

Armored Multi-Purpose Vehicle (AMPV) Family of
Vehicles (FoV)
(version 1.2.1)

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

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* This document, when approved, replaces all earlier versions of the AMPV STRAP as of the effective date of this document.

1.0 System Description

Information pertaining to the Systems Training Plan (STRAP) for the Armored Multi-purpose Vehicle (AMPV), Armored Brigade Combat Team (ABCT) Organization and employment, and ABCT Operations are covered in this AMPV Family of Vehicles (FoV) STRAP.

AMPV is the baseline replacement vehicle for the M113 family of vehicles (FoV). While the M113 FoV is comprised of nine (9) vehicle variants supporting five (5) primary mission roles, the AMPV initial program is only replacing five of those variants as outlined in the CDD. The AMPV is a Military Vehicle Derivative (MVD) material solution to support the ABCT in decisive action operations. The acquisition approach is a single increment plan to address replacement of the current M-113 FoV with, to the greatest extent possible, a common solution to the five identified mission roles. However, the ability to alternative systems to replace specific mission roles is possible as long as these alternatives fall within the acquisition strategy and meet the required capabilities outlined in the CDD. Other subsequent vehicle improvements may leverage other vehicle program upgrades and incorporate where applicable. The AMPV simplifies and streamlines sustainment, functional; support, and mission command capabilities within the ABCT. These capabilities ensure compatibility with the Abrams Main Battle Tank (MBT), the current Bradley Fighting Vehicle (BFV) and the future Ground Combat Vehicles (GCV) in the ABCT and projected future mission profiles.

The AMPV primarily supports the force application functional concept by expanding the maneuver capabilities of the ABCT. The AMPV will be employed throughout the formation based on its specific mission role. The AMPV performs a variety of roles in every Army Warfighting function; movement and maneuver, intelligence, fires, protection, sustainment, mission command, along with medical evacuation and treatment and casualty evacuation. The AMPV will continue to support decisive actions during unified land operations by demonstrating the simultaneous application of the Army core competencies of Combined Arms Maneuver (CAM) and Wide Area Security (WAS). Additionally, the AMPV acts as part of the land component of a Joint Task Force (JTF) in support of National Security objectives.

- **The General Purpose Vehicle (GP)** provides protected maneuver for Soldiers and furnishes direct fire support to the infantry squad during mounted or dismounted assault. The AMPV GP will perform the Mission Profile defined in the ABCT Operational Mode Summary/ Mission Profile (OMS/MP) with only System Abort (SA) failures factored into the A o assessment. The Army Materiel Systems Analysis Activity (AMSAA) force protection assessment for the GP mission profile can be

applied across all mission profiles. The GP AMPV will be re-configurable in less than 10 minutes to accommodate one litter without any internal interference and without displacing the crew/passengers. The GP variant will be utilized across the spectrum of proponents depending on the variant Mission Equipment Package (MEP) installed in the vehicle. The MEP will dictate which proponent CoE has responsibility, with the maintenance belonging to the Sustainment Center of Excellence (SCoE). The Signal Center of Excellence (SIGCoE) will have a proponent role in the GP variant AMPV when the Re-Trans and Joint Network Node MEP are installed.

- **The Mission Command Vehicle (MCmd)** platform can integrate the specific communications equipment required by its occupants corresponding level of command in accordance with the command system architecture. The MCmd vehicle can provide assured Line of Sight (LOS), Non-Line of Sight (NLOS) and long range Beyond Line of Sight (BLOS) voice and data communications capability. The MCmd vehicle will be inter operable with current and future Maneuver Command (MC) and communications systems to maintain a common operating picture and connectivity across all echelons including Infantry Brigade Combat Teams (IBCTs), ABCTs, Stryker Brigade Combat Teams (SBCT) and higher headquarters throughout the area of operations. The MCmd variant will provide a platform with similar force protection, survivability, mobility, sustainment and maintainability capabilities comparable to the other ABCT vehicles in formation. Further variations of the MCmd vehicle could include Army Battle Command System (ABCS) Command, Control, Communications, Computers, and Intelligence (C4I) modifications for Force XXI Battle Command, Brigade and Below/ [Blue Force Tracking](#) (FBCB2/BFT), Tactical Operations Center (TOC/TAC), Tactical Communications, Command Post (TAC-CP), Gateway, Mission Command on the Move, Maneuver Control Systems (MCS), Advanced Field Artillery Tactical Data Systems (AFATDS), All Source Analysis Systems (ASAS), Air and Missile Defense Workstations (AMDWS), Tactical Airspace Integration System (TAIS), MCV Fire Control System-Mounted (MFCS), and potentially other applications based on variations of the digital C4I suite. The MCmd variant will be the responsibility of several centers of excellence depending on the specific MEP and operational use of the variant. The Fires Center of Excellence (FCoE) will have proponent oversight for Fire Direction Center (FDC) variants when equipped with the Fires MEP and support packages; the Maneuver Support Center of Excellence (MSCoE) will be proponent responsible when the Engineer MEP is mounted in the variant and used in support of Engineer related operations and missions; the MCoE will be proponent responsible for the mission command variant when the MEP is directly related to the execution of maneuver mission command; and the Sustainment Center of Excellence (SCoE) will be overall proponent for the maintenance and sustainment mission aspects of the vehicle.

- **The Medical Treatment Vehicle (MT)** integrates medical treatment support into the ABCT is a part of the networked combat forward formation. The MT provides a protected environment for the unit surgeon and medical staff to provide immediate medical care of casualties and/or to provide life stabilization triage for casualties prior to their evacuation to more capable hospital facilities. Further evacuation depends on the enhanced diagnostic, patient holding and reach-back capability resident in the Brigade Support Medical Company (BSMC) which is linked to Army/Joint/Theater or sustaining base medical support. By means of the Army Brigade Combat Team Modernization (ABCTM) Surgeon, the medical force package is integrated into the brigade operational plans. The medical force package is organized to provide essential force health protection. The MT variant is the primary proponent responsibility of the Army Medical Department Center and School (AMEDDC&S), with maintenance oversight provided by the SCoE.
- **The Medical Evacuation Vehicle (ME) (Ambulance)** supports the ABCT integration of medical support as an integrated part of the networked combat forward formation, enhancing the organic medic who rides with and accompanies the mechanized, armored, and armored cavalry units with mounted armored crew members and dismounted Soldiers during mounted and dismounted operations. The ME variant is able to move with the formation covered by organic over watch fires, which provide protection for the patient and medical team. This capability keeps the other platforms of the formation free to sustain the integrated support of the assault. The ME will include emergency care en route, enhanced by the medic and by a protected environment with adequate lighting and accessible medical MEP. The C4I suite of the ambulances will provide an interface with and be capable of processing, displaying, storing, and transmitting data from GFE physiological status monitors and the Soldier-borne remote physiological monitoring systems of all patients on board. The ME variant is the primary proponent responsibility of the AMEDDC&S, with maintenance oversight provided by the SCoE.
- **The Mortar Carrier Vehicle (MC)** provides immediate, responsive and heavy mortar fire support to the ABCT in the conduct of fast-paced offensive operations. These immediate, on-demand, high-angle fires are critical to the ability of dismounted infantry to achieve results quickly and decisively. Supporting the infantry in the assault entails close in destructive, suppressive fires, illumination, obscuration, precision strikes and the ability to effectively seal off or channel an advancing enemy. The MCVs provide accurate and lethal high-angle fires to support operations in complex terrain and urban environments. The MCs provide the unique capability to attack enemy forces in defilade or in reverse slope positions. The ABCT's situational awareness enhances the MCVs accuracy and lethality when employing the M95 Mortar Fire Control System (MFCS)-Mounted. The AMPV MC will include advanced technology in the areas of lethality, survivability (CREW, SPARKS Mine Rollers, and Jackal PIR Defeat Systems), mobility, situational

awareness, sustainability, GPS PNT, integrated vehicle location system using the GPS, digital fire control, and equipment re-stowage. The MCV requires these technologies to defeat current and future threat forces while remaining operationally compatible with the maneuver force using FBCB2 and its replacement hardware and software. The MCV variant will primarily be the proponent oversight responsibility of the MCoE, with maintenance oversight provided by the SCoE.

Required AMPV FoV weapons systems platforms will consist of those currently employed with the M113 MEP. The AMPV variants (less the MV) will be equipped with a universal gun mount capable of elevating from a minimum of -20* to 60* and traverse 360* within the limits of the platform. The AMPV (less MV) will host any of the Army's current small and heavy machine guns (M249, M240, M2 or MK-19). The Ambulance variant will have an option of a device that can mount a "non-crew serve weapon" and below for self-defense application (T). Enable the MVs commander to employ the weapon while remaining under armor without interfering with patient care. The AMPV Mortar Carrier will be equipped with a 120 mm mortar and utilize the Mortar Fire Control System (MFCS). The AMPV FoV optimum solution is to incorporate an Embedded Training (ET) capability to train operation, maintenance, and employment. It will be developed as an integral part of the ABCT modernization manned platform systems and Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance (C4ISR) architectures.

First Unit Equipped (FUE): 3rd QTR FY 2020.

New Equipment Training Plan (NETP) Number: TBD.

Full Operational Capability (FOC): To be Determined (TBD). FOC is achieved when all Combined Arms Battalions and Reconnaissance Squadrons in all Armored Brigade Combat Teams are equipped and trained with the AMPV. Current acquisition strategy projects IOC at 3rd QTR FY 2020. The AMPV solution could take existing military vehicle chassis in long supply, remove any existing turret/ cupola, convert to baseline vehicles, and integrate the M113 FoV Mission Equipment Packages (MEP). This solution will be an option for the final material developer. A technical data package could be provided through full and open competition. The winning supplier will build prototypes to complete production qualification and limited user testing. Upon completion of Milestone C, a low rate initial production (LRIP) contract will be awarded with an option for full-rate production. LRIP vehicles will be used to complete production verification testing, initial operational test and evaluation, live fire test and evaluation, and interoperability.

2.0 Target Audience

Soldiers and Officers of the Active Component and Reserve Component (AC/RC) in Career Management Fields (CMF): 11 (Infantry), 19 (Armor/ Cavalry), 12 (Engineer), 13 (Field Artillery), 25 (Signal), 91 (Maintenance), and 67&68 (Medical) assigned to ABCT units require familiarity with the AMPV system, vehicle, common components (such as communications), Mission Equipment Packages (MEP), and weapons stations. Institutional Domain training and Operational Domain unit sustainment training will be required for these Soldiers. However, the AMPV shall not change existing personnel structure and will not require additional personnel or special skills to operate, maintain, or support the vehicle.

Maintenance/repair personnel will come from Vehicle Systems Maintainer wheeled or tracked (when actual vehicle is identified), 92Y Unit Supply Specialist, and 915E Senior Automotive Warrant Officer.

Proposed AMPV duty positions are shown below for Soldiers assigned to an ABCT. There should be no new MOS, nor will there be a new ASI assigned to the AMPV trained soldiers.

- Driver-skill level one (1). (Individual will require operator skill level and knowledge.)
- Gunner-skill level two (2). (Individual will require operator skill level and knowledge.)
- Vehicle Commander-skill level two/three (2/3).
- Squad/Section Leader-skill level three (3).
- Platoon Sergeant-skill level four (4).
- Officers.

Institutional Training Audience. There should be no changes to current institutional training audience, AMPV training will mirror the way the M-113 Institutional training is conducted.

The AMPV should not change existing personnel structure and will not require additional personnel or special skills to operate, maintain, or support the vehicle above what is provided to the M-113 FoV. Note that the CDD states a requirement of: The AMPV must provide a climate control unit (heating/cooling) that provides a stable casualty environment temperature zone (66-80 F) at each ambulatory seat and litter berth for the Medical MEP versions. This requirement could push new training or skill above M113.

TARGET AUDIENCE

MOS/ASI/AOC	MCoE	SCoE	MEDCoE	FCoE	MSCoE	SIGCoE
Initial Military Training						
AOC - Officer	11A / 19A,B,C	88A, 90A, 91A	66 / 67	13A	12B	25A
MOS - WO		915A / 915E		131A		250N / 254A
MOS - EM	11B / 11C / 19D / 19K	88M / 91H	68J / 68W	13D / 13F	12B	25U / 25N
Professional Military Training						
AOC -Officer	MCCC&HWLC	SustCCC	MEDCCC	FIRESCCC	MSCCC	SIGCCC
EM	ALC	ALC	ALC	ALC	ALC	ALC
WO		915E				
Functional Courses						
AOC - Officer	11A / 19 A,B,C	88A, 90A, 91A	66 / 67	13A		25A
WO		915A		131A		250N / 254A
EM / NCO	11B / 11C / 19D / 19K	88M / 91H	68J / 68W	13D / 13F		25U / 25N
Other						

Additional Information/Requirements:

3.0 Assumptions

- Existing training programs for enlisted Soldiers and Officers will integrate vehicle specific tasks, skills and knowledge, and Tactics, Techniques and Procedures (TTP) as identified.
- The AMPV FoV manufacturer will provide operator/maintainer publications to support operational testing and fielding specific to each variant. The proponent for each vehicle will review instructional materials produced by the manufacturer for content and utility. PM-AMPV will resource the Statement of Work (SOW) for the AMPV contractor so all instructional materials are provided on time and in the proper TRADOC approved format. Training equipment and materials identified in the NETP will be developed and made available on time and in sufficient quantity to support training.
- PM-AMPV will resource each vehicle variant New Equipment Training Team (NETT) requirements to include resources to support Doctrine and Tactics Training (DTT) requirements.
- Funding will be available to support TRADOC participation in training development, Product Support IPT meetings, integrated process reviews (IPR), Post-Fielding Training Effectiveness Analysis (PFTEA), and contractor training supporting of developmental tests, Instructor and Key Personnel Training (I&KPT), and New Equipment Training (NET) to other organizations.
- Advanced instructional technologies will be used to the maximum extent possible to provide Embedded Training (ET), Distributed Learning (DL), and interactive multi-media instructional (IMI) training products - Level III.
- All task development performed by the manufacturer and/or the training proponent will be performed using Microsoft Word. This will facilitate the production of training support products for delivery with the system and the ability to update tasks and their instructional products using digital information systems.
- Resources will be made available to TRADOC schools for developing resident training, Soldier Training Publications (STP) and IMI beyond that produced by the vehicle contractor.
- The required resources, such as instructors, training developers, TADSS, ranges, ammunition, and facilities will be made available to support and maintain AMPV FoV training programs in the institutional domain and the operational units.
- All NETT resources will be the responsibility of the PM-AMPV with the exception of proponent oversight of the NETT.
- Reserve Component units (ARNG ABCT) included in the Basis of Issue Plan (BOIP)

will receive AMPV FoV in the same manner as the Active Component units when reserve component fielding is scheduled.

- TRADOC Institutional proponents for AMPV will receive all AMPV FoV resources in accordance with the AMPV BOIP, to meet proponent school needs for certifying institutional Programs of Instruction (POI) and I&KPT six months prior to AMPV course start-up. The AMPVs that are provided to the TRADOC proponent schools must be fully equipped with all Government Furnished Equipment (GFE)/Associated Support Items of Equipment (ASIOE). The GFE/ASIOE will be provided by Army G8 in support of the institutions course POI. Any training devices developed or modified must meet the requirements outlined in the approved Capability Development Document (CDD) or Capability Production Document (CPD). The devices will be fielded concurrently with the vehicle to support NET/DTT, institutional, and sustainment training unless prevented by ongoing deployments or other relevant considerations.
- Soldiers being assigned to the ABCT will be fully qualified in their Military Occupational Skill Code (MOSC) at the appropriate skill level for their assignment. All other Initial Military Training (IMT) graduates, whether from Advanced Individual Training (AIT), One-station Unit Training (OSUT), or Basic Officer's Leader Course (BOLC) will be considered qualified for assignment to an ABCT in the appropriate MOSC and skill levels.
- The ABCT BOIP does not include commands outside the ABCT structure. Army Commands not included in the AMPV FoV fielding plan, who request AMPV and derivative assets will not reduce the amount of resources (equipment and personnel) required for ABCT NETs, TRADOC institutions, and Operational ABCT unit sustainment.
- Interactive Electronic Technical Manuals (IETM) for Operators and Maintainers will be produced to MIL STD 40051-1 and undergo a Contractor validation and Government verification process to ensure accuracy and completeness.
- Signal Center of Excellence (SIGCoE) will have a proponent role in the GP AMPV communication equipment that will be installed based off of the vehicle(s) MEP (i.e. Re-Trans, Joint Network Node (JNN)).

4.0 Training Constraints

Constraint Type	Probable Impact	Mitigating Efforts
<i>Budgetary</i>		
Budgetary Restrictions / Reduced Financial Resources	Could affect availability of training and the conduct of live training, especially Force-on-Force	Funds for OPTEMPO
<i>Equipment</i>		
Equipment Density	Lack of AMPV FoV to support training	Upgraded or new start simulators in place of actual vehicles
<i>Training Equipment</i>		
Lack of AMPV FoV to support training requirements	Reduced hands-on training opportunities for operators and maintainer personnel, untrained soldiers.	Develop new or upgraded AMPV FoV simulators
<i>Personnel</i>		
Lack of Trained Operator and Maintainer Personnel on the AMPV FoV	No Soldier expertise to conduct AMPV FoV Training	Utilize Contract Instructors
<i>Facilities</i>		
Shortage of adequate facilities to support training	Space Shortfall, or requirement to modify existing M-113 FoV support facilities to accommodate the AMPV FoV	Utilize Temporary Training Facilities
<i>Human Factors Engineering</i>		
Soldier-machine integration for optimal total system performance	Interference with performance of common soldier tasks on the AMPV	Maximize ease of use, minimize workload and enhance mission performance
<i>System Safety</i>		
Safety hazards and restrictions	Soldier injuries and damage to Army and/or Government property	Conduct Risk Management IAW FM 100-14, Risk Management

Doctrine		
No anticipated change to Doctrine associated with the AMPV		
Environmental		
Environmental Compliance requirements	Pollution from POL spills and seepage	Utilize drip pans in motor pools, training bays and contain spills
Support Services		
Training and support contracts	Shortfalls with funding and/ or training expertise of the AMPV FoV	Use Military Personnel (soldiers) in place of Contract personnel
Command Guidance		
Commander's Guidance, Modularity, ARFORGEN, COE, Training environment	Drivers and operators/ crew train to operate in COE conditions and environment, "Train-as-you-fight"	Simulation and Embedded Training simulation required to train to pre deployment COE conditions and environment
Soldier Survivability		
Soldier survivability assessment (SSA) from ARL-SLAD	Assessment fails to meet the objective and threshold standards set for the AMPV	SSA will be updated at each Milestone Decision Review (MDR)
Other		
No new policy requirements or changes are anticipated for the AMPV.		
Public Law		
No Public Law requirements or changes are anticipated for the AMPV.		

5.0 System Training Concept

- Systems training. The Systems training KPP addresses the AMPV ICD Capability 9, training. The PM-AMPV will leverage and/or update existing Army training systems or develop new hands-on and computer-based training for soldier/operator, maintenance, and support personnel IAW Chapter 5 of AR 350-1 to meet AMPV IOC and FOC training per CDD paragraphs 12, 13, and 14.
- General. The AMPV FoV requires training of specific skills concerning the vehicles characteristics, capabilities and limitations. In addition, leadership training oriented toward AMPV employment begins with NET during fielding and is leveraged by incorporating operational and training lessons learned into institutional and unit sustainment training programs. The Leader must assume the responsibility to insure AMPV training is established and followed in the Operational training domain and during the sustainment phases of the program. The Soldier is the centerpiece behind development of the AMPV FoV, so that AMPV training will focus on activities and exercises to help the soldier use the system to enhance situational awareness, lethality, mission command, survivability, mobility and sustainability. Conducting new equipment and replacement qualification training for the Reserve Component (RC) (ARNG ABCT) when the fielding schedule is determined will require additional time beyond the normal two-week annual training periods generally performed by the RC.
- Concept. Prior to AMPV institutional fielding, training will be analyzed, designed and developed In Accordance With (IAW) the Army Learning Policy and Systems (ALPS) process outlined in TRADOC Regulation 350-70. The ALPS refer to the four TRADOC regulations and pamphlets in the 350-70 series and the Army Learning Model (ALM), TP 525-8-2 w/ Ch 1 dated 6 Jun 2011. Training sources include: the Army Training Network (ATN) at link: <https://atn.army.mil> ; the continuous adaptive learning model as described in TP 525-8-2 describes the framework, required capabilities, and on-going actions to implement a learner centric, technology enabled, and career long learning model by 2015. To learn more about the ALM, research the TED-T ALM page on the ATN in the Training and Education developers toolbox page.
- Key components of the AMPV FoV training strategy are: (1) Generating Force Institutional Training; (2) Operating Force Unit Training; (3) training support products; (4) training devices; and (5) simulations, ranges and targetry. The goal of the training strategy is to develop units employing AMPV FoV effectively on the battlefield. Operation NET (OPNET) will be developed by the manufacturer with PM-AMPV and the MCoE oversight. Field Level Maintenance NET (FLMNET) will be developed by the manufacturer with PM-AMPV and the SCoE oversight. NETT will

be conducted by contractors under the supervision of the PM-AMPV and the variant proponent until NET has been completed.

- Institutional Training. Institutional training for the generating force includes incorporating AMPV tasks into existing POIs and training for AMPV crews and maintainers. The impact on institutional training is minimal based on existing training plans and POIs associated with the existing M-113 family of vehicles being replaced solution.
- Unit Training. Unit training for the operating force will be supported by a combination of embedded training (ultimate solution) and stand-alone Training Aids, Devices, Simulators, and Simulations (TADSS). Sustainment training for AMPV skills, knowledge, and attributes will be supported by Training Support Packages (TSP) provided to the unit following NET along with AMPV training aids. AMPV training programs will be designed to reduce operational tempo and live firing consistent with unit readiness and based on DA Pam 350-38, Standards in Training Commission.

5.1 New Equipment Training Concept (NET)

- Instructor and Key Personnel Training (I&KPT): The AMPV FoV prime contractor and / or the organic activity will provide training for Instructor & Key Personnel Training (I&KPT), including training developers and NETT members. NETT instructors will be contract personnel or organic activity personnel funded by PM-AMPV and supervised by the respective variant proponent. Training for institutional instructors will be provided by the NETT.
- Operator New Equipment Training (OPNET) entry and exit criteria will be determined by TCM-ABCT and approved by the appropriate variant AMPV proponent Center of Excellence, Commanding General. AMPV OPNET training begins with a base vehicle POI followed by variant-specific NET training that includes certification on the appropriate vehicle weapons systems and associated MEP. NET ensures Vehicle Operators are certified to perform all tasks associated with safe operation of the AMPV. The Instructor to Student ratio will be based on the AMPV variant. The materials listed in Table 5-1 below will be provided to support unit sustainment training. PM-AMPV will be responsible for providing all updates to NET material.

Item	Comments/Contents
Training Publications	Training Publications are accessible through the ATN (https://atn.army.mil/)
Operator's Technical Manual	AMPV TMs will be provided with each vehicle upon delivery.
IMI CD-ROM	Provided at NET
Interactive Electronic Technical Manual (IETM)	Embedded in the AMPV software (ultimate solution if available)
POIs, Lesson Plans, and Test Packages.	TBD

Table 5-1. NET Stay-behind Unit Sustainment Training Material

FLMNET will be provided to AMPV maintenance Soldiers as determined by SCoE during fielding. Training will be resourced by PM-AMPV and trained by contractor personnel and / or Organic activity personnel with a background in vehicle maintenance. FLMNET will consist of AMPV familiarization, unique and critical maintenance, and

troubleshooting tasks identified by SCoE. FLMNET will be validated by SCoE during an I&KPT event no less than 6 months prior to FUE.

Upon completion of the First Unit Equipped (FUE) New Equipment Training (NET) the Soldier, both operator and maintainer, will successfully accomplish >80% (T) >99% (O) of the critical tasks and >70% (T) >80% (O) of the non-critical tasks required to operate and maintain the AMPV. Further institutional and sustainment training will be IAW AR 350-1, Army Training and TP 525-8-2 w/ Ch 1. Lesson plans for the AMPV will be entered into the Training Development Capability (TDC). The TDC link is: <https://tdc.army.mil>, to establish a TDC account click on the TDC link, a list of domain administrators will appear in CoE/ school sequence. Contact any of the administrators listed for the CoE/ school area of interest. The administrators will contact the requestor in order to determine access level requirements. All prerequisite training requirements must be met prior to obtaining access to TDC, and the proponent must approve access to the domain.

The materiel developer will ensure the training support package (TSP) remains current throughout the AMPV program lifecycle and that any revisions are provided to the Army Training Support Center (ATSC); linked through the Army Training Network (ATN) to the Central Army Registry; in addition to the Army distribution system.

5.2 Displaced Equipment Training (DET)

No displaced equipment training is anticipated as the AMPV FoV replaces the M-113 FoV. The following are the ABCT M-113 FoV that are envisioned to be replaced by the AMPV FoV in the ABCT:

- M-113A3 General Purpose Vehicle (19ea in ABCT)
- M-1064 120mm Mortar Carrier Vehicle (15ea in ABCT)
- M-1068 / M-577A3 Mission Command Vehicle (41ea in ABCT)
- M-113A3 (Ambl) Medical Evacuation Vehicle (31ea in ABCT)
- M-577A3 (MTV) Medical Treatment Vehicle (8ea in ABCT)

The intent of the AMPV program fielding is to retire the M-113 FoV and not transfer to the Reserve Components. This is identified in the JCIDS documents as a DOTmLPP-P training consideration.

5.3 Doctrine and Tactics Training (DTT)

DTT will be minimal due to the MVD platform solution and existing M113 MEP. The respective AMPV variant proponent for the AMPV FoV will develop DTT. The PM will ensure funding is available for development and execution of DTT.

5.4 Training Test Support Package (TTSP)

The respective proponent training developer will develop the TTSP after receiving the NET TSP from the materiel developer. The TTSP for AMPV will be delivered to support Operational Test (OT). The TTSP consists of:

- (1) Latest approved STRAP for the AMPV.
- (2) Test Training Certification Plan.
- (3) Data collection requirements.
- (4) Daily training schedule for test player personnel.
- (5) POI for each course supporting the test.
- (6) List of TADSS required and embedded (Embedded training solution is the ultimate capability, if available).
- (7) Appropriate Combined Arms Training Strategies (CATS) and Test and Evaluation

Packages.

(8) List of ranges, targets, ammunition, and other items needed to support the training.

(9) System Technical Manuals (TM) including the Interactive Electronic Technical Manuals (IETMs).

(10) Draft systems technical bulletins (Errata Sheets).

6.0 Institutional Training Domain

The Institutional Training Domain is the Army's institutional training and education system, which primarily includes training base centers and schools that provide initial military training and subsequent professional military education for Soldiers, military leaders and Army civilians. Army Training and Leader Development through the TRADOC Centers of Excellence (CoE) and schools will continue to be the foundation of Institutional training. AMPV institutional training will be modular and integrated as assignment oriented training in pre-existing resident courses. This domain includes the centers of excellence and schools, both inside and outside the U.S. Army Training and Doctrine Command (TRADOC).

The following sections (6.1 thru 6.1.3.3) explain the Institutional Training Domain requirements for the AMPV.

6.1 Institutional Training Concept and Strategy

General. Because NET and the subsequent DTT and any reset training provides initial qualification of AMPV personnel, the institution focuses on providing units with a steady stream of qualified replacements. As the AMPV FoV program matures, training on any new software and equipment upgrades will be incorporated at both unit and institutional training programs.

Institutional training will be supported by a combination of embedded (ultimate solution, if available) and stand-alone training systems along with set number of TADSS based on the number of vehicles allocated to TRADOC schools. The AMPV CDD states that 33 AMPV vehicles will be allocated to TRADOC from LRIP for institutional training (additional training assets to be determined based on final training requirement). Input and analysis received from the various AMPV Variant proponent CoEs actually indicate that 74 AMPV vehicles would be required to support the Institutional Training domain requirements, as outlined in the matrix in para 6.1.1.3.2 of this STRAP document. Infantry Mortar Leaders, Combat Medical Training, and Tracked or Wheeled Vehicle Mechanic Courses will integrate AMPV training into their POI. Other TRADOC institutions will integrate specific AMPV FoV variant training into their various POIs as additional variants are added to the AMPV FoV.

Changes to the institutional programs will be performed using the Analysis, Design, Development, Implementation, and Evaluation (ADDIE) process IAW TR 350-70, Chapter 6, Section III, TP 525-8-2 w/Ch 1 6 Jun 2011 and documented in the TDC database

. The training proponent will make appropriate changes in doctrine and TTPs based on AMPV FoV fielding, ABCT deployment lessons learned, and will develop necessary institutional training material.

6.1.1 Product Lines

The following paragraphs (6.1.1.1 through 6.1.1.5) describe the product lines that will be used to support the AMPV.

6.1.1.1 Training Information Infrastructure

The existing training infrastructure currently used by the supporting proponents will be used to support the storage, retrieval, delivery, and management of Training Support System (TSS) products developed by PM ABCT for the AMPV FoV.

The following sections (6.1.1.1.1 thru 6.1.1.1.4) explain what is required for the Training Information Infrastructure considering AMPV FoVs in the Institutional Training Domain.

6.1.1.1.1 Hardware, Software, and Communications Systems

Commercial capabilities can provide access to training products being stored on Army Knowledge Online (AKO) and other various authorized WEB based data locations.

6.1.1.1.2 Storage, Retrieval, and Delivery

Training products will be stored on the Central Army Repository (CAR) [formerly the Reimer Digital Library (RDL)] and within the Training Development Capabilities (TDC) database program, the Distributed Learning (DL) repositories, and the Army Learning Management Systems (ALMS) will store products for use within the institution, unit sustainment, and self-development domains. Additional access to courseware will be available through the Army Training Network (ATN) and AKO "quick-links."

6.1.1.1.3 Management Capabilities

TDC will be used by management to track TSS products. The Army Modernization Training Automation System (AMTAS) will be used to track and update NET. The consolidated database of record (CDBR) maintained by Combined Arms Center (CAC) is the management control tool for approved individual and collective tasks, this

is key to tracking TSS products.

6.1.1.1.4 Other Enabling Capabilities

Other enabling capabilities include: The Army Training Network (ATN), the Army Learning Management System (ALMS), Army Knowledge-Online (AKO), Joint Training Information Management System (JTIMS), Command, Control, Communications, and Computers Intelligence, Surveillance, Reconnaissance (C4ISR), Global Information Grid (GIG).

The Army Learning Management System (ALMS) in particular is a Web-based information system that delivers training to soldiers, manages training information, provides training collaboration, scheduling, and career planning capabilities in both resident and non-resident training environments. Additionally, the ALMS assists Army trainers and training managers in conducting and managing the training of soldiers and Department of the Army (DA) civilians throughout their Army careers. ALMS is accessed by the Army Training Network (ATN), and found in the "myTraining" tab on the ATN homepage. The ATN link is: <https://atn.army.mil> .

Any training products that will be delivered over the web, AKO, and dl needs to be vetted through TCM-TALDP and TCM-ATIS.

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6.1.1.2 Training Products

The PM-AMPV has the responsibility of funding the development of comprehensive exportable multimedia-based TSP containing POIs, lesson plans, audio-visual aids, test packages, IMI, and compact discs (CDs).

The following sections (6.1.1.2.1 thru 6.1.1.2.4) explain what training products will be required for the AMPV FoVs in the Institutional Training Domain.

6.1.1.2.1 Courseware

- All courses will be available in IMI as exportable media supporting Computer Based Training (CBT) or web-based training hosted on the ALMS and AKO. Courseware will comply with the Sharable Content Object Reference Model (SCORM).
- Manuals. Lessons learned from operational ABCT units with AMPV FoV will be analyzed and the TTPs will be used to support NET and sustainment training.

Lessons learned from subsequent unit operations will determine whether or not Army doctrine (ADPs and ADRPs) and collective training tasks require revision.

- Interactive Multimedia Instruction. IMI will be task-based for individual and collective training on traditional subject matter (e.g., land navigation) and ABCT AMPV unique system capabilities. It will include task-based training in digitized communication.
- Although initial guidance has been given to the TCM-ABCT and PM-AMPV, the final determination has not been made concerning which individual and collective tasks will be selected and developed for IMI. The full range of media will be explored including Computer Based Instruction (CBI); Computer Based Training (CBT); Compact Disc Interactive (CDI); Interactive Courseware (ICW); Interactive Video disc (IVD); Computer Managed Instruction (CMI); Electronic Performance Support System (EPSS); Game Based Instruction; and other emerging training technologies. The AMPV FoV materiel developer (PM-ABCT) has the responsibility to provide the IMI since this is an AMPV FoV system-specific product. IMI will be refined based on the lessons learned in NET and Operational Test (OT) and combat. Also changes to the AMPV FoV system and the advent of enhanced multi-media capabilities will influence the development of IMI.
- The materiel contractor will develop all IMI products. IMI verification is the responsibility of the variant proponent institution.
- Signal Center of Excellence (SIGCoE) will have a proponent role in the GP AMPV communication equipment that will be installed based off of the vehicle(s) MEP (i.e. Re-Trans, Joint Network Node (JNN)).

6.1.1.2.2 Courses

Institutional training course requirements will be determined by the respective proponent training developers based on analysis of existing courses and identification of potential training gaps to train the maneuver force. Analysis may result in adding AMPV modules into existing courses. There is no initial indication that any stand-alone AMPV courses will be required. The AMPV final variant solution will affect the respective proponent CoEs development of courses and course content for the respective AMPV variants fielded by the PM-AMPV.

The respective proponent training developers who will have AMPV FoV institutional domain training requirements are:

6.1.1.2.3 Training Publications

Publications	Publication Date
Army Doctrine Publications (ADP)	
ADP 3.0 Unified Land Operations	10 October 2011
ADP 6.0 Mission Command (w/ Chg 1)	10 September 2012
ADP 7.0 Training Units and Developing Leaders	23 August 2012
Army Doctrine Reference Publications (ADRP)	
ADRP 3.0 Unified Land Operations (ULO)	16 May 2012
ADRP 6.0 Mission Command	17 May 2012 w/Ch1 10 Sep 2012
ADRP 7.0 Training Units and Developing Leaders	23 Aug 2012
Field Manuals (FM)	
FM 3.06 Urban Operations	26 October 2006
FM 3-22.27 MK 19, 40mm Grenade Machine Gun MOD 3	28 November 2003 w/ Ch 1. 14 Sept 2006

FM 3-22.65 Browning Machine Gun, Caliber .50 HB, M2	3 March 2005 w/ Ch 1. 11 April 2007
FM 3-22.68 Crew-Served Machine Guns, 5-56mm and 7.62mm	21 July 2006
FM 3-22.90 Mortars	7 December 2007
FM 7-15 The Army Universal Task List	27 February 2009 w/ Ch 10. 29 June 2012
Soldier Training Publications (STP)	
STP 7-11B1-SM-TG Soldier's Manual, SL 1, MOS 11B, Infantry	6 August 2004
STP-7-11B24-SM-TG Soldier's Manual, SL 2/3/4, MOS 11B, Infantryman	6 August 2004
STP-7-11C14-SM-TG Soldier's Manual, SL 1/2/3/4, MOS 11C, Indirect Fire Team Infantryman	6 August 2004
STP-21-1-SMCT Soldier's Manual of Common Tasks, Warrior Skill Level 1.	2 May 2011
STP-21-24-SMCT Soldier's Manual of Common Tasks, Warrior Skill Levels 2/3/4.	9 September 2008
STP 9-91H14-SM-TG Soldier's Manual and Trainer's Guide MOS 91H/91X Tracked Vehicle Mechanic, Skill Levels 1/2/3/4.	3 January 2011
STP 8-68W13-SM-TG Soldier's Manual and Trainer's Guide MOS 68W Health Care Specialist, Skill Levels 1/2/3.	15 April 2009 w Ch 1 2 September 2009
STP 8-91D14-SM-TG Soldier's Manual and Trainer's Guide MOS 91D Operating Room Specialist, Skill Levels 1/2/3/4.	11 July 2003
Army Tactics, Techniques and Procedures (ATTP)	
ATTP 3-21.90 Tactical Employment of Mortars	4 April 2011
ATTP 3-90.4 Combined Arms Mobility Operations	10 August 2011

Infantry Unit Task Lists and Collective Tasks	
https://atn.army.mil/dsp_links.aspx Access to Warrior University.	

6.1.1.2.4 Training Support Package (TSP)

Training Support Packages for all courses will be developed in accordance with TRADOC Regulation 350-70, Army Learning Policy and Systems (ALPS). Prior to AMPV institutional fielding, training will be analyzed, designed and developed In Accordance With (IAW) the Army Learning Policy and Systems (ALPS) process outlined in TRADOC Regulation 350-70. The ALPS refer to the four TRADOC regulations and pamphlets in the 350-70 series and the Army Learning Model (ALM), TP 525-8-2 w/ Ch 1 dated 6 Jun 2011. Training sources include: the Army Training Network (ATN) at link: <https://atn.army.mil> ; the continuous adaptive learning model as described in TP 525-8-2 describes the framework, required capabilities, and on-going actions to implement a learner centric, technology enabled, and career long learning model by 2015. To learn more about the ALM, research the TED-T ALM page on the ATN in the Training and Education developers' toolbox page.

6.1.1.3 TADSS

Training Aids, Devices, Simulators and Simulations (TADSS) requirements for each specific vehicle variant will be defined by each respective TRADOC proponent, and coordinated with the PM-AMPV and PEO-STRI.

- General. The AMPV FoV materiel developer is responsible for the planning, programming, and budgeting for system TADSS in coordination with the PM-AMPV, the training developer and proponent. The AMPV FoV will leverage training and systems commonality of existing TADSS with the potential of significant cost savings. The goal is to produce TADSS as multi-use enablers, to support gunnery, maneuver, and task-based individual and collective training on the vehicle system. Designated TADSS must be deployable by existing transportation to facilitate immediate training within the current theater of operation. To ensure that training devices are current with the operational system, TADSS will have an open architecture allowing continual software upgrades.
- System/Non-System Specific TADSS. Some TADSS require submitting an amended Capability Development Document (CDD) to ensure acquisition of the device. Training capabilities, such as an embedded Tactical Engagement Simulations System (TESS), will be inserted as technologies mature and enable them to allow Soldiers to train as they fight without changing the functionality of their systems. Some of the possibilities of the virtual and live training capabilities may include, but are subject to additional studies and analysis pending platform selection decision.

The following sections (6.1.1.3.1 thru 6.1.1.3.5) identify and describe the

projected TADSS required for the AMPV FOVs in the Institutional Training Domain.

6.1.1.3.1 Training Aids

To be identified and developed during NET development and be available for NET. The NET team will have to certify before they can begin training in the institutional or operational training domains.

6.1.1.3.2 Training Devices

The contractor ensures the AMPV Vehicle allocates space, weight, power, and signal interface to the common data/information interchange network for all appended and embedded TADSS specified in the Government Furnished Information (GFI) list. This should include the existing TADSS devices, such as MILES and other existing systems that are currently employed or mounted on the M-113 FoV during force-on-force maneuver training events. Where non-optical sights are employed, the capability to inject video shall be provided. The appended TADSS act as a monitor or remote terminal on the common data/information interchange network to stimulate vehicle systems so greater simulation fidelity may be achieved. The contractor produces, manages, and maintains the Interface Control Document (ICD) that defines the hardware and software interface for appended TADSS. PM AMPV will ensure TADSS are fielded concurrently with the vehicles. Also, PEO-STRI will update models used in virtual, constructive and gaming to replicate AMPV FoV capabilities.

The PM-AMPV will provide the following AMPV FoV MEP version vehicles to the respective CoE's to support the Institutional Training domain instruction and training. The PM-AMPV will also provide vehicles as listed to support the respective Regional Training Site - Maintenance (RTS-M) to support 91H training of the Reserve Components.

<u>Center of Excellence</u>	<u>AMPV MEP Version</u>							<u>REMARKS</u>
	<u>Mortar Carrier</u>	<u>Msn CMD (TOC)</u>	<u>Msn CMD (FDC)</u>	<u>- General Purp (GP)</u>	<u>MD Evac (ME)</u>	<u>MD Trmt (MT)</u>	<u>TTL AMPV</u>	
								[ABCT TOE used as basis for BOIP to support Institutional Domain Training]
MCoE, Ft Benning, GA	6	4	2	12			24	IAW TOE 07206R100 HHC, ABCT // 17207R000 Recon TRP, RSTA, ABCT
FCoE, Ft Sill, OK			8				8	IAW TOE 06387R00, Fires Btry, Fires Bn, ABCT
MSCoE, Ft L. Wood, MO				4			4	IAW TOE 05303R200, EN Co, BSTB, ABCT

AMEDCoE, Ft S. Houston, TX				8	4	12	IAW TOE 08329G000, MD Co, BSB, ABCT	
SCoE, Ft Lee, VA		2		10		12	IAW TOE 63327R100&R300, FSC, BSB, ABCT	
<u>RTS-M Training Facility</u>								
CP Ripley, MN RTS-M				2		2		
Ft Hood, TX RTS-M				2		2		
Ft Dix, NJ RTS-M				2		2		
CP Roberts, CA RTS-M				0		0	Note: No 91H Training conducted at present.	
Gowen Field, ID RTS-M				2		2		
TOTAL AMPV by MEP	6	6	10	34	8	4	68	

An element of explosive reactive armor (ERA) consists of a sheet or slab of high explosive sandwiched between two plates, typically metal, called the reactive or dynamic elements. On attack by a penetrating weapon, the explosive detonates, forcibly driving the metal plates apart to damage the penetrator. Against a shaped charge, the projected plates disrupt the metallic jet penetrator, effectively

providing a greater path-length of material to be penetrated. Against a long rod penetrator, the projected plates serve to deflect and break up the rod. ERA tiles are used as add-on (or "appliqué") armor to the portions of an armored fighting vehicle that are most likely to be hit, typically the front (glacis) and sides of the hull. Their use requires that the vehicle itself be fairly heavily armored to protect the vehicle and its crew from the exploding ERA. In order to train the crews in the Institutional training domain, inert sets of these appended tiles are required as training devices at the following Centers of Excellence and their respective schools:

MCoE, Ft Benning, GA Infantry and Armor Schools, 2 sets (1 ea school)

FCoE, Ft Sill, OK Field Artillery School, 1 Set

SCoE, Ft Lee, VA, Ordnance School, 1 set

MSCoE, Ft Leonard Wood, MO, Engineer School, 1 set

AMEDC&S, Ft Sam Houston, TX, Medical School, 1 set

The NET team will use the ERA inert training sets located at Ft Benning, GA to prepare necessary training on IMI to be provided during NET as part of the TSP. Also these IMI periods of instruction can be made part of the self-learning training domain as IMI distance learning products available on the ATN.

6.1.1.3.3 Simulators

Common Driver Trainer. The Common Driver Trainer (CDT) provides initial and sustainment driver training for both unit and institution. Instructors can select a visual scene, view the visual scene, monitor each trainee's performance, and introduce malfunctions and emergency control situations. The device consists of a simulated vehicle cab, instructor/operator station, visual system, aural/audio system, and a computer system. The simulator has a fully integrated 6-degree freedom of motion system. The Common Driver Trainer provides a common platform integrating the Army's single Semi-Automated Forces (OneSAF) and the future Terrain Database system (Synthetic Environment Core - SE Core). Adapting the CDT to incorporate the AMPV for driver training is a training support requirement.

Close Combat Tactical Trainer (CCTT). CCTT provides a realistic, virtual, collective (unit) training environment in which to train and sustain proficiency in Mission Training Plan (MTP) tasks. The primary tasks supported include command and control, maneuver/movement techniques, and fire support. All tasks are performed by full combat vehicle crews within a stressful, fully task loaded, synthetic combined arms environment in which the training audience must integrate the functions of combat and combat service support into their maneuver battle. Integration into the CCTT is based on current NDI solution chosen.

Hands on Tactical Trainer (HOTS). Hots provide a training capability for the maintenance and sustainment personnel of the AMPV. This Simulator should provide realistic representation of key critical systems of the AMPV such as: Transmission, Engine, any turret system with associated weapons systems.

6.1.1.3.4 Simulations

Tactical Engagement Simulation System (TESS). TESS is a training and simulation system comprised of a instrumentation system that supports individual, crew, gunnery, and collective live force-on-force training. Live, Virtual, Constructive, Gaming (LVCG) training capability must include a robust capability to support the ability to "train anywhere, anytime". The AMPV must be inter operable with the Army's current live Tactical Engagement Simulation (TES) systems [i.e., Instrumentable - multiple Integrated Laser Engagement Simulation System (I-MILES) and inter operable with the Army's future TES [Army-TESS (A'TESS)], compliant with the Common Training Instrumentation Architecture (CTIA), and be inter operable with the current Instrumentation Systems [i.e., Home Station Instrumentation Training System (HITS), and Combat Training Center-Instrumentation System (CTC-IS)]. The training capability must be

compatible with LVC-IA training enablers within the integrated training environment.

Embedded Training. Embedded Training is the preferred approach to TADSS development as stated in the Capability Development Document (CDD). This capability permits augmenting live training exercises with simulated entities and battlefield effects. AMPV FoV must provide an ET system that will accurately simulate all vehicle systems by providing training in support of AMPV operator's critical tasks, as well as platform specific training (driving, gunnery, maintenance and vehicle MEP). Provide onboard capability for Soldiers (non-crew) to access IETMs, critical individual Interactive Multimedia Instruction (IMI) task, and store selected doctrinal publications.

Desk Top Trainers (including Maintenance Training Systems)

- Diagnostics and Troubleshooting Trainer (DTT)
- Part Task Trainer (PTT)
- Hands On Trainers (HOTs)

AMPV operational characteristics and function must be replicated in the respective simulations and simulator databases. This would include the Constructive, Virtual and Gaming environment of the LVCG-ITE.

6.1.1.3.5 Instrumentation

The AMPV Vehicle Instrumentation Integration Package (VIIP) will establish communications between the TESS instrumentation on the AMPV and each Combat Training Center (CTC) or on the Digital Multi-purpose Range Complex (DMPRC), when utilized to support heavy formation maneuver and direct fire systems gunnery qualification preparatory training (both stabilized and unstabilized).

6.1.1.4 Training Facilities and Land

The AMPV FoV shall not require any new facilities, or any major changes to facilities already in existence.

The following sections (6.1.1.4.1 thru 6.1.1.4.6) identify and describe the projected Training facilities and land expected for the AMPV FOVs in the Institutional Training Domain.

6.1.1.4.1 Ranges

No additional ranges are required for the AMPV FoV.

6.1.1.4.2 Maneuver Training Areas (MTA)

No additional Maneuver Training Areas required for the AMPV FoV.

6.1.1.4.3 Classrooms

No additional classrooms are required for the AMPV FoV

6.1.1.4.4 CTCs

No additional Combat Training Centers are required for the AMPV FoV. Integration into the CTCs is based on current NDI solution chosen.

6.1.1.4.5 Logistics Support Areas

Logistics and Maintenance Facilities. Some existing maintenance facilities may require modification to meet the dimensional requirements of the AMPV family of vehicles.

6.1.1.4.6 Mission Command Training Complex (MCTC)

The former Battle Command Training Centers are now correctly called the Mission Training Complex (MCTC) IAW ADP 3.0. The Constructive, Virtual and Gaming simulators and simulations must support AMPV FoV systems network and mission command systems.

6.1.1.5 Training Services

The following sections (6.1.1.5.1 thru 6.1.1.5.3) identify and describe the projected Training Services required for the AMPV FoVs in the Institutional Training Domain.

6.1.1.5.1 Management Support Services

Information management services.

- Central Army Registry (CAR) [formerly the Reimer Digital Library (RDL)]

Courseware management services.

- Total Army Training System (TATS) management
- The Training Development Capability <https://tdc.army.mil>
- Distributed Learning (dL) management
- The Army Learning Management System (ALMS)

Requirements management services.

- Training ammunition requirements as detailed by Standards and Training Commission (STRAC)
- TADSS requirements documentation
- Range modernization and standardization requirements

Devices management services

- Fielded devices inventory/sustainment and management
 - Logistics Support Concept: Operator maintenance for the TADSS shall be performed by assigned operator/maintainer. For the CDT AMPV effort, interim CLS sustainment support will be required (0-24 months) until the logistics support is transitioned to WFF (PEO STRI Operations Section). The PM has the responsibility to augment the sustainment of these TADSS when G3 training dollars are short. And, also when PEO STRI CDT team continues to be tasked with concurrency oversight.
 - Technical data and publications will be required for all TADSS particular items, and operator manuals will be prepared IAW MIL-Std- 40051.
 - Configuration management and upgrades/modifications of the TADSS, including hardware/software, will be the responsibility of the PM for the life cycle of the TADSS system. TADSS changes will be incorporated concurrently with changes to the actual system, to ensure that the TADSS simulates the correct function in response to the performance of selected tasks. Lessons will be prepared by the contractor for each TADSS to be incorporated in the Train-the-Trainer course of instruction. The CLS package must be available for testing prior to initial operational capability (IOC).

Fielded devices tracking systems

- Material Army wide Tracking System (MATS)
- Tactical Engagement Simulation (TES) management
- Targetry support program
- Instrumentation

Communicative technologies management

- Department of the Army Multimedia/visual Information Production and

Distribution Program (DAMPPIPDP) management

- Electronic Multimedia Information Capability (EMIC) management
- Visual information /Training Support Center VI/TSC management

6.1.1.5.2 Acquisition Support Services

Acquisition support services will be required to procure contracted services for the development of training products.

6.1.1.5.3 General Support Services

General Support services will be required for:

- Distribution and replication services
- Video production services
- TADSS development, procurement, distribution, and sustainment

6.1.2 Architectures and Standards Component

The integrated ABCT architecture provides relevant operational, systems, Test & Evaluation (T&E), unit set fielding interoperability certification, digital address book development, and technical architecture views that support program synchronization. The architecture supports AMPV platform C4ISR configuration development from both a super-set and operational facility perspective. The architecture is the viewpoint of the vehicle commander and crew who receives, processes, transmits, and exploits information and reports. All architectural views are related to how the vehicle commander and crew interact with external C4ISR systems and organizations.

The following sections (6.1.2.1 thru 6.1.2.3) identify and describe the Architectures and Standards required for the AMPV FOVs in the Institutional Training Domain.

6.1.2.1 Operational View (OV)

Figure 7.1.2.1 at section 7.1.2.1 later in this document graphically displays the AMPV High Level Operational Concept. The M113 FoV encompasses five primary mission roles with nine vehicle variants. The AMPV is intended to be an immediate materiel solution as the replacement to the M113 FoV to support the ABCT across

the Spectrum of Conflict.

6.1.2.2 Systems View (SV)

Within the LVCG-ITE, AMPV vehicles will interact as a live entity, conducting maneuver and live fire digital gunnery, with virtual and constructive TADSS in a seamless, synthetic environment. The goal is to produce multi-grade, multi-echelon training events that will maximize leadership opportunities and increases the frequency of each student's experience in all types of training.

6.1.2.3 Technical View (TV)

Refer to the CDD for explanation on the Technical View associated with the AMPV FoV.

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

The following sections (6.1.3.1 thru 6.1.3.3) identify and describe the MER processes required for the AMPV FoV in the Institutional Training Domain.

6.1.3.1 Management

Where possible the AMPV will use existing facilities and support infrastructure. Training development will focus on producing products that are capable of being used both in the institution and in the operational training domain and focused only on combat critical tasks.

Students and instructors will routinely be asked to evaluate training events and products to determine how best to improve the quality and efficiency of instruction to provide the best quality of training with the least expenditure of resources.

6.1.3.1.1 Strategic Planning

The development and fielding of the AMPV supports Army Transformation, Army Modernization, and Training Transformation and is consistent with the guidance found in:

- National Defense Strategy
- Joint Vision 2020
- The Army Plan and other Service Plans

- Future Force documentation
- TRADOC supporting plan to the Army Transformation Campaign Plan (ATCP)
- TSS Strategic Plan (when published)
- TSS Program Strategy Formulation (guidance to be published)

6.1.3.1.2 Concept Development and Experimentation (CD&E)

Concept Development and Experimentation will be published at a later date.

6.1.3.1.3 Research and Studies

Requirements for Research and Studies will be determined at a later date.

6.1.3.1.4 Policy and Guidance

The documents listed below apply to the design, procurement, and use of the AMPV:

- AR 350-1 and AR 350-38
- TRADOC Regulations 350-70 and 71-20
- TRADOC Pamphlet 71-20
- TP 525-8-2 w/ Ch 1 (6 Jun 2011)
- Command Training Guidance
- Training Doctrine Manuals (ADP 7-0, ADRP 7-0)
- LOGSA Pamphlet 700-3, Total Package Fielding

6.1.3.1.5 Requirements Generation

This STRAP supports the CDD to which it is attached.

6.1.3.1.6 Synchronization

The fielding of the AMPV will be synchronized with the following as applicable:

- Unit Set Fielding
- Army Transformation Campaign Plan (ATCP)
- Implementation Plan for Transforming DoD Training
- TADSS distribution plans

- Sustainment Command (formerly CASCOM) and Ordnance Center and School
- Army Medical Command (AMEDCOM) and The Medical Center and School

6.1.3.1.7 Joint Training Support

The fielding of the AMPV will be synchronized with the following as applicable:

- Joint Knowledge Development and Distribution Capability (JKDDC)
- Joint Assessment and Enabling Capability (JAEC)
- Joint National Training Capability (JNTC)
- Joint Advanced Distributed Learning CO-Labs
- Joint Professional Military Education (JPME)

6.1.3.2 Evaluation

The following feedback mechanisms described in the following paragraphs will be used to measure, audit, and analyze the efficiency and effectiveness of programmed training.

The following sections (6.1.3.2.1 thru 6.1.3.2.3) identify and describe the Evaluation processes required for the AMPV FOVs in the Institutional Training Domain.

6.1.3.2.1 Quality Assurance (QA)

QA plans will be used IAW each center of excellence and training installation's QA plan.

6.1.3.2.2 Assessments

As part of the evaluation phase of the ADDIE process, Post Fielding Training Effectiveness Analysis (PFTEA) will be conducted. A post-fielding training evaluation ensures the AMPV trains Soldiers, leaders, and units to standard. The PM-AMPV will fund a PFTEA approximately one-year following FUE.

6.1.3.2.3 Customer Feedback

The following tools will be used:

- Electronic media for surveys, help desks, collaboration

- Interviews
- Questionnaires
- After action reviews

6.1.3.2.4 Lessons Learned/After-Action Reviews (AARs)

The MCOE will leverage the Center for Army Lessons Learned (CALL) and the Mission Command Knowledge System (MCKS) databases for new TTPs as well as conducting face to face interviews with units/individuals returning from theater to ensure training programs and instruction remain current and relevant.

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		1.0MY	1.0MY	1.0MY	1.0MY	1.0MY	1.0MY
Civilian		1.0MY	1.0MY	1.0MY	1.0MY	1.0MY	1.0MY
Enlisted				0.2MY	0.2MY	0.2MY	0.2MY
Warrant				0.2MY	0.2MY	0.2MY	0.2MY
Officer				0.2MY	0.2MY	0.2MY	0.2MY
Contract/Sp t		\$200K	\$200K	\$200K	\$200K	\$200K	\$200K
Civ Pay		\$200K	\$200K	\$200K	\$200K	\$200K	\$200K
Trvl/Per Diem		\$40K	\$40K	\$40K	\$45K	\$50K	\$50K
Other							

Rationale: TNGDEVs are needed to develop and maintain the programs of instruction and other outputs of the ALM process. Military will be used in different areas within the training program. Travel/Per Diem represents cost to attend training and reviews; and for four instructor/key personnel to evaluate training prior to operational testing.

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
<u>New Equipment Training</u>							
Contractor		1.0MY	1.0MY	1.0MY	1.0MY	1.0MY	1.0MY
Contract/Sp t		\$200K	\$200K	\$200K	\$200K	\$200K	\$200K
Trvl/Per Diem		\$40K	\$40K	\$40K	\$45K	\$50K	\$50K
Classrooms		0.5K	0.5K	0.5K	0.5K	0.5K	0.5K
Equipment		0.5K	0.5K	0.5K	0.5K	0.5K	0.5K
AC/DC Power		0.5K	0.5K	0.5K	0.5K	0.5K	0.5K
Printing		0.1K	0.1K	0.1K	0.1K	0.1K	0.1K
Other							

Rationale: Classrooms suitable for twelve students with standard electrical power are required for NET.

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
<u>Training Products</u>							
Training Pubs				0.2MY	0.2MY	0.2MY	0.2MY
TSP				0.2MY	0.2MY	0.2MY	0.2MY

Sustainment		0.5K	0.5K	0.5K	0.5K	0.5K	0.5K
Other							

Rationale: Cost to procure and sustain TADSS. Includes cost to develop and maintain a simulator for institutional training. Also includes the cost to procure and maintain actual systems for training use. Twelve actual operational systems are required for use as training devices.

*Actual item of equipment used for training which does not lose its identity as an end item for operational purposes.

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		0.6K	0.6K	0.8K	0.7K	0.6K	0.5K
Land		0.1K	0.1K	0.1K	0.1K	0.1K	0.1K
Site Surveys		0.1K	0.1K	0.1K	0.1K	0.1K	0.1K
Concrete Pad		0.6K	0.6K	0.8K	0.7K	0.6K	0.5K
AC/DC Power		0.1K	0.1K	0.1K	0.1K	0.1K	0.1K
Equipment		0.1K	0.1K	0.1K	0.1K	0.1K	0.1K
Maintenance		0.1K	0.1K	0.1K	0.1K	0.1K	0.1K
Other		0.5K	0.5K	0.5K	0.5K	0.5K	0.5K

Rationale: Cost to modify existing facilities to accommodate new power and shielding requirements of new system Concrete pad and electrical power needed to operate simulator.

Civ Pay		\$200K	\$200K	\$200K	\$200K	\$200K	\$200K
Trvl/Per Diem		\$40K	\$40K	\$40K	\$45K	\$50K	\$50K
Facilities		\$100K	\$100K	\$100K	\$100K	\$100K	\$100K
Equipment		\$200K	\$200K	\$200K	\$200K	\$200K	\$200K
Printing		0.1K	0.1K	0.1K	0.1K	0.1K	0.1K
TEA		\$100K	\$100K	\$100K	\$100K	\$100K	\$100K
PFTEA		\$200K	\$200K	\$200K	\$200K	\$200K	\$200K
Other							

Rationale: Evaluation and QA are required to assess the quality and validity of the Instruction. To identify any requirements that are lacking in the training being conducted and remediation for those identified shortfalls.

7.0 Operational Training Domain

The Operational Training Domain is the training activities that organizations undertake while at home station, at maneuver combat training centers (CTCs), during joint training exercises, at mobilization centers, and while operationally deployed. Unit commanders are responsible for proficiency of their Soldiers. This domain equates to assignments in the operational Army and the Army Force Generation (ARFORGEN) process drives the operational force training environment and requirements.

The following sections (7.1 thru 7.1.3.3) explain the Operational Training Domain requirements for the AMPV FoVs.

7.1 Operational Training Concept and Strategy

Initial Training. Initial training for a unit receiving AMPV vehicles will be conducted by the NETT. The NETT provides a complete stay-behind package to sustain AMPV knowledge and skills.

Sustainment Training. Sustainment training consists of a mixture of live, virtual, constructive, and gaming with the goal of maintaining operator and crew proficiency.

Collective Training. The critical training tasks for each AMPV equipped unit are determined by the commander and based on his METL. Performance of the collective tasks for AMPV equipped units are detailed in the unit's Combined Arms Training Strategy (CATS) delivered during NET.

7.1.1 Product Lines

The following product lines are suitable for operational training:

- Web based instruction
- IMT, ALC, and Officer Education System (OES)
- Soldier Training Publications (TSP) for individual training
- TADSS TSP
- Embedded Training Capabilities

7.1.1.1 Training Information Infrastructure

The existing training infrastructure currently used by the supporting proponents

will be used to support the storage, retrieval, delivery, and management of TSS products developed by PM ABCT for the AMPV FoV.

The following sections (7.1.1.1.1 thru 7.1.1.1.4) explain what is required for the Training Information Infrastructure associated with the AMPV FOVs in the Operational Training Domain.

7.1.1.1.1 Hardware, Software, and Communications Systems

Commercial capabilities can provide access to training products being stored on the Army Training Network (ATN) and Army Knowledge Online (AKO). ATN is the U.S. Army "one-stop" training portal. The link to ATN is: <https://atn.army.mil>

7.1.1.1.2 Storage, Retrieval, and Delivery

Training products will be stored on the Central Army Repository (CAR) [formerly the Reimer Digital Library (RDL)] and within the Training Development Capabilities (TDC) program. The distributed Learning (DL) repositories and the Army Learning Management Systems (ALMS) will store products for use within the institution, unit sustainment, and self-development domains. Additional access to courseware will be available through the Army Training Network (ATN) and AKO "quick-links".

7.1.1.1.3 Management Capabilities

ADDIE will be used by management to track TSS products. AMTAS will be used to track and update NET. The consolidated database of record (CDBR) maintained by Combined Arms Center (CAC) is the management control tool for approved individual and collective tasks, this is key to tracking TSS products.

7.1.1.1.4 Other Enabling Capabilities

The other enabling capabilities include: ALMS, AKO, JTIMS, C4ISR, and GIG.

7.1.1.2 Training Products

The PM-ABCT has the responsibility of funding the development of comprehensive exportable multimedia-based TSP containing POIs, lesson plans, audio-visual aids, test packages, IMI, and compact discs (CDs).

The following sections (7.1.1.2.1 thru 7.1.1.2.4) explain what training products

will be required for the AMPV FoVs in the Operational Training Domain.

7.1.1.2.1 Courseware

All courses will be available in IMI as exportable media supporting Computer Based Training (CBT) or web-based training hosted on the Army Learning Management System and AKO. Courseware will comply with the Sharable Content Object Reference Model (SCORM).

Manuals. Lessons learned from operational ABCT units with AMPV FoV will be analyzed and the TTPs will be used to support NET and sustainment training. Lessons learned from subsequent unit operations will determine whether or not Army doctrine (ADPs and ADRPs) and collective training tasks require revision.

Interactive Multimedia Instruction. IMI will be task-based for individual and collective training on traditional subject matter (e.g., land navigation) and ABCT AMPV unique system capabilities. It will include task-based training in digitized communication.

Although initial guidance has been given to the TCM-ABCT and PM-ABCT, the final determination has not been made concerning which individual and collective tasks will be selected and developed for IMI. The full range of media will be explored including Computer Based Instruction (CBI); Computer Based Training (CBT); Compact Disc Interactive (CDI); Interactive Courseware (ICW); Interactive Video disc (IVD); Computer Managed Instruction (CMI); Electronic Performance Support System (EPSS); Game Based Instruction; and other emerging training technologies. The AMPV FoV materiel developer (PM-ABCT) has the responsibility to provide the IMI since this is an AMPV FoV system-specific product. IMI will be refined based on the lessons learned in NET and Operational Test (OT) and combat. Also changes to the AMPV FoV system and the advent of enhanced multi-media capabilities will influence the development of IMI.

The materiel developer will develop all IMI products. IMI verification is the responsibility of the variant Center of Excellence proponent institution.

7.1.1.2.2 Courses

There will be no functional AMPV courses in the operational domain. All courses will be operated and maintained in the institutional domain.

7.1.1.2.3 Training Publications

Publications	Publication Date
Army Doctrine Publications (ADP)	
ADP 3.0 Unified Land Operations	10 October 2011
ADP 6.0 Mission Command (w/ Chg 1)	10 September 2012
ADP 7.0 Training Units and Developing Leaders	23 August 2012
Army Doctrine Reference Publication (ADRP)	
ADRP 3.0 Unified Land Operations (ULO)	16 May 2012
ADRP 6.0 Mission Command	17 May 2012 w/Ch 1 10 Sep 2012
ADRP 7.0 Training Units and Developing Leaders	23 Aug 2012
Field Manuals (FM)	
FM 3.06 Urban Operations	26 October 2006
FM 3-22.27 MK 19, 40mm Grenade Machine Gun MOD 3	28 November 2003 w/ Ch 1. 14 Sept 2006
FM 3-22.65 Browning Machine Gun, Caliber .50 HB, M2	3 March 2005 w/ Ch 1. 11 April 2007
FM 3-22.68 Crew-Served Machine Guns, 5-56mm and 7.62mm	21 July 2006
FM 3-22.90 Mortars	7 December 2007
FM 7-15 The Army Universal Task List	27 February 2009 w/ Ch 10. 29 June 2012

Soldier Training Publications (STP)	
STP 7-11B1-SM-TG Soldier's Manual, SL 1, MOS 11B, Infantry	6 August 2004
STP-7-11B24-SM-TG Soldier's Manual, SL 2/3/4, MOS 11B, Infantryman	6 August 2004
STP-7-11C14-SM-TG Soldier's Manual, SL 1/2/3/4, MOS 11C, Indirect Fire Team Infantryman	6 August 2004
STP-21-1-SMCT Soldier's Manual of Common Tasks, Warrior Skill Level 1.	2 May 2011
STP-21-24-SMCT Soldier's Manual of Common Tasks, Warrior Skill Levels 2/3/4.	9 September 2008
STP 9-91H14-SM-TG Soldier's Manual and Trainer's Guide MOS 91H/91X Tracked Vehicle Mechanic, Skill Levels 1/2/3/4.	3 Jan 2011
Army Tactics, Techniques and Procedures (ATTP)	
ATTP 3-21.90 Tactical Employment of Mortars	4 April 2011
ATTP 3-90.4 Combined Arms Mobility Operations	10 August 2011
Infantry Unit Task Lists and Collective Tasks	
https://atn.army.mil/dsp_links.aspx Link to Warrior University	

7.1.1.2.4 TSP

Training Support Packages for all associated training, training material and related courses will be developed in accordance with TRADOC Regulation 350-70, Army Learning Policy and Systems, dated 6 December 2011. The ALPS refer to the four TRADOC regulations and pamphlets in the 350-70 series and the Army Learning Model (ALM), TP 525-8-2 w/ Ch 1 dated 6 Jun 2011. Training sources include: the Army Training Network (ATN) at link: <https://atn.army.mil> ; the continuous adaptive learning model as described in TP 525-8-2 describes the framework, required capabilities, and on-going actions to implement a learner centric, technology enabled, and career long learning model by 2015. To learn more about the ALM, research the TED-T ALM page on the ATN in the Training and Education developers' toolbox page.

7.1.1.3 TADSS

Training Aids, Devices, Simulators and Simulations (TADSS) requirements for each specific vehicle variant will be defined by each respective TRADOC proponent, and coordinated with the PM-AMPV and PEO-STRI.

- General. The AMPV FoV materiel developer is responsible for the planning, programming, and budgeting for system TADSS in coordination with the PM-AMPV, the training developer and proponent. The AMPV FoV will leverage training and systems commonality of existing TADSS with the potential of significant cost savings. The goal is to produce TADSS as multi-use enablers, to support gunnery, maneuver, and task-based individual and collective training on the vehicle system. Designated TADSS must be deployable by existing transportation to facilitate immediate training within the current theater of operation. To ensure that training devices are current with the operational system, TADSS will have an open architecture allowing continual software upgrades.
- System/Non-System Specific TADSS. Some TADSS require submitting an amended Capability Development Document (CDD) to ensure acquisition of the device. Training capabilities, such as an embedded Tactical Engagement Simulations System (TESS), will be inserted as technologies mature and enable them to allow Soldiers to train as they fight without changing the functionality of their systems. Some of the possibilities of the virtual and live training capabilities may include, but are subject to additional studies and analysis pending platform selection decision.

The following sections (7.1.1.3.1 thru 7.1.1.3.5) identify and describe the projected TADSS required for the AMPV FOVs in the Operational Training Domain.

7.1.1.3.1 Training Aids

To be identified and developed during NET development and be available for NET. The NET team will have to certify before they can begin training in the institutional or operational training domains.

7.1.1.3.2 Training Devices

The contractor ensures the AMPV Vehicle allocates space, weight, power, and signal interface to the common data/information interchange network for all appended and embedded TADSS specified in the Government Furnished Information (GFI) list. Where non-optical sights are employed, the capability to inject video shall be provided. The appended TADSS act as a monitor or remote terminal on the common data/information interchange network to stimulate vehicle systems so greater simulation fidelity may be achieved. The contractor produces, manages, and maintains the Interface Control Document (ICD) that defines the hardware and software interface for appended TADSS. PM AMPV will ensure TADSS are fielded concurrently with the vehicles. Embedded training capability is the preferred method on the AMPV FoV for the Operational Training environment.

7.1.1.3.3 Simulators

Common Driver Trainer. The Common Driver Trainer (CDT) provides initial and sustainment driver training for both unit and institution. Instructors can select a visual scene, view the visual scene, monitor each trainee's performance, and introduce malfunctions and emergency control situations. The device consists of a simulated vehicle cab, instructor/operator station, visual system, aural/audio system, and a computer system. The simulator has a fully integrated 6-degree freedom of motion system. The Common Driver Trainer provides a common platform integrating the Army's single Semi-Automated Forces (OneSAF) and the future Terrain Database system (Synthetic Environment Core - SE Core). The adaption of the CDT to support AMPV driver training could be an option should resourcing be available.

Close Combat Tactical Trainer (CCTT). CCTT provides a realistic, virtual, collective (unit) training environment in which to train and sustain proficiency in Mission Training Plan (MTP) tasks. The primary tasks supported include command and control, maneuver/movement techniques, and fire support. All tasks are performed by full combat vehicle crews within a stressful, fully task loaded, synthetic combined arms environment in which the training audience must integrate

the functions of sustainment support into their maneuver battle.

Embedded training capability resident on the AMPV FoVs is the preferred method for training capability of the Operational training environment.

In the event that Embedded training (ET) capability is found to be technically unfeasible or resource constrained, then a family of Virtual Trainers for the respective variants will be developed and fielded to the MCTC Simulation Centers to facilitate the crew training requirements for the AMPV in the Operational Training Domain.

7.1.1.3.4 Simulations

Tactical Engagement Simulation System (TESS). TESS is a training and simulation system comprised of a instrumentation system that supports individual, crew, gunnery, and collective live force-on-force training.

Embedded Training. Embedded Training is the preferred approach to TADSS development as stated in the Capability Development Document (CDD). This capability permits augmenting live training exercises with simulated entities and battlefield effects. AMPV FoV must provide an ET system that will accurately simulate all vehicle systems by providing training in support of AMPV operator's critical tasks, as well as platform specific training (driving, gunnery, maintenance and vehicle MEP). Provide onboard capability for Soldiers (non-crew) to access IETMs, critical individual Interactive Multimedia Instruction (IMI) task, and store selected doctrinal publications and references.

Desk Top Trainers (including Maintenance Training Systems)

- Diagnostics & Troubleshooting Trainer (DTT)
- Part Task Trainer (PTT)
- Hands On Trainers (HOTs)
- Gunnery and mounted systems procedures Trainers (as appropriate for the type variant AMPV).

7.1.1.3.5 Instrumentation

The AMPV Vehicle Instrumentation Integration Package (VIIP) will establish communications between the TESS instrumentation on the AMPV and each Combat Training Center (CTC), Digital Multi-purpose Range Complex (DMPRC), or other external interface training verification requirement.

7.1.1.4 Training Facilities and Land

The AMPV FoV will not require any new training facilities or any major changes to facilities already in existence. There may be minor requirements to adjust for the dimensions and size of the AMPV FoV from the former 113 series FoV.

The following sections (7.1.1.4.1 thru 7.1.1.4.6) identify and describe the projected Training facilities and land expected for the AMPV FoVs in the Operational Training Domain.

7.1.1.4.1 Ranges

No additional ranges are required for the AMPV FoV.

7.1.1.4.2 Maneuver Training Areas (MTA)

No additional Maneuver Training Areas are required for the AMPV FoV.

7.1.1.4.3 Classrooms

No additional classrooms are required for the AMPV FoV.

7.1.1.4.4 CTCs

No additional Combat Training Centers are required for the AMPV FoV.

7.1.1.4.5 Logistics Support Areas

Operational Training Domain supporting Sustainment, Logistics and Maintenance Facilities may require modification to meet the dimensional requirements of the AMPV family of vehicles.

7.1.1.4.6 Battle Command Training Centers (BCTC)

The former term: Battle Command Training Centers (BCTC) has been replaced by: Mission Training Complex (MTC), in accordance with Army doctrine, ADP 3.0. Constructive and Gaming simulations and Virtual simulators must support AMPV FoV systems network and mission command systems in the Operational Training Domain, from the installation's supporting Mission Training Complex (MTC) facilities.

7.1.1.5 Training Services

The following sections (7.1.1.5.1 thru 7.1.1.5.3) identify and describe the projected Training Services required for the AMPV FoVs in the Operational Training Domain.

7.1.1.5.1 Management Support Services

Information management services.

- Central Army Registry (CAR) [formerly the Reimer Digital Library (RDL)]

Courseware management services.

- Total Army Training System (TATS) management
- Multimedia courseware management
- Distributed Learning (DL) management

Requirements management services.

- Training ammunition requirements as detailed by STRAC
- TADSS requirements documentation
- Range modernization and standardization requirements

Devices management services

- Fielded devices inventory/sustainment and management
 - Logistics Support Concept: Operator maintenance for the TADSS shall be performed by assigned instructors/operators (I/O). All other maintenance will be performed by the contractor under a contract logistics support (CLS) contract for the entire TADSS life cycle. The material developer in coordination with PEO STRI will be responsible for planning, programming, budgeting, and executing CLS support IAW AR 700-17. CLS contracts will require that repair parts peculiar to the TADSS be acquired by their contractor prior to delivery. Provisioning of parts for TADSS will be performed by the contractor. Technical data and publications will be required for all TADSS particular items, and operator manuals will be prepared IAW MIL-M-7298.
 - Configuration management and upgrades/modifications of the TADSS, including hardware/software, will be the responsibility of the material developer for the life cycle of the TADSS system. TADSS changes will be incorporated concurrently with changes to the actual system, to ensure that the TADSS simulates the correct function in response to the performance of selected tasks. A NET program will be developed by the contractor for each TADSS as a Train-the-Trainer course of instruction. The CLS package must be

available for testing prior to initial operational capability (IOC).

Other Management services

- Material Army wide Tracking System (MATS)
- Tactical Engagement Simulation (TES) management
- Targetry support program
- Instrumentation

Communicative technologies management

- Department of the Army Multimedia/visual Information Production and Distribution Program (DAMPIPDP) management
- Electronic Multimedia Information Capability (EMIC) management
- Visual information /Training Support Center VI/TSC management

7.1.1.5.2 Acquisition Support Services

Acquisition support services will be required to procure contracted services for the development of training products.

7.1.1.5.3 General Support Services

General Support services will be required for:

- Distribution and replication services
- Video production services
- TADSS development, procurement, distribution, and sustainment

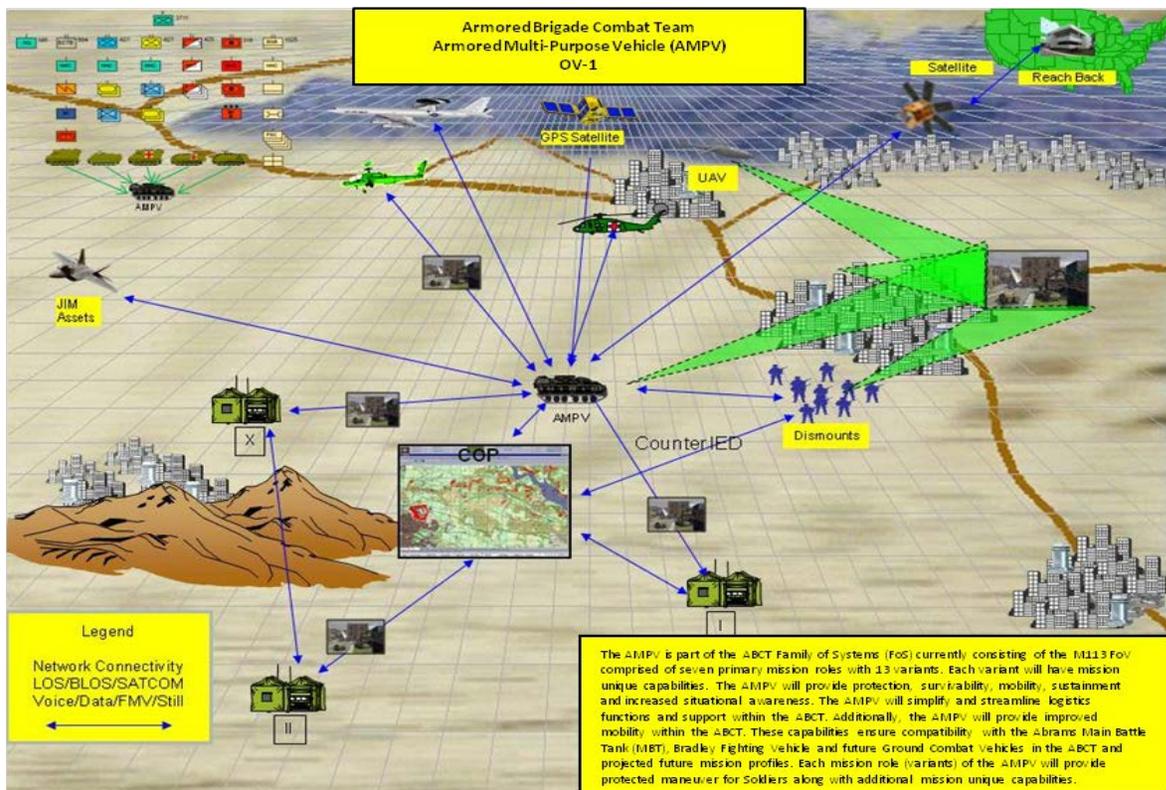
7.1.2 Architectures and Standards Component

The integrated ABCT architecture provides relevant operational, systems, Test & Evaluation (T&E), unit set fielding interoperability certification, digital address book development, and technical architecture views that support program synchronization. The architecture supports AMPV platform C4ISR configuration development from both a super-set and operational facility perspective. The architecture is the viewpoint of the vehicle commander and crew who receives, processes, transmits, and exploits information and reports. All architectural views are related to how the vehicle commander and crew interact with external C4ISR systems and organizations.

The following sections (7.1.2.1 thru 7.1.2.3) identify and describe the Architectures and Standards required for the AMPV FoVs in the Operational Training Domain.

7.1.2.1 Operational View (OV)

The Figure 7.1.2.1 graphically displays the AMPV High Level Operational Concept. The M113 FoV encompasses five primary mission roles with nine vehicle variants. The AMPV is intended to be an intermediate material solution as the replacement to the M-113 FoV to support the ABCT conducting decisive action.



7.1.2.2 Systems View (SV)

Within the LVCG-ITE, AMPV vehicles will interact as a live entity, conducting maneuver and live fire digital gunnery, with virtual and constructive TADSS in a seamless, synthetic environment. The goal is to produce multi-grade, multi-echelon training events that will maximize leadership opportunities and increases the frequency of each student's experience in all types of training.

7.1.2.3 Technical View (TV)

Refer to Appendix A of the AMPV Family of Vehicles Capability Development Document (CDD)

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 AMPV FOVs in the Operational Training Domain.

7.1.3.1 Management

Where possible the AMPV FoV will use existing facilities and support infrastructure. Training development will focus on producing products that are capable of being used both in the institution and in the operational training domain and focused only on mission critical tasks.

- Students and instructors will routinely be asked to evaluate training events and products to determine how best to improve the quality and efficiency of instruction to provide the best quality of training with the least expenditure of resources.

7.1.3.1.1 Strategic Planning

The development and fielding of the AMPV FoV supports Army Transformation, Army Modernization, and Training Transformation and is consistent with the guidance found in:

- National Defense Strategy
- Joint Vision 2020
- The Army Plan and other Service Plans
- Future Force documentation

- TRADOC supporting plan to the Army Transformation Campaign Plan (ATCP)
- TSS Strategic Plan (when published)
- TSS Program Strategy Formulation (guidance to be published)

7.1.3.1.2 Concept Development and Experimentation (CD&E)

Concept Development and Experimentation will be published at a later date.

7.1.3.1.3 Research and Studies

Requirements for Research and Studies will be determined at a later date.

7.1.3.1.4 Policy and Guidance

The documents listed below apply to the design, procurement, and use of the AMPV FoV:

- AR 350-1 and AR 350-38
- AR 700-142
- TRADOC Regulations 350-70 and 71-20
- TRADOC Pamphlet 71-20
- TRADOC Pamphlet 525-8-2 w/ Ch 1 6 Jun 2011
- Command Training Guidance
- Training Doctrine Manuals (ADP 7-0, ADRP 7-0)
- LOGSA Pamphlet 700-3, Total Package Fielding

7.1.3.1.5 Requirements Generation

This STRAP supports the AMPV CDD to which it is attached.

7.1.3.1.6 Synchronization

The fielding of the AMPV will be synchronized with the following as applicable:

- Unit Set Fielding (BOIP)
- Army Transformation Campaign Plan (ATCP)
- Implementation Plan for Transforming DoD Training

- TADSS distribution plans
- MCoE and the Infantry and Armor Schools
- Sustainment Command (formerly CASCOM) and Ordnance Center and School
- Army Medical Command (AMEDCOM) and The Medical Center and School

7.1.3.1.7 Joint Training Support

The fielding of the AMPV FoV will be synchronized with the following as applicable:

- Joint Knowledge Development and Distribution Capability (JKDDC)
- Joint Assessment and Enabling Capability (JAEC)
- Joint National Training Capability (JNTC)
- Joint Advanced Distributed Learning C0-Labs
- Joint Professional Military Education (JPME)

7.1.3.2 Evaluation

The following feedback mechanisms will be used to measure, audit, and analyze the efficiency and effectiveness of programmed training in the Operational Training Domain.

The following paragraphs (7.1.3.1 thru 7.1.3.3) identify and describe the Evaluation processes required for the AMPV FoVs in the Operational Training Domain.

7.1.3.2.1 Quality Assurance (QA)

QA plans will be used IAW each Operational Training Domain installation's and unit's training QA plan.

7.1.3.2.2 Assessments

As part of the evaluation phase of the Army Learning Policy and Systems process, Post Fielding Training Effectiveness Analysis (PFTEA) will be conducted. The PM-AMPV will fund a PFTEA approximately one-year following FUE.

7.1.3.2.3 Customer Feedback

The following tools will be used to obtain customer feedback:

- Electronic media for surveys, help desks, collaboration
- Interviews and After Action Review (AAR) sessions
- Questionnaires

7.1.3.2.4 Lessons Learned/After-Action Reviews (AARs)

The operational unit commander and trainers will leverage the Center for Army Lessons Learned (CALL) and the Battle Command Knowledge System (BCKS) databases for new TTPs as well as conducting face to face interviews with units/individuals returning from theater to ensure training programs and instruction remain current and relevant. Unit commanders should maintain contact with the respective centers of excellence to insure the latest training POIs and resources are used in the conduct and support of operational unit sustainment and collective training.

7.1.3.3 Resource Processes

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		1.0MY	1.0MY	1.0MY	1.0MY	1.0MY	1.0MY
Civilian		1.0MY	1.0MY	1.0MY	1.0MY	1.0MY	1.0MY
Enlisted				0.2MY	0.2MY	0.2MY	0.2MY
Warrant				0.2MY	0.2MY	0.2MY	0.2MY
Officer				0.2MY	0.2MY	0.2MY	0.2MY
Contract/Sp t		\$200K	\$200K	\$200K	\$200K	\$200K	\$200K
Civ Pay		\$200K	\$200K	\$200K	\$200K	\$200K	\$200K
Trvl/Per Diem		\$40K	\$40K	\$40K	\$45K	\$50K	\$50K
Other							

Rationale: TNGDEVs are needed to develop and maintain the programs of instruction and other outputs of the ALPS process. Military will be used in different areas within the training program. Travel/Per Diem represents cost to attend training and reviews; and for four instructor/key personnel to evaluate training prior to operational testing.

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
<u>New Equipment Training</u>							
Contractor		1.0MY	1.0MY	1.0MY	1.0MY	1.0MY	1.0MY
Contract/Sp t		\$200K	\$200K	\$200K	\$200K	\$200K	\$200K
Trvl/Per Diem		\$40K	\$40K	\$40K	\$45K	\$50K	\$50K
Classrooms		0.5K	0.5K	0.5K	0.5K	0.5K	0.5K
Equipment		0.5K	0.5K	0.5K	0.5K	0.5K	0.5K
AC/DC Power		0.5K	0.5K	0.5K	0.5K	0.5K	0.5K
Printing		0.1K	0.1K	0.1K	0.1K	0.1K	0.1K
Other							

Rationale: Classrooms suitable for twelve students with standard electrical power are required for NET.

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
<u>Training Products</u>							
Training				0.2MY	0.2MY	0.2MY	0.2MY

Rationale: Cost to modify existing facilities to accommodate new power and shielding requirements of new system Concrete pad and electrical power needed to operate simulator.

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
<u>Training Services/TII</u>							
LMS		0.6K	0.6K	0.8K	0.7K	0.6K	0.5K
Services		0.1K	0.1K	0.1K	0.1K	0.1K	0.1K
Servers		0.1K	0.1K	0.1K	0.1K	0.1K	0.1K
Licenses		0.1K	0.1K	0.1K	0.1K	0.1K	0.1K
IT Support		0.5K	0.5K	0.5K	0.5K	0.5K	0.5K
Other		0.5K	0.5K	0.5K	0.5K	0.5K	0.5K

Rationale: Software license and IT support will be required.

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
<u>Eval/QA</u>							
Contractor		1.0MY	1.0MY	1.0MY	1.0MY	1.0MY	1.0MY
Civilian		1.0MY	1.0MY	1.0MY	1.0MY	1.0MY	1.0MY
Enlisted				0.2MY	0.2MY	0.2MY	0.2MY
Warrant				0.2MY	0.2MY	0.2MY	0.2MY

Officer				0.2MY	0.2MY	0.2MY	0.2MY
Contract/Sp t		\$200K	\$200K	\$200K	\$200K	\$200K	\$200K
Civ Pay		\$200K	\$200K	\$200K	\$200K	\$200K	\$200K
Trvl/Per Diem		\$40K	\$40K	\$40K	\$45K	\$50K	\$50K
Facilities		\$100K	\$100K	\$100K	\$100K	\$100K	\$100K
Equipment		\$200K	\$200K	\$200K	\$200K	\$200K	\$200K
Printing		0.1K	0.1K	0.1K	0.1K	0.1K	0.1K
TEA		\$100K	\$100K	\$100K	\$100K	\$100K	\$100K
PFTEA		\$200K	\$200K	\$200K	\$200K	\$200K	\$200K
Other							

Rationale:

8.0 Self-Development Training Domain

The self-development training domain is planned, goal-oriented learning that reinforces and expands the depth and breadth of an individual's knowledge base, self-awareness, and situational awareness; complements institutional and operational learning; enhances professional competence; and meets personal objectives. The Self-Development Training Domain recognizes the Army continuous lifelong learning. Training activities in training base schools and in operational units will not meet every individual's need for content or time. Self-development enables individuals to pursue personal and professional development goals. The Armored Brigade Combat Team (ABCT) Warfighters Forum (ABWF) is a web based portal with an wealth of knowledge for Self-Development of Soldiers and leaders on orders to or assigned to a ABCT. The mission of the ABWF is to: Develop and sustain a repository of experience and expertise in the ABCT community; create a Community of Practice among ABCTs, Home stations and the Institutional Army; use a collaborative, distributed continuous learning methodology that is operationally based; increase the Soldier and leader experience base and enhance unit learning and performance throughout Army Force generation process; recommend applicability for modular brigades and possible prototype for the Army Evaluation Task Force; adjust concept and evolve as new opportunities and technologies arise. Within this domain, Army leaders expect Soldiers and Army civilians to fill in their skills, knowledge, and behavior gaps from institutional training and operational assignments.

The following sections (8.1 thru 8.1.3.3) explain the Self-Development Training Domain requirements for the AMPV FoVs.

8.1 Self-Development Training Concept and Strategy

In the Self-Development Domain the Distributed Learning (DL) leverages the knowledge networks and the web, such as: interactive media instruction, video tele-training, e-learning, and other capabilities, via ATN to deliver standardized training and education when demanded by the learner. DL may involve student-instructor interaction in real time (synchronous) and non-real time (asynchronous). It may also involve self-paced student instruction without the benefit of an instruction utilizing Web based resources.

Soldiers may access the ATN to reach DTMS, ALMS, HBWF, or other Web based resources to view lessons learned, long range training calendars, systems training strategies and after action reviews. Soldiers will also have access to AKO to reach ATN, IMI and CBT websites to use as self-development courseware.

8.1.1 Product Lines

The following product lines are suitable for Self Development training:

- Web based instruction
- IMT, ALC, and Officer Education System (OES) DL products
- Soldier Training Publications TSP for individual training
- TADSS TSP
- Embedded Training Capabilities
- Distributed Learning (DL) facilities at home station locations

8.1.1.1 Training Information Infrastructure

The existing Distributed Learning (DL) and related training infrastructure currently used by the supporting proponents will be used to support the storage, retrieval, delivery and management of Training Support Systems (TSS) products developed by the PM-ABCT for the AMPV FoV in the Self Learning training domain.

8.1.1.1.1 Hardware, Software, and Communications Systems

Commercial capabilities can provide Web access to training products being stored on Army Knowledge Online (AKO), Army Training Network (ATN), Army Learning Management System (ALMS), and other various locations.

DL resources available at Distance Learning Centers, Home Station Training Resource facilities, or through the Web Based systems will all contribute to the self-learning training environment of the individual soldier operator of the AMPV FoV.

8.1.1.1.2 Storage, Retrieval, and Delivery

AMPV FoV training products will be stored on the Central Army Registry (CAR) [formerly the Reimer Doctrine and Digital Library]. The dL repositories and the Army Learning Management System (ALMS) will house products developed by the respective institutional proponents for use within institution, operational domain unit sustainment training environment, and the self-development domain.

8.1.1.1.3 Management Capabilities

The consolidated database of record (CDBR) maintained by Combined Arms Center (CAC)

is the management control tool for approved individual and collective tasks, this is key to tracking TSS products associated with the AMPV FoV training.

8.1.1.1.4 Other Enabling Capabilities

The Self-Development Domain will rely on the following dL other enabling capabilities: AKO collaboration groups; JTIMS; C4ISR capabilities; the GIG; as well as the Life Long Learning as mandated in TRADOC Pam 525-8-2.

8.1.1.2 Training Products

The PM-ABCT has the responsibility of developing comprehensive exportable multi-media based TSPs containing: POI's, lesson plans, audio-visual aids, IMI, and compact disk (CD) training products. These TSPs will serve as the base documents and training data files to build the training products associated with the AMPV FoV for the self-Development Domain.

8.1.1.2.1 Courseware

- All courses will be available in IMI as exportable media supporting Computer Based Training (CBT) or Web-based training hosted on the ALMS and accessed via ATN. Courseware will comply with the Sharable Content Object Reference Model (SCORM).
- Manuals. Lessons learned from operational ABCT units with AMPV FoV will be analyzed and the TTPs will be used to support NET and self-development and self-learning domain training. Lessons learned from subsequent unit operations will determine whether or not Army doctrine (ADPs and ADRPs) and collective training tasks require revision.
- Interactive Multimedia Instruction. IMI will be task-based for individual and self-learning training on traditional subject matter (e.g., land navigation) and ABCT AMPV unique system capabilities. It will include task-based training in digitized communication.
- Although initial guidance has been given to the TCM-ABCT and PM-AMPV, the final determination has not been made concerning which individual and collective tasks will be selected and developed for IMI. The full range of media will be explored including Computer Based Instruction (CBI); Computer Based Training (CBT); Compact Disc Interactive (CDI); Interactive Courseware (ICW); Interactive Video disc (IVD); Computer Managed Instruction (CMI); Electronic Performance Support System (EPSS); Game Based Instruction; and other emerging training technologies. The AMPV FoV materiel developer (PM-AMPV) has the responsibility to provide the

IMI since this is an AMPV FoV system-specific product. IMI will be refined based on the lessons learned in NET and Operational Test (OT) and combat. Also, changes to the AMPV FoV system and the advent of enhanced multi-media capabilities will influence the development of IMI.

- The materiel developer will develop all IMI products. IMI verification is the responsibility of the variant proponent institution.

8.1.1.2.2 Courses

Course Name	Course Number
Initial Military Training	
Not available in the Self Learning Training Domain	
Professional Military Education (PME)	
As directed and made available from the respective CoE to the Self Learning Training Domain.	TBD
Functional And ASI	
TBD	TBD

8.1.1.2.3 Training Publications

Publications	Publication Date
Army Doctrine Publications (ADP)	
ADP 3.0 Unified Land Operations	10 October 2011
ADP 6.0 Mission Command (w/Chg 1)	10 September 2012
ADP 7.0 Training Units and Developing Leaders	23 August 2012
Army Doctrine Reference Publications (ADRP)	
ADRP 3.0 Unified Land Operations (ULO)	16 May 2012
ADRP 6.0 Mission Command (w/Chg 1)	17 May 2012 w/ Ch 1 10 Sep 2012
ADRP 7.0 Training Units and Developing Leaders	23 Aug 2012
Field Manuals (FM)	
FM 3.06 Urban Operations	26 October 2006
FM 3-22.27 MK 19, 40mm Grenade Machine Gun MOD 3	28 November 2003 w/ Ch 1. 14 Sept 2006
FM 3-22.65 Browning Machine Gun, Caliber .50 HB, M2	3 March 2005 w/ Ch 1. 11 April 2007
FM 3-22.68 Crew-Served Machine Guns, 5-56mm and 7.62mm	21 July 2006
FM 3-22.90 Mortars	7 December 2007
FM 7-15 The Army Universal Task List	27 February 2009 w/ Ch 10. 29 June 2012
Soldier Training Publications (STP)	
STP 7-11B1-SM-TG Soldier's Manual, SL 1, MOS 11B,	6 August 2004

Infantry	
STP-7-11B24-SM-TG Soldier's Manual, SL 2/3/4, MOS 11B, Infantryman	6 August 2004
STP-7-11C14-SM-TG Soldier's Manual, SL 1/2/3/4, MOS 11C, Indirect Fire Team Infantryman	6 August 2004
STP-21-1-SMCT Soldier's Manual of Common Tasks, Warrior Skill Level 1.	2 May 2011
STP-21-24-SMCT Soldier's Manual of Common Tasks, Warrior Skill Levels 2/3/4.	9 September 2008
STP 9-91H14-SM-TG Soldier's Manual and Trainer's Guide MOS 91H/91X Tracked Vehicle Mechanic, Skill Levels 1/2/3/4	3 Jan 2011
Army Tactics, Techniques and Procedures (ATTP)	
ATTP 3-21.90 Tactical Employment of Mortars	4 April 2011
ATTP 3-90.4 Combined Arms Mobility Operations	10 August 2011
Infantry Unit Task Lists and Collective Tasks	
https://atn.army.mil/dsp_links.aspx Link to Warrior University	

8.1.1.2.4 Training Support Package (TSP)

Training Support Packages for all courses will be developed in accordance with TRADOC Regulation 350-70, Army Learning Policy and Systems (ALPS). Prior to AMPV institutional fielding, training will be analyzed, designed and developed In Accordance With (IAW) the Army Learning Policy and Systems (ALPS) process outlined in TRADOC Regulation 350-70. The ALPS refer to the four TRADOC regulations and pamphlets in the 350-70 series and the Army Learning Model (ALM), TP 525-8-2 w/ Ch 1 dated 6 Jun 2011. Training sources include: the Army Training Network (ATN) at link: <https://atn.army.mil> ; the continuous adaptive learning model as described in TP 525-8-2 describes the framework, required capabilities, and on-going actions to implement a learner centric, technology enabled, and career long learning model by 2015. To learn more about the ALM, research the TED-T ALM page on the ATN in the Training and Education developers toolbox page.

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

Not Applicable

A Milestone Annex

TRAINING DEVELOPMENT MILESTONE SCHEDULE - SHEET A		PAGE OF PAGES	REQUIREMENTS CONTROL SYMBOL	
SYSTEM		ACAT	OFFICE SYMBOL	
POINTS OF CONTACT		NAME	OFFICE SYMBOL	TELEPHONE
MATERIEL COMMAND		TACOM		
PM:		COL William Sheehy		586-574-
TRADOC PROPONENT		MCoE		
	TCM	COL Gary Nicolson		706-545-9597
	MRD:	COL Robert Kmiecik		706-545-5275
	CD:	Mark Andrews		706-545-0982
	TD:	Jerry Niggemann		706-545-6516
	ATSC:	Michael L. Brown		757-878-9020
SUPPORTING PROPONENTS:				
ITEM		DATE	RESPONSIBLE AGENCY/POC	TELEPHONE
MNS:				
SMMP:				
MRD:				

B References

The following References are applicable to the AMPV:

- (1) Materiel Need (MN) for an Infantry Fighting Vehicle/Cavalry Fighting Vehicle (IFV/CFV), dated 2 March 1978.
- (2) Annex VII (Block Mod I) to the Material Need (MN) for an Infantry Fighting Vehicle/Cavalry Fighting Vehicle (IFV/CFV), approved January 1985.
- (3) Annex VII (Block Mod II) to the Material Need (MN) for an Infantry Fighting Vehicle/Cavalry Fighting Vehicle (IFV/CFV), approved 29 November 1989.
- (4) Phase I, Bradley Fighting Vehicle Operation Desert Storm (ODS), Materiel Changes to the Material Need (MN) for the Infantry Fighting Vehicle/Cavalry Fighting Vehicle (IFV/CFV), dated 2 March 1978, approved 11 January 1993.
- (5) Bradley Fighting Vehicle Modernization Program Operational Requirements Document, dated 12 March 2001 (CARDS #0293).
- (6) Bradley Fighting Vehicle Fire Support Vehicle (BFIST). Document, dated 11 June 2004 (CARDS #0486).
- (7) Bradley Fighting Vehicle Modernization Program Operational Requirements Document, dated 13 May 1994 (CARDS #0379).
- (8) Future Scout and Cavalry System (FSCS) Combined Operational Requirements Document (CORD), dated August 8, 1997.
- (9) Operational Requirements Document for the Future Combat Systems (FCS), dated 27 April 2006.
- (10) Operational Requirements Document (ORD) for the Bradley Fire Support Vehicle (BFIST), dated 28 January 1994.
- (11) Change 1 to BFIST ORD establishing the ORD for the Heavy/Light Fire Support Vehicles, dated 17 July 1997.
- (12) Operational Requirements Document (ORD) for the Heavy/Light Fire Support Vehicle (BFIST), Change 2, dated 11 June 2004 (CARDS #0486).
- (13) Operational Requirements Document (ORD) for the Armored Medical Evacuation Vehicle (AMEV), dated 6 November 1996 (CARDS #14006).
- (14) Operational Requirements Document (ORD) for the Armored Medical Treatment Vehicle (AMTV), dated 13 December 1996 (CARDS #14007).
- (15) Operation Desert Storm VII CORPS AAR results TCM-HBCT memorandum, dated 22 May 09.
- (16) Initial Capabilities Document (ICD), Ground Combat Vehicle, December 2009.

(17) Operational Requirements Document (ORD), Change 1, for the Family of Stryker Vehicles, dated November 2007 (CARDS #0387).

(18) Capability Production Document (CPD), Paladin operations Center Vehicle (POCV), dated January 2007 (CARDS #04017).

(19) Capability Production Document (CPD), All Source Analysis System Increment 2, dated February 2006 (CARDS #1599).

(20) Capability Production Document (CPD), Army Airborne Command and Control System, dated May 2005 (CARDS #05062).

(21) Capability Production Document (CPD), Maneuver Control System (MCS), dated Oct 2005 (CARDS #08071).

(22) Operational Requirements Document (ORD), Advanced Field Artillery Tactical Data System (AFATDS), dated December 2004 (CARDS #08024).

(23) Armored Multi-Purpose Vehicle AMPV Concept Development Document (CDD), dated 27 Nov 2012, ver 1.08.

SOURCES USED

The Following are the sources quoted or paraphrased in the STRAP Document.

Army Doctrine Publications (ADP)

ADP 3-0 Unified Land Operations., 10 October 2011

ADP 5-0 The Operations Process., 17 May 2012

ADP 6-0 Mission Command., 17 May 2012

Army Tactics, Techniques, and Procedures (ATTP)

ATTP 3-21.71 Mechanized Infantry Platoon and Squad (Bradley)., 9 November 2010

ATTP 3-90.15 Site Exploitation Operations., 8 July 2010

Field Manuals (FM)

FM 1-02 Operational Terms and Graphics., 21 September 2004, w/Ch 1.

FM 2-91.6 Soldier Surveillance and Reconnaissance: Fundamentals of Tactical Information Collection., 10 October 2007

FM 3-06 Urban Operations., 26 October 2006

FM 3-06.20 Multi service Tactics, Techniques, and Procedures for Cordon and Search Operations., 25 April 2006

FM 3-11 Multi service Doctrine for Chemical, Biological, Radiological, and Nuclear Operations., 1 July 2011

FM 3-20.21 Heavy Brigade Combat Team (HBCT) Gunnery., 3 September 2009, w/ Ch 1,

31 May 2010

FM 3-20.96 Reconnaissance and Cavalry Squadron., 12 March 2010

FM 3-21.8 The Infantry Rifle Platoon and Squad., 28 March 2007

FM 3-21.75 The Warrior Ethos and Soldier Combat Skills., 28 January 2008

FM 3-22.9 Rifle Marksmanship, M16 / M4 Series Weapons., 12 August 2008, w/ Ch 1,
10 February 2011

FM 3-22.34 TOW Weapon System., 28 November 2003

FM 3-22.37 Javelin - Close Combat Missile System - Medium., 20 march 2008

FM 3-22.40 Multi service Tactics, Techniques, and Procedures for the Tactical
Employment of Non lethal Weapons., 24 October 2007

FM 3-22.68 Crew-Served Weapons., 21 July 2006

FM 3-90 Tactics., 4 July 2001

FM 3-90.1 Tank and Mechanized Infantry Company Team., 9 December 2002

FM 3-90.5 The Combined Arms Battalion., 7 April 2008, w/ Ch 1, 1 October 2009

FM 3-90.6 Brigade Combat Team., 14 September 2010

FM 5-19 Composite Risk Management., 21 August 2006

FM 5-102 Counter mobility., 14 March 1985

FM 6-30 Tactics, Techniques, and Procedures for Observed Fire., 16 July 1991

FM 6-50 Tactics, Techniques, and Procedures for the Field Artillery Cannon
Battery., 23 December 1996

FM 7-0 Training Units and Developing Leaders for Full Spectrum Operations., 23
February 2011

FM 21-60 Visual Signals., 30 September 1987

Soldier's Training Publications (STP)

STP 21-1-SMCT Soldier's Manual of Common Tasks, Warrior Skills, Level 1., 18 June
2009

STP 21-24-SMCT Soldier's Manual of Common Tasks, Warrior Leader Skill Levels 2,3,
and 4., 9 September 2009

WEB Sites

Army Knowledge OnLine

(AKO): <https://akocomm.us.army.mil/usapa/doctrine/index.html>

Digital Training Management System: <https://dtms.army.mil/DTMS>

Reimer Doctrine and Training Digital Library: <http://www.train.army.mil>

Army Publishing Directorate: <http://www.apd/army.mil>

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	
v1.2 Army - USAREUR 2013/02/11 - 2013/03/13	0	1	0	0	1	0	0	0	0	
v1.2 Army - TRADOC_ARCIC 2013/02/11 - 2013/03/13	No Comments Submitted			0	0	0	0	0	0	-
v1.2 Army - TCM-Virtual (CS/CSS) 2013/02/11 - 2013/03/13	No Comments Submitted			0	0	0	0	0	0	-
v1.2 Army - TCM-Live 2013/02/11 - 2013/03/13	0	1	0	0	1	0	0	0	0	
v1.2 Army - TCM-ABCT 2013/02/11 - 2013/03/13	No Comments Submitted			0	0	0	0	0	0	-
v1.2 Army - TCM ITE 2013/02/11 - 2013/03/13	No Comments Submitted			0	0	0	0	0	0	-
v1.2 Army - SIGCoE - Signal School 2013/02/11 - 2013/03/13	0	1	0	0	1	0	0	0	0	
v1.2 Army - SCoE 2013/02/11 - 2013/03/13	1	1	0	1	1	0	0	0	0	
v1.2 Army - MSCoE - MANSCEN 2013/02/11 - 2013/03/13	6	1	0	6	1	0	0	0	0	

v1.2 Army - FCoE - Field Artillery 2013/02/11 - 2013/03/13	1	0	0	1	0	0	0	0	0	
v1.2 Army - CAC-T; Training Management Dir 2013/02/11 - 2013/03/13	0	8	0	0	8	0	0	0	0	
v1.2 Army - Brigade Modernization Cmd (BMC) 2013/02/11 - 2013/03/13	No Comments Submitted			0	0	0	0	0	0	-
v1.2 Army - ATSC TSAID 2013/02/11 - 2013/03/13	No Comments Submitted			0	0	0	0	0	0	-
v1.2 Army - ATSC Fielded Devices 2013/02/11 - 2013/03/13	Document Accepted As Written			0	0	0	0	0	0	-
v1.2 Army - ATSC 2013/02/11 - 2013/03/13	No Comments Submitted			0	0	0	0	0	0	-
v1.2 Army - Army National Guard 2013/02/11 - 2013/03/13	No Comments Submitted			0	0	0	0	0	0	-
v1.2 Army - Army Material Command (AMC), G3 2013/02/11 - 2013/03/13	No Comments Submitted			0	0	0	0	0	0	-
v1.2 Army - AMEDD Center&School 2013/02/11 - 2013/03/13	No Comments Submitted			0	0	0	0	0	0	-
v1.1 Peer - TCM-Live 2012/12/04 -	No Comments Submitted			0	0	0	0	0	0	-

2013/02/08										
v1.1 Peer - TCM-HBCT 2012/12/04 - 2013/02/08	No Comments Submitted			0	0	0	0	0	0	-
v1.1 Peer - SIGCoE - Signal School 2012/12/04 - 2013/02/08	Document Accepted As Written			0	0	0	0	0	0	-
v1.1 Peer - SCoE 2012/12/04 - 2013/02/08	2	0	1	2	0	1	0	0	0	
v1.1 Peer - PM-HBCT 2012/12/04 - 2013/02/08	No Comments Submitted			0	0	0	0	0	0	-
v1.1 Peer - MSCoE - MANSCEN 2012/12/04 - 2013/02/08	5	2	0	5	2	0	0	0	0	
v1.1 Peer - FORSCOM/TRADOC LNO 2012/12/04 - 2013/02/08	No Comments Submitted			0	0	0	0	0	0	-
v1.1 Peer - FORSCOM G3 2012/12/04 - 2013/02/08	No Comments Submitted			0	0	0	0	0	0	-
v1.1 Peer - FCoE - Field Artillery 2012/12/04 - 2013/02/08	2	4	0	2	4	0	0	0	0	
v1.1 Peer - Combined Arms Center 2012/12/04 - 2013/02/08	No Comments Submitted			0	0	0	0	0	0	-
v1.1 Peer - CAC-T; Training Management Dir 2012/12/04 - 2013/02/08	3	55	0	3	55	0	0	0	0	
v1.1 Peer - Brigade	No Comments			0	0	0	0	0	0	-

Modernization Cmd (BMC) 2012/12/04 - 2013/02/08	Submitted							
v1.1 Peer - ATSC 2012/12/04 - 2013/02/08	No Comments Submitted	0	0	0	0	0	0	-
v1.1 Peer - ARNG-RMQ-RA 2012/12/04 - 2013/02/08	Document Accepted As Written	0	0	0	0	0	0	-
v1.1 Peer - Army National Guard 2012/12/04 - 2013/02/08	No Comments Submitted	0	0	0	0	0	0	-
v1.1 Peer - AMEDD Center&School 2012/12/04 - 2013/02/08	No Comments Submitted	0	0	0	0	0	0	-
v1.1 Peer - 2nd Infantry Division 2012/12/04 - 2013/02/08	No Comments Submitted	0	0	0	0	0	0	-

Key
Completed Review with Comments
Completed Review, No Comments
Active Review Occurring



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
HEADQUARTERS UNITED STATES ARMY MANEUVER CENTER OF EXCELLENCE
1 KARKER STREET
FORT BENNING, GEORGIA 31905-5000

ATZK-TD

3 MAY 2013

MEMORANDUM FOR RECORD

SUBJECT: System Training Plan for the Armored Multi-Purpose Vehicle Family of Vehicles

1. References:

a. TRADOC Regulation 350-70, Army Learning Policy and Systems, 6 December 2011.

b. Army Regulation 350-1, Army Training and Leader Development, 18 December 2009.

c. Armored Multi-Purpose Vehicle Family of Vehicles Capability Development Document (Draft), 11 January 2013.

2. I approve this System Training Plan for the Armored Multi-Purpose Vehicle Family of Vehicles. A copy of this STRAP will be posted to the Central Army Registry within 30 days of the approval date.

3. Point of contact is Mr. Kevin Kirby, Systems Training Branch, Training Development Division, Directorate of Training and Doctrine at DSN 835-8545, Com (706) 544-8545, or e-mail kevin.d.kirby3.civ@mail.mil.

A handwritten signature in black ink, appearing to read "H. R. McMaster".

H. R. MCMASTER
Major General, USA
Commanding

