Recognizing What is Useful

All military laws and military theories which are in the nature of principles are the experience of past wars ... We should seriously study these lessons ... We should put these conclusions to the test of our own experience, assimilating what is useful, rejecting what is useless, and adding what is specifically our own.

— Mao Tse-tung, Selected Military Writings

By LTC Joseph S. Dreiling

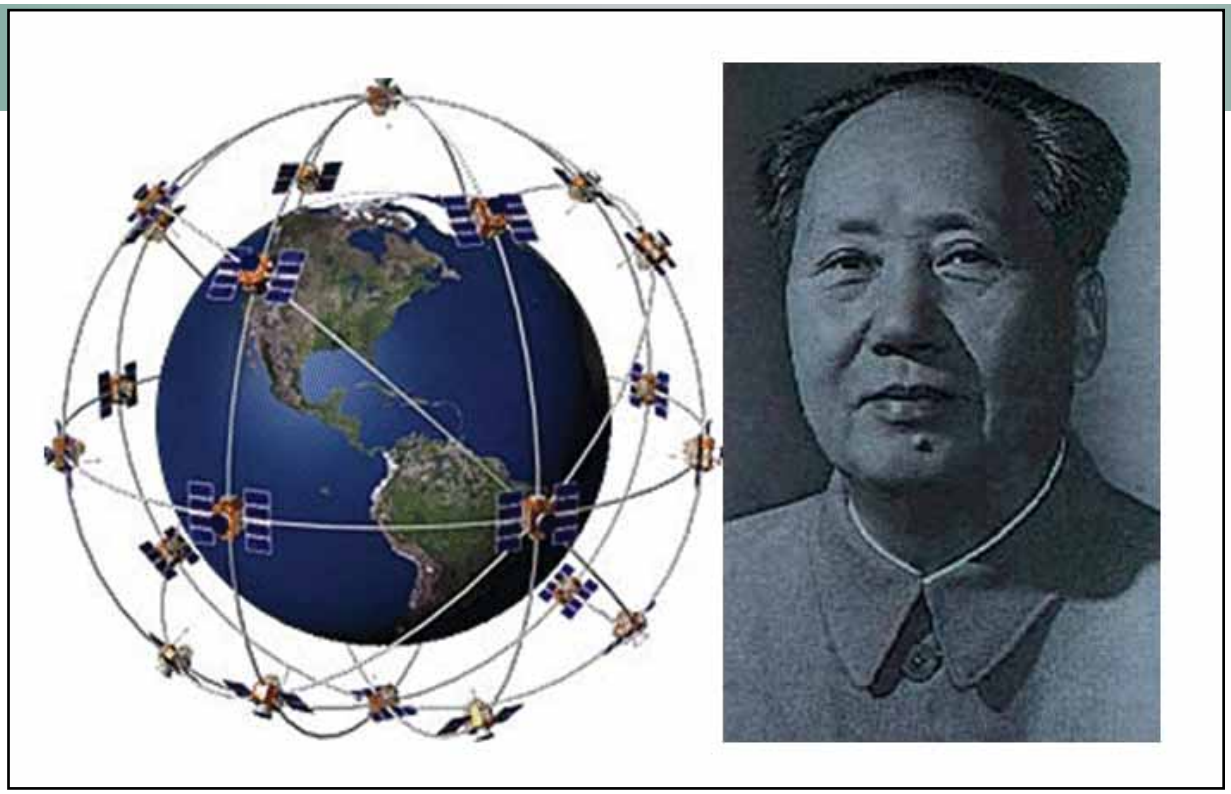
Mao Tse-tung made a great point with the above statement. We, the U.S. military, used Space extensively in battle for the first time during the first Gulf war, and in it, we learned how Space might be used, but we have yet to learn all of how it can be used. I base my statement on the continuing debate over whether Space is a medium, a mission or both. Space can be a great enabler to many missions. Foremost among those I believe to be Information Operations. When we learn how to coordinate Space capabilities with Information Operations we may be able to move beyond a leap to armed conflict in world relations or at the very least mitigate the damage resulting from relationships that lead to strife.

Theories concerning international relationships, like sand on the beach, are based on an ever changing slate of causes and effects requiring constant re-evaluation of our conclusions. If in the future we as a nation are to be successful in our goal to provide safety and security for our citizens we must recognize the changes and challenges now taking place and not merely react to those changes but actively work to forge ahead of events in order to shape them. The nature of warfare does not change. New advances in technology or developments in organizational structure still have the same goal; defense of the nation. However, advancements in technology and mutations of social organization do play important roles on the battlefield.

At the beginning of the Industrial age, America was still fielding armies with pre-Industrial age field formations. We had clearly not kept pace with technology and we paid with heavy losses in our own Civil War. The United States fought a Napoleonic style war with emerging Industrial age weaponry. With the advent of the automated information age we must be aware of necessary changes needed to meet emerging challenges on the battlefield.

Every transformation in technology has led to a requisite increase in the speed of warfare and the lethality of the weapons used. Lethality reached its destructive climax with the use of nuclear weapons against Japan. The drive now is toward maximum target effect with that absolute minimum of collateral damage, or "effects based warfare." But even in this we must not forget that the effect we seek is meant to inflict pain upon an enemy to dissuade him from a course of action contrary to our own self interest. With this in mind we must be aware of the collateral damage we inflict upon ourselves in the media; again Information Operations comes into play. If we continue our leadership in the creative use of Space and near-Space in support of Information Operations we will have the advantage of mitigating damage inflicted in the world of public perception. In most cases it is not the event that does the damage but the perception of the event.

World War I witnessed the advent of armored support to the ground forces, submarines to the navy and airpower which added a third dimension to the battlefield. These advances provided combatant states with the ability to reach into enemy territory much deeper then had been possible and bring warfare to the home front. World War II witnessed the fielding of aircraft carriers, long range bombers, jets and atomic weapons, all of which pushed combat effects just that much further up the destructive scale. All improvements since then have been based upon these devices, save one, the computer, which has heralded the



emergence of the automated information age. Information has always been a battlefield weapon, but it is only since the introduction of the computer that speed of information application has been a direct result of technology. Moving information through Space allows us now to put that information anywhere on the globe that we need it, when we need it, in most cases.

From room sized relatively low powered computers such as UNIVAC, to the desktop PC … computing power has increased exponentially. Decision making and communications have become increasingly faster, but some might argue not more efficiently. The more powerful information transfer and sharing becomes, the more lethal the battlefield will be. Information control and computing power has also added an element of pinpoint destruction far to the rear of what was once thought of as the front. Add to this the dimension of Space and the front really has no meaning, especially when applied to combat against non-state adversaries. When it becomes necessary to combat non-state actors, an awareness of state borders is still paramount. For that reason, battle using Space as the medium, will many times be confined to the sensor and information control field of battle. As sensors become more refined and information concerning an enemy becomes broader we will be capable of either cutting off funding to non-state enemies or coordinating special operations actions with a state within which a non-state enemy may be basing.

With the emergence of the "shared" information age we cannot afford to fight our present and future enemies using "pre-shared information age thinking." Our new enemies may not be tied to a past bureaucratic history nor have a military rooted in massive force-on-force power projections. We must recognize the speed of the shared and automated information age and apply not only new weapon systems, but new organizations designed to fight in this new automated world. These contemporary organizations have begun to take shape with the "plug and play" military units that are presently being fielded. But do these new unit organizations fully address the present changes? Will these changes and improvements also have the necessary foundations to address the cultures we must confront completely?

If we had a better understanding of cultures and how they work we would understand how to better posture ourselves in relation to them. Many times our posture toward them could spell the difference between "saber rattling" and armed conflict. We can use our Space assets to convey an Information Operation message and send the necessary position that will defuse a situation. In this area, the business world is far beyond governmental institutions in its understanding of other cultures. Examples of this approach to the world are present in the advertising used by multi-national corporations. Because business today is no longer confined to state drawn borders, it is now incumbent that they understand other cultures. Meetings that used to entail weeks of travel and coordination now take place in minutes with little or no travel involved.

In the case where conflict becomes inevitable, the military will become involved. In those instances, understanding an enemy's belief system will enhance our ability to carry out defined, well directed conflict resolution. Directing those operations with speed and precision will require the use of Space assets and Space enhancement to ground operations.

Space is bound to be a medium and a mission that will support and enhance all operations. We must recognize that emerging technologies will create Space related missions that would, at present, be labeled as a non-traditional Space mission. The speed of progress dictates that this must happen and we must creatively leverage each advancement. We must use those developments to support our maneuver and get ahead of our opposition.

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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.

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The speed of change will aid creativity in our quest to outmaneuver our adversaries wherever they may be, but we must consider non-traditional Space and what that could entail at some time in the future. We must examine concepts of non-traditional Space that is as divorced from present thinking as to be unthinkable. I am speaking of ideas that with present technology are cost ineffective or considered science fiction. It could also be so simple and low cost, that it has not been seriously considered. In addition; non-traditional Space will be that Space not covered by present international Space treaty. These changes and advances will make the jobs of our limited cadre of Space lawyers that much more important.

With the constantly changing elements of warfare the military must and will change to meet the need. Many of those changes have already taken place or are in the evolutionary process. We now have military elements tailored to meet the threat and the path of an officer's career has also begun to change. The branch system which has been in place since the late 19th century has now been supplemented by functional area designations, which indicate an officer's additional specialized training beyond the branch he or she might has been assigned at commissioning. Those functional areas highlight what have developed into important areas of expertise. The Information Operation community has its FA30 and the Space community's FA40. Space is and will continue to be a growing area of importance for the Army as will near-Space.

With the advent of near-Space and SMDC's prepotency for the mission we have the perfect medium for the application of the Information Operation mission. It is far more flexible than Space and more cost effective. Because of the new emphasis on doing more with even less, the coordination of Space and Information Operation will become more important and more effective in the field.

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