INDO-PACIFIC SUSTAINMENT AND THE BATTLEFIELD OF 2040

was at the forefront of technology in 2007, one would be at a severe disadvantage relying on that version of the device today. One of the Chief of Staff of the Army's priorities is Transformation in Contact (TiC). To inform the battlefield of 2040 and TiC, we must revise the acquisition process to invest in capabilities versus a specific type of equipment, test and train with the latest technology, reduce the size of the associated logistics tail, and leverage predictive logistics capabilities.

Acquisition Process

At times, we build requirements based on current and emerging technology, and by the time we field the equipment, train our Soldiers to use it, and employ it in combined training exercises, the technology is out of date. Technology evolves so quickly. To keep pace, we must reimagine the acquisition process to enable units at echelon to continually transform in contact. To remain competitive, we need the ability to rapidly acquire the latest fill-in-the-blank capability and discard equipment that no longer provides the required capability.

We all have that friend who takes pride in having the oldest smartphone known to man, or even a flip phone. Although we applaud our friend for being fiscally responsible, he or she is behind the technological power curve and potentially a less effective Soldier. The ability to provide our Soldiers with the latest and greatest technology to increase lethality is not a new idea. So why have we not changed the acquisition process?

Although there have been modifications and authorities granted within the acquisition process, the change required is hard. It will require the DoD's approval and, in some cases, congressional legislation. Furthermore, our pacing threats' capabilities have rapidly increased, and our ability to keep pace has proven increasingly difficult. The operational environment has and will continue to rapidly change, and we must prioritize the need to modify our processes accordingly.

Test and Train the Latest Technology

Our methods of training with new equipment must change. The ideas of adding training to a professional military education, sending a mobile training team, and even training-the-trainer models will not keep up with the pace at which technology will continue to evolve. We must leverage our most prized weapon system and the comparative advantage we have over other militaries — our people, or more specifically, our NCO corps.

To transform in contact, we need to receive new capabilities with little more than manuals and training videos. Recent lessons learned in Ukraine display a military's ability to rapidly field, train, and employ new capabilities. Our younger Soldiers today grew up in a tech-savvy environment and can quickly adapt to new versions, updates, and complete changes to a capability. TiC may require a different approach to risk and trust that our leaders at echelon can test and train new capabilities in a safe and measured approach. Some technologies or capabilities, such as the new XM7 rifle, may require modifications to firing ranges or different ammunition to conduct training, but we must not slow down the acquisitions or fielding processes for equipment that requires training modifications. Although we strive to provide predictability through quarterly and semi-annual training briefs, we must continue to adapt and remain flexible to incorporate innovations in training and testing in our training plans.

Reduce Logistics Tail

To reduce our logistics tail we must look at new ways of delivering all commodities throughout the battlefield. In many places where we may be called to fight in the Pacific, we will not have the ability to execute the large logistics convoys we grew accustomed to in Iraq and Afghanistan due to terrain and risk. Using the latest manned and unmanned aerial delivery capabilities or watercraft capabilities will be necessary to meet the requirements in the Pacific. Additionally, Army prepositioned stocks that support the Pacific must be repositioned and accessible west of the International Date Line to decrease the requirement for unit equipment and the tyranny of distance in the Pacific. Not only will this reduce the time to equip our forces in crisis and conflict, it will also provide opportunities to reduce the cost of training during operations for the Army and the joint force. Most important, as warfighting requirements and capabilities are built, we must ensure parts can be 3D printed at the lowest possible echelon

and remove the term "long-lead parts" from our lexicon. Additionally, testing and certifying our partners and allies' 3D printing capabilities would increase interoperability and mitigate supply chain concerns.

If the supply chain becomes a significant constraint to a capability, then decisions to shift funding to a new capability must happen rapidly. Contracting capabilities to fill a requirement gap due to the inability to organically support it will continue to be a mitigating factor that must be operationalized through predictive logistics analysis tools. As the Army continues to modify and lean logistics formations through the Army structure process, it is imperative to increase our interoperability with our allies and partners in the Pacific. By increasing interoperability and capitalizing on foreign military sales, we can reduce our organic logistics tail, creating opportunities for increased mobility and the ability to plug into local supply chains.

Predictive Logistics

As stated earlier, it is nearly impossible to accurately predict the battlefield of 2040. That said, we do know that the sustainment requirements in the Pacific will quickly exceed the Army and joint force's sustainment capabilities if they are not synchronized. In recent years, the U.S. Indo-Pacific Command has acknowledged this sustainment gap and has increased the capabilities of the Pacific Command Deployment and Distribution Operations Center. However, matching requirements to all available movement options involves searching multiple systems, using battle rhythm events, and a lot of human interaction. We must use artificial intelligence (AI) to match movement requirements to all available joint options.

Our systems must know the current maintenance status, the historical reliability of a platform, and the risk if that platform is destroyed or if the capability is not delivered, with minimal human interaction. AI may inform commanders that an unmanned aerial delivery option is the best option to reduce the risk of losing a ground platform and availability. There are many examples of the underuse of our transportation assets due to a lack of visibility or synchronization, and AI can significantly increase our transportation efficiency.

Commanders will always ultimately make decisions regarding risk, but AI can minimize the margin of error and provide immediate data analysis to arm leaders to make rapid decisions. However, an overreliance on artificial intelligence to enable predictive logistics could lead to atrophy in logisticians' ability to conduct analysis and build quality running estimates, which could prove detrimental if predictive analysis systems are compromised or fail.

Conclusion

TiC is creating what our Army and sustainment will be in 2040. If we do not continue to acquire, test, and continually update our capabilities to match the dynamic changes to emerging technology, we will struggle to keep pace with threats in the Pacific and around the world. Reducing our logistics tail and maximizing predictive logistics AI capabilities must occur to conquer the tyranny of distance in the Pacific and the speed of conflict. Lastly, we must trust our leaders to quickly adapt and train new capabilities without the formal prescriptive training we are accustomed to in the Army. Our people in the Army and joint forces are our comparative advantage, and they will continue rising to the challenges by transforming in contact.

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Featured Photo
Carpenter Son, a general cargo ship, pulls into port during Exercise Balikatan 24 at the Basco Port in Basco, Batanes, Philippines, May 4, 2024. (Photo by SSG Tristan Moore)