CONTESTED LOGISTICS IN A JUNGLE ENVIRONMENT

A Back-to-Basics Approach at the Joint Pacific Multinational Readiness Center

By Lt. Col. Brandon Grooms

In a jungle environment, mission success is measured not only in terms of efficiency and timeliness, but also in the ability to adapt, innovate, and outmaneuver an enemy through terrain arguably the most demanding on Earth. Dealing with winding rivers and muddy trails, sustaining military formations in a contested jungle environment has challenged some of the greatest military minds for centuries. During the Joint Pacific Multinational Readiness Center (JPMRC) rotation 24-01, the 325th Brigade Support Battalion (BSB), 3rd Brigade Combat Team (BCT), 25th Infantry Division (ID), was faced with such a challenge. Established training objectives that would test logistics from the brigade support area (BSA) to the canteen at the forward line of troops put the 325th BSB on a journey that explored how to overcome challenges of contested logistics in a jungle environment.

The 325th BSB executed JPMRC 24-01 in the fall of 2023. The exercise included Soldiers from the U.S. Army, Thailand, Indonesia, the Philippines, New Zealand, and various joint partners. JPMRC was established in 2022 as the Army's Indo-Pacific combat training center: one in Hawaii, one in Alaska, and one that is exportable with a partner west of the International Date Line.

JPMRC 24-01 was designed as the capstone exercise for the 3rd Infantry BCT. For the 325th BSB, JPMRC provided an excellent venue to conduct tactical-level sustainment operations while sustaining a BCT across ground and sea lines of communication. For a support battalion, there is no better way to validate the brigade sustainment enterprise in an island chain scenario than integrating and synchronizing combat support across multiple echelons in a multidomain environment. In the jungle environment, logistics challenges include limited visibility, restricted mobility, and degraded communication, with a hostile enemy presence.

Our Approach

In preparation for JPMRC 24-01, the battalion executed three field training exercises (FTXs) that prepared the battalion to conduct seamless and dedicated support to the brigade while preparing to defend against a Level II enemy threat in a contested environment. The first FTX, coined Mustang Stampede I, focused solely on base defense operations. Oftentimes, units focus on too many facets while training the unit's mission-essential tasks. The end state of this FTX was to work on the basics, that is, to focus on the fundamentals to prepare the battalion to win and to ensure Soldiers are confident in the core tactical competencies to defend their assigned area at all times. Do Soldiers know how to apply individual camouflage daily? Are vehicles masked by cover, camouflage, and signature? Do Soldiers have range cards at every fighting position with alternate fighting positions identified? To use a football analogy, this FTX was about blocking and tackling and building a strong offensive line that could fight and win in the trenches of the jungle. The base defense focus was on understanding the basics before adding receivers, the run game, or trick plays to the offensive scheme.

The next FTX was Mustang Stampede II. It built on the success of Mustang Stampede I. It focused operations on sustainment and distribution integrated with the addition of forward support companies (FSCs) and with establishing a combat trains command post (CTCP). This FTX integrated the BSB with FSCs and built proactive relationships that proved pivotal during the JPMRC rotation. To build on the football analogy, Mustang Stampede II added the running backs behind the offensive line as the battalion continued to build the offensive scheme.

Finally, the brigade executed Bronco Rumble, which was a brigade-level exercise intended to prepare Task Force Bronco to fight in large-scale combat operations and win at JPMRC. Bronco Rumble included a dynamic medical scenario that identified vehicles for casualty evacuations (CASEVACs) and included a daily logistics synchronization (LOGSYNC) meeting that incorporated the battalion intelligence and operations officers to synchronize enemy actions with the maneuver and sustainment plan. The battalion received a liaison officer (LNO)

from the 25th Division Sustainment Brigade (DSB) into the battalion's support operations (SPO) cell and integrated an LNO into the 25th Division Sustainment Support Battalion SPO cell.

Establishing LNOs enabled the battalion to identify friction with division enablers early and to understand assets available in support of the brigade. Starting the LNO relationships early on proved successful; the LNO who was incorporated into Bronco Rumble remained for JPMRC 24-01. To complete the football analogy, Bronco Rumble now incorporated the offensive line, running backs, and all skill players to be successful during JPMRC 24-01. The synergy initiated at Bronco Rumble continued throughout the JPMRC rotation. The battalion continued to put all the pieces together in support of this game plan.

The Will to Prepare

To provide uninterrupted support and irreversible momentum to the 3rd BCT, the 325th BSB developed training objectives that served as the foundation of the unit's training plan leading up to the rotation. Training objectives exercised during JPMRC 24-01 included base defense operations using the base cluster concept, light and mobile command post functions, sustainment integration from DSB to BSA to CTCP, non-standard CASEVACs, medical evacuation (MEDEVAC) operations, and multimodal distribution operations. In addition, the battlefield geometry in Hawaii required a detailed concept of support synchronized on multiple islands with Army and joint partners.

Base Defense Using Base Clusters

In a contested jungle environment, sustainment units must be able to displace, disperse, and defend during day and night operations, while being able to self-secure, jump, and operate light and mobile. Such demands require units to adapt and innovate. One initiative the 325th BSB pursued during JPMRC 24-01 was establishing a multimodal base cluster concept incorporating FSCs and a field-trains command post. The base cluster design considered the protection and survivability of each node, dispersion of sustainment assets (fuel, water, recovery, distribution, medical), mission command system redundancy, and command and control dispersion. The base cluster design used terrain features between the two clusters while ensuring they could mutually support each other while considering commodities and capabilities available at each node.

Experimenting with such a concept was only possible because of the building blocks laid during Mustang Stampede I, Mustang Stampede II, and Bronco Rumble. Deliberate fighting positions, range cards, and camouflage were already tested and established in the 325th BSB's tactical standard operating procedure (SOP). Accordingly, systems codified during daily LOGSYNCS and LNOs interoperating at echelon ensured sustainment remained synchronized. The 325th BSB's ability to adapt and innovate for a few days during JPMRC took months of preparation throughout all levels in the BCT's sustainment enterprise.

Light and Mobile Command Post Functions

Sustainment formations are challenged to minimize their signature with large vehicle platforms that do not allow for maneuverability in restrictive jungle terrain. These challenges compound given the advances in loitering munitions and drone technology, which require BSBs to be light and mobile given how vulnerable they are to enemy targeting Although the increased demand for being light and mobile likely requires a closer look at how the Army equips conventional sustainment units operating in the jungle, there are ways to combat it organically. For now, sustainment units must get comfortable with being uncomfortable and move away from large tents previously used in counterinsurgency environments. The 325th BSB reduced the command post from a medium tent to a high-back high-mobility multipurpose wheeled vehicle covered with camouflage and incorporated analog tracking boards to maintain sustainment operations and to understand the operating environment during JPMRC 24-01. The BSB prioritized training with analog systems that were redundant and that could accurately track friendly elements and enemy contact.

Units should prioritize and enforce the use of the battalion's tactical SOPs and planning SOPs to train the staff and enforce systems that are pivotal in a degraded and contested environment. A key to executing in the austere jungle environment is the development of standardized fighting products such as operational graphics, synchronization matrixes, execution checklists, commander critical information requirements, and medical and logistics common operating pictures to anticipate and integrate sustainment operations.

Sustainment Integration from DSB to BSA to CTCP

Close coordination between the brigade executive officer, the brigade operations officer, and the SPO officer helps the BSB commander identify opportunities, culmination points, and risks in support of the maneuver plan. Deliberate and rehearsed logistical release-point operations ensure units and supplies are in the right place, at the right time, with the right personnel. These operations must be rehearsed during day and night operations and codified in the battalion tactical SOP. Success requires maximum understanding of the operations from the DSB down to the FSC, which requires an enterprise approach from the division down. Maximum synchronization and integration of sustainment and protection assets enabled the buildup of combat power and prevented the culmination of Task Force Bronco during the initial stages of the operation when tempo and speed were key.

Multimodal Distribution Techniques

The jungle environment requires multimodal distribution methods that can sustain combat units by land, sea, and air. JPMRC 24-01 tested these nodes when the 325th BSB provided support from the island of Oahu to the island of Hawaii. Pre-postured and preconfigured loads were essential to the success of the rotation through synchronization with the DSB, BSB, and FSCs during the division's daily LOGSYNC meeting. The BSB was able to leverage pre-packaged Class IV and V packages with the support of 11th Airborne Division riggers from Alaska. Units must also consider defensive operations while still on the offensive to ensure responsive and proactive sustainment support. Units should consider historical consumption rates coupled with a detailed synchronization matrix using the daily logistical status report to coordinate tailorable and precise sustainment through multiple distribution methods.

CASEVAC and MEDEVAC Operations

JPMRC 24-01 focused on CASEVAC and MEDEVAC operations to stress casualty and replacement operations by limiting administrative reconstitutions. Before the JPMRC rotation, the Bronco Brigade held a leader development program (LDP) session with all company command teams. The LDP focused on identifying non-standard CASEVAC vehicles, who was responsible, and where assets would be positioned from the point of injury to the Role I, Role II, and higher medical treatment facilities. Also discussed was the integration and exchange of casualties at the ambulance exchange points. This approach generated shared understanding of medical operations throughout the brigade.

Furthermore, the success of the 25th ID's Jungle Medicine Course, led by the 325th BSB, focused on prolonged field care in a jungle environment, increasing the clinical competence of all medical Soldiers. The two-week course incorporated hands-on skills validation for critical tasks using perfused cadavers along the continuum of care from the point of injury to the medical treatment facility using helicopter landing zones and static Role I/Role II facilities. The further integration of the 8th Forward Resuscitative and Surgical Detachment into the BSA Role II operations was an integral part of the medical training objectives during JPMRC 24-01. It built on the success of the Jungle Medicine Course.

Key Sustainment Innovations Partnerships. The battalion partnered with the 2nd Combat Service Support Battalion (CSSB) from the New Zealand Army's 1st Brigade Combat Team during JPMRC 24-01. The 2nd CSSB embedded five soldiers (junior soldiers through lieutenant) into the battalion during the rotation to build interoperability and share lessons learned. One output of this

partnership was that the 325th BSB participated in the Royal New Zealand Army Logistics Regiment's annual trade competition in April 2024.

Fix Forward Additive Manufacturing at the Point of Need. The maintenance company service and recovery team completed pass-back maintenance of a High-Mobility Engineer Excavator. The team used acetylene cutting torches to remove a pin used to secure the equipment's hydraulic arm and bucket. The team used additive manufacturing with the metalworking and machining shop set to create a replacement pin. This saved the Army over eight months of readiness since the pin was out of stock in the DLA inventory.

Fuel Interoperability. Leading up to the rotation, the 92F Petroleum Supply Specialists attended the division's Liquid Logistics Handler course and conducted fuel accountability and aqua glow training with the 25th Combat Aviation Brigade (CAB). The battalion capitalized on this training during JPMRC 24-01, becoming the first non-aviation unit in the division with a fuel-ready M978 Heavy Expanded Mobility Tactical Truck fueler ready to deliver aviation-grade fuel to the CAB upon request. Interoperability of fuel assets is vital to sustainment forces to prevent the delay of critical supplies.

Test Zero-Water Footprint Capabilities. The battalion partnered with the U.S. Army Combat Capabilities Development Command (DEVCOM) to experiment with the atmospheric water generator system and a small-unit water purifier as part of the zero-water footprint modular system. The goal of this technology integration is to remove or significantly reduce the logistical burden of water resupply and waste hauling in a contested environment by using key technologies: atmospheric water generation, graywater recycling, on-site wastewater treatment, and small-unit water purification. Experimenting during the exercise provided valuable feedback to DEVCOM to develop a zero-water footprint to extend operational reach.

Conclusion

JPMRC 24-01 demonstrated the complexity of synchronizing multiple division and below sustainment assets on multiple islands. Contested logistics in a jungle environment requires a tailored command-and-support relationship that prioritizes limited air, sea, and ground resources for the right size and place. BSB commanders must be able to weigh sustainment support efforts based on the maneuver plan and provide the right resources to make it happen. Sustainment commanders must weigh support relationships on economy of effort versus economy of command. This framework will be pivotal as the division becomes the unit of action and as BSBs convert to light support battalions.

The Indo-Pacific region has many unique challenges, and the jungle will remain a challenging environment where synchronization of sustainment support from the DSB to the canteen will remain key. Moreover, a back-to-basics approach with an innovative mindset will continue to provide mission success, whether in the jungle environment or the European theater.

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Feature Photo
Spc. Samuel Perez, a welder with the 84th Engineer Battalion, 130th Engineer Brigade, 8th Theater Sustainment Command, waits for orders to move a Heavy Expanded Mobility Tactical Truck to a better location on Schofield Barracks, Hawaii, Nov. 2, 2023. (Photo by Staff Sgt. Tristan Moore)