European Spartan Shield Exercise expands air-ground integration for air defense readiness

By Capt. Josef “Polo” Danczuk

For one week in late September, Army Patriot forces stationed in Germany partnered with an Air Force Control and Reporting Center (CRC) crew to simulate providing Integrated Air and Missile Defense (IAMD) against a near-peer adversary. Hosted by the United States Air Force Europe Warrior Preparation Center (WPC) in Einsiedlerhof, Germany, the Spartan Shield series of exercises has been running continuously since early 2018, providing a realistic opportunity via simulation and threat models for Army Patriot forces to train with an Air Force CRC crew.

The exercise is set against a near-peer adversary with a large number of aircraft, missile and ground threats. These include enemy fighters, unmanned aerial systems (UAS), tactical ballistic missiles (TBMs), cruise missiles, anti-radiation missiles (ARMs), surface-to-air missiles, electronic warfare assets and more. “Spartan Shield is the WPC’s exercise to push forward on integrating the air portion of the IAMD mission set,” said Michael “Junior” Taylor, regarding the exercise series. He served as the WPC exercise director for Spartan Shield 19-9. “Bat-tlespace Command and Control Center CRC simulation, Reconfigurable Table Top Trainer Patriot Simulator, and Joint Terminal Attack Controller (JTAC) Dome were integrated with WPC subject matter experts flying aircraft and missile simulations.” The WPC also provided Tactical Data Link 16 for link integration training and a host of communications equipment to mirror the tactical equipment.

Spartan Shield 19-9 took the Army-Air Force integration one step further. In past iterations, the exercise consisted of Patriot
battery and battalion-level operators from the 5th Battalion, 7th Air Defense Artillery Regiment stationed in Baumholder, Germany. These operators fall under the control of ADA brigade air defense artillery fire control officers (ADAFCOs), currently provided by the rotational Army National Guard Brigade Mission Command Element. The Florida Army National Guard’s 164th ADA Brigade is stationed on that rotation in Ansbach, Germany, and their ADAFCO teams participated in the exercise. The WPC also coordinated a CRC crew from the Air National Guard, in this case the 128th Aircraft Control Squadron (ACS) from Wisconsin. As it was, bringing these partners together with the dynamic and challenging integration that the WPC provides allowed for challenging and meaningful training for all levels involved.

However, for the first time, Spartan Shield 19-9 incorporated Tactical Air Control Party (TACP) members from the 2nd Air Support Operations Squadron (ASOS), stationed with the U.S. Army Europe’s 2nd Cavalry Regiment in Vilseck, Germany. TACPs are responsible for providing tactical command and control of airpower assets for terminal attack control. In laymen’s terms, they are liaisons between U.S. ground forces and the air assets assigned to support friendly combat operations, such as airstrikes, surveillance, and, as needed, coordinating with friendly surface-to-surface Fires. Their inclusion provided a realistic, dynamic and challenging new facet to Spartan Shield, requiring the CRC crew to coordinate with the TACPs for aircraft control. Furthermore, from a mission planning perspective, the crews needed to determine how best to establish contracts for operations, communications procedures and plan airspace management to ensure aircraft were properly and safely controlled.

To kick off Spartan Shield 19-9, the WPC hosted all participants for in-processing and tours of the facilities. This also allowed the training audience an opportunity to familiarize themselves with the simulation devices and configurations that they would use for execution. Then, each unit provided an academic overview of their respective weapons system, roles, responsibilities and capabilities. That led into a road to war brief to introduce the audience to the scenario and a full day of mission planning, during which the operators had to establish contracts, define airspace control measures, rehearse procedures, and implement an airspace control order, air tasking order and special instructions. Execution of Spartan Shield 19-9 lasted four days with daily intelligence and mission briefings, the actual scenario, and daily debriefs for the crews and WPC personnel to review the results of the day’s action.

For 5-7th ADA, the Patriot system operators had to contend with a number of challenging situations during the scenarios, requiring quick thinking and flexibility with the weapons system. In addition to hostile TBM attacks, the crews fought hostile ARMs, cruise missiles, enemy aircraft and UAS, oftentimes with a combination of these arriving at the same time, a possible and challenging adversary tactic. Furthermore, they had to fight through equipment faults, communication equipment outages, and adjust the radar and launcher targeting lines in response to enemy wide-azimuth attacks against defended assets.

“Spartan Shield 19-9 opened my eyes to the multiple layers that operate in unison to sustain and maintain air superiority and asset protection against a multitude of emerging and adaptive threats,” said Chief Warrant Officer 2 Marcus Jackson, an air and missile defense tactician with 5-7th ADA. He serves as the Crew 1 tactical director in the Patriot Battalion Headquarters’ Information and Coordination Central (ICC). “The ability to understand the processes that are in play above our level greatly increased our capacity to gauge why certain actions take longer than expected and what we can do within our areas of responsibility to increase the efficiency of each tactical exchange of information.”

The 164th ADA Brigade ADAFCO teams were similarly tested in controlling the battalion and coordinating with the 128th ACS CRC crew. For the ADAFCOs, this was one of their first opportunities to train in such an environment after assuming mission in the theater in early August. The crews were essential to reporting Patriot system status to the CRC crew, deconflicting all Patriot engagements, and assigning Fires.

Maj. Richard “Burro” Smothers is the senior ADAFCO for the 164th ADA Brigade Mission Command Element in Germany and shared his thoughts on the exercise. “I found Spartan Shield 19-9 to be a great exercise for various reasons. As it was executed, it was a great opportunity for Army National Guard, Air National Guard, as well as Air Force and Army Active component teams to collaborate, mission plan and share knowledge.” For the 164th ADA Brigade, Spartan Shield 19-9 was also historic. “Additionally, it allowed my ADAFCO teams to integrate with a Patriot ICC and an Air Force CRC crew as complete teams for the first time in the 164th ADA Brigade’s history,” said Smothers.

For the 128th ACS from the Wisconsin Air National Guard, the exercise was an opportunity to take their regular training from home station, apply it to a European Command scenario, and integrate with joint partners. Spartan Shield 19-9 provided the venue for the crew’s operators to train for certifications, either for the very first time or for new crew positions within the CRC.

“The environment and exercise hosted by the WPC was the perfect venue for 128th ACS to refine the way we not only execute as a CRC, but also build skills in the
Mission crews receive the daily intelligence and mission briefing prior to executing the day's scenario (Courtesy photo/Warrior Preparation Center)

joint environment,” Capt. Cedar “Sage” Hamilton said of the exercise. “The mixed experience level within our crew was a challenge, but everyone left the exercise as better operators. We have been briefing for years that the world in which we train and operate truly must be joint for us to maintain our role of superiority, be that in the air, on the ground or in space.”

Executing JTAC operations while contending with an IAMD fight was largely uncharted territory for the 2nd ASOS training audience. Spartan Shield 19-9 provided a near-peer scenario in which the TACPs could not assume friendly air superiority. In fact, it required the planning of multiple contingencies with the expectation that the airspace would be contested, communications systems would be inoperable, and that the enemy threat would be greater in number and complexity. The TACPs and their simulated friendly Army ground forces fought against enemy UAS, ground tanks and armored vehicles, enemy TBM Transporter-Erector-Launchers (TELs), and indirect Fires.

The integration of 2nd ASOS provided a unique new dimension to the joint air-ground fight. The TACPs could feed information to the CRC and Patriot crews, such as if they observed a cruise missile in flight or TBM TELs readying to fire or recently fired. They could also provide information about expected friendly rocket launches, munitions that the Patriot radar could detect and track. By providing a heads-up to such friendly and enemy actions, routed through the Air Support Operations Center Gateway, 2nd ASOS was able to contribute to the IAMD fight by providing early warning, reducing confusion on the friendly situation, and allowing the Patriot system to posture for new and changing threats.

“This trip was very successful and fruitful,” said Master Sgt. Robert “Foot” Olson, JTAC instructor, of the 2nd ASOS. “Throughout the weeks, we more than met our objectives. We saw how vital the ground entities play in a full-spectrum war, and how TACPs can help shape the battlefield to reach strategic, operational and tactical levels of warfare.”

Spartan Shield 19-9 enabled the successful integration of 5-7th ADA Patriot forces, 164th ADA Brigade ADAFCO teams, 128th ACS CRC crews, and 2nd ASOS TACP members. Personnel from all the units mentioned how much they valued the training opportunity and looked forward to the future. Hamilton of the 128th ACS said “Through mission planning and executing alongside the ADAFCOs and JTACS, we were able to develop contracts throughout the week and really hone in on areas to focus for future CRC training efforts.” From 5-7th ADA, Jackson observed, “the shared knowledge gained will surely support future collaboration through mutual understanding of our partners as we defend the skies together.”

Speaking of future collaboration, Smothers, the 164th ADA Brigade ADAFCO, was already looking forward. “The Spartan Shield exercise showed it has even greater capabilities and could be adapted to encompass more elements of a joint IAMD system. It could also serve as a means for the rotational ADA Brigade Mission Command Element to train using their equipment while practicing and refining their staff operations and battle drills.”

Spartan Shield 19-9 achieved its mission of providing a training venue for IAMD forces in Europe to build and improve their combat readiness. The training audience met their individual training objectives and achieved the combined goal of putting the integrated in IAMD. These operators will now go back to their units with enhanced knowledge of how to operate in concert with their U.S. partners and the experience of executing operations in a dynamic, realistic environment. This allows them to stand ready to execute their respective missions with maximum lethality if ever called upon.

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