The Wrong Approach for Tactical Units

By MAJ Brian Mathews

This edition of *Army Sustainment* challenges the reader to imagine the battlefield of 2040. The expectation is that by this not-so-distant future, sustainment brigade and support battalion commanders will have an integrated, real-time, common operating picture sourced from a myriad of sensors in every vehicle, at regional supply points, and back to the nation's depots. Theater commanders will have complete awareness from the foxhole to the defense industrial base to precisely manage supply levels and align transportation assets. High confidence in the data will enable resupply convoys, or more likely autonomous resupply drones and mules, to arrive at the logistics resupply point exactly when and where the maneuver commander planned it. The exact and seamless integration of logistics into combined arms maneuver will prolong endurance, extend operational reach, and maintain freedom of action. If this sounds too good to be true, that is because it is. The Army's sustainment community should prioritize resilience over precision for operational and tactical units.

The label "precision sustainment" made inroads in our vernacular over the past few years. It gained so much support that it was added as a new term in the most recent version of Field Manual 4-0, Sustainment Operations, and is a line of effort unto itself within the Army's Contested Logistics Cross Functional Team. The previous issue of *Army Sustainment* did a fantastic job developing our collective understanding of the opportunities and challenges to applying precision sustainment with examples from the U.S. Indo-Pacific Command.

Fundamentally, precision sustainment leads to predictive logistics and is the ultimate manifestation of logistics delivered at the right place, at the right time, with the right quantity. This article argues that the sustainment enterprise is falling short by failing to bifurcate precision sustainment principles between the strategic and the tactical level of logistics. Precision sustainment is the right approach for the industrial base. However, implementing precision sustainment at the tactical level will lead to a supply chain that is not resilient in the face of an adversary's actions. This brittleness will lead to operational failures.

Precision sustainment is the Army's label for a business practice that has been around for decades, commonly known as just-in-time (JIT) logistics. JIT originates from Japanese manufacturers who faced supply shortages following World War II and needed to optimize manufacturing processes to survive. The JIT concept proliferated across Japan's mega-corporations in the 1970s following the global oil shocks from the Yom Kippur War. These companies sought to optimize the manufacturing supply chain by moving raw materials from the source location to its manufacturing center, then to post-production processing, and finally to the client in an efficient process. This removed waste and reduced costs.

Costs savings were a result of the company's ability to manage the entire supply chain. For example, a company with an established predictive source of supply for its raw materials can reduce costs by only paying for one warehouse to hold these goods before manufacturing. The warehouse is optimized to hold exactly the amount of material needed for the next production period. If the company does not have a consistent source of supply, then it may choose to pay for multiple

warehouses to capture additional supply during seasonal surge periods. This increase in storage cost is a direct result of not having a predictive source of supply. JIT originated in manufacturing but has now spread across numerous business functions, including finance, marketing, and management. Precision sustainment is the application of JIT to the sustainment warfighting function as an operational approach.

The impact of COVID-19 on the global economy is the JIT case study logisticians can use to understand the shortfalls of applying precision sustainment for operational and tactical units in contested environments. In its World Development Report 2022, the World Bank Group found that COVID-19 "triggered the largest global economic crisis in more than a century." U.S. real gross domestic product contracted by 31.4% in the second quarter of 2020, the largest recorded decline ever. As of May 2021, 34% of U.S. small businesses had closed since the beginning of the pandemic. Business activity slowed and small businesses closed because they were not resilient to a shock in their operating environment.

While not perfectly comparable, these impacts are reflective of those that will be felt across the joint logistics enterprise in a contested environment. Any shock is magnified and has cascading effects because precision sustainment removes excess slack across every node in the supply chain. This leads to system paralysis that will cost the joint force days and weeks in a conflict. A precise supply chain is designed to save money. A resilient supply chain is designed to meet its objectives. Because no tactical unit's concept of support will survive a 30% reduction in capacity, it calls into question the approach of precision sustainment. We know our adversaries will challenge our ability to execute sustainment; thus, we should build resilience over precision.

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A resilient sustainment concept can also be drawn from business best practices. Resilient companies have redundancy in key functions that allow them to absorb shocks, thrive in new environments, and maintain functionality when challenged. These organizations outperform their peers and capture market share. Some ways that resilience may manifest in the Army of 2040 is through the duplication of logistics capabilities across time, space, and organizations, leveraging cloud-based infrastructure to mitigate threats to critical single nodes and implementing hybrid sourcing and delivery mechanisms, which leverage commercial and partner force capacity.

A natural tension exists between both extremes of an overly precise concept and a wasteful but resilient concept. This is where professional logisticians will make outsized impacts for their organizations. The sustainment community should apply and advocate for precision sustainment when prudent but acknowledge that it is not a solution for every echelon. Precision sustainment is warranted and best suited for resource-constrained environments where most variables are known and predictable. It will lead to operational failures if applied in combat at the operational and tactical levels of war.

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