

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.

larry.mize@smdc-cs.army.mil
(719) 554-4545

JTAGS Individual Qualification Course Commandant, CW3 Jeffrey Sprague presents a photo to the new JTAGS - Europe, Alpha Detachment Commander, CPT Keith Woodburn.
Photo by DJ Montoya



+++++

FA40

In 2001 when U.S. Army Space and Missile Defense Command's Future Warfare Center DCD institutional training commenced it did so with one course, the Functional Area 40 Space Operations Officer Qualification Course (SOOQC 01-01) with a total of fourteen students. I often refer to the early years as DCD's "One Room School House" period. Since then, fifteen classes have graduated 322 students to include core FA40 students, and U.S. Air Force, U.S. Marine Corps, Reserve Component, National Guard, officer, warrant officer and noncommissioned officer students from E-5 to O-6.

The Space Operations Officer Qualification Course training went from seven weeks initially to now 10 weeks. Within this 10 weeks of instruction, students benefit from attending the National Security Space Institute (NSSI) Space 200 course, receive special programs training associated with special technical operations, endure the rigors of being exposed to and tested in those tactics, techniques and procedures developed through nearly eight years of Space operations support to combat operations, and lastly enjoy a more relaxed learning experience with field experience trips to the west coast (Joint Space Operations Command, Joint Functional Component Command-Space, 14th Air Force, SMC, Boeing and Northrop Grumman) and Washington, D.C. area Space organizations.

Infrastructure investments were made in 2003 with the construction of the DCD Sensitive Compartmented Information Facility classroom, 2005-8 with staff additions, and major information technology improvements in 2008. The "One Room School House" now looks mighty state-of-the-art. Student class sizes are now up to 28 versus the 14 in 2001 with the original 01-01 class.

+++++

JTAGS

Through a 1st Space Brigade commander and Director, Directorate of Combat Development signed memorandum of agreement effective May 1, 2008, DCD assumed the institutional training responsibility for the Joint Tactical Ground Station (JTAGS) Operator Individual Qualification Training Course – a perfect fit for the command's institutional trainers vice an operational brigade. Capitalizing on an already quality training program established by the 1st Space Brigade, DCD in its partnership with the brigade is furthering this legacy. A Brigade warrant officer and a DCD Department of Army civilian training developer serve as course managers, brigade noncommissioned officers serve as instructors and provide logistics support, and U.S. Navy and DCD contractors augment Individual Qualification Training operations. Most noteworthy is the recent addition of two DCD temporary duty assigned noncommissioned officers to the JTAGS Individual Qualification Training Team (proof positive that the manpower survey accomplished in 2005 paid dividends). In December, after graduating the sixth 2008 course (38 JTAGS Operators graduated in 2008), a major information technology capital improvement project was undertaken to move JTAGS training course operations from a paper environment to a paperless/online network. No longer will lessons, tech manuals, tests, etc., be printed. All training development and instruction will reside on a close internal network with students having their own docking port, all supported by an internal local area network. For the JTAGS shelter, three permanently emplaced new commercial 12-meter dishes will be installed this month as well as software P3I updates.

Tactical Space Operations and Space Operating System **SOS**



Given the normal permanent change of station cycle of our tactical Space forces, the Directorate of Combat Development (DCD) supported a variety of training and leadership education efforts for ten new Space Support Element Teams this past year (three “first generation” teams and seven “second” or “third” generation teams – 82nd Airborne, 1st Infantry Division, 1st Cavalry Division, 1st Armored Division, 2nd Infantry Division, 3rd Infantry Division, 10th Mountain, 25th Infantry Division, 40th Infantry Division, 42nd Infantry Division). Throughout 2008, DCD continued supporting these new Space Support Element teams through the Battle Command Training Program by providing onsite Observer-Trainer support to four Division level Mission Rehearsal Exercises [1st Cavalry Division, 25th Infantry Division, 2nd Infantry Division, 10th Mountain Division] and one Corps level Mission Rehearsal Exercise (1st Corps). In preparing our Space Soldiers for these Mission Rehearsal Exercises, the DCD training conducted seven Tactical Space Operations Courses, six in Colorado Springs, Colo., and one mobile Tactical Space Operations Course at Fort Drum, N.Y. This 40-hour course provides training to deploying Army Space Support Teams and Space Support Elements on Space operations Tactics, Techniques and Procedures in the Central Command Theater. In the second half of 2008, DCD training also provided Space operations Observer/Trainer support for two Army Central Command (3rd Army) Exercises in Kuwait as they prepared their newly forming command posts for combat deployments.

Leadership development/education efforts in 2008 included one Training Assistance Visit to the 34th Infantry Division (Minnesota Army National Guard) when DCD trainers met with each staff section and the command group of the 34th to brief them on Space Support Element support and Space operations in the Central Command Theater. Over the NIPRNET, DCD compiled and released 32 High Ground Newsletters, each containing multiple Space-related items, articles, documents and issues for the benefit of tactical Space operations and those who provide this support. Much of the information on the latest Space tactics, techniques and procedures issues, and emerging Space capabilities which is incorporated into our Tactical Space Operations Courses, Mission Rehearsal Exercises Master Scenario Events Lists, leadership education briefs and High Ground Newsletters, is derived from the multiple “debriefings” of Army Space Soldiers once they have redeployed. These debriefings conducted by DCD, investigate, capture and document the latest Space-related issues, lessons, gaps and recommendations on how to better develop our Space Soldiers and deliver relevant Space support to the ongoing and ever-changing wartime requirements.

Complementing these successes was the formal transition of SOS Space analytical tool/software applications training from the Future Warfare Center Battle Lab to DCD. Effective Sept. 1, 2008, DCD now pulls under its institutional training umbrella another course — the SOS training that supports Space Support Element, Army Space Support Team and Commercial Exploitation Team Space warriors. As with other courses, improvements were made to facilities and the Battle Lab continues to support with technology upgrades to hardware and software.

+++++

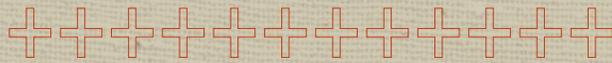
Army Space Cadre

The 2008 Summer Edition Vol. 7, No. 3 provides the most recent update to available online resources for professional development of the Army Space Cadre. In 2008, the National Security Space Institute was able to develop and pilot the first iteration of an online distance learning Space Fundamentals Course. DCD will continue to update this initiative and publish information on how to register for this course as soon as the National Security Space Institute goes to full implementation. For those organizations that prefer residence Space training, the two-week National Security Space Institute residence Space Fundamentals Course is available. However, to mitigate temporary duty station costs, the Future Warfare Center DCD does have a mobile 40-hour Army Space Cadre Basic Course that can be taken by requesting customers. Over 200 hundred Army Space Cadre members have taken advantage of this home station Space training twice at Redstone Arsenal, Ala., and at Colorado Springs, Colo., and Fort Monroe, Va. Feel free to contact DCD if this training option is of interest.

+++++

Space and GMD: Collective

In addition to the institutionalized courses described above, is the critical training done with the development, writing and fielding of collective training products that directly support 1st Space Brigade, 100th Missile Defense Brigade and assigned Battalions. The Directorate of Combat Development training developers and subject matter experts author Mission Training Plans and Crew Drills that facilitate Brigade and Battalion training. They also perform courseware training development associated with fielding Training Development Plans, Target Audience Descriptions, mission/job analysis Total Task Inventory Lists, and Student Evaluation Plans. One of the last processes prior to course design is development of course critical tasks and conducting the formal process of a Critical Task Selection Board which sets the program of instruction, tasks, conditions, standards and learning objectives. Every course discussed above benefits from this formal Army Systems Approach to Training methodology.



Army Proponent Schools and Joint

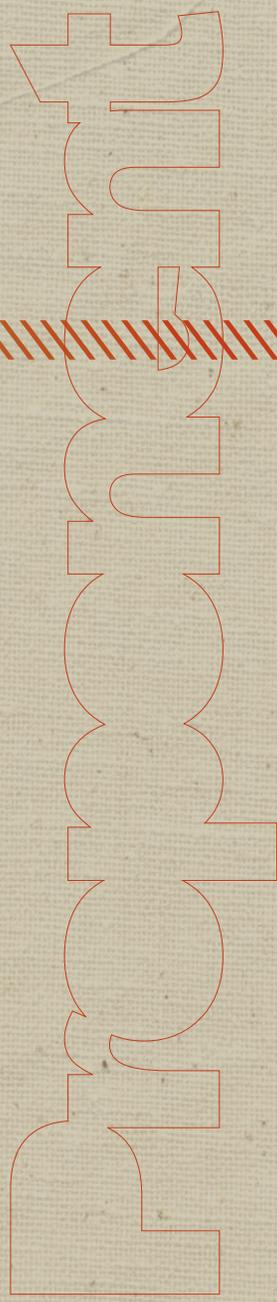
Recurring Space education and leader development continues in support of the greater Army. Quarterly, Directorate of Combat Development trainers support the:

- U.S. Army Intelligence Center and School with instruction in the Captains Career Course, Pre-Command Course, Imagery Intelligence, Signal Intelligence and Strategic Intelligence Courses.
- U.S. Army Fires Center of Excellence and Fort Sill, Okla., in the Joint Operations Fires and Effects Course and the Army Operational Electronic Warfare Course. For the future, DCD looks to integrate into the new Functional Area 29 Electronic Operations Officer Qualification Course and the Fires Center of Excellence Pre-Command Course.
- Joint Special Operations University.
- Army War College.

Through a resident DCD Space professional Department of Army civilian educator assigned to the Command and General Staff College, onsite daily Space education is provided to Fort Leavenworth, Ky., the Combined Arms Center, and Command and General Staff College schools. Core to this is the direct support of the third most sought after elective of the Command and General Staff Officers Course – “A537 Space Orientation” and “A543, Space Operations.” Completion of A537 and A543 meet the requirement for the 3Y Additional Skill Identifier “Space Activities.” Further educational support is provided to Command and General Staff College Masters of Military Arts and Sciences program, Advanced Operational Arts Studies Fellowship program, as well as the School of Advanced Military Studies.

Continuing into its seventh year is the strong partnership DCD has established with the U.S. Air Force National Security Space Institute. Two Future Warfare Center DCD Functional Area 40 lieutenant colonels are assigned full time in-residence to the National Security Space Institute and in the fall of 2008, U.S. Army Space and Missile Defense Command assigned Army COL Michelle Putko to the National Security Space Institute where she serves as Dean. National Security Space Institute Space 200 and Space 300 courses are the cornerstones of this partnership and directly contribute to life long learning and professional development of Functional Area 40s. The Institute’s other course offering as discussed above supports Army Space Cadre education and training. In-depth professional development and education in select mission areas are also accorded to Army Space professionals through attendance at the:

- Missile Warning and Defense Advanced Course
- Advanced Orbital Mechanics Course
- Satellite Communications Advanced Course
- Director of Space Forces Course





Ground-based **GMD** Midcourse Defense Operators and AN/TPY-2 Sensor Managers

In 2003, formal Ground-based Midcourse Defense (GMD) institutional training commenced with the first of 14 GMD Operator Courses. Since then, 184 Active Component, Reserve Component, National Guard Army, U.S. Navy, and U.S. Air Force officer, warrant officer and noncommissioned officer students have graduated. After two years of analysis and development, Directorate of Combat Development (DCD) formalized its newest course, the AN/TPY-2 (FBM) Sensor Manager Qualification Course. With the pilot in the spring of 2008, four classes have graduated thirty-eight officer and noncommissioned officer Army, U.S. Air Force, and U.S. Navy students from U.S. Pacific Command and U.S. European Command Aerospace Operations Centers and the 94th Army Air and Missile Defense Command.

In the similar best-business-practice partnership between DCD and National Security Space Institute for Space education and training, GMD training leverages the same synergies with a DCD-Missile Defense Agency partnership. GMD Operator Courses are conducted at the GMD Training and Exercise Center, a Missile Defense Agency operated facility. Formalized through a Missile Defense Agency and Future Warfare Center signed agreement on Mar. 1, 2008, the initial step at transitioning GMD training from the Missile Defense Agency to DCD was established. DCD was designated the GMD Operator Course Manager with bilateral responsibilities codified. In the same regard, DCD has received paralleled support from the Missile Defense Agency as it develops and matures the Sensor Manager Qualification Course.

FA40 PPO & ASCO Organization

