21st Century Foraging

Are we ready?

by Maj Peter Thermos & Capt Angel Maldonado

The term "21st Century Foraging" is circulating through our planners' vocabulary as one of many potential solutions to sustain expeditionary advanced base operations (EABO). In May 2019, Gen David H. Berger in *Sustaining the Force* described the future Marine Corps as a "maritime force designed to support operations in austere and expeditionary environments." The considerable amount of attention this concept generates is not accidental as the anticipated dispersion throughout countless islands will become logistically unsupportable. It is incumbent upon logisticians to develop this concept first identified in *Sustaining the Force* "as an alternative source of supply" to expand the menu of support options at our force's disposal. However, the only definition accessible is from Mr. Arthur Corbett's *EABO Handbook*, where he refers to 21st century foraging as something that "involves contracting non-commissioned officers (NCOs) and credit cards." As one may observe, this definition lacked the granularity necessary for a complex concept and was not the focus of the EABO handbook. The purpose of this article is to clarify the ambiguity surrounding 21st century foraging by educating the reader through the use of historical and recent references to help facilitate the continued development of this concept.

"21st Century Foraging—The local commercial procurement of supplies and services as a means of supplementing organic methods of support with non-standard logistics to improve sustainment and mobility in maritime operations."

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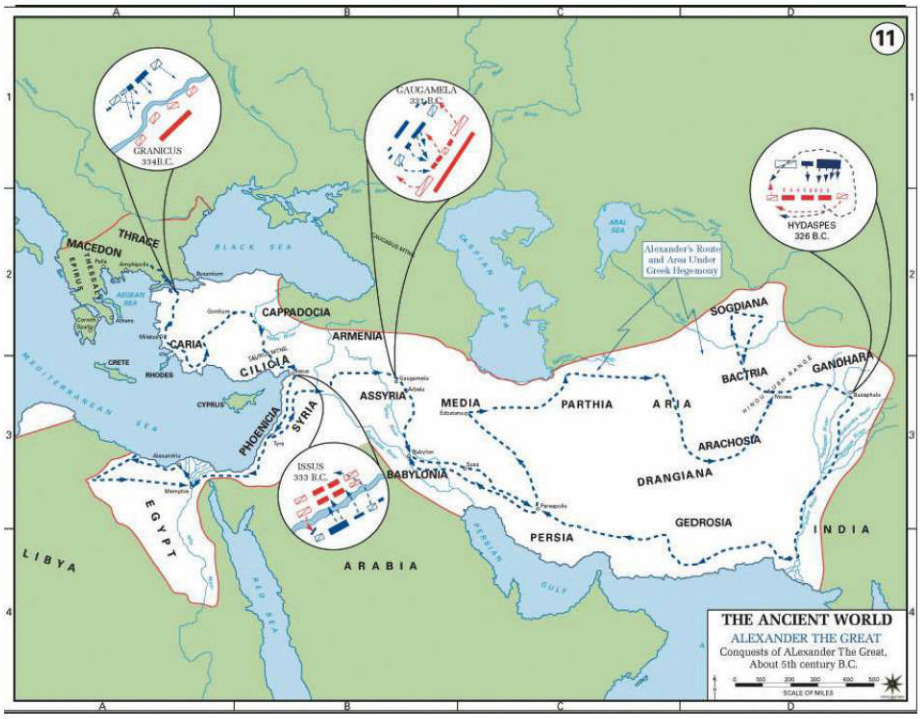
What Is 21st Century Foraging?

We define 21st century foraging as the local commercial procurement of non-standard logistics, supplies, and services as a means of extending our survivability and mobility to sustain maritime operations. At first glance, one might make a connection to Tom Hanks holding a spear in *Cast Away* with Wilson by his side. Although a classic scene, nothing is further from the truth. We encourage the reader to think about Marines fueling tactical vehicles at local gas stations in Southeast Asia instead of relying on Defense Logistics Agency energy or garrison bulk fuel stations. It encourages one to visualize a Marine delivering supplies to remote locations in a contracted vehicle while persisting within the first island chain.

So why should we forage? As history denotes, a young, ambitious king from Macedon, later revered as "Alexander the Great," was able to sustain his mobile forces of 40,000–50,000 troops by using a combination of distributed foraging and contracting as a means of supplementing his sustainment. Although dated, this concept of support has modern relevancy as the Marine Corps experiments with foraging to reduce the logistical burden necessary to keep the agile force sufficiently mobile to conduct EABOs. More specifically, the Marine Corps' shift from fixed landbased positions in a logistically robust theater to smaller mobile maritime forces in the form of EABs is distinctly similar to Alexander's troop formations. This similarity prompts our education of this historical conquest to extract applicable practices to further refine into our 21st century foraging initiatives.

History

To address the future, one can simply look at the past. In 359 BC, Alexander's father, Philip II of Macedon, noticed his armies were supported by thousands of non-combatants, sometimes outnumbering the fighting soldiers, slowing their rate of speed and mobility. To increase the march speed and minimize the amount of food and fodder



Alexander the Great's campaign in Asia. *(Image provided by author.)*

required, King Philip transformed the Macedonian logistics support system by prioritizing sustainability, mobility, and speed. He accomplished this by replacing the slow oxcart, typically used to carry heavy loads, by distributing the weight through horses and by marginally increasing the number of supplies carried by his men during the road march. He also significantly reduced the number of non-combatants that followed the force. Like Philip, the Commandant of the Marine Corps is redesigning the force to lighten the logistical footprint to create a more mobile and capable Marine Corps.

In 334 BC, Alexander capitalized on this system handed down by his father and set out on his campaign to conquer Asia. (See Figure 1.) During his conquest, he realized that acquiring supplies was problematic as he traversed hostile routes through inland Asia that were distant from seas and rivers. Alexander solved his supply chain problem in 336 BC after his victory in Gaugamela by dispatching foraging teams in advance of his army to the surrendered territories. Upon arrival, these foraging teams acquired local supplies in preparation for the approaching military. In addition, Alexander used his topographical reconnaissance to skirt the seacoast and rivers to supply his army from his fleet. Just as Alexander, we can increase our speed and mobility if we implement his local foraging practices and support from the sea into our EABO deployments, avoiding the "iron mountain" type of support seen in recent conflicts.

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Combat Logistics Regiment 37 Case-Study

Are we ready? In October 2020, the III MEF G-4 Foraging Cell in conjunction with Combat Logistics Regiment 37 (CLR-37) conducted an experiment to forage for class III (Fuel) and class IX (Repair Parts) from the local economy during the CLR-37's Marine Corps Combat Readiness Evaluation at Camp Fuji. As a case study for 21st century foraging, CLR-37 is the ideal organization for concept experimentation because it has all the required organic capabilities to include high-demand, low-density MOSs within the Expeditionary Contracting Platoon (ECP) and the Regional Disbursing Office-Pacific. As a result, 21st century foraging was a key training objective for CLR-37 while training aboard Camp Fuji, Japan, at the Combined Arms Training Center. As a III MEF unit within the first island chain and inside the weapons engagement zone (WEZ), our planning as-

21st century foraging as part of training at Camp Fuji. *(Photo provided by author.)*

sumption was to test all 21st century foraging procurement capabilities during a "fight now" situation requiring our forces to persist inside the WEZ while still located in Japan. The initial experimentation focused on exercising the four primary foraging methods listed in Figure 2.

In addition to commercial fuel procurement, the experimentation planning continued with the Expeditionary Mobile Fuel Additization Capability from Bulk Fuel Company, 9th Engineer Support Battalion to convert the commercially procured Jet A-1 fuel to military-grade JP-8. While the physical procurement never occurred because of regulatory shortfalls, required lead times, and the mindset paradigm shifts, the exercise incorporated the use of the Expeditionary Mobile Fuel Additization Capability and additives deployed to Camp Fuji for the exercise. These types of non-standard logistics capabilities will enable forward deployed naval expeditionary forces to practice resilient logistics procurement methods required to persist within an actively contested WEZ in the future.

For the class IX repair parts foraging, we contacted two local Caterpillar stores in the Fuji area to obtain parts for the engineer vehicles assigned to 9th Engineer Support Battalion Heavy Equipment Company. This experiment focused on determining what repair parts were readily available because regulations prohibit the installation of commercial parts without item manager approval. Despite using Google Translate, the first location proved unsuitable as the language barrier was too deep to overcome. This is an issue our EABO forces will undoubtedly face and will not quickly be resolved without translators. At the second location, the language barrier was manageable, and the store clerk agreed to sell parts that were readily available for our vehicles. To our surprise, despite it being a developed nation and the world's third-largest economy, the store only accepted cash as a form of payment, which prevented us from using our Government Commercial Purchase Card.

21st Century Fuel Foraging SITREP

Mission: From 14 October to 6 November, CLR-37 deploys a Logistics Combat Element (LCE) Headquarters to Combined Arms Training Center Fuji in order to provide command and control (C2) and logistics support to an EABO. During the exercise CLR-37 will experiment with foraging fuel from the local economy.

Procurement Type	Description	Location	Status	Comment
Government Commercial Purchase Card	Used to pay for supplies and services.	Gas station and Mt. Fuji Shizuoka airport		Not authorized. Regulatory restrictions prohibited the use for fuel.
Fleet Card	Strictly used to purchase fuel and other vehicle related expenses.	Gas station and local airports		Authorized. Unfortunately, the time required to obtain the fleet card will not meet the exercise timeline.
Field Ordering Officer/ Pay Agent	Primarily used for contingencies by processing cash transactions to obtain supplies and services.	Gas station and local airports		It was determined by the ECP that their warrants are out of scope to support regimental exercises unless tasked by III MEF.
Contracting Officers	This capability provides contracting support up to the Simplified Acquisition Threshold currently set at $250k.	Gas station and local airports		It was determined by the ECP that their warrants are out of scope to support regimental exercises unless tasked by III MEF.
9th ESB Expeditionary Mobile Fuel Additization Capability (EMFAC)	Designed to convert commercially available jet fuel into military specification Jet Propellant 8, or better know in the military as JP 8.	Okinawa, Japan		Arrived

CLR 37's fuel foraging situation report show 80 percent "red" or negative results. *(Chart provided by author.)*

Caterpiller® bulldozers are a global brand with replacement/repair parts available commercially nearly worldwide. *(Photo provided by author courtesy of Caterpiller®.)*

While preparing to test these concepts, the ECP initially determined that the scope of their expeditionary contracting warrants could not support exercises in Japan. However, after an extensive review, the ECP determined that their contracting warrants are within scope for both expeditionary contracting and field ordering officers (FOO). The discovery learning process serves as an example of the urgent necessity to practice and test these concepts. The requirement for units to maintain active and proficient FOO's for deployments to Southeast Asia will be critical to support EABs where cash is the only form of payment.

During the class IX market research, an observation is that commercial engineer equipment equivalents for some vehicles deployed from Okinawa to Camp Fuji were available at the Caterpillar

vehicles lots. The next step prompted a Class VII (Major End items) inquiry, which resulted in Caterpillar providing a military liaison representative to assist with the vehicles' local commercial rental. Exploring this capability is paramount when considering that in an actively contested WEZ, the mobility challenges will impact the capacity required to transport the current inventory of tactical vehicles. Another potential solution to alleviate the logistical burden of hauling supplies is contracting for "white gear" vehicles and equipment to reduce operational use's tactical assets. Capt Christopher E. Rabassi draws a similar conclusion in his *Gazette* article titled, "What Happened to Class IX In Iraq?" Particularly, contracting for specific high-demand capabilities—such as earthmoving equipment, heavy trucks, and material handling equipment—will likely prove a sustainable method in a future operating environment. Therefore, testing these capabilities in peacetime requires an exception to a policy since many of the existing contracting rules were developed for stable garrison operations and did not consider the emerging threat environment. The CLR-37 case study helped to demonstrate and highlight the challenges for testing of 21st century foraging concepts. While many of the physical actions did not occur, our case study found several opportunities for future experimentation.

Call to Action/Recommendations for Future Units

Without question, logistics support will be a primary challenge for naval expeditionary forces while persisting in the WEZ. The prioritization of 21st century foraging by III MEF will serve a pivotal role to enable non-traditional logistics as we support exercises throughout the Pacific. We recommend the following as immediate options for practicing 21st century foraging: First, unit planners need to request support from the ECP and Disbursing to train Marines to serve in an essential capability as unit-level FOOs and unit pay agents to exercise foraging concepts. Secondly, using "white gear" on an EAB will reduce the tactical vehicle requirements while persisting within the WEZ. Finally, units will need to request access to a "Defense Logistics Agency-Energy Fleet MasterCard" to enable commercial ground fuel purchases. Many of the garrison business rules and mindsets for contracting and procurement must adjust to the new threat environment. As III MEF pivots to a "Fight Now" mindset, these recommendations will enable realistic training opportunities for units forward deployed to the Pacific area of operation.

Conclusion

To conclude, the education provided through the historical reference and case study in this article raises awareness of the complexities our logisticians face in the maritime operating environment. Further, it aims to highlight the need for action within the supply and logistics community to pivot our procurement mindsets, policies, and regulations to prepare for non-traditional logistics support within the WEZ. The challenges experienced should be seen as a warning sign of the progress ahead as they bought us time to resolve this complex sustainment problem. Commonly, articles recommend senior leadership to implement solutions. Instead, this article takes an unorthodox approach and calls for all units deploying away from their home station to practice 21st century foraging. We suggest for Commanders to exercise their authority to forage for heavy equipment instead of relying on the multi-thousand-dollar commercial transportation solutions. It calls on logisticians to continue experimentation with this concept by contacting the III MEF G-4 Foraging cell for assistance. The CLR-37 experiment can serve as a starting point to continue developing these concepts for future 21st century foraging. Are we ready? Well, the answer will depend on you.

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