

Guardrail Common Sensor STRAP [GRCS (Update 1)]
(version 1.0)

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ICoE - Mil Intelligence School

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

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1.0 System Description

The Guardrail Common Sensor (GRCS) system is a fixed-wing, airborne, signals intelligence (SIGINT) collection and precision targeting location system. It provides near real-time information to tactical commanders in the Corps/Joint Task Force (JTF)/Brigade Combat Team (BCT) area of operations, with emphasis on Indications and Warning (I&W). GRCS collects low-, mid-, and high-band radio signals and electronic intelligence (ELINT) signals; identifies and classifies them; determines source location; and provides near real-time reporting, ensuring information dominance to commanders.

The GRCS system integrates the Improved Guardrail V (IGRV), Communication High Accuracy Airborne Location System (CHAALS), the Advanced QUICKLOOK (AQL), and Aerial Precision Geo-location (APG) into the same SIGINT platform -- the RC-12 aircraft. Key features include integrated communications intelligence (COMINT) and ELINT reporting, enhanced signal classification and recognition, fast Direction Finding (DF), and precision emitter location.

Each GRCS RC-12 aircraft includes an Airborne Relay Facility (ARF) collection and data transmission/reception payload that intercepts communications and non-communications emitter transmissions, and gathers Line of Bearing (LOB) and Time-Difference-Of-Arrival/Differential Doppler (TDOA/DD) data. Data is then transmitted to a Distributed Common Ground Station-Army Operational Ground Station (DCGS-A OGS) utilizing the Guardrail Ground Baseline (GGB) software as the man machine interface. The ARF also serves as the relay platform for communications between the Mission Operations Facility (MOF) and the supported commands. Only the pilots man the ARFs during a mission. Operators in the MOF which is also the Processing, Exploitation, and Dissemination (PED) enclave remotely control the ARF mission equipment. The typical GRCS system configuration uses one MOF, one to two ARFs, and a Tactical Control Data Link (TCDL) for each ARF, Tactical Medium Earth Terminal (TMET) and an Auxiliary Ground Equipment (AGE) van.

The Guardrail airframes currently in service include the RC-12D/H/K/N/P/X. A standard system has 8 to 12 RC-12 aircraft flying operational missions in sets of one or two. There is one GRCS system authorized per Aerial Exploitation Battalion (AEB).

2.0 Target Audience

The following Military Occupational Specialties (MOS), assigned to each AEB will require GRCS training:

- **Mission Operators** : Signals Intelligence Analyst (35N), Cryptologic Linguist (35P), and Signals Collector/Analyst (35S)
- **Maintainers** : Military Intelligence (MI) Systems Maintainer/Integrator (35T) Intelligence and Electronic Warfare Equipment Maintenance Technician (353T)
- **Pilots** : Aviation Officers (15 A/C) and Warrant Officer (155 A/E/F/G) Fixed Wing Aviators
- **Mission Managers** : Voice Intercept Technician (352P), Traffic Analysis Technician (352N), and 35N/35P senior NCOs

Professional Development Courses

Advanced Leaders Course (ALC)/Senior Leaders Course (SLC)/Basic Officers Leaders Course (BOLC)/Military Intelligence Captains Career Course (MICCC)/Warrant Officer Basic course (WOBC)/Warrant Officer Advanced course (WOAC), will receive a GRCS overview with a focus on GRCS mission manager responsibilities and duties.

Prerequisites for Special Electronics Mission Aircraft (SEMA) Training

Prerequisites for attending the SEMA GRCS Pilot Qualification courses (RC-12D) Guardrail Systems Qualification [course number 2C-15C/2B-ASIF3 (IGRV)]and/or RC-12X Guardrail Common Sensor/Pilot Qualification [course number 2C-15C/2B-ASIF4]at United States Army Intelligence Center of Excellence (USAICoE) are:

- Member of the Army active component
- Possess a current Class II flight physical that will not expire during the SEMA training period
- Have a current High altitude/low pressure training certificate that will not expire during the SEMA training period
- Meet all requirements of Army Regulation (AR) 95-1 pertaining to an award of pilot rating
- At a minimum possess an interim TS/SCI

3.0 Assumptions

USAICoE would have at the minimum of 2 RC-12X aircraft, 3 RC-12D aircraft and 2 cockpit procedural trainers for Program of Instruction (POI) equipment requirements. Optimal training would occur if 3 RC-12X aircraft would be available.

4.0 Training Constraints

Constraint Type	Constraint	Probable Impact	Mitigating Efforts
Training Equipment	GGB/OGS Maintenance Lab for 35T Advanced Individual Training (AIT) not upgraded with currently fielded GGB software and DCGS-A OGS hardware. PM ARES and PM DCGS-A have not funded this effort at this time.	Maintainers will lack the specific skill set required to maintain systems with the current GGB Software Load	35T AIT course using the GGB maintenance lab in its current configuration. Program Manager (PM) DCGS-A provides necessary equipment to upgrade lab to the current OGS hardware or other solution that will run the current software load in a lab environment. PM Airborne Reconnaissance and Exploitation System (ARES) provides the software to upgrade the 35T lab to the current GGB software load to enable 35T AIT to instruct on representative

			fielded software.
Lack of adequate training devices and equipment	PM ARES has not received funding for System and non-system TADSS supporting institutional and operational training.	Institutional training (TRADOC), operational ET, and simulations interface to GRCS workstations will not be available.	Fielded units use NET TSP as the foundation to support training at home-station until the PM procures a GRCS TSA solution. PM ARES will leverage the TSAs for the EMARSS system. The commonality of payloads will allow the use of some of the TSAs on both systems.

5.0 System Training Concept

Training will be available at the Institutional, Operational and Self-Development domains. The following paragraphs illustrate this concept.

Institutional

Institutional training will use existing government facilities for the instruction of SEMA pilots, maintainers, and MI Professional Military Leaders courses. The SEMA course will train pilots to operate GRCS aircraft using simulators and aircraft flight time and the Army Aviation Center of Excellence (AACOE) must approve the aircrew Program of Instruction (POI) to ensure they meet regulatory and doctrinal guidance. SIGINT payload operators will attend the APG course and receive Additional Skill Identifier (ASI) V3 upon graduation once USAICoE begins training APG as a functional course in accordance with the Aerial Intelligence, Surveillance, and Reconnaissance (AISR) training strategy. USAICoE will train maintainers in the 35T AIT course in the maintenance of the GGB/OGS to support GRCS operations. Leader development courses will include classroom discussion of the systems capabilities.

Operational

NET: PM ARES will provide NET and New System Training and Integration Directorate (NSTID) will provide Doctrine and Tactics Training (DTT) at each fielding with a TRADOC-approved Training Support Package (TSP) hosted on the TRADOC approved data repository.

Unit Sustainment Training will utilize:

TSP: The commander's will use the Combined Arms Training Strategy (CATS) and the system TSP as the base to develop training to sustain mission-specific proficiencies.

Embedded Training (ET): ET includes the ability to sustain complex GRCS critical tasks and skills associated with system software applications and functionality. The GRCS TSA (a component of the Intelligence Electronic Warfare Tactical Proficiency Trainer (IEWTPT)) concept supports this requirement. This TSA is a system specific training device that will be designed to enable individual system task sustainment via ET and supports collective training when networked. GRCS will leverage the TSA that is being developed for the Enhanced Medium Altitude Reconnaissance and Surveillance System (EMARSS) due to the commonality of payloads. The TSA for GRCS will be a part of the ground system capability (accessible from the server stack) when developed by the PM. It simulates/stimulates payloads and collection

capabilities for presentation to the GRCS collection specific software applications and toolsets. It also includes the capability to interface with Department of the Army (DA) level constructive simulations to support collective training (such as Mission Rehearsal Exercise (MRX/MRE), DA, or Joint exercises). The IEWTPT Capabilities Production Document (CPD) documents the TSA requirement for each MI operational system; USAICoE is the overall proponent and IEWTPT combat developer.

APG Operator Training: APG Operator training assists units in maintaining proficiency on tasks that support GRCS missions and capabilities. APG training resides at Fort Hood and Hunter Army Airfield until FY14 when it will move to Fort Huachuca.

Self-Development

The Soldiers assigned to GRCS units will utilize the TSP for self development study. The TSP will complement and reinforce the On-the-Job Training (OJT) program. NSTID will host the TSP on the Intelligence Knowledge Network (IKN) for self-development training.

5.1 New Equipment Training Concept (NET)

PM ARES will develop the NET plan (NETP) and conduct NET concurrently with GRCS system fielding and upgrades. PM ARES will resource the NET to include instructors, logistics support, and complete Programs of Instruction (POI) for each mission function/duty position in TRADOC-approved format. PM ARES and TRADOC will ensure NET teams train students on all GRCS critical tasks in a learner-centric, scenario-driven training environment that incorporates operational GRCS equipment. NSTID will integrate Doctrine and Tactics Training (DTT) in each NET POI and execute the DTT during each fielding event. The NET TSP and all associated material will serve as the leave behind package for unit sustainment training.

PM ARES will provide all NET materials and Training Aids, Devices, Simulations, and Simulators (TADSS) in approved Training and Doctrine Command (TRADOC) and Department of Defense (DoD) formats, Army Training Information Architecture-Migrated (ATIA-M), Defense Information Infrastructure-Common Operating Environment (DII-COE), Army Distributive Learning (ADL), Shareable Courseware Object Reference Model (SCORM), Joint Technical Architecture-Army (JTA-A), and Common Training Instrumentation Architecture (CTIA), etc.

A NET Training Support Package (TSP) will include lesson plans, associated technical manuals, slide shows, quick reference guides, and student handouts. This TSP will provide all necessary information to duplicate the NET course at the unit.

5.2 Displaced Equipment Training (DET)

As part of the DET plan the following will happen:

- Unit pilots will return to USAICoE to attend SEMA Aircraft Qualification Course for the appropriate DET airframe.
- Units without GRCS experience will receive DET in lieu of NET when fielded older GRCS systems. Training will be in accordance with the NET POI for the mission operators, managers, and maintainers and the unit will utilize the NET TSP for sustainment training.
- Leader courses will have the ability to access the DTT, on Intelligence Knowledge Network (IKN), for incorporation into each course's POI. Additionally, other training centers (e.g. Maneuver Center of Excellence, combat Training Centers (CTCs), Mission Training Complexes (MTC), etc.) will have access in order to develop Tactics, techniques and Procedures (TTPs) for using/leveraging the information provided by GRCS.

5.3 Doctrine and Tactics Training (DTT)

PM ARES will resource development and execution of the DTT. NSTID will develop and execute DTT that integrates GRCS capabilities, organizational impacts, and current TTPs into the Intelligence Warfighting Function at the fielded AEB. NSTID will maintain and update the DTT in the leave behind TSP in an appropriately classified repository for Army wide access. When there are modifications to the system, NSTID will review the DTT and update as necessary. NSTID will disseminate all DTT modifications to fielded units and update all GRCS data repositories.

5.4 Training Test Support Package (TTSP)

USAICoE NSTID in coordination with Intelligence and Electronic Warfare Test Directorate (IEWTD) and PM ARES will develop the TTSP in accordance with TRADOC Regulation 350-70, and will use methods from the Army Learning Model TP 525-8-2. The TTSP will outline the methods and procedures used to train, evaluate, test and certify individual, crew, and collective training (who, where, and how training is to be certified). The TTSP will include GRCS training for system operations, doctrine, tactics, and maintenance.

The TTSP will include:

- Approved STRAP
- Test Training Certification Plan (TTCP)

- Training data requirements (instructional material to be revised before beginning training)
- Test resource support (manpower, etc.)
- Training schedule
- POI for each affected rank structure (officer, warrant officer, and enlisted)
- Flight Training Guide (FTG)
- Aircrew Training Manual (ATM)
- List of training devices and embedded training components
- Target audience description
- Draft Soldier Training Publications (STP) consistent with analysis data
- Lesson Plans (LP)
- Critical Task List (CTL)
- Safety Review
- Environmental Review
- Foreign disclosure review and rating

6.0 Institutional Training Domain

Institutional training will include courses of instruction for SEMA pilots, operators, maintainers, and GRCS overview incorporated into the Military Intelligence Officer, Warrant Officer, and Senior Non-commissioned Officer (NCO) Professional development courses.

TRADOC will approve all training materials, certify instructors and conduct training. In addition, prior to attending any training SEMA Pilots must meet course prerequisites as outlined in paragraph 2.0 (Target Audience).

6.1 Institutional Training Concept and Strategy

Institutional training will consist of the following:

6.1.1 Product Lines

The GRCS product lines will consist of training information infrastructures, TADSS training products, training facilities and land, and training services. These product lines provide the capabilities that trainers and Soldiers need to conduct training at the institution.

6.1.1.1 Training Information Infrastructure

Institutional GRCS Training Information Infrastructure (TII) will consist of the TRADOC-approved data repository, the Army Training Requirements and Resource System (ATRRS), and the necessary hardware and software to conduct training. It will include any networked GRCS system equipment, training positions, and the CPT architecture. GRCS TII will conform to both joint and Army architectures and standards (i.e. CTIA, ATIA-M, Live, Virtual, Constructive, Gaming - Integrated Training Environment (LVCG-ITE)) to enable the development, storage, retrieval, delivery, and management of Training Support System (TSS) products and information.

6.1.1.1.1 Hardware, Software, and Communications Systems

The availability of all system hardware and software supporting GRCS institutional training will be resourced and coordinated for by PM ARES and PM DCGS-A. TRADOC will coordinate the availability of any additional communications systems associated with GRCS. Systems and sub-systems will include but not be limited to:

- CPT (PM Fixed Wing)
- GRCS Aircraft (PM Fixed Wing)
- DCGS-A Multi-function Workstation (MFWS)
- APG Target Signature Array (TSA)
- GGB/OGS Maintenance Lab
- Non-classified Internet Protocol Router Network (NIPRNET)
- Secret Internet Protocol Router Network (SIPRNET)
- Joint Worldwide Intelligence Communications System (JWICS)

6.1.1.1.2 Storage, Retrieval, and Delivery

GRCS documentation supporting the Institutional training domain will be available at one or more of the following:

- TRADOC approved training database
- IKN
- Center for Army Lessons Learned (CALL) Repository

6.1.1.1.3 Management Capabilities

USAICoE will manage GRCS Institutional Training using the Army Training Management System (ATMS), Army Training Requirements and Resource System (ATRRS), and TRADOC approved training database.

6.1.1.1.4 Other Enabling Capabilities

N/A

6.1.1.2 Training Products

PM ARES and NSTID will create and maintain GRCS training materials (including DTT) and will post them on the appropriate US Army knowledge center. At a minimum, each system increment will trigger modifications to the GRCS TSP and will directly impact GRCS training products. PM ARES and NSTID will be responsible for modifying the training materials (including DTT) accordingly. In addition to system increments, USAICoE will review all GRCS training materials on an annual basis to address any modifications/changes to training.

As training materials are modified, PM ARES will ensure that USAICoE and fielded units (as needed) receive the new materials and that all related data is updated in the current TRADOC approved training database and relevant system manuals. NSTID will post the new training materials to the appropriate knowledge center with modifications annotated.

6.1.1.2.1 Courseware

PM ARES and USAICoE will enter the lesson plans for the GRCS maintainer course, APG course, and SEMA pilot course into the current TRADOC approved training database. USAICoE will use the lesson plan data entered into the TRADOC approved database for course development and generation of the POI and the CAD. The GRCS Institutional courseware will cover the tasks necessary to ensure operability and maintainability of each payload of the system. All IMI, Interactive Courseware (ICW) and web-based instruction must conform to the specifications and standards of the Army Training Information Architecture (ATIA) Technical Standards Suite.

6.1.1.2.2 Courses

GRCS institutional courses will use Army Learning Model methods for training the system tasks that will include but not limited to:

- Lecture/discussion of the system capabilities and application, functional interaction with the system through lecture, demonstration and hands-on training evaluated through practical exercises, written exams, and check rides.
- SIGINT payload operator training will focus on common APG payloads and the reconnaissance and aerial electronic observation tasks required to operate GRCS APG payloads.
- Maintainer training will focus on the theory of operation, and troubleshooting techniques at the field maintenance level. This will include training on the interpretation of communication links operation and maintenance, built-in test results, removal/replacement of line replaceable units, and troubleshooting of the GGB/OGS subsystem.
- Pilots identified for GRCS training will attend the GRCS SEMA course conducted at USAICoE. Training will focus on the GRCS airframes, flight dynamics and mission operations as it pertains to SEMA pilot responsibilities. The SEMA course will utilize the CPT and aircraft for practical instruction of the RC-12X mission aircraft.

Institutional leadership courses will train Army leaders on the capabilities and limitations of GRCS. These courses are:

- Officer Education System (OES) courses: Officers attending MI BOLC and MICCC will receive a GRCS overview on the capabilities and employment of GRCS which will include an overview on the GRCS mission manager duties and responsibilities.
- Warrant Officer Education System (WOES) courses: MI Warrant Officers will receive training on the capabilities and employment of GRCS during the common core portion of WOBC and during WOAC. This training will include an overview on the capabilities and employment of GRCS to include an overview on the GRCS mission manager duties and responsibilities
- Noncommissioned Officer Education System (NCOES) courses: SLC and ALC for enlisted personnel identified in the target audience will include a GRCS overview that includes the capabilities, employment of the system and GRCS mission manager duties/responsibilities.

6.1.1.2.3 Training Publications

PM ARES will develop Electronic Technical Manuals (ETMs) for GRCS. Training publications will be accessible on the appropriate database based on classification. USAICoE will ensure the GRCS capabilities are incorporated when the following Field Manuals (FM) are updated:

- FM 1-100 Army Aviation Operations
- ADP 3-0 Unified Land Operations
- ADRP 3-0 Unified Land Operations
- ADP 2-0 Intelligence
- ADRP 2-0 Intelligence
- ADP 7-0 Training Units and Developing Leaders
- ADRP 7-0 Training Units and Developing Leaders
- FM 2-19.4 Brigade Combat Team Intelligence Operations
- FM 2-91.4 Intelligence Support to Urban Operations
- FM 3-36 Electronic Warfare in Operations
- TC 2-19.13 Aerial Exploitation Battalion and Aerial Reconnaissance Battalion Intelligence Operations
- TC 2-50.5 Intelligence Officer's Handbook
- TC 2-33.4 Intelligence Analysis

6.1.1.2.4 Training Support Package (TSP)

PM ARES in conjunction with NSTID will develop and maintain a robust set of institutional TSPs that comply with TR 350-70 Army Learning Polices and Systems and apply methods from the Army Learning Model TP 525-8-2. The TSPs will include but are not limited to:

- CTL developed by the TRADOC Training Developer
- Complete POIs with lesson plans
- System software and hardware ETM

NSTID will utilize the validated NET TSP provided by PM ARES to update all critical tasks, lesson plans, and POI included in the GRCS TSP in the current TRADOC approved training database. GRCS TSPs will be complete, exportable packages integrating training products/materials necessary to train system critical, individual, and leader tasks. GRCS TSPs will provide a structured training program that supports Soldier/leader and staff training.

PM ARES will provide a complete library of GRCS related manuals, to include all Commercial Off-the-Shelf (COTS) and Government Off-The-Shelf (GOTS) software and hardware components publications.

6.1.1.3 TADSS

All TADSS developed to support GRCS training will follow TRADOC Regulation (TR) 350-70, TP 350-70-2 and TRADOC Pamphlet 350-37 Objective Force Embedded Training (OFET) Users E-functional Description guidance. PM ARES will develop the GRCS TSA in collaboration with PEO Simulations, Training, and Instrumentation (STRI) and the Intelligence and Electronic Warfare Tactical Proficiency Trainer (IEWTPT) program. USAICoE and PM ARES will determine additional TADSS requirements to support institutional training, including a CPT and simulation environment.

6.1.1.3.1 Training Aids

PM ARES will develop training aids for GRCS training based on analysis performed collaboratively with the USAICoE training developers. USAICoE will perform Validation and Verification (V&V) on all Training Aids prior to finalization for use.

6.1.1.3.2 Training Devices

GRCS pilots use the CPT to facilitate practical instruction in pilot training of the RC-12X mission aircraft and will give pilots a training tool that will give them virtually unlimited training while reducing logged hours on the aircraft, and increasing the safety of the crew through a more knowledgeable flight crew. Maintenance personnel will use the GGB/OGS Maintenance Lab to train on the theory of operation and trouble shooting at the field maintenance level.

PM ARES will develop a Guardrail TSA that stimulates (using simulation) all mission equipment software toolsets for Guardrail system training. At the institution this TSA will support training of APG critical tasks. The IEWTPT Technical Control Cell (TCC) will support APG training by providing an overarching simulated Decisive Action Threat Environment (DATE) or virtual Operational Environment battle-space to augment the TSA signals and data presented to the APG payload control software.

6.1.1.3.3 Simulators

The following system will be required for institutional training:

Cockpit Procedural Trainer - Pilots will train using a CPT to learn GRCS aircraft primary instruments and mission gear controls. This capability will provide the ability to train two non-motion pilot aircraft fuselage

configurations (2 personnel each) with all relevant mission gear controls.

6.1.1.3.4 Simulations

GRCS simulations will include non-motion flight simulation and simulations developed to support the APG functional course. The simulation supporting the APG functional course will interface with DA constructive simulations capabilities and the IEWTPT system.

6.1.1.3.5 Instrumentation

N/A

6.1.1.4 Training Facilities and Land

The training facilities will include, at a minimum, classrooms, simulators, administrative areas, and hangar areas (Sensitive Compartmentalized Intelligence Facility (SCIF)-certified as required) for GRCS Maintainers and SEMA training. The institutional training environment will facilitate the overall training infrastructure. It will also include prescribed mission parameters for flights. The institutional training environment will include facilities necessary to coordinate the following:

- Billeting
- Flight Surgeon for medical down-slips and up-slips
- Communications Security (COMSEC) support
- Airspace coordination
- Maintenance support for facilities and systems
- Appropriate network capabilities to facilitate training

6.1.1.4.1 Ranges

No additional ranges or specialized training areas will be required for GRCS training.

6.1.1.4.2 Maneuver Training Areas (MTA)

No additional Maneuver Training Areas will be required for GRCS training.

6.1.1.4.3 Classrooms

SEMA Pilots and Maintainers will utilize existing facilities and equipment located at USAICoE. Equipment required will include, but is not limited to, simulators/workstations with current GGB software and all system specific software and applications loaded.

The following communications networks may be required:

- NIPR Net
- Secret Internet Protocol Router (SIPR)
- JWICS

6.1.1.4.4 CTCs

N/A

6.1.1.4.5 Logistics Support Areas

Facilities for logistic support will be located in the following area:

USAICoE: All GRCS SEMA Pilot hardware/software and flight equipment/platforms, all 35T hardware/software and training equipment required for course instruction, and a storage area for institutional Hardware/Software equipment.

6.1.1.4.6 Battle Command Training Centers (BCTC)

N/A

6.1.1.5 Training Services

USAICoE will use existing organic support services to prepare, replicate, distribute, and sustain GRCS institutional training.

6.1.1.5.1 Management Support Services

Existing USAICoE management support services will support GRCS institutional training. USAICoE Chief Information Officer / G6 (CIO/G6) will provide information management services to support network integration and maintenance of information systems used in GRCSS courses. USAICoE will coordinate for the resources and services necessary to sustain GRCS training equipment and devices.

6.1.1.5.2 Acquisition Support Services

ICoE will coordinate the acquisition support services required for:

- Simulator maintenance
- Aircraft maintenance and fuel
- Airfield facilities maintenance and upgrades
- Operational software maintenance

6.1.1.5.3 General Support Services

PM ARES, USAICoE, PEO STRI and Installation Management Command will coordinate to provide the general support services necessary for distribution and replication services, facility support, training devices, airfield maintenance, hangars, and ramp space upgrades that will support GRCS training in the institution.

6.1.2 Architectures and Standards Component

6.1.2.1 Operational View (OV)

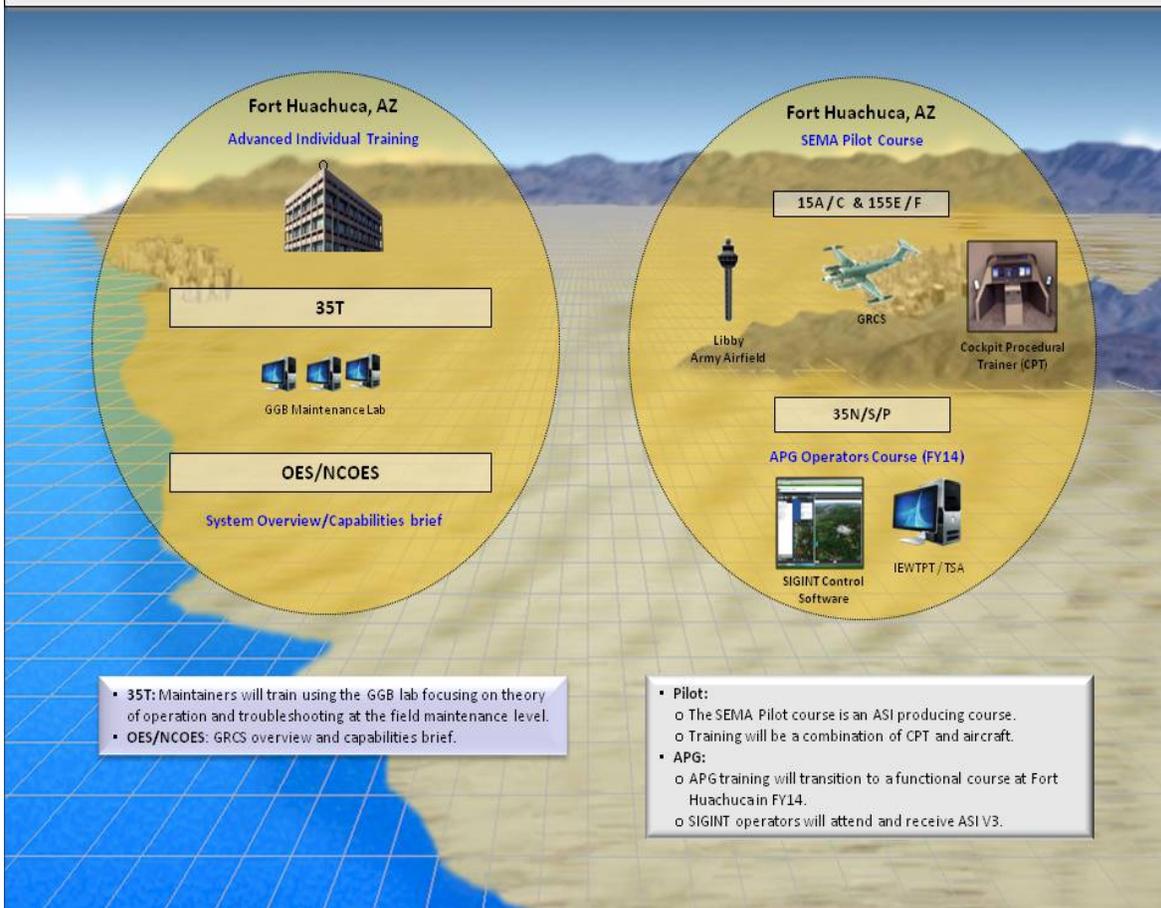
Prior to attending courses, all students must meet appropriate course prerequisites as outlined in paragraph 2.0 (Target Audience).

- GRCS functional courses at USAICoE will train SEMA pilots on GRCS flight operations using both the actual aircraft and the CPT; these operations will include flight dynamics as it relates to the GRCS payload. SIGINT payload operators will attend the APG functional course at USAICoE and receive ASI V3 upon graduation in FY14 in accordance with the A-ISR training strategy.
- Maintainers will utilize classroom facilities that include the current DCGS-A OGS hardware/software and will include operation and troubleshooting of the GGB software, advanced networking skills, troubleshooting software defined receivers, and a GRCS aircraft overview.

6.1.2.2 Systems View (SV)

Pilot training will use operational SEMA aircraft and CPT at Libby Army Airfield to train Pilots in pre-flight, in-flight, and post-flight tasks. Maintainers will utilize classroom facilities that include the current DCGS-A OGS hardware/software and will include operation and troubleshooting of the GGB software, advanced networking skills, troubleshooting software defined

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receivers, and a GRCS aircraft overview. SIGINT payload operators will attend the APG functional course and receive ASI V3 upon graduation once USAICoE begins training APG in FY14 in accordance with the AISR training strategy.

6.1.2.3 Technical View (TV)

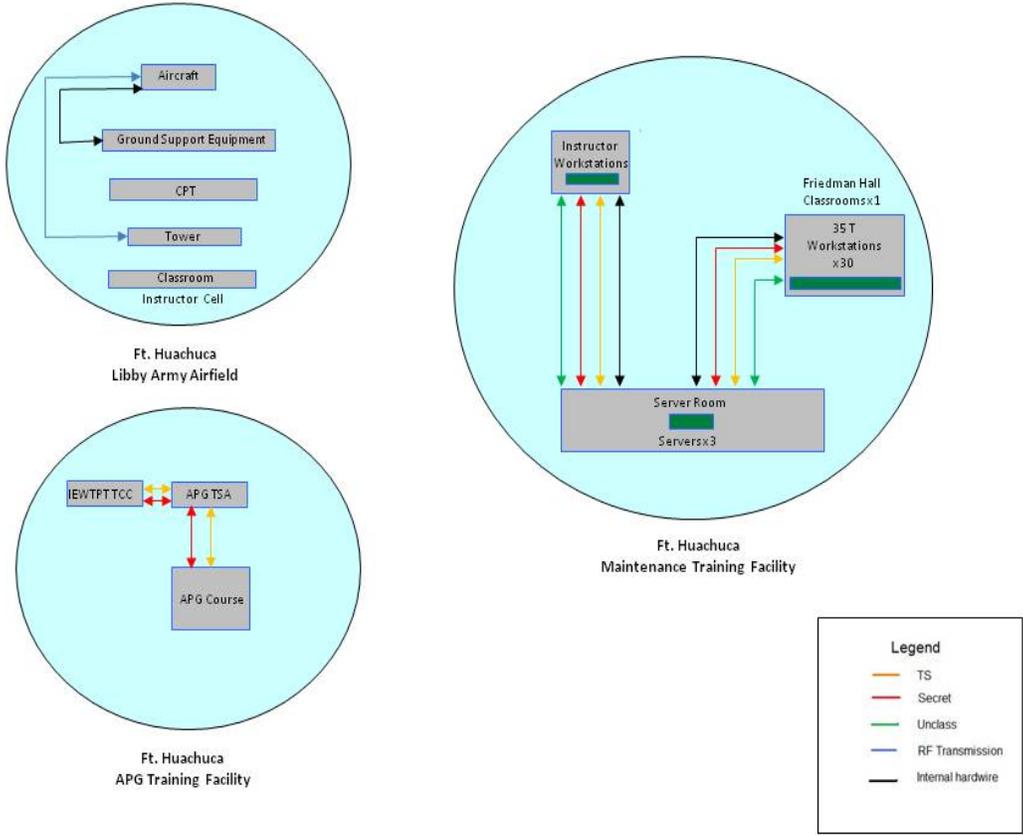
N/A

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

6.1.3.1 Management

USAICoE with the support of PM ARES, PM Fixed Wing, and PEO STRI will develop and manage the training curricula, training facility, and associated training devices.

GRCS Institutional Training SV-1



6.1.3.1.1 Strategic Planning

GRCS institutional training supports the over-arching Joint Direct-support Aerial Intelligence, Surveillance, and Reconnaissance (JDSAISR) Initial Capabilities Document (ICD) requirements to ensure Soldiers are capable of employing GRCS assets throughout the force.

Future GRCS training capabilities must have the following force design and training concepts applied:

- Military Intelligence Rebalance Decision (FY11)
- TP 525-8-2 w/C1 The United States Army Learning Model
- The United States Army Operating Concept 2016-2028
- TRADOC Commander's training guidance
- USAICoE Commander's training guidance

6.1.3.1.2 Concept Development and Experimentation (CD&E)

N/A

6.1.3.1.3 Research and Studies

The following studies support both current and future training initiatives:

- AEB Doctrine, Organization, Training, Materiel Leadership and Education, Personnel and Facilities (DOTMLPF) evaluation Jan 07
- Aerial Common Sensors Training Development Functional Analysis Sep 05
- Mission Area Analysis (MAA) Feb 08
- A-ISR Training Needs Analysis Sep 09
- A-ISR Training Study Dec 07

6.1.3.1.4 Policy and Guidance

The following Army Regulations (AR) and TRADOC Regulations (TR) describe the policies regulating the implementation of the TSS for GRCS:

- AR 350-1 Army Training and Leader Development
- AR 350-38 Training Device Policies and Management
- TR 350-70 Army Learning Policy and Systems
- TP 525-8-2 w/C1 The United States Army Learning Model
- TP 525-3-1 The United States Army Operating Concept 2016-2028
- TRADOC Commander's training guidance
- USAICoE Commanders training guidance

6.1.3.1.5 Requirements Generation

6.1.3.1.6 Synchronization

USAICoE will synchronize GRCS training development requirements with DCGS-A, AACoE, and other Centers of Excellence training efforts. USAICoE will coordinate with other training centers (e.g. AACoE) to develop TTPs for tactical maneuver commanders to leverage GRCS capabilities in support of operations.

6.1.3.1.7 Joint Training Support

N/A

6.1.3.2 Evaluation

USAICoE Quality Assurance Office (QAO) will evaluate GRCS institutional courses through established formal and informal processes to ensure efficient and effective training. AACoE using the Aviation Resource Management System (ARMS) will evaluate GRCS institutional pilot training.

6.1.3.2.1 Quality Assurance (QA)

The USAICoE QAO provides oversight on institutional training curriculums by evaluating classroom instruction and associated training documentation and courseware.

6.1.3.2.2 Assessments

The USAICoE QAO performs assessments of all institutional courses by individual surveys, special surveys and classroom monitoring. QAO will provide USAICoE survey results to the Deputy Commander of Training and all relevant command sections related to a given survey.

6.1.3.2.3 Customer Feedback

N/A

6.1.3.2.4 Lessons Learned/After-Action Reviews (AARs)

USAICoE will use lessons learned and AAR data to support efficient and effective GRCS institutional training by identifying and incorporating relevant TTPs from the operational environment. Data is available from:

- USAICoE lessons learned team and the CALL collect and analyze data from a variety of current and historical sources, including Army operations and training events. CALL disseminates this information and other related research materials to Soldiers through a variety of print and electronic media.
- Command-driven AARs conducted after training events and deployments provide feedback used to improve training at the institution.

Item	FY13	FY14	FY 15	FY16	FY17	FY18
Resourced	Yrs or \$					
Manpower- TD						
Contractor	0 MY					
Civilian	.2 MY	0 MY	0 MY	.2 MY	.2 MY	.2 MY
Enlisted	2.0 MY	.2 MY	.2 MY	2.0 MY	2.0 MY	2.0 MY
Warrant						
Officer	.2 MY					

Contractor/SP	\$0K	\$0K	\$0K	\$0K	\$0K	\$0K
T						
Civ Pay	\$212K	\$0K	\$0K	\$231K	\$237K	\$244K
Trvl/Per Diem	\$46K	\$50K	\$55K	\$61K	\$67K	\$70K
Other						
<p>Rationale: Training developers are needed to develop and maintain the programs of instruction and other outputs of the SAT process. NSTID will use a mix of personnel in different functional 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. Temporary Duty (TDY) costs for required reviews and meetings are based on seven 5-day meetings per year totaling \$10591 = 7 x \$1,513. Cost</p>						

breakdown per trip: \$1,513 = [\$850 travel \$425 per Diem (5 days @ \$85 per day) \$238 rental car and fuel (5 days @ \$48 per day plus fuel)].

Item	FY13	FY14	FY 15	FY16	FY17	FY18
Resourced	Yrs or \$					
New Equipment						
Training						
Contractor	0 MY					
Civilian	.2 MY	0 MY	0 MY	.2 MY	.2 MY	0 MY
Enlisted	2.0 MY	.2 MY	.2 MY	2 MY	2 MY	0 MY
Warrant	0 MY					
Officer	.2 MY	0 MY	0 MY	.2 MY	.2 MY	0 MY
Contractor/SP	\$0k	\$0K	\$0K	\$0 K	\$0 K	\$0 K
T						
Civ Pay	\$200K	\$0K	\$0K	\$218 K	\$224 K	\$0 K
Trvl/Per Diem	\$77.9K	\$20K	\$20K	\$69 K	\$71 K	\$0 K
Classrooms	\$4.5K	\$0K	\$0K	\$10.5 K	\$10.5 K	\$0 K
Equipment	\$15K	\$0K	\$0K	\$0 K	\$0 K	\$0 K
Printing	\$4.6K	\$0K	\$0K	\$10 K	\$10 K	\$0 K
Other						

Rationale: Classrooms suitable for twelve students with standard electrical power are required for NET based on commercial rate of \$1.50 for heated and cooled facilities. NSTID will use a mix of personnel in

different functional areas within the training program. The work effort includes input/development/updates of requirement documentation appropriate to training, attendance at IPTs, IPRs, TIMs, etc., and verification of technical manuals. Travel/Per Diem amounts represent costs to attend required reviews/meetings mentioned above. TDY costs for required initial year NET are based on two 30-day NETs per year totaling \$77,868 = 2 x (\$12,978 x 3). Cost breakdown per trip: OCONUS \$12,978 = [\$850 travel \$7500 Lodging \$3500 per diem (29 days @ \$123 per day) times travelers (3) \$928 rental car and fuel (29 days @ \$32.0 per day plus fuel)].

NOTE: CONUS Net will be approximately 15K less

Item	FY13	FY14	FY 15	FY16	FY17	FY18
Resourced	Yrs or \$					
Training Products						
Training Pubs	2.0 MY	.2 MY	.2 MY	2.0 MY	2.0 MY	.2 MY
TSP	2 MY	.2 MY	.2 MY	2.0 MY	2.0 MY	.2 MY
ETM	\$200K	\$0K	\$0K	\$250K	\$200K	\$0K
STP	\$200K	\$0K	\$0 K	\$0 K	\$0 K	\$0 K
ARTEP/MTP	.1 MY	0 MY	0 MY	.1 MY	.1 MY	.1 MY
Printing	\$13.7K	\$0K	\$0K	\$0K	\$14K	\$0K
Distribution	\$9.3K	\$0K	\$0K	\$10K	\$10K	\$0K

Rationale: Cost to develop, revise, maintain, and distribute Training Products. This includes cost to develop TSP that will be used for NET, institutional, operational, and self-development domains.

Item	FY13	FY14	FY 15	FY16	FY17	FY18
Resourced	Yrs or \$					
TADSS	\$500k	\$1500k	\$1500k	\$800k	\$400k	
Simulators (CPT)	\$1,000K	\$228K	\$228K	\$229K	\$230K	
TSA						
GTA						
Software	\$250K	\$250K	\$267K	\$275K		
Licenses	\$120K	\$126K	\$133K	\$140K		
TMDE	\$60k	\$63K	\$67K	\$72K		
Printing						
Maintenance	\$240K	\$252K	\$264K			
Other						

Rationale: Cost to procure and sustain TADSS. Includes cost to develop and maintain the simulation environment for Distributed Learning training. PM Fixed Wing is responsible for the CPT.

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Item	FY13	FY14	FY 15	FY16	FY17	FY18
Resourced	Yrs or \$					
Facilities/Land						
Facilities	\$4,000K					
Classrooms	\$66K	\$68K	\$70K	\$72K	\$74K	
Equipment	\$62K	\$64K	\$66K	\$69K	\$72K	
Mission Equipment						
Maintenance						
Other						

Rationale: Cost to modify existing facilities to accommodate new power and shielding requirements of new system concrete pad and electrical power needed to support the simulation environment. Three actual operational systems are required for use as training equipment.

Item	FY13	FY14	FY 15	FY16	FY17	FY18
Resourced	Yrs or \$					
Training Services/TIII						
LMS	\$60K	\$61.8K	\$63.6K	\$65.6K	\$67.5K	\$69.6K
SERVERS	\$4K	\$4K	\$4.1K	\$4.2K	\$4.4K	\$4.7K

Licenses	\$120K	\$123.6K	\$127.3K	\$131.1K	\$135K	\$139K
IT Support	\$110K	\$113K	\$115K	\$118K	\$121K	\$124K
Other	\$.5K	\$.5K	\$.5K	\$.5K	\$.5K	\$.5K

Rationale: Software license and IT support will be required.

Item	FY13	FY14	FY 15	FY16	FY17	FY18
Resourced	Yrs or \$					
Eval/QA						
Contractors	0 MY					
Civilian	1.0 MY	0 MY	0 MY	1.0 MY	1.0 MY	0 MY
Enlisted	1.0 MY	.2 MY				
Warrant						
Officer				.2 MY	.2 MY	.2 MY
Contract/SPT	\$0K	\$0K	\$0K	\$0K	\$0K	\$0K
Civ Pay	\$0K	\$0K	\$0K	\$218K	\$225K	\$231K
Trvl/Per Diem	\$40K	\$40K	\$45K	\$50K	\$50K	\$50K
Printing	\$.2K	\$.2K	\$.3K	\$.31K	\$.32K	\$.33K
Other						

Rationale: Personnel will be required to conduct evaluation/quality assurance of training.

7.0 Operational Training Domain

Operational training will ensure that pilots, operators, and maintainers are able to perform system individual and collective tasks while mission managers will understand the duties/responsibilities expected of a GRCS mission manager. Sustainment of those tasks and skills at home-station is crucial for mission accomplishment and will be achieved using the TSP, Electronic Technical manuals (ETMs) and references, TADSS (TSA), etc. developed for system training. Unit Commanders will identify, manage, and program training requirements for GRCS personnel and develop new or utilize existing training matrices to further focus on those requirements.

7.1 Operational Training Concept and Strategy

GRCS training in the operational domain will consist of NET, the Commander's ATP, a formal OJT program, and unit collective training.

NET: GRCS NET will consist of role-specific programs of instruction to prepare the fielded unit to employ GRCS capabilities successfully in direct support to tactical operations. At each fielding event, PM ARES will deliver an up-to-date NET TSP in approved TRADOC and DOD formats, sufficient to train a full complement of Soldiers to employ GRCS across the full spectrum of Unified Land Operations (ULO). The TSP includes the leave behind NET POIs and lesson plans (LP) with integrated DTT, ETMs and references, and TADSS developed for system training.

ATP: The Aircrew Training Plan (ATP) consists of qualification, refresher, mission, and continuation training. The goal of the program is to develop mission-ready aviation units. GRCS-equipped units will incorporate material from the TSP, FTG, and the ATM to ensure training covers the entire spectrum from task proficiency at the individual level to unit proficiency in executing mission-essential tasks.

OJT: GRCS units will establish a formal, mission-specific training program based on the TSP to train and sustain incoming and resident Soldiers on the perishable critical individual tasks that support the unit's METL. The OJT program will use the GRCS TSA scenario-based training vignettes to present Soldiers with a realistic virtual operational environment through the payload control software.

APG: APG Operator training assists units in maintaining proficiency on tasks that support GRCS missions and capabilities. APG training resides at Fort Hood and Hunter Army Airfield until FY14 when it will move to Fort Huachuca.

Collective Training: GRCS units will participate in collective training at Mission Training Complexes as mission dictates and resources are available.

7.1.1 Product Lines

GRCS operational product lines will include the training equipment, courseware, training manuals, TSPs, training facilities, and land necessary to train and sustain Soldiers on GRCS capabilities, crew member, and collective tasks.

7.1.1.1 Training Information Infrastructure

Operational GRCS Training Information Infrastructure (TII) will consist of the TRADOC-approved data repository, the Military Intelligence Training System (MITS), and the necessary hardware and software to conduct training. GRCS TII will conform to both joint and Army architectures and standards to enable the development, storage, retrieval, delivery, and management of TSS products and information.

7.1.1.1.1 Hardware, Software, and Communications Systems

Units will access training support information and training exercise content using operational equipment including GRCS system components, supporting systems, and the appropriate network. Systems and sub-systems will include but not be limited to:

- GRCS Aircraft (PM Fixed Wing)
- DCGS-A MFWS
- APG TSA
- NIPRNET
- SIPRNET
- JWICS

7.1.1.1.2 Storage, Retrieval, and Delivery

GRCS information supporting training will be available at one or more of the following:

- TRADOC approved training database
- IKN

- CALL Repository

These capabilities allow for the collection and organization of, and provide access to, digital TSS products and information.

7.1.1.1.3 Management Capabilities

USAICoE will manage GRCS TII using the Digital Training Management System (DTMS), MITS, and TRADOC-approved training databases.

7.1.1.1.4 Other Enabling Capabilities

N/A

7.1.1.2 Training Products

NSTID will maintain all GRCS training materials (including DTT) in knowledge centers on appropriately classified networks. PM ARES will provide updated training materials to USAICoE and fielded units at each system increment. PM ARES will ensure new or updated training materials are clearly marked to identify new, modified, or deleted content. Units will incorporate content from the GRCS TSP into the ATP and formal OJT program, and provide the training program documentation to Training and Doctrine Command (TRADOC) and PM ARES to ensure consistent training. Units will determine appropriate training materials for individual training programs, mission training plans, and collective training exercises using the Combined Arms Training Strategy.

7.1.1.2.1 Courseware

Units will develop an ATP and formal, role-specific OJT programs from the GRCS NET TSP. Units will select mission-appropriate courseware from the NET TSP and modify as necessary to satisfy the commander's requirements. Units will provide all such modified courseware to USAICoE to update the training database.

7.1.1.2.2 Courses

GRCS operators, mission managers, and maintainers will train on GRCS tasks using the following:

- TSP

- APG courses currently given at Fort Hood, Texas and Hunter Army Airfield, Georgia. The APG course will migrate to Fort Huachuca in FY14.

7.1.1.2.3 Training Publications

AEBs will have access to ETMs, FTGs, ATMs, SUMs, STPs, applicable FMs and ARs via the Central Army Registry (CAR) and IKN.

7.1.1.2.4 TSP

PM ARES in conjunction with USAICoE/NSTID will develop the TSP. The TSP will include:

- CTL developed by the training developer
- NET Lesson Plans formatted in the current TRADOC approved training database for all GRCS system tasks
- System software and hardware IETM
- Software User Manuals
- DTT developed by NSTID and integrated into the NET POI
- ET with IEWTPT fully integrated into system architecture to support individual user training, facilitating training from their home stations in a standalone training mode
- Realistic training data and information supporting practical exercises, including training vignettes with increasingly challenging enemy and environmental complexities, facilitating units and staffs to practice and train under expected mission conditions

NSTID will utilize the validated NET TSP provided by PM ARES to update all systems tasks and lesson plans included in the GRCS TSP in the current TRADOC approved training database. GRCS TSPs will be complete, exportable packages integrating training products/materials necessary to train system critical, individual, and leader tasks. GRCS TSPs will provide a structured training program that supports Soldier/Leader and staff training.

PM ARES will provide a complete library of GRCS related manuals, to include all COTS and GOTS software and hardware components publications.

7.1.1.3 TADSS

The GRCS operational training (skills sustainment) concept for operators and analysts relies on virtual and constructive training simulations enabled by the GRCS TSA, a component of the IEWTPT system. The GRCS TSA and the IEWTPT

training architecture will be a critical part of the overall operational domain training strategy. This system includes the GRCS TSA (system training device) and PEO STRI developed TCC (non-system device). It provides system training (embedded training capability) as well as networked connectivity for collective training within the mission command collaborative training environment. The GRCS TSA will include the capability for supervisors to develop training scenarios that can be tailored to support unique, operationally focused training scenarios. The TSA, by design, is intended to present virtual payload and sensor data to GRCS system operational software to enable task specific training using operational software toolsets. It will assist the commanders with the capability to manage training data and evaluate operator/analyst proficiency via After Action Review (AAR) tools.

7.1.1.3.1 Training Aids

PM ARES will develop training aids for GRCS training based on analysis performed collaboratively with the USAICoE training developers. USAICoE will perform V&V on all Training Aids prior to finalization for use.

7.1.1.3.2 Training Devices

Training devices include the IEWTPT TSA (developed by the system PM)/TCC (developed by PEO-STRI) to support GRCS specific payload and sensor stimulation, exercise management/control, play-back, and AAR. These devices may also include partial task trainers for selected/unique payload/sensor operations in a stand-alone or networked mode.

7.1.1.3.3 Simulators

No simulators will be required at the unit's home station.

7.1.1.3.4 Simulations

The GRCS TSA will provide operators with virtual data from realistic scenarios using simulations. It will create an operationally focused virtual environment which emulates real-world collection, stimulating the GRCS operational toolsets, for individual system training. It will use the Joint Land Component Constructive Training Capability (JLCCTC) and the IEWTPT TCC when networked. Existing sensors and activity models will be reused to the greatest extent possible.

7.1.1.3.5 Instrumentation

N/A

7.1.1.4 Training Facilities and Land

The training facilities will include, at a minimum, designated training areas, (SCIF-certified as required) for GRCS mission operators and mission managers. The training environment will facilitate the overall training infrastructure. The training environment will include facilities necessary to coordinate the following:

- COMSEC support
- Maintenance support for facilities and systems
- Network capabilities to facilitate training
- GRCS facilities/workstations

7.1.1.4.1 Ranges

No additional ranges or specialized training areas will be required for GRCS training.

7.1.1.4.2 Maneuver Training Areas (MTA)

No additional Maneuver Training Areas will be required for GRCS training.

7.1.1.4.3 Classrooms

GRCS training will utilize existing facilities and equipment located at the AEB.

7.1.1.4.4 CTCs

PM ARES will resource modeling of GRCS system capabilities in the constructive simulation for collective training at CTCs. CTCs will be able to stimulate GRCS payload control software interfaces with the constructive simulation via the TSA (developed for common A-ISR payloads) and IEWTPT.

7.1.1.4.5 Logistics Support Areas

GRCS operational training will not require logistics support areas beyond existing unit facilities.

7.1.1.4.6 Battle Command Training Centers (BCTC)

MTCs will use GRCS capability models to present Soldiers and leaders with realistic responses to requests for support from GRCS units before, during, and after simulated combat events.

7.1.1.5 Training Services

PM ARES will support all training capabilities associated with the GRCS program throughout the systems lifecycle.

7.1.1.5.1 Management Support Services

N/A

7.1.1.5.2 Acquisition Support Services

PM ARES will be responsible for maintenance and upgrades for the system-specific TADSS.

7.1.1.5.3 General Support Services

PM ARES, PM Fixed Wing, PEO STRI, and Intelligence and Security Command (INSCOM) will provide or coordinate jointly for general support services needed for GRCS facility support and training devices.

7.1.2 Architectures and Standards Component

7.1.2.1 Operational View (OV)

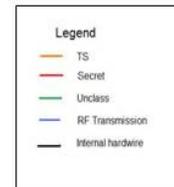
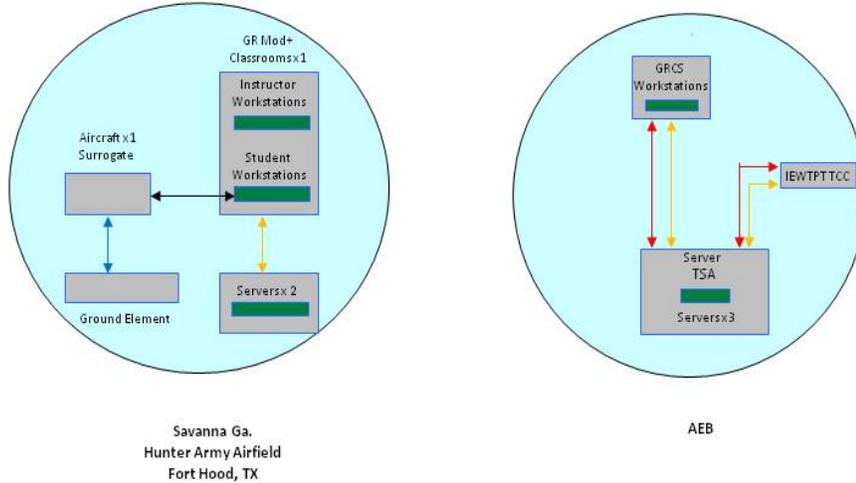
Prior to attending courses, all students must meet appropriate course prerequisites as outlined in paragraph 2.0 (Target Audience).

7.1.2.2 Systems View (SV)

7.1.2.3 Technical View (TV)

N/A

GRCS Operational Development Training SV-1



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

7.1.3.1 Management

USAICoE with the support of PM ARES, PM Fixed Wing, and PEO STRI will develop and manage the training curricula and associated training devices.

7.1.3.1.1 Strategic Planning

GRCS operational training supports the over-arching JDSAIRS ICD requirements to ensure Soldiers are capable of employing GRCS assets in support of Unified Land Operations (ULO). The following force design and training concepts must be applied to future GRCS training capabilities:

- Military Intelligence Rebalance Decision (FY11)
- TP 525-8-2 w/C1 The United States Army Learning Model

- The United States Army Operating Concept 2016-2028
- FORSCOM Commander's training guidance
- INSCOM Commander's training guidance

7.1.3.1.2 Concept Development and Experimentation (CD&E)

N/A

7.1.3.1.3 Research and Studies

N/A

7.1.3.1.4 Policy and Guidance

The following Army Regulations (AR), TRADOC Regulation (TR), TRADOC Publications (TP) and Training Circulars (TC) describe the policies regulating the implementation of the TSS for GRCS:

- AR 350-1 Army Training and Leader Development
- AR 350-38 Training Device Policies and Management
- TR 350-70 Army Learning Policy and Systems
- TP 525-8-2 w/C1 The United States Army Learning Model
- TP 525-3-1 The United States Army Operating Concept 2016-2028
- FORSCOM Commander's training guidance
- INSCOM Commander's training guidance

7.1.3.1.5 Requirements Generation

Requirements Generation includes these actions:

- ROC approved 1993
- ACS CDD (9 Sep 2010)
- JDSAIRS ICD (10 Sep 2010)

7.1.3.1.6 Synchronization

USAICoE will synchronize GRCS training development requirements with DCGS-A, AACoE, and other Centers of Excellence training efforts. USAICoE will coordinate with other training centers (e.g. AACoE) to develop TTPs for tactical maneuver commanders to leverage GRCS capabilities in support of

operations.

7.1.3.1.7 Joint Training Support

N/A

7.1.3.2 Evaluation

7.1.3.2.1 Quality Assurance (QA)

NSTID will use AARs conducted during and at the conclusion of NET/DTT to ensure quality and content of the training satisfies unit requirements. NSTID will use responses to make immediate modifications and/or supplementations to the NET/DTT if needed. One year after fielding, TD will solicit feedback from the unit to determine long term effectiveness of NET/DTT and sustainment training. Feedback will assist NSTID in correcting training deficiencies and will provide information that may affect the next generation of equipment or product improvements.

7.1.3.2.2 Assessments

Commanders will use assessment support services to evaluate the GRCS TSS and its relevance to the training process. Assessment tools include:

- Training evaluation and analyses
- Monthly status reports
- Strategic Readiness System

7.1.3.2.3 Customer Feedback

USAICoE and PM ARES will use customer feedback to evaluate and trigger corrections to the GRCS TSS. Feedback tools include:

- Electronic media for surveys
- Interviews
- Questionnaires
- Critiques
- AARs

7.1.3.2.4 Lessons Learned/After-Action Reviews (AARs)

Lessons learned and AAR data supports efficient and effective GRCS operational training by identifying strengths and weaknesses observed in the operational environment.

- USAICoE lessons learned team and the CALL collect and analyze data from a variety of current and historical sources, including Army operations and training events. CALL disseminates this information and other related research materials to Soldiers through a variety of print and electronic media.
- Commanders will conduct AARs after training events and deployments to collect feedback to improve operational training. Commanders and unit trainers will use IEWTPT TCC's AAR capability to assess the effectiveness of the training.

7.1.3.3 Resource Processes

Operational training will utilize the ET/IEWTPT TSA. PM ARES has submitted a UFR for the ET/IEWTPT TSA and paragraph 6.1.3.3 lists its cost estimates.

8.0 Self-Development Training Domain

Self-development training on GRCS products will support all GRCS personnel, Commanders and staff, and professional Military Leadership courses by providing access and connectivity to all training products developed for GRCS training. Training repositories will be reachable from classrooms, remote locations, GRCS workstations, and any Common Access Card (CAC) enabled NIPRNET workstation.

8.1 Self-Development Training Concept and Strategy

Self Development will focus on the use of the TSP. USAICoE will host the TSP on IKN for access by the units in the field.

8.1.1 Product Lines

N/A

8.1.1.1 Training Information Infrastructure

N/A

8.1.1.1.1 Hardware, Software, and Communications Systems

Hardware, Software, and Communications systems include but are not limited to:

- NIPRNET

8.1.1.1.2 Storage, Retrieval, and Delivery

GRCS information supporting training will be available at one or more of the following areas:

- IKN
- CALL Repository

8.1.1.1.3 Management Capabilities

N/A

8.1.1.1.4 Other Enabling Capabilities

N/A

8.1.1.2 Training Products

NSTID will post GRCS training materials (TSP and DTT) on IKN. At a minimum, each system upgrade will trigger a review of GRCS training materials to determine if modifications to GRCS training materials are required. When training materials and system manuals are changed, PM ARES and NSTID will ensure USAICoE and fielded units receive the new materials. NSTID will update the TRADOC approved training database with all relevant changes and will post the new training materials to IKN with modifications annotated.

8.1.1.2.1 Courseware

NSTID will enter the lesson plans for all courses into the TRADOC approved training database. NSTID and the fielded units will use the lesson plans entered into the TRADOC approved training database for course development. The accompanying DTT material will be available on IKN, depending upon classification. The GRCS courseware will cover the tasks necessary to ensure operability of each systems payload.

8.1.1.2.2 Courses

GRCS self development will train soldiers using the TSP.

8.1.1.2.3 Training Publications

Soldiers will have access to ETMs and applicable FMs via the IKN Document Management System (DMS).

8.1.1.2.4 Training Support Package (TSP)

PM ARES in conjunction with USAICoE/NSTID will develop the TSP. The TSP will include:

- CTL developed by the training developer
- NET Lesson Plans formatted in the current TRADOC approved training database for all GRCS system tasks
- System software and hardware ETM
- Software user manuals
- DTT developed by NSTID and integrated into the NET POI

USAICoE will utilize the validated NET TSP provided by PM ARES to update all systems tasks and lesson plans included in the GRCS TSP in the current TRADOC approved training database. GRCS TSPs will be complete, exportable packages integrating training products/materials necessary to train system critical, individual, and leader tasks. GRCS TSPs will provide a structured training program that supports Soldier/Leader and staff training.

PM ARES will provide a complete library of GRCS related manuals, to include all COTS and GOTS software and hardware components publications.

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

N/A

8.1.1.3.1 Training Aids

PM ARES will develop training aids for GRCS training based on analysis performed collaboratively with the USAICoE training developers. USAICoE will perform V&V on all Training Aids prior to finalization for use.

8.1.1.3.2 Training Devices

Training devices may include but are not limited to:

- NIPRNET workstation (for accessing unclassified training material)

8.1.1.3.3 Simulators

N/A

8.1.1.3.4 Simulations

N/A

8.1.1.3.5 Instrumentation

N/A

8.1.1.4 Training Facilities and Land

N/A

8.1.1.4.1 Ranges

N/A

8.1.1.4.2 Maneuver Training Areas (MTA)

N/A

8.1.1.4.3 Classrooms

N/A

8.1.1.4.4 CTCs

N/A

8.1.1.4.5 Logistics Support Areas

N/A

8.1.1.4.6 Battle Command Training Centers (BCTC)

N/A

8.1.1.5 Training Services

N/A

8.1.1.5.1 Management Support Services

GRCS self-development training will not require management support services beyond those provided for operational training.

8.1.1.5.2 Acquisition Support Services

GRCS self-development training will not require management support services beyond those provided for operational training.

8.1.1.5.3 General Support Services

GRCS self-development training will not require general support services beyond those provided for operational training.

8.1.2 Architectures and Standards Component

8.1.2.1 Operational View (OV)

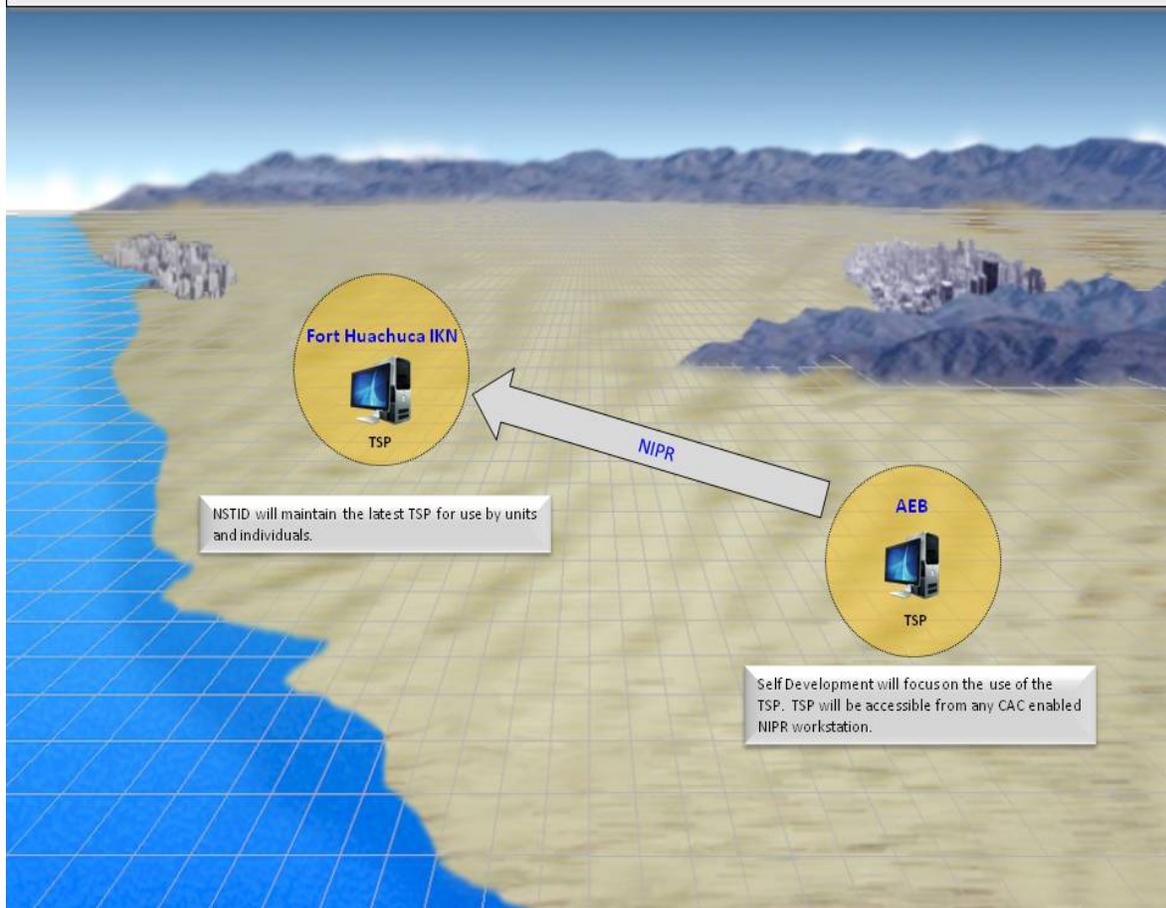
Self Development will focus on the use of the TSP. NSTID will host the TSP on IKN for use by the fielded units.

8.1.2.2 Systems View (SV)

The AEBS will conduct self-development training at their home stations.

Personnel assigned to GRCS units will train on GRCS specific content utilizing the TSP.

GRCS Self Development Training – AEB and Fort Huachuca, AZ



8.1.2.3 Technical View (TV)

N/A

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

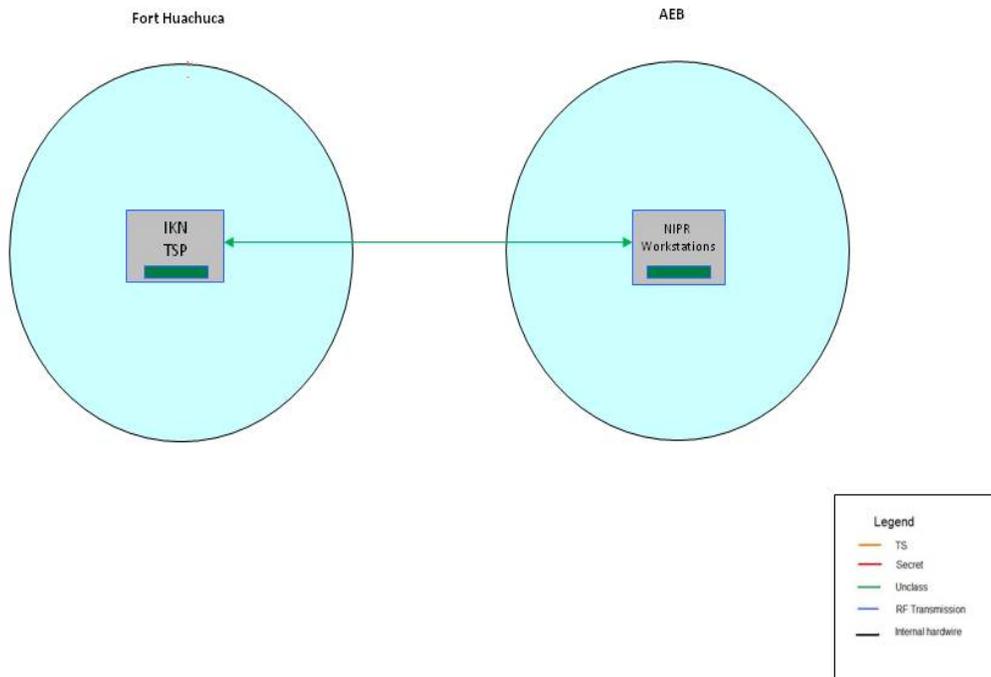
8.1.3.1 Management

NSTID in coordination with PM ARES will develop and manage the training curricula.

8.1.3.1.1 Strategic Planning

GRCS self-development training supports the over-arching JDSAISR ICD requirements to ensure Soldiers are capable of employing GRCS assets in support of Unified Land Operations (ULO). The following force design and

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training concepts must be applied to future GRCS training capabilities:

- Military Intelligence Rebalance Decision (FY11)
- TP 525-8-2 w/C1 The United States Army Learning Model
- The United States Army Operating Concept 2016-2028
- FORSCOM Commander's training guidance
- INSCOM Commander's training guidance

8.1.3.1.2 Concept Development and Experimentation (CD&E)

N/A

8.1.3.1.3 Research and Studies

N/A

8.1.3.1.4 Policy and Guidance

The following describe the implementation of the TSS for GRCS:

- AR 350-1 Army Training and Leader Development
- AR 350-38 Training Device Policies and Management
- TR 350-70 Army Learning Policy and Systems
- TP 525-8-2 w/C1 The United States Army Learning Model
- TP 525-3-1 The United States Army Operating Concept 2016-2028
- FORSCOM Commander's training guidance
- INSCOM Commander's training guidance

8.1.3.1.5 Requirements Generation

Requirements Generation includes these actions:

- Required Operational Capability (ROC) approved 1993
- ACS CDD (9 September 2009)
- JDAISR ICD (10 September 2010)

8.1.3.1.6 Synchronization

N/A

8.1.3.1.7 Joint Training Support

N/A

8.1.3.2 Evaluation

8.1.3.2.1 Quality Assurance (QA)

N/A

8.1.3.2.2 Assessments

N/A

8.1.3.2.3 Customer Feedback

N/A

8.1.3.2.4 Lessons Learned/After-Action Reviews (AARs)

N/A

8.1.3.3 Resource Processes

N/A

A Milestone Annex

SYSTEM MILESTONE SCHEDULE - SHEET A		PAGE 01 OF 01		REQUIREMENT CONTROL SYMBOL
SYSTEM: AN/USD-9B- E	DA CATEGORY:ACAT II	OFFICE SYMBOL: ATSF-FR	AS OF DATE:1 SEP 2007	
POINTS OF CONTACT	NAME	OFFICE SYMBOL	TELEPHONE	
MATERIEL COMMAND PEOSTRI				
PRODUCT MANAGER	COL Keith Hirschman	SFAE-IEW&S-ACS	443-861-1991	
TRADOC PROPONENT				
TCM	Mr. Lee Ilse	ATZS-CDI-ACS-AS	DSN 879-0200	
COMBAT DEVELOPER				
TRAINING DEVELOPER	SFC Charles Rickert		520-538-1075	
CASCOM				
ITEM:	DATE: D = Draft A = Approved P = Pending	RESPONSIBLE AGENCY	NAME OF POINT OF CONTACT	TELEPHONE
MNS(O and O Plan):	A APR 92	USAIC&FH, DCD EAST	Mr. Doug Roberts	(703)713-1787
SMMP:	A JAN 97	USAIC&FH, DCD EAST	Mr. Doug Roberts	(703)713-1787
ORD (ROC):	A APR 92	ATCD-GI	Mr. Mike Helderman	DSN 680-3273
SIPTS:	A FEB 97	AMSEL-LC-IEW-R-AS	Ms. Raelene Reilly	DSN 987-5359
STRAP:	D SEP 07	USAIC&FH, ATZS- TDS-N	SFC Charles Rickert	520-538-1075
TTSP:	A FEB 93	USAIC&FH, ATZS- TDS-N	SFC Charles Rickert	520-538-1075

BOIP:	A MAY 97	USAIC&FH, AZS-FDR- CD	Mr. John Quinn	DSN 879-0871
NETP:	A APR 92	AMSEL-LC-RE-TE	Mr. Greg Johnson	DSN 987-1818
COMMENTS: The MNS and O&O are not separate documents. This information can be found in the GRCS ROC.				

	Individual Training	
	Milestone: 35T10 / Military Intelligence Systems Maintainer/Integrator	Date
	1. CAD approved	4QFY99
	2. POI approved	2QFY02
	3. ITP approved	1QFY03
	4. GGB Lab	4QFY09
	Milestone: EW/Cryptologic Supervisor	Date
	1. CAD approved	4QFY01
	2. POI approved	4QFY01
	3. ITP approved	2QFY02
	Milestone: New Equipment Training Products	Date
	1. DTT, NET TSP and ICW were completed	2QFY00
	2. NET TSP and DTT will be updated to reflect GGB changes	TBD
	Milestone: 15C/155E GUARDRAIL Common Sensor Pilot Qualification	Date
	1. CAD approved (Draft dated 2008)	3QFY00
	2. POI approved	2QFY02

	3. ITP approved	4QFY02
	4. Cockpit Procedural Trainer	2QFY09
	Milestone: 15C/155E GUARDRAIL Pilot Qualification (RC-12D)	Date
	1. CAD approved (Draft dated 2008)	3QFY00
	2. POI approved	2QFY02
	3. ITP approved	4QFY02
	Milestone: 35D Military Intelligence Officer Basic Course	Date
	1. CAD approved	2QFY02
	2. POI approved	1QFY00
	3. ITP approved	4QFY99
	Milestone: 35D Military Intelligence Captains Career Course	Date
	1. CAD approved	2QFY02
	2. POI approved	1QFY00
	3. ITP approved	4QFY99
	Milestone: 352N/352P/352S/353T Warrant Officer Basic Course	Date
	1. CAD approved	3QFY06
	2. POI approved	3QFY02
	3. ITP approved	2QFY00
	Milestone: Warrant Officer Advanced Course	Date
	1. CAD approved	2QFY01
	2. POI approved	3QFY99
	3. ITP approved	2QFY00
	Milestone: Intelligence and Electronic Warfare Tactical Proficiency Trainer	Date

	1. TCC will be available for specified systems	2QFY06
	2. ET / IEWTPT TSA development and fielding for GUARDRAIL currently is not funded	
	Milestone: Mission Training Facility	Date
	1. CPD Draft	4QFY08
	2. STRAP Draft	3QFY08
	3. CONOPS Draft	TBD

B References

1. Aerial Intercept Surveillance&Reconnaissance Training Needs Analysis (TNA), 30 April 2007.
2. Operational Requirements Document (ORD) for the IEWTPT, 23 Jul 1998.
3. Aerial Exploitation Battalion DOTMLPF, (Draft in process).
4. GRCS Required Operational Capabilities, revised January 1993.
5. GRCS Basis of Issue Plan (BOIP) M096AA, M096AB, M096AC, M096AD, M096AE, M096AF, M096AG, M096AH, M096AI, and M096AJ. (Updated BOIP M112 versions in draft process)
6. GRCS System Training Plan (STRAP), August 2004.
7. Aerial Common Sensor STRAP, April 2002.
8. ACS Operational Requirements Document, January 2001.
9. Distributed Common Ground Sensor-ARMY STRAP, May 2006.
10. GRCS Recapitalization Plan memo to PEO, 19 December 2006.
11. FM 2-19.2 Corps IEW Operations.
12. 305 th MI Bn Training Deficiencies Memorandum, 07 December 2006.
13. Critical Task List (CTL) RC-12D Pilot Qualification Course (F3), 4 August 2004.
14. 35N CTL, 15 October 2008.
15. 35P CTL, 28 November 2007.
16. 35T CTL, 19 September 2012.
17. 35S CTL, 16 March 2007.
18. 352N CTL, 15 October 2008.
19. 352P CTL, 1 November 2007.
20. 352S CTL, 16 March 2007.
21. 353T CTL, 19 September 2012.
22. 35G CTL, 7 May 2010.
23. 115E F4 CTL, 15 October 2010.

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	
v0.2.3 Richard P Athanas 2013/08/27 - 2013/09/06	Document Accepted As Written			0	0	0	0	0	0	-
v0.2.2 Richard P Athanas 2013/08/15 - 2013/08/25	No Comments Submitted			0	0	0	0	0	0	-
v0.2.1 Approvals - James A Callahan 2013/08/15 - 2013/08/25	Document Accepted As Written			0	0	0	0	0	0	-
v0.2 Army - USASOC 2012/12/05 - 2013/01/11	No Comments Submitted			0	0	0	0	0	0	-
v0.2 Army - USAREUR 2012/12/05 - 2013/01/11	Document Accepted As Written			0	0	0	0	0	0	-
v0.2 Army - USARC G7 (US Army Reserve Cmd) 2012/12/05 - 2013/01/11	No Comments Submitted			0	0	0	0	0	0	-
v0.2 Army - USAMA 2012/12/05 - 2013/01/11	No Comments Submitted			0	0	0	0	0	0	-
v0.2 Army - TRADOC_ARCIC 2012/12/05 - 2013/01/11	No Comments Submitted			0	0	0	0	0	0	-

v0.2 Army - TRADOC G-3/5 2012/12/05 - 2013/01/11	No Comments Submitted			0	0	0	0	0	0	-
v0.2 Army - TRADOC Command Safety Office 2012/12/05 - 2013/01/11	No Comments Submitted			0	0	0	0	0	0	-
v0.2 Army - PEO- STRI Customer Support Group 2012/12/05 - 2013/01/11	Document Accepted As Written			0	0	0	0	0	0	-
v0.2 Army - PEO Aviation 2012/12/05 - 2013/01/11	Document Accepted As Written			0	0	0	0	0	0	-
v0.2 Army - IMCOM 2012/12/05 - 2013/01/11	0	1	0	0	0	0	0	1	0	
v0.2 Army - Human Resource Command (HRC) 2012/12/05 - 2013/01/11	No Comments Submitted			0	0	0	0	0	0	-
v0.2 Army - HQDA G2 - Alternate POC 2012/12/05 - 2013/01/11	No Comments Submitted			0	0	0	0	0	0	-
v0.2 Army - HQDA G2 2012/12/05 - 2013/01/11	No Comments Submitted			0	0	0	0	0	0	-
v0.2 Army - Combined Arms Center 2012/12/05 - 2013/01/11	No Comments Submitted			0	0	0	0	0	0	-
v0.2 Army - CAC-T;	8	22	0	0	13	0	8	9	0	

Training Management Dir 2012/12/05 - 2013/01/11									
v0.2 Army - AVNCoE Aviation Logistics School 2012/12/05 - 2013/01/11	No Comments Submitted	0	0	0	0	0	0	0	-
v0.2 Army - ATSC Fielded Devices 2012/12/05 - 2013/01/11	Document Accepted As Written	0	0	0	0	0	0	0	-
v0.2 Army - ATSC 2012/12/05 - 2013/01/11	No Comments Submitted	0	0	0	0	0	0	0	-
v0.2 Army - ARNG- RMQ-RA 2012/12/05 - 2013/01/11	Document Accepted As Written	0	0	0	0	0	0	0	-
v0.1 Peer - USAACE - Aviation School 2012/10/31 - 2012/11/30	Document Accepted As Written	0	0	0	0	0	0	0	-
v0.1 Peer - TCM Intel Sensors 2012/10/31 - 2012/11/30	No Comments Submitted	0	0	0	0	0	0	0	-
v0.1 Peer - PM Fixed Wing 2012/10/31 - 2012/11/30	No Comments Submitted	0	0	0	0	0	0	0	-
v0.1 Peer - PM DCGS-A 2012/10/31 - 2012/11/30	No Comments Submitted	0	0	0	0	0	0	0	-
v0.1 Peer - PM ARES 2012/10/31 -	No Comments Submitted	0	0	0	0	0	0	0	-

2012/11/30								
v0.1 Peer - INSCOM Headquarters 2012/10/31 - 2012/11/30	No Comments Submitted	0	0	0	0	0	0	-
v0.1 Peer - INSCOM G3 2012/10/31 - 2012/11/30	No Comments Submitted	0	0	0	0	0	0	-
v0.1 Peer - ICoE - Mil Intelligence School 2012/10/31 - 2012/11/30	No Comments Submitted	0	0	0	0	0	0	-
v0.1 Peer - 66th MI BDE 2012/10/31 - 2012/11/30	No Comments Submitted	0	0	0	0	0	0	-
v0.1 Peer - 513th MI BDE 2012/10/31 - 2012/11/30	No Comments Submitted	0	0	0	0	0	0	-
v0.1 Peer - 501st Military Intelligence Bde 2012/10/31 - 2012/11/30	No Comments Submitted	0	0	0	0	0	0	-
v0.1 Peer - 500th Military Intelligence Bde 2012/10/31 - 2012/11/30	No Comments Submitted	0	0	0	0	0	0	-
v0.1 Peer - 3D MI BN (AE) 2012/10/31 - 2012/11/30	No Comments Submitted	0	0	0	0	0	0	-
v0.1 Peer - 224th MI BN (AE)	No Comments Submitted	0	0	0	0	0	0	-

2012/10/31 - 2012/11/30								
v0.1 Peer - 1st MI BN (AE) 2012/10/31 - 2012/11/30	No Comments Submitted	0	0	0	0	0	0	-
v0.1 Peer - 15th MI BN (AE) 2012/10/31 - 2012/11/30	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
UNITED STATES ARMY INTELLIGENCE CENTER OF EXCELLENCE
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FORT HUACHUCA, ARIZONA 85613-7000

ATZS-DCT

1 August 2013

MEMORANDUM FOR Director, New Systems Training and Integration Directorate
(ATZS-CDI-N), 550 Cibique Street, Ft. Huachuca, AZ 85613-7017

SUBJECT: Approval of System Training Plan (STRAP) for the Guardrail Common
Sensor (GRCS)

1. The GRCS STRAP is approved. Approved STRAP will be posted to the Central Army Registry (CAR) website: www.adtdl.army.mil.
2. Point of contact for this STRAP is Mr. Stephen McFarland, NSTID STRAP Manager (520) 533-5387 (DSN 821), stephen.j.mcfarland.civ@mail.mil.

A handwritten signature in black ink, appearing to read "Lisa K. Price".

LISA K. Price
COL, MI
Deputy Commander, Training