American, British, Canadian, Australian and New Zealand Armies' Program

COALITION LOGISTICS HANDBOOK

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CHAPTER 1 - INTRODUCTION

This handbook serves two main purposes:

- To introduce the reader to Logistics in a coalition setting.
- To provide checklists to assist in the conduct of Combat Service Support (CSS) planning.

1.1. The aim of the Coalition Logistics Handbook (CLH) is to provide a guide to the planning and conduct of logistic support in an ABCA coalition. The target audience is coalition logistic planners, doctrine writers, non – ABCA allies and training establishments.

Scope

1.2. The CLH provides ABCA members with detail on the planning and conduct of logistic operations, and guidance to ABCA and national commanders and the staff of the land component on optimizing the use of available logistic resources in multinational operations from crisis to conflict. The CLH may also be used for ABCA led operations involving non-ABCA nations. The focus of the CLH is on logistic command and control and planning at the operational and tactical levels; excluding Tactics, Techniques and Procedures (TTP).

Background

1.3. The ABCA mission is to optimize ABCA Armies' interoperability in order to deliver success on coalition operations. This is achieved through cooperation and collaboration in the continuous pursuit of standardization and mutual understanding.

1.4. The ABCA Program is not an alliance; however, the ABCA nations have served together in ad hoc coalitions on a number of occasions in pursuit of common objectives. Every coalition is different. The purpose, character, capabilities, composition and scope of a coalition are functions of changing missions, which are magnified by the complexities of two or more armies operating together. Each army brings its own view and methods of operations. For these reasons the CLH does not provide a template for logistics structures. Instead it prepares the mind of the reader for multinational logistics, providing the intellectual base needed when the reader must meet with coalition partners to design a suitable cooperative logistics system, including structures, responsibilities and procedures.

1.5. Nations bear the ultimate responsibility for ensuring logistics support to their forces. However there is considerable benefit to be gained from conducting logistics as a multinational and multi-disciplined activity.

1.6. Interoperability allows the coalition to gain significant benefits within a theater of operations at the operational level by:

- optimizing the logistic footprint without loss in effectiveness
- reducing costs to all contributors
- making best use of host nation and local resources
- reducing timelines for reception, staging, onward movement and integration (RSOI)
- reducing planning times.

1.7. At the tactical level, interoperability will increase the freedom of action of tactical forces through:

- increased ability of a nation to reinforce another with common supply items
- interoperable command and control
- interoperable logistic management systems (movement, material, equipment) with Asset Visibility (AV) and In-Transit Visibility (ITV), which will maximize throughput on lines of communications regardless of boundaries
- interoperable modes of transport and container systems, which will maximize usage of available transport
- interoperable recovery systems, which will enhance availability of materiel.

Terminology

1.8. This handbook uses terms in accordance with AAP-6 NATO Glossary of Terms and Definitions as well as terminology from ABCA nations. For clarity a CLH glossary that identifies differences in nations' terminology is included.

Supporting ABCA Documents

1.9. The CLH is supported by the following ABCA handbooks and planning guides:

- Coalition Operations Handbook (COH)- ABCA Publication 332
- Coalition Health Interoperability Handbook (CHIH) – ABCA Publication 256
- Security Force Capacity Building Handbook (SFCB)-ABCA Publication 369

Version

1.10. An electronic version of this publication can be found on the ABCA Internet site at www.abca-armies.org/. Hard copies of the CLH are available on request through the ABCA Armies' Program Office, USA.

1.11. This version replaces Edition 2 (Apr 08).

Amendments

1.12. Any amendments to this publication are to be directed to:

SO1 Combat Service Support
American, British, Canadian, Australian and New Zealand (ABCA)
Armies' Program
1777 North Kent Street – Suite 8600

Rosslyn, VA 22209-219, USA

Email: abca.programoffice@us.army.mil

Further Reading

- Report 79 CSS Terminology Synchronization
- AAP-6 NATO Glossary of Terms and Definitions

CHAPTER 2 – LOGISTIC FRAMEWORK

2.1. The purpose of this chapter is to describe the logistics framework within a coalition operating environment.

Definition

2.2. As defined in AAP-6, logistics is, “The science of planning and carrying out the movement and maintenance of forces. In its most comprehensive sense, logistics includes the aspects of military operations which deal with:

- design, development, and acquisition
- storage, transport, distribution, maintenance, evacuation and disposition of materiel
- transport of personnel
- acquisition, construction, maintenance, operation, and disposition of facilities
- acquisition or furnishing of services
- medical and health service support

2.3. This handbook takes the widest view possible and covers the following areas:

- supply
- material management
- warehousing
- contracting
- host nation support (HNS) and local resources
- transport
- modes of transport (road, rail, waterborne, air)
- terminal operations
- movements and movements control
- highway regulation / traffic control
- battlefield circulation control
- equipment support
- fleet management
- repair parts management

- maintenance
- repair
- recovery
- health service support
- patient evacuation
- treatment
- medical logistics
- preventative medicine
- personnel, administrative and field services
- strength management
- morale, discipline, leave and welfare
- pay
- records management
- replacement management
- legal services
- religious services
- military police services
- finance service
- laundry and bath
- command and control
- planning CSS operations
- controlling CSS operations
- information management and systems

2.4. The definition of logistics is not the same for all nations (Canada, for example, excludes medical support from the definition).

Levels of Logistic Support

2.5. Military operations are conducted at three levels: strategic, operational and tactical. Strategic and operational level logistics are focused on the support of wars, campaigns and major operations, whereas tactical logistics is concerned more with the support of battles and operations

at the land component level and below. Although it is helpful to understand the different levels, it is important to recognize that there is a significant degree of overlap and the reality is that logistic units assigned to, for example, operational level missions will be employed to perform strategic and tactical level tasks when required. In describing the levels of support, the intention is not to create imaginary or real barriers within the lines of communications (LOC).

2.6. Strategic Level. Strategic level logistics deals with mobilization, national acquisition, force projection, force sustainment and strategic mobility.

2.7. Operational Level. Operational level logistics focuses on establishing and maintaining in-theater LOC and sustaining a force in a theater. Operational level logistics encompasses RSOI of units and personnel; support base development; and force level supply, equipment support, transport, and movement services.

2.8. Tactical Level. Tactical level logistics sustains the tactical commander's ability to execute the mission. At this level, the functions of supply, transport, equipment support, health service support and personnel, administrative and field services are conducted.

2.9. The following table illustrates typical activities carried out at the strategic, operational and tactical levels:

Strategic	Operational	Tactical
Force Generation	RSOI	Movements
Materiel Readiness	Intra-theater Lift	Transport
Mobilization	Theater Distribution	Supply
Force Projection	Sustainment	Equipment Support
Strategic Lift	Reconstitution	Health Service Support
Force Sustainment		Field Services
Acquisition		
War Reserves		

Table 2.1. Logistics Functions at Strategic, Operational and Tactical Levels

Lines of Support

2.10. Each nation organizes sustainment throughout its forces to provide enough to each commander to carry out his mission. This handbook will use "lines" to describe where each echelon is located:

Line	Echelon
First Line	Organic to a Unit
Second Line	Organic to a Formation
Third Line	Organic to a Theater/Force National Support Elements
Fourth Line	Home or National Support Base

Table 2.2. Lines of Logistic Support

2.11. It is fundamental that logistic support capability be tailored to suit the mission's potential tasks to maximize efficiency while maintaining the requisite effectiveness and flexibility. Therefore, logistic capabilities are usually organized in modular form, platoons or companies with a C2 element, facilitating this regrouping within and between echelons.

Logistic Framework

2.12. Operational Environment. The operational environment / battlespace is likely to be non-linear, non-contiguous involving large distances, in complex terrain and with an asymmetric threat. This will therefore require a modular approach to the manner in which logistics is delivered.

2.13. There are no standing coalition forces, units or headquarters within the ABCA program. Within the operational environment / battlespace, national logistic organizations must exist in a multinational framework in support of coalition operations. Typical elements of the logistic framework may include:

- **Military Forces**

- **Bases.** These include the nation and its bases or intermediate support sites around the world. Support from the national support base is increasingly important because coalitions wish to minimize static logistic installations and stockpiles within the theater of operations.

- **Combined or Multinational Elements.** There may be all or some of these:
  - Coalition HQ
  - Theater Support Command
  - Land Component Command
  - Multinational formations and units

- **National Elements**:
  - National command elements
  - National support elements
  - Formations and units

- **Other Government Agencies (OGAs)**

- **Non-Government Organizations (NGOs)**

- **The Host Nation (HN)**

2.14. Logistic Support Options. The basic logistic support framework options are national responsibility, lead nation (LN), role specialization (RS) and multinational integrated support. These options are not mutually exclusive and a support framework will likely include elements from each option. The contributing nations decide on the framework prior to the coalition being fielded, and they need to approve any recommendations that flow from the coalition after the force is fielded:

- **National Responsibility.** In this option, each nation takes full responsibility for providing its own support. Short notice deployments and the initial phases of operations benefit from this method.

- **Lead Nation.** One nation, due to the size, scope or nature of its force contributions, takes the lead in coordinating and/or providing a broad scope of logistic support.

- **Role Specialization.** Logistic support may be provided by a single nation or service component within a key functional area or supply class.

- **Multinational Integrated Support.** Building this support framework would take considerable time and is likely only to exist in a mature theater. The elements of a multinational support framework would include:

- **Multinational Integrated HQ and Staffs.** For command, control and planning purposes.

- **Multinational Integrated Logistic Unit (MILU).** A MILU is formed from elements of two or more nations that are detached under the operational command of the unit commander. This is a difficult level of integration to achieve unless the unit components train together regularly between periods of employment. MILUs can be established at theater as well as at component level. The transport function is one that lends itself to this option given the similarities with the ABCA members' transportation functions.

2.15. Logistic Support Enablers. Nations may use the following to enable logistic support (besides their own military support capabilities):

- **Mutual Support Agreements (MSAs) / Acquisition and Cross Servicing Agreements (ACSAs).** Participating nations have the option to utilize existing agreements or develop support agreements bi and multilaterally to ensure provision of logistic support to their forces. It is essential that the coalition HQ be given an overview of such arrangements in order that they can be taken into account in the overall concept of support or in formulating logistic plans. Further detail is at Annex A.

- **Host Nation Support (HNS).** HNS is civil and military assistance rendered by a host nation's government to coalition forces. Arrangements are concluded between the appropriate authorities of host nations and sending nations. A coalition commander may be authorized by nations to negotiate, coordinate and control the provision of that support on behalf of all nations or may be limited to publishing policy on the use of HNS subject to agreement by the nations.

- **Contracting.** The purpose of contracted support on coalition operations[1] is to augment, compliment or replace military logistic capability and capacity by providing support to operations directly from a commercial source. Placed on a continuum, contracted support can be engaged from national support areas throughout lines of communication into the coalition area of operations. Contracted support ranges from ad hoc contracts for limited or specific deployed support through discreet capability provision arrangements, to the broader commercial support contracts which have global application.

- Contracted support generally does not replace, but may augment, support arrangements such as HNS or international support agreements (Implementing Arrangements (IA) or Acquisition and cross servicing agreements (ACSA)). The use of contracted support should be carefully considered by the mounting HQ and the relevant deployed logistics commanders' during the planning stages as well as throughout the operation's life cycle. Planners must consider the full impact of engaging contracted logistic support as fully described within the support solution envelope (SSE) guidance and the future use of contractors must be carefully considered.[2]

[1] Also referred to as Operational Contractor Support (OCS)
[2] Publication 366: Contract and Contractor Management on Operations

2.16. Principles. While procedures and terminology may differ between coalition nations, the following general principles should be applied to any coalition operation:

- **Authority.** Coalition commanders at the appropriate level must be given sufficient authority over national logistic resources (materiel and formations) that are necessary to effectively support the employment of deployed coalition forces.

- **Responsibility.** Coalition nations and authorities have collective responsibility for the provision of logistic support to joint and army level combined operations. Each nation must ensure, either individually or collectively, that sufficient logistic resources are allocated to support the coalition forces at designated levels of readiness, sustainability, and mobility.

- **Planning.** Coalition logistic planning should be aligned with the operational/tactical planning.

- **Cooperation.** Cooperation amongst coalition nations and authorities is essential to make best use of the resources available.

- **Economy.** National logistic resources must be used effectively and efficiently on behalf of the coalition to reduce the finances and resources necessary to achieve success.

- **Flexibility.** Coalition logistic force structure must be as dynamic, flexible, mobile, and agile as the operational forces they are supporting.

- **Visibility.** Information must be made available by nations concerning logistic formations, assets, and materiel so that coalition logistic staff can accomplish the efficient direction, management, and coordination of support to coalition forces.

Further Reading

- Publication 324 Principles and Procedures for Managing Local Support to Augment the Logistics Capability of an ABCA Coalition Force

- Publication 366 Contract and Contractor Management on Operations

- STANAG 2034 –Procedures for Mutual Logistic Assistance

- STANAG 2234 – Allied Joint Host Nation Support Doctrine and Procedures

- NATO AJP-4.5 – The Alliance Concept of HNS

- NATO Bi-Strategic Command Directive 60-70 dated 22 December 2004

- US Joint Publication – JP 4-08 Joint Doctrine for Logistics in Multinational Operations

- ADF – Handbook of International Logistics 2004 (incl NZ Annex at Vol 2 Part 3)

- NZDF DFO 1 Chap 3 - Defense related International Agreements and Arrangements

INTERNATIONAL ARRANGEMENTS AND AGREEMENTS

Purpose

1. The purpose of this annex is to assist the planning of land forces support in coalition operations. In particular, through the identification of extant international agreements and arrangements that will assist during the development of support and sustainment planning as well as the key planning and financial considerations for development of operation specific Implementing Arrangements.

2. Chapter 11 has outlined the considerations relevant to strategic and operational level planning and the logistic contribution to that planning. Rather than commence action on a number of these considerations from first principles each time an operation or mission is planned, international agreements and arrangements are a key tool available to logistic planners.

Types of Documents

3. There are three types of international agreements and arrangements:

- **Legally binding in international law.** These documents are concluded between states or certain international organizations, are preferably called treaties or agreements, contain mandatory language and are unclassified. Treaties or agreements are usually general in nature and provide an enduring umbrella under which nations / defense forces can work together.

- **Legally binding in domestic law.** These are concluded between parties which are legal entities under that domestic law where one of the parties is not a government agency, are preferably called agreements or contracts, contain mandatory language and may be classified.

- **Not legally binding but are morally and politically binding.** These can only be concluded between participants such as a defense force, a service or part of the defense force. They are preferably called arrangements, do not contain mandatory language and may be classified.

4. The most commonly used type of international arrangement that will be utilized or developed by logistic planners within a coalition is the implementing arrangement (IA). These may be developed at the operational level of planning to achieve specific purposes and to give effect to the arrangements and agreements. They may be:

- **Standing.** Developed to reach an agreement on how two or more nations will carry out an activity they have agreed to do together.

- **Singular Occurrence.** Provided to arrange support for a given activity such as an exercise or to develop understanding of who does what for a joint procurement.

- **General.** Covers occasional actions which would otherwise require often quite complex development of separate IA's. Host Nation Support Arrangements (HNSA) are an example of such an IA.

5. Appendix 1 shows the treaty level agreements that are in force between the various ABCA nations. These are maintained at the highest levels within the various defense departments / defense force headquarters.

Financial Considerations

6. The financial arrangements that would generally be associated with the execution of an IA are:

- **Replacement.** Where the receiver should provide replacement support, supplies or services identical or substantially identical in nature to the supplier. The IA should identify the time period for which these transactions are to be concluded and alternative procedures for settlement should this time period expire.

- **Compensation.** Where the receiver should compensate the supplier by transferring logistics support, supplies or services of equal value. The IA should identify the time period for which these transactions are to be concluded and alternative procedures for settlement should this time period expire.

- **Reimbursement.** Where the receiver is to reimburse the supplier for the provision of support, supplies or services. The IA should stipulate the paying and collecting offices of both parties and the authority and address to which invoices and completed demands should be sent.

LOGISTICS SUPPORT BI / MULTILATERAL TREATY / AGREEMENT MATRIX

Correct as at: December 2010.

	US	UK	CA	AS	NZ
US		• ACSA • IA (Iraq) • IA (Afghanistan) • IA (Communications) • EON • MOU (Aviation Fuel)	• ACSA	• ACSA • SOFA (for US Forces in AS) • CMAA (AIR-IA-001)	• ACSA
UK	• ACSA • IA (Iraq) • IA (Afghanistan) • IA (Communications) • EON • MOU (Aviation Fuel)		• MLSA • MOU (Airlift) • IA (Afghanistan)	• MLSA • IA (Airlift) • IA (Sealift) • IA (Kandahar) • IA (Kabul) • IA (UAE)	• MLSA • IA (Kabul)
CA	• ACSA	• MLSA		• MLSA	• MLSA
AS	• ACSA • SOFA (for US Forces in AS) • CMAA (AIR-IA-001)	• MLSA • CMAA	• MLSA • CMAA		• CDR • CDLSA • MLSA • CMAA • IA • SOFA • CMSA
NZ	• ACSA	• CMAA • CMSA • MLSA • HNSA	• QA • MLSA • IA	• CDR • CDLSA • MLSA • CMAA • IA • SOFA • CMSA • QA	

Table 2.A.1. Logistics Support Bi / Multilateral Treaty / Agreement Matrix

Glossary:

a. ACSA – Acquisition and Cross Servicing Agreement

b. CDLSA – Cooperative Defense Logistic Support Agreement

c. CDR – Closer Defense Relations Statement

d. CMAA – Cooperative Mutual Airlift Arrangement

e. CMSA – Cooperative Mutual Sealift Arrangement

f. EON – Exchange of Notes

g. IA – Implementing Arrangement

h. MLSA – Mutual Logistic Support Arrangement

i. MOU – Memorandum of Understanding

j. QA – Quarantine Arrangement

k. SOFA – Status of Forces Agreement

l. HNSA – Host Nation Support Agreement

CHAPTER 3 - SUPPLY

3.1. The purpose of this chapter is to describe supply support procedures within coalition forces during the execution of military missions.

3.2. The aim of supply is to procure, receipt, store, issue, and salvage materiel including the determination of type and quantity in each instance. Supplies are all materiel and items used in the equipping, support and maintenance of a military force.

General

3.3. Nations have the ultimate responsibility for ensuring the provision of sufficient supplies to sustain their forces in coalition operations. Nationally provided supplies can be augmented by HNS or by contracting and, where appropriate, by multinational provision as agreed between nations. Therefore, it is essential that the coalition commander is granted the authority to coordinate the provision of supplies.

3.4. Multinational supply systems should only be the chosen option if they enhance operational effectiveness. The option of multinational support will be determined during the logistic planning process and will depend greatly on the time constraints, the degree of standardization and any multilateral agreements already in place within the force.

National and Coalition Responsibilities

3.5. National authorities conduct their own provisioning calculations to determine their sustainment stock requirements. The factors include the capability of home bases or national support bases and industry to generate stocks, and the capacity and length of the lines of communication (LOC).

3.6. Nations and the coalition commanders must collectively agree on those stocks and their levels if they are related to force readiness. Such agreements are fundamental to measuring force readiness, freedom of action and operational limitations. The coalition will identify these critical supplies and design a management plan to ensure they are available when needed.

Sustainment Planning

3.7. As nations may have differing standards of support, it is essential that the contributing nations and HQ use common standards to assess their sustainment requirements. The following methodologies are examples used to calculate necessary stocks to sustain the mission:

- **Level of Effort Methodology (LEM).** This methodology is based upon a daily expenditure rate for missions/tasks, where the number of targets is unknown or not applicable. Factors in this methodology are average consumption of a consumer per day, number of consumers, number of days, and intensity of the campaign. The amount of stocks is expressed in days-of-supply (DOS).

- **Target-Oriented Methodology (TOM).** This methodology is used to calculate battle decisive ammunitions. By definition, this methodological approach is time independent and considers target attrition. It applies to missions of all kinds, of short or long duration. Factors in this methodology are list of enemy targets to be neutralized, list of own holdings and calculation model software with operational parameters. The amount of stocks is expressed in single rounds.

3.8. Artillery ammunition planning is likely the most vital aspect of support planning due to its value in battle and the tremendous amount of resources needed to store and move it. The methodologies described above result in two key yardsticks:

- **Required Supply Rate (RSR).** This is the amount of ammunition a maneuver commander estimates will be needed to sustain tactical operations over a specified period of time or for a specific mission. It is expressed as rounds per weapon per day.

- **Controlled Supply Rate (CSR).** If there is a shortfall, a CSR will be established. This is the amount that can be allocated based on availability of ammunition types, storage facilities, transportation assets, etc. It is expressed the same way as the RSR.

Multinational Supply

3.9. Where possible, it is expected that nations will cooperate, either using bilateral arrangements or through other cooperative approaches, to optimize the provision and use of limited resources. In the supply function, multinational support arrangements can usually be considered for the provision of food, water (bulk and bottled), bulk fuel, some ammunition types and medical supplies.

3.10. Storage. Storage is a function that lends itself to cooperative logistics. The shared use of ammunition and fuel facilities through multinational, bilateral, LN and RS arrangements are to be encouraged to minimize duplication of services.

3.11. Fuel. There are efficiencies through the use of a common fuel type. Nations should, where possible, ensure that logistic units have sufficient interoperable tactical fuel handling equipment, standardized means of transportation and a compatible container handling capability.

3.12. Water. The provision of this vital commodity is particularly suited to cooperative logistics and should be considered from a coalition perspective.

3.13. NATO Codes. Standard materiel codes are vital to aligning logistic information system (IS) and enhance interoperability. ABCA nations have agreed to use the following NATO codes:

- **NATO Stock Numbers (NSNs).** All materiel should be identified using this coding system.

- **NATO Ammunition Demand and Reporting Code (NARC) (a five-digit system). The** AOP-6 (STANAG 2928) gives the interchangeable NATO stock number (NSN) for each NARC and indicates interoperability with the barrels/guns. The NARC is used to manage the inter-changeability of ammunition.

3.14. Classes of Supply. It is important that ABCA coalition members share an understanding of the terminology used in supply, as only one set of terminology will be used in coalition orders and instructions (determined by the LN). There are differences in terminology however, and each nation (and NATO) has its own classes of supply (STANAG 2961). The tables below provide a description:

US, CA, AS, NZ	Description	Examples	NATO, UK
I	Subsistence	Food and water	I
II	General and Technical Stores	Clothing, individual equipment, tentage, tent sets and tool kits, hand tools, administrative and housekeeping supplies and equipment. Includes items of equipment, other than principal items, prescribed in authorization/ allowance tables and items of supply (not including repair parts)	II
III	POL	Petroleum fuels, lubricants, hydraulic and insulating oils, preservatives, liquid and compressed gases, chemical products, coolants, de-icing and anti-freeze compounds, together with component additives of such products and coal	III
IV	Construction and Field Defense Stores	Construction materials to include installed equipment and all fortification/ barrier materials	IV
V	Ammunition	Ammo of all types, including chemical, radiological and special weapons, bombs, explosives, land mines, fuses, detonators, pyrotechnics, rockets, propellants and other associated items	V
VI	Amenities	Personal demand items, non-military sales items	I
VII	Major End Items	A final combination of end products that is ready for its intended use, e. g. , launchers, tanks, mobile machine shops, vehicles	II
VIII	Medical Materiel	Including medical specific repair parts	II
IX	Repair Parts and Components	Includes kits, assemblies and sub-assemblies, repairables and non-repairables required for maintenance of all equipment	II
X	Materiel to Support Non-Military Programs	Agriculture and economic development	IV

Table 3.1. Classes of Supply

The Supply System

3.15. The flow of supplies into an operational area must be fully coordinated in order to avoid congestion at nodes and along the LOC. The priorities of movement of supplies into theater will be determined during the logistic planning process. Coalition HQ will perform a coordination, de-confliction and monitoring role.

3.16. Controlled or Regulated Items. A system must be established within the coalition to ensure the Coalition HQ has visibility of mission critical and/or sensitive items. Controlled, regulated items or other items as identified by commanders and staff should be assigned a code to facilitate reporting and control.

3.17. Reallocation of Supplies. National components confronted with critical deficiencies may submit requests to the coalition commander for emergency assistance from other nations or directly to other force/unit commanders. Commanders may be authorized to redistribute common user items by the nations in order to meet operational requirements.

Local Support

3.18. Local support refers to those resources found within the host nation or in the theater that can augment the logistic resources brought in by the coalition nations. It includes HNS and locally contracted resources. Refer to Chapter 2 and Publication 324 Principles and Procedures for Managing Logistic Host Nation Support to Augment Logistic Capability of an ABCA coalition.

Container Management

3.19. It is a supply function to manage containers in theater. A coalition container management function must be established within the HQ.

Further Reading

- Standard 628 - Handling Aids
- Standard 657 - Guide Specifications for ABCA Army Fuels, Lubricants and Associated Products
- Standard 972 - ABCA Land Force - Standing Operating Procedures, Salvage
- Standard 973 - ABCA Land Force - Standing Operating Procedures - Material Disposal
- Standard 1155 - Standard Packaging Test Procedures
- Standard 1156 - Requirements for Reusable Containers
- Standard 1157 - Standard Packaging for Materiels Susceptible to Damage by Electronic Discharge
- Standard 2019 - Common Critical Procedures for the Storage of Materiel
- Standard 2022 - Interoperability Requirements for Asset Tracking and Visibility of Materiel within the Distribution System
- Publication 342 - The Receipt and Issue of Aviation Kerosene and Diesel fuels in ABCA Armies
- Publication 362 - Joint ABCA/ASIC Coalition Forward Arming and Refueling Point (FARP) Interoperability Pamphlet
- Publication 358 - Explosive Ordnance Life Management in ABCA Armies
- STANAG 2895 - Standards for Temperature and Humidity Safety Limits in Munitions Storage Areas
- NATO Allied Ordnance Publication 38 (AOP-38) - Specialist Glossary of Terms and Definitions on Ammunition Safety

CHAPTER 4 – MOVEMENTS AND TRANSPORT

4.1. The purpose of this chapter is to describe movement and transport (M&T) support procedures within coalition forces during the execution of military missions.

4.2. The aim of M&T is to plan, direct and control all modes of transport with the aim of getting the right people, supplies and equipment moved to the right place at the right time in the right quantities in the right condition and by the most economical means to the satisfaction of the operational commander.

General

4.3. M&T enable the mobility of the force and sustainment though the distribution of supplies. M&T encompasses related infrastructure, facilities, modes of transport—including air, waterborne, rail and road—command and control, and equipment.

4.4. This chapter focuses on the operational and tactical levels rather than the strategic or inter-theater movements that are largely the purview of coalition nations. For information on convoy operations, refer to Chapter 9.

Definitions

4.5. Movement. Movement is the activity involved in the change in location of equipment, personnel or stocks as part of a military operation. Movement requires the supporting capabilities of mobility, transport, infrastructure, movement control and support functions.

4.6. Transport. Transport is the means of conveyance to move forces, equipment, personnel and stocks and includes the requisite materials handling equipment.

4.7. Movement Control. The planning, routing, scheduling and control of personnel and cargo movements over LOC. Staff planners, movement managers and mode operators at each level conduct movement control. Traffic control/highway regulation is one of the functions of movement control. It is the function of controlling the use of the available road network.

Principles of Movement and Transport

4.8. The principles of movement apply to all military transport services and remain constant. Additionally, they apply regardless of the planning level.

4.9. Centralized Control/Decentralized Execution. Movement control will be centralized at the highest level at which it can be adequately exercised by commanders charged with providing the total logistic support and monitoring the transport system and infrastructure. Decentralized execution enhances the flexibility to meet local requirements and to rapidly reprioritize support.

4.10. For coalition operations, the principle of centralized control may be limited to coordination, depending on the authorities granted to HQ by the coalition nations. Should the coalition nations retain command of their transport resources, the coalition movement function will be one of coordination. Should the coalition nations contribute to transport multinational logistic units, these HQ will exercise the complete control function.

4.11. Land forces perform decentralized execution by organizing transport resources throughout the force where they can best contribute to the overall mission of the force. Staffs direct what commodities are required where, by when and by what mode. Nations should provide the coalition HQ visibility of uncommitted transport assets.

4.12. Regulation of Movement. Movement is regulated to ensure even flow and to avoid congestion along the LOC. A central regulating authority provides regulation according to command movement priorities. Movement priorities are established in accordance with the commander's plan.

4.13. The interoperability of a coalition force's movement and transport assets, management systems and communication networks is vital. Within the coalition, rules, regulations and procedures governing the preparation, documentation and loading/unloading of traffic must be established by movement and ops staffs and transport agencies.

Modes of Transport

4.14. Modes. There are several transport modes available for the conduct of military operations: air, sea, road, rail, inland water transport, pipeline and manpower / pack animals.

4.15. Inter-modality. Inter-modal capability is the ability to transfer shipments from one mode to another with minimum handling requirements. The positioning of the appropriate materiel handling equipment (MHE) to handle the cargo is very important in inter-modal operations.

Concept of Operations

4.16. The concept of operations for the M&T system depends largely on the nature of the coalition (whether LN, multinational, etc). As an overview:

- Force level transport assets are centrally coordinated to ensure all resources are used to maximum extent. They provide throughput distribution as far forward as possible.

- The force movement control center provides centralized movement control, and traffic regulation for the force.

Responsibilities

4.17. Coalition Responsibility. Coalition commanders must understand the capabilities of the transport assets and availability within the coalition, host nation and theater/region. Lastly, the HQ must understand any limitations on reallocating transport resources from the nations if it feels such action is required.

4.18. Coalition Nations. The responsibility of the coalition nations is to identify issues with capability and availability of assets to carry out their assigned task to the coalition HQ.

4.19. Lead Nation.

- Take the lead in planning and controlling deployment, transport for sustainment (re-supply) and re-deployment as well as obtaining transport resources for coalition headquarters.

- Conduct either partially or totally the task and responsibilities of a host nation in the case where no host nation authority exists, or by agreement between sending and host nations.

- Take the lead in performing specific movement and transport tasks as identified by the coalition headquarters in cooperation with the nations.

- Arrange compensation and/or reimbursement for those LN functions with all partners involved.

4.20. Movement Control Center[3], Units, Detachments and/or Teams. These organizations ensure the execution of the movement program as designed by the movement staff at all organizational levels from the strategic to tactical.

4.21. Traffic Control / Highway Regulation HQ, Units, Detachments and/or Teams. These elements work in conjunction with the movement control organizations. They perform the regulating function, including planning, routing, scheduling and de-conflicting the use of the road network by vehicles and personnel afoot, including troops and refugees, to utilize the network most effectively.

4.22. Transport **Elements.** The higher HQ will define the effect or task, however the transport elements will decide on the best method of operating its assets to achieve the effect.

4.23. Users. Users identify the movement requirement, stipulate any deadlines, restrictions and limitations and provide the priority for movement, normally in terms of desired order of arrival and the required delivery date-time group.

ISO Containers

4.24. The use of International Standards Organization (ISO) containers (often referred to as sea containers [SC], Twenty Foot Equivalent Units [TEUs] and ISOs) has become an essential element in meeting the transport and storage requirements of the land force. The use of SC for the movement of general cargo or stores is a well-established and proven method. Future operations will be as dependent, if not more so, on this method of movement, and the need for a comprehensive policy on the use of containers has become increasingly important.

4.25. The most commonly used is the 20 ft sea container constructed to ISO standards. The design of sea containers is tailored to meet the needs of the cargo being carried. Details such as lifting points, securing arrangements and packaging are configured to international standards, thereby easing the handling of sea containers worldwide.

In-Transit Visibility

4.26. Interoperable and secure communications between coalition members, with linkage to civil transport authorities, will be needed to enable appropriate movement planning, control and coordination.

4.27. Any non-interoperable communication systems must be understood, mitigated or accepted prior to design of the M&T program. The principle of centralized control will be implemented only to the highest level capable of carrying out the task, as determined by the information management capability.

Road Movement Orders

4.28. A common road movement orders format is important to standardize convoy operations. The NATO road movement orders and table format has been adopted by ABCA for this purpose.

Further Reading

- Standard 507 - Military Routes and Route/Road Networks
- Standard 628 - Handling Aids

[3] For further reading on Movement Control Centers see Chapter 10

- Standard 785 - ABCA Armies Materiel Issue and Movement Priority System (ABCAMIMPS)

- Standard 2022 - Interoperability Requirements for Asset Tracking and Visibility of Materiel within the Distribution System

- Publication 252 - Common Critical Procedures for the Transportation of Hazardous Materials and Dangerous Goods

- Publication 316 - Vehicle Mobility Category Definitions in ABCA Armies

- STANAG 2454 Road Movements and Movement Control (AMovP-1)

- STANAG 2014 Formats for Orders and Designation of Timings, Locations and Boundaries (Annex L)

CHAPTER 5 - MAINTENANCE

5.1. The purpose of this chapter is to describe maintenance considerations within coalition forces during the execution of military missions.

5.2. The aim of maintenance is to provide the maximum availability of equipment to the operator. Maintenance encompasses:

- maintenance to undertake action to retain equipment in order to restore it to a specified condition, including inspection, testing, servicing, and classification as to serviceability, repair, rebuilding and reclamation
- recovery
- equipment, fleet or system management
- repair part management and
- replacement equipment management

5.3. It is likely that maintenance, other than recovery, will remain a national responsibility.

Responsibilities

5.4. Nations are usually responsible for the provision of equipment fleets, parts and maintenance assets to support their forces. However, nations and coalition HQ have a collective responsibility for maintenance and should make full use of bilateral or multilateral agreements to ensure the best use of maintenance capabilities and common repair parts.

5.5. Interoperable repair is difficult to achieve unless two or more nations possess identical items of equipment (i. e. same make, model, key components). Any reallocation of repair capability must be planned to give technicians time to train on the equipment and put parts and special tooling in place. Nations who share equipment should exchange maintenance management information as the operation continues so that they may improve their maintenance programs, better forecast failures, parts requirements, technical training programs, and any safety related issues.

5.6. There is much interoperability possible in the fields of recovery and evacuation, cannibalization, battlefield salvage / reclamation and in battle damage repair (expedient repairs to return equipment to service until proper maintenance can be done).

5.7. Nations must be prepared to report equipment readiness to the coalition commander as directed in order to support higher level decision making and operational planning.

Repair

5.8. Expedient Repair. The vast majority of repairs will remain a national responsibility, however, expedient repair is essential repair, which may be carried out rapidly in order to return damaged or disabled equipment to temporary service. The need to maintain equipment—especially battle decisive equipment—in working order, even with a limited functionality, will be imperative. Under these circumstances it will be necessary to allow expedient repairs. Once the mission has been accomplished, in most cases the expedient repair must be followed by regular maintenance to restore full materiel operability or return the equipment to its original specifications.

Recovery

5.9. Recovery is an area in which nations must seek interoperability so that any nation's recovery assets can be used in recovery and evacuation operations. Personnel should have knowledge of the capabilities of their own and allied recovery resources. STANAG 2375, Battlefield Vehicle Recovery and Evacuation Guide (AEP-13) is a reference manual that is useful in planning and executing battlefield maintenance and recovery operations. It contains recovery data on each nation's vehicles.

5.10. Recovery is the extraction of an abandoned, disabled or immobilized vehicle and, if necessary, its removal to the supporting collection point or appropriate maintenance facility. Equipment backloading (United States call this "equipment casualty evacuation") is the movement within a logistic system of equipment requiring maintenance.

5.11. Extraction of bogged, but otherwise serviceable, equipment is of prime importance to the current battle but recovery is more far reaching than just this aspect. It is the mechanism by which the repair loop is serviced, making equipment available for future battles. Recovery assets remove unserviceable equipment away from the immediate threat of enemy action, prevent serviceable or economically repairable materiel from falling into enemy hands and then enable the repair of damaged equipment to start without delay. This mechanism is in line with the principle of forward repair. Equipment that cannot be recovered, backloaded, or salvaged may be destroyed to deny its use by the enemy.

5.12. Because of the importance (and shortage) of recovery assets on the battlefield, control over recovery assets is normally centralized within the support level so they are most flexibly employed.

Reclamation

5.13. Reclamation is the process of salvaging or cannibalizing of usable items from damaged, condemned, discarded or abandoned equipment. This is an individual nation's responsibility.

Further Reading

- Standard 940 - Procedures to be used to assess the Extent of Wear in Artillery and Tank Guns
- Standard 1207 - Hazards to Personnel and the Environment for Ordnance Systems, Items and Materials
- Standard 1215 - Quality Management System Standards Among ABCA Armies
- Standard 1345 - Reporting Procedures for Critical Failures of Materiel used in more than one Army to other Armies
- Database 7 – Major End-Items E-Staff Database
- Publication 99 - Technical Data Packages (TDP) Required to Support Equipment Throughout the Life-Cycle
- Publication 269 – The Hazards to Personnel and the Environment, and their Degree of Severity Due to the M113 Family of Vehicles
- Publication 270 - Hazards to Personnel and their Degree of Severity for 155 Ammunition, its Associated Repair and Maintenance, Including Consumable and Disposable Items

- Publication 271 - Hazards to Personnel and the Degree of Severity of these Hazards for Small Caliber Ammunition, its Associated Maintenance, Including Consumable and Disposable Items

- Publication 272 – The Hazards to Personnel and the Environment and their Degree of Severity For 81 mm Mortar Ammunition, Its Associated Repair and Maintenance, Including Consumable and Disposable Items

- Publication 314 - Hazards to Personnel and the Environment, for the LAV II Family of Vehicles

- STANAG 2375 Battlefield Vehicle Recovery and Evacuation Guide

- STANAG 4478 – Emergency Towing and Recovery Facilities for Tactical Land Vehicles

CHAPTER 6 - HEALTH SERVICE SUPPORT

6.1. The purpose of this chapter is to describe health service support (HSS) considerations within coalition forces during the execution of military missions.

6.2. The aim of HSS is to conserve personnel strength of coalition forces.

General

6.3. HSS is identified as a function of logistics and as such is included in the CLH.

6.4. Specific HSS principles, policies and support concepts agreed to by the coalition partners are laid down in the Coalition Health Interoperability Handbook (CHIH).

HSS Concept within the Coalition Context

6.5. General. The responsibility for obtaining medical resources and for planning and controlling the medical support of national forces and national components of multinational formations rests with each nation. Additionally, national standards for health care and medical treatment have to be taken into account. These principles must be tempered by the need for cooperation, coordination and economy and may include cooperative arrangements initiated by coalition members. Nations retain the ultimate responsibility for ensuring the provision of HSS for their forces allocated to ABCA, but on transfer of authority, the coalition commander will share the responsibility for the health and medical support of assigned forces.

6.6. Lead Nation Concept. The provision of one or more specific medical functions or roles may be assumed by one nation, designated as either the lead nation (LN) or role specialist nation (RSN). The lead nation may also assume the responsibility to coordinate medical support of other nations within its area of responsibility (AOR).

6.7. Multinational Integrated Medical Units (MIMUs). In recognition of the requirements for efficiency and economy, coalition members may form a MIMU to make best use of scarce resources or reduce redundancy. Due to the complexities involved in operating a MIMU, a memorandum of understanding (MOU) between the participating nations must be approved prior to the creation of such a unit. A template for the MOU is contained within ABCA Publication 355.

Further Reading

- Standard 2079 - ABCA Patient Medical Evacuation Request
- Standard 2080 - Coalition Casualty Regulating Tool (CCRT)
- Publication 355 Multinational Medical Unit MOU Template
- Publication 256 Coalition Health Interoperability Handbook

CHAPTER 7 - PERSONNEL, ADMINISTRATIVE AND FIELD SERVICES

7.1. The purpose of this chapter is to describe personnel, administrative and field services considerations within coalition forces during the execution of military missions.

7.2. The aim of personnel, administrative and field services is to provide essential services to soldiers to sustain the human dimension of the force while on operations.

General

7.3. Personnel support functions, as any other support function, must be coordinated by the coalition HQ to ensure the coalition human resources are available for duty, and properly trained, equipped and motivated.

7.4. While the majority of these functions are a national responsibility, opportunities for interoperability may exist due to the cultural similarities of the ABCA nations and should be pursued where multinational cooperation is a more efficient option.

Personnel Management

7.5. While personnel management is a national responsibility, its execution must be ensured so that the coalition commander's ability to accomplish the mission is not impaired. Manning the force ensures that military personnel of the right type and in the right numbers are in the operational environment / battlespace.

7.6. Personnel management is the formulation of policies and plans and the execution of those functions leading to the most effective employment of personnel. Personnel management comprises the following elements:

- personnel records (a national responsibility and not discussed further)
- personnel allocation (a national responsibility and not discussed further)
- strength management
- personnel replacement management
- personnel casualty reporting

7.7. Strength Management. While detailed personnel strength management is a national responsibility, the coalition commander requires information necessary to assess operational capability and readiness for current operations and planning for the future. Strength management data is also used in providing water and rations, amenities, replacement management, casualty management, and postal services.

7.8. Currently common personnel reporting systems or procedures do not exist in ABCA. These procedures and the content of the reports will need to be improvised, likely based on the capabilities of each nation's personnel management information system. The frequency of reporting and the collation of information must be considered to enhance the decision making process.

7.9. Strength reports should include as a minimum:

- authorized unit strength
- current operating strength
- critical personnel shortages by skill and rank
- assessment of impact on current or planned mission

7.10. Personnel Replacement Management. Though a national responsibility, the ABCA nations share similar doctrine on this function for individual, group, and crewed vehicle replacements. Cooperative use of facilities, ranges, training areas, etc. should be possible and advantageous to the coalition. The coalition commander will likely have no authority over these replacements, except to understand the nations' shortfalls in this aspect of their capability.

7.11. Personnel Casualty Reporting. Another key personnel activity of importance to nations and the coalition commander is personnel casualty reporting. It is a national responsibility, however coalition SOPs are required because nations may treat and process each other's casualties, and superior commanders (national and coalition) will require visibility.

Administrative Services

7.12. ABCA armies address administrative services differently. They are known as administrative services in some armies and personnel support services in others, but usually are the responsibility of the G1 or G4 staffs. Administrative services can include postal services, morale, welfare and recreation operations, religious, philanthropic support, public affairs and legal services.

7.13. Financial Services. Financial services are a national responsibility and will be exchanged through MOU or agreements between the relevant nations. Coalition HQ may play a coordination role and will establish policies aimed at curbing black market activities and preventing false economies.

7.14. Postal Services. Postal services will be operated in the theater to deliver official and personal mail in accordance with Standard 181 Postal Organization in Joint Operations or Training. This Standard ensures national postal systems operate to the same standard such that cooperative mail services can be established if nations decide to do so.

7.15. Morale, Welfare and Recreation Activities. Morale, welfare and recreation activities promote combat readiness and reinforce unit cohesion by promoting and building morale, enhancing quality of life and providing recreational, social and other support services for military forces. Whilst each nation must plan and execute these activities for its own forces, there are considerable benefits to be gained from sharing these facilities.

7.16. Religious Support. Religious support activities support combat operations by promoting spiritual welfare, morale, personal stability, self-confidence and humanity. Where multinational cooperation is feasible, it should be utilized.

Field Services

7.17. Field services include mortuary affairs, food services or catering, shower, laundry and waste disposal. Cooperative arrangements between nations should be pre-arranged as much as possible based on the nations' capabilities.

7.18. Mortuary Affairs. Care for the dead is a national responsibility, and each nation should have its own policy. However, multinational cooperation may be required. Therefore, a planning guide / checklist is included at Annex A.

7.19. Food Services / Catering. Food services are entirely suited to cooperative arrangements. This includes the supply and accounting for fresh and hard rations, food preparation, the operation of kitchen facilities, the provision of ice, and bakery support.

7.20. Other Services. Other services including waste disposal, laundry and bath services are suited to cooperative arrangements.

Further Reading

- Standard 181 - Postal Organization for ABCA Armies Engaged in Joint Operations or Training
- Standard 655 - Handling of Deceased Personnel in an Area of Operations
- Standard 2026 - Principles and Procedures for Tracing and Tracking Personnel in an ABCA Coalition Force
- Publication 251 - General Finance and Contracting Principles for Mutual Logistics Support
- STANAG 2070 Emergency War Burial Procedures
- STANAG 2109 Postal Organization and Courier Service for NATO
- STANAG 2406 Land Forces Logistic Doctrine

MORTUARY AFFAIRS - PLANNING CONSIDERATIONS CHECKLIST

General

- What is the doctrine for troop contributing nations (TCNs) for mortuary affairs (MA)? What is common amongst them? What are the major differences that should be addressed?
- Have coalition MA agreements been reviewed?
- Is HN involved in the coalition MA process? If so how?
- Has the number of personnel, the size and the location of the operational area been taken into consideration?
- What are the environmental, situational and security considerations that need to be taken into account?
- What is the expected number of fatalities?
- What mortuary facilities are already in place, either CF or HN?
- Will contractor support be required? If so, when and how will it be done?
- What are the cultural and religious requirements that need to be considered?

Handling of Human Remains

- What is the process for handling human remains?
- What is the process for the tracking of human remains intra and inter-theater?
- What is the process for the custody and hand-over of human remains from one nation to the parent nation?
- Has multinational evacuation of the remains to a national POC been arranged?
- What is the coalition standard for the identification of human remains?

Handling of Personal Effects

- What is the process for handling personal effects?

Other Considerations

- What is the process for MA support for attached civilian personnel (ie media personnel, contract workers, Other Government Agencies (OGA), etc)
- What is the process for MA support for PoW, HNSF or civilians?
- What are the national and international legal requirements that must be considered?
- What is the process for information management / public affairs release? Have national requirements been considered and incorporated into the plan?

CHAPTER 8 - RECEPTION, STAGING, ONWARD MOVEMENT AND INTEGRATION (RSOI)

8.1. The purpose of this chapter is to describe Reception, Staging, Onward Movement, and Integration (RSOI) procedures within coalition forces during the execution of military missions.

8.2. The aim of RSOI is to successfully transition units, troops and equipment from deployment to employment as efficiently as possible.

8.3. RSOI. The RSOI process describes the series of activities that encompasses logistic led reception, staging, onward-movement and the J3 led Integration process. It enables force elements, on arrival in theater, to attain full operating capability as part of a coalition force. It is a complex, often prolonged and frequently dispersed process. Although in coalition or multinational operations, national forces may conduct RSOI concurrently, requiring co-ordination of real estate, resources and facilities, it remains a national responsibility unless specifically directed otherwise; for example when a Logistic LN is given this responsibility.

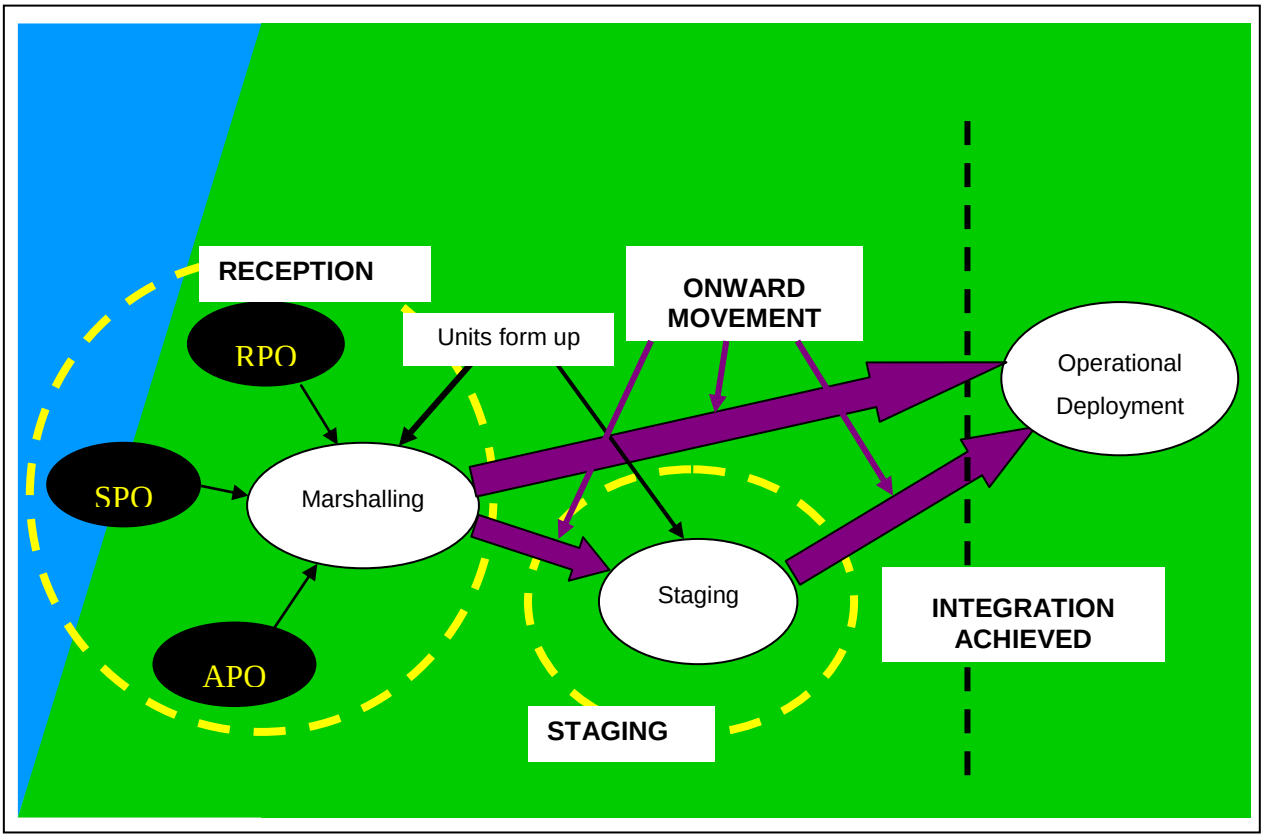

Table 8.1. Example of a RSOI Process

Background

8.4. ABCA armies are capable of projecting combat power worldwide to meet challenges posed across the spectrum of conflict. Key to a rapid and effective transition process from deployment to employment are agreed coalition procedures for RSOI. It is not necessarily a linear process.

8.5. Nations and the coalition HQ have a collective responsibility for RSOI. While nations have to ensure, individually or by cooperative arrangements, the provision of logistic resources for RSOI to support their force elements, the success of their efforts will come only with the coordination

provided by a coalition HQ cognizant of the needs of all nations, the coalition commander and the availability of HNS if applicable.

8.6. The coalition commander and his/her staff must coordinate the efforts of the contributing nations and synchronize the flow of personnel and equipment into theater in order to facilitate the buildup of military capability and avoid congestion at nodes or chokepoints on the LOC.

Principles

8.7. There are five overarching principles that must be considered during the development and execution of RSOI:

- **Unity of Command.** The competing requirements of nations and the authority of the HN require central coordination and direction over the RSOI process. The coalition HQ must be given requisite authority over this process. A LN should be identified to execute the process so that it remains coherent. The coalition commander, who bears ultimate responsibility for the timely execution of the operational plan, needs to be provided overall control of the deployment of the national forces within the theater.

- **Flexibility.** Flexibility is the key to successful RSOI, as the order of entry of forces can change suddenly or the priority of effort can switch to a certain unit because it is required for combat operations.

- **Coordination.** A communication and liaison network must be established to coordinate the activities of RSOI. This demands the earliest integration across the C2 system.

- **Integration in the Planning Process.** RSOI must be included in the planning process from the outset.

- **Optimum Logistics Footprint.** Whilst some surge capacity will be required, the goal is to optimize throughput of units and materiel.

Process

8.8. Transition from deployment to employment is a four stage process (with some preliminary activity) designed to quickly and efficiently receive deploying units and prepare them for employment:

- pre-deployment activities

- reception of personnel and equipment

- staging and validation of unit personnel and equipment for onward movement

- coordination and conduct of onward movement of the deploying unit(s)

- integration into the gaining unit or formation

8.9. Whilst the steps above are a useful template, the process is enduring throughout the entire operation; steps can skipped or conducted concurrently but could increase the risk to the commander in regards to the preparation of his forces.

Pre-Deployment Activity

8.10. Planning. RSOI planning must begin in the early stages of an operation to avoid duplication of effort and to ensure the effective movement of personnel and materiel into theater. The resources needed to manage and conduct the RSOI (activation group) must be included early in the flow. Synchronization of deployment plans and cooperation in the use of strategic lift assets will minimize waste and enhance the overall process.

8.11. Reconnaissance. The RSOI reconnaissance group (RGp) must make an assessment of a number of issues before the RSOI process can commence. The issues to be determined are:

- The prevailing tactical situation.
- The need for de-confliction and co-operation between national contingents. (Where RSOI is being conducted within a coalition, there may be a combined RGp)
- The location, capacity and suitability of available PODs.
- The suitability of real estate and the availability of support infrastructure, particularly the capacity, diversity and accessibility of the local transportation network and resources.
- Access to life support services such as electrical power, compatible equipment, communications, fuel, water, food and waste disposal.
- Availability of HNS, in-country resources, and contractors.

Reception

8.12. Reception is the process of receiving, offloading, marshalling, recording and transporting personnel, equipment and materiel from strategic or operational lift through sea, air, or rail PODs. It involves the preparation of facilities, initial force protection, administration and briefing of personnel and their subsequent transport away from the POD. The process can also involve time-consuming preliminary activities such as the building of camps, medical facilities, theater reception centers and logistic compounds in advance of main force deployment.

Staging

8.13. Staging is the process of assembling, temporarily holding, organizing, acclimatizing, and training arriving personnel, equipment and materiel, prior to their onward movement and further activities. Staging may involve both formed units and individuals that, at its simplest, feeds and accommodates arriving personnel in a benign or protected environment.

Onward Movement

8.14. Onward Movement is the process of moving units, personnel, equipment and materiel from the reception area or staging areas, if required, to their operational deployment location. It requires co-coordinated movement control and an effective transportation network.

Integration

8.15. Integration is the synchronized transfer of operationally ready units into the coalition in accordance with the operational plan. Integration is designed to receive personnel into units, orientate them to the operational area and includes further acclimatization, training and situational awareness. Nations will have responsibility for the integration of their own forces and are also

likely to have some responsibility for enabling elements of integration training for the whole force such as the provision of ranges in reception and staging areas and providing some theater orientation briefings. Integration may be conducted outside the AO or at any stage of the RSOI process. It can be conducted as part of the reception process or at a staging area. Integration is completed when the force elements are assessed as being effective by the appropriate Commander.

Planning Checklist

8.16. The RSOI planning checklist is located in Annex A.

Further Reading

- STANAG STUDY 2580 AJOD –Reception, Staging and Onward Movement Procedures

RSOI - PLANNING CONSIDERATIONS CHECKLIST

Pre-Deployment

- What liaison has been established with J3 staff?
- Who is providing personnel for the RSOI RGp, RSOI Activation Group and is there a need to form a Controlling HQ?
- What are the required capabilities for the Activation Group?
- What enabling capabilities have been allocated to the Controlling HQ?
- What transport resources and infrastructure is available to effect RSOI?

Reception

- Where will reception take place – within the theater or at an Intermediate Staging Base?
- What is the physical environment?
- What is the threat situation?
- What infrastructure is available?
- What is the throughput capacity of the POD?
- Who is conducting the duties of reception?
- What force flow has higher HQ determined?
- What liaison requirements exist to effect reception?
- What contractor support / HNS are available?
- What ability exists to track personnel and materiel into theater?

Staging

- What is the threat situation?
- What activities will be taking place in the staging area?
- Is sufficient size available within the POD or allocated area to affect staging?
- What infrastructure is needed/available for staging?
- What training areas and marry up areas are available for staging?
- What life support requirements are there for staging (includes water, shelter, sanitation, health support, transport, maintenance, supplies and personnel services)?

- What contractor support / HNS is available?
- What proximity is the staging area to LOC and PODs?
- Who is issuing the movement orders for personnel during the staging process?
- Who will continue the tracking of personnel and materiel through the staging area?

Onward Movement

- What is the threat situation?
- What Force Protection is required and available for onward movement?
- What is the availability of transport assets (air, road, rail and sea)?
- What is the capacity of the Lines of Communication for onward movement? Sufficient?
- What coordination has occurred with the in-place force?
- If movement is by road convoy has the operation been checked against the checklist for convoy operations?
- What means are available to continue the tracking of personnel and materiel from the staging to the integration point? Who is conducting this activity?
- What contractor support / HNS are available?

Integration

- What is the additional CSS surge requirement?
- Has the liaison with the operational planners occurred to ensure smooth integration?
- What is the handover point for forces for integration?

CHAPTER 9 – CONVOY OPERATIONS[4]

9.1. This chapter describes the staff planning considerations for planning convoy operations within a coalition and does not detail TTPs.

9.2. The aim of convoy operations is to enable the controlled ground movement of combat, combat support and combat service support vehicles in a tactical environment. This may be with or without integral security or an escort element.

9.3. For more detail on movements and transport, refer to Chapter 4 of this publication.

General

9.4. Convoy operations are crucial to the movement support and sustainment of operations. In complex terrain, operating against asymmetric and hybrid threats, convoy operations are considered to be especially vulnerable to enemy interdiction. A common and robust strategy is required that enables multinational convoys to operate effectively, both as single nation and as multinational columns. Within a contemporary threat environment, logistic convoys are complex and demanding combat operations that require the convoy commander to have a detailed understanding of the operational environment, purpose and capabilities of the assets within the operation.

Command and Control

9.5. Multinational convoy operations present a C2 challenge. Effective C2, specifically unity of command, during any convoy operation will be difficult unless all parties have trained and rehearsed together and are fully aware of each other's drills, procedures and capabilities.

9.6. There must be a clear chain of command between the elements within the convoy, in particular where there is an attached escort force. Additionally, there must be a defined command relationship between the convoy and the force in whose AO the convoy is operating. The requirement for a single convoy commander is paramount.

9.7. The C2 arrangement must be supported by interoperable communications and information systems. This will allow for a common operating picture to be shared within and between the convoy and the force in whose AO the convoy is operating.

9.8. The principles of centralized control as described in Chapter 4 equally apply to convoy operations. However, the emphasis for convoy operations is on the decentralized execution in support of the convoy commander executing the mission. Decentralized execution through the convoy commander enhances the flexibility to respond to changes in the tactical situation and to rapidly reprioritize support.

Convoy Planning and Preparation

9.9. Convoy planning requires the collaboration of the operations and logistics planning staffs. Regardless of the convoy mission, planning should be led by the operations staff with input by the other staff branches as appropriate. Logistic staff should focus on the provision of supplies and services nested within the convoy mission, in addition to integral convoy support. The following are some, but not an exhaustive list, of the key planning elements and their respective considerations.

[4] UK, AS and NZ include, within Convoy Operations, Combat Logistic Patrols

9.10. Tasking HQ. The tasking HQ assesses anticipated logistic requirements and plans and prepares for the delivery of those requirements. Concurrently an intelligence assessment is made to determine if sustainment can be achieved through a convoy. When it is necessary to conduct a convoy the tasking HQ, considerations may include:

- Conduct of an initial operational assessment within their AO, including establishing liaison with flanking formations and CF through whose AO the convoy will pass.
- Tasking a unit to conduct the convoy.
- Augmentation of the tasked unit with attached elements to provide the necessary range of military capacity
- Production of an operational order for all units involved in the conduct of the convoy.

9.11. Movement Control Center[5]. The Movement Control Center (MCC), as described in Chapter 4, will coordinate and control movement within the AO. This may include road movement timings and priorities, road space allocation, and coordination with higher level movement requirements.

9.12. Tasked Unit. The tasked unit operations staff will assist the convoy commander in the development of the convoy plan and other supporting operational staff work. The tasked unit is responsible for the detailed planning, preparation of the convoy, including integration of supporting external and attached elements into the plan. The tasked unit must liaise with CF, where required, for convoy support.

9.13. Recipient Unit(s). The linking up of the convoy with the recipient unit is led by the recipient unit(s) who has the best situational awareness of local conditions but all planning is to be cognizant of the constraints of logistic vehicles with loads that are subject to special handling requirement. The recipient unit is responsible for coordinating with the tasked unit for the exchange of operational information pertinent to the linking up of the convoy with the recipient unit.

Convoy Execution

9.14. Convoy operations, by their very nature, will include distinct groupings with individual responsibilities. The construct of a convoy is situationally dependant, but it may include:

- **Command Element.** The command element, led by the convoy commander, is responsible for the execution of the mission including preparation, rehearsals and command of convoy operations, integral assets and attached elements for the duration of the convoy.
- **Logistic Element.** The logistic element is responsible for providing integral CSS support (recovery, refuelling, HSS etc) and sustainment to the convoy in addition to the provision of logistic supplies and services to the recipient unit.
- **Convoy Support Element.** The convoy support element is responsible for providing integral security, and may include forces providing communications, route clearance and force protection.
- **External Escorts.** The external escort element is responsible for providing security in depth to the convoy. This may include actions to clear and secure the route, and key terrain to permit safe passage of the convoy.

[5] This may also be referred to as the Regulating HQ

Convoy Size

9.15. Convoys can range in size are mission dependant and are driven by the operational environment, availability of resources, and the quantity of logistic supplies and services that must be exchanged with the recipient unit(s). Large convoys make more efficient use of aviation, artillery and ISTAR, HSS, air support, and multinational assets, and their inherent mass enhances force protection. However, larger convoys are slow, cumbersome, easily targeted by the enemy, and need a correspondingly large co-ordination effort. (Force protection assets integral to the convoy can spend a disproportionately large amount of time managing traffic rather than providing protection). Furthermore larger convoys can pose significant capacity challenges or adversely affect operations for recipient unit(s). Large convoys may need to be reconfigured to be able to reach geographically constrained or remote locations.

Further Reading

- STANAG 2454 (AMovP-1)
- STANAG 2614 Convoy Operations

CONVOY OPERATIONS – PLANNING CONSIDERATIONS CHECKLIST

Planning Considerations

- How is the regulation of movement conducted and by whom?
- Are movements prioritized in accordance with the commander's plan?
- Who is providing the traffic control units, detachments and/or teams?
- What level of interoperability can be achieved for the convoy?
- What movement is required across formation/national boundaries? Has coordination been conducted?
- What are the rules of engagement (ROE) for the convoy?
- If the convoy consists of more than one nation what is the effect of different ROE?
- How will the convoy be tracked and who will have this responsibility?
- What communications does the convoy possess and how interoperable are the communications assets between the convoy and the escorts?
- What interoperability issues are there between the convoy, its HQ and formations and national elements that the convoy will transit through?
- What are the C2 arrangements between the convoy and the force element/areas it is transiting through?
- What protection and security elements are allocated to the convoy?
- What interoperability issues exist between the allocated elements and the convoy?
- If it is a multinational convoy, have counter IED actions been briefed and rehearsed?
- What effect could one nation's ECM have on other nations' communications and situational awareness?

CSS Considerations

- What are the CF procedures for CASEVAC?
- What national implications are there for convoy members requiring CASEVAC?
- How will vehicle recovery be executed for the convoy?
- Have appropriate maintenance support and recovery assets, that will support all vehicles in the convoy, been allocated to or in support of the convoy?
- What national implications are there for vehicle maintenance, recovery and refuelling?

- Has materiel handling equipment (MHE) and other specialist handling equipment been allocated to the convoy or recipient unit/s?

Non-Military Personnel Considerations

- Are non-military personnel part of the convoy?

- If so, what are the specific arrangements in place for their participation in the convoy (CASEVAC, vehicle recovery, force protection)?

CHAPTER 10 - LOGISTIC COMMAND AND CONTROL

10.1. The purpose of this chapter is to describe the logistic command and control (C2) arrangements for a coalition.

10.2. The aim of logistic C2 is to enable the effective planning, execution and delivery of logistic functions.

General

10.3. Unlike NATO, ABCA coalition operations are not buttressed by standing HQ, formations and agencies. The construct of coalition C2 structures are a time and mission dependent process that is necessarily flexible and fluid. It is likely that a lead nation (LN) will emerge in the coalition design process and will become the cornerstone of the structure. A more complex multinational HQ may eventually emerge if the mission requires one and given sufficient time and resources.

Command and Support Relationships

10.4. Standard NATO command relationships will be used wherever possible (OPCON, etc). Further detail of these relationships is detailed in Annex A.

10.5. Support relationships can be created between nations without the need to establish command relationships between them, particularly at the theater level where various NSE establish working arrangements that do not necessitate formal regrouping of assets. Logistics elements can be assigned support missions that ensure the support is provided without changes to the command authority. Various nations have different terms for such missions, which are similar in concept. These missions need to be explicitly described in plans and orders.

Prioritization of Support

10.6. The prioritization of support is particularly important where there are substantial constraints in the LOC, such as access only by air, or where accessible stocks are insufficient to meet the demands of all the components. Correct prioritization decisions are dependent on information from many sources, including the end-user of the item and operations staff.

Organization

10.7. Deployment and support of multiple nations concurrently into the same operational environment will require optimization of the logistics effort. CF solutions can optimize the in-theater logistics effort and facilitate the reduction of National Support Elements (NSE) to providing only those support functionalities that are not provided by another nation. Joint and combined logistics operations may increase efficiency without sacrificing effectiveness by avoiding competition between components and nations. It may enable commanders to allocate possible scarce resources where necessary to achieve the required operational effect. In order for the coalition to best optimize the logistics effort, forces should consider establishment of an integrated logistics structure that can properly plan and coordinate theater sustainability, as well as maintain the visibility of assets.

10.8. Coalition Headquarters. Regardless of scale, there will be a coalition headquarters that will act as a coordinating agency between component command, national support elements, host nation and non-governmental organizations. The coalition HQ develops and coordinates coalition level logistic plans and policies. The coalition HQ is the tasking authority for those units placed under the HQ control as agreed to by the Transfer of Authority (TOA). There must always be a clear delineation of responsibilities between the HQ logistics staff, which establishes policy and formulates the overall logistic concept of support, and the coalition HQ, which has the execution

and coordination task. This handbook deliberately stops short of prescribing models; however, it is likely that the C2 structure will include the following logistic elements:

- **Logistics Support Cell.** The primary mission of the Logistics Support Cell is to coordinate the provision of multinational functions, capabilities supplies and services with component commands and participating nations. The Logistics Support Cell also maintains a direct linkage and liaison with all logistic lead nation (LLN), role specialist nation (RSN) units, third party logistic support providers, non government organizations (NGO), other government agencies (OGA) and other participating nations.

- **Movement Control Center (MCC).** The MCC is responsible for the planning, routing, scheduling and control of personnel and materiel movements.

- **Infrastructure Cell.** The primary mission of the Infrastructure Cell is to develop, coordinate and facilitate common funded infrastructure projects, including environmental projects, security engineering enhancements, power and water projects, property accountability, real-estate management, and public works in support of the operation. A secondary mission is to coordinate and monitor the procurement and use of engineer materiel for infrastructure tasks in support of the force.

- **Health Service Support (HSS) Cell.** The HSS Cell mission is to develop health plans and determine and implement CF health policies. It will also coordinate multifunctional health support, which may include medical evacuation, casualty tracking, health specific logistics, preventive medicine and environmental health.

- **Contract Coordination Cell (CCC).** The mission of the CCC is to be the center for contracting coordination/information, to develop common contracting documentation (templates), to provide in-theater contract training for national and coalition contract management personnel, to maintain a database of contracts executed in theater (both coalition and national), to maintain databases of contract and contract performance and to provide contracting advice to commanders at all levels. For more information on contract and contractor management, refer to ABCA Publication 366 “Contract and Contractor Management on Operations”.

- **Host Nation Support (HNS) Cell.** The HNS Cell coordinates logistic support provided by the host nation(s). As HNS covers a wide spectrum of logistic and other support functions, the cell will liaise directly with other HQ staff divisions, nations and force elements as well as HN ministries and government agencies.

10.9. In addition to standing structures the coordination of logistic support may be enhanced by the establishment of a logistic governance framework. An example of such a structure can be found in Annex B.

10.10. National Support Elements (NSE). All nations provide an NSE which may have the following functions:

- Supporting the RSOI process, roulement and/or redeployment operations

- Establishing force / third line logistic facilities and activities (including coordination/liaison with fourth line commercial support infrastructure where appropriate)

- Establishing and managing a node for strategic communications and corporate information systems connectivity with national assets and inventory visibility in theater and throughout the supply chain

- Establishing support coordination mechanisms with coalition/ commercial/LN agencies. This can include managing in theater any international and inter-agency agreements

- Coordinating and/or establishing rest and recreation facilities and

- Coordination with and reporting as required, to multinational logistic command and control organizations to ensure continuity of the total logistic effort.

10.11. Force-level. CSS assets may be directly assigned to coalition tasks for a specific activity, mission or period of time.

10.12. Formations. Formation commanders are granted the authority to redistribute logistic resources under their command. Such a provision is intended only to allow forces to remain logistically balanced in the pursuit of assigned missions and is not designed to routinely compensate for deficiencies in other nations' forces. Any logistic redistribution will not be to the detriment of the providing nation. The formation HQ will:

- coordinate assigned resources to execute all aspects of the logistic support missions within its area of responsibility

- execute redistribution as specified in TOA documents and arrangements and

- coordinate the logistic reporting in order to inform higher HQ of the logistic status.

10.13. Units. Organic unit/first line CSS generally should not be removed or reorganized from the unit they are supporting. The nature of organic support is one that national forces can best deliver themselves.

Liaison

10.14. Liaison is a continuous, but informal process, normally achieved through consultations between respective commanders and their staffs with the primary purpose of enhancing communication. Liaison is essential in multinational operations and is the most effective means of coordinating cooperative logistics. Liaison can reduce interoperability friction through direct communications, and contributes towards unity of effort, force integrity and mutual support between different components of the force. It is the most commonly used technique for establishing and maintaining close, continuous communication between force elements. Liaison can be achieved by one or a combination of the following:

- Personal contact between commanders.

- Staff visits and personal contact between staff officers.

- Exchange of liaison officers, liaison detachments and/or liaison teams.

- Establishing and maintaining suitable communication information systems, including couriers.

10.15. Mutual confidence is the key to making liaison successful. Liaison activities require the explicit co-ordination of doctrine and techniques, greater patience and tact during personal interaction, and a thorough understanding of the strategic, operational and tactical aims supporting any coalition military effort. Cultural differences and sensitivities may require special liaison arrangements to ensure explicit understanding across a coalition, with HN forces and non-military agencies. The liaison officer may need to deploy with additional communications support and equipment.

10.16. Command relationships, time frames and mission nature will determine liaison officer requirements. Reciprocal liaison should be established when a force is placed under command or control of a headquarters of a different nationality. Where a single nation is leading a coalition operation, it is preferable that all nations will provide liaison officers to the LN HQ.

10.17. A liaison officer is an officer who is exchanged between two or more forces and is empowered to represent and make appropriate recommendations on behalf of the commander. They must be prepared to amplify their commander's intent and points of detail when appropriate. A liaison officer must assist the commander through the timely exchange of information, intentions, and situational awareness. Because they represent their commander, logistic liaison officers:

- must be conversant with their commander's intent and concept of logistic support, as well as relevant bi-lateral or multi-lateral agreements
- must clearly transmit and clarify the recommendations that they make on behalf of their commander
- must have a thorough understanding of the logistic capabilities and procedures of their parent organization.
- should be familiar with the organization, operations, culture, capabilities and procedures of the receiving organization.

Command and Control Systems

10.18. Regardless of the level of command, the ultimate aim of logistic C2 is to provide the commander with visibility and control of the logistic assets. Robust communications and dedicated information technology (IT) systems will be needed if the flow of personnel and materiel in the lines of communications (LOC) is to function most effectively.

10.19. Each nation will have its own unique C2 to manage logistic support of its committed national forces. However, to provide the greatest possible support to committed forces, each nation should interface and exchange information with the higher, lower and adjacent forces. The information to be exchanged between national logistics units is dependent upon the type of equipment held by various units, their interoperability and their respective missions.

Further Reading

- ABCA Standard 2069 - Liaison Officer Training
- ABCA Publication 366 – Contract and Contractor Management on Operations
- STANAG 2490 - Allied Doctrine for the Conduct of Operations (AJP-3)

NATO COMMAND RELATIONSHIPS

COMMAND	FULL	OPCOM	OPCON	TACOM	TACON	UC ADMIN LESS	UC ADMIN	UCDM
Assign Separate Employment of Components of Units/Formations	X	X						
Assign Missions	X	X	X					
Assign Tasks	X	X	X	X				
Delegate equal Comd/Con status	X	X	X	X				
Delegate lower Comd/Con status	X	X	X	X				
Comd of Local Mov, Real Estate and Area Defense	X	X	X	X	X			
CSS Responsibility	X					X	X	X

Table 10.A.1. NATO Command Relationships

Notes:

1. Status of C2 will always be qualified by the date-time group at which they begin. The date-time group at which they end could also be specified if known.

2. A commander assigned forces under FULL COMD or OPCOM may employ those forces for any purpose. Forces assigned under OPCON may only be employed within certain constraints, such as function, time or location, imposed by the higher authority which assigns the forces.

3. A commander assigned forces under TACOM may allocate tasks to those forces but only in accordance with the mission given to him by the higher authority which assigns the forces.

4. Mission is defined in AAP-6 as ‘A clear, concise statement of the task of the command and its purpose’.

5. Delegation of equal command/control status under OPCOM, OPCON and TACOM can only be done with the agreement of the commander holding higher level of command status.

6. UC = Under command.

7. UCDM = Under command for daily maintenance.

8. The US does not recognize OPCOM and TACOM as command relationships.

LOGISTIC GOVERNANCE FRAMEWORK

Logistic Coordination Board (LCB)

1. The concept of a LCB is for the purpose of coordinating and synchronizing logistic support operations in ABCA coalition operation. A LCB could be formed to discuss, coordinate, and provide recommendations for a specific logistic issue or it could be established as standing module to serve as a CF network hub for consolidation and dissemination of deployment and distribution information. It is envisioned that the greater the intensity and/or complexity of the operation, the more likelihood of the need for a LCB. In a minimal conflict, with a simple and relatively benign operational environment, there is probably no need to establish a LCB. As the conflict increases in size and therefore complexity, the nations may agree perhaps first to simple, periodic meetings to coordinate common sources of support, contracts, and host nation arrangements. In a large and complex operation a LCB can be employed to synchronize and integrate all logistic support efforts, to include sharing of resources and cross attachment of units.

2. The duration of the operation as well as the type(s) of coordination required at the various levels of logistic management will also drive the size, scope, and mission requirements of LCBs. Table 10.B.1 shows the notional requirement for a LCB(s) overlaid on timeline and level of war. So for example, the tactical level LCB may not be employed until just prior to D Day and be called only as required, whereas a strategic level LCB may be in continuous operation and be actively setting conditions for operations.

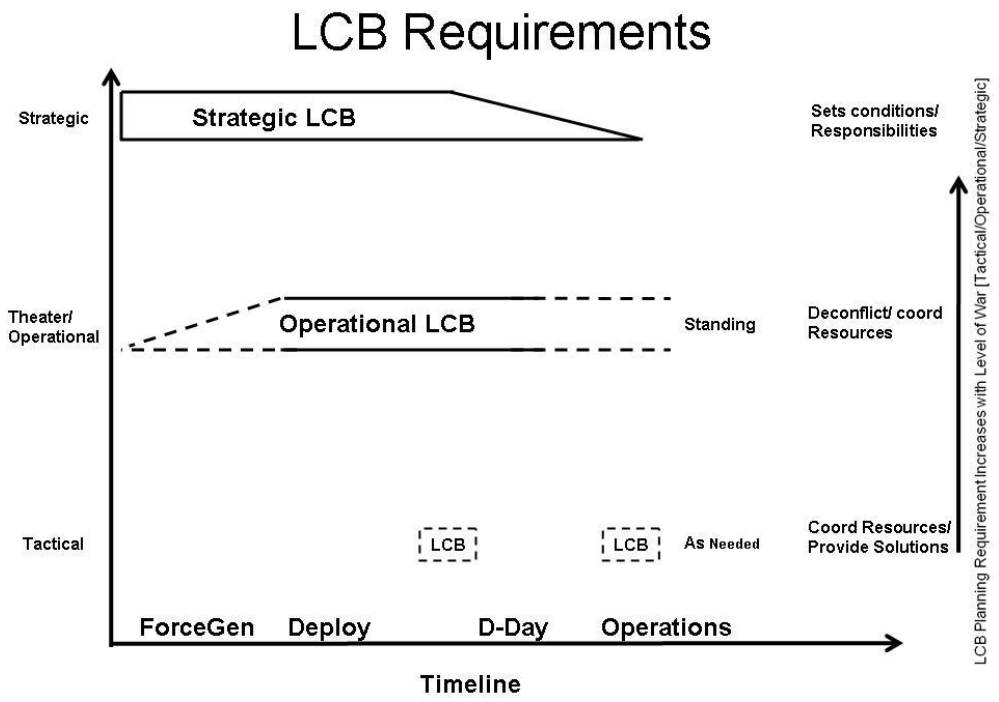

Table 10.B.1. LCB Planning Requirements and Levels of War

Responsibility and Authority

3. When established, the LCB will have responsibility to assist in the coordination and synchronization of multinational logistics between the nations and their supporting organizations. In order to accomplish this, all assigned logistics units in theater and not organic to tactical level formations should be provided to the CF commander under the same level of C2 as the maneuver

forces. Where this is not possible, a minimum C2 authority is required to ensure seamless integration and reliable service provision.

4. The CF commander, through the standing LCB (if formed), must also have sufficient control of the national logistics forces deployed in the AO to maintain unity of command and effort. Nations may agree to a graduated transfer of authority (TOA) to ensure that the CF commander is assigned logistics control, to include location and control of intra-theater movements of the NSEs and prioritization of units designated to receive support from its respective NSE. Unless specifically granted in a TOA agreement, the CF commander will not have control over nationally owned resources held by NSEs.

5. Depending on the command structure of the operation, some functions, such as movement control, civil engineering, and medical support, may not fall under the staff cognizance of the logistics officer. The commander may determine that these functions will be organized under other staff sections, such as the operations officer, staff engineer, or staff medical officer. Nonetheless, the LCB may be involved in coordinating various aspects of these functions – for example, contracting for local supplies and services in support of engineer and health support activities.

6. LCB functions and structure. The structure of the LCB is flexible and modular. If a LCB is formed to discuss and provide recommendations to a specific CF issue, it may be comprised of a few subject matter experts for a short duration. However, in a complex environment the LCB may be formed to assist in the daily management of CF logistics. It may validate plans and assist in the maintenance of the logistics operational picture in order to synchronize and assess execution of current operations in support of the commander's operational priorities.

CHAPTER 11 - LOGISTICS PLANNING

11.1. The purpose of this chapter is to assist the planning of land forces logistic support in coalition operations.

11.2. The aim of logistic planning is to ensure the availability of the support necessary for the accomplishment of a mission.

Background

11.3. The coalition planner's goal is to determine requirements and to identify the most efficient and effective logistics force structure to support and sustain the commander's operational plan with minimum duplication of national logistics effort. The coalition's responsibilities may be split for execution among multinational contingents.

11.4. The effectiveness of coalition logistics operations will depend greatly upon the ability of the logistics commander to achieve a high degree of unity of effort from the contributing Armies' logistics forces. It also depends upon the ability to plan and direct available logistics effort where needed in support of the overall Commander's concept of the operation.

Strategic Planning

11.5. Each of the nations has a national strategic planning process that will result in plans and orders that will activate forces. Strategic planning focuses on building coalition forces, deployment to theater, operating the strategic sustainment LOC, and redeployment[6]. The execution phase is more the purview of the operational and tactical levels of planning. The strategic planning process will generally include the following:

- individual governments decide national goals
- governments agree to form a coalition
- military staffs develop strategies and options for military force structures (ad hoc or based on contingency plans) to achieve these goals
- reconnaissance by various levels of command and staff to update information
- confirmation of troop and material readiness, assessment of strategic movement requirements and availability, development of cost estimates.
- in this phase of planning, strategic guidance will allow the following activities to commence:
    - adjusting readiness for logistics elements
    - establishment of necessary LOC including potential POEs, PODs, intermediate support / staging bases
    - strategic assessment of HNS capabilities
    - sustainment build-up requirements

[6] In conjunction with the redeployment, the US conducts retrograde operations of materiel; the planned coordination and removal of non-unit equipment and materiel from the theater of operation upon mission completion.

- development of asset visibility plan.
- establishment and activation of contract support
- prioritization of national deployment
- establishment of cooperative logistic polices, e.g. identify logistic lead or role specialization nations
- establishment and activation of multinational and/or bi-national support agreements / MOUs as required
- agreement of the C2, support relationships and authority to redistribute resources and
- confirmation of the capabilities of all troop contributors, particularly non-ABCA nations, with a view to understanding surpluses and shortfall in logistic capability.

Operational Planning

11.6. Coalition Level Responsibilities. In general, the following planning functions are performed:

- Coordinate multinational requirements for logistic support
- De-conflict national priorities
- Direct theater level logistics functions

11.7. Logistic planning considerations are listed at Annex A. This annex introduces questions logistics planners should consider in developing coalition logistic plans. This list is not exhaustive but is aimed to prompt logistic planners for other considerations.

11.8. Planning Process. All ABCA member nations employ relatively similar staff planning processes. Any one, or combination, could be used in the coalition HQ. Staff planning is an integrated process, led by the commander. Inputs are provided by a variety of staff including arms and service advisors. The depth of detail and accuracy of analysis increases as the process unfolds in concert with the increasing sophistication of all other parts of the process such as the scheme of maneuver, fire planning, and engineer support. For logistic planning, this analysis usually progresses through a series of preliminary staff checks, refined staff checks, concept development and plan development.

11.9. While there is no agreed process, it is likely to consist of four consecutive steps:

- Step One - Mission Analysis (including logistic preparation of the theater[7])
- Step Two - Course of Action Development
- Step Three - Course of Action Analysis (comparison)
- Step Four - Decision and Execution

[7] Logistic preparation of the theater should include consideration of all logistic intelligence aspects including geography, infrastructure, social and economic, as well as a review of friendly and hostile forces capabilities.

Logistic Contribution to Planning

11.10. A responsibility matrix by function may be used to clarify responsibilities by nation. A template for a responsibility matrix is at Annex B. An electronic copy of this matrix is available on the ABCA website.

Further Reading

- Database 7 – Major End-Items E-Staff Database

COALITION LOGISTICS - PLANNING CONSIDERATIONS CHECKLIST

General

- What is the coalition mission?
- What are the coalition logistics objectives?
- What is the coalition concept of support?
- What is each nation's participation in the operation?
- What are the national caveats and constraints that may impact upon the coalition?
- What is the impact of national force rotation policies upon the operation?
- What are the national and coalition logistic assumptions?

Responsibilities

- What are the national, role specializations, LLN and HN responsibilities for the various logistics tasks and functions?
- What is the division of responsibilities between coalition, national, and HN logistic support for?
    - supporting command(s),
    - supported command(s),
    - HN,
    - other services,
    - civilian agencies including contractors, NGO and OGA,
    - coalition partners, and
    - NSE.
- What are the unique logistic functions and capabilities that each nation might provide?
- What are the common logistic functions and capabilities that one nation or a coalition organization might provide?

Concept of Logistics Support

- How will each of the logistic functions be provided?
- What are the coalition logistics strengths and weaknesses?
- Have logistics freedoms, constraints, risks, gaps and limitations across the coalition been identified?

- How can limitations and gaps be mitigated from within the logistic resources available to the coalition?

- What is the coalition logistic support structure?

- What logistic preparation of the theater products and information are available and how can they be shared with the nations?

- Are there any coalition specific logistic force preparation requirements for contributing nations?

- What are the logistics information requirements amongst the coalition?

- What is available from coalition partners' lessons learned databases for unique requirements, planning factors, and potential problem areas?

- What are the logistics requirements for the coalition and its troop contributing nations (TCN)?

- How will the coalition HQ prioritize, allocate, and use common infrastructure capabilities (ports, airfields, roads) to support military and civil operations?

- What are the in-theater capabilities, resources of civilian agencies (e.g. HN, OGA, NGO, contractors, etc) that could contribute to the coalition?

- Is there a need to establish ad hoc coalition logistic formations or units and, if so, have their organizations been determined?

- What are the personnel, equipment and procedural requirements for ad hoc coalition logistic organizations?

- What are the means to achieve in-transit visibility (ITV) between CF?

Logistic C2

- What is the coalition logistics C2 structure?

- Has a coalition logistics staff been established?

- Have coordinating cells been established for movements, health, contracting, infrastructure engineering, and logistic operations?

- Have command and support relationships between the coalition and national logistics elements been clearly defined?

- Will there be a transfer of authority over national logistic assets to the coalition?

- What is the coalition's authority to redistribute or cross-level logistic assets and services under routine and emergency conditions?

- What legal restrictions do national laws impose on logistic support?

- Are coalition legal representatives available to provide counsel on international law and legal agreements?

- Have logistic reporting procedures been established throughout the force?

- How are logistic requests, requirements, and actions processed by the logistic staff?

- Do coalition forces have the means to communicate requirements to the coalition logistics staff?

- What arrangements must the coalition be aware of with the deployment of civilians within a national force?

Interoperability

- What level of logistic standardization and interoperability exists among participating nations?

- What are the differences in logistic doctrine, capabilities, methods for determining requirements and stock levels, organizations, and communications and information systems between coalition partners?

- What are the differences between coalition partners in language, values, religious beliefs, economic infrastructure, nutritional standards, and social outlooks, which may impact logistic support to coalition forces?

Mutual Logistic Support

- What are the applicable logistic support agreements between nations within the coalition?

- What are the logistic support agreement procedures to account for and reimburse nations for services and supplies exchanged between nations?

- If there are no relevant logistic support agreements, what needs to be established?

Finance

- What are the financial implications that may impact upon the provision of coalition logistic support?

Host Nation Support

- What policies and agreements are required to facilitate the most effective and efficient use by the coalition of HN resources?

- What policies and agreements are required to reduce competition among coalition nations (and thus inflation)?

- Does the coalition have the authority to conclude HNS arrangements on behalf of participating nations, or is prior national approval required?

- Who in the coalition is responsible for negotiations to secure HNS?

Contracting

- Is there a contract coordination cell?
- Have contractor procedures been established to allow total coalition participation in contracts let by national personnel and used by coalition personnel?
- Is there a contracting support plan?
- Are there procedures and policies for contracting support in the theater, assuring full use of HNS and contracting resources?

RSOI and Redeployment

- What is the coalition RSOI process? (Refer to Chapter 8)
- What is the support plan the coordination of and support to national redeployment of forces?
- What is the plan to coordinate reconstruction and remediation?
- What will be single nation procedures / responsibilities vs shared or coalition coordinated activities?
- What logistic infrastructure, materiel, capabilities, and equipment will remain in country for use by follow-on forces or organizations?
- What is the plan for hand-over of in-place contracts, equipment, facilities, and personnel belonging to another contingent, agency, alliance or the HN?

Reconstitution

- What is the coalition plan for reconstitution?
- What national resources are available to support coalition reconstitution?

Supply

- What is the coalition supply system, by class of supply, for all echelons and is procedural guidance provided?
- Are procedures included for support to, from and between other coalition members and other coalition services?
- What commonality can be achieved across the coalition and who will be the LLN by class of supply?
- Has the self sufficiency period been determined?
- Are agreed stock levels by class of supply required?
- Have coalition critical and common items been identified?

- What provisions have been made for resupply or redistribution of coalition critical items and items common to the coalition?

- What are the coalition forces' capabilities to receive, store, and issue, ammunition, Cl VIII, dry cargo, fuel, and water to include water production and purification capability?

- What quality controls and standards, including storage, have been established for all coalition-provided services and supplies such as POL, water, ammunition and food? How will they be monitored?

- What materiel handling equipment is available within the coalition? What agency can determine common qualifications on MHE to ensure efficiencies?

- What is the process for shared asset accountability, e.g. container management?

- What, if any, are the national specific requirements that must be considered?

- Are tanker and hose connections interoperable, or have adapters been provided to the force to allow for exchange of fuel between coalition partners and with host nation?

    - STANAG 7029 Characteristics of Aircraft Fuelling Hoses and Couplings.

    - STANAG 3756 Facilities and Equipment for Receipt and Delivery of Aviation Kerosene and Diesel Fuels.

- Will coalition use of HN fuel facilities impact on the civilian population?

- Is there common equipment among coalition partners or other services?

- If so, are there arrangements for the provision of major end items between nations.

- What is the policy and process for the provision of blood and blood products between CF?

- What is the coalition policy for the provision of Cl X to humanitarian organizations, NGOs and HN including financial considerations?

- What priority does support to HN have with regards to other military support operations?

- Can national reserve materiel be distributed to coalition partners?

Maintenance

- What national or contract maintenance facilities in theater are available to provide support to other CF? Are there any security considerations?

- What is the coalition recovery plan?

- What is the coalition policy for backloading / evacuation of repairable and major end items and determination of priorities for backloading?

- Do coalition forces have wreckers, recovery trailers, or heavy equipment transporters? Are they compatible with other coalition equipment?

Movements and Transport

- Is a coalition movement system, including LOC, for personnel and cargo specified (intra-theater, inter-theater, in-country)?

- What are the movement priorities for coalition operations? Who will determine the priorities?

- Has a coalition priority for offload been established at POD?

Engineer Support

- Who will coordinate and prioritize support engineering capability to coalition logistic infrastructure and LOC?

Personnel, Administrative and Field Services:

- What is the information management system for the coalition that allows summation of personnel status reports, including authorized, assigned and deployed strengths, critical personnel shortages, casualty accounting and personnel requisitions?

- Have LN been identified for the provision of field services within multinational camps or bases. e.g. waste disposal, catering, bath and laundry?

- What is the coalition mortuary process? (Refer to Chapter 7)

- Are environmental and sanitary requirements the same for all coalition participants?

- What is the coalition policy for the provision of postal services?

- What coalition morale, welfare and recreation services exist?

- What is the coalition policy for personnel tracking inter and intra theater?

- What are coalition considerations for the provision of personnel services such as legal, financial, pastoral?

- What is the coalition policy for the provision of logistic support to prisoners of war, detainees, refugees, and displaced personnel?

COALITION RESPONSIBILITY MATRIX BY FUNCTION

Ser	Function	National	LN					CF	HN	Comments
			US	UK	CA	AS	NZ			
1	**SUPPLY**									Example Only
1.1	**Class I** - Subsistence									Example Only
1.1.1	Fresh Rations		X							Example Only
1.1.2	Combat Rations				X					Example Only
1.1.3	Bulk Water						X	X		Example Only
1.1.4	Packaged Water								X	Example Only
1.2	**Class II** – General Stores									Example Only
1.2.1	Common Items					X				Example Only

Ser	Function	National	LN					CF	HN	Comments
			US	UK	CA	AS	NZ			
1	**SUPPLY**		**1**							
1.1	**Class I - Subsistence**		1A							
1.1.1	Fresh Rations		1A1							
1.1.2	Combat Rations		1A2							
1.1.3	Bulk Water		1A3							
1.1.4	Packaged Water		1A4							
1.2	**Class II – General Stores**		1B							
1.2.1	Common Items		1B1							
1.2.2	CBRN Equipment									
1.2.3	Camp Stores									
1.2.4	Individual/Personal Protection Equip									
1.3	**Class III - POL**									
1.3.1	Bulk									
1.3.2	Packaged									
1.3.3.	Industrial Gas									

Ser	Function	National	LN					CF	HN	Comments
			US	UK	CA	AS	NZ			
1.3.4	Common POL									
1.3.5	Specialist POL									
1.4	**Class IV – Construction Stores**									
1.4.1	Barrier/Defense									
1.4.2	Construction									
1.5	**Class V - Ammunition**									
1.5.5	Small Arms Ammunition									
1.5.2	Direct Fire Ammunition									
1.5.3	Indirect Fire Ammunition									
1.5.4	Mines, Explosives and Demolitions									
1.5.5	Storage									
1.5.6	Security									
1.6	**Class VI - Amenities**									
1.7	**Class VII - Major End Items**									
1.8	**Class VIII - Medical**									
1.8.1	Blood and Blood Products									
1.8.2	Controlled Drugs									
1.8.3	Consumables									
1.8.4	Bio-Medical Equipment									
1.9	**Class IV – Repair Parts**									
1.10	**Class X – Humanitarian Aid Stores**									
2	**MAINTENANCE**									
2.1	Recovery									
2.2	Backloading and Evacuation									

Ser	Function	National	LN					CF	HN	Comments
			US	UK	CA	AS	NZ			
2.3	Salvage/Cannibalization Point									
2.4	Battle Damage Repair									
2.5	Maintenance and Repair									
2.6	Calibration									
2.7	Oil Analysis									
2.8	Textile Repair									
3	**MOVEMENT & TRANSPORTATION**									
3.1	Planning									
3.2	Control/Security									
3.3	Routing									
3.4	Lines of Communication									
3.5	Terminal Operations									
3.6	Material Handling Equipment (MHE)									
3.7	Container Handling									
3.8	Airdrop									
3.9	Airlift									
3.10	Heavy Equipment Transport									
3.11	Bulk Liquid Distribution									
4	**PERSONNEL**									
4.1	Strength Management and Tracking									
4.2	Casualty Management (See Medical)									
4.3	Reconstitution									
4.4	Reorganization									
4.5	Awards and Decorations									
4.6	Chaplain									
4.7	Legal									
4.8	Postal									
4.9	Finance									
4.10	Welfare, Morale and Recreation									

Ser	Function	National	LN					CF	HN	Comments
			US	UK	CA	AS	NZ			
5	**SERVICES**									
5.1	Messing/Catering									
5.2	Billeting/Accommodation									
5.3	Laundry									
5.4	Bath									
5.6	Mortuary Affairs									
5.7	Printing									
5.8	Sanitation									
5.9	Waste Disposal									
5.10	Water Purification									
5.11	Contract Management									
6	**ENGINEER SUPPORT**									
6.1	Winning Water									
6.2	Water Reticulation in Fixed Facilities									
6.3	Electrical Power Generation and Reticulation									
6.4	Fortification and Hardening									
7	**MILITARY POLICE**									
7.1	Prisoner of War Support									
7.2	Traffic Control									
7.3	Investigations									
8	**CIVIL AFFAIRS**									
8.1	Contracting									
8.2	Procurement									
8.3	Financial									
8.4	Legal									
8.5	Labor									
8.6	Translators									
8.7	Refugee/Displaced Person Support									

Ser	Function	National	LN					CF	HN	Comments
			US	UK	CA	AS	NZ			
9	**NON-COMBATANT EVACUATION**									
10	**RSOI**									
10.1	Terminal Operations									
10.2	Reception									
10.3	Staging									
10.4	Onward Movement									
10.5	Force Tracking									
10.6	Customs									
10.7	Redeployment									
10.8	Integration									
11	**RECONSTITUTION**									
11.1	Establishing Target Levels									
11.2	Planning									
11.3	Conduct									
12	**LOGISTIC C2**									
12.1	Logistic HQ									
12.2	Logistic Component Commander									
12.3	Logistic Support Cell									
12.4	Movement Control Center									
12.5	Infrastructure Cell									
12.6	Health Service Support Cell									
12.7	Contract Co-ordination Cell									
12.8	Host Nation Support Cell									
12.9	Logistic Governance									
13	**MISCELLANEOUS**									

Ser	Function	National	LN					CF	HN	Comments
			US	UK	CA	AS	NZ			

CHAPTER 12 - GLOSSARY

Logistics Terminology

12.1. This glossary introduces national logistics terminology where standardization is not recognized, but the identification achieves substantial gains in mutual understanding, cooperation, and increased communication.

12.2. The ABCA Program accepts all NATO agreed terms as defined in AAP-6, “NATO Glossary of Terms and Definitions for Military Use”.

12.3. National publications forming the definitional basis are:

- NATO Glossary of Terms and Definitions – AAP-6 (2009)
- NATO Glossary of Abbreviations Used in NATO Documents and Publications – AAP-15 (2009)
- US Joint Publication 1-02, “Department of Defense Dictionary of Military and Associated Terms” (Dec 10).
- US Army Regulation 310-25, "Dictionary of US Army Terms" (May86).
- Canadian Forces Terminology Manual – A-AD-121-F02/JX-001.
- (AS/NZ) Australian Defense Force Publication 04.1.1 – Glossary.
- OXFORD Concise Dictionary.

12.4. Information contained in this glossary should be used by Armies to improve the level of standardization whenever possible. Terminology will be in bold. If several versions of the same terminology exist, they will be listed with the appropriate national heading in parenthesis.

- A -

Accessory equipment: (US/CA) Any non-expendable item of equipment which has been fixed in place or attached to a craft, vehicle, or other equipment, but which may be serviced or removed without impairing the item removed or affecting the basic function of the object to which it is fastened.

Administrative area: (AS) An area in which administrative units are located and from which they may carry out their tasks. Administrative areas differ from maintenance areas in that no stocks are held on the ground.

Air Delivery Equipment:

- (US) Special items of equipment, such as parachutes, air delivery containers, platforms, tie downs, and related items used in air delivery of personnel, supplies, and equipment.
- (AS) Equipment used for the preparation of personnel and material for air delivery. It includes slings, platforms, containers, parachutes, rigging materials, clothes, cords, tapes, threads, and webbing which are used when employing air delivery by air supply.

Air Dispatch Squadron:

- (UK) A unit which is trained in preparing stores for dispatch by air, in loading aircraft, and in the ejection of cargo from aircraft in flight.
- (AS) An Army transport squadron which is trained in preparing stores for dispatch by air, in loading aircraft, and in the ejection of cargo from aircraft in flight.
- (US) Qualified Army and Air Force riggers perform a joint inspection of rigged equipment for Heavy Drop (HD), Cargo Delivery System (CDS), low velocity loads, and Low Altitude Parachute Extraction System (LAPES).

Ammunition Lot Number:

- (US/UK) Code number that identifies a particular quantity of ammunition from one manufacturer. The number is assigned to each lot of ammunition when it is manufactured.
- (CA/AS) Code number systematically assigned to each ammunition lot at the time of manufacture, assembly or renovation that uniquely identifies the particular ammunition lot.

Authorized Parts List:

- (US) List of authorized parts for units in each echelon of supply and maintenance as prescribed by appropriate authority.
- (CA) Term used is “scale” (e.g., 15 or 30 days for spare parts).

Automatic Supply:

- (US/CA) A system by which certain supply requirements are automatically shipped or issued for a predetermined period of time without requisition by using unit. It is based upon estimated or experience-usage factors.
- (UK) Term is “automatic re-supply”. The replenishment of a unit’s stock of material by a supply authority, without demand by the unit when the unit’s stock level falls to a pre-determined level.
- Process in which action to replenish a user’s level of supply is initiated by a source other than the user. Sometimes referred to as “push replenishment”.

- B -

Backloading:

- (US/CA) The rearward move of equipment and material, e.g., vehicle casualties.
- (CA) The rearwar7d movement of equipment within the logistics system.
- (UK) The rearward movement of equipment, casualties, and material within a theater.
- (US) The act of loading outbound cargo on transport assets that delivered inbound cargo (FM 55-1 and 55-10).

Backloading Point:

- (CA) A location where equipment casualties requiring repair or disposal by a rearward formation are collected pending staff release and backloading by the movement resources of this rearward formation.

- (AS) A location at which equipment casualties requiring repair in a higher formation are collected before backloading.

Basic daily food allowance: (US) A prescribed quantity of food defined by components, and monetary value, which is required to provide a nutritionally adequate diet for one person for one day.

Basic Issue Items (BII): (US) Those essential ancillary items required to operate the equipment and enable it to perform the mission and function for which it was designed or intended.

Beachmaster:

- (US) A naval officer in command of the beachmaster unit of a naval beach group.

- (AS) The officer responsible for controlling the beaching of craft and amphibians on one beach. He commands the amphibious beach team.

Billet:

- (US) Shelter for troops.

- (US) To quarter troops.

- (US) A personnel position or assignment which may be filled by one person.

Break-bulk:

- (CA) Term is “bulk-break”. Implies breakdown, usually into unit lots before distribution.

- (UK) Normally to break down pallets or vehicle loads into boxes or rounds for issue.

Bulk Cargo:

- (US) That which is generally shipped in volume where the transportation conveyance is the only external container such as liquids, ore, or grain.

- (CA) Term is “bulk freight”. Freight not in packages or containers.

Bulk Storage:

- (US/CA) Storage in a warehouse of supplies and equipment in large quantities, usually in original containers, as distinguished from bin storage.

- (US) Storage of liquids, such as petroleum products in tanks, as distinguished from drum or packaged storage.

Bulk Supply (US): Any kind of military supplies that are sent out in very large quantities. Sand, gravel, paint, gunpowder, etc., are examples of bulk supply. Bulk supplies are measured in terms of weight or volume rather than in terms of number of units.

- C -

Calibration:

- (UK) A comparison between a standard or measuring equipment, instrument, or items of equipment with a standard high accuracy to detect, correlate, adjust, and document the accuracy of the instrument or equipment items being compared.

- (AS) The process of comparing equipment of unknown accuracy against standard equipment of known accuracy. Variations discovered in the non-standard equipment are desirably adjusted out. If variations cannot be adjusted out, they are noted to make allowances when using the non-standard equipment.

Cannibalization:

- (US) The authorized removal of parts or components from uneconomically repairable or disposable end items or assemblies and making them available for reuse (FM 100-16).

- (CA) The controlled removal, without intent to replace, of serviceable repair parts from an equipment as an alternate means of supply.

- (AS) The removal of serviceable components from one repairable equipment, and their installation in another repairable equipment, thereby rendering that equipment serviceable.

Combat Reserves:

- (CA) Combat supplies held by a Corps as a reserve against interruptions in the normal supply system. Stock levels are established and expenditures controlled by Theater Headquarters.

- (AS) Theater stocks held forward, just in rear of the combat force, to guard against a serious interruption of the normal system of maintenance.

Commercial Items: (US) Articles of supply readily available from established commercial distribution sources, which the Department of Defense or inventory managers in the military services have designated to be obtained directly or indirectly from such source.

Condition Code:

- (US) Code used to classify materiel and to identify the degree of serviceability condition and completeness in terms of readiness for issue and use.

- (UK, CA) Codes used to indicate whether the item is to be repaired and identify the lowest maintenance level authorized to perform repair (US equivalent term is maintenance code).

- (AS) Classification (Technical equipment) - the method of defining the condition of an item of materiel in respect to its value as an operational asset (preferred term is “Equipment Casualty Classification).

Contracting:

- (US) Operational Contracting Support (OCS) is the process of planning for and obtaining supplies, services, and construction from commercial sources in support of joint operations along with their associated contractor management functions.

- (UK) Contractor Support to Operations (CSO). There are three types of CSO: Contractors on deployed Operations (CONDO), who are civilian personnel accompanying the force; Sponsored Reserves (SR) who are civilians mobilized to be members of the military force; and Private Security Companies (PSC).

- (CA, AS, NZ) refer to the Oxford Concise Dictionary.

Cooperative Logistics Arrangements: (US) Mutual logistics arrangements between Armies to economize time, manpower and resources. Under these arrangements, two or more Armies agree to provide and receive routine support and emergency support where an Army's national resources are temporarily unable to meet critical requirements. Through these arrangements, each Army establishes its logistics requirements from other Armies, and identifies the requirements placed on it by other Armies.

Cooperative Logistics Support: (US) The logistics support provided between ABCA Armies under ABCA procedures or multi-bilateral agreements between Armies.

Critical Item: (US/AS) An essential item which is in short supply or expected to be in short supply for an extended period.

- D -

Dead Lined Equipment:

- (US) To remove a vehicle or piece of equipment from operation or use for one of the following reasons:
    - Is inoperative due to damage, malfunctioning, or necessary repairs. The term does not include items temporarily removed from use by reason or routine maintenance; and repairs that do not affect the combat capability of the item.
    - Is unsafe.
    - Would be damaged by further use.
- (CA) Terms used are:
    - Non-serviceable (NS).
    - Unserviceable (US).
    - Vehicle-off-the-road (VOR).
- (AS) Terms used are:
    - Repairable (R).
    - Repairable by Re-build (RR).
    - Incomplete (I).
    - Unrepairable (UR).

- E -

Equipment:

- (CA) A combination of parts, sub-assemblies and assemblies forming a unit which performs a complete function.
- (AS) All articles needed to outfit an individual or organization.

Equipment Loading Point:

- (AS) A location where equipment casualties are collected and classified for segregation into equipment to be repaired in that area and equipment to be backloaded.
- (CA) A location where vehicles or major equipments beyond unit repair are collected, prior to backloading by second line recovery resources.
- (US) US term is maintenance collection point.

- F -

Field Train:

- (US) Unit train not required for immediate support of combat elements. Field trains may include kitchen and baggage trains, administrative trains, heavy maintenance, water, and those ammunition, fuel, and lubricants trucks not required for direct support of troops in the immediate engagement.
- (CA/AS) Term used is “unit echelon”.

Food Packet:

- (US) Pre-packaged and precooked foods, which may be eaten hot or cold, for use under special operational conditions that prevent issue or utilization of complete rations. Food packets are designed primarily to meet stringent operational requirements for minimum weight, cubage, and nutritional value commensurate with these requirements. One or more food packets do not necessarily constitute a nutritionally complete ration.
- (CA) Acceptable if last sentence deleted.

- G -

- Nil

- H -

- Nil

- I -

- Nil

- J -

- Nil

- K -

- Nil

- L -

Lines/Levels of Logistics:

UK	US	AS, NZ, CA
Base Level	National	Fourth Line
Force Level	General Support (GS)	Third Line
Formation Level	Direct Support (DS)	Second Line
Unit Level	Organizational	First Line

Labeled Cargo:

- (US) Cargo of a dangerous nature, such as explosives, flammable or corrosive liquids, etc. , which is designated by different colored labels to indicate the requirement for special handling and stowage. Examples of such colored labels are: a) green-required on shipments of non-flammable gasses. b) red-required on shipments of articles of flammable nature. c) white-required on shipments of acids or corrosive liquids. d) yellow-required on shipments of flammable solids and oxidizing material.

- (CA) Any material which because of its properties is flammable, corrosive, an oxidizing agent, explosive, toxic or radioactive.

Lines of administrative support: (CA) In land operations, the level or echelon at which a combat service support function is performed and/or the extent of support provided at a certain level. “First line” is the support available from unit resources; “second line” is the support provided at brigade and division level; “third line” is provided by corps; and “fourth line” is theater or base level.

- M -

Maintenance:

- (US) A general locality in which are grouped a number of maintenance activities for the purpose of retaining or restoring materiel to serviceable condition.

- (CA) An area in which reserves, personnel and supply depots, hospitals, workshops, and other installations are set up on a temporary basis for the support of armed forces in the field. Maintenance areas will be called by the name of the formation controlling them.

- (AS) An area containing administrative units, facilities, and stocks, from which formations and units are provided with administrative support.

Materiel:

- (US) All items necessary for the equipment, maintenance, operation and support of military activities without distinction as to their application for administrative or combat purposes.

- (UK) A genuine term covering equipment, stores, supplies and spares.

- (CA) All movable public property, excepting money, obtained by a department for issue on demand, or for sale to its administrative and operating units, to other departments, or to the public. Material includes manufactured equipment, supplies, and raw materials.

- N -

- Nil

- O -

Outsize Item:

- (US) An item exceeding 1090 inches times 117 inches times 105 inches and is qualified by MILSTAMP aircraft air dimension code (too large for C-130/C-141).

- (CA) An item exceeding 88 inches wide, 108 inches long, 54 inches high or weighs more than 5000 pounds.

Overhaul:

- (US) To restore an item to a completely serviceable condition as prescribed by maintenance serviceability standards.

- (UK) A comprehensive examination and restoration of materiel to a specified standard.

- P -

Prescribed Load:

- (US) That quantity of combat essential supplies and repair parts (other than ammunition) authorized to be on hand in units and which is carried by the individuals or on the unit vehicles to enable the unit to sustain itself until resupply can be effected. Normally 15 day's level. The prescribed load is continuously reconstituted as used.

- (CA) Term used is basic load or scaling. The quantity of combat supplies and specific expendable material carried by a unit to sustain it a specified number of days (usually three).

- (AS) Term is "unit stocks" or "first line stocks" (normally 30 days).

- R -

Ration: (US) The allowance of food for the subsistence of one person for one day.

Rebuild:

- (US) The restoration of an item to a standard as nearly as possible to its original condition in appearance, performance, and life expectancy.

- (CA) Term used is "overhaul". That corrective maintenance activity which restores equipment to a specified standard by complete disassembly, inspection, replacement of defective parts, re-assembly and testing.

- (AS) To restore an item to a standard as near as possible to original or new condition in appearance, life expectancy, or to a specified standard.

Repair:

- (US) The restoration of an item to serviceable condition through correction of a specific failure or unserviceable condition.
- (UK) Technical activities intended to restore an item to a required condition.
- (CA) That corrective maintenance activity which restores an item to a serviceable condition by replacing or reconditioning faulty parts of the item.
- (AS) To restore equipment to a serviceable condition following failure, malfunction, damage, deterioration, or wear beyond tolerance.

- S -

Strategic logistics: (US/CA) All military action concerned with the provision of logistics support to a theater of operations.

- T -

Tactical logistics: (US/CA) The provision of logistics support to combat forces deployed within a theater of operations.

- U -

- Nil

- V -

- Nil

- W -

- Nil

- X -

- Nil

- Y -

- Nil

- Z -

- Nil