



The Long Haul

Historical Case Studies of Sustainment Operations in Large-Scale Combat Operations

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You will not find it difficult to prove that battles, campaigns, and even wars have been won or lost primarily because of logistics.

—Gen. Dwight D. Eisenhower

There will not be a revolution in military affairs unless there is a revolution in military logistics.

—Gen. Dennis J. Riemer

The practice of logistics has been around since the earliest known standing army of the Assyrians at around 700 BC and has been fundamentally unchanged for more than two millennia. Assyrian logistic support consisted of feeding, equipping, and moving (with horses, camels, mules, and oxen) the force. Noncombatant followers carried the materiel necessary to provide sustenance and maintenance to the fighting force. Campaign timing was synchronized to occur just after the harvest to extend the time the force could remain in one place.¹

Alexander the Great later established warfare as a year-round operation; not wintering or staying more than a few weeks away from a seaport or navigable river

Previous page: A U.S. convoy ascends the famous “Twenty-one Curves” 26 March 1945 at Annan, China. The convoys operated between Chen-Yi and Kweiyang, China, on a section of what became known as the “Burma Road.” (Photo by Pfc. John F. Albert. Courtesy of the National Archives, no. 531304)

with his army on campaign. He made extensive use of shipping with merchant ships and horses, and also used his enemy’s logistics weaknesses against them.²

There was no truly revolutionary approach to logistics until the introduction of steam engines and the railroad. The American Civil War foreshadowed future warfare, particularly regarding logistics. It was the first major war in which the railroads played an important part, speeding up the movement of troops and supplies. To a great extent, the railroads also dictated the axes of advance or retreat, the siting of defensive positions, and the locations of battles.³ The United States’ first two large-scale combat operations (LSCO) within the industrial age were the two world wars. Both these wars had the traditional logistics requirements, only on a much grander scale, and they both introduced new warfare technology-based logistics requirements.

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Post-Korean War and throughout the Cold War, the United States, as a superpower and in cooperation with its allies, expanded the concept of logistical planning. The United States began to stockpile military supplies at strategic points around the world, near areas of potential conventional war danger.⁴ The origins of the modern operational contract support practices are from the United States' experiences during the Vietnam War.⁵ Advances in logistical support to strategic maneuver and in harsh environments occurred during Operation Desert Storm and Operation Iraqi Freedom (OIF) in the Middle East.

The Long Haul: Sustainment Operations in Large-Scale Combat Operations is a collection of eleven historical case studies of sustainment operations drawn from the past one hundred years with lessons for modern LSCO. The book is organized chronologically, specifically including World Wars I and II, the Korean War, the Vietnam War, the Falklands War, Operation Desert Storm, and OIF. The commanding general for the Combined Armed Support Command

A neo-Assyrian alabaster wall panel relief (865 BC–860 BC) shows Ashurnasirpal II's chariot and another being placed in a boat for transportation across a river, probably the Euphrates. Upstream, Assyrian officials supervise as the army crosses river; some cross on inflated skins. (Photo courtesy of The British Museum)

(CASCOM) presents future sustainment trends to conclude the book. *The Long Haul* is a work of history intended as a tool for the development of thoughtful reflection on past experiences—good and bad—a tool to teach situational critical thinking.

We asked authors to focus the readers on the lessons learned with chapters short enough to prohibit a comprehensive telling of the story. Thus, the orientation to the situation in each chapter is brief, and only elements of the situation critical to understanding the major lessons learned are presented. Where the authors felt it was applicable, they close the chapters with forecasts of sustainment operations in future LSCO.



In the end, we want readers to have a good, not perfect, understanding of the capabilities and limitations of at least one important challenge in each major area of sustainment, the actions taken for addressing it, and the outcome. To gain the full value from these case studies, readers must reflect on what they read; analyze for themselves the cause, effect, and outcome of each situation; and apply the fruit of this thought to their own lives and experiences.

In the first chapter, retired quartermaster historian Dr. Leo Hirrel examines the maturation of U.S. Army sustainment functions during World War I from vague notions into a workable organization structure. Dr. Sanders Marble, an Army Medical Command senior historian, focuses chapter 2 on World War I's medical functions and their effect on maintaining combat power in the First Army's area during the Meuse-Argonne Offensive.

As the U.S. Army's entry into the west during World War II, the North African Campaign is studied against the framework of AirLand Battle and logistical doctrine by retired Lt. Col. Mark D. Kitchen in chapter 3; and Maj. Cory Campbell identifies lessons

Soldiers from the 20th Engineer Brigade shuttle trucks across the Euphrates River 16 November 2007 in support of a combat operation near Baghdad. (Photo by Spc. Luke Thornberry, U.S. Army)

from the Battle of Metz within today's principles of sustainment in chapter 4. In chapter 5, history professor Dr. James A. Huston explores the logistical support and challenges as the United States, the United Nations, and the Republic of Korea forces transitioned from traditional to cold war.

Chapters 6 and 7 arguably do not cover LSCO; however, the case studies explore advancements in sustainment practices that can be applied to future LSCO. In chapter 6, Dr. Isaac Hampton II, the Quartermaster Branch chief historian, explores the infrastructure build-up of Vietnam from 1962 to 1967 as the Army's introduction to operational contracting support. Lt. Col. Michael Gunther represents the only non-U.S. logistics case in chapter 7. Gunther examines the application of British joint logistics to expeditionary operations against near-peer forces without the benefit of a secure logistical base in the area of operations.

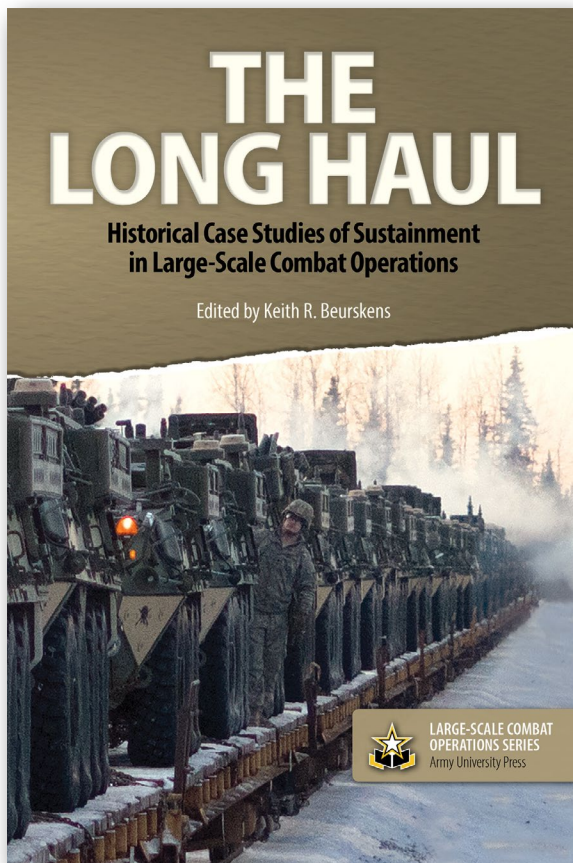
Chapters 8 to 11 represent sustainment operations in the Middle East during Operation Desert Storm and OIF. Dr. James Martin studies the VII Corps logistics operations in Operation Desert Storm, examining the sheer volume of support required and the lessons learned from such a major land-combat operation.

OIF is examined from three perspectives. In chapter 9, Kelvin Crow, the Combined Arms Center historian, and retired Col. Christopher Croft study the strategic maneuver of the 4th Infantry Division from eighteen installations in the United States, Germany, and Italy to Iraq and Turkey, and then through the Suez Canal and Kuwait as an example of complex and chaotic strategic maneuver. In chapter 10, Richard E. Killblane, the Transportation Corps historian, examines the doctrine of on-time delivery and the many unforeseen factors that prevent it from the context of the 3rd Infantry Division and its distribution of bottled water. Dr. Kenneth Finlayson, the CASCOM historian, completes the study of OIF in chapter 11 by examining the planning, preparation, execution, and results of the installation and operation of the Inland Petroleum Distribution System as the principle bulk fuel delivery

mechanism supporting the American forces. Maj. Gen. Paul C. Hurley, commanding general of CASCOM; Maj. Gen. Rodney Fogg, the fifty-fourth quartermaster general; and Ronald Jaeckle, the CASCOM strategic planner, explore the future of logistics decision-making in the final chapter.

The Long Haul would not have been possible without the voluntary time and work of the authors; they are the experts. Several authors are current or past Army historians with a significant depth of expertise. Some are scholars who have given a lifetime of study to master the sources, understand the context, ponder the details, and develop a skill for narrative. The balance of the authors have experience as practitioners who have devised innovative solutions to the inevitable surprises that arise during the fog of war. ■

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Notes

Epigraph. Bradford K. Nelson, "Defeating the Threat to Sustainment Operations," *Army Logistician* 40, no. 2 (March-April 2008): 33.

Epigraph. Thomas J. Edwards and Tick Eden, "Velocity Management and the Revolution in Military Logistics," *Army Logistician* 31, no. 1 (January-February 1999): 52.

1. Peter Antill, "Military Logistics: A Brief History," HistoryOfWar.org, 22 August 2001, accessed 19 June 2018, http://www.historyofwar.org/articles/concepts_logistics.html.

2. *Ibid.*

3. *Ibid.*

4. James A. Huston, chapter 5 in *The Long Haul: Sustainment Operations in LSCO*, ed. Keith R. Beurskens (Fort Leavenworth, KS: Army University Press, 2018).

5. Rufus Phillips, "Counterinsurgency in Vietnam: Lessons for Today," *Foreign Service Journal* 92, no. 3 (April 2015), accessed 19 June 2018, <http://www.afsa.org/counterinsurgency-vietnam-lessons-today>.