODUCT		

LEGEND:	MILESTONES BY QUARTER															
	FY 08				FY 09				FY 10				FY 11			
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
CAD SUBMITTED		X														
ITP SUBMITTED		X														
DTT COMPLETED						X										
POI SUBMITTED									X							
MOTS														X		

SIMULATOR															

NOTE: Identify **TRAINING DEVELOPMENT MILESTONES** . TRADOC FORM 569-1-R-E provides a detailed list of typical training development products required to support system training integration.

COMMENTS:

TRAINING DEVELOPMENT MILESTONE SCHEDULE - SHEET B	PAGE 2 OF 2 PAGES	REQUIREMENTS CONTROL SYMBOL
SYSTEM: Mobile Tower System (MOTS)	TRADOC SYMBOL: ATZQ	AS OF DATE: JAN 2014
TRAINING PACKAGE ELEMENT/PRODUCT		

LEGEND:	MILESTONES BY QUARTER															
	FY 12				FY 13				FY 14				FY 15			
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
SIMULATOR V/V							X									
COURSE STARTS											X					
LESSON PLANS COMPLETE										X						
TADSS UPGRADES										X						
SIMULATOR FINAL VERSION										X						
SIMULATOR VAL/VER										X						

IMI DEVELOPMENT													X		

NOTE: Identify **TRAINING DEVELOPMENT MILESTONES** . TRADOC FORM 569-1-R-E provides a detailed list of typical training development products required to support system training integration.

COMMENTS:

IMI DEVELOPMENT HAS NOT YET OCCURRED.

B References

The following references pertain to the operational testing and subsequent fiel of MOTS:

1. MOTS ORD

8 Nov 99

2. MOTS CPD

23 Sep 09

3. System MANPRINT Management Plan 12 Aug 05

4. Basis of Issue Plan (BOIP)

1 Nov 13

C Coordination Annex

Organization/POC (Date)	Summary of Comments Submitted (A/S/C)			Comments Accepted/ Rejected						Rationale for Non-Acceptance - S, C
				Accepted			Rejected			
	A	S	C	A	S	C	A	S	C	
v2.2.3 James E Baker 2014/05/19 - 2014/05/29	Document Accepted As Written			0	0	0	0	0	0	-
v2.2.2 Approvals - Michael P Donohue 2014/05/19 - 2014/05/29	Document Accepted As Written			0	0	0	0	0	0	-
v2.2.2 Approvals - Robert A Story 2014/05/19 - 2014/05/29	Document Accepted As Written			0	0	0	0	0	0	-
v2.2 Army - USAACE - Aviation School 2014/04/11 - 2014/05/11	No Comments Submitted			0	0	0	0	0	0	-
v2.2 Army - TCM-Live 2014/04/11 - 2014/05/11	Document Accepted As Written			0	0	0	0	0	0	-
v2.2 Army - SCoE 2014/04/11 - 2014/05/11	No Comments Submitted			0	0	0	0	0	0	-
v2.2 Army - PEO Aviation 2014/04/11 - 2014/05/11	No Comments Submitted			0	0	0	0	0	0	-

v2.2 Army - CAC-T; Training Management Dir 2014/04/11 - 2014/05/11	1	65	0	1	47	0	0	18	0	
v2.2 Army - AVNCoE Aviation Logistics School 2014/04/11 - 2014/05/11	No Comments Submitted			0	0	0	0	0	0	-
v2.2 Army - ATSC TSAID 2014/04/11 - 2014/05/11	No Comments Submitted			0	0	0	0	0	0	-
v2.2 Army - ATSC Fielded Devices 2014/04/11 - 2014/05/11	No Comments Submitted			0	0	0	0	0	0	-
v2.2 Army - ARNG-RMQ-RA 2014/04/11 - 2014/05/11	Document Accepted As Written			0	0	0	0	0	0	-
v2.2 Army - Army Material Command (AMC), G3 2014/04/11 - 2014/05/11	No Comments Submitted			0	0	0	0	0	0	-
v2.1 Peer - TRADOC_ARCIC 2014/02/27 - 2014/03/29	No Comments Submitted			0	0	0	0	0	0	-
v2.1 Peer - CYBER CoE - Signal School	Document Accepted As			0	0	0	0	0	0	-

2014/02/27 - 2014/03/29	Written								
v2.1 Peer - SCoE 2014/02/27 - 2014/03/29	No Comments Submitted	0	0	0	0	0	0	-	
v2.1 Peer - PEO-STRI Customer Support Group 2014/02/27 - 2014/03/29	Document Accepted As Written	0	0	0	0	0	0	-	
v2.1 Peer - MSCoE - MANSCEN 2014/02/27 - 2014/03/29	Document Accepted As Written	0	0	0	0	0	0	-	
v2.1 Peer - MCoE - Infantry & Armor School 2014/02/27 - 2014/03/29	No Comments Submitted	0	0	0	0	0	0	-	
v2.1 Peer - ICoE - Mil Intelligence School 2014/02/27 - 2014/03/29	6	0	0	4	0	0	2	0	0
v2.1 Peer - AVNCoE Aviation Logistics School 2014/02/27 - 2014/03/29	No Comments Submitted	0	0	0	0	0	0	-	

Key
Completed Review with Comments
Completed Review, No Comments

Active Review Occurring

ATZQ-TD

MAY 2 0 2014

MEMORANDUM FOR RECORD

SUBJECT: Approval of the System Training Plan (STRAP) for the Mobile Tower System (MOTS) Block 0 Update, Version 2.2

1. Reference: System Training Plan Version 2.2, Mobile Tower System (MOTS) Block 0 Update.

2. The STRAP for the Mobile Tower System (MOTS) Block 0 Update is approved. Approved STRAP will be posted to the Central Army Registry (CAR) website. This STRAP can be found at the following web address: http://www.adtdl.army.mil/.

3. The USAACE DOTD POC for this action is: Mr. Andrew Lecuyer, 334-255-2584 DSN (558) email: andrew.b.lecuyer.civ@mail.mil, U.S. Army Aviation Center of Excellence, ATTN: ATZQ-TDT-N, Fort Rucker, AL 36362-5202.

JAMES E. BAKER, JR. Deputy
Colonel, Aviation
Director of Training and Doctrine

Memorandum of Approval by Directorate