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WAR GAMING: SPACE PERSPECTIVE

“Those who refuse to learn from history are doomed to repeat it.”

— American philosopher George Santayana

By Jeff Miller

I'd like to discuss WAR GAMES, no, not that movie with Mathew Broderick where the super computer asks, “Would you like to play a game?” No, I want to talk about modern day real war games and how we use them to better prepare ourselves for the future. As the above quote suggests by asking the right questions today, we may prevent mistakes from being made in the future.

When a request for war game support comes into your office what is the initial reaction? Enthusiasm? Probably not. More likely dread, frustration, coupled with reluctance and consternation. A number of participants, especially active duty military get picked at the last minute and therefore they don't feel fully prepared in advance for the war game and thus do not easily integrate into the war game process. When they arrive at the event they sometimes find themselves in a group or section that they feel doesn't best utilize their expertise ... or they may feel completely under utilized. If you have felt this way let me remind you of something, “It's not all about you!” In fact if you are not being utilized to your full potential then you are missing out, big time. If you find yourself surrounded by people from many varied backgrounds and incredible levels of expertise ... Talk to them! This is an amazing learning opportunity for you. You may be there to represent your flag. You may be there to “take notes” or sit quietly in the back until your boss turns to you for your expertise. No matter, just by being there you are privy to an experience that few in our country, or the world for that matter, have an opportunity to go see and learn from.

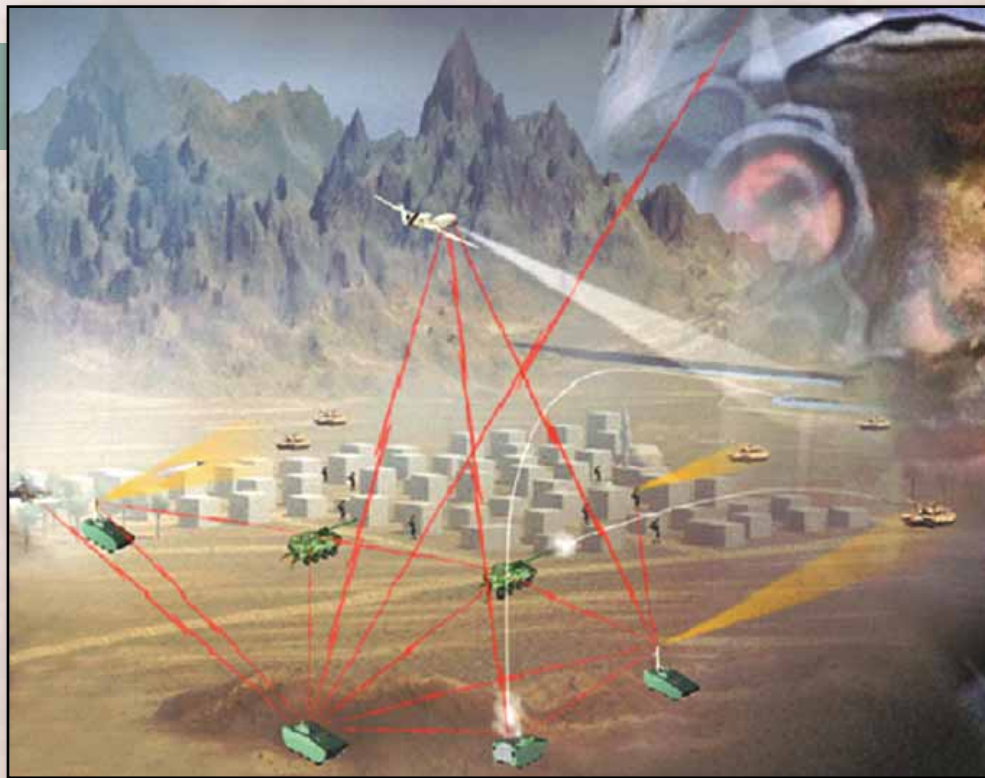
Ok, now that I have vented, let's back up a minute and define just “what is a war game” and “what makes it different from an exercise or an experiment?” From there we can talk about how Army Space prepares for them. An exercise is a military maneuver or simulated wartime operation involving planning, preparation and execution. It is carried

out for the purpose of training and evaluation. It may be multinational, joint, or a single service exercise, depending on participating organizations.

Exercises are the “now,” using existing capabilities and procedures. People play in the event the same manner they do as their regular jobs with the same equipment, per se, same concept of operations and checklists. The emphasis is on proficiency. Examples include Global Guardian, Terminal Fury, Roving Sands, Nimble Titan and Ulchi Focus Lens.

Experiments are discrete, single events or progressive, iterative simulations (constructive, virtual or live) that assess the military utility/potential for a new or revised doctrine, organizations, training, leader development, materiel, personnel and facilities concept or new technology to satisfy user needs. Data is gathered through a designed event or through a data collection effort subordinate to a field/training exercise involving field units and Soldiers. Experiments are conducted using the team approach. The focus is on a specific capability or technology opportunity. The experimentation process consists of conceptualization, planning and reviews, approval, execution, decision and possibly exploitation. Whether conducting experiments or designing experiments to be done elsewhere, Battle Labs are the central focus for all experiments and this leads to requirements within their battlefield dynamic area. Experiments where the focus is five to 10 years out use some future but “in the works” tools/assets. Notice I didn't say POMed. Examples include Joint Project Optic Windmill, Joint Expeditionary Force Experiment, Total Defender and Northern Edge.

A war game is a simulation, by whatever means, of a military operation involving two or more opposing forces using rules, data and procedures designed to depict an actual or assumed real life situation. War games are 15-20 years out and use future concepts to face a “near-peer” op-



Images like the one at left give a visual depiction of how systems are supposed to work in conflict situations. Notional systems are often used in war games to give the players experience on what may lie ahead for them. War games also provide the capability to validate current and future organizations, equipment sets, concept of operations and missions within the construct of what the future Army and joint forces structures will be. This strengthens the command's ability to exercise and visualize new concepts and ideas.

ponent. In today's war games we are allowed to utilize "notional" systems, such as the airborne laser, the F/A-22, the High Altitude Airship and others. By "gaming" these future systems we can look at issues such as employment, command and control, support and integration in a joint environment. Examples include Schriever III, Unified Quest and Sea Viking.

The war games team of the Frontiers Division element of U.S. Army Space and Missile Defense Command/U.S. Army Forces Strategic Command's Futures Warfare Center is run by LTC Joseph Dreiling, a former artillery officer and former watch commander in the SMDC Operations Center, who explains the mission of the War Gaming Space Division this way:

"We participate in war games to observe new concepts and emerging doctrine in simulated tactical, operational and strategic venues. Our mission is also to validate current and future organizations, equipment sets, concept of operations and missions within the construct of future Army and joint forces thereby strengthening the command's ability to exercise and visualize new concepts and ideas. This improves command situational awareness and influence, and avoids unnecessary and redundant war gaming investments."

The Space division is focused on examining Space capabilities within emerging joint transformational concepts focusing on the Joint Task Force's ability to achieve decision superiority, create coherent effects and support distributed operations.

Take the High Altitude Airship or some other near-Space platform. These are future concepts, some still on the drawing board, but through war gaming we can answer some of the, who, what and how questions that ensure we field a product that meets the Army's needs. War gaming can and will increase confidence that critical issues address prior to IDO as well as obtain hard data to push the Missile Defense Agency and Joint Program Office on important issues and achieve critical first steps in influencing Integrated Missile Defense.

Post IDO, these findings lead to developing quantifiable Joint

Universal Lessons Learned System inputs, increased ability to track combat developer issues and an increased ability to influence Integrated Missile Defense and Integrated Air and Missile Defense development. In this way the Futures Warfare Center serves as the force developer and single integrator for the Army Space and missile defense operational concepts and requirements, ensuring the development of doctrine, organizations, training, leader development, materiel, personnel and facilities solutions that support both the warfighter and successful development and fielding of Space and missile defense capabilities.

With limited resources Dreiling's team can't attend every event on the calendar thus they "rack and stack" in order to plan, coordinate, participate in and assess those events which will achieve the following:

- Allow data collection to examine the effects of future counter communications and counter EO systems and concepts on the warfighter.
- Allow data collection to determine critical Space-based needs and future acquisitions in order for the SMDC commanding general and chief of staff of the Army to engage with the joint community.
- Determine the necessity and potential future configurations of an Army Space Authority, Space Support Element and Army Space Support Team.
- Provide a venue to integrate Space and Missile Defense Battle Lab limited objective experiments based on objectives.
- Minimize obstacles such as classification level, knowledge base of players, sim/modeling and scope.

"Our goal here in Army Space," says Dreiling, "is to provide world-class Space support to the joint warfighter and national security Space team. To meet that, we have a process by which we detail an evaluation/assessment plan to facilitate quality results. We don't respond well to last minute, "Hey you!" type taskings, then just show up to an event and take notes. That's no way to answer
(See *War Gaming*, page 52)

the mail and support the warfighter. If you did business like that you could easily get distracted by “something shiny” and miss a truly valuable learning point.”

George Luker, or Luke, a contractor supporting Dreiling, feels the planning process has allowed the Futures Warfare Center to maximize their level of participation, “At the last UQ05 we had a major in the Red Cell, two lieutenant colonels in Blue, a contractor in the Request For Information cell and a contractor in the Assessment cell all focusing on “Space.” It was a quality spread that allowed us to see all sides of an issue.” He goes on to explain his observation/analysis process this way;

1. Observe/collect based on collection plan
2. Input findings into database
3. Analysts review and conduct the “So What!” test
4. Analysts go back to the observer for follow up questions/issues
5. Team makes final resolution of

finding

6. Findings are forwarded

These findings are the critical piece that will lead to changes in the way we will do business in the future, but how do they get back to the warfighter?

Following the collection plan and unsolicited observations we draft an Initial Impression Report followed by After Action Reports. This leads to a report in the Center for Army Lessons Learned system (Fort Leavenworth). From there the actionable items go to Training and Doctrine Command Schools, Combat Training Centers and are distributed to Army forces worldwide to execute.

In the past year, I have attended several war games and experiments and in doing so, I have learned about things outside the Space realm like Intel, Information Operations. Psychological Operations and even non-lethal weapons. In addition I have made many contacts at these events so that when my boss asks if I know about a

certain development or future system I can say, “No, but I know someone who does.”

I hope this helps and that now, that you see the process and that your inputs are important, so the next time a tasker comes across your desk with the heading of “WAR GAME,” you won’t groan. I hope that you will look on these events as I do, a great opportunity to learn and be a participant in a great experience that helps build a better Army tomorrow.

Jeff Miller is a former Marine LTC currently working for U.S. Army Forces Strategic Command as a contractor in the Space and Missile Defense Battle Lab, War Gaming Division. His military experience includes eight years each as a CH-46 pilot and as an Air Defense Control Officer before moving into the Space field. He has served in a variety of command, staff and joint assignments from Bosnia to Cheyenne Mountain and is a graduate of the National Security Space Institute Space 200 course. He is currently working on his Master’s in Space Operations.