

TIP OF THE SPHERE

Training Insights

BY LARRY MIZE



Larry Mize graduated from Xavier University with a Bachelor of Science in Mathematics in 1973. He entered active service in the United States Navy serving a career specializing in Naval Intelligence, Aircraft Carrier Operations, Naval Special Warfare (SEALs), and Space Operations. He attended French language training at the Defense Language Institute and subsequently served as the U.S. Navy Liaison Officer to the Commander French Forces Indian Ocean/French Foreign Legion/Commandos Marine in Djibouti. He attended Naval Postgraduate School and was awarded a Master of Science in Space Systems in 1986, subsequently serving at U.S. Space Command and U.S. Strategic Command. Mize is currently Chief of Space and Ground-based Midcourse Defense Education Training.

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ARMY SUPPORTING

Train as the Army Fights!

The Future Warfare Center Directorate of Combat Development Training Division plans and executes its training mission with an annual training plan developed from capstone guidance in Army FM 7.0, “Training for Full Spectrum Operations,” FM 3.0 “Operations,” Headquarters U.S. Training and Doctrine Command and commanding general, U.S. Army Space and Missile Defense Command/Army Forces Strategic Command Annual Training Guidance, and the overall guiding doctrinal principle to Train as the Army Fights. Key to effective training is the application of multiple processes at its foundation:

- The application of U.S. Training and Doctrine Command Quality Assurance standards for Doctrine, Organization and Proponent Functions, Training, Materiel, Leader Development, Personnel, Facilities and Interfaces/ Collaboration.
- The conduct of formal Critical Task Selection Boards chaired by Future Warfare Center – Directorate of Combat Development that set the courses’ Tasks, Conditions and

Standards and support the development of Terminal and Enabling Learning Objectives.

- The planning and programming inputs to the Headquarters Department of Army Training Program Element Group to secure a viable Program Objective Memorandum training budget to support facilities, trainers and training developers, etc.
- On hand and maintained Training Aids, Devices, Simulators, and Simulations.
- Integration of the current operational environment in which Army Space Forces fight.

This edition of the “Army Space Journal Tip of the Sphere Training Insights” focuses in on several training development programs that demonstrate the process of capturing Space and Ground-based Missile Defense operations in the current operational environment as a key input into effective institutional training.

JTAGS Initial Qualification Trainers Visit

U.S. Pacific Command and
U.S. European Command Detachments

BY MICHAEL HERSH, GREG HATFIELD, CW3 JEFF SPRAGUE, MSG KWAIN STOVALL, SFC TODD AVER
(JTAGS INITIAL QUALIFICATION TRAINING CADRE)



It is important to keep the subject matter taught at the Joint Tactical Ground Station Initial Qualification Training course as current as possible. To maintain the currency of the training, earlier this year JTAGS sites in Japan and Germany had visitors from the JTAGS Initial Qualification Training course developers. Directorate of Combat Development training developers visited the sites to get the most current operating environment information, from Senior Noncommissioned Officers, for updating the critical task list and course program of instruction. Now being developed are revisions to training materials, tests, and practical exercises based on the current operating environment. Incorporated into the development of an advanced JTAGS course will be information gathered from the sites visited. An idea obtained from one of the sites, grouping students by assigned site and providing site specific training, has been put into place with the course. We would like to thank all the Noncommissioned Officers and Officers we met with for their time and input.

The information from the surveys we send out, also let us keep up with the current operating environment. The surveys are another way the field has of communicating with the school, that the subjects we are training are the tasks performed at the sites. Information gathered from the surveys improves the Initial

PACOM EUCOM

Qualification Training course and helps us develop an advanced course. The results of the survey show that a majority agrees the tasks that are trained are being performed in the field and the Soldiers being sent to the field are trained to standard. Be on the look out for another survey coming your way in another month or two, and if you have comments, please include them. We would like to thank all the Soldiers that took the time to fill out the training surveys we sent out.

Another way we try to stay current is sending senior Initial Qualification Training instructors to the Senior Noncommissioned Officer Conference. One of improvements based on comments is to spend more training time on troubleshooting and communications. To implement this, the situational field exercise will now include eight hours on troubleshooting and four hours on communications.

Since JTAGS initial employment, in 1997, there have been various physical issues, extended life cycle requirements, and obsolescence issues that will affect future missile warning capabilities. To keep up with the current operating environment, there is a requirement to replace and upgrade the transitional needs of JTAGS operational units. The installation of commercial antennae at the Initial Qualification Training location is the first step, beyond proof-of-concept, in converting all currently fielded tactical antennae. This will allow for the immediate replenishment of depot-level tactical antennae, to support the transitional needs of all forward operational units. Additionally, there will still be a need for contingency operations, meaning that JTAGS forward sites will still be required to maintain TACSTAR Antennas and Antenna Interface Units, for backup, in the unfortunate case where a commercial antenna should become inoperable. Given the proven capabilities of the new antennae, this is not a foreseeable problem.

The new commercial antennae will exceed JTAGS current requirements, by giving operational units the ability to receive GEO Direct Downlink, for the onset of new satellite constellations. It will also allow operators to utilize the new in-shelter interfaces to the communications processor that is located in the communications rack, also controlled from the primary workstation.

The new commercial antennae have limited user-maintenance, in that it is designed with safety in mind. The physical requirements do not require personnel to climb on the dish, so there is no need for direct user interface with the antennae to reacquire a target. With regard to electrical hazards, there is none. Operator interface will be at a Front Panel Control via an external antenna enclosure rack, or from the Communications Processor in the shelter. Operators will never be exposed to voltages or live circuits, and signal levels will be monitored from the spectrum analyzer, located inside the JTAGS shelter. All control actuators are electrical and not hydraulic, like the current tactical antennae. Any application of lubricants will be the responsibility of Depot Support Personnel, and not the users. All preventive maintenance activities will be conducted and documented by JTAGS Depot Support Personnel only. There is absolutely no maintenance requirement for JTAGS Personnel, on the new commercial antennae.

The new commercial antennas are able to operate in sustained winds of 75 – 100 MPH.

There is an increase in the modes that these antennas have, with special emphasis on “Track Mode”

- Two Line Element track.
- Stow position, meaning that it can be put into a stow position from the shelter, rather than stowing it manually.
- There is a Store Position, or Safe Position, that can be utilized from the shelter, with regard to irregular weather conditions.
- Recall Position, for the antenna being pointed to a previous, saved position. The operators can select this from the communications processor.

Lastly, these antennae are “Receive Only,” and there will be no “Transmit” requirements, which eliminates any associated radiation hazards.



DCD Trainers Onsite in Alaska and Colorado

Article written by the USASMDC FWC-DCD Collective Training Team: Michael Madsen, Chris Berisford, Mark James and Lindsey Lawton

A new Integrated Electronic Security System is being installed at Fort Greely, Alaska. This system is replacing the Electronic Security System and the Perimeter Surveillance System. The U.S. Army Space and Missile Defense Command Future Warfare Center – Directorate of Combat Development Collective Training Team had developed an interim Electronic Security System training support package to assist the 49th Missile Defense Battalion with its operator qualification and sustainment training until the new integrated system was projected to become operational. During the initial Integrated Electronic Security System Training Working Group meeting Jul. 22, 2008, the Missile Defense Agency and Sandia National Labs informed USASMDC G-3, 100th Missile Defense Brigade, and USASMDC FWC-DCD that a new operational software and radar technology were being installed and would be effective mid-October 2008. The new system is the enunciator that controls all electronic security devices on the Missile Defense Complex. The radar technology provides extended detection for the Missile Defense Complex.

Because of the installation of the new current operational systems, a new training program needed to be developed. Sandia National Labs and the USASMDC FWC-DCD Collective Training Team worked together to develop the training package, with the intent being a train-the-trainer program. Training was conducted at Fort Greely, Alaska, Sept. 29 – Oct. 3, 2008. Ten Soldiers of the 49th Missile Defense Battalion and one member of the contract security force were trained on the new system, as well as the radars. At the successful conclusion of training, a complete Training Support Package was left with the

49th Missile Defense Battalion so that they could continue to train additional Soldiers. Once the Integrated Electronic Security System way ahead is determined, the USASMDC FWC-DCD Collective Training Team will continue to work with Sandia National Labs in the development of additional training products for the new system.

Other USASMDC FWC-DCD Collective Training Team projects incorporating the current operational environment are Ground-based Missile Defense, Space, AN/TPY-2, and Core Mission Essential Task List collective training products. The Mission Training Plan and Crew Drills are being updated for both the 100th Missile Defense Brigade as well as the 49th Missile Defense Battalion due to system upgrades to the Ground-based Missile Defense Fire Control. Working closely with the 1st Space Brigade, USASMDC FWC-DCD just completed the Space Commercial Exploitation Team Mission Training Plan that was approved in June 2008. The Mission Training Plan for the Army Space Support Team is undergoing the final staffing and approval process. The Mission Training Plan and Crew Drills for AN/TPY-2 Sensor Management are in the initial phase of development. Assistance has been provided to USASMDC G-3, 1st Space Brigade, and the 100th Missile Defense Brigade in developing their Core Mission Essential Task List, which will eventually be inputted into the new Army Consolidated Online Database. The Space and Missile Defense brigades will be able to access this training database through the Digital Training Management System.