NATO STANDARD

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ALLIED JOINT DOCTRINE FOR MOVEMENT

Edition C, Version 1

SEPTEMBER 2022

NORTH ATLANTIC TREATY ORGANIZATION

ALLIED JOINT PUBLICATION

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NORTH ATANTIC TREATY ORGANIZATION (NATO)

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NATO LETTER OF PROMULGATION

8 September 2022

1. The enclosed Allied Joint Publication AJP-4.4, Edition C, Version 1, ALLIED JOINT DOCTRINE FOR MOVEMENT, which has been approved by the nations in the Military Committee Joint Standardization Board, is promulgated herewith. The agreement of nations to use this publication is recorded in STANAG 2506.

2. AJP-4.4 Edition C, Version 1, is effective upon receipt and supersedes AJP-4.4, Edition B, Version 1, which shall be destroyed in accordance with local procedures for the destruction of documents.

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4. This publication shall be handled in accordance with C-M(2002)60.

Dimitrios SIGOULAKIS
Major General, GRC (A)
Director, NATO Standardization Office

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RECORD OF RESERVATIONS

CHAPTER	RECORD OF RESERVATION BY NATIONS
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RECORD OF SPECIFIC RESERVATIONS

[nation]	[detail of reservation]
GRC	Air Force: 1. HAF could avail aircraft(s) type C-130 for tactical aeromedical evacuation (because of oxygen flow system limitation) depending on the existing national operation requirements. The status of readiness is 60 minutes. Under development plan to update oxygen flow system in order to be capable to perform strategic evacuation. 2. HAF could avail military ambulances at this stage due to their limited number. Under development plan to be equipped with new upgraded military ambulances.
USA	(1) The United States does not support glossary/lexicon terms and definitions and shortened word forms (abbreviations, acronyms, initialisms) that are neither NATO Agreed, quoted verbatim from NATOTerm, correctly cited IAW AAP-47 Allied Joint Doctrine Development, correctly introduced/revised IAW AAP-77 NATO Terminology Manual, nor have terminology tracking forms submitted. Department of Defense (DoD) terminology views regarding terms and definitions applicable to the United States can be found in the DoD Dictionary of Military and Associated Terms. (2) The United States uses the term “law of war” to describe that part of international law that regulates the resort to armed force; the conduct of hostilities and the protection of war victims in international and non-international armed conflict; belligerent occupation; and the relationships between belligerent, neutral, and non-belligerent States. Sometimes also called the law of armed conflict or international humanitarian law, the law of war is specifically intended to address the circumstances of armed conflict. The legal views of the Department of Defense (DoD) regarding the law of war applicable to the United States can be found in the DoD Law of War Manual . (3) The United States supports doctrinal content that is harmonized with NATO’s capstone and operations keystone doctrine publications as well as within and between other NATO Allied Joint Doctrine publications. United States personnel are directed to use national joint doctrine to overcome variances between U.S. joint doctrine and Allied Joint Doctrine publications [ex. command relationships, joint operations principles, physical domain and other domain categorization, subject matter expertise language usage and other related terminology]. Department of Defense (DoD) joint doctrinal content can be found in joint doctrine publications.

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Summary of changes

General. The layout of the new edition is similar in structure to the current AJP-4(B) and in accordance with the doctrine task, but it has been necessary to adjust or rename some of the chapter titles or section names. The content is focused more on operational level movement matters. The figures describing the movement architecture have been adapted to reflect current and existing relationships between organizations and commands dealing with movement.

AJP title. The title was reviewed, and it was decided to remove transportation because it is an enabling capability alongside mobility, infrastructure, movements control and other supporting factors. If transportation was to remain in the title, other enabling capabilities should have also been listed. This decision was fully debated, particularly because a number of nations have 'movement and transportation' specialists and this is a familiar term amongst NATO movement entities.

Contents. In chapter 1 different levels of movement were added in order to make the document more readable. The description of the movement support network, which had previously been included in chapter 2 now resides in section 5. During writing team meetings it became apparent that the movement organization was better described by addressing the principles around movement. A typical movement support network was visualised as this more accurately reflects relationships within the joint logistic support network.

Chapter 3 is entirely dedicated to movement enabling capabilities. Movement control was moved to chapter 5 as it is intrinsically linked with command, control, coordination and information. It was agreed that the movement control organization was a virtual organization and did not require a dedicated section as it was inherently explained under roles and responsibilities, command, control, coordination and information, and the movement support network. Movement authorities were added to highlight the agencies that are involved in the control and coordination of various types of movement.

The layout of planning in chapter 4 has been restructured to include modes of transportation. Previous content relating to deployment and redeployment was removed to avoid duplication with the new deployment and redeployment joint publication recently released. Training has also been removed as a dedicated chapter as it was considered to be better addressed in lower level movement and transportation documents. Movement principles and premises described in this publication are operationally specified in lower level movement documents.

Chapter 5 now more accurately reflects the title of the chapter (command, control, coordination and information) addressing any confusion over command and control to enhance readability. It includes information exchange and the types of information management systems used in movements control and coordination.

Observations, lessons identified and lessons learned from operations and exercises have a significant influence on doctrine development, a section that describes the lessons learned process was added as well. The overly detailed annexes in the previous edition have been removed to keep the content at the operational level.

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Related documents

PO(2010)0169	*The Alliance's Strategic Concept, dated 19 November 2010*
PO(2015)0580	*Political Guidance, dated 16 October 2015*
AC/237- D(2010)0003	*Approval of the NATO Crisis Response System Manual, 2010*
PO(2010)0143	*Comprehensive Approach Report, 13 October 2010*
PO(2011)0141	*Political Military Framework for Partner Involvement in NATO-Led Operations*
PO(2011)0045	*Updated List of Tasks for the Implementation of the Comprehensive Approach Action Plan and the Lisbon Summit Decisions on the Comprehensive Approach, 7 March 2011*
NATO Crisis Response System Manual (NCRSM)	
PO(2011) 0293-AS1	*NATO Lessons Learned Policy, 09 September 2011*
SG(2006)0244 Rev 1	*Force Declarations and Designations*
MCM-077-00	*Military Committee Guidance on the Relationship between NATO Policy and Military Doctrine*
MC 0055/4	*NATO Logistic Readiness and Sustainability Policy*
MC 0133/5	*NATO's Operations Planning*
MC 0319/3	*NATO Principles and Policies for Logistics*
MC 0326/4	*NATO Principles and Policies for Medical Support*
MC 0334/2	*NATO Principles and Policies for Host Nation Support*
MC 0336/2	*NATO Principles and Policies for Movement and Transportation (M&T)*
MC 0411/2	*NATO Military Policy on Civil-Military Cooperation (CIMIC) and Civil-Military Interaction (CMI)*
MC 0400/4	*MC Guidance for the Military Implementation of NATO's Strategic Concept*
MC 0469/1	*NATO Military Principles and Policies for Environmental Protection (EP)*
MC 0473/1	*NATO Petroleum Supply Chain – Principles, Policies and Characteristics*
MC 0533	*NATO Principles and Policies for Maintenance of Equipment*
MC 0551	*Medical Support Concept for NATO Response Force (NRF) Operations*
MC 0560/2	*MC Policy for Military Engineering*
MC 0586/2	*Military Committee Policy for Allied Forces and their use for Operations*
MC 0593/1	*The Minimum Level of Command and Control Service Capabilities in Support of Combined Joint NATO led Operations*
AJP-01	*Allied Joint Doctrine*
AJP-2	*Allied Joint Doctrine for Intelligence, Counter-Intelligence and Security*
AJP-3	*Allied Joint Doctrine for the Conduct of Operations*
AJP-3.12	*Allied Joint Doctrine for Military Engineering*
AJP-3.13	*Allied Joint Doctrine for the Deployment and Redeployment of Forces*

AJP-3.19	*Allied Joint Doctrine for Civil-Military Cooperation*
AJP-3.21	*Allied Joint Doctrine for Military Police*
AJP-4	*Allied Joint Doctrine for Logistics*
AJP-4.3	*Allied Joint Doctrine for Host-Nation Support*
AJP-4.6	*Allied Joint Doctrine for Joint Logistic Support Group*
AJP-4.7	*Allied Joint Doctrine for Petroleum*
AJP-4.10	*Allied Joint Doctrine for Medical Support*
AJP-4.11	*Allied Joint Doctrine for NATO Asset Visibility*
AJP-5	*Allied Joint Doctrine for the Planning of Operations*
AJP-6	*Allied Joint Doctrine for Communications and Information Systems*
ALP-4.1	*Multinational Maritime Force Logistics*
ALP-4.2	*Land Forces Logistic Doctrine*
ALP-4.3	*Allied Air Force Doctrine for Logistics*
ALP-16	*Explosives Safety and Munitions Risk Management (ESMRM) in NATO Planning, Training and Operations*
IMSM-0296-2017	*MC Assessment on ACO's Revised Role and Responsibilities of Logistic Stakeholders, dated 30 June 2017*
COPD	*Allied Command Operations, Comprehensive Operations Planning Directive*

Preface

Context

1. The success of a military operation stands or falls on the right personnel and/or materiel being available in the right place at the right time. This requires the optimum use of movement resources. Allied Joint Publication (AJP) - 4.4, edition C, *Allied Joint Doctrine for Movement* facilitates the proper planning and use of all movement resources.

Scope

2. AJP-4.4(C), *Allied Joint Doctrine for Movement* provides NATO level 2 doctrine for the conduct of movement in support of joint operations. AJP-4.4(C) builds on the principles described in AJP-4(B), *Allied Joint Doctrine for Logistics*.

3. AJP-4.4 covers the essential terms and processes necessary in order to enable an operational level headquarters to plan and lead movement activities. It does not contain detailed procedures, which should be covered in lower level documents.

Purpose

4. The purpose of AJP-4.4 is to give commanders and staff the necessary understanding of the NATO movement terms, processes and common framework utilized in NATO movements.

Application

5. AJP-4.4 is intended primarily for strategic and operational level headquarters involved in operations. However, the doctrine is instructive and provides detail on movement activities conducted by a coalition of NATO members, partners and non-NATO nations. It also provides a reference for NATO civilian and non-NATO civilian actors.

Linkages

6. AJP-4.4 is based on MC 0336/2 '*NATO Principles and Policies for Movement and Transportation (M&T)'*. Whilst the AJP is directly subordinate to AJP-4, it is mutually supportive with AJP-4.6(C), *Allied Joint Doctrine for Joint Logistic Support Group*. In addition, it is also complementary with AJP-3, *Allied Joint Doctrine for the Conduct of Operations* and provides support to the movement aspects of AJP-3.13(A), *Allied Joint Doctrine for the Deployment and Redeployment of Forces*.

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Chapter 1 – Introduction to movement

Section 1 – General

1.1 **Movement.** Movement is the set of activities involved in the physical transfer of personnel and/or materiel as part of a military operation[1]. Movement requires the enabling capabilities of mobility, transportation, infrastructure, movement control and supporting functions.

Section 2 – Principles

1.2 This document is based on the movement principles as described in Military Committee 0336/2, '*NATO Principles and Policies for Movement and Transportation (M&T)'* taking into account lessons learned and lessons identified from recent NATO operations.

1.3 The movement process encompasses all movements between home base and final destination as a part of deployment, sustainment, rotation of forces and redeployment. Whilst movement is a national responsibility, collective responsibility reflects the fact that neither NATO nor a nation is capable of assuming complete responsibility for movement; specific responsibilities are described in chapter 2. These principles are further clarified as follows:

- **Collective responsibility**. NATO and nations have a collective responsibility for the movement support. This responsibility extends from initial movement planning through the strategic deployment, reception, staging, onward movement (RSOM) and integration, sustainment, to rearward movement, staging, dispatch and strategic redeployment. Specific responsibilities are:

  (1) **NATO's responsibility.** NATO commanders are responsible for establishing the movement requirements and for initiating, prioritizing, coordinating and de-conflicting the deployment, transportation for sustainment (resupply), and redeployment of forces.

  (2) **Nations' responsibility**. The nations are responsible for obtaining movement resources to deploy, sustain, and redeploy their forces. This principle must be balanced with the need for cooperation, coordination and economy, which may result in bilateral and/or multilateral cooperative arrangements. The troop-contributing nation (TCN) is responsible for planning, controlling and executing the movement of:

    - its national forces;
    - national components of multinational forces;

[1] NATO Agreed, 31 July 2020.

- a multinational headquarters group and/or unit with a high degree of multinationality, if the TCN has agreed to assume the lead logistic nation responsibility; and

- forces of other nations, if agreed.

The host nation will approve, coordinate and control all movement, on its sovereign territory in accordance with the NATO commander's priorities.

- **Cooperation**. Cooperation between NATO and national authorities, both military and civilian, is essential. Principles of cooperation are outlined in relevant NATO policies.

- **Coordination.** It is essential that all M&T activities are fully coordinated at the appropriate levels in accordance with NATO policies and procedures.

d. **Effectiveness**. Movement planning and execution must be tailored to satisfy the overall NATO operational requirements.

e. **Efficiency**. Use of military and civil resources, facilities, existing infrastructure and modes of transportation must be optimized, taking into account economies of scale. The complementary and inter modular nature of airlift, sealift and inland surface transport resources must be taken into consideration.

f. **Flexibility**. Movement planning and execution must be capable of reacting in a timely manner to changes in the operational situation and/or requirements.

g. **Simplicity**. Movement plans and procedures must be kept as simple as possible.

h. **Standardization**. Systems, data, software, procedures, and equipment must be standardised to facilitate interoperability and movement support.

i. **Deployability**. NATO and nations should have transportable equipment and the movement resources and procedures required to deploy their operational units and formations within required timelines.

j. **Mission Integrability.** Deployment is an integral part of the mission. SD, RSOM and Integration of forces (AJP-3.13) is fundamental to the Concept of Operations (CONOPS) that involves the projection of mission tailored combat power at the right time and in the right sequence.

k. **Visibility and transparency.** Information exchange of movement data between NATO and national military and civilian participants is essential for the efficient planning and execution of movement tasks.

Section 3 – Operations

1.4 NATO operations require that the nations make the capabilities to deploy, sustain and redeploy forces available. NATO nations are expected where there are no pooled or shared resources to encourage a multinational effort and commit their logistic assets in order to meet operational requirements. NATO will require a movement system capable of supporting the operation. The operation of an efficient movement system and development of effective lines of communication (LOCs) are prerequisites for the successful projection and sustainment of forces. Therefore, from the outset, movement should be included in the planning process.

1.5 **Phases of the operation.** Sustaining operations underpins the freedom of action for the commander joint task force (COM JTF) to shape, engage, exploit, protect and sustain.[2] From COM JTF's perspective, logistic activity has an important role in enabling the following phases of the campaign:

a. **Deployment**.[3] Deployment is the relocation of forces from a national location to an assigned area of operations (AOO).

b. **Sustainment**. Sustainment provides the personnel, logistics and other support required to maintain operations until successful mission accomplishment. It includes the sustenance and moral well-being of troops, the maintenance of materiel, the provision of expendable commodities and the treatment of casualties and replacement of personnel. Sustainment influences the tempo, duration and intensity of all operations.

c. **Redeployment**.[4] Redeployment is the relocation of forces from an assigned AOO to a national location.

Section 4 – Levels of movement

1.6 The movement system needs to be flexible and adaptable to meet the operational requirements. Military and civil movement resources are scarce and are, therefore, to be utilized in the most effective and efficient manner. Active coordination between engaged NATO headquarters, nations and other organizations involved in an operation is necessary and will preferably be solved through agreed bi-lateral, multi-lateral arrangements or contracted solutions.

[2] Allied Joint Publication-01 *Allied Joint Doctrine*.
[3] For deployment doctrine see AJP-3.13, *Allied Joint Doctrine for Deployment and Redeployment of Forces.*
[4] For redeployment doctrine see AJP-3.13, *Allied Joint Doctrine for Deployment and Redeployment of Forces.*

1.7 The movement process consists of:

a. **National movement.** The movement of personnel and/or materiel from a national location to a port of embarkation (POE) or from a port of debarkation (POD) to a national location. Coordination at operational level will be required to ensure a regulated flow into and out of the POE/POD.

b. **Strategic movement**. The movement of personnel and/or materiel from an assigned POE to a POD. It includes the marshalling and embarkation of materiel and personnel at the POE onto strategic movement assets, and the debarkation and marshalling of personnel and materiel at the POD.

c. **Operational movement.** The movement of personnel and/or materiel from a POD to an assigned AOO or from an assigned AOO to a POE.

d. **Tactical movement.** The movement of personnel and/or materiel to or from the nodes[5] within an assigned AOO.

Section 5 – Movement support network

1.8 **General**. To enhance command, control and coordination, movement needs to be linked across a movement support network. The movement support network is a system of interconnecting nodes, activities and organizations, and their multimodal links. The movement support network includes, but is not limited to portions of the joint logistic support network (JLSN), such as nodes and main supply routes in the joint operations area (JOA). A typical movement support network is highlighted in figure 1.1. To optimize movement resources, a movement support network can be delivered through a system of nodes and LOCs centralized around a hub commonly known as ‘hub and spoke’.

[5] See paragraph 1.9.

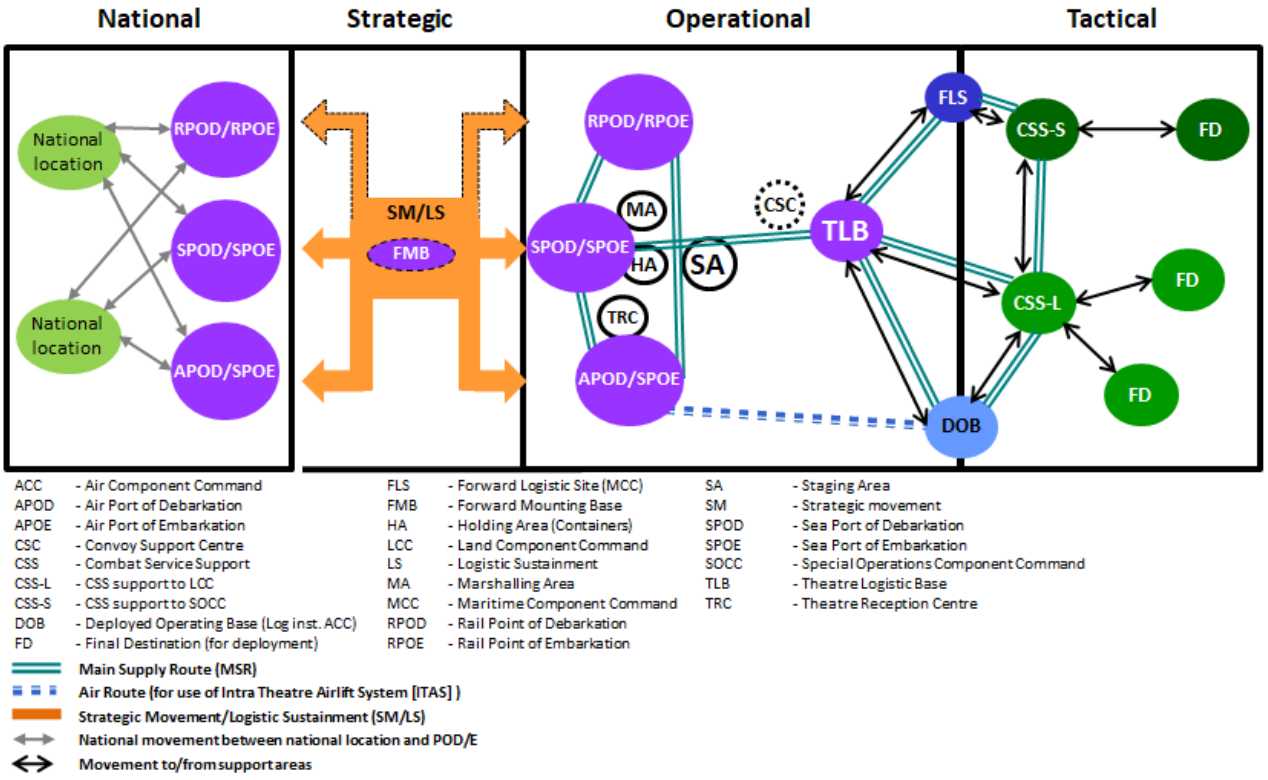


Figure 1.1 Typical movement support network

1.9 **Movement nodes**. A movement node is described as a point in a transportation infrastructure used to influence movement along LOC. The function of the nodes within the movement support network are described as follows:

a. **Forward mounting base.** A forward mounting base facilitates re-configuration of the forces and provides all relevant logistics support. Usually, it is established within the operational area to support operations. The forward mounting base may develop into a support area for sustainment of deployed forces.[6]

b. **Ports of embarkation/debarkation**. At POE/POD personnel and materiel are loaded onto or unloaded from a means of transport. Functions of a POE/POD include: reception, processing, staging of personnel, transit, in-transit storage, marshalling of materiel and the transhipment of personnel and materiel between different modes of transportation.

c. **Theatre reception centre**. A theatre reception centre is a location established to receive forces into a theatre of operations, conduct essential administrative tasks and establish the personnel tracking process. A theatre reception centre is usually located at an air POE/POD.

[6] The operational situation or national policy may necessitate the establishment of a forward mounting base along the LOC, between the POE and the POD.

d. **Marshalling area**. A marshalling area is a location in the vicinity of a reception terminal or prepositioned equipment storage site where arriving unit personnel, equipment and accompanying supplies are reassembled, returned to the control of the unit commander, and prepared for outward movement. Ideally, it will be close to the POE/POD to allow a quick off-load/on-load but at a sufficient distance to avoid congestion.

e. **Holding area**. A holding area is a waiting area that forces use during traffic interruptions or deployment from an aerial or seaport of debarkation. It will be established to temporarily hold personnel and materiel to prevent congestion, which could hamper the (un-) loading at an airport or seaport.

f. **Staging area**. A staging area is a location where personnel and materiel are temporarily held and organized to prepare for movement. During redeployment, they are organized into an administrative movement component and prepared to dispatch from the JOA. Refuelling, regrouping, training, inspection and distribution of troops and materiel are likely activities to occur in a staging area. There may be a requirement to establish and use one or more staging areas[7].

g. **Convoy support centre**. Based upon time and space there may be a requirement to establish one or more convoy support centres. Typical activities in a convoy support centre include vehicle refuelling, maintenance, recovery support, force protection, accommodation and messing facilities.

h. **Assembly area**. An assembly area is an area in which the units are assembled preparatory to further action and is considered the final destination for onward movement.

i. **Border crossing points.** A border crossing point is a movement node where the strategic convoys using land LOCs are received and transited to their final destination by following the border crossing procedures.

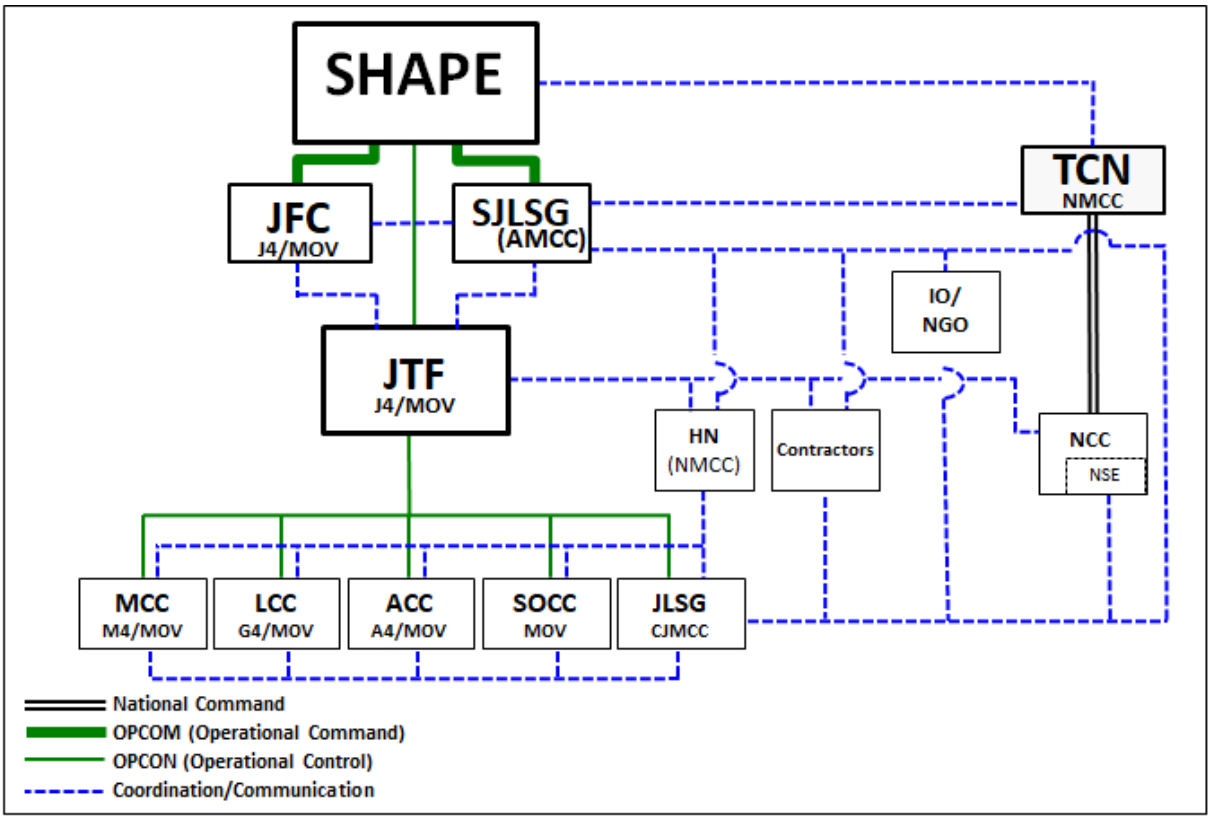
j. **Final destination.** When the term is used in movement planning, the final destination is a tactical location, within the JOA, that has been designated for an organization from which it will mount an operation.

[7] See also the definition of staging.

Chapter 2 - Roles and responsibilities

Section 1 – General

2.1 The roles and responsibilities of the movement organization include the establishment of movement requirements and the initiation, prioritization, coordination and de-confliction of deployment, sustainment and redeployment. Whilst movement remains a national responsibility, it must be a collective effort coordinated through the NATO command structure (NCS). Strategic movement must be coordinated with the Standing Joint Logistic Support Group (SJLSG) headquarters (HQ)/ Allied Movement Coordination Centre (AMCC) and operational movement in the joint operations area (JOA) with the joint task force (JTF).



ACC	Air Component Command	JTF	Joint Task Force	NSE	National Support Element
AMCC	Allied Movement Coordination Centre	LCC	Land Component Command	SHAPE	Supreme Headquarters Allied Powers Europe
CJMCC	Combined Joint Movement Coordination Centre	MCC	Maritime Component Command	SJLSG	Standing Joint Logistic Support Group
HN	Host Nation	MOV	Movement	SOCC	Special Operations Component Command
IO	International Organisations	NCC	National Contingent Commander	TCN	Troop Contributing Nations
JFC	Joint Force Command	NGO	Non-Governmental Organisations		
JLSG	Joint Logistic Support Group	NMCC	National Movement Coordination Centre		

Figure 2.1 Movement architecture

2.2 At adjacent and subordinate levels of command, the actual roles and tasks of the respective movement staffs will dictate the naming of the respective movement entity:

- NMCC: national movement coordination centre;
- JMCC: joint movement coordination centre;
- MCC: movement coordination centre; and
- MTCC: movement and transportation coordination cell

The command and control of the Movement process and resources will be determined during an early stage of the operational planning process (OPP) between NATO and the troop-contributing nations (TCNs), and will be described in the movement annex of the operation plan.

Section 2 - National roles and responsibilities

2.3 **Troop-contributing nation**. The movement of personnel and materiel remains a national responsibility. TCNs are responsible for:

- establishing a NMCC or equivalent for the planning, coordinating and executing of movement for its own forces from national locations to their area of operations (AOO) and vice versa;
- obtaining resources for the movement during all phases of an operation;
- providing national liaison augmentation to the SJLSG/AMCC and, as necessary, to the host nation (HN) NMCC;
- obtaining diplomatic clearances to support the strategic movement of its forces to/from the JOA;
- supporting medical staffs in developing and implementing national strategic medical evacuation plans; and
- coordinating with SJLSG/AMCC and, through the NSE, with the JLSG.
- TCN acting as a framework nation or logistic lead nation for a multinational HQ is further responsible for planning, coordination, and execution of movement for all TCN’s personnel within the multinational HQ.

2.4 **Non-NATO troop-contributing nation**. Non-NATO nations are encouraged to adhere to the list of tasks and responsibilities mentioned above and to obtain assistance from a NATO TCN, the JTF HQ or SJLSG/AMCC as required.

2.5 **Host nation**. A HN is a nation that, by agreement, receives forces and/or materiel of NATO and other nations operating on/from or transiting through its territory. The HN has the ultimate authority to approve, coordinate and control all movement on its sovereign territory. This includes the following actions:

- establishing liaison and coordinating movement related activities with the appropriate NATO authorities including but not limited to AMCC, JTF, the component commands and joint logistic support group;
- enabling and providing logistic support for the deployed NATO forces during the operational and tactical movement legs, if required;
- approving, controlling and coordinating air, sea and inland surface movement through its NMCC or equivalent;
- ensuring that all movement is executed in accordance with TCN requirements and the NATO commander's operational requirements and direction;
- assisting in the freedom of movement through the establishment and implementation of border crossing arrangements with NATO members, partners and neighbouring states;
- facilitating the movement of forces transiting within national boundaries; and
- providing updated geographical locations data of significance on its territory for inclusion in the logistic information management system.

2.6 **Logistic lead nation**. A logistic lead nation may assume responsibility for associated specific movement tasks within a defined geographical area for a defined period.

2.7 **Logistic role specialist nation**. One nation can assume overall responsibility for providing or procuring a specific movement capability and/or service for all or part of the multinational force within a defined geographical area for a defined period.

Section 3 - NATO roles and responsibilities

2.8 NATO has delegated the responsibility for establishing movement requirements and for initiating, prioritizing, coordinating and de-conflicting movements to different command levels. The Alliance is reliant on member nations and external sources for movement of elements of NATO force structure and NATO materiel during NATO-led operations.

2.9 **Allied Command Transformation**. Allied Command Transformation is responsible for the development of movement concepts and doctrine. In addition, the headquarters identifies future movement requirements and capabilities, initiate experimentation and is responsible for the quality of NATO movement individual training, education and exercises.

2.10 **Allied Command Operations**

Supreme Headquarters Allied Powers Europe. Supreme Allied Commander Europe (SACEUR) has overall command of the operation and will issue the strategic military guidance and direction to subordinate commanders - and coordinate with the TCNs. Execution is done via Supreme Headquarters Allied Powers Europe (SHAPE), which is responsible for the following movement tasks:

- determining the JOA and lines of communications for the strategic leg if required;
- facilitating establishment of forward mounting bases if required on behalf of TCNs;
- designating port of embarkation/port of debarkation (POE/POD), in conjunction with the HN;
- monitoring and coordinating the use of strategic lift with the nations through the SJLSG/AMCC; and
- facilitating the movement of NCS and NATO owned materiel by assuring access to strategic lift.

2.11 **Joint force commands.** The joint force commands (JFCs) will plan the operation based on the SHAPE strategic military guidance and directions and single service components requirements. SACEUR will designate one of the two JFCs to form the joint task force headquarters (JTF HQ) which will lead the operation. The JFCs are responsible for the following movement tasks:

- generating comprehensive executable movement plans; and
- executing the JTF movement function until the JTF is formed, including coordination of movements with the SJLSG.

2.12 **Component command.** The component command (CC) as single service commands will feed the JFC with their movement requirements to be used in operations planning. They are prepared to take on the role of a CC HQ for their respective services, and execute operations based on plans and orders received from the JFCs or JTF HQ. The CCs are responsible for the following movement tasks:

- providing the JFCs with movement resources to be used in operations planning; and
- participating in operations planning in order to ensure plans are synchronized and executable.

2.13 **Standing Joint Logistic Support Group**. The SJLSG provides the cross-cutting functional coherence between command and nations to conduct enduring preparatory

and enabling activity to facilitate deployment, rapid reinforcement, sustainment and redeployment. Its responsibilities for movement are as follows:

- maintains situational awareness of movement parameters in potential areas of operation and transit corridors in close coordination with HNs;
- supports continuous planning across the strategic, operational and tactical levels and provides movement planning expertise as needed;
- coordinates strategic deployment and redeployment; and
- supports movement control, contracting and logistic information management activities.

2.14 **Standing Joint Logistic Support Group/Allied Movement Coordination Centre**. SJLSG/AMCC is responsible for the following:

- providing NATO's principal capability to plan, review, prioritize, de-conflict and coordinate strategic movement support to deploy, sustain and redeploy NATO and non-NATO assigned forces during exercises and operations;
- coordinating, prioritizing and de-conflicting all strategic movements and relevant movement resources based on COM JTF requirement for the deployment/redeployment of forces and compiling, coordinating, de-conflicting and promulgating to TCNs, the multinational detailed deployment plan (MNDDP) /the multinational detailed redeployment plan (MNDRP) developed from the national DDP and DRP;
- monitoring and coordinating the use of strategic lift with the nations;
- monitoring, de-conflicting and evaluating strategic movement once an operation has commenced;
- providing strategic movement support to current operations;
- acting as the sponsor for all movement information systems[8];
- providing movement subject matter expertise to statement of requirements, concepts of operation, crisis response operations urgent requirements and all routine staffing processes; and
- providing NATO's principal capability to coordinate strategic movement with non-NATO nations, organizations, international organizations, and civil agencies in accordance with NATO policies and procedures.

[8] LOGFAS.

2.15 **NATO force integration unit**. While having a much wider area of responsibility, the NATO force integration units are also to support the HN at their locations to facilitate the movement of Alliance forces within national borders. Its movement-related tasks are as follows:

- facilitate reception, staging, and onward movement (RSOM) and rearward movement, staging and dispatch (RMSD);
- facilitate TCN actions with regards to preparing and supporting sustainment of forces; and
- assist in planning and capability assessments to enable and prepare movement solutions to meet operations and collective training demand.

Section 4 – Joint task force roles and responsibilities

2.16 **Commander joint task force.** COM JTF is responsible for the coordination of all movement in the JOA.[9] Their plan will set the movement construct for the operation; this is done in close coordination with SHAPE, the TCNs and the HNs. COM JTF's movement-related tasks include the following:

- developing the deployment plan as part of operational plan and provide with movement direction and guidance for the tactical level;
- directing, executing and assessing the deployment, sustainment and redeployment plans;
- coordinating, integrating, synchronizing and prioritizing intra-theatre movement. COM JTF will have the authority to delegate this task to a subordinate command;
- in consultation with SJLSG, prioritizing and adjusting strategic force movement for deployment, sustainment and redeployment;
- delegating movement control authority on movement supply routes during RSOM/ RSMD (normally COM JLSG);
- reviewing and approving all risk assessments related to movement within the JOA;
- submitting movement reports and returns in accordance with the operation plan;
- assisting nations and agencies with preparation of memorandum of understanding and technical arrangements;

[9] Until the JTF HQ has been established, the responsibilities of the JTF HQ will be taken by one of the two joint force commands or as directed by SACEUR.

- coordinating with contractors and international organizations/non-governmental organizations in accordance with NATO policies and procedures;
- identifying movement resources and funding requirements, for SHAPE approval where necessary;
- coordinating entry and exit procedures with HNs; and
- collating the necessary theatre infrastructure data.

2.17 **Commander joint logistic support group**. The COM JLSG is a tactical level organization delivering joint logistics on behalf of COM JTF and is consequently responsible for the following movement tasks:

- contributing to the definition of joint logistic support network (JLSN) during the OPP according to the forces' movement requirements;
- executing movement across the JLSN[10] in accordance with COM JTF's priorities;
- coordinating with contractors and international organizations/non-governmental organizations in accordance with NATO policies and procedures;
- coordinating joint logistic support network movement with the other stakeholders such as HNs, national support elements and the battle space owners;
- directing assigned movement assets to support joint support tasking;
- promoting economies of scale and avoiding competition for movement resources; and
- exercising authority, in accordance with the transfer of authority, over units entering/exiting the JOA.

2.18 **Component commander**. The component commander, assigned to an AOO, coordinates movement support for all component personnel and materiel within JLSN and their operation area. They are also responsible for the execution and monitoring of internal movement.

Section 5 – Multinational units

2.19 Multinational logistic units and multinational integrated logistic units are integrated logistic service providers who can be utilized to provide specific movement capabilities. They offer the commander and JTF staff opportunities to enable and utilize logistic services and movement capabilities by, with and through existing and/or developing

[10] AJP-4.6, *Doctrine for Joint Logistic Support Group*.

agreements. These units will significantly optimize and/or reinforce the movement footprint and are considered to be highly effective in low intensity operations.

Section 6 – NATO Support and Procurement Agency

2.20 The NATO Support and Procurement Agency (NSPA) is NATO's integrated procurement, logistic and services provider agency, delivering an integrated network of capabilities for NATO, its Nations and Partners. NSPA provides contractual tools to meet national, multinational or collective movement and transportation contracting solutions to NATO and nations. These solutions provide contracted transportation for equipment, personnel and petroleum products, which facilitate movement in support of NATO operations. Their initiatives optimise movement activities, leverage economies of scale and support NATO and nations in current and future planning activities.

Chapter 3 – Enabling capabilities

Section 1 General

3.1 Enabling capabilities will support the movement of personnel and materiel. The movement may be by sea, air, road, rail and/or inland waterway. When selecting the mode of transportation, consideration is to be given to time, risk, distance and financial factors whilst ensuring the enabling capabilities; mobility, transportation, infrastructure, and supporting functions are incorporated into movement planning.

Section 2 - Mobility

3.2 Mobility is a quality and capability of military forces, which permits them to move from place to place while retaining the ability to fulfil their primary mission. It means that the capability for the movement of personnel and materiel is a mission essential ability to the overall multinational mission success, including crossing borders, with limited constraints in order to meet their mission in conjunction with the commander's requirement. The critical activities that contribute to maintaining mobility include coordination of movement, adherence to rules, regulations, multilateral arrangements and agreements surrounding movement. In addition, the adherence to safety and security measures and compliance with customs requirements are essential too.

Section 3 - Transportation

3.3 In this section, the general characteristics applicable to five main modes of transportation (sea, air, road, rail and inland waterways) are outlined. The mode of transportation selected will be determined by the joint planners, taking into account the other enabling capabilities, to ensure all planning factors have been considered as the most obvious mode of transportation may not necessarily be the most effective or efficient.

a. **Sea**. Although relatively slow, sea movement has a large carrying capacity, extended range and is ideally suited to transport large quantities of materiel (including dangerous goods) over long distances. However, suitable port facilities at the port of embarkation/debarkation (POE/POD) should exist. It is generally the most efficient and cost-effective movement method and is the principal mode of transportation for overseas deployments, but is dependent on availability of suitable shipping assets. Sea transportation is in principle not the preferred method for deploying personnel because of its relatively low speed.

b. **Air**. Air movement is a flexible and fast way of transporting personnel and materiel over long distances providing both tactical mobility and strategic reach to the area of operations (AOO), dependent on suitable port facilities at the POE/POD. Dedicated fixed wing and rotary wing aircraft can be an effective mode of transportation into areas not easily accessible by other modes of transportation. The use of air is limited by aircraft availability and capacity, nature

of the load, weather, access, overflight permissions and airhead characteristics including its air transport regulations. Air movement is comparatively expensive and has a limited carrying capacity but is preferred for personnel and high priority/high value/sensitive materiel.

c. **Road.** Road movement is flexible, practical and ideally suited for the delivery of personnel and materiel to POEs for follow-on transportation and in the operations area from PODs to point of delivery. Due to its speed, road movement is rarely used for strategic movement or for sustained operations over long distances. It is normally the preferred method for the transportation of personnel and materiel in the joint operations area (JOA). Comparatively cheap, it is suitable for carrying bulky and/or dangerous goods. It is preferred for high priority, high value and sensitive materiel. Road movement is subject to border crossing, national regulations and in-transit clearances.

d. **Rail.** Rail movement has the capacity to move heavy and bulky loads, over long distances at relatively high speeds. Its capacity is dependent upon suitable infrastructure (such as rail access, rail platforms, transhipment facilities, loading gauges, passing facilities, the availability of motive power and rolling stock). It is an efficient mode of transport that is comparatively cheap with a large capacity. It is suitable for moving operational ready units (personnel and materiel together) but vulnerable to in-transit disruptions and less suited to short distances due to preparation and handling activities. Rail movement is subject to border crossing, national regulations and in-transit clearances.

e. **Inland waterways.** Inland waterway transport can be operated on rivers, canals, inland seas, lakes, inter-island or limited coastal routes and for ship to shore discharge. It is particularly suited for the carriage of bulky materiel when time in transit is not of overriding importance. Inland waterway transportation tends to be slow, but can operate continuously and it is reliable, relatively cheap, and simple to operate. It can be invaluable as a means of maintaining a regulated, even flow of supplies. A limiting factor in the use of inland waterway transportation is the inflexibility of deviating from established routes. Movement can be restricted by weather extremes, the lack of suitable ports and terminal handling capabilities. Inland waterway transport is subject to border crossing, national regulations and in-transit clearances.

Section 4 - Infrastructure

3.4 Understanding the capabilities of infrastructure up to resilience including national responsibility and the time when assets become available is crucial for executing successful movement operations. A robust network of modern air and seaports, roads, railroads, and inland waterways will shape and influence movement whilst expediting the throughput of personnel and material to meet the commander’s requirements. Mission vital infrastructure that could jeopardize the mission must be identified early and actions must be taken to mitigate vulnerabilities.

3.5 Movement courses of action may include contingency requirements to augment or expand infrastructure capabilities. NATO forces may bring major facility improvements through use of rapid construction methods and techniques. However, these often-contracted commercial projects require significant investment of both time and money that may not be operationally feasible nor able to secure NATO common funding.

Section 5 - Supporting functions

3.6 Access to supporting functions (e.g. military engineering, force protection, maintenance, refuelling and medical support) are key to enable and sustain the movement of personnel and materiel. The respective structures, regulations and procedures must be determined by the planning staff and established at all levels of commend.

MILENG support is an essential element for delivering mobility. Military engineers assess, maintain, repair and enhance land-based infrastructure to ensure that it is fit for purpose, ensuring the mobility that a force require. Force protection secures lines of communication (LOCs) in order to maintain the sustainability of the force. Medical support contributes to the survivability of the force.

Section 6 - Movement authorities

3.7 There are a number of national and international organizations that enable transportation. To deliver a comprehensive movement system, movement organizations must liaise with control authorities that have the power to manage and utilize transportation on behalf of the host nation (HN). These are as follows:

- **Air** - Air traffic control is responsible for expediting and maintaining an orderly flow of air traffic.

- **Port** - As either inland waterway or sea movement are succeeded by onward road/rail movement, this function is usually carried out by civil/military national authorities and treated as surface transport.

- **Rail** - In order to expedite rail movement, close co-operation between the HN, civilian rail agencies and the military movement authorities is required. Rolling stock and associated rail infrastructure may be in limited supply. A transparent and all informed reporting network for rail movement will promote economies of scale.

- **Road** - For the purpose of this publication, the term "traffic control personnel" is used to denote any person acting under the orders of the national territorial authority, responsible for traffic control and instructed by this authority to facilitate the movement of traffic and to prevent and/or report any breach of road traffic regulations. Duties and power of traffic control personnel: traffic control personnel should be empowered to issue orders to military vehicle drivers. This is to ensure adherence to road traffic regulations and road traffic plans.

Section 7 – NATO single national point of contact

3.8 To better enable the rapid deployment of the Very high readiness task force and the NATO Response Force, allies have each nominated a single national point of contact (sNPOC). Allies have each nominated a sNPOC that brings together cross-governments networks of relevant ministries and offices to support rapid deployment. The sNPOC is responsible for addressing, at short notice, the full range of potential deployment issues (transport, legislative, diplomatic, environment, financial, taxation, health, customs, administration, immigration and agriculture). The sNPOC structure is supported by a continuously manned crisis, operations or movement centre. NATO HQ International Staff operations division (Civil preparedness section) maintains a database of sNPOCs and continuously manned national centres.

Chapter 4 - Planning

Section 1 - General

4.1 NATO has two main operations planning categories: advance planning and crisis response planning. Advance planning is conducted to enable NATO to deal with potential threats to the Alliance when identified before they occur. Crisis response planning addresses emerging and unexpected crises and is based on circumstances that exist at the time when the planning is being conducted[11].

Movements planning is a key element in both planning categories focusing on identifying, selecting and developing the logistic resources and capabilities required to move and sustain Alliance forces to match NATO's level of ambition. As operations usually take place in a dynamic environment, planning is a continuous process that takes place throughout the course of an operation.

Section 2 – Movement planning

4.2. **Strategic movement planning.** Strategic movement planning considers the capability to move forces and associated logistic support in a timely and effective manner over long distances. It is essential that strategic movement planning identifies the full movement requirements necessary to support the operations as envisioned in the political guidance.

The strategic movement requirements are identified to nations; shortfalls in capability between the overall requirement and what nations commit must be filled by other means, such as multinational cooperation or commercial contracting. The Civil Emergency Planning Committee (CEPC), through its transportation groups (TGs), may support movements planning by advising on the availability and use of civil transport resources and related infrastructure. In addition, they can provide active support through deployment of rapid reaction teams.

Troop contributing nations (TCN) develop a detailed deployment plan (DDP). Standing Joint Logistic Support Group/Allied Movement Coordination Centre (SJLSG/AMCC) issues a multinational DDP (MNDDP) after the harmonization and merging of all TCNs' DDP and after coordination with the host nation (HN). National movement and deployment planners then fill the MNDDP with national assets in line with the exercise or operation requirements. Finally, the AMCC supports and coordinates the development of national DDPs into a de-conflicted MNDDP to support force deployment and/or sustainment through the appropriate movement planning.

4.3. **Operational movement planning.** The joint task force (JTF) forms a joint operational planning group that plans operations in accordance with the principles in AJP-5. As logistics frequently shapes the design of operations, operational movement planning should always be an integral part of all stages of logistics planning. Movement

[11] Allied Joint Publication - 5, *Allied Joint Doctrine for the Planning of Operations.*

expertise should be included in the operational planning reconnaissance (through the operational liaison and reconnaissance team) to ensure the respective processes are appropriately informed.

The operational movement planner plays a key role in developing a realistic and executable deployment plan. The design, development, implementation and control of the movement's architecture within the theatre are JTF HQ responsibilities. The force flow based on specific requirement of forces will be finalized in coordination with the tactical level to ensure it is executable on all levels.

4.4. **Tactical movement planning.** The tactical level will produce a tactical movement plan once the MNDDP is de-conflicted at the strategic and operational level and the force flow plan is outlined. The dedicated reception, staging, onward movement (RSOM) HQ should develop the tactical RSOM plan in close cooperation with HNs and TCNs, as well as the national movement coordination centres.

4.5. **Crisis response management.** A fast-track movement planning procedure is developed to enable the Alliance to deploy reaction forces responding to a crisis. HNs should also have a fast-track procedure to authorize movement forces across their territories.

Section 3 - Planning considerations

4.6 Movement planning should be executed by adopting multinational, joint and multimodal approach. Movement staff must be involved in operations planning from the beginning to avoid unsupportable concepts of operations. The following logistic operations planning considerations must be taken into account:

a. **Demand.** Movement requirements will vary depending upon the phase of the operation. Demand identifies the forecasted quantity and pattern of consumption or usage of materiel to be moved, which will be driven by the following factors:

- Commander's (COM) priorities and requirements;
- phase of operation and tempo;
- size and type of the force; and
- sustainment policy.

b. **Distance.** Distance is a key element in movement planning and a significant factor in determining preferred modes of transportation and the capabilities required.

c. **Destination**. Closely linked to 'Distance', the infrastructure at the destination and lines of communications determines the most suitable modes of transportation.

d. **Duration.** Shorter operations may require more immediate movement methods and longer ones may utilize more diverse transportation infrastructure within the joint operations area (JOA). Duration affects the 'Demand' on modes of transportation.

4.7 **Risk.** The security situation, threat and the operating environment require a robust and flexible movement plan and resilience is required to cope with these uncertain factors. The availability of transport assets, the regulated flow of movement on the network and the serviceability of its infrastructure will determine the degree of risk to be managed. In addition, the reliance on civil resources should be cautioned in case of a deteriorating, tenuous, and/or volatile security situation.

4.8 **Civil resources.** Given the highly demanding time constraints driving strategic, operational and tactical movement, advanced planning is deemed essential to develop realistic courses of action. This planning should highlight, where possible, the relevant non-military actors, commercial operators and supporting agencies. Consideration should always be given to the use of commercial transport assets, ports, road and railway networks to avoid conflict and competition with other organizations in place. The availability of civil resources is subject to a number of factors including commercial and economic; military, political and legal implications; arrangements, priorities and legislation; and pre-determined NATO and national civil emergency plans, policies and procedures. Movement planning regularly relies on existing networks and arrangements with commercial transportation providers and this requires direct liaison between these providers and the responsible movement staff. The joint function civil-military cooperation (CIMIC) can assist movement planners with civil assessments and can facilitate liaison to relevant non-military actors.

At the beginning of a deployment or operation, COMs should ensure that early threat assessments address not only operational areas but also the broader region to include anticipated and potential locations for air and multimodal terminals. Planners must consider:

a. The feasibility and accessibility of civil transportation support that can be provided by NATO civil transportation experts from the CEPC TGs. TGs support movement planning by advising on the availability and use of civil transportation resources and related infrastructure.

b. Liaison with movement entities where appropriate, who can provide information and offer assistance in all phases of planning and execution of operations, provided that it is consistent with agreed NATO policies, decisions and procedures.

c. Host-nation support (HNS) and/or local resources, particularly during the reception, staging and onward movement (RSOM)/ rearward movement, staging and dispatch stages (RMSD). When HNS is not available, additional logistic capabilities must be force generated or made available on a contractual basis.

4.9 **Factors affecting control of movement**. Different factors affect the provision of movement control (MOVCON)[12] elements:

a. **Rate of flow**. The rate of flow through the network and intensity of movement (e.g. 3rd parties, civilian traffic) as well as the length and condition of the LOC will determine the number of MOVCON elements.

b. **Tasking**. Regardless of the mode of transportation, the tasks of a MOVCON element at any point on the network are similar. The mode of transportation (MOT) used will dictate the qualification requirements of personnel generated to the MOVCON.

c. **Complexity of movement**. The geography of the JOA, the length and condition of the LOCs and the movement node locations will influence resourcing of the movement control elements. In addition, multi-modal terminals require an appropriate command and control architecture and multi-disciplined MOVCON elements.

d. **Climatic and environmental conditions**. Operating in extreme conditions may require MOVCON personnel to be rotated more frequently and therefore increase the size of the detachment.

e. **Qualified and experienced personnel.** MOT utilised will determine the requirement for the correct number of qualified an experienced personnel in order to carry out effective and efficient MOVCON. This resource could be provided by TCNs, but can also be provided by the HN.

Section 4 – Planning tools

4.10 Effective and collaborative planning requires the use of information technology systems and their planning products to exchange movement planning information and movement plans. As movement planning tools for strategic and operational movement planning, NATO uses logistic functional area services (LOGFAS) - allied deployment and movement system (ADAMS) and coalition RSOM (CORSOM). TCNs participating in NATO operations should submit their DDPs in LOGFAS-ADAMS format to the Standing Joint Logistics Group (SJLSG)/Allied Movement Coordination Centre (AMCC).

Section 5 – Modes of transportation selection

4.11 **General**. The choice of the MOT requires careful assessment of the relative merits taking into account factors including political, legal, geographical, infrastructure, operational and financial aspects. The obvious MOT is not necessarily the preferred option when all factors have been analysed. The following aspects should be considered:

[12] See the definition of MOVCON in Lexicon.

- the COM's timeline;
- the threat situation;
- sharing the use of transport assets to minimize empty legs including the possibility of using multinational contracts in order to achieve cost effectiveness;
- customs, immigration, food and agriculture regulations, border crossing and transit procedures/regulations, including international agreements, and HNS;
- safety and security aspects of transportation of dangerous goods;
- explosives safety and munitions risk management (ESMRM) requirements;
- explosive licensing at the terminal, protection of infrastructure; and
- use of transportation infrastructure by local population, displaced persons and humanitarian organizations.

4.12 **Sealift planning**. The following factors affect the suitability of sealift and should be considered when planning:

- availability of vessels and charter rates;
- type of vessels and technical limitations (dangerous goods);
- load planning limitations (e.g. blocking, bracing, dunnage);
- availability of appropriate material handling equipment;
- availability of suitable ports and terminal facilities, particularly in or near the area of operations (AOO);
- throughput capacity of ports, which is dependent on the RSOM/RMSD capacity and HN transportation infrastructure;
- threat to shipping and the availability of naval escorts;
- ships are relatively slow in comparison to aircraft but have great carrying capacity and are less expensive; and
- impact of adverse weather conditions.

4.13 **Airlift planning**. The following factors affect the suitability of air transportation and they should be considered when planning:

- it is associated with higher costs in comparison to other modes of transportation;
- availability of suitable air transport assets (civil and military, strategic and tactical);
- type of aircraft and technical limitations;
- availability of suitable airfields, including capability to service and fuel aircraft;
- transport aircraft are relatively vulnerable, especially during take-off, landing and ground operations;
- climate and geography have a particular influence over the full exploitation of aircraft capabilities;
- diplomatic clearances and transit agreement for landing at and crossing the airspace of other nations;
- availability of appropriate material handling equipment;
- use of unprotected aircraft and/or, commercial air assets are to be considered when the operational situation allows; and
- compared to rail or sea, transport aircraft are limited in the volume and weight they can carry.

4.14 **Road transportation planning**. The following factors affect the suitability of road transportation and should be considered when planning:

- availability of secured routes;
- availability, classification, surface, capacity, state of repair or damage of the road network;
- climate and geography;
- speed of road movement will be influenced by the types of vehicles (wheeled or tracked) and their size;
- density of civilian traffic;
- displaced populations and/or other mass gatherings of people who might affect the routes;
- movement regulations and requirements in transit countries, such as diplomatic clearances and transit agreements;

- over long distances, road vehicles have less carrying capacity than sealift or rail. They are also slower than other modes of transportation, particularly when compared to aircraft;

- availability and endurance of trained and experienced drivers; and

- maintaining and sustaining a road transportation operation over long distances and extended periods, extensive logistic and administrative facilities are needed.

4.15 **Rail transport planning**. The following factors affect the suitability of rail transportation and should be considered when planning:

- rail transportation is limited to fixed routes and schedules, and thus lacks flexibility;

- comparatively cheap and has a large capacity;

- effective for military mobility;

- it may be easily interdicted by hostile ground or air attack;

- the efficiency and speed of rail transportation depends on railway gauges, passing facilities, and the availability of railheads;

- the requirements for rolling stock must be identified to railway companies well in advance to allow for prepositioning; and

- certain types of military equipment, such as main battle tanks, will require specialized rail cars.

4.16 **Inland waterway transport planning**. The following factors affect the suitability of inland waterway transportation and should be considered when planning:

- most inland waterway transport vessels are usually bulk or container ships and are smaller than those used for sea transportation;

- bridge lifts and the throughput capacity of locks;

- threat and the availability of escorts;

- it may be easily interdicted by hostile ground or air attack;

- availability of suitable ports, terminals and mechanical handling aides; and

- movement regulations and requirements in transit countries, such as diplomatic clearances and transit agreements.

Section 6 – Other considerations

4.17 **Terminal operations.** There is a requirement to carry out prior liaison with the requisite terminal authorities to agree and arrange what facilities and infrastructure can be utilised. The following factors should be considered:

- nature of the operation;
- composition of the terminal and its resources;
- quantity, including weight and volume of cargo and its nature, particularly dangerous goods;
- munitions movement; ESMRM requirements should be addressed and where those requirements cannot be met, a risk and consequence assessment should be performed and authorised at the appropriate level IAW NATO requirements;
- utilization of HNS and associated civilian agencies;
- force protection;
- supplementing HNS and/or civilian agencies when they are unable to cope with the military materials; and
- operating solely as a military terminal.

4.18 **Explosives safety and munitions management operations**. ESMRM[13] is an integral part of movement planning for munitions transportation. Explosives safety subject matter experts shall be included in such planning to advise on ESMRM matters. Logistic movement activities involving military munitions[14] pose inherent and significant risk.

4.19 **Common funding.** The North Atlantic Council has established special parameters for common funding of deployed joint HQs and specific theatre-wide support capabilities under command and control of the COM JTF. Key movement infrastructure improvements may be subject to common funding if costs cannot be allocated to any of participating nations. Consideration must be given to achieving value for money when contracting with civil agencies for movement infrastructure and assets.

[13] ALP-16, *Allied Logistic Publication for Explosives Safety and Munitions Risk Management in NATO Planning, Training and Operations*

[14] Maintenance, explosives loaded aircraft parking, bomb/missile build-up, distribution, storage.

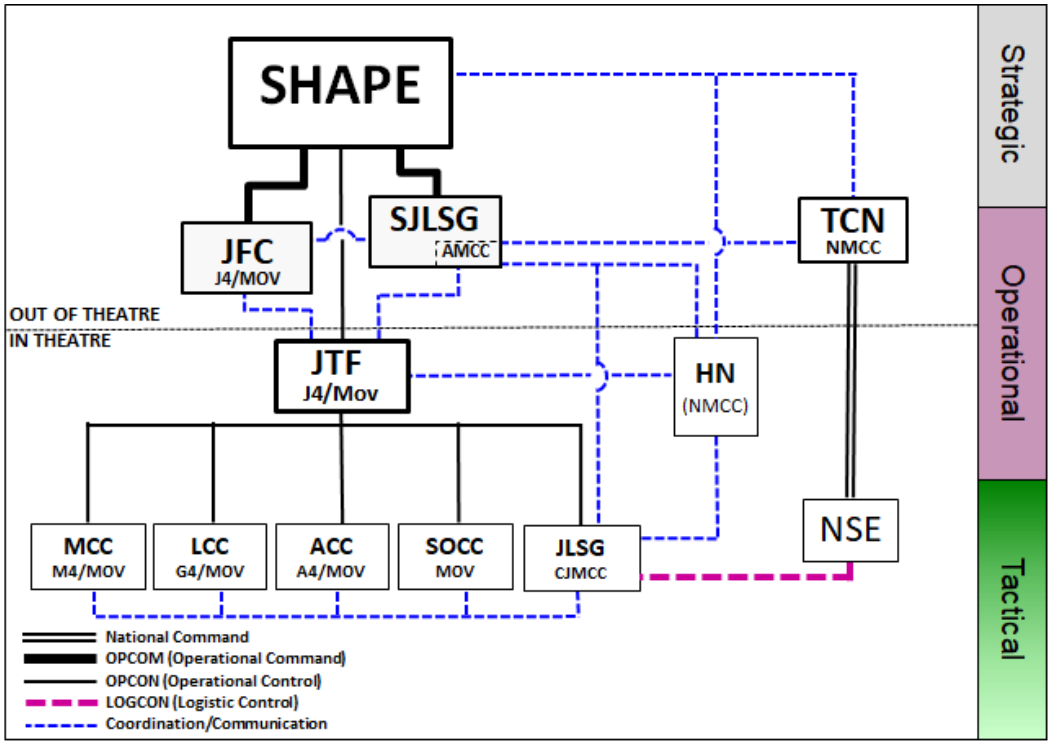
Chapter 5 – Command, control, coordination and information

Section 1 – General

5.1 Movement command, control, coordination and information exchange, are critical to a successful operation. There must be a clear chain of command that is understood by all in order to support movement planning and execution, a system of control and coordination to monitor and measure progress, and, communications and information systems.

Section 2 – Command and control

5.2 The foundation of successful military movement rests on the establishment of centralized control and coordination, at the highest practical level. Factors such as the complexity of the move, security and communications requirements and the desired degree of control will determine the level at which command and control is exercised.



ACC - Air Component Command
AMCC - Allied Movement Coordination Centre
CJMCC - Combined Joint Movement Coordination Centre
HN - Host nation
JFC - Joint Force Command
JLSG - Joint Logistic Support Group
JTF - Joint Task Force
LCC - Land Component Command
MCC - Maritime Component Command
MOV - Movement
NMCC - National Movement Coordination Centre
NSE - National Support Element
SHAPE - Supreme Headquarters Allied Powers Europe
SJLSG - Standing Joint Logistic Support Group
SOCC - Special Operations Component Command
TCN - Troop Contributing Nation

Figure 5.1 – Movement command, control and coordination

5.3 The command, control and coordination structure will be determined by the type, scale, complexity and location of each operation. The movement command, control and coordination structure should maintain the flexibility to provide for several courses of

action. The generic command, control and coordination for the movement support network is illustrated in figure 5.1.

5.4 **Strategic**. For strategic movement, Allied forces remain under national command until transfer of authority (usually at the port of debarkation)[15]. The Standing Joint Logistic Support Group (SJLSG)/Allied Movement Coordination Centre (AMCC) coordinates strategic and operational movement in accordance with the multinational detailed deployment/redeployment plan (MNDDP/MNRDP) and commander joint task force's (COM JTF's) requirements. The SJLSG/AMCC should also coordinate the use of strategic movement assets that may be available for cooperative or shared use.

5.5 **Operational**. COM JTF coordinates movement in the joint operations area (JOA) with host nation national movement coordination centres (HN NMCCs) and national support elements. However, the ultimate responsibility for the control and coordination of movement within its territory remains with the HN. COM JTF should prioritize movement in accordance with the operational requirements, whilst de-conflicting between operational requirements and tactical concerns. COM JTF will also be responsible for coordination of movement assets within the JOA that may be available for cooperative or shared use, which task may be delegated to COM JLSG. To enhance command, control and coordination, COM JLSG manages property, real estate and infrastructure within the joint logistic support network (JLSN). JLSN consists of, but not be limited to:

- points of embarkation; points of debarkation;
- lines of communications;
- logistic bases;
- convoy support centres; and
- staging areas.

5.6 **Tactical**. Component commanders and COM JLSG control and coordinate movement within their area of responsibility in coordination with HN NMCCs and movement control staffs. The battle space owner(s) controls and coordinates respective movement within the movement support network. Component commanders will resolve any movement conflicts through COM JTF when necessary.

When engaging in multinational logistic support the COM must take into consideration the differing command and control (C2) relationships: a logistic lead nation remains under national C2. However, a logistic role specialist nation should place the units undertaking the activity under tactical control of COM JTF. The additional liaison burden, which will arise from multinational logistic support, must be considered when planning the size and shape of the headquarters.

[15] IAW AJP-3 *Allied Joint Doctrine for the Conduct of Operations.*

Section 3 – Information exchange

5.7 **Information management system**. Movement information to support the movement plan must be available at an early stage and at the appropriate levels. Information management systems (IM system) that process movement information must be secure, easy to use and responsive in order to facilitate the deployment and further operations. In addition to the military systems, civilian communication and information systems may also be available in theatre. However, most commercial systems are not secure and additional security precautions may be necessary. Contracted civilian movement agencies should use accredited information and communication systems.

5.8 **Information technology**. The NATO logistic IM system must assist planning and contribute to the recognized logistic picture (including movement information). The IM system will also contribute to movement visibility and infrastructure utilization. Consequently, NATO is mandated to use the NATO logistic IM system. Nations are strongly encouraged to use the same system to facilitate multinational movement planning, execution monitoring and transfer of information within the scope of NATO security policies and regulations. While troop-contributing nations (TCNs) can use other systems, they must ensure that data is provided in a compatible format when national systems are used.

5.9 **Logistic functional area services (LOGFAS)**. LOGFAS (for logistics) and the tool for operations planning functional area services (TOPFAS) are the current IM systems for logistics. They are integrated applications suites with multiple capabilities to support movement planning, execution and reporting. The LOGFAS, core applications for movement, is a geographical manager, a logistics data manager and a logistics database. The movement suites linked to the LOGFAS are as follows:

a. **Allied deployment and movement system** (ADAMS). ADAMS is the software tool used to plan strategic movement, develop multinational detailed deployment/redeployment plans from the national detailed deployment/redeployment plans and de-conflict them as required. For NATO operations and exercises, national detailed deployment plans will be communicated and coordinated between TCNs and NATO using LOGFAS/ADAMS.

b. **Effective visible execution** (EVE). EVE is the tool used to manage movement. This includes movement for sustainment and rotation of forces. In addition to its primary movement-management functions, it provides visibility for ongoing and planned movement missions to all participating nations and NATO. For near real-time visibility of movement, EVE requires timely and accurate input of actual movement information.

c. **Coalition reception staging and onward movement** (CORSOM). Based upon the data from the (ADAMS) MNDDP/MNRDP, CORSOM will support the planning for reception, staging, onward movement/rearward movement, staging and

dispatch (RSOM/RMSD). CORSOM will assist in planning onward/rearward movement and in determining the locations for RSOM/RMSD installations such as marshalling areas, holding areas and convoy support centres during the onward/rearward movement of forces. CORSOM can also be used for planning and executing sustainment movement.

Section 4 - Reporting

5.10 Once the movement begins, progress must be monitored and reported on a regular and systematic basis to keep the chain of command and other staffs informed. This enables timely action to mitigate unforeseen delays, changes or resource shortfalls. Therefore, a movement reporting system should be described in the operations plan. When establishing the reporting system, the following should be considered:

- information must be timely, accurate and in the agreed format;
- understanding the security situation during all phases of the move;
- reporting systems must be secure if classified information is to be exchanged; and
- the LOGFAS movement applications are the NATO standard preferred information technology software for movement visibility and reporting.

Section 5 – Lessons learned

5.11 An effective lesson learned process should be an instrumental part of any organization's overall improvement process. NATO uses the lessons learned process to enable continuous improvement across the Alliance, thus enhancing the effectiveness of a JFC or JTF also in the area of movements. All observations regarding movements from training, exercises and operations are to be inserted in the NATO lessons learned portal. This is the single NATO Alliance tool for collection, managing, tracking, monitoring and sharing of lessons including movement. Commanders must promote and make use of the portal in order to prioritize lessons, share them, assign and track remedial actions and follow up to ensure their organization has actually learned.[16]

[16] The operational lessons learned process is described in AJP-3.

Lexicon

Part I – Acronyms and abbreviations

The lexicon contains acronyms/abbreviations and terms/definitions relevant to Allied Joint Publication - 4.4(C) and is not meant to be exhaustive. A definitive and more comprehensive list of abbreviations is in NATOTerm.

ADAMS	allied deployment and movement system
AJP	Allied joint publication
ALP	Allied logistic publication
AMCC	Allied Movement Coordination Centre
AOO	area of operations
CEPG	Civil Emergency Planning Committee
CIMIC	civil-military cooperation
COM	commander
CORSOM	coalition reception staging and onward movement
C2	command and control
DDP	detailed deployment plan
DRP	detailed redeployment plan
ESMRM	explosives safety and munitions risk management
EVE	effective visible execution
HN	host nation
HNS	host-nation support
HQ	headquarters
IM system	information management system
JFC	joint force command
JOA	joint operations area
JLSN	joint logistic support network
JLSG	joint logistic support group
JTF	joint task force
LOC(s)	line(s) of communication
LOGFAS	logistic functional area services
MN	multinational
MOT	mode of transportation
MOVCON	movement control
NMCC	national movement coordination centre
NCS	NATO command structure
NSPA	NATO Support and Procurement Agency
OPP	operations planning process
POD	port of debarkation
POE	port of embarkation
RMSD	rearward movement, staging and dispatch
RSOM	reception, staging and onward movement
SACEUR	Supreme Allied Commander Europe
SHAPE	Supreme Headquarters Allied Powers Europe
SJLSG	Standing Joint Logistic Support Group

sNPOC	single national point of contact
TCN	troop-contributing nation
TG	transportation group
TOPFAS	tools for operations planning functional area services

Part II – Terms and definitions

civil-military cooperation (CIMIC)
A joint function comprising a set of capabilities integral to supporting the achievement of mission objectives and enabling NATO commands to participate effectively in a broad spectrum of civil-military interaction with diverse non-military actors.
(NATO Agreed)

command

- The authority vested in a member of the armed forces for the direction, coordination, and control of military forces.
- An order given by a commander; that is, the will of the commander expressed for the purpose of bringing about a particular action.
- A unit, group of units, organization or area under the authority of a single individual.
- To dominate an area or situation.
- To exercise command.

(NATO Agreed)

deployment
The relocation of forces from a national location to an assigned area of operations.
(NATO Agreed).

dispatch
The set of activity, including moving, marshalling, assigning, loading and recording of personnel and/or materiel, involved in the transition from an operational movement to a strategic movement between the staging area and the port of embarkation.
(NATO Agreed)

host nation (HN)
A country which, by agreement:

a. receives forces and materiel of NATO members states or other countries operating on/from or transiting through its territory;

b. allows materiel and/or NATO and other organizations to be located on its territory; and/or

c. provides support for these purposes.

(NATO Agreed)

host-nation support (HNS)
Civil and military assistance rendered in peace, crisis or war by a host nation to NATO and/or other forces and NATO organizations that are located on, operating on/from, or in transit through the host nation's territory.
(NATO Agreed)

joint logistic support group (JLSG)
A logistics-centric, force-generated, deployed, component-like joint organization, discharging operational-level responsibilities, through joint operational and tactical-level activities.
(NATO Agreed)

joint operations area (JOA)
A temporary area within a theatre of operations defined by the Supreme Allied Commander Europe, in which a designated joint force commander plans and executes a specific mission at the operational level.
(NATO Agreed)

logistics
The science of planning and carrying out the movement and maintenance of forces. In its most comprehensive sense, those aspects of military operations which deal with:

a. design and development, acquisition, storage, movement, distribution, maintenance, evacuation, and disposal of materiel;

b. transport of personnel;

c. acquisition or construction, maintenance, operation, and disposition of facilities;

d. acquisition or furnishing of services; and

e. medical and health service support.[17]

(NATO Agreed)

movement
The set of activities involved in the physical transfer of personnel and/or materiel as part of a military operation.
(NATO Agreed)

movement control
The planning, routing, scheduling and control of personnel and cargo movements over lines of communication.
(NATO Agreed)

[17] Several Nations do not consider medical support to be a logistic function.

national movement
The movement of personnel and/or materiel from a national location to a port of embarkation or from a port of debarkation to a national location.
[This term and definition only applies to this publication and AJP-3.13.]

onward movement
The movement of personnel and/or materiel from a staging area to their assigned area of operations.
(NATO Agreed)

operational movement
The movement of personnel and/or materiel from a port of debarkation to an assigned area of operations or from an assigned area of operations to a port of embarkation.
[This term and definition only applies to this publication and AJP-3.13.]

port of debarkation (POD)
A seaport, airport or railhead where personnel, equipment and/or stocks are unloaded from a means of transport.
(NATO Agreed)

port of embarkation (POE)
A seaport, airport or railhead where personnel, equipment and/or stocks are loaded onto a means of transport.
(NATO Agreed)

rearward movement
The movement of personnel and/or materiel from an assigned area of operations to a staging area.
(NATO Agreed)

reception
The set of activities, including receiving, offloading, recording, marshalling and moving of personnel and/or materiel, involved in the transition from a strategic movement to an operational movement between a port of debarkation and a staging area.
(NATO Agreed)

redeployment
The relocation of forces from an area of operations to a national location.
(NATO Agreed)

staging
The process of temporarily holding and organizing personnel and materiel to prepare for movement.
(NATO Agreed)

strategic deployment
The relocation of forces from a national location to a joint operations area, consisting of both national and strategic movement.
(NATO Agreed)

strategic movement
The movement of personnel and/or materiel from an assigned port of embarkation to a port of debarkation.
[This term and definition only applies to this publication and AJP-3.13.]

tactical movement
The movement of personnel and/or materiel to or from the nodes and within an assigned area of operations.
(NATO Agreed)

transportation
The physical transfer of people and/or materiel from one location to another.
(NATO Agreed)

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