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CLOSE AIR SUPPORT AND THE DIGITIZED DIVISION - AN AIRMAN'S PERSPECTIVE

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Editor's note: This month's Blast From the Past article was written just before the start of the War on Terror and focuses on using then-newly fielded technology to increase lethality on the battlefield during large-scale combat operations. Readers will notice the parallel to our feature article published on November 1st, "Winning the Counterland Battle by Enabling Sensor-to-Shooter Automation". Both articles, written 20 years apart, focus on reducing the time required to identify and destroy targets on the modern battlefield.

A US Army mechanized infantry division advances and engages a motorized rifle regiment, a tank brigade, a divisional artillery group, and a rocket artillery group in-depth. In the close fight, an Air Force Tactical Air Control Party (TACP) talks a two-ship of Air Force A-10s onto enemy armor in close proximity to friendly ground troops with no fratricide. Despite the friction of battle, the TACP maintains remarkable situational awareness of both friendly and enemy troop locations. The battalion air liaison officer (BALO) deconflicts fires and coordinates suppression of enemy air defenses (SEAD) through the battalion fire support element.

As night falls, Joint Surveillance Target Attack Radar System (JSTARS) locates and tracks the enemy's second echelon forces. The division G-2 uses JSTARS data to cue an unmanned aerial vehicle (UAV) to verify high-value targets. The division launches its deep attacks using attack aviation, close air support (CAS) aircraft, and fire support assets. 155-mm artillery and Multiple Launch Rocket System (MLRS) fire en route and target area SEAD in support of the deep attack. The division air liaison officer (ALO) is sitting between the division fire support coordinator and the aviation liaison officer in the division tactical operations center (DTOC). Together they are able to monitor and assist the joint air attack team (JAAT) operations. Air interdiction (AI) sorties are attacking centers of gravity in the enemy rear while the plans ALO in the DTOC is working with the targeting cell to plan the next deep attack and to refine AI target nominations for the next three air tasking order (ATO) cycles.

The effects on the enemy commander's scheme of fire and maneuver are devastating. Before he can engage US forces with direct fire weapons, significant portions of his maneuver units are rendered combat ineffective by indirect fire and air attack. With no safe haven, he is confused and overwhelmed. His adversary seems to know the disposition of his troops better than he does. How can US forces act faster and more decisively than he? How can US forces mass their fires so quickly? The synergistic effects of US air and land power shape the battlespace in-depth providing insurmountable dilemmas for the enemy commander.

Is the above scenario from a Tom Clancy novel? At the 4th Infantry Division Mechanized (4ID[M]), this scenario is becoming a reality thanks to Force XXI and a new generation of command and control (C2) equipment. The Army Battle Command System (ABCS) allows all echelons from tactical to strategic to share more relevant information in near real-time. This is an exciting time for 4ID(M) and the 11th Air Support Operations Squadron. We are working to develop tactics, techniques, and procedures (TTP) to use with this new generation of C2 tools to dominate the battlespace.

Tankers with Alpha Company, 2nd Battalion, 116th Cavalry Brigade Combat Team, conducts platoon live-fire gunnery qualification Feb. 4, 2019, at the Orchard Combat Training Center. (Photo by 1st Lt. Robert Barney, Idaho Army National Guard; https://www.dvidshub.net/image/5214851/tank-live-fire)

ABCS is composed of the Army Global Command and Control System (AGCCS), the Army Tactical Command and Control System (ATCCS), and the Force XXI Battle Command Brigade and Below System (FBCB2). AGCCS modules interface with shared components of ABCS and with the joint applications on the Global Command and Control System (GCCS). ATCCS's infrastructure systems are composed of the Maneuver Control System (MCS), Advanced Field Artillery Tactical Data System (AFATDS), All-Source Analysis System (ASAS), Combat Service Support Control System, and Air and Missile Defense Work Station (AMDWS).

These modem digital tools do not replace the need for a thorough understanding of the basic skills of our military profession but enhance our ability to apply those skills for decisive operations. Let us explore how the ALO, TACP, the aviator, and their Army counterparts will use the capabilities of ATCCS and FBCB2 to plan, prepare, execute, and assess military operations. It is our ability to perform these tasks better and faster than our enemy can that is the key to dominant maneuver and decisive victory. Coordinated air and land operations enable us to maneuver, shape the battlespace in-depth, and reduce the manpower and material cost in the close battle.

Plan

In the planning phase, we tum the commander's intent into a scheme of maneuver to achieve the desired end state. The ALO and the ground commander must determine how the unique effects of airpower can shape the battlespace and enhance the scheme of maneuver and surface fires. Accurate information is key to planning. We have to know the enemy's current situation and projected course of action before we can plan our maneuver to defeat him. There are a number of intelligence, surveillance, and reconnaissance (ISR) assets in use today that can accurately locate and identify targets by use of visual, infrared, synthetic aperture radar, or other electronic means. In the past, the data from these assets were limited to echelons above the actual combatants and required relay down through consecutive levels of command. Timely access to these ISR products is vital to the intelligence preparation of the battlefield and course of action analysis.

Prepare

In the preparation phase, we orchestrate the elements of fire and maneuver in time and space. It is here that the details are addressed. In the past, the complexity of this preparation and detailed integration took valuable time. There was a tradeoff between effectiveness of fires, safety, and time. Now coordination can be done in minutes using ATCCS without a penalty in effectiveness or safety.

To assist in preparing shaping operations, the division ALO at the Division Tactical Attack Center (DTAC) and the brigade ALO at the Brigade Tactical Operations Centers now have access to the JSTARS picture and the organic UAV picture to help detect and then cue aircraft to high-payoff targets. The DTAC and the DTOC also have the entire suite of ATCCS to provide ready access to current situation reports, intelligence, and contact reports that assess enemy strength and movement, as well as the status of friendly forces. In short, members of the combined arms team share a common relevant tactical picture of the battlespace to facilitate coordination.

The airspace above the battlefield is a joint medium traversed by manned and unmanned aircraft as well as rockets and artillery shells. To prevent fratricide of friendly air assets, timely and detailed integration is required as fires shift in time and space. ATO and airspace coordination order information is now fed from the Theater Battle Management Core Systems to AFATDS for dissemination throughout the ATTCS architecture. Airspace coordination measures are used to provide a degree of protection for CAS aircrews from friendly surface and air defense fires both in the target area as well as during ingress and egress.

Airpower is applied in concert with maneuver and surface fires and airborne assets to maximize the effect on the enemy. CAS aircrews rely on surface fires to provide en route and target area SEAD. AFATDS integrates, automates, and facilitates fire support operations and planning. AFATDS processes information for all fire support assets, cannons, missiles, attack helicopters, air support, and naval gunfire. Fire missions, fire support control measures, and airspace control measures can be turned on or off more quickly throughout the division, giving the enemy less time to recover and react while still providing a high degree of protection from friendly fires and enemy air defenses for CAS and Army attack aviation aircrews.

Execute

In the execution phase, we conduct and monitor operations. Situational awareness and relevant information are the keys to the coordination of CAS, the deconfliction of artillery, and the prevention of fratricide. In a nonlinear battlespace, as experienced in Kosovo or in urban terrain, the ability to engage targets accurately and in close proximity to friendly forces and noncombatants is a required capability.

The TACP now has FBCB2 to provide real-time situational awareness and C2 through a shared common picture of the battlespace. FBCB2 graphically displays identified enemy and friendly unit locations. To enhance situational awareness, a current division TTP is to attach FBCB2 equipped vehicles to non-digitized US and coalition units assigned to support the division. Non-digitized units on the flanks must give accurate front-line traces or update their internal MCS to provide corps situational awareness. This information allows the commander to bring indirect fires and airpower to bear on the enemy with less risk to friendly forces.

Improving the execution process and engagement of time-sensitive targets involves improving both the sensor-to-shooter link and the shooter-to-shooter link to facilitate varying degrees of direct and indirect control of CAS. ISR assets allow us to accurately locate and identify high-value targets, and the newer generation of weapons give aircrews the ability to accurately strike a variety of targets with appropriate effects. The ability of the TACP and the aircrew to share information during execution is also improving. Presently, the majority of TACPs have only voice communication with the CAS aircrew. Some aircraft and TACPs are equipped with Situational Awareness Data Link and Improved Data Modem that allows some digital data to be passed. We need an enhanced ability to send the UAV picture with text and graphics to the CAS aircrew. It is datalink that will allow both the TACP and the aircrew to see the same information at the same time, thus reducing the "fog of war" and the possibility of fratricide while still achieving the desired weapons effects on the battlefield.

Assess

Accurate and timely battle damage assessment (BDA) is a key element in shaping the battlespace. Our ability to quickly assess battlefield effects allows us to rapidly adjust surface fires and flex airpower to decisive points. BDA reported by the aircrew and TACP are forwarded via voice and datalink to Air Force and Army intelligence channels. Organic ISR assets such as the UAV at the brigade level provide near real-time BDA. These ISR assets and those at division level and above are tied into ASAS to provide automated intelligence processing and dissemination. The gathering, fusion, and dissemination of accurate BDA allow us to accurately assess effects, then adjust SEAD and shift airstrikes by planning, preparing, engaging, and assessing again.

Conclusion

Emerging command, control, communications, computers, intelligence, surveillance and reconnaissance, and weapons technology are outpacing current doctrine and tactics. The 4th Infantry Division, as the first digital division, will be able to dominate the 21st-century battlefield by combining mental and physical agility. Now, 4ID(M) can plan, prepare, execute, and assess operations faster than an opponent. The division commander will be able to mass the effects of his enhanced systems without having to mass forces. We have the ability to rapidly, seamlessly, and decisively employ airpower in concert with surface fire and maneuver units to shape the battlespace in-depth and win.

Today, the US is developing the aerospace expeditionary force and the initial brigade combat team in an attempt to field forces that are lighter, leaner, and more easily deployed while still providing effective and appropriate combat power. As our heavy ground forces get lighter and reduce organic artillery assets, this seamless integration of airpower into the ground scheme of maneuver and fire is a must, if we are to employ decisive synergistic combat power.

The ALOs and TACPs of the 11th ASOS in concert with their counterparts in 4ID are working to develop TTP to take advantage of the tools provided by Force XXI and TACP modernization initiatives. In the past year, we worked together in brigade, division, and corps-level wargames and command post exercises to streamline and enhance our planning and targeting processes to take advantage of this quantum leap in C2 technology. Then, we took our ATCCS equipment and our TTP to the National Training Center at Fort Irwin, California, and tested them in field conditions. Have we developed the best TTP for the new technology? Short of real battle, only open and honest discussion with and between the ALO, TACP, aircrew, and our Army counterparts, combined with realistic exercise and simulation, will tell. What we have found is that digitization does not give us superior combat skills. Digitization allows us to use our superior combat skills rapidly and decisively to dominate the battlefield.

At the time of this article, Lt Col (then Major) Douglas "Duster" Putney was assigned as an Air Liaison Officer to the 4th Infantry Division (Mechanized), the Army's first digitized division. The B-52 IEW and then B-1B IWSO later served as the Chief of C2 Systems Integration at HQ ACC. After submitting the article, he deployed to Afghanistan in 2002 with 10th Mtn Div and then went on to teach at the Air Ground Operations School at Nellis AFB. He deployed to Iraq in 2003 with 101st Aviation Brigade, conducting deep attacks in the Karbala Gap. He retired in 2005 for 90 days and then was brought out of retirement to work for the Air Force Doctrine Center for another 6.5 years. He retired the second time with 28 years in uniform. As a defense contractor, Lt Col(R) Putney was a senior military analyst and instructor for the Joint Operational Fires and Effects Course at Fort Sill, OK.