

Family of Weapon Sights  
(version 1.0)

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MCoE - Infantry & Armor School

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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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## **1.0 System Description**

a. The fielding of all family of weapon sights (FWS) shall increase lethality and improve situational awareness by extending the range a war fighter can recognize potential targets. The FWS, used in conjunction with small arms weapons, shall ensure that commanders in the field have constant rapid lethal firepower. The FWS shall have a reduced size, weight and power from the legacy thermal weapon sights (TWS), while providing rapid target acquisition (RTA) and improved resolution over greater ranges.

## **2.0 Target Audience**

The target audience includes the operators of the weapons systems cited in the following paragraphs. The target audience for the unit trainer is SGT and above.

The FWS will be used by all brigade combat team (BCT) military occupational specialties (MOS) who are assigned the M16A4/M4 rifle/carbine, M249 SAW, M240 medium machine gun, MK 19 grenade launcher, or M-2 heavy machine gun. Those MOSs include 11B, 11C, 19D, 25U, 31B, 35F, 42A, 52D, 63B, 63H, 63J, 63M, 68W, 74D, 88M, 92A, 92F, 92G, and 92Y. The MOS for the unit armor is 91F.

The FWS will be issued to heavy (BCT), infantry (BCT), stryker (BCT); 3d armored cavalry regiment; FWSI 18 per platoon; FWSCS one per M240, M2 and MK19; FWSS one per sniper team. The FWS shall be issued to the USA special forces command, special warfare center, and 75th ranger regiment; FWSI at a rate of one per operational detachment A and B team member; FWSCS one per M240, M2, MK19, and MK47 weapons system; FWSS one per sniper weapon system. The current variants of TWS in the BCTs and special operations command shall be cascaded to functional and multifunctional brigades in accordance with army forces generation cycles. This basis of issue plan is to provide organic capability to mounted and dismounted forces that must acquire and provide target recognition and far target location in all climates and battlefield conditions during both limited visibility and night missions.

## **3.0 Assumptions**

- a. Manpower. No increase in total force structure will be required by the introduction of the FWS.
- b. Doctrine. FWS will not affect doctrine.
- c. Training. Training will not require skills, knowledge, or attributes greater than those required by the MOS and skill level of Soldiers employing,

operating, or maintaining this piece of equipment.

d. Personnel. Additional instructors may be required in the generating force due to an increase in training time (about 4 hours) in the program of instruction (POI). No new MOSs or additional skill identifiers will be required for operators or maintainers.

e. Ammunition. Program manager-Soldier maneuver sensors (PM-SMS) will POM for training ammunition that will be required during new equipment training (NET).

f. Funding. The materiel developer will resource and fund all NET requirements to support the operational test (OT), and field the generating and operating force.

g. Training aids, devices, simulators, and simulations (TADSS). FWS will require integration into the engagement skills trainer 2000 (EST 2000, I2 only), close combat tactical trainer-dismounted Soldier training system (CCTT-DSTS), and virtual battlespace II.

h. Facilities. No change

#### **4.0 Training Constraints**

a. Funding availability. Total life-cycle costs (LCC) for the FWS will include \$19.439M for research, development, testing and evaluation, \$346.803M for procurement, and \$10.521M for operations and maintenance. At present, \$11.894M of the total is an unfunded requirement.

b. TADSS compatibility. New development of TADSS will not be required.

c. System availability for generating force. BCTs will be fielded FWS first. Therefore, generating force locations will not be able to train with the FWS until sufficient quantities are produced to fill their training need.

d. Instructor availability. Due to the evolutionary acquisition strategy for FWS, army units will initially be required to maintain two different types of night sights. Therefore, generating force instructors will have to instruct on multiple night sight systems. Additionally, introduction of FWS into the generating force will require that additional training time be added to POIs. Therefore, additional instructor personnel may be required.

#### **5.0 System Training Concept**

a. FWS training will consist of NET using the "train-the-trainer" method. BCTs will receive training first based on their deployment schedule. Generating force NET will be completed based on the master fielding plan (MFP).

Generating force locations will train initial entry Soldiers on operation and will train leader courses on capabilities and employment. Units scheduled for fielding of the FWS will receive all equipment and training materials prior to or during NET. Stay-behind packages are the responsibility of the PM and will remain with the unit by the NET team. Maintenance training will be conducted for MOS 91F. Direct support maintenance of the FWS will be completed using contractor logistics support (CLS) contracts or organic maintenance.

b. The capabilities production document (CPD) authorized a computer-based trainer, interactive multimedia instruction (IMI), EST 2000 Compatible, combat training center implementation and Interface requirements, and integration into the CCTT-DSTS prior to the material solution. Now that the material solution has been identified, only the I2portion of the FWS must be compatible with the EST 2000. The FWS will have to be incorporated into the CCTT-DSTS and an IMI will need to be developed.

c. Training by the generating force will be added to MOS-specific initial military training (IMT) and professional military education, if the task using the equipment is on the approved critical task list, and as taught within an institutional training course. If taught by the unit, the training support packages (TSPs) developed for NET will be used.

### **5.1 New Equipment Training Concept (NET)**

a. NET will be conducted by PM-SMS provided contractors who have been certified by the maneuver center of excellence (MCoE) and combined arms support command (CASCOM) on the maintenance and operation of the FWS. Development of the NET plan (NETP) is the responsibility of PM-SMS. TSPs, stay-behind packages and other appropriate training materials/manuals will be developed by PM-SMS and reviewed/approved by united states army infantry school (USAIS) and MCoE DOTD. NET will be scheduled to coincide with fielding of the FWS. NET will qualify unit trainers to safely operate and employ the FWS and train MOS 91F to perform limited maintenance at the unit level. Unit-level maintenance will consist of replacement of knobs, and so forth, according to the applicable technical manual (TM). FWS qualification/certification of unit trainers will require an estimated 8 hours of training. FWS-qualified unit trainers will teach Soldiers how to operate the system during sustainment training and during operating force operations. NET trainers will conduct training according to the TSP created and validated by the USAIS, MCoE directorate of training and doctrine (DOTD), and CASCOM during pretest training certification in support of the OT. The target audience for the unit trainer is SGT and above.

b. NET Plan (NETP): TBD

## **5.2 Displaced Equipment Training (DET)**

The FWS will replace all first generation thermal weapon sights to include AN/PAS-13, 13A, and 13B. Displaced equipment will be cascaded at the direction of the Department of Army (G-8).

## **5.3 Doctrine and Tactics Training (DTT)**

The FWS will not require a change to DTT.

## **5.4 Training Test Support Package (TTSP)**

The training developer and the training development division (TDD) from MCoE coordinate all deliverables from the MD and submit the TTSP to the U.S. Army Test&Evaluation Command according to timelines provided by TRADOC Regulation 350-70. The TTSP will be validated during the initial operational test and evaluation. As applicable, the TTSP contains:

## **6.0 Institutional Training Domain**

Generating force training will consist of operator, leader, and maintenance (MOS 91F) training. Individual tasks will be trained to both the Active and Reserve Component. There will be no difference in the training content between Active and Reserve Components.

### **6.1 Institutional Training Concept and Strategy**

Training for the FWS in the institution will consist of programmed instruction, traditional training and small group instruction for operators, leaders, and repair personnel (MOS 91F). Both IMT and professional development courses, and unit-level maintenance training will be conducted using a mix of conventional training methods and the army learning model methods. FWS capabilities and employment will be introduced in leader/professional development courses. PM-SMS will ensure that the initial transfer of knowledge from the contractor to school takes place. This will happen via instructor and key personnel training using the tenets of TRADOC Regulation 350-70. This course will take place at mutually agreed upon sites. Field-level maintenance training will be conducted at united states army ordnance mechanical maintenance school.

## **6.1.1 Product Lines**

The MCoE training developer will develop the TTSP. Initial military training and professional military education courses will be supported by this TTSP and incorporated into the current curricula. The training developer will update appropriate training publications. The MCoE DOTD training developer will develop the TSPs supporting individual tasks.

### **6.1.1.1 Training Information Infrastructure**

The contractor will develop a TM in the logistics support activity (LOGSA) interactive electronic TM (IETM) format and a hard copy will be provided with each FWS system. The TSP will be stored in TDC and the central army registry (CAR).

#### **6.1.1.1.1 Hardware, Software, and Communications Systems**

#### **6.1.1.1.2 Storage, Retrieval, and Delivery**

#### **6.1.1.1.3 Management Capabilities**

#### **6.1.1.1.4 Other Enabling Capabilities**

Not Applicable

### **6.1.1.2 Training Products**

#### **6.1.1.2.1 Courseware**

Training materials will be created by the materiel developer in conjunction with PM-SMS, USAIS, and MCOE DOTD as part of the TSP.

#### **6.1.1.2.2 Courses**

Institutional training of the FWS will be integrated into the Infantry/Engineer/Armor advanced leader course and basic officer leadership courses. Training will focus on operation, maintenance, and employment. The training products developed by the proponent will be available to other schools.

### **6.1.1.2.3 Training Publications**

Hard copy and digital publications will include TMs, quick reference card, TSPs, and STPs. The qualification strategy will be developed by the USAIS in coordination with MCoE DOTD and incorporated into the appropriate marksmanship manuals (FMs 3-22.9, 3-22.68, and 3-22.10, and 3-22.65; and TM 3-22-31). Updated publications will be available from PM-SSL, the CAR, and the TRADOC publications website. MCoE and CASCOM will maintain the TSPs .A TM will be created and stored on the LOGSA IETM web site for download, a hard copy will accompany the FWS, and the TSP will be stored in the CAR.

### **6.1.1.2.4 Training Support Package (TSP)**

TSPs will be developed according to TRADOC Regulation 350-70. The TSP will be available to other proponent centers of excellence for use in branch-specific training.

### **6.1.1.3 TADSS**

#### **6.1.1.3.1 Training Aids**

No training aids are required to support training of the FWS.

#### **6.1.1.3.2 Training Devices**

Tactical Engagement Simulations Systems (TESS). FWS is expected to be fully compatible with MILES and IMILES.

#### **6.1.1.3.3 Simulators**

#### **6.1.1.3.4 Simulations**

FWS will be replicated in VBS2 and the follow-on game application for battalion and below size simulations. For constructive simulations, detection ranges for dismounted units will reflect the improvements attained by units equipped with FWS. FWS will be integrated into the integrated training environment (ITE) in each of the simulation environments live, virtual, constructive, and gaming (LVC-G). program executive office (PEO

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#### **6.1.1.3.5 Instrumentation**

Not Applicable

#### **6.1.1.4 Training Facilities and Land**

The FWS will require qualification and maneuver ranges to have thermal targetry.

##### **6.1.1.4.1 Ranges**

The FWS will require thermal capability on all applicable qualification and maneuver ranges. Army training support command (ATSC) in conjunction with TCM-Live has funded thermal integration into all ranges when the ranges are scheduled to be updated.

##### **6.1.1.4.2 Maneuver Training Areas (MTA)**

Thermal capability will be required. ATSC in conjunction with TCM-Live has funded thermal integration into all ranges when the ranges are scheduled to be updated.

##### **6.1.1.4.3 Classrooms**

Additional classrooms will not be required with the fielding of FWS.

##### **6.1.1.4.4 CTCs**

##### **6.1.1.4.5 Logistics Support Areas**

Additional logistics support areas will not be required with the fielding of FWS.

##### **6.1.1.4.6 Battle Command Training Centers (BCTC)**

FWS will not be used at BCTCs.

#### **6.1.1.5 Training Services**

ENVG will require training services as outlined below. Coordination of these services is the responsibility of the PM.

#### **6.1.1.5.1 Management Support Services**

#### **6.1.1.5.2 Acquisition Support Services**

#### **6.1.1.5.3 General Support Services**

Distribution and replication services will be required.

### **6.1.2 Architectures and Standards Component**

The institutional architecture begins with the NET TSP developed by the training developer in conjunction with PM-SMS. The NET TSP contains instruction on performing operator and maintainer tasks on the FWS, as well as any TTP developed by the institution's combat developer/training developer, associated with the employment of the FWS. The NET TSP is handed off to the institution where the DOTD provides the package to their TDD for refinement and development of the training support systems used in the institution. The TDD will use the NET TSP to revise existing POIs. The STPs will be developed, given to the distributed learning element for media formatting, and then made available for self-development training. Collective training products will be developed or updated incorporating TTPs. Doctrine writers will incorporate the developed TTPs in the updates to doctrinal manuals.

#### **6.1.2.1 Operational View (OV)**

Not Applicable

#### **6.1.2.2 Systems View (SV)**

FWS is an optic and does not exchange or transmit data.

#### **6.1.2.3 Technical View (TV)**

FWS is an optic and does not exchange or transmit data.

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

FWS will be maintained by CLS personnel under contract to PM-SMS. CLS will include site management, operations and operating force coordination, system instruction, and support to after action reviews, systems maintenance, and

logistical support.

### **6.1.3.1 Management**

#### **6.1.3.1.1 Strategic Planning**

FWS will require a fielding plan and basis of issue plan to field to the generating force.

#### **6.1.3.1.2 Concept Development and Experimentation (CD&E)**

CD&E associated with FWS will be funded by PM-SMS.

#### **6.1.3.1.3 Research and Studies**

Doctrine, organization, training, materiel, leadership and education, personnel and facilities (DOTMLPF) analysis was conducted during the joint capabilities integration and development system (JCIDS) process.

#### **6.1.3.1.4 Policy and Guidance**

#### **6.1.3.1.5 Requirements Generation**

#### **6.1.3.1.6 Synchronization**

MFP will serve as the single stand-alone document containing the detailed plans and actions the fielding and gaining unit commands will accomplish to successfully field and deploy the FWS. Initial fielding will be based on deployment schedule of receiving BCTs.

#### **6.1.3.1.7 Joint Training Support**

Not Applicable

### **6.1.3.2 Evaluation**

#### **6.1.3.2.1 Quality Assurance (QA)**

QA will be conducted according to each installation's QA plan. Each QA Office will use proven techniques to determine the quality of training provided by the institution. External evaluations will focus on the use of tasks trained, the proper application of those tasks, and identification of tasks not trained but needed. Internal evaluations will focus on the presentation of the tasks at the institution, the course content, and the material used by the instructor.

#### **6.1.3.2.2 Assessments**

The MCoE DOTD will assess the FWS training program one year after training is implemented. The assessment will evaluate the effectiveness and efficiency at all CoEs, identify changes to increase unit training proficiency, and resolve generating and operating force standardization issues.

#### **6.1.3.2.3 Customer Feedback**

#### **6.1.3.2.4 Lessons Learned/After-Action Reviews (AARs)**

MCoE DOTD will leverage the CALL database for new TTPs as well as conduct face-to-face interviews with units/individuals returning from theater to ensure training programs and instruction remain relevant.

### 6.1.3.3 Resource

PM-SSL is responsible for all funding to support training, development, NET, and associated training products to include TADSS. Funding is outlined below.

Management of the FWS will remain the responsibility of PM-SMS throughout its life cycle. Management of TSS products will transfer to DOTD, TDD, and Doctrine upon completion of NET.

Proposed procurement, operations, and maintenance army plan FY10 through 15 by cost for initially fielded units.

FWSI	Total	2011	2012	2013	2014
FIELDING	\$3,543.	\$655.	\$462.	\$1,197.	\$1,227.
Initial Fielding Spares	\$720.	\$655.	\$63.		
NET	\$1,496.400		\$211.500	\$634.500	\$650.400
NET - Ammunition	\$1,326.874		\$187.544	\$562.632	\$576.698
Then Year (\$K)					
Total RDT&E:	\$1,000.196				
Total Procurement:	\$62,269.236				
Total O&S:	\$30,170.629				
Total Program LCC Requirement	\$93,440.061				

Items Resourced	FY 12	FY 13	FY 14	FY 15	FY 16	FY 17
<b>New Equipment Training</b>						

Contractor	1.0MY	1.0MY	1.0MY	1.0MY	1.0MY	1.0MY
Contract/Spt	\$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.						
<b>Training Products</b>						
Training Pubs			0.2MY	0.2MY	0.2MY	0.2MY
TSP			0.2MY	0.2MY	0.2MY	0.2MY
IMI			0.2MY	0.2MY	0.2MY	0.2MY
ETM	\$200K	\$200K	\$200K	\$200K	\$200K	\$200K
STP	\$200K	\$200K	\$200K	\$200K	\$200K	\$200K
IETM	\$40K	\$40K	\$40K	\$45K	\$50K	\$50K
ARTEP/MTP	0.1MY	0.1MY	0.1MY	0.1MY	0.1MY	0.1MY
Printing	0.1K	0.1K	0.1K	0.1K	0.1K	0.1K
Distribution	0.1K	0.1K	0.1K	0.1K	0.1K	0.1K
Rationale: Cost to develop, revise, maintain, and distribute Training Products. Includes cost to develop TSP that will be used for NET, institutional, operational, and self-development domains.						

<b>TADSS</b>						
Simulators	0.6K	0.6K	0.8K	0.7K	0.6K	0.5K
Simulations	0.1K	0.1K	0.1K	0.1K	0.1K	0.1K
GTA	0.1K	0.1K	0.1K	0.1K	0.1K	0.1K
Software	0.1K	0.1K	0.1K	0.1K	0.1K	0.1K
Trng Equip*	0.6K	0.6K	0.9K	0.9K	0.8K	0.7K
Equipment	0.1K	0.1K	0.1K	0.1K	0.1K	0.1K
Printing	0.1K	0.1K	0.1K	0.1K	0.1K	0.1K
Shipment	0.1K	0.1K	0.1K	0.1K	0.1K	0.1K
Sustainment	0.5K	0.5K	0.5K	0.5K	0.5K	0.5K
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.						
<b>Facilities/Land</b>						
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.						
<b>Training Services/TII</b>						
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.						
<b>Eval/QA</b>						
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/Spt	\$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

## **7.0 Operational Training Domain**

### **7.1 Operational Training Concept and Strategy**

The NET team will train units and leave a FWS TSP upon completion. The unit is then responsible for sustaining individual and collective proficiency with the FWS, as well as the training of new FWS operators. This will be accomplished via maneuver training rotations and home station training. To ensure this is accomplished, the training developers and unit commanders will integrate sustainment training requirements into their unit CATS. TSPs will be maintained by MCoE and made available via TDC, CAR, ATN, CALL repository, and AMTAS.

#### **7.1.1 Product Lines**

##### **7.1.1.1 Training Information Infrastructure**

The contractor will develop a TM in the LOGSA IETM format, and a hard copy will be provided with each FWS system. The TSP will be stored in TDC, CAR and ATN.

###### **7.1.1.1.1 Hardware, Software, and Communications Systems**

###### **7.1.1.1.2 Storage, Retrieval, and Delivery**

###### **7.1.1.1.3 Management Capabilities**

###### **7.1.1.1.4 Other Enabling Capabilities**

Not Applicable

#### **7.1.1.2 Training Products**

##### **7.1.1.2.1 Courseware**

Training materials will be created by the materiel developer in conjunction with USAIS and MCoE DOTD as part of the TSP.

#### **7.1.1.2.2 Courses**

#### **7.1.1.2.3 Training Publications**

Hard copy and digital publications will include TMs, quick reference card, TSP, and STPs. The qualification strategy will be developed by USAIS in coordination with DOTD and incorporated into the appropriate marksmanship manual (FMs 3-22.9, 3-22.68, 3-22.10, and 3-22.65; and TM 3-22-31). Updated publications will be available from PM-SMS, CAR, ATN and the TRADOC publications web site. MCoE and CASCOM will maintain the TSPs .A TM will be created and stored on the LOGSA IETM web site for download. A hard copy will accompany the FWS, and the TSP will be stored in the CAR with a link in ATN.

#### **7.1.1.2.4 TSP**

TSPs will be developed according to TRADOC regulation 350-70.The TSP will be made available to other proponent centers of excellence for use in branch-specific training.

#### **7.1.1.3 TADSS**

##### **7.1.1.3.1 Training Aids**

Not Applicable

##### **7.1.1.3.2 Training Devices**

Tactical Engagement Simulations Systems. FWS is expected to be fully compatible with MILES and IMILES.

##### **7.1.1.3.3 Simulators**

##### **7.1.1.3.4 Simulations**

FWS will be replicated in VBS2 and the follow-on game application for battalion and below size simulations. For constructive simulations, detection ranges for dismounted units will reflect the improvements attained by units equipped with FWS. FWS will be integrated into the ITE in each of the simulation environments LVC-G. PEO Soldier systems division provides requirements generation data to TCM-Gaming to ensure FWS capabilities are accurately replicated in all battalion and below simulations gaming products,

such as VBS2.

#### **7.1.1.3.5 Instrumentation**

FWS will be compatible with home station instrumentation training system, deployed and maneuver combat training center instrumentation systems; common training instrumentation architecture.

#### **7.1.1.4 Training Facilities and Land**

The FWS will require qualification and maneuver ranges to have thermal targetry. ATSC in conjunction with TCM-Live has funded thermal integration into all ranges when the ranges are scheduled to be updated.

##### **7.1.1.4.1 Ranges**

The FWS will require thermal capability on all applicable qualification and maneuver ranges. ATSC in conjunction with TCM-Live has funded thermal integration into all ranges when the ranges are scheduled to be updated.

##### **7.1.1.4.2 Maneuver Training Areas (MTA)**

Thermal capability will be required. ATSC in conjunction with TCM-Live has funded thermal integration into all ranges when the ranges are scheduled to be updated.

##### **7.1.1.4.3 Classrooms**

Additional classrooms will not be required with the fielding of FWS.

##### **7.1.1.4.4 CTCs**

Thermal capability will be required. ATSC in conjunction with TCM-Live has funded thermal integration into all ranges when the ranges are scheduled to be updated.

##### **7.1.1.4.5 Logistics Support Areas**

Additional Logistics Support Areas will not be required with the fielding of FWS.

#### **7.1.1.4.6 Battle Command Training Centers (BCTC)**

FWS will not be used at BCTCs

#### **7.1.1.5 Training Services**

FWS will require training services as outlined below. Coordination of these services is the responsibility of PM-SMS.

##### **7.1.1.5.1 Management Support Services**

##### **7.1.1.5.2 Acquisition Support Services**

##### **7.1.1.5.3 General Support Services**

FWS will require Distribution and replication services.

#### **7.1.2 Architectures and Standards Component**

The NET TSP is developed by the training developer in conjunction with PM-SMS. The NET TSP contains instruction on performing operator and maintainer tasks on the FWS, as well as any TTP developed by the institution's combat developer/training developer associated with the employment of the FWS. The NET TSP is handed off to the institution where the DOTD provides the package to their TDD for refinement and development of the training support systems used in the institution. The TDD will use the NET TSP to revise existing POIs. The STPs will be developed, given to the distributed learning element for media formatting, and then made available for self-development training. Collective training products will be developed or updated incorporating TTPs. Doctrine writers will incorporate the developed TTPs in the updates to doctrinal manuals.

##### **7.1.2.1 Operational View (OV)**

Not Applicable

##### **7.1.2.2 Systems View (SV)**

FWS is an optic and does not exchange or transmit data.

### **7.1.2.3 Technical View (TV)**

FWS is an optic and does not exchange or transmit data.

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

FWS will be maintained by CLS personnel under contract to PM-SMS. CLS will include site management, operations and operating force coordination, system instruction, support to after action reviews, systems maintenance and logistical support.

#### **7.1.3.1 Management**

##### **7.1.3.1.1 Strategic Planning**

FWS will require a fielding plan and basis of issue plan to field to the operating force.

##### **7.1.3.1.2 Concept Development and Experimentation (CD&E)**

CD&E associated with FWS will be performed by PM-SMS and PM night vision.

##### **7.1.3.1.3 Research and Studies**

DOTMLPF analysis was conducted during the training development process.

##### **7.1.3.1.4 Policy and Guidance**

##### **7.1.3.1.5 Requirements Generation**

##### **7.1.3.1.6 Synchronization**

MFP will serve as the single stand-alone document containing the detailed plans and actions the fielding and gaining unit commands will accomplish to successfully field and deploy the FWS. Initial fielding will be based on deployment schedule of receiving BCTs.

#### **7.1.3.1.7 Joint Training Support**

There is no joint training support requirement associated. Evaluation of the TSS processes necessary to develop, field, and train the FWS will be according to applicable Army regulations, pamphlets, and guides.

#### **7.1.3.2 Evaluation**

Post-fielding evaluations (PFE) will be conducted by MCoE QA approximately 1 year following the FWS FUE.

##### **7.1.3.2.1 Quality Assurance (QA)**

QA will be conducted according to each installation's QA plan. Each QA office will use proven techniques to determine the quality of training provided by the institution. External evaluations will focus on the use of tasks trained, the proper application of those tasks, and identification of tasks not trained but needed. Internal evaluations will focus on the presentation of the tasks at the institution, the course content, and the presentation of material by the instructor.

##### **7.1.3.2.2 Assessments**

The MCoE DOTD will start assessing the FWS training program one year after training is implemented. The assessment will evaluate the effectiveness and efficiency at all centers of excellence. Identify changes to increase unit training proficiency and resolve generating and operating force standardization issues.

##### **7.1.3.2.3 Customer Feedback**

##### **7.1.3.2.4 Lessons Learned/After-Action Reviews (AARs)**

MCoE DOTD will leverage the CALL database for new TTPs as well as conducting face-to-face interviews with units/individuals returning from theater to ensure training programs and instruction remain relevant.

### 7.1.3.3 Resource Processes

PM-SSL is responsible for all funding to support training; development; NET; associated training products, including TADSS if applicable. Management of the FWS will remain the responsibility of the PM throughout its life cycle. Management of TSS products will transfer to DOTD, TDD, and Doctrine upon completion of NET. Increment I is a technical insertion of the 17 micron capability under TWS under TWS-IIB.

Funding outline is as follows;

FWSI	Total	2011	2012	2013	2014
FIELDING	\$3,543.	\$655.	\$462.	\$1,197.	\$1,227.
Initial Fielding Spares	\$720.	\$655.	\$63.		
NET	\$1,496.400		\$211.500	\$634.500	\$650.400
NET - Ammunition	\$1,326.874		\$187.544	\$562.632	\$576.698
Then Year (\$K)					
Total RDT&E:	\$1,000.196				
Total Procurement:	\$62,269.236				
Total O&S:	\$30,170.629				
Total Program LCC Req.	\$93,440.061				

Item Resourced	FY12	FY13	FY14	FY15	FY16	FY17

<b>New Equipment Training</b>						
Contractor	1.0MY	1.0MY	1.0MY	1.0MY	1.0MY	1.0MY
Contract/Spt	\$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
Rationale: Classrooms suitable for twelve students with standard electrical power are required for NET.						
<b>Training Products</b>						
Training Pubs			0.2MY	0.2MY	0.2MY	0.2MY
TSP			0.2MY	0.2MY	0.2MY	0.2MY
IMI			0.2MY	0.2MY	0.2MY	0.2MY
ETM	\$200K	\$200K	\$200K	\$200K	\$200K	\$200K
STP	\$200K	\$200K	\$200K	\$200K	\$200K	\$200K
IETM	\$40K	\$40K	\$40K	\$45K	\$50K	\$50K
ARTEP/MTP	0.1MY	0.1MY	0.1MY	0.1MY	0.1MY	0.1MY
Printing	0.1K	0.1K	0.1K	0.1K	0.1K	0.1K
Distribution	0.1K	0.1K	0.1K	0.1K	0.1K	0.1K
Rationale: Cost to develop, revise, maintain, and distribute training products. Includes cost to develop TSP that will be used for NET, and all training domains.						

<b>TADSS</b>						
Simulators	0.6K	0.6K	0.8K	0.7K	0.6K	0.5K
Simulations	0.1K	0.1K	0.1K	0.1K	0.1K	0.1K
GTA	0.1K	0.1K	0.1K	0.1K	0.1K	0.1K
Software	0.1K	0.1K	0.1K	0.1K	0.1K	0.1K
Trng Equip*	0.6K	0.6K	0.9K	0.9K	0.8K	0.7K
Equipment	0.1K	0.1K	0.1K	0.1K	0.1K	0.1K
Printing	0.1K	0.1K	0.1K	0.1K	0.1K	0.1K
Shipment	0.1K	0.1K	0.1K	0.1K	0.1K	0.1K
Sustainment	0.5K	0.5K	0.5K	0.5K	0.5K	0.5K
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.						
<b>Facilities/Land</b>						
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.						
<b>Training Services/TII</b>						
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.						
<b>Evaluation/QA</b>						
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/Spt	\$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
Rationale:						

## **8.0 Self-Development Training Domain**

The TM and TSP will be left with the unit and are available on line via CAR to support self-development training. Training material will be stored in CAR via warrior university and the ATN will have a link to this training material. These products combine to provide the Soldier with all the tools necessary to support self-development. PM-SMS will develop an IMI for the FWS.

### **8.1 Self-Development Training Concept and Strategy**

#### **8.1.1 Product Lines**

##### **8.1.1.1 Training Information Infrastructure**

###### **8.1.1.1.1 Hardware, Software, and Communications Systems**

###### **8.1.1.1.2 Storage, Retrieval, and Delivery**

Not Applicable

###### **8.1.1.1.3 Management Capabilities**

Not Applicable

###### **8.1.1.1.4 Other Enabling Capabilities**

Not Applicable

##### **8.1.1.2 Training Products**

All training support manuals, training literature publications, and other training products will be provided during NET. It is the unit's responsibility to make these materials available to individual Soldiers for self-development. The training materials will be available on CAR/ATN.

###### **8.1.1.2.1 Courseware**

MCoE DOTD and USAIS will assist in the training development and ensure operational training requirements are met. Once the training strategy is proven, it will be made available to Soldiers via CAR/ATN.

#### **8.1.1.2.2 Courses**

Not Applicable

#### **8.1.1.2.3 Training Publications**

#### **8.1.1.2.4 Training Support Package (TSP)**

#### **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**

Contact information is listed in the TM and TSP that allows the user to communicate directly with the logistician and trainer. Soldiers can provide feedback directly to the NET trainers and to the training developer via CAR/ATN.

##### **8.1.3.1 Management**

Not Applicable

##### **8.1.3.2 Evaluation**

Not Applicable

##### **8.1.3.3 Resource Processes**

Not Applicable



CDD			x														
CPD							x										
STRAP								x									
TTSP									x								
TM											x						
POI Submitted											x						
FM updates												x					
NOTE: Identify TRAINING DEVELOPMENT MILESTONES. TRADOC FORM 569-1-R-E provides a detailed list of typical training development products required to support system training integration.																	
COMMENTS:																	

## **B References**

AR 70-1, Army Acquisition Policy, 22 July 2011.

AR 70-38, Research, Development, Test and Evaluation of Materiel for Extreme Climatic Conditions, 15 September 1979.

AR 70-75, Survivability of Army Personnel and Materiel, 2 May 2005.

AR 71-9, Warfighting Capabilities Determination, 28 December 2009.

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

AR 750-1, Army Materiel Maintenance Policy, 20 September 2007.

CJCSI 3170.01H, Joint Capabilities Integration and Development System (JCIDS), 10 January 2012

CJCSI 6212.01F, Net Ready Key Performance Parameter (NR KPP), 21 March 2012.

CJCSM 3170.01B, Operation of JCIDS,

CJCSM 3500.04F, Universal Joint Task Manual, 1 June 2011.

DODD 5000.01, The Defense Acquisition System, 12 May 2003.

DODI 5000.02, Operation of the Defense Acquisition System, 8 December 2008.

FM 7-15, the Army Universal Task List, 27 February 2009.

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

Capability Production Document, Family of Weapon Sights, (AROC approved).

JROCM 176-03, Subject: Approved Capstone Requirements Document.

Acronym list

## 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	
v0.2.6 Jerry E Niggemann 2013/04/19 - 2013/04/29	Document Accepted As Written			0	0	0	0	0	0	-
v0.2.5 Paul J Kizinkiewicz 2013/04/19 - 2013/04/29	Actively Reviewing			0	0	0	0	0	0	-
v0.2.4 Approvals - Jerry E Niggemann 2013/04/19 - 2013/04/29	Document Accepted As Written			0	0	0	0	0	0	-
v0.2.3 Approvals - Paul J Kizinkiewicz 2013/04/19 - 2013/04/29	Document Accepted As Written			0	0	0	0	0	0	-
v0.2.2 Approvals - Jerry E Niggemann 2013/04/19 - 2013/04/29	Document Accepted As Written			0	0	0	0	0	0	-
v0.2.1 Approvals - Paul J Kizinkiewicz 2013/04/19 - 2013/04/29	Document Accepted As Written			0	0	0	0	0	0	-
v0.2 Army - USASOC 2012/10/19 - 2012/11/18	No Comments Submitted			0	0	0	0	0	0	-
v0.2 Army - USARC G7 (US Army Reserve Cmd)	No Comments Submitted			0	0	0	0	0	0	-

2012/10/19 - 2012/11/18									
v0.2 Army - USAACE - Aviation School 2012/10/19 - 2012/11/18	Document Accepted As Written	0	0	0	0	0	0	0	-
v0.2 Army - TRADOC_ARCIC 2012/10/19 - 2012/11/18	No Comments Submitted	0	0	0	0	0	0	0	-
v0.2 Army - TRADOC G-3/5 2012/10/19 - 2012/11/18	No Comments Submitted	0	0	0	0	0	0	0	-
v0.2 Army - TCM- Transportation 2012/10/19 - 2012/11/18	No Comments Submitted	0	0	0	0	0	0	0	-
v0.2 Army - TCM- SBCT 2012/10/19 - 2012/11/18	No Comments Submitted	0	0	0	0	0	0	0	-
v0.2 Army - TCM- Live 2012/10/19 - 2012/11/18	No Comments Submitted	0	0	0	0	0	0	0	-
v0.2 Army - TCM dL 2012/10/19 - 2012/11/18	No Comments Submitted	0	0	0	0	0	0	0	-
v0.2 Army - TCM ATIS 2012/10/19 - 2012/11/18	No Comments Submitted	0	0	0	0	0	0	0	-
v0.2 Army - SIGCoE - Signal School 2012/10/19 - 2012/11/18	2	0	0	2	0	0	0	0	0
v0.2 Army - SCoE	No Comments	0	0	0	0	0	0	0	-

2012/10/19 - 2012/11/18	Submitted									
v0.2 Army - MSCoE - MANSCEN 2012/10/19 - 2012/11/18	3	2	1	3	2	1	0	0	0	
v0.2 Army - IMCOM 2012/10/19 - 2012/11/18	Document Accepted As Written			0	0	0	0	0	0	-
v0.2 Army - Human Resource Command (HRC) 2012/10/19 - 2012/11/18	No Comments Submitted			0	0	0	0	0	0	-
v0.2 Army - HQDA G2 2012/10/19 - 2012/11/18	No Comments Submitted			0	0	0	0	0	0	-
v0.2 Army - Combined Arms Center 2012/10/19 - 2012/11/18	No Comments Submitted			0	0	0	0	0	0	-
v0.2 Army - CAC-T; Training Management Dir 2012/10/19 - 2012/11/18	5	31	0	5	31	0	0	0	0	
v0.2 Army - Brigade Modernization Cmd (BMC) 2012/10/19 - 2012/11/18	No Comments Submitted			0	0	0	0	0	0	-
v0.2 Army - ATSC TSAID 2012/10/19 - 2012/11/18	No Comments Submitted			0	0	0	0	0	0	-
v0.2 Army - ATSC 2012/10/19 - 2012/11/18	No Comments Submitted			0	0	0	0	0	0	-



v0.1 Peer - MANSCEN-Military Police 2011/11/04 - 2011/12/04	No Comments Submitted			0	0	0	0	0	0	-
v0.1 Peer - ATSC 2011/11/04 - 2011/12/04	1	3	1	1	3	1	0	0	0	
v0.1 Peer - ATEC 2011/11/04 - 2011/12/04	No Comments Submitted			0	0	0	0	0	0	-
v0.1 Peer - Army National Guard 2011/11/04 - 2011/12/04	No Comments Submitted			0	0	0	0	0	0	-
v0.1 Peer - Army Material Command (AMC), G3 2011/11/04 - 2011/12/04	No Comments Submitted			0	0	0	0	0	0	-

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



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

REPLY TO  
ATTENTION OF

19 MAR 2013

ATZK-TD

MEMORANDUM FOR RECORD

SUBJECT: Family of Weapon Sights (FWS) System Training Plan (STRAP)

1. References:

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

b. Capability Development Document (CDD) for the FWS, September 2011.

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

2. I hereby approve the FWS STRAP. 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. Ron Shoemaker, Systems Training Branch, Training Development Division, Directorate of Training and Doctrine at DSN 835-4989 Com