



'Breaking In' to Logistics

A Cove Intro

Kelly Dunne

The #BreakIn is the Cove's channel dedicated to the development of Small Unit Leadership Teams and those wishing to invest in their professional military education. The concepts in the #BreakIn can be complex, so to help we have designed a series of introductory guides that are designed to help you 'break in' to the subject matter.

'Breaking In' to Logistics aims to introduce you to the key ideas and concepts about the art and science of moving and maintaining forces. While a younger subset of our knowledge about war – modern logistics being a little over two hundred years old – it is a topic of increasing importance to the Australian Army.

This introduction to logistics will introduce you to some of the major ideas and concepts that have informed doctrine, and in some cases, major works on strategic and tactical theory. Why should the study of logistics be relevant to you as a Leader within a Sub Unit? For one, logistics concerns will become increasingly important to your tactical operations, and a determinant of the feasibility of your plans. Secondly, as you venture into the world of strategy, you must also accompany it with the study of the practicalities and means of war. These reasons allude to the most important reason to study logistics. It is a function of effective command.

As with other #BreakIn guides, this introduction to logistics provides a variety of texts and resources that will walk you into the topic.

Recommended readings

The short list below outlines nine key works in military logistics. Seven are essentially histories that have sought to examine a field of military operations that has very basic roots in literature. Two are personal stories of logistics, told in the context of recent military campaigns. Although the quantity of literature on military logistics might be small, the literature which describes the technical specifics of logistics is vast and includes many works from the business, commerce, management and engineering sectors.

1. Supplying War, by Martin Van Creveld (DLS link for ADF members [here](#))

- *A tremendously influential study of land logistics and its impact on military operations. Van Creveld's typically controversial style was reflected in his assertions that in petroleum-based modern war, strategy is increasingly becoming an appendix of logistics, that the attempts by army to win wars through improvements in logistics systems that would get their forces further have been 'futile at best'. Scholars have contested his arguments through papers and books, but that is the natural consequence for a ground-breaking book of this nature.*

2. Logistics in the National Defense, by Rear Admiral Henry Eccles

- *As a consequence of this work, USN Rear Admiral Henry Eccles earned the moniker 'the Clausewitz of logistics'. This is the definitive study of strategic and operational logistics, set within the context*

of major war. Logistics in the National Defense naturally accompanies USN Admiral J.C. Wylie's view that strategy is a question of control; logistics being a process that bridges the national economy to the battlefield, a process that is up to commanders to control.

3. Lifeblood of War, by Major General Julian Thompson (DLS link for ADF members [here](#))

- *Upon his retirement from the Royal Marines and a victory in the British war to reclaim the Falklands Islands, Major General Julian Thompson was approach to produce a work of logistics. Continuing on from Van Creveld's Supplying War, Thompson examined a variety of campaigns including Slim's efforts in Burma during the Second World War, French wars in Indochina, and the Falklands Islands operation. A good read on logistics, with the aim of producing principles relevant to the military reader. If interested in the Falklands War, you may also wish to read Kenneth Privratsky's Logistics in the Falklands War.*

4. [Pure Logistics](#), by Colonel C. Thorpe (DLS link for ADF members [here](#))

- *Pure Logistics was a Naval War College paper written by a US Marine Corps Infantry Colonel frustrated at the disinterest shown to logistics by the US military during and after the First World War. He contended that although strategy and tactics constituted the conduct of war, it was logistics that provided the means. Furthermore, he contended that logistics comprised theoretical ('pure') and technical ('applied') components – based upon his assessments of Napoleonic, Franco-Prussian and US Civil War conflict. His paper was discovered at the USN following the Second World War and was formative to Eccle's Logistics in the National Defense.*

5. The Sinews of War: Army logistics 1775-1953, by James A. Huston (also available in DVD). Contact DLS

- *This book was such a summary of US Army logistics that the principles derived from its comprehensive summary of military history formed the background of US Army logistics doctrine. 'Sinews of War' shows the differences and continuities in logistics of the span of US Army military history including the impact of technological change on the way war was being fought. Many relevant lessons for commanders at all levels are contained within.*

6. For want of a nail: the impact of war on logistics and communications, by Kenneth Macksey (DLS link for ADF members [here](#))

- *Kenneth Macksey's book examines the ever changing nature and organisation of military forces to contend that technology and the increasing sustainment demand of modern militaries has continued the organisational struggle between the 'teeth' and the 'tail'. This is revealed through a series of historical case studies including modern conflict between major powers.*

7. Defense logistics for the 21st century, by Lieutenant General William Tuttle (DLS link for ADF members [here](#))

- *Written by the US Army's senior logistician and head of the US Army Materiel Command, this work seeks to re-examine military logistics for a military, rather than academic, audience. Based upon his observations of US operations in the late-Cold War and 1991 Gulf War, Tuttle examines force projection, sustainment and the minimisation of the logistics 'footprint' in the battlespace. He examines the revolutionary changes in information technology and logistics management which occurred since the Second World War to propose ways in which logistics support can be improved.*

8. *The Lieutenant don't know*, by Jeff Clement & *Moving Mountains*, by Lieutenant General 'Gus' Pagonis (DLS link for ADF members [here](#))

- *Both books are personal narratives and experiences of war from alternate ends of the career spectrum. In 'The Lieutenant don't know' Jeff Clement describes war when there is no front line; where logistics missions were the targets of insurgents who avoided the coalition strength in combat power. Clement commanded numerous convoy missions, replenishing US and UK forces while under fire. The second of the two tells how the penultimate battle against Iraq during 1991 was sustained by the man who led the logistics effort. A now famous book that shows how US combat power was a product of a monumental feat of logistics.*

What is Logistics?

There are many definitions as to what logistics is. In fact, there are so many ideas about what activities might be included as logistics that the topic can be as broad or as specific as you might like! Logistics, as a topic, is also confused by terms used to divide tasks in our own Army and ADF such as 'combat service support' and Defence logistics, and logistics in support of capability versus logistics in support of operations. To make the topic a little simpler, the following list offers some insights as to what logistics entails:

1. Logistics is essentially moving, supplying and maintaining forces. It is above all else concerned about the creation and practical existence of combat forces on the battlefield.
2. Logistics can constrain combat operations, but employed effectively logistics capabilities contribute to tempo, generate strategic or operational flexibility, and enable strategic and operational manoeuvre. Logistics connects the economy to the battlefield. It is a self-sustaining system of many elements and countless, often contextual, inputs from a range of agencies, organisations and units. In raising and sustaining forces, logistics comprises the vast proportion of a military's time
3. Logistics is the application of time and space factors to operations. It is concerned with what can be moved, the condition 'it' is in, and when it is available to be employed. It is therefore the substance of strategy, and 'sets the stage' for tactics.
4. War can be prepared for, and in this capacity, logistics supports the establishment of options. However, once battle commences, it is virtually impossible to plan logistics efficiently. 'Brute force' logistics often prevails.

Why is understanding logistics vital for you?

The most important reason to develop an understanding of logistics is that in doing so you are answering major components of the 'blue-force' problem. As a commander, you will tend to focus on the environment, the threat, and the requirements of the mission – strategic and tactical problems that encourage you to be outward looking. Logistics, however, is often focussed upon looking inward and understanding the factors and influence that give the force its combat potential and define its operational characteristics. Understanding the three 'M's' – movement, materiel and maintenance (machinery and health care) – underpins what is practically achievable on operations and must therefore be mastered by all commanders.

Doctrine / Policy

[Future Logistics Concept 2035](#) (DPN Only). The purpose of the FLC 2035 is to provide strategic guidance to logisticians and capability developers on the future approach to Defence logistics based on the forecast demands of Defence capability and the predicted future logistics environment. This document also provides other Government Departments and Agencies as well as Defence industry with indicative future concepts for Defence logistics in order to facilitate a collaborative approach.

[LWD 4-0 Combat Service Support](#). The aim of this publication is to describe the nature and scope of Combat Service Support in order to conduct operations and activities successfully and effectively. This publication

provides a philosophical reference on Combat Service Support and is designed to shape the thinking of combat service support practitioners and non-combat service support personnel.

[LWD 4-1 Supply Support](#). The aim of this publication is to provide a reference that will assist those personnel involved with the provision of supply support by providing guidance to the concepts, principles and practice of supply for operations. It explains in detail the Army aspects of procurement, provisioning, warehousing, returns, salvage and disposal, and control of supplies.

[LWD 4-2 Maintenance Support](#). The aim of this publication is to produce a reference document that will assist those personnel involved with maintenance operations by providing guidance on the concepts, principles and practices of maintenance operations. It explains in detail the materiel maintenance, maintenance engineering and recovery aspects of materiel support to Army on operations, including United Nations and coalition operations.

[LWD 4-3 Transport Support](#). The aim of this publication is to provide guidance on transport concepts, principles and practices to Army commanders and staff involved in planning and providing transport support. It provides application level doctrine for officers, warrant officers and senior non-commissioned officers to plan and execute transport support

[LWD 1-2 Health Support](#). Whilst not specifically part of 'Logistics' in many of the publications, Health Support forms an essential part of the Combat Service Support function to Army. This publication aims to provide Army with functional doctrine on health support to land operations.

[Joint Doctrine Library – Logistics Series](#) (DPN only). This website provides the links through to the major joint doctrine publications, including logistics support to capability and logistics support to operations.

Additional Resources

The remainder of the resources will expand your knowledge for those with a keen interest in understanding strategy.

Some of the links won't work on the DRN / DSN, so the best thing to do is forward the list to a civilian email address or tablet. After that you should be able to access everything. Many books are available to be delivered to your work address via the Defence Library Service (email: askalibrarian@defence.gov.au) or on Kindle.

Web Resources, Videos, Books, Articles and Case Studies:

Blog: [Logistics In War](#) is an Australian-based blog which examines military logistics and its impact on modern warfare.

Podcast: '[Tooth to Tail – military logistics & supply lines](#)' via American Warrior Radio. From Sun Tzu to Alexander the Great, World War II to current battles; military logistics have always mattered. Rear Admiral Thomas Traaen (US Navy Retired) lends his years of experience to a very interesting discussion about how boots and bullets get to the front, military support of humanitarian disasters and more.

Podcast: [Supply Chain & Logistics Management](#) via Cranfield University. Leadership in logistics and transport management ideas and concepts via a free iTunes podcast series.

Blog: [Talking Logistics](#) hosted by Adrian Gonzalez. Online video talk show and blog featuring an industry expert interviewing Thought Leaders and Newsmakers in the supply chain and logistics industry.

Godfrey, F. V. (2003). [The Logistics of Invasion](#). *Army Logician*, 35(6), 44-44. A short article which goes through some of the timeless lessons of logistics and provides historical examples of how failure in logistics can have disastrous consequences.

Privratsky, K. L. (2016). *Logistics in the Falklands War*. While many books have been written on the Falklands War, this is the first to focus on the vital aspect of logistics. It highlights the importance of the integration of combat operations and logistics and argues convincingly that logistics was the centre of gravity of the campaign. (DLS link for ADF members [here](#))

Glas, A., Hofmann, E., & Eßig, M. (2013). [Performance-based logistics: a portfolio for contracting military supply](#). *International Journal of Physical Distribution & Logistics Management*, 43(2), 97-115. This research paper contributes to the analysis of military logistics and provides an instrument for normative decision making for contracting military logistics services.

Bealt, J., Camilo, J., Barrera, F., & Afshin Mansouri, S. (2016) '[Collaborative relationships between logistics service providers and humanitarian organizations during disaster relief operations](#)', *Journal of Humanitarian Logistics and Supply Chain Management*, Vol. 6 Issue: 2, pp.118-144. This paper explores barriers and benefits of establishing relationships between humanitarian organizations (HOs) and logistics service providers (LSPs) in order to improve humanitarian disaster relief operations (DROs).

Erbel, M., & Kinsey, C. (2016). [Think again—supplying war: Reappraising military logistics and its centrality to strategy and war](#). *Journal of Strategic Studies*, 1-26. This paper suggests that despite academics discussing almost all aspects of war from tactical to strategic level, the supply of military operations since the end of virtually absent from these discussions, despite the central relevance of military logistics for every aspect of military operations.

Smith, J., & Young, S. (2018). *Defence Logistics: Enabling and Sustaining Successful Military Operations*. This publication focuses on key areas of logistics and supply chain management in context, such as sustainability, inventory management, resilience, procurement, information systems and crisis response. *Whilst not published until early 2018, it will be available to ADF members via the DLS.

Video: '[The Logistics of Alexander the Great in his campaign](#).' Alexander the Great is well known for his tactics on the battlefield, however this 10 minute video focusses specifically on his approach to logistics during various campaigns.

Video: [The importance of logistics](#). A 10 minute video which provides a detailed look at the importance of logistics within the Napoleonic Wars, the American Civil War, and World War II.

Video: [Logistics through the ages](#). Not military specific, however this 9 minute slide presentation provides a more generic look at the history of Logistics and the Supply Chain (focussed on distribution), from Ancient Egypt to the Industrial Revolution, and from the present day looking towards the future.

Website (DPN Only): [Logistics Lessons Learned Project](#). This is a Joint website which offers a hub for operational logistics lessons learned, in particular those from the Middle East and Solomon Islands deployments.