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FOREWORD

BY THE SECRETARY GENERAL OF THE NORTH ATLANTIC TREATY ORGANIZATION, CHAIRMAN OF THE SENIOR NATO LOGISTICIANS’ CONFERENCE

The transformation of the security environment in Europe has had a profound effect on the North Atlantic Alliance. While on the one hand we have seen major reductions in defence budgets, and consequently in levels of armed forces, we also have accepted a number of new or expanded tasks for the Alliance. These include the establishment of a process of dialogue and co-operation with the nations of Central and Eastern Europe and the former Soviet Union, the development of working relationships with institutions such as the UN, the CSCE and the WEU, the introduction of new command and force structures, and, most recently, planning for the possible involvement of the Alliance in peacekeeping operations. All these tasks present significant and new challenges to NATO’s logistics staffs at all levels.

I welcome the publication of this new edition of the NATO Logistics Handbook. I commend it both to the newcomer to NATO logistics, and to those who will use it as a ready source of reference in work which I consider to be of prime importance to the Alliance.
INTRODUCTION

This Handbook, published under the auspices of the Senior NATO Logisticians' Conference, is intended as a simple guide to logistics in NATO. It does not attempt to examine current issues or to provide answers to the problems logisticians will face, but rather aims at introducing them to some of the basic principles, systems and organizations with which they will work. At the end of each Chapter is a list of the main references to which readers may turn for more detailed information on the subjects concerned.

In time of great change in NATO and the security environment it is inevitable that much of the content of the Handbook has had to undergo review. A number of important changes affecting the organization and functioning of the Alliance have been, or are about to be, implemented, and to the extent possible these have been reflected in this new edition. The continuing usefulness of the Handbook depends, however, on regular updating and this will be an ongoing process. If any reader has suggestions for its improvement or amendment he is asked to forward them to the SNLC Secretariat.

The NATO Logistics Handbook is not a formally agreed document, and should not be quoted as a reference. It does not necessarily represent the official opinion or position of the nations, commands or agencies on all the policy issues discussed.

SNLC Secretariat
Logistics Directorate
International Staff
NATO HQ
1110 Brussels
CHAPTER 1
NATO ORGANIZATION

INTRODUCTION

101. The North Atlantic Treaty of April 1949 brought into being an Alliance of independent countries with a common interest in maintaining peace and defending their freedom through political solidarity and adequate military defence to deter and, if necessary, repel all possible forms of aggression against them. Created within the framework of Article 51 of the United Nations Charter, which reaffirms the inherent right of individual or collective defence, the Alliance is an association of free states united in their determination to preserve their security through mutual guarantees and stable relations with other countries.

102. This chapter sets out the organization of NATO in outline, and attempts to emphasize the different aspects of the civil and military elements of the Alliance. The logistician, for whom the handbook is intended, will normally be more concerned with the military branches of NATO, but it is essential to remember that, in an alliance of democracies, the military do not decide NATO policy. They implement it.

GENERAL

103. NATO is the Organization which serves the Alliance. It is an inter-governmental organization in which member countries retain their full sovereignty and independence. The civil/military structure of the Organization (Annex A) provides the forum in which they consult together on any issues they may choose to raise and take decisions, on a consensus basis, on political and military matters affecting their security. It provides the structures needed to facilitate consultation and co-operation between them, not only in political fields but also in many other areas where policies can be co-ordinated in order to fulfil the goals of the North Atlantic Treaty.  

Note: The organization charts at Annexes A-E may give the impression that the civil and military sides of NATO are separate entities. This is incorrect. The principal committees of the Council, the Military Committee, and the NATO military organization have specific functions within NATO but they are an integral part of it. This joint civil/military aspect runs throughout NATO. Although certain topics will be dealt with entirely within the military organization and be decided by the Military Committee, there are few aspects of logistics that do not involve the civil staff. At NATO Headquarters, therefore, there is constant liaison between the International Military Staff (IMS) who support the Military Committee, and the civil International Staff (IS).
104. To achieve its essential purpose, the Alliance performs the following fundamental security tasks:

- It provides one of the indispensable foundations for stable security in Europe based on the growth of democratic institutions and commitment to the peaceful resolution of disputes. It seeks to create an environment in which no country would be able to intimidate or coerce any European nation or to impose hegemony through the threat or use of force.

- In accordance with Article 4 of the North Atlantic Treaty, it serves as a transatlantic forum for Allied consultations on any issues affecting the vital interests of its members, including developments which might pose risks to their security. It facilitates appropriate co-ordination of their efforts in fields of common concern.

- It provides deterrence and defence against any form of aggression against the territory of any NATO member state.

- It preserves the strategic balance within Europe.

NORTH ATLANTIC COUNCIL (NAC)

105. The North Atlantic Council, established by Article 9 of the Treaty, is the highest authority in NATO. Its basic task is to assist member nations in implementing the Treaty and, particularly, in attaining the Treaty’s basic objective - the maintenance of international peace and security. The Terms of Reference of the Council are the North Atlantic Treaty itself.

106. The Council meets, under the chairmanship of the Secretary General, at various levels: Permanent Representatives, Foreign Ministers or, on occasion, Heads of State or Government, but it always remains the Council at whatever level it meets and its decisions have equal validity. Each of the member nations has equal rights to express its views around the Council table and agreement by common consent is the rule: there is no voting or majority decision. Decisions adopted by the Council become binding and can only be reversed by the Council itself.

107. When the Council meets at the Permanent Representative level, it is known as “the Council in Permanent Session”. Each Government appoints a Permanent Representative (PermRep) of ambassadorial rank supported by national staffs. The rôle of the Permanent Representatives is to act, under instructions from their capitals, as spokesmen for their governments. They represent not only their Foreign Ministers but all Ministers concerned in the Alliance’s business.
108. To assist it in its work the Council has set up a number of committees which prepare staff papers for the Council, implement its decisions or carry out tasks set by it. All these committees, whether civil or military, act under the authority of the Council.

DEFENCE PLANNING COMMITTEE (DPC)

109. Defence matters are dealt with by the Defence Planning Committee (DPC), composed of representatives of the member nations participating in the NATO defence planning process, i.e. less France. Within the specialized field of defence, the DPC has, for all practical purposes, the same function and authority as the Council. Like the Council the DPC meets regularly at ambassadorial level and meets twice a year at Ministerial level when nations are represented by their Defence Ministers.

MILITARY COMMITTEE (MC)

110. The Military Committee (MC) is the highest military authority in NATO. It is composed of Chiefs of Defence Staff of each nation except France. France is represented by a Military Mission to the Committee. Iceland, having no military forces, may be represented by a civilian. The Committee meets at least twice a year at Chiefs of Defence Staff level and, in order for it to function on a continuous basis with effective powers of decision, nations appoint a permanent Military Representative (MILREP) of their Chief of Defence Staff as a member of the Committee in permanent session.

111. The task of the Military Committee (MC) is to advise the North Atlantic Council or Defence Planning Committee on military matters and to give direction to the Major NATO Commanders (MNCs). It is the body to which the MNCs are responsible.

INTERNATIONAL STAFF (IS)

112. The International Staff comprises the Secretary General, the Deputy Secretary General, a number of independent offices, and five Divisions each headed by an Assistant Secretary General:

(a) Political Affairs Division
(b) Defence Planning and Policy Division
(c) Defence Support Division
(d) Infrastructure, Logistics and Civil Emergency Planning Division
(e) Scientific Affairs Division
113. Annex B shows the Principal Committees of the Council; like the Council, they are composed of national representatives. Annexes C and D show the Organization and Divisions of the International Staff (IS). The logistic aspects of the work of the IS Divisions are explained in Chapter 3.

114. The International Staff does not simply support committees or react to proposals put forward by national representatives. They have a vital rôle reviewing policy, preparing proposals for nations’ consideration and in implementing the decisions and actions that nations have agreed in committee. They do not direct the work of nations, but their executive function includes the co-ordination and development of work in their area of responsibility.

115. The overall support to the Council is co-ordinated by the Executive Secretariat, which forms part of the Office of the Secretary General. Thus, the Executive Secretariat provides staff support to the Council, the DPC and the main subordinate committees set up by the Council/DPC. In more technical fields, such as those covered by the Senior NATOLogisticians’ Conference (SNLC) and the main groups under the Conference of National Armaments Directors (CNAD), this support is provided by the organic Divisions of the IS.

INTERNATIONAL MILITARY ORGANIZATION

116. An outline of the NATO military structure, and of the International Military Staff (IMS), is shown at Annex E. The IMS under its Director provides staff support for the Military Committee, drafts policy and plans, initiates studies, and implements its decisions. It co-ordinates comments on proposals on military matters made by nations or Major NATO Commanders, and referred to the Military Committee.

117. The IMS is divided into six Divisions, each headed by an Assistant Director:

(a) Intelligence Division
(b) Plans and Policy Division
(c) Operations Division
(d) Logistics and Resources Division
(e) Command, Control and Communications Systems Division
(f) Armaments and Standardization Division.
NORTH ATLANTIC CO-OPERATION COUNCIL

118. In addition to the above elements, which constitute the practical basis for co-operation and consultation among the sixteen members of the North Atlantic Alliance, the North Atlantic Co-operation Council (NACC) was established in December 1991 to oversee the further development of dialogue, co-operation and consultation between NATO and its co-operation partners in Central and Eastern Europe, and on the territory of the former Soviet Union. In the framework of the NACC consultation process, participants are invited to address all security related issues of interest to them, including regional conflicts.

119. An active, wide-ranging programme of practical co-operative activities is carried out under annual NACC Workplans elaborated by all NACC participants. Through Workplan activities, the Alliance offers its experience and expertise to help resolve concrete problems faced by partner countries. Practical co-operation currently encompasses such diverse issues as defence planning, information and educational activities, scientific and environmental issues, defence industrial conversion, and civil/military air traffic management.

PARTNERSHIP FOR PEACE

120. In January 1994 NATO Heads of State and Government launched an immediate and practical programme to transform the relationship between NATO and participating states. This new programme goes beyond dialogue and co-operation to forge a Partnership for Peace (PfP), which seeks to expand and intensify political and military co-operation in Europe. At a pace and scope determined by the capacity and desire of the individual participating states, NATO and partners work towards transparency in defence budgeting, promoting democratic control of defence ministries, joint planning, joint military exercises, and creating an ability to operate with NATO forces in such fields as peacekeeping, search and rescue and humanitarian operations, and others as may be agreed. The NAC plus PfP partners meet within the framework of the NACC, extended to include non-NACC PfP partners. Whilst the relationships between NACC and PfP are still being developed, it is generally accepted that, as both programmes evolve, the NACC activities will tend to be multilateral in nature, that is NATO with all - or most - partners. PfP activities on the other hand will become distinct and more individualized, emphasizing bilateral co-operation between NATO and individual partners at 16+1.
NEW NATO COMMAND STRUCTURE

121. The main feature of the changes in NATO’s command structure implemented in July 1994, is the reduction in Major NATO Commanders (MNCs) from three (SACEUR, SAACLANT and CINCHAN) to two with the disappearance of Allied Command Channel (ACCHAN), which is absorbed into Allied Command Europe (ACE). Minor adjustments have also been made to the MNCs’ Areas of Responsibility.

122. At the Major Subordinate Command (MSC) level, the main change is the amalgamation of the ACCHAN, UK Air and AFNORTH commands to form AFNORTHWEST, with headquarters in the UK.

123. At the Principal Subordinate Commander (PSC) level, the main changes also affect ACE:

- AFNORTHWEST consists of three PSC commands: a tri-Service Commander NORTH responsible for Norwegian territory, NAVNORTHWEST, and AIRNORTHWEST.

- The Baltic Approaches (BALTAP) area is transferred from AFNORTH to AFCENT but the PSC COMBALTAP is responsible to AFNORTHWEST for the maritime aspects of his command.

- The previous four PSCs in AFCENT reduce to two, LANDCENT, and AIRCENT, plus COMBALTAP.

- In AFSOUTH, six PSC commands are planned.

- In ACLANT, ISCOMICELAND remains one of the five PSC commands responsible to CINCEASTLANT; it is the only island command at PSC level.

INTERLOCKING INSTITUTIONS

124. The North Atlantic Alliance maintains close relations with the United Nations (UN), the Conference on Security and Co-operation in Europe (CSCE), the Western European Union (WEU) and the European Union (EU). Each of these international institutions has a distinct role within a framework of complementary, mutually reinforcing organizations with responsibilities in the field of international peace and security.
United Nations

125. In December 1992, the Alliance stated its readiness to support peacekeeping operations under the authority of the UN Security Council, which has the primary responsibility for international peace and security. NATO Foreign Ministers reviewed the peacekeeping and sanctions enforcement measures already being undertaken by NATO countries, individually and as an Alliance, to support the implementation of UN Security Council resolutions relating to the conflict in the former Yugoslavia, and indicated that the Alliance was ready to respond positively to further initiatives that the UN Secretary General might take in seeking Alliance assistance in this field.

Conference on Security and Co-operation in Europe (CSCE)

126. Through their numerous individual and collective contributions and proposals, ranging from confidence-building measures to human rights commitments, Alliance member states have sustained and promoted the CSCE process since its creation and have played a major rôle at key stages of its development. The institutionalization of the CSCE process decided upon at the Paris CSCE Summit Meeting in 1990 has been actively supported by the Alliance, which put forward additional concrete proposals at its Rome Summit in 1991 to develop further the potential rôle of the CSCE. In the Final Communiqué of the Oslo Ministerial meeting on 4th June 1992, NATO member countries stated their readiness to support on a case-by-case basis in accordance with their own procedures, peacekeeping activities under the responsibility of the CSCE, including making available Alliance resources and expertise. In their June 1993 communiqué, NATO Foreign Ministers reaffirmed these commitments.

Western European Union (WEU)

127. The Treaty on European Union (Maastricht, February 1992) resolved to implement a common foreign and security policy, including the eventual framing of a common defence policy, which might in time lead to a common defence, thereby reinforcing the European identity and its independence in order to promote peace, security and progress in Europe and in the world. The WEU, which was regarded as an integral part of the development of the European Union, was requested to elaborate and implement decisions and actions of the Union which have defence implications. In order to develop the WEU as a means of strengthening the European pillar of the Alliance, close working links are being forged between the WEU and NATO based on the principle of transparency and complementarity.
REFERENCES
The North Atlantic Treaty, 1949
NATO Facts and Figures (latest edition)
NATO Handbook (latest edition)
London Declaration on a Transformed North Atlantic Alliance, 6th July 1991
Rome Declaration on Peace and Co-operation, 8th November 1991
C-M(91)88(Final) The Alliance's New Strategic Concept
MC 317 NATO Force Structures for the Mid-1990s and Beyond
MC 324 The NATO Military Command Structure
AAP-1 NATO Military Organization and Command

ANNEXES
Annex A: NATO Civil and Military Structure
Annex B: Principal Committees of the Council
Annex C: NATO International Staff
Annex D: Divisions of the International Staff
Annex E: NATO Military Structure and the NATO International Military Staff
NATO's Civil and Military Structure

National Authorities

Permanent Representatives (Ambassadors to NATO)

Military Representatives to NATO

Definition Planning Committee

North Atlantic Council

Nuclear Planning Group

Defence Planning Committee

Military Committee

Secretary General

International Staff

International Military Staff

Major NATO Commands

Integrated Military Command Structure
(From 1 July 1994)

Other Committees
Areas of Responsibility

- Political Affairs
- Economics
- Information
- Infrastructure
- Budget
- Force Planning
- Nuclear Planning
- Ventilation Coordination
- Scientific Affairs
- Environmental Issues
- Civil Emergency Planning
- Logistic Support
- Communications and Information Systems
- Armament Cooperation
- Defence Research
- Standardization
- Council Operations and Exercises
- Security
- Air Defence
- European Airspace Coordination
Principal Committees of the Council

DEFENCE PLANNING COMMITTEE → NORTH ATLANTIC COUNCIL → NUCLEAR PLANNING GROUP

- POLITICAL COMMITTEES (AT SENIOR & OTHER LEVELS)
- DEFENCE REVIEW COMMITTEE
- HIGH LEVEL TASK FORCE ON CONVENTIONAL ARMS CONTROL
- EXECUTIVE WORKING GROUP
- ECONOMICS COMMITTEE
- COMMITTEE ON INFORMATION & CULTURAL RELATIONS

- CONFERENCE OF NATIONAL ARMAMENTS DIRECTORS
- VERIFICATION COORDINATING COMMITTEE
- SENIOR CIVIL EMERGENCY PLANNING COMMITTEE
- SENIOR NATO PSYCHOLOGICAL CONFERENCE
- SCIENCE COMMITTEE

- COMMITTEE ON THE CHALLENGES OF MODERN SOCIETY
- NATO AIR DEFENCE COMMITTEE
- NATO STANDARDIZATION GROUP
- NATO COMMUNICATIONS & INFORMATION SYSTEMS COMMITTEE
- NATO PIPELINE COMMITTEE

- COUNCIL OPERATIONS & EXERCISES COMMITTEE
- INFRASTRUCTURE COMMITTEE
- COMMITTEE FOR EUROPEAN AIRSPACE COORDINATION
- CIVIL & MILITARY SECURITY COMMITTEES
- NATO SECURITY COMMITTEE

Most of the above committees report to the Council. Some are responsible to the Defence Planning Committee or Nuclear Planning Group. Certain committees are joint civil and military bodies which report both to the Council, Defence Planning Committee or Nuclear Planning Group and to the Military Committee.
Divisions of the International Staff

- **Division of Political Affairs**
  - Political Directorate
    - NATO, Multilateral & Regional Affairs
    - Policy Planning
    - Central & Eastern Europe & Liaison
    - Disarmament, Arms Control & Cooperative Security
    - Verification & Implementation Coordination
  - Economic Directorate
    - Central & Eastern Europe Defence Economics

- **Division of Defence Planning and Policy**
  - Force Planning Directorate
    - Defence Policy
    - Force Planning Analysis
    - Forces Data
    - Economic Data
  - Statistical Analysis Service
  - Nuclear Planning Directorate

- **Division of Defence Support**
  - Policy and Coordination Staff
    - Arms and Administration
    - Support
  - Arms and Programmes & Research Directorate
    - Air-based Armaments
    - Sea-based Armaments
    - Land-based Armaments
    - Defence Research
    - Armaments Planning
  - Command, Control & Communications Directorate
    - Planning & Requirements Interoperability & Cooperative Programmes
  - Air Defence Systems Directorate

- **Division of Infrastructure, Logistics & Civil Emergency Planning**
  - Infrastructure Directorate
    - Programme Control
    - Sustainability
    - Signals
    - Mobility
  - Logistics Directorate
  - Civil Emergency Planning Directorate

- **Division of Scientific & Environmental Affairs**
  - Advanced Research Workshops
  - Science Fellowships
  - Science for Stability
  - Advanced Study Institutes
  - Research Grants
  - Programme CCMS
CHAPTER 2

LOGISTICS DEFINITIONS, FUNCTIONS, PRINCIPLES AND POLICIES

INTRODUCTION

201. Every nation has developed its own logistics principles, organization, and practices. These have evolved as a result of the foreign and domestic policy, military experience, and geographic considerations of the nation concerned. Within NATO, however, other principles apply, reflecting the additional requirements of operating together in a multinational Alliance.

202. Some of the principles of NATO logistics may appear unusual to the newcomer but they have been formulated to match the new Alliance strategic concept, and the resulting force structures. The definitions set out below do not contradict the logistics principles of nations; they are additional factors relevant to logistics within NATO.

DEFINITIONS

203. There are many definitions of logistics and each lays a different emphasis on the relationship of strategy, tactics, movement and production. In NATO, however, the agreed definition of logistics is set out in AAP-6 (NATO Glossary of Terms and Definitions):

"Logistics:

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

(a) design and development, acquisition, storage, transport, distribution, maintenance, evacuation, and disposition of materiel1;

(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"

---

1 Material: equipment in its widest sense including vehicles, weapons, ammunition, fuel, etc.
204. This definition covers a wide range of responsibilities that fall into different areas of the NATO organization. In an attempt to define some areas more closely, other separate definitions have been proposed; the following are in widespread use and enjoy general support.

205. **Production Logistics:** That part of logistics concerning research, design, development, manufacture and acceptance of materiel. In consequence, production logistics includes: standardization and interoperability, contracting, quality assurance, procurement of spares, reliability and defect analysis, safety standards for equipment, specifications and production processes, trials and testing (including provision of necessary facilities), codification, equipment documentation, configuration control and modifications.

*(At NATO Headquarters the lead authorities are the Defence Support Division (IS) and the Armaments and Standardization Division (IMS)).*

206. **Consumer Logistics:** That part of logistics concerning reception of the initial product, storage, transport, maintenance (including repair and serviceability), operation and disposal of materiel. In consequence, consumer logistics includes stock control, provision or construction of facilities (excluding any material element and those facilities needed to support production logistic facilities), movement control, reliability and defect reporting, safety standards for storage, transport and handling, and related training.

*(At NATO Headquarters the lead authorities are the Logistics Directorate (IS) and Logistics and Resources Division (IMS)).*

207. **Civil Emergency Planning (CEP):** Although not part of logistics, CEP is closely related to it and, in the wake of the new Alliance strategic concept, has undergone a fundamental change. Greater emphasis is being placed on crisis management and civil support to the military, particularly in the co-ordination of civil transport support and in industrial mobilization planning. In its wider context, CEP includes all defence responsibilities of government departments other than those of Foreign Offices and the purely military responsibilities of Ministries of Defence. It thus embraces the expanded responsibilities in crisis and war for the continuity of the machinery of government, the mobilization of national resources (energy, manpower, medical, transport systems, production capacity, food and agriculture, raw materials, telecommunications, etc.) as well as civil defence measures.

*(At NATO Headquarters, the lead authority is the Civil Emergency Planning Directorate (IS)).*
LOGISTICS FUNCTIONS

208. It is important to recognize that logistics functions overlap. A NATO logistian will often find himself working with staff of another discipline and, as a very minimum, will have to appreciate their responsibilities and their problems. For example, logistics planning originates in national, NATO or MNC policy guidance and has to be co-ordinated with all the staff branches concerned, whether they be operational, administrative or logistic, military or civil. A brief examination of the main functions of logistics shows this clearly.

The Materiel Function of Logistics

209. The first sub-division of the definition of logistics at paragraph 203 covered materiel, from the first phase of the life cycle to its final disposal from the inventory. The first part of the cycle, from specification, design and production is clearly a function of production logistics. Reception of the equipment into service, its distribution and storage, repair, maintenance and disposal are equally clearly a consumer logistic task. However, the initial design of the equipment has to take account of repair and maintenance, and involves both disciplines.

The Personnel Function of Logistics

210. The second and fifth sub-divisions of the general definition of logistics cover the transport of personnel, and the provision of medical and health service support. This personnel function is difficult to describe since it covers two separate activities. It also illustrates how logistics in NATO can differ from national logistics since, in most countries, the medical function is considered to be only partly logistics, or not logistics at all.

211. The two activities covered are the movement of personnel, which includes reserves, external reinforcements, their reception and the facilities required for them, and the provision of medical support. Medical support in turn depends upon accommodation, evacuation, movement facilities, and equipment. Both functions involve close co-operation between logisticians and the civil emergency planning agencies.

Infrastructure Function of Logistics

212. The third sub-division, the acquisition, construction and operation of facilities, is commonly termed infrastructure. This is the term generally used in NATO for installations and facilities for the support of military forces, and, financially, it is the largest single logistic function in the Alliance. (See Chapter 12)
The Service Function of Logistics

213. This fourth sub-division of logistics covers the provision of manpower and skills in support of combat troops or logistic activities and includes a wide range of services such as combat resupply, map distribution, labour resources, postal and courier services, canteen, laundry and bathing facilities, burials, etc. These services may be provided either to one's own national forces or to those of another nation and their effectiveness depends on close co-operation between operational, logistic and civil planning staffs.

NATO LOGISTICS PRINCIPLES AND POLICIES

214. Principles and policies for the guidance of NATO and national authorities in the development of logistics concepts, structures and procedures were approved by the Senior NATO Logisticians' Conference, and endorsed by the DPC, in 1992:

(a) Logistics Principles

(1) Responsibility. Nations and NATO authorities have a collective responsibility for logistics support of NATO's multinational operations. Nations must ensure, individually or by co-operative arrangements, the provision of logistics resources to support their forces allocated to NATO in peace, crisis and war.

(2) Provision. Nations must ensure, individually or by co-operative arrangements, the provision of logistics resources to support their forces allocated to NATO during peace, crisis and war.

(3) Co-operation. Co-operation among the nations and NATO authorities is essential.

(4) Authority. The NATO commander at the appropriate level must be given sufficient authority over the logistics resources necessary to enable him to employ and sustain his forces in the most effective manner.

(5) Sufficiency. Levels and distribution of logistics resources must be sufficient to achieve designated levels of readiness, sustainability and mobility to provide the required military capability during peace, crisis and war.

(6) Economy. Logistics resources must be used effectively, efficiently and economically.
(7) **Flexibility.** Logistic support dedicated or organic to operational formations must be as dynamic, flexible, mobile and responsive as the operational formations themselves.

(8) **Visibility.** Information concerning logistics assets made available by nations is essential for the efficient management and co-ordination of support to NATO forces.

(b) **Logistics Policy**

(1) **General**

   a. Logistic support should be provided by balancing the peacetime provision and locations of logistic assets and war consumables with the ability to resupply and reinforce, to ensure timely and continuous support.

   b. Standardization of materiel and services has a direct impact on sustainability and combat effectiveness. Minimum objectives for attainment are interoperability of main equipment, inter-changeability of combat supplies, and commonality of procedures.

   c. Logistics support concepts and procedures will be tailored to the respective forces and their related employment options.

   d. Logistics planning, including Host Nation Support (HNS) and transportation planning, should be executed as an integral part of defence planning, and at the same level as force and operational planning.

   e. The communications and information systems between NATO and national logistic staffs must provide efficient and compatible interfaces.

   f. Logistics reporting must provide sufficient visibility to enable NATO commanders to fulfil their missions, and to accommodate the graduated needs of peace, crisis and war.

   g. Logistics support considerations should be integrated into the design and production of systems and equipment.

(2) **Responsibility**

   a. The NATO Commander establishes the logistic requirements and co-ordinates logistic support within his area of responsibility.
b. Each nation bears ultimate responsibility for ensuring the provision of logistic support for its forces allocated to NATO, which may be discharged in a number of ways, including agreements with other nations or with NATO.

c. Nations retain control over their own resources, until such resources are released to the NATO Commander upon Transfer of Authority (TOA).

(3) Authority

a. NATO Commanders at agreed levels have authority to redistribute specified logistics assets committed by nations for the support of the forces under their command. Terms and conditions for redistribution were agreed by the SNLC in 1993: authority is given to:
   - NATO Commanders at sub-PSC level;
   - of multinational forces;
   - within their areas of responsibility;
   - during any NAC/DPC directed operation; and
   - in peace, crisis, or war.

b. The NATO Commander has the authority to establish HNS requirements, to initiate and participate in bilateral and multilateral negotiations, and, where appropriate, to conclude HNS arrangements on behalf of sending nations subject to their prior concurrence. Specific arrangements will govern the process for forces of NATO nations outside the integrated military structure. The variety of deployment options requires that a generic approach be taken towards HNS planning. Nations will need to generate appropriate support capacities/capabilities and conduct capacity/capability-oriented planning in co-ordination with NATO authorities. However, there will remain circumstances, notably but not exclusively for Reaction Forces, in which HNS planning against specific requirements can and should continue.

c. The NATO Commander is authorized to require reports on, and inspect in peace, crisis and war, the quantity and quality of specified logistic assets designated to support the forces which will be under his command.
(4) **Transportation**

a. Movement systems and transportation resources must be able to respond to force and logistic deployments, sequentially or concurrently, to adjust the movement flow, accommodate de-escalation, and even to reverse it.

b. Sufficient transportation capability, with associated standardized movement control, co-ordination and prioritization systems, must be provided from military and civil resources.

c. Nations should ensure ready and economical access to appropriate civil and military transportation resources and infrastructure, in order to meet reaction times in peace, crisis or war.

d. The use of military and civilian transport resources made available for the deployment, resupply and redeployment of forces must be co-ordinated at the appropriate level, and must be responsive to the NATO commanders' overall priorities.

(5) **Civil Resources**

a. An optimum balance between use of military and civil resources should be achieved. Civil resources should be exploited whenever feasible, reliable, timely and cost-effective.

b. When feasible, the dual use of resources should be actively pursued. Defence features should be incorporated in the design and construction of civil assets and installations as appropriate and cost-effective, thus enabling them to meet the military requirement when this exceeds that needed for commercial use. Equally, the design of military equipments and systems should take account, wherever possible, of civil components and standards.

c. Nations should develop national legislation and plans to facilitate use of civil resources early in the crisis spectrum, in particular with respect to HNS, transportation, other deployment-related resources, infrastructure, and industrial support.

(6) **Co-operation**

a. Logistic co-operation between civilian and the military sectors, within and between nations, must provide the means to make best use of limited resources.
b. Duplication of common logistics functions must be minimized. Equitable co-operative arrangements and mutual assistance among nations in the provision and the use of logistic resources should ease the individual burden. The creation of multinational pools of logistic assets, rôle specialization in certain logistics areas, and common/joint funded resources should be considered where these are beneficial and cost-effective as appropriate solutions in providing logistic support, especially for multinational forces. The potential of NATO agencies such as the NATO Maintenance and Supply Agency (NAMSA) in the support of multilateral ventures should be realized when this is cost-effective.

(7) Medical

General logistics policies apply in most measures to the medical support function. However, medical support guidance must be governed, in addition, by specific medical factors.

REFERENCES

AAP-6 NATO Glossary of Terms and Definitions
MC299/3 Military Committee Guidance for Defence Planning
MC 317 NATO Force Structures for the Mid-1990s and Beyond
MC 319 NATO Principles and Policies for Logistics
MC 326 Medical Support Precepts and Guidance for NATO
MC 327 NATO Military Planning for Peace Support Operations
MC 334 Future Host Nation Support Planning
MC 336 A Movement, Transportation, and Mobility Management Concept for NATO
MC 400 Military Implementation of the Alliance’s Strategic Concept
AD 85-2 ACE Logistics Policy and Guidance
AD 85-5 ACE Mobility Management Directive
AD 85-8 ACE Medical Support Principles, Policies and Planning Parameters
AD 86-1 SACEUR Policy and Guidance on Civil/Military Co-operation
LPG-1-87 SACLANT Logistics Policy and Guidance
INTRODUCTION

301. This Chapter describes the responsibilities of nations and the NATO authorities in the planning and provision of logistics support for Alliance forces. It lists the functions of the NATO HQ International Staff, International Military Staff, and the MNCs, and describes the committees and conferences in which the logistics policies of NATO are discussed, agreed and monitored.

302. It does not cover committees dealing with production logistics or civil emergency planning; these are covered elsewhere. However, since logistic planning stems from political and strategic policy, reference to these and certain other senior committees is included.

GENERAL RESPONSIBILITIES

303. The overall principle is set out in the North Atlantic Council Resolution of 23rd February 1952:

"The responsibility for logistic support to national component forces will, in general, remain with the responsible authorities of the nations concerned. The responsibility for co-ordination will, however, rest with the Supreme Commander and with his Major Subordinate Commanders at the appropriate levels."

304. Logistics policies and requirements are:

- **recommended** by NATO Commanders, nations, or headquarters;
- **agreed** by nations in an appropriate committee;
- **co-ordinated** by NATO Commanders and staffs; and
- **implemented** by nations.

305. In the last few years, because of the increase of multinational formations, the Defence Planning Committee and the Military Committee have amplified the 1952 policy for logistics as it applies to forces in NATO's integrated military structure:
"Nations and NATO authorities have a collective responsibility for logistics support of NATO’s multinational operations. Nations must ensure, individually or by co-operative arrangements, the provision of logistics resources to support their forces allocated to NATO during peace, crisis, and war."

306. The emphasis is very much on collective efforts and co-operation. The objective is for increased effectiveness and lower individual costs, sometimes through consolidation of resources or other co-operative efforts. Nevertheless, in almost all cases, the actual logistics resources, whether they are logistics support units, supplies of ammunition, petroleum products, food, or services such as transportation, remain national assets under national ownership. Strictly speaking, there are no NATO stocks or supplies, or equipment “owned” by NATO.

307. Logistics staffs at all levels work in a constant effort to harmonize all of the requirements, enhance standardization of equipment, materiel and procedures, establish procedures for support of forces and plans by host nations, and in essence maximise all possible co-operative efforts between Alliance members.

LOGISTIC RESPONSIBILITIES

NATO HEADQUARTERS

308. For convenience, logistics responsibilities in NATO Headquarters can be considered as follows:

**Civil:** the North Atlantic Council/Defence Planning Committee (NAC/DPC) and their subordinate committees;
the International Staff (IS) who provide staff support to the NAC/DPC and their subordinate committees.

**Military:** the Military Committee (MC) and its subordinate committees;
the International Military Staff (IMS) supporting the MC and its subordinate committees.

INTERNATIONAL STAFF

309. The primary rôle of the International Staff (IS) is to provide a secretariat for NATO committees but its duties go far beyond this. NATO committees work on proposals put before
them and these proposals can come from any source (nations, MNCs or NATO staffs), but all have to be prepared before their formal discussion in committee. This is done by the Division or Directorate of the International Staff responsible and requires co-ordination with other Directorates and national liaison officers.

310. As well as the staffing of papers, the IS Divisions have a more active rôle. They possess a knowledge of their technical area of responsibility and, in many cases, are responsible for the evaluation of national positions, and making recommendations on the formulation of NATO policy. These are important functions and although formal decisions and policies are agreed through consensus by nations in committee, the Divisions of the IS and IMS can be regarded as "centres" of information and planning for their respective topics.

311. Of the five divisions of the International Staff, three are of particular interest to logisticians:

- Defence Planning and Policy Division
- Defence Support Division
- Infrastructure, Logistics and Civil Emergency Planning Division.

312. The Defence Planning and Policy Division includes the Force Planning Directorate, which supports the DPC, its Executive Working Group (EWG), and the Defence Review Committee (DRC) in the development of Ministerial Guidance, the preparation of Force Goals, and the analysis of the Defence Planning Questionnaire (DPQ). Logistics is an important element in the force planning process.

313. The Defence Support Division consists of:

- Policy and Co-ordination Staff;
- Armaments Planning, Programmes, and Research Directorate;
- Command, Control and Communications Directorate;
- Air Defence Systems Directorate.

All four Directorates have logistic functions and two (Air Defence and Command, Control and Communications Directorates) have specific responsibilities for co-ordination and promotion of co-operation in their specific areas. They work closely with the principal NATO committees concerned i.e. NACISC (NATO Command, Control and Information Systems Committee) and NADC (NATO Air Defence Committee).
314. The other two Directorates cover the remaining equipment areas and have prime responsibility for the co-ordination and co-operation of production logistics. These responsibilities include:

- harmonizing concepts and requirements for future maritime, land and air equipments;
- harmonizing procurement and replacement plans to facilitate greater standardization and commonality;
- harmonizing procurement practices and procedures for defence trade;
- encouraging co-ordination of national research, development and production programmes;
- rationalization of national research, development, production and logistic capabilities to improve the efficiency of resource utilization;
- organizing systematic exchanges of information to facilitate international co-operation in defence equipment and its support;
- the development of procedures for the systemizing and rationalizing of armaments planning;
- encouraging co-operation in supporting systems such as codification, quality assurance, test and safety criteria, and materiel standardization.

315. The Infrastructure, Logistics and Civil Emergency Planning Division consists of three Directorates:

- Infrastructure Directorate;
- Logistics Directorate;
- Civil Emergency Planning Directorate.

316. The Infrastructure Directorate prepares proposals, based on military priorities, on policy issues relating to the future size and shape of NATO infrastructure programmes and their management. It also provides technical and financial supervision of the NATO infrastructure programme. (Fuller details are at Chapter 12).

317. The rôle of the Logistics Directorate is to provide the principal focus within the Alliance for the co-ordination of military consumer logistics activities. It achieves this by:

- the development and co-ordination of plans and policies designed to attain a coherent approach within NATO on consumer logistics matters in order to increase the effectiveness of Alliance forces by achieving greater
logistical readiness and sustainability;
- providing staff support to the Senior NATO Logisticians’ Conference and its subsidiary bodies;
- providing technical staff support to the NATO Pipeline Committee;
- supporting, co-ordinating and maintaining liaison with NATO military authorities, and with NATO and other committees and bodies dealing with the planning and implementation of consumer logistics matters; and
- maintaining liaison, on behalf of the Secretary General, with the directing bodies of the Central Europe Pipeline System (CEPS) and the NATO Maintenance and Supply Organization (NAMSO).

318. The Civil Emergency Planning Directorate is responsible for the provision of staff support to the Senior Civil Emergency Planning Committee (SCEPC) and the nine Civil Emergency Planning Boards and Committees (PB&Cs) responsible for developing crisis management arrangements in the areas of civil sea, land and air transport; energy; industry; food and agriculture; civil communications; medical planning; and civil defence.

INTERNATIONAL MILITARY STAFF

319. The International Military Staff (IMS) supports the Military Committee (MC) and has six divisions, of which three are of particular interest to logisticians.

320. The Plans and Policy (P&P) Division includes the Force Planning Branch which assesses the MNC’s Force Proposals, and develops and co-ordinates the Military Committee’s position in the Defence Review Committee (DRC) for the Force Goals. It assesses national replies to Defence Planning Questionnaires (DPQs) and participates in the trilateral and multilateral discussions leading to the five year NATO Force Plan. It is in this area that logistic input is important, and the P&P Division works closely with the Logistics and Resources (L&R) Division on these aspects.

321. The Armaments and Standardization Division (A&S) comprises two branches:

(a) Policy Branch provides staff support for the development and assessment of NATO Military Policy and Procedures for Armaments Planning and Development, and related activities. Its main function is to advise on policy and formulate recommendations for the Military Committee on
all matters to do with armaments planning, programmes, systems and processes.

(b) Projects Branch provides the IMS focal point for the staffing and co-ordination of the military input to current armaments planning activities. It includes an Air Defence Section which is responsible for providing staff support to the Military Committee on all Air Defence matters and related air warfare concepts.

The Division represents the Military Committee's interests at production logistics meetings and it is the channel through which NATO Commanders submit Mission Need documents for new equipment. If approved by the Military Committee, the A&S Division is responsible for transmitting them to the International Staff for processing by production logistics branches.

322. The Logistics and Resources (L&R) Division has prime responsibility for consumer logistics. It has three branches:

(a) The Logistics Branch, which is responsible to the Military Committee for staff advice and support on civil and military logistic planning in NATO. Its tasks include the review of logistic plans and proposals to ensure they are in line with the Military Committee's policies, and the maintenance of close liaison and co-operation with the International Staff, the staff of Major NATO Commands, and military agencies. The branch provides co-ordination, advice and appropriate management on all consumer logistics problems such as war reserve stocks of ammunition, fuels, equipment and supplies, medical planning, host nation and reinforcement support, positioning of stocks, forward distribution, movement and transportation. In co-operation with the Logistics Directorate of the IS, the branch provides support for the military part of the Senior NATO Logisticians' Conference (SNLC). In co-operation with the Civil Emergency Planning Directorate of the IS, the branch provides Military Committee representation in the Senior Civil Emergency Planning Committee (SCEPC) and its subordinate bodies.

(b) The Resources Branch deals with infrastructure (see Chapter 12) and finance. The Financial Section covers military planning for the Military Budget Committee
relative to operation and maintenance costs for military headquarters and NATO military agencies.

(c) The Manpower Branch deals with all military international manpower management matters within the Military Committee manpower ceiling and negotiates with nations on the provision of the staff required.

**LIAISON WITH NATIONS**

323. National views on matters dealt with by the Military Committee (MC) or its subordinate committees are put forward by the national Military Representatives (MILREPs). On either or both of the Delegation or Military Representative staffs (some are collocated) are officers specifically responsible for logistic matters. It is to them that NATO staffs pass questions seeking national views on logistic matters, and it is through them that nations make their logistic proposals.

324. The staffs of national Delegations/MILREPs are in close contact with the International Staff and International Military Staff. This liaison is of great value in logistic work since it means that ideas can be suggested and discussed informally, and national views ascertained before formal proposal in committee.

**MAJOR NATO COMMANDERS**

325. The logistic responsibilities of the Major NATO Commanders currently include:

- the authority to define force proposals;
- the publication of stockpile planning guidance;
- the specification of projects or packages for commonly-funded infrastructure programmes;
- the specification of priorities for the acquisition of ammunition and other supplies;
- the establishment of logistics requirements, and the co-ordination of logistics support;
- the authority to establish HNS requirements, to initiate and participate in bilateral and multilateral negotiations and where appropriate, to conclude HNS arrangements on behalf of sending nations, subject to their prior concurrence;
- the authority to require reports on, and inspect the quality
and quantity of logistics assets designed to support the forces under command.

CONFERENCES AND COMMITTEES

CONSUMER LOGISTICS COMMITTEE STRUCTURE

326. Committees in NATO are often called Conferences, Co-ordination Boards, Panels or Groups. There is no real difference in the meaning of these titles and all the committees/conferences have the same basic structure:

- a chairman, normally a senior official of the NATO Headquarters concerned;
- members representing the nations who assign forces in war to the NATO Commander;
- representatives from the immediate superior and subordinate NATO HQs;
- representatives from other parts of the NATO Organization whose opinion or advice may be required;
- a secretary, from either the Executive Secretariat or the same branch as the chairman.

327. Although similar logistic topics will be discussed, the agreements reached will vary with the level of the conference concerned. For example, a senior committee will discuss broad logistics concepts while a lower level conference will concentrate on detailed logistics plans within the concept. In essence, the rôle of all these bodies is to provide specialist advice to the executive authority to whom they report, and to make recommendations for implementing policy. Thus, the SNLC reports to the Council/DPC and the Military Committee, while the ACE Logistics Co-ordination Conference (ACE LCC) reports to SACEUR.

AT NATO HEADQUARTERS LEVEL

328. The Senior NATO Logisticians' Conference (SNLC) (AC/305) is the principal NATO committee for consumer logistics. It reflects the dependence of consumer logistics on both civil and military factors by being the only senior NATO committee to report jointly to both the NAC/DPC and to the Military Committee. It meets twice a year at NATO Headquarters in joint military/civil session with two permanent co-chairmen, the Assistant Secretary General for Infrastructure, Logistics and Civil Emergency Planning and the
Deputy Chairman of the Military Committee. It can thus cover a wide range of subjects, drawing on the expertise of both civil and military staffs at NATO Headquarters.

329. The major tasks of the SNLC are to:
   (a) review, assess and evaluate, in conjunction with other NATO authorities and bodies as appropriate, the overall consumer logistics organization, plans, procedures and capabilities with a view to enhancing the performance, efficiency, sustainability and combat effectiveness of Alliance forces;
   (b) provide the focal point and forum for the consideration of consumer logistics matters;
   (c) address consumer logistics problems of the Alliance, particularly those which have resisted solution elsewhere, as well as those which are not within the purview of other NATO bodies;
   (d) provide consumer logistics advice and assistance to the Council/DPC and the MC in developing the policy needed for the resolution of consumer logistics matters and problems, reporting at the same time any areas of concern and foreseeable consequences thereof;
   (e) recommend procedures to the Council/DPC and MC for implementing consumer logistics policy;
   (f) direct the work of any subordinate bodies that may be created in specific logistics fields of endeavour.

330. The membership consists of senior national civil and military representatives within Ministries of Defence or equivalent national organizations responsible for the civil and/or military aspects of logistics, as well as representatives from Major NATO Commands, Military Agency for Standardization (MAS), NATO Maintenance and Supply Agency (NAMSA) and Divisions of NATO Headquarters staff concerned with logistics. All the above are also represented at the Logistic Staff Meeting (LSM) whose main function is to provide a working-level forum for discussion of matters of NATO logistics concern which may eventually give rise to reports to the SNLC.

331. The NATO Pipeline Committee (NPC) (AC/112) acts on behalf of the Council, in full consultation with the NATO Military Authorities and other bodies, such as the Directing Bodies of the Central Europe Pipeline System (CEPS) and the Central Europe Operating Agency (CEOA), on all matters of NATO-wide concern.
in connection with the control of the operation and maintenance of the NATO Pipeline System and all unconnected off-base storage facilities and depots constructed within the POL category of the Common Funded Infrastructure Programme. The chairman is the Director of Logistics and its Staff Officer is provided by the Logistics Directorate. It is composed of representatives of each NATO member country and meets twice a year (See Chapter 13).

AT MNC LEVEL

332. The ACE Logistic Co-ordination Centre (ACE LCC) was formed following SACEUR's proposal to establish a readily available forum of national military representatives to improve his logistic planning and response capability in peace, crisis, and war. The LCC is the senior logistic forum in ACE.

333. The mission of the ACE LCC is:

- In crisis or war, to provide a permanent link for consultation and co-ordination on logistic requirements between the Allied nations and SACEUR so that his operational decisions can be consistent with logistic capabilities. The LCC takes action on reports of national surpluses and deficiencies notified to it by MODs/CHODs, and processes requests for emergency logistic assistance using the procedures in AD 85-3 and AD 85-6.

- In peacetime, an annual conference convenes to provide a forum for liaison between SHAPE, MSCs and ACE nations on logistic matters affecting ACE.

334. The LCC can meet in full session, routine meetings, special meetings or in special working groups. Its work can embrace any logistic problem that arises in NATO Headquarters, SHAPE, an ACE MSC, or at NAMSA, which affects ACE assigned or earmarked forces.

335. The LCC draws its members from nations, MNCs and MSCs; representatives attend from NATO IS, IMS and from NAMSA. The LCC works in close liaison with the ACE Reporting Centre and the ACE Movements Co-ordination Centre. These are SHAPE logistic control organizations set up during crisis or war to monitor logistic, medical and movements activities. They report and assess related preparedness in SACEUR's area of responsibility. Their common basic task in crisis or war is to maximize the effective use of all available logistic resources in ACE.
336. The **Maritime Logistic Co-ordination Board (MLCB)** was established by SACLANT to provide a forum for liaison amongst MNCs, MSCs and NATO maritime nations on NATO maritime logistic matters. The membership includes SACLANT, SHAPE, all nations with maritime forces, delegates from maritime MSCs and observers from the IS/IMS. The MLCB is the senior maritime logistic forum and currently meets in peacetime only.

337. The responsibilities of the MLCB are to:
- promote conformance with responsibilities and objectives of Chapters I and II of the SACLANT Logistics Policy and Guidance;
- submit agreed maritime logistics policies to senior bodies for resolution as required;
- address NATO medial policy, guidance, and co-ordination with the aim of improving medical support to Alliance maritime/amphibious forces;
- develop and update standard logistic criteria to conform with maritime operational plans;
- monitor ongoing studies of other NATO agencies and special study groups or independent national studies which may have direct impact on maritime logistics; and
- develop and provide logistic exercise and analysis objectives for other NATO bodies responsible for NATO exercise planning and development.

**AT MSC/PSC LEVEL**

338. Most NATO Headquarters, at MSC/PSC levels and below, hold logistics conferences under the titles of Logistics Co-ordination Groups or Logistics Panels.

**WESTERN EUROPEAN LOGISTICS GROUP**

339. The **Western European Logistics Group (WELG)** came into being on the transfer of EUROLOG to the WEU. Its aim is to foster co-operation between WEU members in the field of logistics support for WEU missions, and to promote greater efficiency in, and harmonization of, acquisition, consumer, and operational logistics practices. A main task of the WELG is the monitoring of collaborative equipment programmes in order to ensure that proper consideration is given to logistics support issues, both during the development of commonly held equipments and during their in-service life.
340. The WELG reports to the WEU Council and consists of a Steering Group and three single-service sub-groups. Close liaison is maintained between the NATO and WEU logistics staffs: the IS, IMS and the MNCs attend the WELG as observers, and in turn the WELG monitors the work of the SNLC and LSM in order to avoid duplication of effort.

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MC 58/1(Final) Revised Terms of Reference for SACLANT
MC 86(Final) Logistics Resources to be made available to ACE in an Emergency-in-War
MC 109/1 Mission of the Major NATO Commanders and the Canada-United States Regional Planning Group
AD 85-3 Procedures for the Reallocation of Resources in an Emergency-in-War by MNCs
AD 85-6 ACE Organization and Standard Operating Procedures of the ACE LCC
AD 85-8 ACE Medical Support Principles, Policies and Planning Parameters
LPG-1-87 SACLANT Logistics Policy and Guidance
CHAPTER 4

LOGISTICS SUPPORT OF THE ALLIANCE’S NEW STRATEGY

INTRODUCTION

401. The Alliance’s New Strategic Concept was agreed by the Heads of State and Government at the meeting of the North Atlantic Council in Rome on 7th/8th November 1991. The security challenges and risks which NATO now faces are different in nature from what they were in the past. The threat of a simultaneous, full-scale attack on all of NATO’s European fronts has effectively been removed and thus no longer provides the focus for Allied strategy. In contrast with the predominant threat of the past, the risks to Allied security that remain are multi-faceted in nature and multi-directional, which makes them hard to predict and assess. The end of East-West confrontation has greatly reduced the risk of major conflict in Europe. On the other hand, there is a greater risk of lower levels of crisis arising, each of which could develop quickly and which would require a rapid response.

NEW FORCE STRUCTURES

402. In the context of lower-order, less predictable, and more diverse potential security risks, NATO has planned for substantial reductions in active force levels, whilst aiming for greater mobility, flexibility and versatility in the military resources available to support Alliance interests. The restructuring of NATO’s military potential into Main Defence, Reaction and Augmentation Forces marks a shift away from largely in-place, high-readiness defence arrangements, to a structure in which the majority of forces will be kept at lower readiness, frequently at only partial peacetime manning levels, or at mobilization status.

Main Defence Forces

403. The backbone of NATO’s military capability will be formed by the Main Defence Forces (MDF), standing in their own right as the primary military contribution to stability and security throughout NATO. For several Allied nations, these represent by far the most important component of regional defence capability, and they are the basis for generating other categories of forces.
Main Defence Forces constitute the major portion of the force structure; they comprise multinational and national formations at varying readiness levels of readiness, including some at high readiness which could be employed for crisis management.

**Reaction Forces**

404. Reaction Forces, consisting of ground, air and maritime elements at relatively high readiness, form only a small part of NATO's total available military resources. Together with some MDF elements (regional Ready Manoeuvre Forces, established for primary defence at short notice), the Reaction Forces (RF) are designed as mobile and flexible crisis management tools, offering a range of military options to NATO's political leadership in times of tension. They include:

- **Immediate Reaction Forces (IRF):** Smaller, more responsive forces (multinational brigade-size formations selected for deployment from available battalion size units - with air and maritime IRF of comparable size).

- **Rapid Reaction Force (RRF):** The multinational ACE Rapid Reaction Corps which is capable of deploying up to four task-organized multinational and national divisions and brigades (and air and maritime RRF of comparable size).

**Augmentation Forces**

405. European or North American forces, other than main defence or peacetime forces, provided as reinforcements to contribute to deterrence, crisis management and defence.

**LOGISTICS IMPLICATIONS OF THE NEW STRATEGY**

406. The implications of the new strategy primarily focus on the need for greater flexibility in Alliance logistics, and on the mobile and multinational character of NATO's forces. A number of logistic implications need to be addressed, and these are discussed in the following paragraphs.

407. **Flexibility.** Logistic support must be sufficient to accommodate strategic and operational requirements. The wide range of defence options in NATO's area requires flexibility in providing logistic assets and supplies. This calls for:

(a) appropriate levels of support;

(b) timely availability of resources;

(c) transportability of equipment;
(d) tailoring of logistic support to the forces and their employment options, to provide the optimum support for operational rôles;
(e) providing NATO commanders at the appropriate levels with the necessary authority to allocate and redistribute certain logistic assets and supplies according to the operational situation; and
(f) ensuring that logistic planning is executed as an integral part of defence planning, and at the same levels at which force and operational planning takes place.

408. Strategic Mobility, Movement and Transportation. To provide the requisite degree of flexibility of employment options, nations must make adequate provision for the strategic mobility, movement and transportation of forces. Capacity/capability planning can provide the ability to react to varying political and military requirements. Sufficient air and surface transport resources, combined with essential infrastructure support such as ports and airfields, and effective civil/military movements planning and control organizations, are prerequisites for the deployment, employment and redeployment of NATO forces. (See Chapter 11).

409. Multinationality. When tasking forces for certain employment options, logistics support is an indispensable part of force configuration. Logistics support concepts for multinational formations should take into account the following criteria:
(a) their military effectiveness;
(b) that the provision of appropriate logistic support is to be ensured under national responsibility, either individually or by co-operative arrangements, including rôle specialization;
(c) that national components should be logistically self-sufficient for an initial period, with continued follow-on support by the responsible nations as agreed between nations and NATO commanders;
(d) that appropriate authority should be given to the NATO Commander to control certain logistic assets, as made available by nations, and as agreed between nations and NATO commanders.

410. Standardization. Levels of standardization will directly influence the combat effectiveness of NATO's forces, in particular that of multinational formations. Therefore, standardization of equipment, supplies and procedures is an overall logistics force
multiplier and should be taken into account, in particular when considering Reaction Force contributions. The interoperability of main equipment, interchangeability of combat supplies and commonality of procedures are the minimum objectives needed to attain combat effectiveness. (See Chapter 8).

411. Host Nation Support (HNS). HNS as a supplement to organic support is crucial to the sustainability of all types/categories of forces. Bilateral and multilateral agreements, which take into account MNC requirements, contribute to the provision of necessary protection, logistics and infrastructure support for the reception, movement and employment of those forces. The required flexibility and multinationality of forces highlights the need for greater involvement by NATO Commanders in the development of HNS agreements. Moreover, the variety of deployment options requires a more generic approach be taken towards HNS planning than before.

412. Sustainability. Logistic elements will contribute to sustainability by maintaining the necessary combat equipment, combat support assets and war consumables at levels sufficient to sustain operations. Sustainability requirements will be met by balancing the peacetime provision and locations of logistic assets and war consumables with the ability to resupply and reinforce. This balance must ensure timely and continuous logistics support for a variety of employment options. (See Chapter 9).

413. Medical Support. The medical services make a major contribution to sustainability by the prevention of disease and the rapid treatment of the sick, injured and wounded, and their early return to duty. Medical capabilities in the deployment area must be in balance with the force strength and the risk exposure; moreover, the medical support system must be operational prior to hostilities. (See Chapter 14).

414. NATO Infrastructure. NATO infrastructure and nationally provided installations must be adequate to support NATO forces in accordance with security challenges and geostrategic considerations. Military requirements for infrastructure will be prioritized taking force missions into account. (See Chapter 12).

415. Co-operation. Enhanced civil-military co-operation and co-ordination will be essential to maximize the use of civil and industrial resources. This, combined with improved planning for industrial support, should ensure greater productivity in areas where industrial capabilities are available, production times are
short, and dual use of certain civil resources can contribute to military needs. *(See Chapter 8).*

**NEW REINFORCEMENT CONCEPT**

416. The NATO Concept of Reinforcement sets out to reflect and amplify the Alliance Strategic Concept and to define the rôle of reinforcement in contributing to conflict prevention, crisis management and defence. It thus provides the necessary politico-military guidance for reinforcement planning. It also reflects the changed security environment, which, inter alia, established the requirement for flexibility and mobility in the development of the Alliance's new force posture and the need to optimize the use of available resources. The ability to build up forces at the right time and place has become of increasing importance.

417. Reinforcement, as it has been applied in the Concept, is the process of relocating forces to any area at risk within the Alliance in order to strengthen military capabilities as a means of conflict prevention, crisis management or defence. It is specifically designed to contribute a multinational forward presence, supplementing in-place forces and demonstrating Alliance resolve; and, as a complement to mobilization and reconstitution, it is a means of achieving the required force levels. Thus, reinforcement as a contribution to the build-up of forces becomes one of the primary military instruments available to the political leadership. There are a number of fundamental logistics implications in the Concept of Reinforcement.

**PRINCIPLES OF REINFORCEMENT**

*Flexibility and Mobility*

418. The flexible use and timely deployment of forces as reflected in the new concept of reinforcement is dependent on effective support arrangements based upon the best use of available resources. It requires a high degree of operational flexibility and complementary levels of mobility, and places a premium on achieving effective interoperability, standardization, logistic support, and command, control and communications. Future support arrangements must clearly be adapted to ensure the initial movement, the support in transit, the sustainment of combat power and the possible redeployment of reinforcement forces.
Generic and Contingency Planning

419. Detailed pre-planning for every individual reinforcement option will not be possible since the volume, destination and timing of intra-European as well as transatlantic reinforcement will not generally be possible to predict. Transport and movement planning may therefore need to be based on a capability/capacity planning system (which matches force and support capabilities to the rôle envisaged) as a means, and common method, of providing the ability to react to varying political and military requirements.

Infrastructure Support

420. Infrastructure planning in support of reinforcement remains of fundamental importance and must be adapted to the requirements derived from the future flexible use of forces. It must make optimum use of existing facilities and assets, covering the full range of requirements for base and staging areas and secure movement and reception of reinforcement forces.

LOGISTIC FACTORS OF REINFORCEMENT

421. In NATO, reinforcement planning involves:

- the establishment of operational lines of communication (LOC) to sustain military forces while providing for the joint use of facilities required to sustain the civil population during crisis and war;
- the integration of multinational civil and military requirements;
- the co-ordination of peacetime planning and control of available multinational civil and military movement resources in wartime.

422. In turn, essential functions of the LOC include:

- reception and movement planning;
- engineering support;
- security and defence;
- movement co-ordination; and
- provision of medical support, supplies and hospitalization.

423. To be effective, reinforcement planning depends on a wide network of organizations including LOC users, host nations, NATO Civil and Military Authorities, and the civil and military transport resources of Alliance nations. While the movement of forces is a task for the movement staffs, the effectiveness of reinforcement forces depends on the provision of bases and
facilities from which they can fight, as well as sufficient logistic resources to enable them to do so. There are, however, insufficient resources to move and sustain reinforcing forces. This problem will be met, at least in part, by Host Nation Support (HNS), and by increased Civil/Military Co-operation (CIMIC) in the identification and availability of civil resources for the support of military operations. These two elements are discussed in more detail in the succeeding sections of this Chapter.

HOST NATION SUPPORT (HNS)

Definition

424. The NATO-agreed (AAP-6) definition of HNS is “Civil and military assistance rendered in peace, crisis, and war by a Host Nation to Allied forces and NATO organizations which are located on or in transit through the Host Nation’s territory. The basis of such assistance is commitments arising from the NATO Alliance or from bilateral or multilateral agreements concluded between the Host Nation, NATO organizations and (the) nation(s) having forces operating on the Host Nation’s territory.”

HNS Principles

425. The importance of HNS as a key feature in the logistics support of the new Alliance force structures is apparent from the following principles:

(a) **Responsibility.** Nations and NATO Authorities have a collective responsibility for HNS of NATO’s operations.

(b) **Authority.** NATO Commanders have the authority to establish HNS requirements. MNCs have the authority to negotiate and conclude HNS agreements on behalf of sending nations, subject to their prior concurrence.

(c) **Co-operation.** Nations must ensure, individually or by co-operative arrangements, to include formal HNS agreements, the provision of adequate resources to support their forces allocated to NATO during peace, crisis and war.

(d) **Provision.** HNS is a fundamental supplement to organic support and will be provided by the host nation to the greatest extent possible, on the basis of national legislation, national priorities, and the actual capabilities of the host nation.

(e) **Reimbursement.** Reimbursement for HNS will be as agreed by nations.
(f) **Economy.** Planning and execution of HNS must reflect the most effective, efficient and economic use of resources available to fulfill the requirement.

(g) **Visibility.** Information concerning HNS agreements in support of NATO forces must be available to the appropriate NATO Commander.

**HNS Policies**

426. Agreed HNS policies broadly define the rôle of the parties involved in HNS planning. Additional or more specific policies may be developed in the future through harmonization of HNS planning in support of the Alliance Strategic Concept.

(a) **General Policies**

- Host and sending nations, in co-ordination with the appropriate NATO Commanders, are primarily responsible for HNS planning and execution.
- The major NATO Commanders, or their designated subordinates, are responsible for co-ordination of HNS planning for the support of multinational forces.
- Host nations and Major NATO Commanders, or their designated subordinates, are responsible for HNS planning where a sending nation is not specified.
- HNS planning will be as specific as possible wherever feasible and appropriate, especially when directed towards the utilization of civil resources. However, the variety of deployment options may require that a generic approach be taken towards HNS planning.
- HNS capability planning should become part of, and be included in, the Force Planning Process.
- Planning procedures should be standardized to the extent possible to ensure a dynamic and flexible response to any operational need.

(b) **Policies Specific to Sending Nations**

- Sending nations are to identify HNS requirements for each type of unit in support of an operational option and negotiate the provision of HNS with host nations, or where appropriate, with the responsible NATO Commander.
- Sending nations are to inform host nations and appropriate NATO Commanders of changes to their HNS requirements as they occur.
- Sending nations have responsibility for reporting the status of HNS negotiations to the appropriate NATO Commander(s).

(c) Policies Specific to Host Nations
- Host nations are to advise sending nations/appropriate NATO Commanders of their capability to provide HNS against specific and generic requirements and are to advise sending nations and appropriate NATO Commanders of significant changes in capability as they occur. Furthermore, nations are encouraged to identify overall HNS capability in order to assess additional support potential.

- Host nations should ensure the required co-operation and co-ordination between their civilian and military sectors in order to make the best use of limited HNS resources.

- Host nations should review their requirements for plans and co-ordination between their civilian and military sectors in order to make the best use of limited HNS resources.

- Host nations retain control over their own HNS resources, unless control of such resources is released.

(d) Policies Specific to NATO Commanders
- The MNC's authority to negotiate and conclude HNS agreements on behalf of sending nations requires prior authorization to be granted to the MNCs by the sending nations; this does not apply to HNS for the MNCs and their subordinate commands provided from common funding.

- MNCs may delegate to their appropriate subordinates the authority to negotiate HNS agreements and, where appropriate, conclude HNS agreements on behalf of sending nations, subject to their prior concurrence.

- The appropriate NATO Commanders should participate in bilateral/multilateral HNS negotiations between nations.

- NATO Commanders at appropriate levels are authorized to require reports on HNS assets designated and agreed by host nations to support the forces under their Command.
- NATO Commanders at appropriate levels will establish illustrative HNS requirements and conclude agreements with potential host nations, if sending nations cannot be specified. Reimbursement will be negotiated between nations once sending nations are identified.

- In execution of Alliance operational plans, NATO Commanders in co-ordination with the nations involved will prioritize the HNS provided.

CIVIL MILITARY CO-OPERATION (CIMIC)

427. Arrangements made by member nations for providing civil support for the common defence contribute significantly to the overall security of the Alliance. Civil preparedness and the management of resources are national responsibilities. However, much can be done through co-ordination between the NATO Civil and Military Authorities to facilitate national planning, and to ensure that the many facets of civil emergency planning contribute to the security of the Alliance in a cost-effective and well-structured manner. The principal NATO body with responsibilities in this sphere is the Senior Civil Emergency Planning Committee which co-ordinates the activities of a number of Planning Boards and Committees dealing with the mobilization and use of resources in the fields of food and agriculture, industry, petroleum, inland surface transport, ocean shipping, civil aviation, civil communications, medical care and civil defence. (See Chapter 7).
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CHAPTER 5

LOGISTICS SUPPORT FOR PEACEKEEPING, CONFLICT PREVENTION, AND HUMANITARIAN ASSISTANCE OPERATIONS

INTRODUCTION

501. Since the endorsement of the new Strategic Concept there have been two significant enhancements added by the NAC in Ministerial Session. On 4th June 1992 in Oslo it was agreed to support, on a case-by-case basis, Conference on Security and Co-operation in Europe (CSCE) peacekeeping activities, and at Brussels on 17th December 1992 the NAC confirmed the preparedness of the Alliance to support UN peacekeeping operations, again on a case-by-case basis. In broad terms peacekeeping is considered to include preventive diplomacy, conflict prevention missions, peacemaking, traditional peacekeeping, humanitarian aid, and refugee assistance. The increasing number, size and complexity of recent peacekeeping operations around the world are an indication of a greater willingness by the international community to resolve regional conflicts, but this has presented significant problems to the UN in supporting, manning, and funding such operations. The Alliance has unique capabilities and resources which can be made available to support peacekeeping and conflict prevention efforts. NATO support to peacekeeping, whether drawn from national or common assets, should not preclude or discourage the involvement of non-NATO elements in the peacekeeping operations.

502. Peacekeeping has changed significantly in the recent past in its nature, intensity, and complexity. UN operations undertaken in recent years include the delivery of humanitarian assistance in conditions of civil war, the separation of warring parties to ensure the delivery of food and medicine, and the policing of factions in conjunction with the supervision of elections. The tasks and rules have changed greatly from those traditionally associated with peacekeeping. Various NATO documents currently address peacekeeping and more are under development. Among existing documents, MC 327 is the principal military planning document for NATO support to peacekeeping.
TRADITIONAL PEACEKEEPING MISSIONS

503. Whilst these are not official NATO definitions, the three categories of traditional peacekeeping missions may be regarded as observation, interposition force, and transition assistance. It is important to understand that in a specific peacekeeping operation there may be aspects of two or all categories, as well as elements of humanitarian missions.

Observation

504. An Observation Mission is the most basic peacekeeping operation, and its fundamental purpose is to observe and report. This operation may range in size from as few as 20 personnel to several hundreds, usually accomplished by observers operating in two- or three-man teams of military officers, or civilians of equivalent status, of different nationalities. Observers are normally always unarmed.

Interposition Force

505. This type of operation is conducted as a means of keeping two opposing military forces apart, in the immediate aftermath of hostilities while negotiations for a peace agreement are in progress. In most cases, the parties in conflict must be separated after a cease-fire has been agreed. This requires the interposition of an impartial force between the belligerents, the establishment of a buffer zone, and continuous monitoring of the agreement. The size of the force and its concept of operations will depend upon the terrain, the availability of peacekeeping units, and the specific requirements necessary to achieve control of the buffer zone and the separation of the opposing armed forces.

Transition Assistance

506. This type of operation is initiated to support the transition of a country to peaceful conditions and an acceptable political structure after a civil conflict or struggle for independence or autonomy. The peacekeeping force attempts to effect an end to violence, to foster an environment in which the population can return to a normal life, and to support the achievement of a negotiated settlement by the parties in conflict. The execution of this mission will probably require a large peacekeeping force, with distinct and often co-equal military, civil police, and civil administrative components. There must be close and continuous
co-ordination of the activities of all these components as well as other agencies, such as United Nations High Commission for Refugees (UNHCR).

CONFLICT PREVENTION MISSIONS

507. Conflict prevention can never be guaranteed, but there are several means which may have a positive effect in influencing the situation or encouraging a peaceful settlement. One means is preventive deployment, which may be attempted by the deployment of multinational forces to areas of potential crises. NATO already has the military means to confront all levels of potential conflict which could impact member nations, or even Europe as a whole.

HUMANITARIAN MISSIONS

508. Humanitarian missions are conducted to relieve human suffering, especially in circumstances where responsible authorities in the area are unable, or possibly unwilling, to provide adequate services and support to the population. This suffering among large numbers of people may be the result of natural or man-made disasters such as earthquake, flood, famine and radioactive or chemical contamination. It may also be a consequence of war or the flight from political, religious, or ethnic persecution. Alliance involvement in humanitarian missions will be determined through the same decision-making process within NATO as peacekeeping or conflict prevention missions. Humanitarian missions may be executed in the context of a peacekeeping or conflict prevention operation, or it may be a completely independent task.

509. The three principal categories of humanitarian missions are:

(a) Disaster Relief: Deliberate planning for disaster relief operations is a difficult task, but analysis of past natural or man-made calamities can serve as a guide for national and local authorities to take appropriate precautions, such as stockage of water purification equipment, non-perishable food, tents, beds, and blankets. Potential donor nations may form special response teams to handle disaster relief, and may establish a stock of relief supplies, preferably in co-ordination with the efforts of UN Department of Humanitarian Affairs (UN-DHA) Geneva. Similarly, NATO
Headquarters should be kept informed by member nations of their civil and military resources which might be contributed to disaster relief operations outside their national territory, and establish procedures and guidelines for the employment of military resources in disaster relief to aid timely response. *(See also Chapter 7)*

(b) **Refugee/Displaced Person Assistance:** Beyond the actions necessary to respond to a disaster, there may also be requirements to deal separately with the movement of people displaced from their homes voluntarily or by force either as refugees or displaced persons. A refugee assistance task force may well become involved in providing the logistical support system to include transportation and its supporting logistical chain. Adequate transportation assets may be extremely difficult to arrange. Consideration must be given to prioritization of those to be moved, by age, infirmity, sex or family groups. Negotiations with group leaders will be required. Transport used for relief supplies should be considered as the most readily available assets.

(c) **Humanitarian Aid:** Humanitarian aid missions may pose significant challenges to any elements assigned this task as they usually occur in conjunction with civil strife or military confrontation. When the requirements for humanitarian aid are caused by a breakdown in the civil distribution systems, the mission area may encompass a large area or even an entire country. There may be little or no co-operation from authorities who control points of entry or the transportation assets. The relief supplies may likely be considered so valuable that their delivery is threatened by criminal elements. The greater the difficulties of the situation, the more likely it is that Alliance military and civil resources can provide invaluable contributions to national and international relief agencies.

**INDIRECT NATO INVOLVEMENT IN PEACEKEEPING ACTIVITIES**

510. In addition to direct Alliance involvement in peacekeeping, conflict prevention, and humanitarian missions, as described in the previous sections, NATO can make important contributions
to such missions through the less direct involvement of its assets. These assets may also be used to provide humanitarian support as circumstances, conditions, national military resources and national funding permits. Their use for additional missions outside their intended purpose would be subject to approval by the NAC/DPC. Addressed below are three principal means by which the Alliance could, with political concensus, support peacekeeping activities without becoming directly involved:

(a) **Co-ordination of Support:** The Alliance has within its organization the military and civil potential for advising on provision and co-ordination of a number of support functions which might be of particular value for peacekeeping, conflict prevention and humanitarian missions. For example, movement co-ordination centres, national as well as at multinational headquarters, linked with the appropriate civil transport bodies and agencies, can assist in co-ordination of transport.

(b) **Employment of Selected Alliance Resources:** Specific NATO resources may be requested and employed to bolster directly the capabilities of the peacekeeping organization, although a major rôle for the Alliance is not sought by either member nations or by the parties involved. Such resources might include a composite Alliance communications detachment or use of an existing multinational headquarters as the core for the command and control structure of a new peacekeeping force.

(c) **Monitoring of Sanctions:** One of the measures that can be taken by the UN Security Council to pressure warring parties or to reduce the level of hostilities in an area is the imposition of sanctions. These sanctions may take the form of complete or partial interruption of economic relations and of rail, sea, air, postal, telegraphic, radio, and other means of communications. They may also include an embargo on the importation of military materiel into the area of conflict, as well as a restriction on flights by military aircraft. As part of the imposition of such sanctions, the UN may request its member nations, or appropriate regional organizations such as NATO, to assist in monitoring compliance with, and reporting suspected violations of, such sanctions.
LOGISTICS SUPPORT GUIDELINES

511. A clear mandate and well-planned logistics support are essential to successful NATO peacekeeping activities. Peacekeeping operations will usually involve a mix of type forces: formed and ad hoc units, individual observers, patrols, and groupings from non-NATO nations or non-government organizations (NGOs). The mix to be supported may include civilians and civil police as well as military personnel, and it may be called upon to perform political, humanitarian, security, disaster relief, and liaison tasks in conjunction with the basic peacekeeping mission. Logistics support for peacekeeping operations may very well include requirements not normally included in the Alliance definition of “logistics”. Consideration could be given to providing guidance for support in the areas of command and control, administration, communications, food and water supply, engineering, military police, ammunition, contracting, maintenance, materiel, medical, petroleum, services, and transportation.

General Logistic Guidelines

512. The provision of logistics support to national forces is ultimately the responsibility of the nations providing forces; and nations must ensure collective or individual provision of logistics support resources (including strategic mobility) to achieve maximum effectiveness. However, insofar as peacekeeping activities involve NATO multinational forces, the NATO authorities will have an important co-ordinating rôle among participating nations and other organizations (such as the UN). Through such co-ordination, it will be possible to increase the overall effectiveness of logistics efforts. Logistics planning factors should include the following:

(a) Logistic support concepts and procedures, as well as the size and structure of logistic units, should be tailored to the supported forces and their related employment options. The concept should take into account:

(1) the national mix of multinational support forces;
(2) logistic sites available or required for multinational support operations;
(3) support that can be obtained from NATO agencies and organizations;
(4) the required level of standardization of equipment, supplies and logistics procedures;
(5) the possible need, in co-operation with nations, to plan and co-ordinate the deployment of the force, including prioritization, movement and transport-co-ordination, co-operative use of military transport resources, reception, staging, and onward movement.

(b) Levels and the distribution of logistic resources must be sufficient to achieve designated degrees of readiness, sustainability and mobility to provide the required military capability. This will involve:

(1) reviewing/initiating and implementing host nation support arrangements where appropriate;

(2) co-ordinating with appropriate civil organizations for the use of civil/commercial resources;

(3) determining interoperability and interchangeability of procedures, equipment and supplies;

(4) calculation of daily consumption rates, and the level of logistic support required;

(5) movement and transport planning, with particular emphasis on co-ordinating deployment, reception, staging, and onward movement;

(6) the preparation of equipment and supplies to achieve the most cost effective deployment method;

(7) planning for in-theatre local procurement of supplies and services;

(8) normal back-up supply and service support through links (or lines of communication) to the rear (national or multinational, military or civilian support organizations);

(9) the provision by participating nations of a coherent logistics structure for their forces tailored to the needs of the mission: this will include the initial self-sufficiency required until such time as the force logistics structure is operational, and follow-on sustainment which must be planned in accordance with the overall force logistics concept.

Co-ordination/Authority

513. Planners for approved operations should ensure that appropriate co-ordination is effected with UN Headquarters, and between military and civilian supported and supporting agencies,
to ensure logistics related issues, including financial aspects, are addressed at the required level. The flexibility of logistic support is enhanced by the increased powers of NATO Commanders over logistic resources of NATO nations as defined in MC 319.

Co-operation

514. The provision and increased effectiveness of logistic support may be achieved using any combination of methods, including:

(a) individual national responsibility;
(b) mutual support:
   (1) determining the division of responsibilities between the UN (if appropriate) the nations and NATO for the planning, provision, conduct and funding of logistics support of a NATO peacekeeping mission;
   (2) planning for the possible inclusion of non-NATO nations and organizations in support arrangements (e.g. UN, CSCE, WEU and NGOs);
(c) multinational pools of logistic assets;
(d) rôle specialization;
(e) lead nation;
(f) host nation.
(g) UN sources (to include the letting of UN-financed local contracts).

515. Where more than one command is rendering assistance, of a like nature, consideration should be given to the identification of a "Lead NATO Command". The NATO Commander should establish when appropriate a Logistics Control Centre to co-ordinate logistics activity, including local procurement, HNS liaison and, in order to meet a critical operational need, redistribution.

Deployment

516. Deployment options dictate the levels of strategic mobility, transportation and movement of forces required. Peacekeeping operations normally allow for a steady build up of forces including equipment and supplies. Nations in their contributions to NATO peacekeeping forces need to take into consideration:
(a) readiness criteria (time to get ready to deploy from date of notification) and consideration of operational timescales for deployment and transit times;
(b) movement requirements in terms of equipment, personnel or stocks as part of the deployment manoeuvre;
(c) transport resource requirements by modes of transport to support the movement requirement, inter alia, the availability of commercial transport resources (particularly shipping);
(d) reception and onward movement requirements;
(e) overflight/transit requirements through other, non-NATO nations.

CIVIL RESOURCES AND IN-COUNTRY SUPPORT

517. NATO countries' civil resources and/or their HNS capabilities plus the HNS capabilities of non-NATO nations should be exploited whenever militarily feasible, reliable, timely and cost-effective. The availability of HNS contributes to ease both initial and follow-on support efforts. Guidelines for negotiating/arranging HNS requirements are set out in ALP-12.

MEDICAL SUPPORT

518. The Alliance may assist in co-ordinating peace-keeping force medical plans to assure support is provided in balance with the size of the force and the risk exposure. Regardless of the size of the peacekeeping force, all medical and medical support functions (hospitalization, evacuation, medical logistics, veterinary/food inspection services, preventive medicine, sanitation, waste disposal etc.) and health care must be planned and co-ordinated prior to the operation. Plans should include the option for medical care being provided to support the local population as circumstances and conditions permit. Nations providing overall medical support should ensure such units are able to deploy with the other elements of the force to ensure rapid establishment of an effective medical support capability.

519. Planning must be based on broad medical principles with peacetime medical support standards being maintained to the maximum extent possible in a possibly hostile environment over extended lines of medical support. Overall medical support requirements can be reduced if arrangements allow medical units to share/use local medical facilities and if secure/safe shelter, food, water and sanitation can be made available.
OTHER FUNCTIONAL AREAS

520. MC 327 provides extensive guidance for planning NATO support to peacekeeping in other functional areas such as:

- command and control
- communications and informations systems (CIS)
- intelligence/early warning/military information
- rules of engagement
- education/training/exercises/courses
- public information
- legal aspects
- budget and finance
- community relations

REFERENCES

MC 319 NATO Principles and Policies for Logistics
MC 326 Medical Support Precepts and Guidance for NATO
MC 327 NATO Military Planning for Peace Support Operations
MC 334 Future Host Nation Support Planning
MC 336 A Movement, Transportation and Mobility Management Concept for NATO
ALP-12 Guidance for the Planning and Preparation of HNS Agreements/Arrangements
CHAPTER 6

PRODUCTION LOGISTICS

INTRODUCTION

601. Unlike consumer logistics, which is concerned with providing support to military forces, production logistics in NATO is largely a civilian responsibility and is dealt with by three Council bodies. The Conference of National Armaments Directors (CNAD) has main responsibility in armaments co-operation, but also the NATO Air Defence Committee (NADC), and the NATO Communications and Information Systems Committee (NACISC) are involved in armaments-related co-operation within the Alliance.

602. Responsibility for equipping and maintaining military forces rests with the member nations of NATO. In most cases research, development and production of equipment is organized by each country in accordance with its national requirements and its commitments to NATO. However, since the establishment of the Alliance, extensive co-ordination and co-operation in the field of armaments has taken place within NATO. Armaments co-operation remains an important means of achieving the crucial political, military and resource advantages of collective defence.

603. However armaments co-operation like any other area of collective Alliance endeavour, depends upon political will and no NATO policies nor procedures can possibly substitute for a political will and sustained commitment to explore ways to reconcile national interests with the goals of the Alliance as a whole.

MAIN OBJECTIVES OF ARMAMENTS CO-OPERATION

604. The main objectives of NATO armaments co-operation have traditionally been derived from four fundamental goals: political, military, socio-economic and technological.

(a) Political Objective

A central objective of NATO armaments co-operation is to enhance the cohesion and vitality of an Alliance of sovereign nations through a demonstration of unity in a key area of the common defence effort. In particular, effective transatlantic arms co-operation strengthens the
very axis upon which NATO rests. For over four decades, NATO has provided the framework for pursuit of co-operation among member nations in a broad range of armaments programmes: important milestones in this effort were the HAWK, SIDEWINDER and SEASPARROW missile programmes, the Atlantic and Maritime Patrol Aircraft, the TORNADO Multirole Combat Aircraft, and the recent NATO Helicopter for the 90’s.

(b) **Military Objective**  
A key objective of NATO armaments co-operation is to promote standardization to the level of, at least, interoperability. The ability of Alliance forces in peace, crisis and war to operate in concert is the main tenet on which rests, ultimately, the effectiveness of NATO’s war prevention and collective defence capability. This ability, which extends across the range of joint and combined operations on land, at sea or in the air, has always been dependent on achieving the highest degree of standardization possible in operational concepts and procedures, communications and information systems, battlefield consumables and equipment.

(c) **Socio-economic Objective**  
Another central objective of NATO armaments co-operation is to offer scope for a more efficient allocation of limited national resources to research, development and production, and the maintenance of a robust Alliance-wide defence industrial and technological base. Though progress has been made towards this longstanding objective, there are limits to the extent to which individual nations can or wish to apply to defence procurement the resources of competition and market rules that characterize the civil sector of economy and commercial trade.

(d) **Technological Objective**  
Lastly, an enduring rationale for NATO armaments co-operation has been to share technological and defence research resources between the Allies, so that NATO nations collectively maintain a technological lead over any potential adversary. In the new security environment, the Alliance’s military capabilities will rely even more than in the past on technological superiority. Significant reductions of standing forces will be accompanied by an even greater emphasis on the modernization of residual forces.
There are various ways in which co-operation in armaments can be achieved, such as:

(a) **Agreements on Production:**
- agreement to manufacture identical equipment in various countries;
- agreement to produce one part of a "family of weapons", e.g. one nation undertakes production of a short-range weapon, whilst others produce medium and long-range versions;
- agreement to purchase equipment produced by other nations;
- agreement to set up a joint international production agency for equipment.

(b) **Agreements on Standardization:**
- agreement to ensure that certain national equipments are compatible with those of other nations;
- agreement to ensure equipments are interoperable;
- agreement on the use of interchangeable components.

**CONFERENCE OF NATIONAL ARMAMENTS DIRECTORS (CNAD)**

It is under the aegis of the CNAD (AC/259) that most of the effort to identify opportunities for collaboration in the research, development and production of military equipment and weapon systems takes place. The CNAD, which meets in full session twice a year, brings together the defence acquisition chiefs of all member nations, representatives from the MC and MNCs, the Chairmen of its Main Groups, and other civil and military authorities with an interest in production logistics. Four key elements for co-operation for which the CNAD is directly responsible, are:

- the harmonization of military requirements on an Alliance-wide basis;
- the promotion of essential battlefield interoperability;
- the pursuit of co-operative opportunities identified by the CNAD and the promotion of improved transatlantic co-operation;
- the development of critical defence technologies, including expanded technology sharing.
607. **CNAD Substructure.** The CNAD substructure currently consists of over 200 groups, subgroups, panels, and working groups. Directly subordinate to CNAD are seven Main Groups and a number of Cadre Groups:

(a) **Main Groups** cover land, sea and air warfare command, control and communications (including navigation and identification), defence research and acquisition practices. They are:

- NATO Naval Armaments Group (NNAG) - AC/141
- NATO Air Force Armaments Group (NAFAG) - AC/224
- NATO Army Armaments Group (NAAG) - AC/225
- Defence Research Group (DRG) - AC/243
- Tri-Service Group on Communications and Electronics (TSGCE) - AC/302
- Group on Acquisition Practices - AC/313
- NATO Standardization Group - AC/315
- NATO Industrial Advisory Group (NIAG)

The NIAG was established with the basic goal to provide advice to the CNAD on industrial, technical, economic, management and other relevant aspects of research, development and production of armaments within the Alliance. The primary focus today is technology advice for programme development efforts under the CNAD.

(b) **Cadre Groups** undertake activities of general interest to armaments co-operation. These activities are project-independent and of a tri-service nature. They are often of direct interest to logisticians. The Groups are:

1. **Group of National Directors on Codification - AC/135.**
   This Group is concerned with the development, implementation and maintenance of a NATO Codification System (NCS) in support of Allied Forces. It works closely with, and receives secretarial support from, the NATO Maintenance and Supply Agency (NAMSA) which can be regarded as its executive arm. More details on the NCS are given in Chapter 8.

2. **Group of National Directors for Quality Assurance - AC/250.**
   The Group publishes Allied Quality Assurance Publications (AQAP) as the basic reference for the enforcement of quality assurance standards for
weapon systems and other defence equipment entering the inventory of Alliance forces, as well as for the development of reliability and maintainability guidelines.

(3) Group of Experts on the Safety Aspects of Transportation and Storage of Military Ammunition and Explosives - AC/258.

(4) Group on Standardization of Materiel and Engineering Practices - AC/301.
This Group brings transparency NATO-wide to a complex technical field through its work on standardization which spans electronic/electrical parts, materials, mechanical parts and general engineering.

(5) Group on Safety and Suitability for Service of Munitions and Explosives - AC/310.

NATIONAL ARMAMENTS DIRECTORS REPRESENTATIVES (NADREPS)

608. National Armaments Directors have Representatives (NADREPs) assigned to national delegations to NATO. They carry out the routine tasks of the CNAD and undertake any such additional task as the CNAD may direct. One of their duties is to direct the work of the Cadre Groups on behalf of the CNAD.

PROCEDURES FOR ARMAMENTS CO-OPERATION

609. Armaments co-operation under the CNAD is based essentially on an information exchange process which seeks agreement between nations and the MNCs on harmonized operational requirements in order to promote co-operative equipment programmes. Because the responsibility for equipping their forces is a prerogative of individual member nations, this co-operative process can be supported, but not regulated, by NATO. There is therefore no formal or centralized NATO armaments planning system. However, in order to give greater coherence and structure to co-operative efforts, two major planning/programming systems have been introduced in NATO:

- the Conventional Armaments Planning System (CAPS); and,
- the Phased Armaments Programming System (PAPS).
These two processes are quite distinct. PAPS is an international management review system for initiating and pursuing collaborative projects through a series of milestones. The system has done much to bring greater coherence and transparency into the development of collective solutions to equipment requirements. The CAPS complements the PAPS by identifying promising co-operative opportunities for the CNAD which interested nations may then pursue through the PAPS.

**ARMAMENTS PLANNING: CONVENTIONAL ARMAMENTS PLANNING SYSTEM (CAPS)**

610. The principal tasks of CAPS are:

- to provide guidance to the CNAD and orientation to the nations on how the military needs of the Alliance can best be met by national armaments programmes, individually and collectively; and

- to help elaborate armaments co-operation opportunities and priorities for the CNAD.

*Note:* More details can be found in the Users Handbook and Guidance to CAPS (AAP-27).

**ARMAMENTS PROGRAMMING: PHASED ARMAMENTS PROGRAMMING SYSTEM (PAPS)**

611. PAPS is meant to be a tool available as required for conducting programmes on a systematic basis and should not be regarded as a set of formal and mandatory steps in the implementation of CNAD projects. There is a finite and fairly consistent number of points (milestones) in the life of a weapon system programme where the nature of the programme changes. At these milestones, decisions must be made regarding alternative courses of action. PAPS is intended to provide a structured approach to decision-making at these milestones for all management levels involved in co-operative research and development and production programmes within NATO.

612. **Milestones and Phases in the Life Cycle of a Weapon System.** The PAPS process begins when a nation or NMA identifies a military mission deficiency, and a Mission Need Document (MND) is transmitted to CNAD and the MC. Logistics support must be taken into account early in order to ensure that maximum benefit can be drawn from collaborative projects. The elements of logistics support include manpower, financial and
infrastructure requirements, and requirements concerning availability, maintainability and reliability including the estimated life cycle costs, all of which contribute significantly to the concept evaluation and feasibility assessments. The evolution of a typical programme is as follows:

(a) **Milestone 1** - Mission Need Document (MND)  
    **Phase 1** - Mission Need Evaluation  
(b) **Milestone 2** - Outline NATO Staff Target (ONST)  
    **Phase 2** - Pre-Feasibility  
(c) **Milestone 3** - NATO Staff Target (NST)  
    **Phase 3** - Feasibility  
(d) **Milestone 4** - NATO Staff Requirement (NSR)  
    **Phase 4** - Project Definition  
(e) **Milestone 5** - NATO Design and Development Objective (NADDO)  
    **Phase 5** - Design and Development  
(f) **Milestone 6** - NATO Production Objective (NAPO)  
    **Phase 6** - Production  
(g) **Milestone 7** - NATO In-Service Goals (NISEG)  
    **Phase 7** - In-Service  
(h) **Milestone 8** - National Disengagement Intention (NADI)  
    **Phase 8** - Disengagement

**Note:** More information on milestones and phases in the life cycle of a weapon system, and on the logistics considerations to be taken into account at each stage, can be found in the Handbook on PAPS, 1992 (AAP-20).

**OTHER COMMITTEES INVOLVED IN ARMAMENTS CO-OPERATION**

613. The CNAD is the main Council Committee dealing with armaments co-operation. Other NATO committees also involved in certain aspects of it, and the WEU group primarily involved, are:

(a) **NATO Air Defence Committee (NADC)**  
   The NADC advises the Council and the DPC on all aspects of air defence programme development for NATO and the adjacent sea areas. Currently it has three subordinate panels:  
   - Panel on Airspace Management and Control System (PAMCS)  
   - Panel on Air Defence Weapons (PADW)  
   - Panel on Air Defence Philosophy (PADP)
Western European Armaments Group (WEAG)

Recently the WEU Ministers decided to establish a new forum for armaments co-operation to replace the Independent European Programme Group (IEPG) which was dissolved in December 1992. The WEAG will meet at ministerial level at least once a year. It is charged with the development of closer armaments co-operation, and its main objectives are:

- to permit the most efficient use of funds for research, development and procurement;
- to increase standardization and interoperability of equipment;
- to maintain a healthy European defence industrial and technological base;
- to encourage a better balanced two-way street in armaments co-operation between Europe and North America.

EXECUTIVE ORGANIZATIONS

NATO Production and Logistics Organizations (NPLO)

614. The NAC has created a number of NATO Production and Logistics Organizations (NPLOs) to carry out specific tasks. Details are provided in Chapter 8 - Co-operative Logistics.

NATO Project Steering Committees (NPSC)

615. A NATO Project is any form of NATO armament production co-operation that meets the following conditions:

- two or more NATO nations participate in the project;
- there is a commitment to report progress annually to the CNAD until the equipment has been produced or the project otherwise terminated;
- provision is included for the admission of other interested NATO countries, subject to the acceptance of reasonable and equitable conditions to be provided by the participating countries.

616. Many successful co-operative programmes such as the Multirole Combat Aircraft (TORNADO), the Multiple Launch Rocket System (MLRS), and the F-16 Combat Fighter have been undertaken by the CNAD, and for which NATO Project Steering
Committees (NPSC) have been established. A NPSC is a body composed of national representatives established by an intergovernmental agreement between two or more NATO nations in order to co-ordinate, execute or supervise an equipment procurement programme which has qualified as a NATO project. Some 19 co-operative projects continue to enjoy formal NATO status under the terms of the CNAD Charter. Seven other NATO-related and selected non-NATO bilateral and multilateral projects are managed by lead nations and report to CNAD.

Military Agencies

617. In addition to its other responsibilities the MC is charged with the direction of a number of NATO Military Agencies. The structure and activities of these agencies with logistics interest are described below:

(a) **Advisory Group for Aerospace Research and Development (AGARD)**

The Military Agency AGARD, established at Paris, is tasked to foster and improve the interchange of information relating to aerospace research and development between nations, and to provide technical and scientific advice and assistance. Its nine panels cover:

- aerospace medicine
- avionics
- electromagnetic wave propagation
- flight mechanics
- fluid dynamics
- guidance and control
- propulsion and energetics
- structure and materials
- technical information.

(b) **SHAPE Technical Centre (STC)**

The STC, established at The Hague, is tasked to provide scientific and technical advice and assistance to SHAPE. It is required to undertake research, studies, investigations, development projects and operation tests for ACE but also for nations if they request it. Its current programme is directed towards three major areas of concern:
force capability and force structure (including the development of stockpile planning guidances and movement planning systems);
- command and control (including application of automated data processing);
- communications (including concept formulations, systems engineering, operations support).

(c) **SACLANT Undersea Research Centre**
This military centre, established at La Spezia, provides scientific and technical advice and assistance to SACLANT in the field of anti-submarine warfare, carrying out research and development in this area.

**NATO CONSULTATION, COMMAND AND CONTROL (NATO C3) SYSTEMS**

618. The NATO C3 that are being developed encompass the common-funded Communications Systems, Information Systems, Sensor (and Warning Installations) Systems, and their facilities in NATO Headquarters and capitals, that are required for political consultation, crisis management, civil emergency planning, and military command and control. NATO C3 Activities encompass these areas and are related to the multinational decision making process which deals with:
- policy making, planning, programming, implementation, operation and maintenance of common-funded NATO C3 systems;
- standardization and co-operative development, testing and procurement of NATO C3 and appropriate national C3 (including navigation and identification) equipment and systems;
- interoperability between national C3 systems, and between those systems and common-funded NATO C3 systems.

619. The development of a Charter for this restructured NATO C3 organization has been initiated. It is intended that a NATO C3 Board, to be formed through a merger of the NATO Communications and Information Systems Committee (NACISC), the Tri-Service Group on Communications and Electronics (TSGCE), and the Scientific Committee of National Representatives (SCNR), will direct a NATO C3 Agency formed by amalgamation of the NATO Communications and Information Systems Agency (NACISA) and relevant C3 functions of the SHAPE Technical Centre (STC).
REFERENCES

NATO Handbook
NATO Facts and Figures
AAP-20 Handbook on the Phased Armaments Planning System (PAPS) - 1992
ALP-10 Guidance on Integrated Logistics Support for Multinational Equipment Projects (ILS)
CHAPTER 7

CIVIL EMERGENCY PLANNING

INTRODUCTION

701. NATO’s strategic concept places great importance on military readiness, and the use of civil resources. Civil support is vital to NATO logistics. The ships, aircraft and vehicles controlled by NATO’s armed forces provide only a fraction of the transport capacity that might be needed in crisis or war. The balance will have to come from civil sources, as will much of the fuel, food, medical facilities and industrial goods that are needed.

702. NATO’s strategy is based upon the three mutually reinforcing elements of Allied security policy: dialogue, co-operation and the maintenance of a collective defence capability. The aims and activities of national and NATO Civil Emergency Planning (CEP) reflect the new political situation and the Alliance’s Strategic Concept. While CEP activities at both the national and NATO level will continue to support each of the aims set out below, priority will be accorded to those activities in support of NATO’s overall crisis prevention and management arrangements, as well as support of, and co-operation with, the military in peace, crisis and war. Whilst CEP remains primarily a national responsibility, CEP is essential to the implementation of NATO’s strategy and the actions of the Alliance must be based upon maximum co-operation between capitals and NATO.

CIVIL SUPPORT TO THE MILITARY IN PEACE, CRISIS AND WAR

703. Civil emergency planners, nationally and at NATO level, must be fully prepared to support the military in peace, crisis and war. The Alliance’s Strategic Concept and the new NATO Concept of Reinforcement place increased reliance on civil resources in general, and transportation resources in particular, to meet military requirements for strategic and operational mobility, and for the sustainment of operational forces. It is therefore important that civil emergency planners are brought in at the earliest possible stage in the preparation of plans in support of Alliance strategy.
704. To effect the fullest possible co-operation in providing civil support to the military, NATO and national planners should ensure:

(a) the development in peacetime of appropriate agreements and arrangements necessary for effective support and co-operation in crisis and war;
(b) the review of laws and procedures to enable required support under peacetime conditions;
(c) the conclusion of general agreements with MNCs, as appropriate;
(d) the identification of bilateral support arrangements that need to be updated; and
(e) the improvement of national civil/military co-operation (CIMIC) in Host Nation Support (HNS) and reinforcement planning.

705. Ministerial Guidance for CEP, 1993/94 expands in detail in other areas of concern i.e. maintaining social and economic life; protecting the population, and specific recommendations and guidance for CEP activities in the Alliance.

AIMS OF CIVIL EMERGENCY PLANNING

706. In support of the maintenance of a collective defence capability, the aims of national and NATO CEP are to:

(a) provide advice to the Alliance on all matters related to civil preparedness;
(b) support NATO's overall crisis prevention and management arrangements;
(c) support and co-operate with the military in peace, crisis and war;
(d) ensure the functioning of government in crisis and war;
(e) ensure an acceptable level of social and economic life in crisis and war; and
(f) support and protect the population in crisis and war.

SCEPC

707. The senior NATO body involved is the Senior Civil Emergency Planning Committee (SCEPC) (AC/98), staff support for which is provided by the Civil Emergency Planning Directorate (CEPD), which is part of the Infrastructure, Logistics
and Civil Emergency Planning Division (ILCEP) of the International Staff. The SCEPC meets monthly in Permanent Session, with representatives drawn from the national delegations at NATO HQ, and bi-annually in Plenary Session with a membership drawn from senior representatives from capitals. Representatives of the IS (Logistics Directorate), IMS (Logistics & Resources Division), and the MNCs attend all meetings.

708. SCEPC co-ordinates and gives guidance to the activities of nine Planning Boards and Committees (PB&Cs), many of which deal with the provision of civil resources for the logistics support of Alliance forces. They are:

(a) **Planning Board for Ocean Shipping (PBOS) (AC/271)**

The PBOS plans for the provision of transportation of persons and goods by sea in crisis and war within and outside the North Atlantic area. The Planning Board operates on the principle that shipping cannot be treated on a regional basis and that the worldwide interrelation of all shipping activities must be taken into account in securing the benefit of shipping services, including vessels and facilities controlled by countries not party to the North Atlantic Treaty. In carrying out its functions, PBOS allows for the needs of countries and territories outside the North Atlantic area for which a measure of shipping responsibility might have to be borne in wartime.

(b) **Planning Board for European Inland Surface Transport (PBEIST) (AC/15)**

The PBEIST co-ordinates planning for the use in crisis and war of:

- seaports and emergency anchorages and transport by road, rail and inland waterways, including their respective infrastructure;
- inland transport of petroleum, oil and lubricants (POL), excluding pipelines; and
- the transport of ammunition, explosives and other hazardous cargoes.

It also co-ordinates, wherever necessary, short sea and feeder services, in co-ordination with the Planning Board of Ocean Shipping (PBOS) which is generally competent for shipping.
(c) Civil Aviation Planning Committee (CAPC) (AC/107)
The CAPC also operates on the principle that civil aviation cannot be treated on a regional basis and that the worldwide interrelation of all aviation activities must be taken into account. The general and primary aims of civil aviation planning in NATO, as represented by CAPC, are to assist in maximizing the availability of the civil aviation resources of member nations during crisis and war, and to optimize the Alliance’s use of civil aviation resources in support of both military operations and essential civil requirements.

(d) Food and Agriculture Planning Committee (FAPC) (AC/25)
The FAPC monitors the state of readiness of the national civil emergency plans of member nations in the fields of food and agriculture, and makes recommendations to SCEPC for action by nations as regards co-ordination, mutual co-operation or common action within the framework of the Alliance.

(e) Industrial Planning Committee (IPC) (AC/143)
The IPC develops plans in peacetime which:
- ensure the continued availability of, and equitable and effective distribution within the Alliance of, essential industrial supplies and services for both civil and military purposes; and
- co-ordinate the mobilization and use of industrial resources by member nations in support of the overall defence effort in crisis and war.

(f) Petroleum Planning Committee (PPC) (AC/12)
The function of the PPC is to maximize NATO’s readiness to meet oil shortfalls, and to develop and maintain adequate arrangements for a continued supply and equitable distribution of civilian supplies of oil and oil products for both civil and military purposes in times of crisis and war.

(g) Joint Medical Committee (JMC) (AC/320)
The JMC carries out such joint civil/military planning as cannot adequately be undertaken by the individual NATO member nations without harmonization, mutual co-operation, or common action within the framework of the Alliance.
(h) **Civil Communications Planning Committee (CCPC) (AC/121)**

The CCPC is responsible for civil communication matters under NATO civil emergency arrangements. Civil communication planning provides for the maintenance of communication services for political, economic and military purposes; in this context the term "civil communications" is seen as telecommunication facilities and services, both public and leased, postal services and any other related services provided by NATO countries, excluding military owned and NATO owned telecommunication facilities.

(i) **Civil Defence Committee (CDC) (AC/123)**

Within the framework of the general aims of Civil Emergency Planning, the CDC carries out such international co-ordination as is necessary in the field of Civil Defence.

The Civil Emergency Planning committee structure is shown at Annex A.

709. Civil Emergency Planning is based, in the main, on the Ministerial Guidance from which the Work Programmes for the PB&Cs are derived. These identify tasks, and set priorities and targets in specific areas. They normally follow a four-year cycle, as does the Civil Emergency Planning Questionnaire (CEPQ) which is linked to the preparation of the Ministerial Guidance. The CEPQ looks for national responses on such aspects as:

- crisis management legislation, arrangements, plans, and procedures
- experts to support CEP crisis management arrangements
- communications in support of crisis management arrangements
- civil/military co-operation
- training and exercises
- activities with Co-operation Partners
- resources
- planning and review

**CEP CRISIS MANAGEMENT ARRANGEMENTS**

710. In a period of tension or crisis, which is most likely to be under peacetime legal conditions, the Council/DPC will be concerned with a wide variety of diplomatic, economic, military
and civil preparedness activities. In discharging its responsibilities, the Council/DPC will be supported at NATO Headquarters by the Military Committee, the Political Committee, the Alerts Committee and the SCEPC. General crisis management arrangements are set out in CMM-1, NATO Crisis Management Manual. CMM-2 contains NATO Headquarters Procedures for Crisis Management, and is under review.

711. Depending on the requirements of a particular crisis, the new CEP crisis management arrangements available to the SCEPC include, but are not limited to, the following:

- advice to the SCEPC by Chairmen of Planning Boards and Committees (PB&Cs);
- call-up of high level experts to evaluate the situation and to advise the Council and the SCEPC;
- establishment of a Civil Emergency Crisis Cell (CECC) to be manned by personnel from NATO Headquarters (IS and IMS), the PB&Cs and by experts from business/industry and government/administration, as appropriate;
- gradual expansion of the number of experts and, if necessary, organization of the experts in specialized sections of the CECC; and
- re-establishment of NATO Civil Wartime Agencies (NCWAs), if warranted.

CIVIL EMERGENCY CRISIS CELL (CECC)

712. The new CEP crisis management arrangements available to the SCEPC include establishment of a Civil Emergency Crisis Cell (CECC) to be manned by personnel from NATO Headquarters (IS and IMS), the PB&Cs, and by experts from business/industry and government/administration, as appropriate. Ultimately there will be a gradual expansion of the number of experts, and organization of the experts into specialized sections of the CECC. This will result, if warranted, in the re-establishment of NCWAs.

713. When the Council/DPC or the Secretary General determines that the Alliance is entering a period of tension or crisis, the Director of Civil Emergency Planning, on behalf of the SCEPC, will take the appropriate steps to establish the CECC at NATO Headquarters. Personnel from the IS Logistics Directorate and the IMS (Logistics & Resources) Division, are included in the manning of the CECC.
Responsibilities

714. In a crisis the CECC, regardless whether it has been expanded or not, may have all or certain of the following responsibilities:

(a) by monitoring and evaluating the situation, providing a basis for policy decisions by higher NATO authorities;
(b) advising the Council/DPC, the SCEPC or other appropriate NATO bodies and NATO member nations on ways how best to use available civil resources in a given situation;
(c) maintaining liaison with national delegations at NATO Headquarters and, on behalf of the SCEPC, establishing liaison with international organizations, civil transport organizations, etc.;
(d) preparing items for discussion and consultation in the SCEPC (e.g. expansion of the CECC);
(e) taking the appropriate staff action following decisions taken in the Council/DPC or the SCEPC;
(f) on the basis of the Civil Situation Reports (CIVSITREPs) from nations issuing civil situation assessments and contributing to the situation briefings at Council/DPC, Military Committee and SCEPC;
(g) based on political decision, assuming operational function(s) for brokering/contracting/allocating civil resources (e.g. transport), as appropriate;
(h) preparing for the transition to the operation of the NATO Civil Wartime Agencies (NCWAs).

CEP INVOLVEMENT IN EMERGENCY DISASTER ASSISTANCE

715. On 17th December 1992, the Council approved the Ministerial Guidance for CEP for 1993 and 1994. In doing so the Council agreed, inter alia, that:

(a) the standing operating procedures for NATO co-operation in peacetime disaster relief remain valid. If requested to do so by the relevant international organizations, NATO should be ready to employ these co-operation procedures, also in case of disasters outside NATO’s boundaries;
(b) co-operation among NATO countries, and the harmonization of their efforts, is facilitated by the existence in NATO Headquarters of a stand-by mechanism to provide for:
- rapid dissemination to member countries of official information on the occurrence of a major disaster within the Alliance;
- expeditious exchange of emergency information among member countries on the assistance needed by the stricken country which may include pharmaceuticals, vaccines, food, clothing, emergency shelter, prefabricated housing, water purification equipment, rescue teams and equipment, medical teams, field emergency hospitals, the services of disaster experts, etc.; and
- the assistance being furnished bi-laterally to the stricken country from governmental and national voluntary organization sources, either by member or non-member countries, thus decreasing the possibility of unnecessary supplies and duplication, and helping to overcome serious gaps in the provision of critically needed goods.

716. On the basis of the request for assistance from a stricken member country or from a relevant international organization, the Secretary General will activate the necessary elements of the International Staff to take steps urgently to promote the necessary assistance. To this end, the Director of the Civil Emergency Planning Directorate will:

(a) activate the NATO Headquarters' stand-by machinery;
(b) re-transmit to all NATO capitals and NATO Military Authorities, as may be necessary, the assistance request and other available information on the disaster;
(c) ensure that information subsequently obtained on assistance available or being furnished bi-laterally by assisting countries and on any additional needs of the stricken member country is relayed to all member countries as appropriate;
(d) take all necessary and urgent steps to facilitate or help expedite the delivery of assistance items requested by the stricken member country and to locate, as far as possible, the items that have been requested and which have not been obtained bi-laterally;
(e) co-ordinate, where appropriate, assistance which might be provided by NATO Military Authorities;
(f) take the necessary measures to contact, as may be required, for the purpose of obtaining supplemental information, other organizations such as agencies of the UN, the Federation of Red Cross and Red Crescent Societies; and

(g) if specifically requested by the stricken member country, assist it in obtaining the services of experts, not otherwise provided bi-laterally, who would be willing to accept temporary duty assignments in the stricken member country.

REFERENCES

C-M(85)69 The Rôle of SCEPC in Peacetime, Crisis and War
C-M(89)82 Terms of Reference of the NATO Civil Emergency Planning Boards & Committees (PB&Cs)
C-M(92)14 Consequences for Civil Emergency Planning of the New Alliance Strategic Concept
C-M(92)58(Final) Ministerial Guidance for Civil Emergency Planning 1993 and 1994

Civil Emergency Planning (CEP) Crisis Management Handbook
C-M(93)103 NATO Co-operation for Emergency Disaster Relief (1993 Edition)
DPC-D(91)17 NATO Concept of Reinforcement
MC 336 Movement, Transportation and Mobility Management Concept for NATO
MC 400 Military Implementation of the Alliance's Strategic Concept
AD 85-5 ACE Mobility Management Directive
AD 86-1 SACEUR Policy and Guidance on Civil/Military Co-operation
CMM-1 NATO Crisis Management Manual
CMM-2 NATO HQ Procedures for Crisis Management

ANNEX

Annex A: Civil Emergency Planning Committee Structure
Civil Emergency Planning Committee Structure

NORTH ATLANTIC COUNCIL

SENIOR CIVIL EMERGENCY PLANNING COMMITTEE

CIVIL EMERGENCY CRISIS CELL
- INTERNATIONAL STAFF
- INTERNATIONAL MILITARY STAFF
- MEMBERS PLANNING BOARDS AND COMMITTEES
- EXPERTS FROM BUSINESS/INDUSTRY AND GOVERNMENT/ADMINISTRATION

PLANNING BOARDS AND COMMITTEES

SURFACE TRANSPORT

OCEAN SHIPPING

AVIATION

PETROLEUM

FOOD

INDUSTRY

CIVIL DEFENCE

MEDICAL

TELECOMMUNICATION
CHAPTER 8

CO-OPERATIVE LOGISTICS

INTRODUCTION

801. Co-operative logistics involves the pooling of national logistics capabilities more efficiently to support the armed forces of NATO countries. Ideally, co-operative logistics arrangements should meet at least one of the following criteria:

(a) They should offer peacetime benefits in the form of cost savings through economies of scale and greater efficiencies in logistics support, and should strengthen industrial bases.

(b) They should facilitate the implementation of specific reductions in military forces such as those related to CFE agreements.

(c) Even in light of a reduced or changing threat, they should enhance NATO's crisis management and wartime capability by alleviating known logistics shortfalls and meeting NATO's logistics goals.

802. In order to enhance the probability of successfully implementing co-operative logistics arrangements, they should have the following characteristics:

(a) They should be mutually beneficial to all participants. Each participant must gain something (reduced costs, increased jobs, etc.) from the arrangement, i.e. a "win-win" situation.

(b) They should be politically acceptable and consistent with national interests and policies.

(c) They should be economically sound, and be based on the comparative economic advantage of participating countries to provide goods and services at lower cost.

(d) They should clearly be militarily beneficial, and enhance NATO's capability to meet its future missions.

(e) Ideally, they should also have peacetime applications; this will maximize the degree of economic benefit and cost effectiveness inherent in co-operative arrangements.

(f) They should be tailored to the unique strengths and needs of each participating country.
803. In the light of declining defence budgets, force reductions, and the new NATO strategy with its more mobile and flexible forces capable of multidirectional deployments to all NATO regions, there is a need for greater co-operation, collaboration, elimination of duplication, and role specialization in the provision of logistics support to combat forces. This is especially true for the support of NATO multinational forces, which are a logical catalyst for co-operative logistics initiatives.

804. In this context NATO co-operative logistics activities could be defined as:

"the identification, negotiation, planning and implementation of collective logistics arrangements among nations, their forces or agencies."

805. Co-operative logistics therefore covers a wide range of activities which can be considered interrelated with, and/or supportive of, logistics support for the Alliance. Four distinctive areas within the NATO logistics field are discussed in this Chapter:

(a) NATO standardization;
(b) Logistics techniques;
(c) NATO Production and Logistics Organizations (NPLO); and
(d) Particular Responsibilities of NAMSO/NAMSA.

NATO STANDARDIZATION

806. NATO standardization is the process of formulating, agreeing, implementing and updating standards for use within NATO. NATO standardization is one means by which Alliance nations may develop their collective military capability. It carries additional political value as an outward demonstration of co-operation and solidarity. Although NATO standardization is voluntary and is not an end in itself, nations should aim to reach the highest level of standardization possible.

807. Aims

The overall aim of NATO standardization is to increase the effectiveness of the military forces of the Alliance. This overall aim has interacting military and economic (including industrial) components, and its attainment depends on political will:

(a) The military aim of NATO standardization is to increase the combined operational effectiveness of the military forces of the Alliance;
(b) The economic aim of NATO standardization is to increase overall efficiency in the use of available Alliance defence resources. This includes, among other things, increasing co-operation and eliminating unnecessary duplication among Alliance nations in research, development, production, procurement and support of defence systems and equipment.

808. Scope

NATO standardization is a broad process which may be applied to any NATO activity. NATO standards are normally classified into one of three main groups as follows, although some standards may apply to more than one group:

(a) **Operational standards** are those standards which affect future and/or current military practice, procedure or format. They may apply, among other things, to such matters as concepts, doctrine, tactics, techniques, logistics, training, organizations, reports, forms, maps and charts.

(b) **Materiel standards** are those standards which affect the characteristics of future and/or current materiel. They may cover production codes of practice as well as materiel specifications. Materiel includes complete systems (including weapons systems and supporting command, control and communications systems); sub-systems; assemblies, components, spare parts, and materials (ACSM); and consumables (including ammunition, fuel supplies, stores and consumable spares);

(c) **Administrative standards** primarily concern terminology - which apply to both the "operational" and the "materiel" fields - but this category also includes standards which facilitate Alliance administration in fields without direct military application (e.g. reporting of economic statistics).

809. General Considerations

NATO standardization is inherently a multi-national activity, requiring the harmonization of national points of view in order to achieve agreement, and a national commitment to implement. Established NATO bodies have an inherent responsibility to propose, formulate, progress and keep up to date those standards which apply within the fields covered by their Terms of Reference. NATO
nations are responsible for equipping and supporting their own military forces, and therefore only they can make ultimate decisions on the development, production and acquisition of materiel. These decisions are affected by complex national and international military, economic, technical and political factors. The Major NATO Commanders (MNCs) have a unique responsibility within the Alliance to plan for and, when necessary, to conduct combined military operations employing multinational forces. The MNCs therefore have an inherent responsibility to establish standardization requirements and to recommend priorities which enhance the combined operational effectiveness of the Alliance's military forces.

810. **Levels of Standardization**

In ascending order, four levels of standardization can be defined:

(a) **Compatibility** is the capability of two or more items or components of equipment or materiel to exist or function in the same system or environment without mutual interference.

(b) **Interoperability** is the ability of systems, units or forces to provide services to, and accept services from, other systems, units or forces and to use the services so exchanged to enable them to operate effectively together.

(c) **Interchangeability** is a condition which exists when two or more items possess such functional and physical characteristics as to be equivalent in performance and durability, and are capable of being exchanged one for the other without alteration of the items themselves, or of adjoining items, except for adjustments, and without selection for fit and performance.

(d) **Commonality** is a state achieved when groups of individuals, organizations or nations use common doctrines, procedures or equipment.

Thus standardized equipments belonging to different forces may be compatible, interoperable, interchangeable or common. They may be none of these, yet their components may be standardized, i.e. interchangeable or common, an importance advantage in maintenance and repair.

811. **NATO Standardization Process**

There are three primary actions which constitute the NATO standardization process:
(a) formulation (or update) of NATO standards;
(b) agreement on NATO standards by nations individually;
(c) implementation of agreed NATO standards as a matter of national policy.

812. Standardization Requirements/Objectives

In the past the standardization process was mainly based on the identification of deficiencies in standardization, generally accomplished by reporting up the chain of command results/lessons learned from exercises and operations. This bottom-up approach will continue but will be complemented by a top-down structure as part of the overall Alliance planning process. In this structure, standardization requirements developed by the MNCs and by individual nations will be transformed into precise Standardization Objectives for submission to and endorsement by the Council, as political intentions, after which they will be passed to NATO bodies involved in standardization for implementation.

813. The results of the standardization efforts are laid down in:
   - Standardization Agreements (STANAG); or
   - Allied Publications (AP), divided in various categories such as: Allied Administrative Publications (AAP), Allied Logistics Publications (ALP), Allied Medical Publication (AMP), Allied Engineering Publications (AEP), Allied Codification Publications (ACodP), Allied Fuel Publications (AFLP), and many more.

814. NATO Standardization Organization (NSO)

The NATO Standardization Organization is intended to centralize all activities in support of the many Committees and Groups which perform the actual standardization process within NATO. It establishes the necessary policies and standardization objectives, ensures that they are harmonized with existing Alliance defence planning disciplines, and promotes and monitors their implementation.

815. The primary objectives of the NSO are:
   (a) to ensure that Alliance Standardization Policy, with particular emphasis on interoperability needs, is clearly articulated, and its implementation monitored;
   (b) to establish a NATO Standardization Programme by ensuring that Standardization Objectives are properly developed and the necessary actions taken by appropriate groups;
(c) to give NATO standardization efforts a clear focus by seeking greater convergence between operational, materiel, procedural, technical, and administrative standardization initiatives;

(d) to promote the adoption of civil international or regional standards as NATO standards, and to collaborate with civil standards organizations to the greatest extent feasible;

(e) to act as the focal point for overall standardization matters related to the Partnership for Peace programme, peacekeeping operations and crisis management; and

(f) to act as the focal point for overall standardization matters with international institutions outside NATO, such as the United Nations and the Western European Union.

816. NATO Standardization Liaison Board (NSLB)

In order to meet the Council’s remit for enhanced co-operation across the spectrum of Alliance standardization, a Supervisory Body and a Co-ordinating Body (the envisaged NATO Standardization Liaison Board) will be established. The Co-ordinating Body will consist of NATO HQ staff personnel who support the various Standardization Tasking Authorities, such as the CNAD Main Groups, SNLC, NACISC and the MAS Naval, Army and Air Boards. An SNLC representative will be a member of this Board, with primary interest in the standardization of consumer logistics.

LOGISTICS TECHNIQUES

817. There are a number of materiel management techniques which are pre-requisites for, or support, the introduction of co-operative logistics measures. Some examples follow.

818. Codification

(a) Huge stocks with millions of individual items necessitate a system of handling that is fast, flexible and precise. The NATO Codification System (NCS) provides a uniform method of supply classification and item identification and is thus an ideal tool for logistics data management. It also helps inventory managers by simplifying supply and procurement procedures and can form a basis for standardization. A particular asset is the use of one number for one item in NATO projects, regardless of origin, which is essential for efficient cross-servicing. The system has resulted in a reduction of items and stocks, a decrease in management costs and an improvement in the determination of assets.
Use of the system is spreading to the civilian departments of governments, to international organizations and also to countries outside the Alliance.

The codification system is fully computerized and is based on the principle that the country of production codifies the item and makes the identifying data available to procuring countries. Data is exchanged between countries by computer media, which facilitates the maintenance of the data files which form the basis for the materiel management systems.

(b) The basis of the system is that each item of supply has:
- a single item name;
- a single uniform classification;
- a single uniform identification;
- a single uniform NATO Stock Number (NSN).

The NSN is based on the uniqueness of an item of supply and the identification of that item. It consists of 13 digits and is divided into three parts:
- the first four digits are the NATO supply classification code showing the relationship to other items;
- the next two digits indicate the national codification bureau or the NATO Agency that assigned the NATO Standard Stock Number (NSSN);
- the final seven digits are non-significant, but relate to one and only one item of supply within the codifying country.

(c) Example of a NSN: 1005-13-123-4567

1005 : NATO Supply Classification Code
13 : NATO Code for National Codification Bureau
123-4567 : Non-significant Number (National item identification number)

(d) National Codification Bureau numbers are:

- Belgium .......... 13  Netherlands .......... 17
- Canada .......... 21  Norway .............. 25
- Denmark .......... 22  Portugal ............. 26
- France .......... 14  Spain ................. 33
- Germany .......... 12  Turkey .............. 27
- Greece .......... 23  United Kingdom .... 99
- Iceland .......... 24  United States ..... 00/01/06
- Italy .......... 15  NATO ................. 11
Recent examples of developments in the codification area, or progress made, are:

(1) **Common User Items List (CUILs)**
- NATO CUILs are matrices to encompass end items/weapon systems related components and repair parts to portray the commonality of such items as:
  - Ammunition
  - Weapons/Equipment
  - Common components
  - Repair parts
  - Equipment devices.
- CUILs are designed to provide the user with visibility of areas where materiel interoperability exists.
- CUILs assist the Alliance by providing cross-reference documents of interoperable weapon systems, related components and repair parts; by providing the capability to determine the extent to which NATO forces can support each other with components and repair parts; by identifying areas of non-interoperability/interchangeability for evaluation and possible correction; by achieving the maximum level of interoperability, interchangeability and substitution repair parts among Alliance forces.
- NAMSA, on behalf of AC/135, the Group of National Directors of Codification, has completed a trial programme and has designed and put into place a computer system that permits the consolidation of this information.

(2) **NATO Master Cross-Reference List (N-MCRL)**
- The N-MCRL on Compact Disc (CD-ROM) improves the capability to retrieve and to exploit the codification information of all national codification offices by consolidating all codification information into one single integrated data base, and to publish this information on CD-ROMs for distribution to all NATO and non-NATO countries. The selection of data includes, amongst others:
NATO stocknumber
Item name
Reference number
Manufacturer code
Manufacturer name
Manufacturer’s address

- For this purpose an integrated codification database of selected codification segments has been designed and is operational at NAMSA.

- CD-ROMs are produced from this integrated database by NAMSA on behalf of AC/135, the Group of National Directors for Codification, and bi-monthly updates are produced.

- This initiative has a large potential for expansion to include supply management data as well as other segments of the NATO Codification System.

(3) **NATO Mailbox System (MBS)**

- The NATO MBS is considered as a common transit station serving the NATO Codification Data Exchange. It provides for a central hardware/software platform with various pre-defined connectivity options for subscribers; for an access to national codification databases (when established); and, for the handling of various protocol conversions.

- The NATO MBS is a responsibility of NAMSA, acting on behalf of the AC/135 Group of National Directors of Codification, by being the central routing point for various teletransmissions of codification data between countries and the Agency itself.

(4) **NATO Standard Stock Number System (NSSN)**

- Due to the fact that the codification of items is performed nationally, NATO Stock Numbers are also assigned for items that can be produced in any country. This specifically applies to items that are produced according to internationally agreed standards. As a result the NATO codification system has duplicate NATO stock numbers, whenever more than one country codifies an item.
- In order to eliminate this potential duplication, NATO has agreed that NAMSA assigns a NATO Standard Stock Number (same as a NATO Stock Number, but with country code 11) whenever a country recognizes items that are potential candidates for such a standard stock number.

- A system has been designed to support this procedure, and all NSSN's will be part of the NATO Master Cross Reference List (N-MCRL).

(5) NAIIEC (NATO Ammunition Interchangeability Information Exchange Centre)

- The NAMSO Board of Directors approved project NAIIEC based on recommendations of the Ammunition Interchangeability Working Party.

- NAIIEC envisages the establishment of a data base containing information required to determine interchangeability of ammunition.

- The development of such a data base was made possible on the basis of the integrated codification database N-MCRL.

- The information will be available on CD-ROM.

819. In-Service Support for Multinational Equipment Projects (ISMEP)

ISMEP is the management and execution of support activities to ensure continued attainment of the intended operational capability of the system/equipment during its in-service phase. The NATO Council has directed that the NATO general policy is, and should remain, that NAMSA is the principal agency for the in-service support for multinational equipment projects. There may be technical and/or economic reasons to entrust, in certain cases, in-service support tasks to the organization responsible for the production of the equipment. These particularly concern activities of a developmental type such as modifications and configuration management. As a consequence, in the case of multinational equipment projects, all proposals to deviate from the general policy of having logistics support provided by NAMSO must be discussed by the SNLC and/or CNAD prior to submission to the NATO Council.

820. Integrated Logistics Support (ILS)

ILS is the management and technical process through which supportability and logistics support considerations of systems/equipments are integrated from the early phases of, and
throughout the life cycle of the project, and by which all elements of logistics support are planned, acquired, tested and provided in a timely and cost-effective manner. It is NATO policy to ensure that financial and other resources required to maintain operational availability receive the same emphasis as those required to achieve performance objectives and timely delivery of the equipment. ILS is structured around the lifecycle management model as used in the Phased Armaments Programming System (PAPS) described in Chapter 6. The model portrays the total life span of a system, commencing with mission-need evaluation and extending through the in-service phase to its eventual disengagement. The model is applied to both commonly and jointly funded projects.

821. Logistics Support Analysis (LSA)
(a) LSA is a structured process which includes actions to define, analyse and quantify logistics support requirements, and to influence design for supportability throughout system development. It stresses simplicity and reduced logistics requirements, and the objective of LSA is to enable optimum system performance and availability at minimum life cycle cost. The LSA is conducted on an interactive basis throughout the acquisition cycle as studies, trade-offs, service advice, and test and evaluation lead to successive design refinement.
(b) During design, the analysis is oriented towards assisting the design engineering in incorporating logistics requirements into equipment design. This includes incorporation of key logistics-related design objectives, reliability, maintainability and testability.
(c) As the project progresses, the LSA process concentrates on providing detailed descriptions of specific resources required to support a system throughout its in-service phase by providing timely valid data for all areas of ILS. That data is used to plan, acquire and position support resources (personnel, funding and materiel) to ensure deployed systems meet their availability requirements.
(d) During the later production and in-service phases of the project, feedback data are used to review the continuing validity of data to ensure that Life Cycle Cost (LCC) plans are being realised.
822. **Life Cycle Costing (LCC)**

(a) LCC is the total sum of the direct, indirect, recurring, non-recurring and other related costs incurred, or estimated to be incurred, in the design, development, production, operations, maintenance and support of a major system over its anticipated lifespan.

(b) The LCC analysis is a typical task that starts early in the life cycle of the project and must be carried out throughout the entire life cycle of the system.

823. **Computer-aided Acquisition and Logistics Support (CALS)**

(a) CALS is intended to capture, store, and process, in digital form, all technical, logistical, financial, design, and manufacturing information relating to a weapon system from the early stages of the acquisition through to the end of its service life. Information is held in a database from which it can be extracted and manipulated to provide the engineering specifications, lists of spare parts, maintenance manuals and other support needed to build the weapon system and to keep it operational.

(b) NATO CALS may be described as a strategy to enable government and industry in the Alliance to move in a co-ordinated way to achieve the following objectives:

- the integration of design, development, production and support engineering and weapons systems support to reduce development/production lead times and costs.

- the near paperless flow of information between Alliance governments/forces and industry, and within industry in order to enhance communication, reduce lead times and ease collaboration between Alliance partners.

(c) CALS-like concepts and standards such as Association Européenne des Constructeurs de Matériel Aérospatial 2000 (AECMA 2000) already in use for the NATO Multirôle Combat Aircraft and the European Fighter Aircraft have a much more limited scope than CALS. It will therefore be necessary to study CALS-like systems to determine areas of compatibility or features that could enhance NATO CALS.
(d) A NATO CALS Management Board (NCMB) and a NATO CALS Office (NCO), sponsored by nations and created in 1993, are developing CALS policy. Inter alia, the NCO provides liaison on CALS matters with other NATO Committees, produces CALS implementation recommendations / programmes for NIAG studies, and is developing a set of common CALS standards for eventual integration into International Standards.

(e) NAMSA may play an executive and supporting rôle, and the establishment of a NATO CALS Information and Logistics Data Centre is under consideration.

824. **Stock Holding and Asset Requirements Exchange (SHARE)**

The NATO Stock Holding and Asset Requirements Exchange is a logistic support capability that, on the one hand, provides NATO users with a means of automatically screening materiel asset availability NATO-wide to satisfy urgent or routine, existing or future requirements, and, on the other hand, provides the participants in the logistics stock exchange with the means of reporting materiel asset availability for potential redistribution. The capability is therefore a true exchange comparable to the “Stock-Exchange”. Participants in the exchange are both potential sellers and buyers. This capability resides in a powerful and comprehensive EDP system that is available to all NATO users in the widest sense of the word and is accessible through international networks based on user identification numbers assigned to each user of the system.

**NATO PRODUCTION AND LOGISTICS ORGANIZATIONS (NPLO)**

825. NPLOs have been created by the NAC to carry out specific tasks. A list of current NPLOs is:

- **NAMSO** - NATO Maintenance and Supply Organization  
  (See Chapter 10 for more detail)
- **CEPS** - Central Europe Pipeline System  
  (See Chapter 13 for more detail)
- **NHPLO** - NATO HAWK Production and Logistics Organization
- **NAMMO** - NATO Multirole Combat Aircraft Development and Production Management Organization
- **NEFMO** - NATO European Fighter Aircraft Development Production and Logistics Management Organization
NAPMO - NATO Airborne Early Warning Control Programme Management Organization
NACISO - NATO Communications and Information Systems Organization
NACMO - NATO Air Command and Control System Management Organization
NAHEMO - NATO Helicopter Management Organization

Note: The merger of NAMMO and NEFMO is envisaged.

826. These organizations are subsidiary to the NATO Council. They are structured at two levels:

(a) a legislative level consisting of a Board of Directors (BOD) directly responsible to the Council and composed of representatives from participating nations, to provide policy guidance and to oversee the implementation of that policy; and

(b) an executive body, called the Agency.

PARTICULAR RESPONSIBILITIES OF NAMSO/NAMSA

827. The NAMSO Board of Directors has been tasked by the NAC to develop a mechanism further to expand and formalize the role that NAMSA will play, as required by nations, in co-ordinating bilateral and multilateral co-operative logistics initiatives. By accepting this task, NAMSA is now considering most of the projects mentioned in this Chapter and is also looking into other possible opportunities for co-operative logistics arrangements. As a result of this tasking a formal mechanism for facilitating co-operative logistics has been approved by the NAMSO Board of Directors.

828. Additionally, in order to foster co-operation amongst the various NPLOs with respect to logistics, NAMSA has been made lead-Agency to co-ordinate proposals to the Secretary General. A group of experts of the NPLOs met during 1991 and 1992 and brought out a final report that envisaged a first cautious step towards more co-operation. The NPLOs agreed to a phased implementation plan for the establishment of a NATO Common Item Management Programme.
REFERENCES

MC 20/8  The Military Committee Policy on Standardization
AAP-3(E)  Procedures for the Development, Preparation, Production and the Updating of Standardization Agreements (STANAGs) and Allied Publications (APs)
AAP-4  NATO Standardization Agreements and Allied Publications
ACodP-1  NATO Manual on Codification
ALP-10  Guidance on Integrated Logistics Support for Multinational Equipment Projects
STANAG 3150  Codification of Equipment - Uniform System of Supply Classification
STANAG 3151  Codification of Equipment - Uniform System of Item Identification
STANAG 4159  NATO Materiel Configuration Management Policy
STANAG 4188  NATO Materiel Configuration Management Procedures
AOP-6  Land Forces Ammunition Interchangeability Catalogue
CHAPTER 9

DETERMINATION OF LOGISTICS REQUIREMENTS AND LOGISTICS REPORTING

INTRODUCTION

901. This Chapter looks at the methods by which Alliance logistic objectives are decided and their achievement measured. They are measures nations agree to take to uphold the defensive strength of the Alliance and to indicate their common purpose. Every logistician in NATO will find himself taking part in this process. The method by which NATO goals are agreed through the Defence Planning Process is set out in detail below.

DEFENCE PLANNING PROCESS

902. Defence planning covers both the medium and the long-term. The medium term establishes the basic NATO force plan and the capabilities needed by NATO forces in the form of force goals. The long-term process establishes a basis for planning in the form of concepts and long-term planning guidelines. In determining the size and nature of their contribution to the common defence, member nations have full independence of action. Nevertheless, the collective nature of NATO's defence demands that, in reaching their decisions, governments take account of the force structure and capabilities recommended by the NATO Military Authorities, and adopted by the Defence Planning Committee (DPC), and of the medium and long-term military plans of their partners.

903. NATO's procedures for common force planning must take into account such factors as:
- the risk;
- the Alliance military requirements established by the NATO Military Authorities (NMAs);
- the best use of the available resources;
- advances in science and technology;
- a rational sharing of the defence burden among member countries;
- the recognition that force plans have to be within the economic and financial capabilities of nations.
904. NATO force planning is based on three major elements:

(a) **Ministerial Guidance**, issued every two years, is followed by;

(b) **Force Goals**, covering a six year period, which are adopted every two years; and

(c) **Annual Defence Review**, leading to an agreed NATO force plan for the succeeding five year period, the first year of which is a firm commitment of forces to NATO by each nation.

905. It is important to remember that the process is a continuing cycle by which planning is reviewed and projected each year for a period five years ahead. The outline below sets out the sequence of events, using the development of the Ministerial Guidance as a starting point.

(a) The Military Committee prepares the Military Appreciation based on military factors and considerations likely to affect force structures, deployments and equipments during the period under review. This Appreciation is published in even numbered years.

(b) Taking this Appreciation into account, as well as the Economic Appreciation and other factors that have a bearing on defence efforts, the Defence Review Committee (DRC) drafts the Ministerial Guidance, which is agreed and issued by Ministers in the Spring of the following odd numbered year. This political guidance, issued to both nations and NMAs, governs the preparation of force proposals for the relevant planning period. It includes the political and economic factors affecting the development of NATO forces over the period. Of particular importance is the resource guidance which becomes the fundamental baseline for the ensuing Force Goals.

(c) In the Autumn, major NATO Commanders publish their draft Force Proposals (which have already been discussed on a "bilateral" basis with nations).

(d) During the Winter and Spring, the draft Force Proposals are reviewed by the Military Committee, at which time their military validity and conformity with the Ministerial Guidance is assessed. Subsequently, they are considered by the Defence Review Committee (DRC) and modified where necessary to reflect political and economic realities. The draft Force Proposals are adopted by the Defence Planning
Committee (DPC) in Permanent Session as new NATO Force Goals and endorsed by Ministers at their Spring meeting.

(e) Following this, nations use the NATO Force Goals as the basis for reporting their Force Plans for the next five-year period commencing in December of that year.

(f) These national Force Plans are forwarded to NATO Headquarters in the national responses to the annual Defence Planning Questionnaire (DPQ) and are analyzed by both the Military Authorities and the International Staff. Where differences occur between the national plans and NATO Goals, a first attempt is made to reconcile them by the International Staff, the International Military Staff and representatives of major NATO Commanders, together with representatives of the individual nations concerned. These are called the “trilateral discussions” and are generally held in capitals.

(g) The results of this examination are then passed to the Defence Review Committee (DRC) which attempts to eliminate any remaining differences in “multilateral meetings” at NATO Headquarters. All nations participate, supported by the International Staff, International Military Staff and NATO Military Authorities.

(h) After the “multilateral” examinations, the Defence Review Committee prepares a “Country Chapter” on each nation and a General Report for the Defence Planning Committee, setting out how far nations have been able to meet the Force Goals, and where and why shortfalls have occurred.

(i) At the same time, the Military Committee reports to the Defence Planning Committee on the military suitability and the military risk associated with the emerging Alliance-wide five-year Force Plan.

(j) In the light of both these reports, the Defence Planning Committee (DPC) recommends a five-year Force Plan for Ministers to consider.

(k) Ministers review the Defence Planning Committee recommendations from the aspects of political balance, economic feasibility, acceptability and associated degree of risk. The five year Force Plan then becomes the basis for national defence planning over the whole period and, as stated above, becomes a firm commitment of forces by each country for the first year.
It should be noted that, in the Autumn of the next year ("Ministerial Guidance year"), nations will report for a second time against the same Force Goals, with emphasis on major changes in defence policy and in the level of implementation.

**NATO STOCKPILE PLANNING GUIDANCE (SPG)**

906. Although Ministerial Guidance and the Force Plan can be considered as the "master documents" in NATO planning, they may still need clarification or definition. Statements like "nations should hold a minimum stock level of ammunition" or "nations should provide sufficient logistic units to support their combat forces" mean little by themselves. Some standard of measurement is necessary to clarify what the statement means. This is achieved by:

- MC 55/3 "Readiness and Sustainability Factors"
- MNC Stockpile Planning Guidance for Land and Air Forces
- NATO Stockpile Planning Guidance for Maritime Forces

(Other documents are in use but these three are the most important for logisticians).

907. MC 55/3 "Readiness and Sustainability Factors" addresses readiness criteria and sustainability parameters to be used in force operational and logistics planning. The main logistic elements covered by MC 55/3 are munitions, POL, other materiel and medical support.

908. MNCs are responsible for providing nations with sustainability guidance that reflects current risks and capabilities and for co-ordinating input from nations, who should keep MNCs informed about their national logistics elements of sustainability.

909. **Methodologies**

(a) **Level-of-Effort Methodology**

The stockpile calculations are based on expected daily expenditure rates, the number of combat days, and the attrition rate, to counter targets of which the number is unknown.

(b) **Lifetime-Oriented Methodology**

These are stockpile calculations based on the finite life of weapons in combat, the number of weapon-systems, the average number of engagements, and the sum of expended munitions fired by the weapon-systems during their engagements until they are destroyed.
(c) **Target-Oriented Methodology**

The stockpile calculations are based on an agreed mathematical model in order to defeat a finite, assessed number of targets.

**MNC SPG**

910. **Stockpile Requirements**

(a) Stockpiling of munitions, fuels and lubricants (POL), and other materiel may be considered as materiel sustainability.

(b) MC 55/3 states that nations should maintain expendable and non-expendable supplies to sustain combat by their forces in support of NATO against the potential risk capabilities identified.

(c) Stockpile requirements for munitions are determined by MNCs in consultation with the nations using threat- or target-related calculation methodologies. Other munition requirements not covered under these methodologies are determined jointly by MNCs and the nation(s).

(d) To guarantee the continued availability of fuels to support NATO operational plans, nations make arrangements to meet fuel requirements prior to hostilities by establishing minimum operational stocks of fuel under the control of military authorities, and by developing a valid resupply plan to acquire additional fuel from civil resources.

(e) Finally, where no guidance is given by MNCs, national planning factors apply.

911. **Responsibilities**

(a) **SHAPE.** SHAPE, OPS/LOG Division, is the lead MNC for Air Defence, Air-to-Ground, and Land Forces Stockpile Planning Guidance. Each guidance determines the ammunition requirements for specified forces at Transfer of Authority (TOA). SHAPE maintains the computer-based stockpile planning models and updates the database of information required to determine the national stockpile requirements.

(b) **SACLANT.** SACLANT, Logistics Branch, is the lead MNC for Maritime Forces Stockpile Planning. Maritime Stockpile Planning Guidance determines the ammunition requirements for NATO maritime forces at TOA. SACLANT maintains the computer-based stockpile planning models and updates the database of information required to determine national maritime stockpile requirements.
(c) **Nations.** MNC stockpile planning guidance documents and processes are co-ordinated with nations in the appropriate stockpile planning fora. Nations also provide valid input data and parameters required for operation of the computer models used in determining stockpile requirements.

(d) **MSCs.** MSCs contribute to the development and update of stockpile data and planning processes. MSCs assess and evaluate the logistics sustainability of nationally committed forces using the guidance documents.

**MANPOWER SUSTAINABILITY**

912. Manpower sustainability will be aided by the prevention of sickness and disease, the rapid treatment of the sick and injured and their return to duty. This requires a medical support system that continuously evaluates intelligence and medical information about possible deployment areas and maintains a readiness and deployment posture equal to the force it supports. The medical system must be in balance with the forces strength and exposure to risk. Early deployment of medical units and aeromedical evacuation requirements may compete for many of the same transportation assets as those needed for the movement of combat and combat support forces. This requires prioritization in movement.

**ACE REPORTING**

913. The reporting procedures are currently laid down in ACE Directive (AD) 80-50, Volume 6. The adoption of a revised force structure within ACE and the new logistic principles and policies have highlighted the need to review the future requirements for logistic reporting in ACE. In addition, several other policy and conceptual documents also indicate a potential need for changes to the frequency, content and procedures covering ACE logistic reporting. Working Groups have been established to revise AD 80-50, Volume 6, which will become Volume 5 of the revised AD 80-50.

**MARITIME REPORTING SYSTEM (MARREP)**

914. MARREP is intended to facilitate the flow of maritime information between MNCs and their subordinate commands, MODs, NATO and national naval headquarters. The object is to promulgate a system that is:
- standard to all NATO and participating national Maritime Commands;
- unambiguous in format and content;
- suitable for both manual and automated use;
- flexible enough to ensure essential information is provided.

915. The majority of logistic reports submitted by nations to NATO Maritime Commanders in peacetime are included in national responses to the Defence Planning Questionnaire.

916. In tension or war, the following reports are submitted:

(a) **LOGSUM (Logistic Summary)**. Sent daily from Task Groups to PSCs and nations, covering logistic status and readiness of assigned maritime forces.

(b) **LOGSUPREP (Logistic Support Report)**. Sent by MODs to MNCs and MSCs to provide timely information on logistic support for afloat maritime forces under NATO command.

(c) **LOGSHORE (Logistic Shore Facility Report)**. Sent by nations to inform NATO Commanders of the status of stocks on hand in NATO infrastructure facilities and in national facilities available for NATO forces within an MSC's geographic area.

(d) **LOGASSESSREP (Logistics Assessment Report)**. Sent daily by the MSCs to the MNC where it is consolidated and forwarded to NATO Headquarters, Brussels. It is the NATO Commanders' overall assessment of logistic sustainability.

(e) **LANDFORLOGSUM (Landing Force/Land Force Logistics Summary)**. Sent daily by the NATO Commander having operational control of Landing Force/Land Forces to MSCs and PSCs. Serves the same purpose as the LOGSUM but is tailored to the landing force mission.

(f) **MNLC LOGSUMREP (Multinational Logistic Commanders Logistic Summary Report)**. Sent daily by the MNLC to the MSCs and forwarded to the MNC, as necessary. It is the MNLC's overall assessment of shore-based logistics in support of the MNMF afloat.

(g) **ALSS/FLS OPSTATREP (Advance Logistic Support Site/Forward Logistic Site Operational Status Report)**. Sent daily by the ALSS/FLS commander to the MNLC where information is consolidated and forwarded to the MSC, as necessary. It is the ALSS/FLS commanders' overall status of daily activity at the site as it relates to the movement of PAX, mail and cargo.
REFERENCES
MC 55/3 Readiness and Sustainability Factors
MNC Stockpile Planning Guidance for Land and Air Forces
MNC Stockpile Planning Guidance for Maritime Forces
AD 80-50, Volume 6, ACE Reporting Procedures (to become Volume 5)
Maritime Reporting System (MARREP)
CHAPTER 10

SUPPLY, MAINTENANCE AND REPAIR

INTRODUCTION

1001. This chapter deals with certain basic functions of supply, maintenance, and repair in NATO.

Supply covers all materiel and items used in the equipment, support and maintenance of military forces.

Maintenance means all actions taken to retain materiel in or to restore it to a specified condition. It includes: inspection, testing, servicing, classification as to serviceability, repair, rebuilding and reclamation; all supply and repair action taken to keep a force in condition to carry out its mission; and, the routine recurring work required to keep a facility (plant, building structure, ground facility, utility system, or other real property) in such condition that it may be continuously utilized, at its original or designed capacity and efficiency, for its intended purpose.

Repair includes all measures taken to restore materiel to a serviceable condition in the shortest possible time.

1002. Civil Resources and Dual Use

In times of limited defence expenditure, the effective management of both the civil and the military resources capable of supporting forces will be essential. Efforts should be made to maximize the availability of civil resources, and an appropriate balance must be struck between military self-sustainability and supplementary provision from the civil sector. Dual use will generally offer possibilities for cost-effective supply and maintenance support.

SUPPLY

1003. Classes of Supply

NATO classes of supply are established in the five-class system of identification as follows:

Class I

Items which are consumed by personnel or animals at an approximately uniform rate, irrespective of local changes in combat or terrain conditions, e.g. food and forage.
Class II
Supplies for which allowances are established by tables of organization and equipment, e.g. clothing, weapons, tools, spare parts, vehicles.

Class III
Fuel and lubricants for all purposes, except for operating aircraft or for use in weapons such as flamethrowers, e.g. gasoline, fuel oil, greases, coal and coke.
(Class IIIa - aviation fuel and lubricants.)

Class IV
Supplies for which initial issue allowances are not prescribed by approved issue tables. Normally includes fortification and construction materials, as well as additional quantities of items identical to those authorized for initial issue (Class II) such as additional vehicles.

Class V
Ammunition, explosives and chemical agents of all types.

Note: Some nations use different Classes of supply. A table of correspondence can be found in STANAG 2961.

MAINTENANCE AND REPAIR
1004. The operational effectiveness of land, naval and air forces will depend to a great extent on a high standard of preventive maintenance, in peacetime, of the equipment and associated materiel in use. In crisis or war, an efficient maintenance organization is an essential component of NATO's defensive capability; NATO Commanders should therefore:

- have full information on maintenance and repair facilities in their Commands
- encourage nations to make bilateral/multilateral agreements in peace to cover use of repair facilities in wartime;
- ensure that cross-servicing facilities and procedures are exercised at every opportunity;
- ensure that information/arrangements exist to transfer repair loads from one nation's facilities to another.

1005. Effective repair depends on a systematic though flexible application of the following:
- use of standard procedures;
- inspection of defective material for damage assessment;
- repair priorities, and urgencies;
- decision on the location of repair;
- provision of required spare parts; and
- organization and flow of repair operations.

**BATTLE DAMAGE REPAIR**

1006. Battle Damage Repair (BDR) is an important element in maintaining materiel availability during operations. It is designed to restore damaged materiel to a battleworthy condition, irrespective of the cause of the failure, as quickly as possible. Damage assessment has to be done rapidly and must not always require the use of automated test equipment or sophisticated tools. The considerations are primarily aimed at limiting the damage, determining the cause of the damage, establishing a plan for damage repair, and minimizing the risk to equipment and operators. Once the operational mission has been accomplished, BDR must be followed by specialized maintenance or repair to restore the equipment to fully serviceable condition.

1007. The likely success of BDR may be improved in peacetime by training, testing of techniques for the assessment of damage and for rapid repair, assembly of appropriate stocks (materiel, spare parts, equipment), the exchange of experience at all levels, and the design of BDR tools and materials. Co-operative and/or HNS arrangements may improve BDR capabilities.

1008. **Airfield Damage Repair (ADR)**

(a) Standardized procedures for methodology and criteria to assess ADR requirements at individual airfields used by NATO have been developed. The relevant STANAG 2929 covers reconnaissance, explosive ordnance disposal, repair of minimum operating strip and other parts of the minimum aircraft operating surface, and the restoration of services essential to sortie generation. The agreement applies to all NATO airfields, airfields scheduled for deployment of NATO aircraft, and to aerial ports of embarkation/disembarkation.

(b) In principle, ADR is a host nation responsibility; however, where no capability exists, incoming forces using an airfield for operations are responsible for providing the equipment.
personnel and material required to establish an ADR capability either through their national resources, or through bi/multilateral support arrangements with the host or other nations.

(c) Assessment of the required ADR capability is based upon four factors: mission of the airfield; geographical location of the airfield; local air defence measures; redundancy at the airfield.

1009. Weapon System/Equipment BDR (Land)

NATO HQ, in co-operation with nations and NMAs, is developing a number of STANAGs which will help collectively to intensify the co-ordination/co-operation of available civil/military repair and recovery resources:

- STANAG 2375 Vehicle Battlefield Recovery Data (AEP-13);
- STANAG 2399 Battlefield Recovery;
- STANAG 2400 Battlefield Recovery User Handbook (AEP-17);
- STANAG 2418 Battle Damage Repair Policy.

More aspects of battlefield maintenance will be covered in the future, and aspects of interoperability of maintenance organizations, methods, and repair parts systems at the tactical and technical (battalion and brigade) level will be considered.

1010. Battle Damage Repair (Air)

STANAG 2407 - Helicopter Battle Damage Assessment and Repair, arranges for the best possible repair taking into account the resources and time available, the environmental conditions, and operational requirements. To achieve this it is necessary to carry out sufficient repairs to the aircraft to enable it to fly at least one additional sortie, to carry out repairs in the shortest timescale possible, and to remove any handling danger arising from non-critical damage (e.g. clean up cut edges, weatherproofing, etc.).

EXPLOSIVE ORDNANCE RECONNAISSANCE/EXPLOSIVE ORDNANCE DISPOSAL (EOR/EOD)

1011. EOR is reconnaissance involving the investigation, detection, location, marking, initial identification and reporting of suspected unexploded explosive ordnance, by EOR agents, in order to determine further action. EOD is the detection, identification, on-site evaluation, rendering safe, recovery and final disposal of unexploded explosive ordnance. It may also
include explosive ordnance which has become hazardous by
damage or deterioration. A major achievement has been the
creation of the NATO EOD Technical Information Centre
(EODTIC) which holds records of all past and present ammunition
and explosives, and provides an immediate advisory service on
EOR/EOD problems.

AIRCRAFT CROSS-SERVICING

1012. An aircraft cross-servicing system is in operation
at NATO. In general terms, the system enables aircraft of one
NATO nation to be serviced at the airfields of another. Because
of the different technical equipment required (specialized
refuelling equipment, calibration sets, etc) the system does not
allow all NATO aircraft to be serviced at all NATO airfields. It
does, however, indicate which airfields can provide facilities for
specified aircraft, through publications that are regularly updated.
Aircraft cross-servicing falls into two categories:

(a) **Stage A Cross-servicing**: the servicing of aircraft on
airfields/ships which enables flights to be made to another,
replenishment of fluids and gases, drag chutes (if applicable),
starting facilities and ground handling.

(b) **Stage B Cross-servicing**: the servicing of aircraft on
airfields/ships, which enables the aircraft to be flown on an
operational mission. The service includes all Stage A services
plus the loading of weapons and/or film, including the processing
and interpretation of any exposed film from the previous mission.

CENTRALIZED SUPPLY AND MAINTENANCE

1013. Whenever weapon systems are used by more than
one nation, a co-ordinated approach to logistics is recommended.
Not only can logistics resources be shared, but by consolidating
supply and maintenance requirements, unique opportunities are
created to reduce investment and operating costs.

1014. The NATO Maintenance and Supply Organization
(NAMSO) was created as a multinational logistics organization
for the provision of co-ordinated supply and maintenance
management and services. The NATO Maintenance and Supply
Agency carries out the functions as the executive agent of
NAMSO. It is located in Capellen, Luxembourg and Taranto,
Italy, and is staffed by some 1,100 civilian maintenance, supply,
and administrative personnel.
1015. NAMSA has successfully demonstrated its capabilities over the last 35 years and offers a large variety of services such as central storage, codification, inventory management of stocks, redistribution of assets, mutual emergency support, in-house and contractual maintenance, as well as calibration and configuration management. Customers who avail themselves of the services of NAMSA control the degree of use of these services and set management control criteria against which they (the customers) evaluate NAMSA's performance. Customers normally organize themselves into "Weapon System Partnerships" or "Support Conferences" for the co-ordination of support for particular weapon systems or logistics functions.

REFERENCES

STANAG 2034  Land Forces Procedures for Allied Supply Transactions
STANAG 2134  Explosive Ordnance Reconnaissance/Explosive Ordnance Disposal
STANAG 2135  Procedures for Emergency Logistics Assistance
STANAG 2375  Vehicle Battlefield Recovery Data (AEP-13)
STANAG 2391  EOD Explosive Ordnance Disposal Operations on Fixed Installations - AEODP-5
STANAG 2399  Battlefield Recovery
STANAG 2400  Battlefield Recovery User Handbook (AEP-17)
STANAG 2407  Helicopter Battle Damage Assessment and Repair
STANAG 2418  Battle Damage Repair Policy
STANAG 2929  Airfield Damage Repair
STANAG 2961  Classes of Supply for NATO Land Forces
STANAG 3113  Provision of Support to Visiting Personnel, Aircraft and Vehicles
STANAG 3430  Responsibilities for Aircraft Cross-Servicing
ATP-16  Replenishment at Sea
ALP-9  Land Forces Logistics Doctrine
CHAPTER 11

MOVEMENT AND TRANSPORTATION

INTRODUCTION

1101. Mobility is more than just movement or transportation; it is the whole spectrum of infrastructure, facilities, air and sea lift, command and control, and equipment which is necessary for the reception and onward movement of reinforcing forces. The concept of mobility, which is a cornerstone of the Alliance's operational concept, requires investment in resources, facilities and equipment. If inland movement assets and air/sea port clearance operations are less than optimum, a blockage could be created which would impede the strategic transportation system and impede timely support to the tactical commander. The need for co-ordination of NATO movement and transportation planning in support of overall mobility stems from the consequences of the new Alliance strategy. Specifically:

(a) the multinational character of Alliance forces requires co-ordination and co-operation, not competition, for movement and transportation resources;

(b) the flexibility inherent in the selection of NATO forces and the undetermined nature and location of potential risks to the Alliance limits the capability for detailed movement and transportation planning. The greater reliance that this places upon the ability of Alliance forces to be deployed quickly requires close co-ordination throughout NATO; and

(c) the limited availability of military transport resources underlines the continuing need for close co-ordination between military and civil agencies for support to NATO military operations.

1102. It is essential that logistic support planning be developed parallel to, and in conjunction with, operational planning to ensure mutual compatibility. In this regard, particular emphasis must be placed on the identification of operational movement requirements to military and civil support planners. This will require close co-operation between the NATO Military Authorities, including the ACE Reaction Forces Planning Staff, NATO Headquarters Civil Emergency Planning Directorate and the nations. Moreover,
it will be important to ensure overall policy co-ordination of reinforcement planning at NATO Headquarters, taking account of the new requirements for crisis management resulting from the Strategic Concept and any subsequent changes in the politico-military situation.

MOVEMENT AND TRANSPORTATION PRINCIPLES

1103. The following principles apply to movement and transportation support to NATO mobility:

(a) **Collective Responsibility.** National and NATO Authorities have a collective responsibility for movement and transportation support to NATO operations. Specific responsibilities are:

1. **National Responsibility.** With the exception of NATO-assigned multinational headquarters (which are approved for NATO common-funded support), the responsibility for obtaining transportation resources, and for planning and controlling the movement of national forces, and national components of multinational forces, remains primarily with the nation. This principle must be tempered by the need for co-operation, co-ordination and economy, and may include co-operative arrangements initiated by NATO Commanders.

2. **NATO Responsibility.** NATO Commanders are responsible for initiating, prioritizing, co-ordinating and deconflicting the deployment, sustainment (resupply) and redeployment of their respective forces. This must be done in co-operation with the nations, to include planning for movement of multinational headquarters when tasked by appropriate authority.

(b) **Co-ordination.** Co-ordination of movement and transportation between NATO and national military and civilian authorities is essential, and must be carried out at all appropriate levels.

(c) **Co-operation.** Co-operation among national and NATO authorities, both military and civilian, is essential. Such co-operation can be of a bi- or multilateral nature.

(d) **Economy.** Logistics resources must be used effectively, efficiently and economically.
(e) **Efficiency.** The optimal use of military and civilian resources must be obtained. The complementary nature of airlift, sealift, and inland surface transport resources must be taken into consideration.

(f) **Flexibility.** Movement and transportation planning and execution must be capable of reacting in a timely manner to dynamic changes in the operational situation and requirement.

(g) **Transport Compatibility.** When possible, units and formations with a mobility role should have equipment designed to be compatible with available transport resources.

(h) **Visibility.** Information exchange of movement and transportation data between military and civil national and NATO Authorities is essential for the efficient support of movement and transportation tasks.

(i) **Operational Primacy.** Movement and transportation planning and execution must be tailored to satisfy the overall requirements of the mission.

(j) **Simplicity.** Plans and procedures should be made as simple as possible.

(k) **Standardization.** Standardization is a pre-requisite for successful movement and transportation. This applies as much to systems, data and software as it does to procedures, equipment and hardware.

MOVEMENT AND TRANSPORTATION POLICIES

1104. **General Policies**

(a) NATO and national military and civil authorities are responsible for the development of policies, procedures and organizations for the movement and transportation of NATO forces.

(b) Movement and transportation planning to support military operations should be carried out and coordinated on a combined service and joint military/civil basis encompassing all modes of transport. Separate planning for maritime, land and air components of force packages should be avoided.

(c) With the exception of NATO-assigned multinational headquarters (which are approved for NATO common-funded support), nations remain primarily responsible for providing sufficient movement and transportation
resources for the deployment of their forces. Nations, however, should co-operate with NATO to ensure that resources made available for the deployment, resupply and redeployment of forces are co-ordinated at the appropriate level and are responsive to the NATO Commanders requirements.

(d) Movement and transportation planning and execution should be supported by standardized and harmonized procedures. This is of particular importance when crossing international borders. Furthermore, multi- or bilateral transport support agreements among nations should be developed to facilitate movements.

(e) NATO and National Military Authorities will be responsible for operational support planning. Movement and transportation planning for NATO operations should be prioritized and co-ordinated by the appropriate NATO Commander.

(f) Optimum use should be made of both military and civil transport resources, facilities and infrastructure, including host nation support.

(g) Nations are invited to ensure that national legislation or other arrangements cater sufficiently for the acquisition of movement and transportation resources in peace, crisis, and war. NATO will monitor and advise nations on the harmonization of legislation or other national measures appropriate to support Alliance movement and transportation capabilities.

(h) Planning to ensure the required degree of Alliance strategic and operational mobility should consider the possibility of static or mobile prepositioning of stocks, material, and equipment in order to improve movement and transportation reaction time.

(i) Movement and transportation planning will be as specific as possible, while retaining the necessary flexibility required by NATO’s Concept of Reinforcement. There will be greater reliance on movement and transportation planning based on generic and ad hoc operational planning requirements, which will place more emphasis on capability planning.

(j) Appropriate NATO Commanders will evaluate and report on the effectiveness of military arrangements, both NATO and national, in support of the Alliance’s movement and transportation requirements.
Military transportation resources that are not committed for national requirements should be made available to the appropriate NATO Commander.

1105. Civil Support to the Military - Policy

(a) National and NATO military movement and transportation organizations should make arrangements to gain early access to civil advice (when required) for operational support planning.

(b) Civil support to the military will be of critical importance in achieving the desired flexibility in support of Alliance policy. The military will, at the appropriate level, require the close co-operation of the Alliance movement and transportation bodies of Civil Emergency Planning (CEP) to assess and define the capability, availability, and feasibility of civil transport support to the military.

(c) Nations should make arrangements for close and well structured co-operation between national military and civil authorities.

1106. Resource Acquisition - Policy

(a) Nations will be primarily responsible for the provision of transportation resources. National operational support planning should involve appropriate national civil as well as military transport authorities in the acquisition process, which should extend as appropriate to both national and non-national sources. Nations should consider:

(1) entering into bi- or multilateral agreements with other nations concerning the provision of movement and transportation resources;

(2) applying to the appropriate Allied Command for access to military transportation resources made available by other nations, to include any agreed arrangements for pooling of military transportation resources;

(3) making appropriate arrangements for gaining access to civil transport resources in times of peace, crisis, or war or by using normal commercial practices to the maximum extent, including possible use of both non-NATO nations transportation resources and contractual arrangements that become operative under specific conditions;
on advice from NATO HQ, approach the civil transportation market through a centralized co-ordinating body thus acquiring resources in accordance with operational priorities and avoiding nations competing for scarce resources;

that if it appears that the commercial transport market may be unable to meet requirements, arrangements will be required for controlling or redirecting civil resources. These may be constitutional, statutory, or contractual, and may include bi- or multilateral or Alliance arrangements; and

reporting to the appropriate NATO civil authorities, those civil resources which may be available for co-ordinated use.

Given that civil transportation resources normally operate in market conditions, NATO and national authorities will need to continue to devise collective arrangements which ensure that suitable civil resources can be quickly and reliably obtained in peace, crisis, or war.

The nation using a transportation resource of another nation is responsible for reimbursing the nation or agency providing that resource, if such reimbursement is required.

1107. Command and Control of Movement and Transport Resources - Policy In order to take full advantage of national and NATO command, control, and communications systems, operating procedures and support arrangements, the following policies will be applied to the command and control of military movement and transportation resources:

(a) the command and control of military movement and transport resources will remain with the owning nations unless nations have made other command arrangements with NATO authorities;

(b) nations should make available for MNC co-ordinated mission assignment those military movement and transportation resources which are not required to meet national tasks;

(c) the MNC will prioritize movement and transportation tasks (to include general co-ordination and deconfliction
of movements involving multinational or separate national elements), and seek co-operative use of movement and transport resources as required to meet the NATO Commanders' requirement; and

(d) the MNC will provide mission assignment to nations, who will undertake operational command and control, and detailed mission tasking of movement and transportation resources.

1108. Communications and Automated Data Processing (ADP) Support - Policy

(a) Secure and interoperable communications and ADP facilities must be provided to support the acquisition of movement and transportation resources, and to enable appropriate planning, control and co-ordination to be carried out with the flexibility demanded by the NATO Concept of Reinforcement.

(b) NATO and national movement and transportation authorities must continue to support work to develop a network of national and NATO communications systems, in order that allied and national movement and transportation staffs can communicate rapidly for planning and execution.

(c) To be viable, the communications and ADP systems must provide commanders with timely information concerning status of force deployment, availability of transportation resources and status of the lines of communication.

(d) Linkage must exist between military and civil transportation authorities and communications networks.

(e) Communications and ADP support programmes concerning movement and transportation systems should be incorporated within the overall ACE automated command and control information system (ACE ACCIS) architecture.

(f) Nations should continue to support the development of the ACE Deployment and Movement System (ADAMS), and to establish an ADP network linking key movement and transport agencies within the Alliance.
MOVEMENT AND TRANSPORTATION TASKS AND RESPONSIBILITIES

1109. NATO HQ. Because of the presence of the North Atlantic Council (NAC), the Defence Planning Committee (DPC) and national delegations, NATO Headquarters is the preferred choice to:

(a) formulate, provide guidance on and approve missions (through the NAC/DPC as appropriate) in support of NATO operations;

(b) advise on the availability and use of civil transportation resources and related infrastructure in support of both military and civil tasks;

(c) assist in the acquisition of civil resources by, but not limited to, co-ordination with MNCs, national delegations and the civil transportation management organization of the SCEPC and, during crisis, its Civil Emergency Crisis Cell (CECC);

(d) harmonize and standardize civil procedures relating to transport for defence purposes; and

(e) prepare for transition to the operation of NATO Civil Wartime Agencies (NCWAs) in case of a major conflict.

1110. MNCs

(a) Provide, if required, a central organization at the MNC level for co-ordinating, prioritizing and deconflicting movement activity and establish appropriate, similar organizations at Major Subordinate Command (MSC) and Principal Subordinate Command (PSC) levels. (The functions of the ACE Mobility Co-ordination Centre (AMCC) are shown for information at Annex A.)

(b) Develop movement and transport policies, procedures, tasks and responsibilities with nations, NATO HQ (including the SCEPC) and the other MNC, and subordinate commands. This includes advising and assisting in the development of bi- or multilateral agreements and arrangements.

(c) Prioritize and co-ordinate the integrated use of movement and transportation resources made available by National Military Authorities for co-operative use.

(d) Develop operational support plans to ensure the flexible use of both military and civil movement and transportation resources.
(e) Prioritize, co-ordinate, and deconflict the use of movement and transportation resources where necessary during the activation and execution of deployment plans to ensure the desired movement of forces.

(f) Identify to NATO HQ the prioritized military requirements for civil lift resources in support of national force requirements.

(g) Evaluate, and advise SACEUR’s Command Group, on the adequacy of plans and arrangements within respective areas of operational responsibility for execution of strategic and operational movements in support of Alliance operations.

(h) Plan for the movement of NATO-assigned multinational headquarters, including the arrangement of movement and transportation resources.

1111. Nations

(a) Sending Nations

(1) Plan and control the movement of national reinforcing forces and national components of multinational forces, taking into account the NATO Commanders’ requirements.

(2) Determine movement requirements and make necessary transportation arrangements; then identify to MNCs the shortfalls and surpluses in national movement and transportation resources to meet unforeseen Alliance movement options in peace, crisis or war.

(3) Control and operate civil and military transportation resources for national and Alliance support.

(4) Respond to MNCs requests to allocate transportation resources to another nation, in order to meet MNC priorities.

(5) Identify and report, to NATO military and civil transportation authorities respectively, the status of national military and civil movement and transportation resources and infrastructure.

(b) Host Nations

(1) Control and co-ordinate movement of Alliance forces on their own territories taking into account NATO Commanders' requirements.

(2) Make necessary arrangements and co-ordinate with neighbouring nations to facilitate border crossing.
Control and operate national civil and military transportation resources for national and Alliance support.

Provide an appropriate organization for the coordination of movement and transportation with NATO commands and Alliance forces.

Review their requirements for plans and legislation (to the extent possible) in order to facilitate the use of national civil/military resources during a NATO operation within their territory with respect to transportation, infrastructure and other related resources.

Identify and report, to NATO military and civil transportation authorities respectively, on the status of national military and civil movement and transportation resources and infrastructure.

CIVIL SUPPORT TO MILITARY MOVEMENT AND TRANSPORTATION PLANNING

1112. The framework to provide a proactive civil response to Alliance movement and transportation requirements exists within the SCEPC, which has well-established links between the military and civil transport agencies. Peacetime operational support evolves from the Civil Emergency Planning Directorate (CEPD) of NATO HQ. During a crisis situation and upon direction from the NAC, or request from a nation, the SCEPC activates as required the Civil Emergency Crisis Cell (see Chapter 7). The military would expect a civil transportation management organization under SCEPC that would perform at least the following functions:

(a) advise and assist NATO and nations on the capabilities and use of civil strategic and operational transportation resources;

(b) conduct on-request civil movements and transportation feasibility studies in support of NATO and national operations;

(c) advise on harmonization of the implementation of legislation (or other national mechanisms as appropriate) for Alliance movement and transportation co-operation;

(d) manage any Alliance effort at establishing programmes for precommitted civil lift assets;

(e) advise and assist in the harmonization of national and NATO movement and transportation procedures for NATO directed operations in peace, crisis, or war;
(f) advise on the harmonization of civil land, sea, and air transportation resources, in order rapidly to respond to NATO directed operations;

(g) advise nations and MNCs (with national representation approval) on suitable transportation assets (precommitted or market);

(h) advise on the allocation of civil transportation resources, better to support nations and MNC priorities;

(i) rapidly identify and arrange available civil lift assets to meet national and MNC defined shortfall requirements as prioritized by the applicable MNC;

(j) provide an interface between the nations requesting resources and the civil transportation providers;

(k) provide contracting support for transportation arrangements when requested by nations and requiring multinational co-ordination; and

(l) advise on transportation insurance matters as required.

1113. Under the guidance of the SCEPC, the three civil transport-oriented Planning Boards and Committees (PB&Cs) deal with movement and transport problems to meet vital civil and military requirements, including (if required) those for peacekeeping. They are:

(a) The Planning Board for European Inland Surface Transport (PBEIST);

(b) The Civil Aviation Planning Committee (CAPC); and

(c) The Planning Board for Ocean Shipping (PBOS).

1114. All NATO nations are members of these bodies and NATO Commanders are represented to ensure that plans meet military requirements. Their general tasks are:

(a) the co-ordination of civil transport planning and the solution of difficulties, identified by nations or NATO Commanders, in meeting transport requirements from existing resources;

(b) advancing proposals for mutual assistance, advising on re-allocation of tasks amongst nations, and identifying essential improvement to existing transport facilities; and

(c) advising on the harmonization of the implementation of legislation for Alliance movement and transportation co-operation.
MOVEMENT BY SEA

1115. In peace, crisis or war, the majority of materiel and supplies for nations deploying and redeploying will move by sea. Nations will look to commercial avenues of shipping support for deployment of their equipment and sustainment of their forces on a day to day basis.

1116. The Planning Board for Ocean Shipping (PBOS) was established by the North Atlantic Council in 1950. PBOS plans for the provision of transportation of personnel and goods by sea in crisis and war within and outside the North Atlantic area. PBOS operates on the principle that shipping cannot be treated on a regional basis and that the worldwide interrelation of all shipping activities must be taken into account in securing the benefit of shipping services, including vessels and facilities controlled by countries not party to the North Atlantic Treaty.

1117. In carrying out its functions, PBOS allows for the needs of countries and territories outside the North Atlantic area for which a measure of shipping responsibility might have to be borne in wartime. However, PBOS will continue planning for crisis management arrangements, particularly for situations in which shipping resources needed to support the new Reinforcement Concept would not be available as required from the commercial market. Further, PBOS should maintain close liaison with CAPC and PBEIST to ensure optimal operational readiness of civil transport assets to support military requirements.

1118. In crisis, nominated shipping experts augment the CECC. In the event of general war, the Defence Shipping Authority (DSA) would be established.

MOVEMENT BY AIR

1119. The operations of civil aviation resources remain under national sovereignty and authority for all practical purposes. The emphasis of NATO planning for air transport is therefore on co-operation and co-ordination. In peacetime this is the responsibility of the CAPC (Civil Aviation Planning Committee), assisted by its Civil Aviation Working Group (CAWG) in carrying out technical and practical planning (See Chapter 7).

1120. The CAPC operates on the principle that civil aviation cannot be treated on a regional basis and that the worldwide inter-relation of all aviation activities must be taken into account. The general and primary aims of civil aviation planning in NATO
are to assist in maximizing the availability of civil aviation resources of member nations in crisis and war, and to optimize the Alliance’s use of them in support of both military operations and essential civil requirements.

1121. In carrying out its task, the CAPC will:
   (a) monitor and co-ordinate, as appropriate, the development of relevant national plans concerning the availability and responsiveness to the Alliance of civil aviation resources;
   (b) assist in the planning for the use of civil aviation in support of the new reinforcement concept; and
   (c) develop appropriate civil aviation crisis management arrangements.

1122. In crisis, nominated civil aviation experts augment the Civil Emergency Crisis Cell (CECC). In the event of general war, the NATO Civil Aviation Agency (NCAA) would be established.

INLAND SURFACE MOVEMENT

1123. Inland surface transport (road, rail, ports, inland waterways) remains under national control for all practical purposes. The emphasis of NATO planning for inland surface transport is, therefore, on co-operation and co-ordination. In peacetime, this is carried out by the PBEIST (Planning Board for European Inland Surface Transport), a Civil Emergency Planning body (see Chapter 7) with regional sub-committees for Northern, Central and Southern Europe. Each Sub-Committee is responsible for its own geographical, peculiar, technical transport problems; however, the technical matters affecting NATO-wide concerns are concentrated in the Central Europe Sub-Committee.

1124. In co-operation and co-ordination with the other Civil Emergency PB&Cs and NMAs, PBEIST deals with:
   (a) developing Alliance policies, arrangements and procedures for the co-ordination of the use of civil inland surface transport resources to meet civil/military requirements;
   (b) assisting the National and NATO Military Authorities in the planning for the movement and transportation of military ammunition, explosives and hazardous material in times of peace, crisis and war;
   (c) developing appropriate machinery, policy and procedures for the acquisition and use of civil inland surface transport, including containerization;
(d) monitoring the effect of EU legislation on military movement in supporting the New Alliance Strategy, including border crossing;

(e) advising National and NATO Military Authorities on the implication of civil technical developments; and

(f) assisting in the development/harmonization of national transport legislation to facilitate movement and transportation planning.

1125. In crisis, nominated national inland surface transport experts augment the CECC (See Chapter 7). In the event of general war, two NCWAs are established; the Agency for the Co-ordination of Inland Surface Transport in Central Europe (ACTICE), and the Southern Europe Transport Organization (SETO) in conjunction with PBOS.
REFERENCES
MC 75/1 Policy for the Control of Air Transport and Troop Centre Resources Made Available to the Major NATO Commanders
MC 84/4 Procedures for the Submission of Military Requirements for Ocean Shipping in Times of War
MC 319 NATO Principles and Policies for Logistics
MC 336 A Movement, Transportation, and Mobility Management Concept for NATO
AD 85-5 ACE Mobility Management Directive
LPG-1-87 SACLANT Logistics Policy and Guidance
STANAG 1166 Standard Ship Designation System
STANAG 2135 Procedures for Requesting Logistic Assistance
STANAG 2156 Surface Transport Request and Reply to Surface Transport Request
STANAG 2165 Forecast Movement Requirements by Rail, Road and Inland Waterways
STANAG 2166 Movements and Transport Documents used for Movements by Ship
STANAG 2926 Procedures for the use and Handling of Freight Containers for Military Supplies
STANAG 4123 Methods to Determine and Classify the Hazards of Ammunition
ATP-2 Allied Naval Control of Shipping
AAP-18 Guide to the Restoration of Facilities on Lines of Communications, Ports and other Critical Installations after Hostile Attack
ANNEX
Annex A: ACE Mobility Co-ordination Centre (AMCC)
ACE MOBILITY CO-ORDINATION CENTRE - AMCC

Purpose

The purpose of the AMCC is to provide, during crisis management, a central point of contact at SHAPE for co-ordinating movement and transportation in ACE. The AMCC has been developed to support the new NATO strategy which emphasizes the importance of mobility in crisis management.

Composition

The AMCC consists of two cells—Mobility Requirements and Movement Operations. The Mobility Requirements peacetime personnel come from SHAPE's Mobility, Movement, and Transport (M,M&T) Section within the Operations/Logistics Division, and the Movement Operations peacetime personnel come from the ACE Reaction Force Planning Staff (ARPFS) - Movements Section.

The AMCC is staffed with a flexible manning structure based on the nature and magnitude of a crisis. Personnel have expertise in surface, air, and maritime movement and transportation, as well as in communications.

Responsibilities

The Mobility Requirements Cell has the following responsibilities:

- Co-ordinate the overall, ACE-wide movement policy to include tasks and responsibilities of the various movement organizations.
- Collect from nations the summary movement requirements for the assessment and strategic planning of potential deployment options.
- Request, prioritize, and allocate any strategic transport resources made available by national military authorities for co-operative use to fulfil shortfalls when requested by other nations.
- Identify ACE movement priorities to NATO HQ Civil Transport Planning Boards and Committees, who arrange for civil transport resources to support national shortfalls.
The **Movement Operations Cell** responsibilities are as follows:

- Co-ordinate the detailed plans for deployment, resupply, aeromedical evacuation, and the redeployment of the ACE Mobile Force.
- Execute mobility contingency deployment plans in a crisis.
- Forward deploy an International Airlift Control Element (IALCE) at reception airfields to receive and handle airlift transport and its associated cargo.
- Co-ordinate air and surface movements through a multinational staff of augmentees from the providing nations, who assemble at SHAPE to form a centralized co-ordinating link between the reception airfields and ports and the operational headquarters in the providing nations.
CHAPTER 12  
NATO INFRASTRUCTURE

INTRODUCTION

1201. "The NATO Infrastructure Programme has been one of the major achievements in the history of NATO. It has been a visible sign of NATO’s resolve to work in unison, a signal to nations both inside and outside the Alliance. Within the Alliance, it has been a symbol of effective sharing of roles, risks and responsibilities. Outside the Alliance it was, and still is, a demonstration of our dedication to common defence. Now, in the context of an evolving NATO, the Infrastructure Programme remains a pre-requisite for our efforts to maintain political and military stability" (Secretary General, December 1992).

1202. The NATO Infrastructure Programme is currently in a period of transition following acceptance by the Council in May 1993 of the report on the renewal of the Infrastructure Programme. The agreed renewal is intended to bring the NATO Infrastructure Programme fully into line with NATO’s new strategic concept and force structure, while ensuring the necessary flexibility to support any “outreach” and peacekeeping objectives which may be agreed by the Council/DPC.

1203. Recognizing resource limitations, the renewed programme will concentrate on common funding of infrastructure requirements which are over and above those which could reasonably be expected to be made available from national resources, while not excluding exceptional common funding on a case-by-case basis of critical additional infrastructure, as identified by the NATO Military Authorities and approved by the Council/DPC.

MAIN NATO INFRASTRUCTURE BODIES

1204. Senior Resource Board (SRB)

The SRB is a subsidiary body of the Council/DPC with overall responsibility for common-funded military resource management. It is composed of senior national representatives from member countries, representatives from the Military Committee (MC), MNCs, Military Budget Committee (MBC), Infrastructure Committee (IC) and NATO Defence Manpower Committee (NDMC). Main objectives of the SRB are:
(a) to provide co-ordinated advice to the Council/DPC on the availability, management and allocation of resources;

(b) to provide a forum for considering the resource implications of new initiatives of common concern;

(c) to optimize the mid- and longer-term resource management of the military common-funded programme, and to provide maximum flexibility in the resource allocation process.

Infrastructure Committee (IC)

1205. The new Infrastructure Committee is an amalgamation of the old Infrastructure and Payments & Progress Committees. It is responsible, within the broad policy guidance and direction provided by the SRB on matters of co-ordination of resource allocation, for the implementation of the infrastructure investment programmes screened and endorsed by the SRB and approved by the Council/DPC; in this respect, the Committee:

(a) screens projects included in NATO infrastructure programmes, primarily from the technical and financial point of view but also taking into account economical and political aspects, and agrees their eligibility for common funding in accordance with approved guidelines;

(b) grants authorizations to host nations to commit funds for such projects;

(c) decides on procurement issues, including disputes;

(d) formally accepts implemented projects into the NATO inventory, and manages that inventory;

(e) manages the programme from a financial point of view within the overall financial limits set by the SRB and approved by the Council/DPC; and

(f) calls forward payments from contributing nations in accordance with approved expenditure forecasts.

BASIC PRINCIPLES AND GENERAL CRITERIA FOR COMMON FUNDING

1206. Basic Principles

New infrastructure needs will be agreed on the basis of the security needs of the Alliance and, consequently, eligibility for common funding will not constitute automatic entitlement. Particular emphasis will be placed upon the infrastructure needed
to meet crisis management requirements: communications; command and control; information gathering; mobility; flexibility of employment (especially of NATO’s multinational Reaction Forces); reinforcement activities; and re-supply.

1207. However, resource limitations necessitate a more selective approach to common funding than hitherto. Therefore, as an overriding principle, NATO common funding eligibility will focus on the provision of infrastructure requirements which are over and above those which could reasonably be expected to be made available from national resources. In practice, NATO infrastructure common funding is only likely to be agreed if the project concerned:

(a) is in consonance with the principles and general criteria set out by the Council/DPC;
(b) commands a sufficiently high military priority, as determined by the Major NATO Commanders and endorsed by the Military Committee; and
(c) is affordable within the financial constraints imposed by nations.

1208. **General Criteria**

The renewed Infrastructure Programme is based upon NATO’s overall need, presented in no particular order of importance, for:

(a) intra-European theatre and transatlantic mobility of NATO’s Immediate Reaction, Rapid Reaction, and Reinforcing Forces;
(b) flexible command and control of land, air, and maritime forces;
(c) surveillance, reconnaissance, and intelligence;
(d) logistics support and re-supply;
(e) control of lines of communication;
(f) training support and exercise facilities;
(g) nuclear capabilities; and
(h) consultation.

1209. All requirements, as a rule, will be submitted within the framework of Capability Packages which will compete for funding on the basis of military priorities. In the case of Allied Command Europe (ACE), new requirements will be assessed and transformed into capabilities through SACEUR’s Reinforcement Planning System (SRPS) once this document has been finalized.
1210. NATO use, or contingency use, of national civil and military facilities will be promoted to the maximum extent possible. Every opportunity will be taken to bring about joint NATO/national civil use of existing similar NATO facilities, including pipelines, where this is a practical proposition. Where shared use is impossible, new, essential NATO military infrastructure will be considered for possible common funding.

1211. Eligibility guidelines for NATO common funding of the renewed programme are being developed, and will be issued once the guidelines have been agreed by the nations.

CAPABILITY PACKAGES

1212. Capability Packages are the means of linking infrastructure planning to operational needs in a transparent manner. A Capability Package is a combination of national and NATO-funded assets and support facilities which, together, will enable a Major NATO Commander to fulfil a specific NATO military function or requirement.

1213. Each Capability Package will provide a clear statement of the military mission and the military capability it supports, and will include:

(a) the national and NATO common-funded infrastructure requirements;
(b) redundant assets identified within the existing NATO inventory;
(c) the cost profile of the package;
(d) resource implications for NATO Operations and Maintenance (O&M) costs and manpower;
(e) an operational impact statement by the Military Commander; and
(f) the military priority accorded to it by the NATO Military Authorities (NMA).

1214. Capability Package Development

(a) Development by the MNCs

There are three stages in the development of Capability Packages by the MNCs:

(1) **Package Definition**

This stage provides a direct link between the Capability Packages and the Defence Planning Process.
(i) The principle source documents are the MC Directive for Military Implementation of the Alliance’s Strategic Concept (MC 400), the MC Guidance for Defence Planning (MC 299/3), and the MNC Guidance for Defence Planning. The following elements of these documents form the basis for ICP development:

- Principal Mission Elements (PME)
- Military Function (MF)
- Required Capability (RC)

(ii) To initiate the Capability Package process, the MNCs promulgate their Annual Infrastructure Guidance which identifies the RCs. The MSCs, in consultation with their PSCs, host nations, and user nations, develop the Capability Package that would be required to support these RCs within their area of responsibility.

(iii) There is no precise definition of what constitutes a properly sized Capability Package. However, it is clear that the Capability Package must be manageable, in terms of scope, cost and implementability. The cost and complexity must be such as to allow package execution within a reasonable timeframe, normally five years from time of approval.

(2) Resource Identification

This stage identifies additional infrastructure requirements by comparing needs to available assets. It is accomplished primarily by the MSC with assistance from the MNC, PSC, and in conjunction with host/user nations. There are three steps:

(i) The identification of those minimum resources (forces, armament, logistics, and infrastructure) that must be available to accomplish the RC. Infrastructure requirements constitute the type and number of installations (naval bases, airfields, army posts, headquarters, sites, etc.) that must be available to meet the RC.

(ii) The determination of those installations which currently exist to satisfy the infrastructure requirements identified in the step described above. This analysis will include all NATO and potentially available national military and civil assets that could satisfy the requirement.
(iii) The selection of those installations available to support the RC. This selection must be based on condition, location, national plans, and any other factors affecting the suitability of the existing infrastructure. If existing NATO or national infrastructure is not adequate to support the RC, this step must identify additional requirements either for new installation(s) or to satisfy shortfalls in existing installations.

(3) Infrastructure proposals

The purpose of this third stage is to rationalise needs against available assets to define any shortfall. This is a critical stage and is primarily accomplished by MSCs assisted by MNCs, PSCs, host and user nations.

(i) The proposal is a statement of the additional infrastructure requirements and it identifies the NATO and national construction costs, NATO funded O&M and manpower costs, and necessary start and completion dates for implementing the Capability Package.

(ii) In addition to funding requirements, the MSC and MNC address the military consequences of not implementing the Infrastructure Proposal, including its inter-relationship with other Capability Packages. They may also address other relevant concerns, that, while they do not have a direct military impact, should be known by those considering the Infrastructure Proposal.

(b) Approval and Authorization

(1) Within the parameters established by the yearly Resource Allocation Decision, the MNCs will submit capability packages on the basis of the requirements already identified in the Long Term Infrastructure Plan (LTIP). This phase will be a dynamic process and will be undertaken over a period of months in close collaboration with the respective Host Nations and using the Planning Years levels established as a guideline. The activity includes all factors required to translate requirements identified in the LTIP into a Capability Package submission. The planning and programming of urgent military requirements, in the exceptional cases where it has not been possible to include these in approved capability packages, must be conducted in parallel.
(2) The International Staff, together with the International Military Staff, will prepare a joint screening report for the SRB and the Military Committee. This report will address the feasibility, implementability, eligibility for common funding and affordability within the agreed planning figures, of the submitted Capability Package. Operations and Maintenance and International Manpower requirements will also be highlighted. The International Staff will also provide an update of the financial status of the overall programme.

(3) On the basis of the screening report submitted by the International Staff, the SRB and the NATO Military Authorities will satisfy themselves that the submitted capability package represents an efficient and effective approach to achieving the policy and strategy goals established by Council/DPC within the overall funding parameters. This activity involves the co-ordination of three discrete processes: the analysis of the MNC submission; the assessment of the financial status of the programme, including the liabilities in future years and the resources nations will provide over the planning period; and the supporting operating, maintenance and manpower resources required. The SRB will approve the capability packages, addressing the points raised in the International Staff’s screening report, after which they will be submitted to Council/DPC for endorsement.

(4) Following approval of the capability package by the SRB and the Council/DPC, the Infrastructure Committee will authorize the projects included in the package. Only at this stage are commitments being entered into. Planning funds can be requested as from the moment a Capability Package has been submitted by the MNC. The Infrastructure Committee will review the implementation of the authorized projects as part of a regular review of approved Capability Packages.

(5) In summary, the submission of Capability Packages by the MNCs, their screening by the International Staff, and the authorization of the projects contained therein will be a continuous process. However, to link the approval phase with the availability of updated financial information concerning the overall programme, the SRB and the Military Committee will handle capability package submissions during April-May and November-December thereby also limiting the number of SRB meetings required.
INFRASTRUCTURE PROGRAMME MANAGEMENT

1215. During the course of the renewal of the Infrastructure Programme exercise, it became apparent that, in addition to revalidating the basis upon which NATO infrastructure common funding would be conducted in future, it was also necessary to develop an integrated NATO resource management system which would be responsive to Alliance policy and adaptive to changing circumstances. The system focuses on achieving closer integration of the Alliance’s policy setting, including co-ordination with the Military Budget and Manpower Plan at appropriate points in the resource planning and implementation cycle.

Resource Planning & Allocation Process

1216. The cornerstone of the resource planning and allocation process is the resource management framework which will provide the infrastructure planning process with an essential measure of stability. The framework takes the form of a five-year rolling plan comprising a Budget Year (the current year + 1) and four Planning Years. The addition of a new Planning Year each year (when the previous Planning Year 1 becomes the new Budget Year) provides a rolling framework within which the Major NATO Commanders’ infrastructure planning and the NATO resource allocation processes function. (*Note: this system replaced the former Slice and Slice Group planning procedure.*)

1217. Financial planning will be given substance through the Capability Package and stand-alone project approval cycle, and the creation of a Medium Term Infrastructure Plan (MTIP) comprising a list of capability packages and stand-alone projects which have been endorsed for inclusion in the Financial Planning Cycle by the SRB and approved by the Council/DPC, taking account of the military priorities recommended by the MNCs and approved by the Military Committee. Nations will not be financially committed until a project, or specific element of it, has been authorized by the Infrastructure Committee (IC).

1218. Capability Packages which cannot, for budgetary reasons, be contained within the MTIP, together with packages still under preparation by the MNCs, will be included in a Long Term Infrastructure Plan (LTIP). Capability Packages contained within the LTIP will be brought forward by the MNCs for inclusion in the MTIP when conditions permit.
Financial Planning Cycle

1219. The overall purpose of the Financial Planning Cycle is to provide the Council/DPC with a comprehensive overview of NATO commonly funded military resources, including not only capital acquisition but also commonly-funded O&M costs and related international manpower requirements. The cycle consists of a comprehensive schedule of activities essential for managing those resources. The key elements in the cycle are the Programme Review, Resource Allocation, and Budget Definition phases.

Programme Review Phase

1220. The Programme Review Phase, conducted in the January-March timeframe each year, will bring together advice from the IS, the IMS and the MNCs on the financial situation of the programme, its implementation status, and its planning parameters. Once co-ordinated, the information will create a baseline for resource allocation recommendations by the SRB subsequent approval by the Council/DPC.

1221. The Programme Review Phase will comprise two main activities: the updating of the MTIP and the LTIP, and the preparation of programme assessment and programme status reviews for submission to the SRB. The updating of the MTIP will be undertaken by the IS based upon the latest information available from the nations; the update of the LTIP will be prepared by the NATO Military Authorities (NMA). The programme assessment review will be carried out by the MNCs and the results submitted by them for MC approval; the programme status review will be undertaken by the IS. These activities will take place in conjunction with the respective programme review activities relating to the Military Budget and NATO Defence Manpower. The outcome will provide the SRB with the management information necessary to reassess the current programme and planned new requirements in the light of budgetary factors, and to inform the Council/DPC accordingly. The completion of this activity provides the basis for resource allocation decisions.

Resource Allocation Phase

1222. The purpose of the Resource Allocation Phase, which takes place during the Spring of each year, is to establish financial planning levels for the five-year cycle. This phase will build upon the results of the Programme Review Phase, taking account of new requirements as they are made known by the NMAs, and will place
emphasis on the demands of the Budget Year. It will be necessary for nations to advise on likely levels of funding for the years in question. O&M and international manpower implications of infrastructure planning will be taken into account as appropriate.

1223. At the conclusion of this phase the SRB recommends to the Council/DPC a planned contributions ceiling for the forthcoming Budget Year and planning figures for the remainder of the five-year cycle (subject to reconfirmation by nations at the end of the Budget Definition Phase). These figures will be presented in a Resource Allocation Plan. The Resource Allocation Phase will be normally completed once the Resource Allocation Plan has been received by the Council and by the DPC at their Spring meeting in Ministerial Session each year.

**Budget Definition Phase**

1224. The Budget Definition Phase begins once the Resource Allocation Plan has been approved by the Council, and by the DPC in Ministerial Session. Its purpose is to establish the level of national contributions to the Budget Year in the light of the financial parameters established during the Resource Allocation Phase. The main Budget Definition Phase activity is concentrated in the Implementation Committees. For the Infrastructure Programme, the Infrastructure Committee (IC) will screen the semi-annual Financial Reports and approve the contributions to be paid by the nations in accordance with the policy and financial parameters established by the Resource Allocation Plan. This will take place concurrently with the MBC’s screening of their budgets. Both Committees will keep each other informed, in a timely manner, of any developments which might impact on one another’s budget.

1225. Resource Allocation decisions reached in May with regard to the Infrastructure Programme Budget Year figures will be finalized in December each year when the planned contributions ceiling for the Budget Year in question has received national approval. The SRB, and, if considered necessary, the Council/DPC, will become involved in the Budget Definition phase only if the planning assumptions upon which the Resource Allocation Phase was based have changed significantly due to unforeseen circumstances.

**Capability Package and Stand-Alone Project Approval Cycle**

1226. Within the financial parameters established in the financial planning cycle, the MNCs will submit Capability Packages (which will normally already be included in the LTIP), and stand-alone
projects, to the MC and to the SRB. The work of the MC and SRB, aimed at ensuring that each capability package represents the most efficient use of NATO resources, will be based upon co-ordinated screening reports, with discreet areas of responsibility, prepared by the IS and the IMS, and will take into account inputs from NATO policy committees. The MC will provide the SRB with advice on operational aspects including military priority and manpower implications. The IS report, drawing upon appropriate expert advice as necessary, will cover broad technical and financial issues, together with advice to the SRB as to the eligibility of the capability package for NATO common-funding.

1227. The SRB, based on the MC’s prioritization, will screen and endorse the packages in terms of their feasibility; eligibility for inclusion in the MTIP; common funding; affordability within the MTIP in terms of initial capital outlay; subsequent NATO commonly funded O&M; international manpower requirements; national resource implications; and political aspects.

1228. Upon completion of its work, the SRB will submit the packages to the Council/DPC for their approval. It is envisaged that the SRB will normally submit packages for Council/DPC approval in May/June and November/December of each year, to coincide with the Resource Allocation and the Budget Definition phases.

1229. Following approval of the capability packages and the stand-alone projects by the Council/DPC, they will be added to the MTIP. Advance Planning Funds may be requested and authorized once a capability package or stand-alone project is included in the MTIP. The IC will be responsible at this stage for verifying the eligibility for common funding of individual projects, and for the authorization of those projects taking into account criteria and standards to be developed. Nations will be financially committed to these projects, or parts thereof, when authorization by the IC has been granted. The IC will subsequently review implementation of the authorized projects as part of a regular review of approved capability packages and stand-alone projects.

1230. A number of capability packages will contain elements for both NATO and national funding. Agreement by the IC to authorize the NATO portion of a package will therefore be dependant upon continuing national commitment to the nationally funded elements. Also, agreement by a nation to authorize the national portion of a package will be dependent upon continuing NATO commitment to the NATO funded element.
REFERENCES

C-M(93)38(Final) Renewal of the NATO Infrastructure Programme

PO(93)40(Final) Terms of Reference for the Senior Resource Board

PO(93)153 Terms of Reference for the Amalgamated Infrastructure Committee

PO(93)157 Renewal of the NATO Infrastructure Programme
  - Programme Management Procedures
CHAPTER 13

FUEL, OILS AND LUBRICANTS

INTRODUCTION

1301. Fuel, like ammunition, is a commodity that is essential to NATO's defence planning. Unlike ammunition, fuel is also necessary for sustaining social and economic life. There are several committees in NATO associated with fuels support, which can be generally grouped as those concerned with:

(a) civil preparedness to meet oil problems within NATO;
(b) bulk distribution and storage of fuels for military use by the NATO Pipeline System (NPS) and other associated facilities;
(c) air base, naval base and unit support;
(d) types of military fuels and their relationship with weapon systems, vehicles and equipment;
(e) standardization/interchangeability and research on fuels, oils and lubricants and other related products, as well as Petroleum Handling Equipment (PHE).

CIVIL PREPAREDNESS

1302. This is the responsibility of the Petroleum Planning Committee (PPC-AC/12) under the co-ordination and guidance of the Senior Civil Emergency Planning Committee (SCEPC-AC/98). NATO staff support is provided by the Civil Emergency Planning Directorate (CEPD), of the International Staff. (See Chapter 7)

NATO PIPELINE COMMITTEE

1303. The NATO Pipeline Committee (NPC-AC/112) is the senior advisory body in NATO on consumer logistics relating to petroleum. It acts on behalf of the Council, in full consultation with the NATO Military Authorities and other bodies, on all matters of NATO-wide concern in connection with military petroleum, the NPS and other NATO petroleum installations in support of ACE and ACLANT. Its function is to:

(a) review, assess and evaluate, in conjunction with other NATO authorities, the overall Alliance military petroleum logistics organization, policy, plans, procedures and
capabilities with the aim to enhance performance, efficiency, safety, security and effectiveness of NATO facilities for the storage, distribution and uplift of aviation, naval and ground fuels;

(b) provide the focal point and forum for the consideration of military petroleum matters;

(c) exercise policy control for the operation and maintenance of the NPS; and

(d) develop, in close co-ordination with the PPC and other relevant committees, guidelines for greater civil/military co-operation.

1304. The NPC has two permanent Working Groups which have the following responsibilities:

(a) **Working Group No.1 (AC/112(WG/1))** - takes on special tasks as directed by the NPC;

(b) **Working Group No.4 (AC/112(WG/4))** - provides the focal point and forum to review and evaluate the detailed aspects of military fuels. The tasks include: maintaining interchangeability between military and commercial fuels; producing STANAGs in conjunction with the Military Agency for Standardization (MAS) as appropriate; and addressing environmental issues associated with military fuels and pipeline systems.

1305. The Logistics Directorate of the NATO International Staff provides staff support to the NPC and its Working Groups.

**BULK DISTRIBUTION AND STORAGE OF FUEL IN THE NPS**

1306. Although collectively referred to as a system, the NPS consists of eight separate and distinct military storage and distribution systems running through eleven host nation countries in Europe: Italy, Greece, Turkey (two separate systems - west and east), the United Kingdom, Norway, the North European Pipeline System (NEPS) located in both Denmark and Germany, and the largest system, the Central Europe Pipeline System (CEPS) in France, Belgium, the Netherlands, Germany and Luxembourg. The NPS in total consists of some 12,000 km of pipeline with its associated depots, connected air bases, pump stations, refineries and entry points. Bulk distribution is achieved using facilities provided from the NATO common-funded infrastructure programme. The networks are controlled by national organizations, with the exception of the CEPS which is a multinational system.
1307. Optimum utilization of NATO petroleum facilities in peace time is a prerequisite for the proper maintenance of the system, and the necessary training of its staff. Nations should use the facilities to the fullest extent practicable for military purposes and, where this is insufficient, commercial use should be encouraged. There are no restrictions on the type of NATO fuel facilities that can be used for commercial purposes provided the minimum safeguards are respected.

1308. The Central Europe Pipeline System (CEPS) is a NATO Production and Logistics Organization (NPLO) and, because it crosses a number of national borders and has eight user nations (Belgium, Luxembourg, France, Germany, the Netherlands, Canada, the United Kingdom and the United States), its day-to-day operation is the task of a NATO Agency, the Central Europe Operating Agency (CEOA) located in Versailles. Its directing bodies are the Central Europe Pipeline Policy Committee (CEPPC - AC/120) and the Central Europe Pipeline Office (CEPO):

(a) **CEPPC** - is composed of a representative of each nation using the system. It acts, in full consultation with the CEPO, in matters concerning the operation and maintenance of the CEPS, and in particular, defines and decides the financial and economic responsibilities. It holds regular meetings at NATO HQ.

(b) **CEPO** - is composed of representatives of the user nations and assumes operational and technical control of the CEPS. It holds regular meetings at HQ AFCENT.

(c) **CEOA** - is responsible to the directing bodies for the operation and maintenance of the system.

**AIR BASE, NAVAL BASE AND UNIT SUPPORT**

1309. This is a user nation responsibility, although certain facilities may be provided under the NATO infrastructure programme, e.g. fuel storage on air bases and connections to the NPS.

**MILITARY FUELS AND THE SINGLE FUEL CONCEPT**

1310. The co-ordinating body is AC/112(WG/4), which is concerned with the more detailed technical aspects of military fuels such as the Single Fuel Concept.

1311. **Single Fuel Concept (SFC)**. The aim of the concept is to maximize equipment interoperability through the use of a
single fuel, namely F-34, on the battlefield for land based military aircraft, vehicles and equipment. In 1986 agreement was reached on a common aviation turbine fuel for land based military aircraft, F-34 to replace F-40. The changeover, which now makes F-34 readily available, has prompted studies and trials by nations into using F-34 in diesel engines as a replacement for F-54 diesel fuel. A further development has been a reduction in the use of gasoline as nations phase out gasoline-driven equipment in favour of diesel engines. Such a trend is not occurring at a uniform rate as this depends on national procurement policies for new military vehicles and equipment. The logistic benefits of a single fuel on the battlefield, and in out-of-area peacekeeping missions, are numerous but a major benefit is a simplification of the fuel supply chain, and of operations of the NPS.

STANDARDIZATION / INTERCHANGEABILITY AND RESEARCH

1312. Fuel and Lubricants (F&L) Working Parties in the MAS cover the broader aspects of interservice standardization of fuels, oils, lubricants and PHE.

1313. The Advisory Group for Aerospace Research and Development (AGARD), through its Propulsion and Energetics Panel (PEP), deals with various aspects of aviation fuel.

CO-ORDINATION

1314. To co-ordinate the work described above and other fuel matters as required, a NATO Inter-Staff Group on Petroleum (NISGP) meets regularly at NATO HQ. It comprises staff members from the various NATO branches concerned, with representation from the NATO Military Authorities (NMA).

1315. All NATO petroleum activities are undertaken in full co-ordination with the NMAs. (See Annex A: NATO Bodies Concerned with Petroleum Matters)
REFERENCES

C-M(56)129 Organization of the NATO Pipeline System
C-M(65)49
C-M(84)75
C-M(91)87 NATO Pipeline Committee Terms of Reference
and Corrigendum
AC/112-D/259 Working Group No.4 on Fuels Terms of Reference
C-M(93)46 The Alliance's Military Petroleum Concept
AC/112-D/241 The Single Fuel Concept
and Addendum
STANAG 7036 F&L Fuels to be Introduced into, and delivered by, the NATO Pipeline System
STANAG 1135 F&L Interchangeability of Fuels, Lubricants and Associated Products used by the Armed Forces of NATO
STANAG 2845 F&L Guide Specifications for NATO Army Fuels, Lubricants and Associated Products
STANAG 3149 F&L Minimum Quality Surveillance of Petroleum Products
STANAG 3390 F&L Inspection Standards for Fuel Soluble Corrosion Inhibitors/Lubricity Improvers
STANAG 3747 F&L Guide Specifications (Minimum Quality Standards) for Aviation Turbine Fuels (F-34, F-35, F-40 and F-44)

ANNEX
Annex A: NATO Bodies Concerned with Petroleum Matters
NATO Bodies Concerned with Petroleum Matters

- COUNCIL/DPC
- INFRA COMMITTEES
- NPC
- ECONOMIC COMMITTEE
- SCEPC
- SNLC
- MILITARY COMMITTEE
- AGARD
- MAS
- CEPO
- CEPPC
- CEDA
- CENTRAL EUROPE PIPELINE SYSTEM

KEY
- DPC Defence Planning Committee
- NPC NATO Pipeline Committee
- SCEPC Senior Civil Emergency Planning Committee
- PPC Petroleum Planning Committee
- CAPC Civil Aviation Planning Committee
- SNLC Senior NATO Logisticians' Conference
- AGARD Advisory Group for Aerospace Research and Development
- MAS Military Agency for Standardization
- CEPO Central Europe Pipeline Office
- CEPPC Central Europe Pipeline Policy Committee
- CEDA Central Europe Operating Agency
- CENTRAL EUROPE PIPELINE SYSTEM

- Co-operation within the Framework of Co-ordination Agreements
- Bodies dealing with main aspects of NATO fuel planning

Annex A to Chapter 13
CHAPTER 14

MEDICAL SUPPORT

INTRODUCTION

1401. In NATO HQs medical and health support is part of logistics. This is not a reflection of most member nations' organizational structures where the medical service or staff is not normally part of logistics. Due consideration has therefore to be given to this fact in order to establish effective co-operation and communications with member nations in the field of medical support.

1402. While logistics has to ensure the material readiness of forces, to include personnel services, necessary infrastructure, and medical support, the latter has a unique untransferable responsibility to maintain and recover the health of the fighting forces. Life saving and health preserving measures have to comply with different basic rules than those applying to logistics:

(a) While a unit can be made logistically self sufficient for a planned number of days, it is not possible to make it medically self sufficient. A complete and effective evacuation and treatment system must therefore be available from the very initial deployment;

(b) The timeframe in which a wounded patient must receive life or limb saving surgical treatment is extremely limited. Every delay will lead to a higher incidence of mortality or morbidity;

(c) Medical personnel, material, and infrastructure have protection under the Geneva Convention. Medical personnel therefore have non-combatant status, they must deploy their facilities away from targets of opportunity such as logistics installations, and as such cannot be members of local defensive forces;

(d) Since the main activity of medical and health support is humanitarian in nature, medical units are precious assets which can be used for "new-type" operations. Humanitarian medical relief can make a positive psychological impact on public opinion at home, as well as in the disaster area itself;
(e) Effective medical support for NATO forces is essential to the overall operational success, and indicates NATO's seriousness of intent and resolve. In that perspective the existence and deployment of such medical support can be a component of deterrence to the initiation of hostilities;

(f) It is accepted that a perceived lack of medical support can significantly reduce the soldier's morale and will to fight.

MISSION OF THE MEDICAL SERVICE

1403. The provision of medical support is a command responsibility performed by the medical services. On behalf of the commander, the medical service must first and foremost contribute to the achievement of the operational mission by conserving manpower. The attrition of skilled human resources due to inappropriate personnel selection, disease and injuries can critically degrade the commanders' ability to achieve his operational aim. The medical service performs this mission through the following roles and tasks:

(a) **Prevention:**
   1. Provision of general advice and intelligence on health matters affecting operations;
   2. Provision of appropriate immunization and prophylactic measures for the area of operation;
   3. Provision of health education and health promotion programmes in the field of hygiene and sanitation;
   4. Determination of medical fitness for the operational employability of personnel;
   5. Determination and provision of NBC prophylaxis.

(b) **Evacuation:**
   Control and co-ordination of the casualty evacuation system, including aeromedical evacuation and medical regulating.

(c) **Treatment:**
   1. Promotion of first aid training;
   2. Provision of medical care and hospitalization;

(d) **Research and Development:**
   The provision of a bio-science service in the medical and human factor fields.
MEDICAL PLANNING IN NATO

1404. General

The provision of adequate medical support is a matter of medical planning within broad logistics concepts and contingency planning. Commanders must have medical advisers to help them meet this responsibility. The assessment and determination of casualty rates is basically an operational matter, but medical staffs will advise on types of casualties to be expected.

1405. Medical planning in NATO covers a wide area:

(a) Medical support precepts as laid down in MC 326;
(b) Guidance for the medical support of forces provided by nations to NATO;
(c) Responsibilities of nations and NATO Military Authorities (NMAs);
(d) Co-operation between civil and military departments of Alliance nations, including non-governmental organizations, and NATO staffs.

MEDICAL SUPPORT PRECEPTS

1406. Medical support precepts are laid down in MC 326. Medical support in NATO will comply with the Hague and Geneva Conventions, and with the following precepts:

(a) Entitlement to Medical Care
   Without discrimination, all persons entitled by the Hague and Geneva Conventions shall be treated on the basis of their clinical need and the resources available.

(b) Standards of Medical Care
   In crisis and war, the aim is to provide a standard of medical care as close as possible to prevailing peacetime medical standards.

(c) Prevention of Disease
   A major function of medical support is the prevention of sickness, disease, epidemics, and injuries. This is a key factor of manpower sustainability.

(d) Six Hours Rule
   Life and limb saving surgery must be provided as soon as possible, and within six hours of wounding.
(e) Triage
Patients are sorted into categories according to the urgency of their clinical need for treatment, the medical facilities on hand, and the evacuation means available.

(f) Continuity of Care and Documentation
A patient passing through the various medical echelons must be given care which is continuous, relevant and progressive. Care must be provided during evacuation, and careful documentation at all stages is essential.

(g) Levels of Medical Care
Medical care is provided on a progressive basis, ranging from first aid onwards to definitive specialized care as the patient is evacuated. The fundamental levels of professional medical care include:
- resuscitation and stabilization of vital functions;
- life and limb saving surgery, to include urgent measures for the prevention of long term disability; and
- definitive treatment and rehabilitation.

(h) Fitness for Evacuation
The clinical condition of the individual will govern the timing and means of the patient’s evacuation.

(i) Communication
For effective provision of care, patient and medical staff must be able to communicate with each other.

(j) Correlation of Medical Support with Force at Risk
The medical capabilities in the deployment area must be in balance with the force strength and exposure to risk. Peacetime medical support capability, determined by the expected daily rate of disease and non-battle injuries of the force, must be progressively expanded during a crisis as risk increases. The aim is to provide, at the onset of hostilities, sufficient capability to collect, evacuate, treat and hospitalize casualties including peak casualty rates in excess of the expected daily battle casualty rate.

(k) Interdependence of Evacuation Means and Treatment Facilities
The availability and type of transport assets to be utilized, length of the evacuation route and the operational environment will determine the size and capability of medical facilities at intermediate levels.
MEDICAL SUPPORT GUIDANCE

1407. Nations must retain the ultimate responsibility for the health of their forces, but on transfer of authority the NATO commander will share the responsibility for the health of assigned forces. To meet this requirement, the NATO commander needs appropriate medical staff and shall act in accordance with the Hague and Geneva Conventions, medical support precepts and the following guidance:

(a) **Statement of Requirements**

Medical support requirements are to be determined by the appropriate NATO commander in consultation with nations.

(b) **Specification of Requirements**

The medical support requirements will be specified as those resources necessary to prevent disease and injury, collect, evacuate, treat and hospitalize casualties occurring at agreed daily rates.

(c) **Provision of Resources**

Each nation bears ultimate responsibilities for ensuring the provision of medical resources for the support of its forces allocated to NATO. This may be discharged in a number of ways, including agreements with other nations or the appropriate NATO commander. Information on the provision of medical support and equipment provided by nations is included in the DPQ, LOGSTAR, MEDASSESSREP and in other reports.

(d) **Definitive Treatment**

Time consuming definitive treatment and rehabilitation will be provided under national responsibility.

(e) **Authority**

The medical resources provided by the nations are integral to the forces assigned to NATO commanders. This assumes that units and formations will deploy and re-deploy with a coherent medical structure tailored to their anticipated employment. Under normal circumstances they must expect to have first call on their own medical support. However, the NATO commander on transfer of authority must be authorized to take appropriate action, in consultation with his medical advisor, in order to cope with casualty peaks within his force.
(f) **Readiness and Availability**
Medical units and staffs must be at the same state of readiness and availability as the force they support.

(g) **Mobility**
Medical units must be as strategically and tactically mobile as the force they support.

(h) **Preservation of National Structures**
National medical systems of evacuation, care, accountability, and reporting should be retained in multinational forces as far as possible. However, advantages of economies of scale, which could be accrued from multinationality and co-ordination of medical support and services, should be accomplished.

(i) **Medical Staff Representation**
Peacetime medical staff representation in NATO command HQs need to be sufficient in size, training and experience to ensure proper consultation and medical planning for peace, crisis and war.

(j) **Harmonized Management Procedures**
The NATO commanders will, in co-ordination with the nations, establish harmonized procedures for the administration, management and reporting of medical support. In particular, continuity of medical care requires a highly responsive command and control system.

(k) **Medical Resupply**
The policy and planning for, and the implementation of, the resupply of medical materiel is a medical responsibility. A high degree of standardization and interoperability of medical materiel is necessary. This calls for joint NATO and national co-ordination.

(l) **Contingency Planning**
The planning of medical support must be part of contingency planning. This requires close co-operation and co-ordination between personnel staffs, logistics and operations/intelligence planners, and medical staffs.

**RESPONSIBILITIES**

1408. **General**

Previously, medical support in NATO was purely a national responsibility. With the increased introduction of multinational forces there is a consequent sharing of responsibilities between
nations and NATO Commanders. A common approach by nations and NATO commands is needed to achieve interoperability between medical services in the provision of support to highly mobile, versatile, self-sustaining, and multinational forces, operating in a multidirectional and unpredictable operational environment.

1409. NATO Military Authorities

(a) **Major NATO Commanders (MNC)**

MNC responsibilities are based on a commonly agreed approach for:

1. establishing medical support requirements based on battle casualty assessments for land, air and maritime forces;
2. assessing the capabilities of nations to provide medical and health services, including prevention of disease and injury, evacuation, treatment, hospitalization of casualties, and their ability to operate in an NBC environment;
3. providing medical support guidance to nations and to their own Major Subordinate Commands (MSC);
4. working towards the rationalization, interoperability, sustainability and standardization of medical support systems including medical procedures, supplies and equipment;
5. providing the medical input to plans, studies, exercises, operational tests and estimates;
6. formulating and co-ordinating policies on medical, health service and dental matters with NATO agencies and nations.

(b) **Major Subordinate Commands (MSC)**

The MSCs are responsible for:

1. medical support contingency planning;
2. liaison with, and efficient use of, medical support forces within their areas of operational interest.
3. within areas of responsibility, assessing medical readiness and capabilities to support operational plans including decontamination and treatment of NBC casualties.
4. providing assistance as needed in the development or modification of bilateral/multilateral medical support agreements;
(5) providing co-ordination, assessment and liaison on Host Nation Support medical matters (eg. blood transfusion, evacuation, emergency cross-nation support, medical resupply, medical status information, medical intelligence and preventive medicine).

(6) providing assessment for the commander of the impact of civilian and POW casualties on medical support capabilities;

(7) co-ordination with other MSCs, as necessary, to provide continuity of the medical evacuation chain.

1410. Medical Co-operation and Co-ordination

(a) Committee of the Chiefs of Military Medical Services in NATO (COMEDS)

The COMEDS reports to the Military Committee. It is composed of the highest military medical authorities of all member nations, together with an IMS medical representative and the MNC Medical Advisors. France, the Joint Medical Committee (JMC) and the General Medical Working Party of the Military Agency for Standardization (MAS) send observers. Its rôle is primarily to co-ordinate and to promote co-operation in the field of military medicine, including the development of common philosophies and procedures, and the organization of joint training courses, information exchanges and joint studies.

(b) Joint Medical Committee (JMC)

Co-operation between civilian and military departments of Alliance nations is conducted mainly at NATO HQ. The main Allied Committee addressing such matters is the JMC (see Chapter 7), which acts as the central point responsible for the civil/military co-ordination of medical planning in NATO.

(c) Senior NATO Logisticians' Conference (SNLC)

The impact of medical issues on logistics planning is dealt with in the SNLC. The MNCs Medical Advisors Group reports annually to the SNLC.

(d) MNC Advisors

Co-ordination of medical and health support planning and procedures within the NATO military organization is carried out at MNC level by the MNC Medical Advisors'
Group.

(e) Medical Standardization

Although specialized medical research and standardization are carried out in many areas of NATO, the main responsibility for the military lies within the three working parties of the Military Agency for Standardization (MAS). The three MAS Working Parties are:

1. General Medical Working Party (Army Board);
2. NBC Medical Working Party (Army Board);

Many medical STANAGs and Allied Medical Publications have been produced, in order to achieve the highest possible degree of standardization in the fields of doctrine, procedures and materiel.

REFERENCES

The Hague Conventions of 1907
The Geneva Conventions of 1949 (and subsequent Protocols)
MC 319 NATO Principles and Policies for Logistics
MC 326 Medical Support Precepts and Guidance for NATO
MC 335 Establishment of the Committee of the Chiefs of Military Medical Services in NATO (COMEDS)
AD 85-8 ACE Medical Support Principles, Policies and Planning Parameters
CHAPTER 15

USEFUL INFORMATION

INTRODUCTION

1501. The aim of this Chapter is to set out certain basic information that logistics staff officers in NATO may find useful. There are four sections:

- Common logistic terms and definitions
- NATO documentation and reference systems
- Useful addresses
- Common abbreviations

COMMON LOGISTIC TERMS AND DEFINITIONS

1502. The primary source document for agreed definitions is AAP-6, NATO Glossary of Terms and Definitions. The following definitions are among those in common use; they are included in AAP-6 except where shown otherwise.

1503. Administration

- The management and execution of all military matters not included in tactics and strategy; primarily in the fields of logistics and personnel management.
- Internal management of units.

1504. Administrative control

Direction or exercise of authority over subordinate or other organizations in respect to administrative matters such as personnel management, supply, services and other matters not included in the operational missions of the subordinate or other organizations.

1505. Civil Emergency Planning

All defence responsibilities of government departments and agencies other than those of Foreign Offices and the purely military responsibilities of Ministries of Defence. It embraces the expanded responsibilities in crisis and war for the continuity of government, the maintenance of law and order, the mobilization and use to the best advantage of national resources (energy, manpower, transport systems, production capacity, food and agriculture, raw materials, etc.) as well as civil defence measures,
including warning, rescue services and health care aimed at minimizing the consequences of enemy action to civilian populations. (Provisional definition)

1506. Civil/Military Co-operation
Co-operation in peace or war between civil and military authorities, both NATO and national, with a view to ensuring an effective overall defence of the NATO area.

1507. Combat Day of Supply
The total amount of supplies required to support one day of combat, calculated by applying the intensity factor to a standard day of supply.

1508. Command Controlled Stocks
Stocks which are placed at the disposal of a designated NATO commander in order to provide him with a flexibility with which to influence the battle logistically. “Placed at the disposal of” implies responsibility for storage, maintenance, accounting, rotation or turnover, physical security and subsequent transportation to a particular battle area.

1509. Common User Item
An item of an interchangeable nature which is in common use by two or more nations or Services of a nation.

1510. Consumer Logistics
That part of logistics concerning reception of the initial product, storage, transport, maintenance (including repair and serviceability), operation and disposal of material. In consequence, consumer logistics includes stock control, provision or construction of facilities (excluding any material element and those facilities needed to support production logistic facilities), movement control, reliability and defect reporting, safety standards for storage, transport and handling and related training. (Provisional definition)

1511. Compatibility
Capability of two or more items or components of equipment or materiel to exist or function in the same system or environment without mutual interference.

1512. Co-ordinating Authority
The authority granted to a commander or individual assigned responsibility for co-ordinating specific functions or activities involving forces of two or more countries, or two or more Services or two or more forces from the same Service. He has the authority to require
consultation between the agencies involved or their representatives, but does not have the authority to compel agreement. In case of disagreement between the agencies involved, he should attempt to obtain essential agreement by discussion. In the event he is unable to obtain essential agreement, he shall refer the matter to the appointing authority.

1513. Cross-Servicing
That servicing performed by one Service or national element for other Services or national elements and for which the other Services or national elements may be charged.

1514. Earmarking of Stocks
The arrangement whereby nations agree, normally in peacetime, to identify a proportion of selected items of their war reserve stocks to be called for by specified NATO commanders.

1515. Emergency in War
An operational contingency in a limited area caused by a critical aggravation of combat operations and requiring special and immediate action by National and Allied Commanders. The existence of such an emergency shall be determined by the Allied Commander responsible for the limited area involved, in consultation with the National Commander concerned.

1516. Host Nation Support
Civil and military assistance rendered in peace, (crisis) and war by a host nation to Allied forces and NATO organizations which are located on or in transit through the host nation's territory. The basis of such assistance is commitments arising from the NATO Alliance or from bilateral or multilateral agreements concluded between the host nation, NATO organizations and (the) nation(s) having forces operating on the host nation's territory.

1517. Infrastructure
A term generally applicable for all fixed and permanent installations, fabrications, or facilities for the support and control of military forces.

1518. Integrated Logistic Support
The management and technical process through which supportability and logistics support considerations of systems/equipment are integrated from the early phases of and throughout the life cycle of the project, and by which all elements of logistics support are planned, acquired, tested, and provided in a timely and cost-effective manner. (Provisional definition)
1519. **Interchangeability**
A condition which exists when two or more items possess such functional and physical characteristics as to be equivalent in performance or durability, and are capable of being exchanged one for the other without alteration of the items themselves, or of adjoining items, except for adjustment, and without selection for fit and performance.

1520. **Interoperability**
The ability of systems, units or forces to provide services to and accept services from other systems, units or forces and to use the services so exchanged to enable them to operate effectively together.

1521. **Lines of Communication**
All the land, water and air routes that connect an operating military force with one or more bases of operations, and along which supplies and reinforcements move.

1522. **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, transport, distribution, maintenance, evacuation and disposition 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.

1523. **Maintenance**

(a) All action taken to retain materiel in or to restore it to a specified condition. It includes: inspection, testing, servicing, classification as to serviceability, repair, rebuilding and reclamation.

(b) All supply and repair action taken to keep a force in condition to carry out its mission.

(c) The routine recurring work required to keep a facility (plant, building, structure, ground facility, utility system, or other real property) in such condition that it may be continuously utilized, at its original or designed capacity and efficiency, for its intended purpose.
1524. Movement Control
The planning, routing, scheduling and control of personnel and freight movement over lines of communication; also an organization responsible for these functions.

1525. Munition
A complete device charged with explosives, propellants, pyrotechnics, initiating composition, or nuclear, biological or chemical material for use in military operations, including demolitions. Certain suitably modified munitions can be used for training, ceremonial or non-operational purposes. Also called “ammunition”. Note: In common usage, “munitions” (plural) can be military weapons, ammunition and equipment.

1526. Mutual Aid
Arrangements made at government level between one nation and one or more other nations to assist each other.

1527. Operational Command
The authority granted to a commander to assign missions or tasks to subordinate commanders, to deploy units, to reassign forces, and to retain or delegate operational and/or tactical control as may be deemed necessary. It does not of itself include responsibility for administration or logistics. May also be used to denote the forces assigned to a commander.

1528. Operational Control
The authority delegated to a commander to direct forces assigned so that the commander may accomplish specific missions or tasks which are usually limited by function, time, or location; to deploy units concerned, and to retain or assign tactical control of those units. It does not include authority to assign separate employment of components of the units concerned. Neither does it, of itself, include administrative or logistic control.

1529. Operational Stocks
Level of stock necessary to meet possible operational requirements over and above holdings/allowances.

1530. Production Logistics
That part of logistics concerning research, design, development, manufacture and acceptance of materiel. In consequence, production logistics includes standardization and interoperability, contracting, quality assurance, procurement of spares, reliability and defect analysis, safety standards for
equipment, specifications and production processes, trials and
testing (including provision of necessary facilities), codification,
equipment documentation, configuration control and modifications.
(Provisional definition)

1531. Reallocation Authority
The authority given to NATO commanders and normally
negotiated in peacetime, to reallocate in “an emergency in war”
national logistic resources controlled by the combat forces under
their command, and made available by nations, in order to
influence the battle logistically.

1532. Reallocation of Resources
The provision of logistic resources by the military forces of
one nation from those deemed “made available” under the terms
incorporated in appropriate NATO documents, to the military
forces of another nation or nations as directed by the appropriate
military authority.

1533. Resupply
The act of replenishing stocks in order to maintain required
levels of supply.

1534. Standardization
Within NATO, the process of developing concepts, doctrines,
procedures and designs to achieve and maintain the most
effective levels of compatibility, interoperability, interchangeability
and commonality in the fields of operations, administration and
materiel.

1535. Sustainability
The ability of a force to maintain the necessary level of combat
power for the duration required to achieve its objectives.

1536. War Reserves
War reserves are stocks of materiel amassed in peacetime
to meet the increase in military requirements consequent upon
an outbreak of war. War reserves are intended to provide the
interim support essential to sustain operations until resupply can
be effected.

NATO DOCUMENTATION AND REFERENCE SYSTEM
1537. Although most letters and messages are self-explanatory,
the newcomer to NATO will occasionally find himself confused by
the different reference systems in use. This is especially so in the
case of messages which sometimes ask for comment on a previous
document, identifying it by a reference number only.

1538. Set out below is an outline guide to the document
references a logistician will meet in NATO and the way in which
they can indicate the sender and the subject involved.

NATO Headquarters

1539. Correspondence received from the International Staff
will normally fall into two categories; letters sent from a division
or directorate and NATO committee documents. Letters from a
division or directorate of the International Staff (IS) are easily
identified since the reference includes the abbreviation of the
sending Division/Directorate.

1540. Committee documents have either initial letters giving their
origin or an AC number. In general terms, the senior committees at
NATO Headquarters are identified by initials e.g. DPC (Defence
Planning Committee), DRC (Defence Review Committee), NPG
(Nuclear Planning Group) etc. The remaining committees have
an AC number i.e. AC/98 (SCEPC - Senior Civil Emergency
Planning Committee), AC/112 (NATO Pipeline Committee), AC/
305 (SNLC - Senior NATO Logisticians’ Conference).

1541. All these committees are listed in A3-D1 List of NATO
Committees and Working Groups issued by Conference and
Registry Services, International Staff, at NATO Headquarters.
This useful document also lists the sub-groups and panels:

AC/141  NATO Naval Armaments Group (NNAG)
AC/141 (IEG/6) Information Exchange Group No.6 on
Ship Design
AC/141 (IEG/6-SG/7) Sub-group No.7 on Ship Combat
Survivability

1542. The second part of a committee reference consists of
a letter followed by a number. The letters will be:

A  Agenda  N  Note
D  Document  VR  Verbatim Record (complete record
of a meeting)
DS Decision Sheet  WP  Working Paper (draft for discussion)

1543. Thus, the secretary of a NATO committee will confirm
the date of a meeting with a Note (N), he will follow this with an
Agenda (A), and issue either documents (D) or working papers
(WP) for decision at the meeting.
Examples: AC/15-D/277 is the 277th document issued by AC/15, the Planning Board for European Inland Surface Transport. AC/141(IEG/6-SG/7)-WP/15 is the 15th working paper considered by Sub-group No.7 of Information Exchange Group No.6 of AC/141, the NATO Naval Armaments Group.

1544. Papers sent out from the International Military Staff (IMS) follow a different system. Normal correspondence is easily identified by branch references but formal IMS papers are referenced as follows:

MC a Military Committee Document, promulgating long-term policy, e.g. MC 14/3
MCM Military Committee Memorandum, gives guidance or instructions for immediate use or short term policy
IMSWM an International Military Staff Working Memorandum, a working paper for discussion or comment

1545. The above three references are those most commonly seen. Other IMS document references are:

CMCM Issues views or instructions from the Chairman of the Military Committee
DCMCM Issues views or instructions of the Deputy Chairman of the Military Committee
IMSM International Military Staff Memorandum, the normal means of communication between the IMS and Commands, Staffs and Agencies outside the IMS
MILSTAM Military Staff Memorandum. For staff level communication inside or outside the IMS

Allied Command Europe

1546. SHAPE and its immediate subordinate headquarters use a reference system of numbers followed by letters and sequence/year identification. Since the letters and number are significant, it is possible to trace the sender and subject matter easily.

1547. The numbers are divided into subject categories:

0000 National and International Affairs
1000 Peace and Warfare
2000 Functional Organization for Defence
3000 Documentation and Information Services
4000 Personnel, Persons and Personnel Services
5000  Finance and Fiscal Services
6000  Material
7000  Military Jurisprudence and Legal Services
8000  Transportation, Travel and Shipping Service
9000  Medical, Scientific and Related Services

1548. Documents from SHAPE include in the reference two letters indicating the headquarters i.e. SH for SHAPE. The third letter indicates the division/group within the headquarters from which the letter originated. Examples are:

- C  Command Group
- O  Operations & Logistics Division
- P  Policy & Requirements Division
- F  ACE Financial Controller
- N  NATO CIS Operating & Support Agency

Fourth and fifth letters are used to indicate branches and sections within the division.

Example: 0500/SHOLL will break down as follows:
- first and second letters "SH" = SHAPE
- third letter “O” = Operations & Logistics Division
- fourth letter “L” = Logistics & Mobility Branch
- fifth letter “L” = Logistics Section

1550. For further information see:
- SHAPE Staff Directive 35-10 Short Titles & Identification Codes
- ACE Directive 25-2 ACE Subject File Scheme

**Allied Command Atlantic**

1551. Correspondence from ACLANT headquarters uses a reference system based on the “code number” of the officer writing the letter, followed by a file reference number.

1552. All posts in the headquarters are given a number and this is always prefixed with the letter C. The numerical sequence is:

- C-OO  Commander
- C-OO3 Special Assistant for International Affairs
- C-O1  Deputy Commander
- C-O2  Chief of Staff
- C-O23 Security
- C-O24 Legal
- C-O26 Public Information
- C-O27 Conference Support/Protocol
C-O3  Assistant Chief of Staff, Operations
C-O3O Deputy Assistant Chief of Staff, Operations
   C-31  Intelligence
   C-32  Crisis Management
   C-33  Operational Plans
   C-34  Above Water Warfare
   C-35  Anti-Submarine Warfare
   C-36  Mine Warfare
   C-37  Amphibious & Special Warfare
   C-38  Exercises
C-O4  Assistant Chief of Staff Resources
C-O4O Deputy Assistant Chief of Staff Resources
   C-41  Logistics Plans and Readiness
   C-42  Infrastructure
   C-43  Personnel & Administration
   C-44  Financial Controller
C-O5  Assistant Chief of Staff, Plans & Policy
C-O5O Deputy Assistant Chief of Staff, Plans & Policy
   C-51  Strategy
   C-52  Politico-Military Affairs
   C-53  General Plans
   C-54  Warfare & Reinforcement Plans
   C-55  Force Planning
   C-56  Long Term Armaments Planning
   C-57  Analysis/Operations Research
   C-58  Command Co-ordination
C-O6  Assistant Chief of Staff, Communications/Information Systems
C-O6O Deputy Assistant Chief of Staff, Communications/Information Systems
   C-61  CIS Plans & Policy
   C-62  CIS Projects
   C-63  CIS Operations & Support
   C-64  CIS Security & Quality Assurance

1553. Staff cells are further broken down to show, through the addition of a third number, the actual desk officer originating the correspondence. For Logistics and Readiness Branch these are:
Signal Messages

1554. The correct delivery of signal messages depends on the right address being used and the right Subject Indicator. Subject Indicators consist of three characters:

- the first character indicates the general area e.g. N (logistics/supply)
- the second character gives further information e.g. NB (stockpiling/war reserves)
- the third character specifies the subject further e.g. NBJ (reports/statistics).

1555. The “first characters” most used by logisticians are:

H Engineering/Maintenance
N Logistics/Supply
O Logistics/Supply (continued)
P Infrastructure and Medical
Q Movement and Transportation

The NATO Subject Indicator System is set out in APP-3, published by MAS.

1556. The NATO signal message address system is set out in ACP 117 Supplement 1 NATO Routing Indicator Book Message Addresses, published by the NATO CIS Operating and Support Agency (NACOSA).
USEFUL ADDRESSES

1557. There is an efficient postal delivery and communications system in NATO which ensures that most day-to-day correspondence and business can be done by simply addressing letters to “SHAPE”, “MOD UK”, etc. On certain occasions, it may be necessary to use the full postal address, or civil (PTT) telephone or (unclassified) telefax number, and some of these are set out below.

1558. It is important to appreciate, however, that Ministries of Defence and some NATO headquarters are very large organizations. Unless a specific room number or name is used in the letter or signal message, it can be passed to the wrong branch. The safe rule is:

- if you know the name of the man or branch you are writing to, put it on the letter or signal message. If you do not have a name or branch, then put “For Logistic Division” (or whichever functional area is appropriate).

1559. Two publications are particularly useful:

(a) AAP-1 NATO Military Organization and Command has short titles, locations and organization charts for NATO Military Agencies, MODs and all NATO headquarters and commands.

(b) ACP 117 NATO Supplement 1 lists the NATO Routing Indicator Book Message Addresses. This is the authority for signals addresses in the NATO system and, because of the increasing use of automatic signals equipment, it is important to use the correct terminology. (Those given below are correct as at April 1994).

1560. Contact addresses for logistics matters in national CHODs/MODs, MNCs and Agencies are as follows:
<table>
<thead>
<tr>
<th>Country</th>
<th>Contact Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belgium</td>
<td>Chief Logistics Management Section&lt;br&gt;Etat-Major Général&lt;br&gt;JSO-G/Log&lt;br&gt;rue d'Evere, 1&lt;br&gt;1140 Brussels&lt;br&gt;Belgium&lt;br&gt;Telephone: 02-243 23 60&lt;br&gt;Telefax: 02-243 39 97</td>
</tr>
<tr>
<td>Canada</td>
<td>J4 Log Plans&lt;br&gt;National Defence Headquarters&lt;br&gt;Ottawa&lt;br&gt;Ontario K1A 0K2&lt;br&gt;Canada&lt;br&gt;Telephone: 613-996 05 51&lt;br&gt;Telefax: 613-995 00 53</td>
</tr>
<tr>
<td>Denmark</td>
<td>Logistics Branch&lt;br&gt;Forsvarskommandoen&lt;br&gt;Postbox 202&lt;br&gt;2950 Vedbaek&lt;br&gt;Denmark&lt;br&gt;Telephone: 42 89 22 55 Ext. 3412&lt;br&gt;Telefax: 42 89 07 48</td>
</tr>
<tr>
<td>France</td>
<td>Division “Organisation Logistique”&lt;br&gt;Ministère de la Défense&lt;br&gt;14 rue St. Dominique&lt;br&gt;75998 PARIS Armées&lt;br&gt;France&lt;br&gt;Telephone: (33-1) 42 19 42 50&lt;br&gt;Telefax: (33-1) 42 19 43 54</td>
</tr>
<tr>
<td>Germany</td>
<td>Armed Forces Staff V/1&lt;br&gt;Ministry of Defence&lt;br&gt;PO Box 1328&lt;br&gt;D 53003 Bonn 1&lt;br&gt;Germany&lt;br&gt;Telephone: 088 65 83&lt;br&gt;Telefax: 0228-12 52 56</td>
</tr>
<tr>
<td>Greece</td>
<td>Staff Officer Logistics&lt;br&gt;4th JSG&lt;br&gt;Hellenic National Defence, General Staff&lt;br&gt;Hollargos, Athens&lt;br&gt;Greece&lt;br&gt;Telephone: 65-27 478 Ext. 2148</td>
</tr>
</tbody>
</table>
Italy
Logistics Division
Italian General Staff
Stato Maggiore Difese - IV Reparto
00 187 Roma
Italy

Telegraph: MOD IT-ROME
Telephone: (6) 46 91 21 66

Turkey
Chief Logistics Plan
Gnkur.Bsk.Ligi
Ankara
Turkey

Telegraph: TSG ANKARA
Telephone: (0090-4) 117 61 00
Ext. 1797

Netherlands
Staff Officer Logistics
MOD Defence Staff
PO Box 20701
2500 ES The Hague
Netherlands

Telegraph: RFNAD
Telephone: 070-318 76 35
Telefax: 070-318 85 55

Luxembourg
Chief of Logistics
HQ LU Army
rue Goethe, 38-44
BP 1873
Luxembourg

Telegraph: COMDTA LUX 2912
Telephone: (352) 48 88 36 Ext. 241
Telefax: (352) 49 65 23

Portugal
Logistics Division
Estado Major General
des Forcas Armadas
Av. Ilha da Madeira
Edificio Restelo
1400 Lisboa
Portugal

Telegraph: MOD PO/DILOGEN
Telephone: (351-1) 301 36 60
Telefax: (351-1) 301 84 83

Norway
Deputy Chief of Staff
Logistics
CHOD Norway
Forsvarets Overkommando
Oslo Mil, Huseby
0016 Oslo 1
Norway

Telephone: (472) 22 49 84 21
Spain
Logistics Division
Estado Mayor de la Defensa
Vitruvio 1
28006 Madrid
Spain

Telegraph: 48021
Telephone: 561-28 00 Ext. 2321
Telefax: 561-63 22

United Kingdom
Ministry of Defence (ACDS(L))
Main Building (Room 7267)
Whitehall London SW1 2HB
United Kingdom

Telegraph: MOD UK
Telephone: 071-218 64 44/60 34
Telefax: 071-218 06 76

United States
Log Plans, Exercises and International Logistics Branch
Organization of the Joint Chiefs of Staff
J-4
Washington DC 20301
United States

Telegraph: JOINT STAFF WASHDC
Telephone: 703-697 62 56
Telefax: 703-697 20 24
1561.
ABBREVIATIONS

1562. The official NATO Glossary of Abbreviations is AAP-15. Copies are widely held but, if staff officers have difficulty in acquiring copies, the Military Agency for Standardization (MAS), NATO Headquarters will advise on national distribution offices.

1563. The abbreviations set out below are for newcomers to NATO and the NATO logistic organization. Since informal explanations have been given, this section should not be quoted as an authority.

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<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAM</td>
<td>Air-to-Air Missile</td>
</tr>
<tr>
<td>AAP</td>
<td>Allied Administrative Publication (see AAP-4)</td>
</tr>
<tr>
<td>ABDR</td>
<td>Aircraft Battle Damage Repair</td>
</tr>
<tr>
<td>ADR</td>
<td>Airfield Damage Repair</td>
</tr>
<tr>
<td>AC</td>
<td>Commonly used as a prefix to NATO committees and their sub-groups, e.g. AC/305 is the SNLC</td>
</tr>
<tr>
<td>ACE</td>
<td>Allied Command Europe, the area commanded by SACEUR</td>
</tr>
<tr>
<td>ACE LCC</td>
<td>ACE Logistics Co-ordination Conference (peace)/Centre (crisis/war)</td>
</tr>
<tr>
<td>ACEREP</td>
<td>ACE Report or ACE Reporting System. A term covering the reports made to SACEUR by nations or by his subordinate commanders (also ARS)</td>
</tr>
<tr>
<td>ACLANT</td>
<td>Allied Command Atlantic, the area commanded by SACLANT, sometimes used to denote his Headquarters</td>
</tr>
<tr>
<td>ACOS</td>
<td>Assistant Chief-of-Staff</td>
</tr>
<tr>
<td>ACTICE</td>
<td>Agency for the Co-ordination of Inland Transport in Central Europe; an NCWA (see below) set up by PBEIST</td>
</tr>
<tr>
<td>ACTIMED</td>
<td>Agency for the Co-ordination of Transport in the Mediterranean; an NCWA (see below) set up by PBEIST</td>
</tr>
<tr>
<td>AD</td>
<td>ACE Directive; AD 85/2, AD 37 etc. procedural instructions issued by SACEUR</td>
</tr>
<tr>
<td>ADAMS</td>
<td>Allied Deployment and Movement System</td>
</tr>
<tr>
<td>ADatP</td>
<td>Allied Data Publications (see AAP-4)</td>
</tr>
<tr>
<td>AEP</td>
<td>Allied Engineering Publications, etc. (see AAP-4)</td>
</tr>
</tbody>
</table>
AFCENT Allied Forces } The areas commanded by Central Europe } CINCENT
AFNORTHWEST Allied Forces } CINCNORTHWEST Northwest Europe } and CINCSOUTH
AFSOUTH Allied Forces } and also used to denote Southern Europe } their Headquarters
AGARD Advisory Group for Aerospace Research and Development, a Group formed in 1952 reporting to the Military Committee, which carries out studies in the field of aerospace development
ALSS Advanced Logistics Support Site
AMF ACE Mobile Force; a multinational immediate reaction force assigned to SACEUR, available for despatch to any threatened area of Europe. AMF(L) is the Land element, AMF(A) is the Air element
AP Allied Publications; a generic term covering the different types of NATO publications listed in AAP-4
APOD Airport of Debarkation
APOE Airport of Embarkation
ARRC ACE Rapid Reaction Corps
ARS ACE Reporting System
ASG Assistant Secretary General; title of heads of the five Divisions of the International Staff at NATO Headquarters
ATGM Anti-Tank Guided Missile
ATGW Anti-Tank Guided Weapon
AVCAT }
AVGAS } Aviation fuels
AVTAG }
AVTUR }
BALTAP Allied Forces Baltic Approaches
BOCCA Bureau of Co-ordination for Civil Aviation (an NCWA)
CALS Computer-aided Acquisition and Logistics Support
CAPC Civil Aviation Planning Committee (a PB&C)
CAPS Conventional Armaments Planning System
CCC Command, Control and Communications
CCPC  Civil Communications Planning Committee (a PB&C)
CDC   Civil Defence Committee (a PB&C)
CEOA  Central Europe Operating Agency
CEP   Civil Emergency Planning
CEPPC Central Europe Pipeline Policy Committee
CEPS  Central Europe Pipeline System
CHOD  Chief-of-Defence, e.g. CHOD Norway
CHOP  Change of Operational Control; national forces are 'chopped'
to SACEUR/SACLANT etc. (also TOA)
CIMIC  Civil/Military Co-operation
CINCENT  Commander-in-Chief Allied Forces Central Europe
CINCNORTHWEST  Commander-in-Chief Allied Forces Northw
CINCSOUTH  Commander-in-Chief Allied Forces Southern Europe
CM   Council Memorandum; a document issued by the North
Atlantic Council
CMX  Crisis Management Exercise
CNAD  Conference of National Armaments Directors
COB  Co-located Operating Base; an airfield designated for use by
aircraft of another nation
COEC  Council Operations and Exercises Committee (at NATO
Headquarters)
CPX  Command Post Exercise; an exercise for testing procedures
and communications at Headquarters of formation level
CSA   Central Supply Agency (an NCWA)
CSCE  Conference on Security and Co-operation in Europe
CTS   Cosmic Top Secret; a security grading
CUIL  Common User Item List
C-VR  Verbatim Record of a North Atlantic Council meeting
DIMS  Director International Military Staff, or a Memorandum from
his office
DPC  Defence Planning Committee; the highest political decision-making
body that deals with matters related to the integrated military structure
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<th>Description</th>
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<td>DPQ</td>
<td>Defence Planning Questionnaire; a series of questions put to nations by NATO Headquarters to assess their military capabilities and planning</td>
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<tr>
<td>DRC</td>
<td>Defence Review Committee</td>
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<tr>
<td>DS</td>
<td>Decision Sheet</td>
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<tr>
<td>DSA</td>
<td>Defence Shipping Authority (an NCWA)</td>
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<tr>
<td>DSC</td>
<td>Defence Shipping Council; senior body of DSA</td>
</tr>
<tr>
<td>DTG</td>
<td>Date-Time-Group; a set of numbers and letters indicating when a message was written, comprising the date, the time, the month, and the time zone, e.g. 031245 Mar is 1245 hrs GMT on 3rd March</td>
</tr>
<tr>
<td>E Day</td>
<td>Day on which an exercise begins</td>
</tr>
<tr>
<td>EOD</td>
<td>Explosive Ordnance Disposal</td>
</tr>
<tr>
<td>EOR</td>
<td>Explosive Ordnance Reconnaissance</td>
</tr>
<tr>
<td>ETA</td>
<td>Estimated Time of Arrival</td>
</tr>
<tr>
<td>ETD</td>
<td>Estimated Time of Departure</td>
</tr>
<tr>
<td>EU</td>
<td>European Union</td>
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<tr>
<td>EWG</td>
<td>Executive Working Group (AC/281); a senior NATO Committee which reports to DPC</td>
</tr>
<tr>
<td>FAPC</td>
<td>Food and Agriculture Planning Committee (a PB&amp;C)</td>
</tr>
<tr>
<td>FCU</td>
<td>Fuel Consumption Unit</td>
</tr>
<tr>
<td>FFO</td>
<td>Furnace Fuel Oil</td>
</tr>
<tr>
<td>FLS</td>
<td>Forward Logistics Site</td>
</tr>
<tr>
<td>FMA</td>
<td>Forward Maintenance Area</td>
</tr>
<tr>
<td>FMM</td>
<td>French Military Mission</td>
</tr>
<tr>
<td>GMT</td>
<td>Greenwich Mean Time (ZULU-time)</td>
</tr>
<tr>
<td>HNS</td>
<td>Host Nation Support</td>
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<tr>
<td>ICAO</td>
<td>International Civil Aviation Organization</td>
</tr>
<tr>
<td>ICB</td>
<td>International Competitive Bidding</td>
</tr>
<tr>
<td>ILS</td>
<td>Integrated Logistics Support</td>
</tr>
<tr>
<td>IMS</td>
<td>International Military Staff; the staff at NATO Headquarters which supports the Military Committee (see also IS)</td>
</tr>
</tbody>
</table>
IMSM  IMS documents
IMSWM  
IPC  Industrial Planning Committee (a PB&C)
IS  International Staff; the staff at NATO Headquarters which supports the North Atlantic Council (see IMS above)
ISMEP  In-Service Support for Multinational Equipment Projects
IWT  Inland Waterways Transport
JMC  Joint Medical Committee (a PB&C)
JOC  Joint Operations Centre
LCC  Life Cycle Costing
LOC  Lines of Communications; a general term covering the land and sea routes to be covered before a force arrives at its war location
LRS  Logistic Readiness Centre (ACE)
LSA  Logistics Support Analysis
LSM  The Logistics Staff Meeting of the SNLC
LTDP  Long-Term Defence Programme; an important wide-ranging improvement programme of NATO defence matters (1978)
MAC  Military Airlift Command (US)
MAF  Marine Amphibious Force; a division-size force of US marines with integral air support
MAS  Military Agency for Standardization
MBS  (NATO) Mail Box System
MC  Military Committee; the highest military authority in NATO to which SACEUR and SACLANT are responsible, and the body responsible for providing military advice to the DPC
MC  Prefix to a Military Committee document, e.g. MC 14/3, MC 35/1 etc.
MCM  Military Committee Memorandum
MILREP  Military Representative to the Military Committee
MLCB  Maritime Logistic Co-ordination Board
MMR  Military Mission Requirement
MNC  Major NATO Commander; i.e. SACEUR, SACLANT. (see also MSCs and PSCs)
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<th>Description</th>
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<tr>
<td>MOB</td>
<td>Main Operating Base; a major military airfield</td>
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<tr>
<td>MOD</td>
<td>Ministry of Defence; e.g. MODUK (United Kingdom)</td>
</tr>
<tr>
<td>MOGAS</td>
<td>Motor Gasoline</td>
</tr>
<tr>
<td>MOU</td>
<td>Memorandum of Understanding; an agreement, covering such matters as Host Nation Support, often made between Ministries of Defence of two or more nations. It should not be confused with full inter-Government Treaties or Alliances which deal with wider issues and have different implications in international law</td>
</tr>
<tr>
<td>MSC</td>
<td>Major Subordinate Commander</td>
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<tr>
<td>MSWG</td>
<td>Military Sealift Working Group; a sub-committee of PBOS</td>
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<tr>
<td>NAAG</td>
<td>NATO Army Armaments Group; a Committee of international representatives working on collaboration in Army equipment, which reports to CNAD</td>
</tr>
<tr>
<td>NAC</td>
<td>North Atlantic Council; the highest political body in NATO with membership from all the members of the NATO Alliance</td>
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<tr>
<td>NACC</td>
<td>North Atlantic Co-operation Council</td>
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<tr>
<td>NADEFCOL</td>
<td>NATO Defence College at Rome</td>
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<tr>
<td>NAMILCOM</td>
<td>NATO Military Committee; this abbreviation is used in signals</td>
</tr>
<tr>
<td>NAMMA/</td>
<td>NATO Multi-Rôle Combat Aircraft Development and Production</td>
</tr>
<tr>
<td>NAMMO</td>
<td>Management Agency/Organization</td>
</tr>
<tr>
<td>NAMSA/</td>
<td>NATO Maintenance and Supply Agency/Organization</td>
</tr>
<tr>
<td>NAMSO</td>
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<tr>
<td>NASIS</td>
<td>NATO Subject Indicator System; a coding device by which signals are delivered to that part of an organization which deals with a particular subject</td>
</tr>
<tr>
<td>NBC</td>
<td>Nuclear, Biological, and Chemical</td>
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<tr>
<td>NCAAA</td>
<td>NATO Civil Aviation Agency (an NCWA)</td>
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<tr>
<td>NCAB</td>
<td>NATO Civil Aviation Board (policy element of NCAA)</td>
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<tr>
<td>NCO</td>
<td>National Container Organization</td>
</tr>
<tr>
<td>NCS/O</td>
<td>Naval Control of Shipping/Organization</td>
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<tr>
<td>NCWA</td>
<td>NATO Civil Wartime Agency</td>
</tr>
<tr>
<td>NDC</td>
<td>See NADEFCOL</td>
</tr>
</tbody>
</table>
NEO Non-combatant Evacuation Operation  
NFPDB NATO Force Planning Data Base  
NHPLO NATO HAWK Production and Logistics Organization  
NHMO NATO HAWK Management Office  
NHTDC NATO HAWK Technical and Documentation Centre  
NICS NATO Integrated Communications System  
NMAs NATO Military Authorities  
NMR National Military Representative to SHAPE; e.g. GENMR, UKNMR, etc.  
NOB National Oil Board  
NOEB NATO Oil Executive Board (East and West)  
NPC NATO Pipeline Committee  
NSA National Shipping Authority  
NSN NATO Stock Number  
NSSN NATO Standard Stock Number  
NWOO NATO Wartime Oil Organization (an NCWA)  
OCA Operational Control Authority (charged with shipping control responsibilities)  
OPR Office of Primary Responsibility; the section/branch/cell dealing with a matter (US term)  
ORBAT Order of Battle  
PAPS Phased Armaments Programming System; a procedure developed by NATO setting out the factors and milestones to be taken into account during the development and production of a collaborative project  
PBEIST Planning Board for European Inland Surface Transport (a PB&C)  
PBEIST/PB/ IWT sub-committee on Ports, Beaches and Inland Water Transport  
PBEIST/ RRT PBEIST sub-committee on Railroad Transport  
PBEIST/RT sub-committee on Road Transport  
PBEIST PBOS Planning Board for Ocean Shipping (a PB&C)
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<tr>
<th>Abbreviation</th>
<th>Full Form</th>
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</thead>
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<tr>
<td>PERMREP</td>
<td>(National) Permanent Representative to the North Atlantic Council</td>
</tr>
<tr>
<td>PfP</td>
<td>Partnership for Peace</td>
</tr>
<tr>
<td>PO</td>
<td>Private Office; a letter or document issued from the Private Office of the Secretary General</td>
</tr>
<tr>
<td>POMSS</td>
<td>Prepositioned Organizational Materiel Storage Site</td>
</tr>
<tr>
<td>PPC</td>
<td>Petroleum Planning Committee (a PB&amp;C)</td>
</tr>
<tr>
<td>PSC</td>
<td>Principal Subordinate Commander</td>
</tr>
<tr>
<td>PTT</td>
<td>Postal, Telegrams and Telephones; a term generally used to describe the civil postal and communications systems in European nations</td>
</tr>
<tr>
<td>RAOC</td>
<td>Regional Air Operations Centre</td>
</tr>
<tr>
<td>RMA</td>
<td>Rear Maintenance Area</td>
</tr>
<tr>
<td>SACEUR</td>
<td>Supreme Allied Commander Europe</td>
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<tr>
<td>SACLANT</td>
<td>Supreme Allied Commander Atlantic</td>
</tr>
<tr>
<td>SATCOM</td>
<td>Satellite Communication</td>
</tr>
<tr>
<td>SCEPC</td>
<td>Senior Civil Emergency Planning Committee (AC/98)</td>
</tr>
<tr>
<td>SDA</td>
<td>Ship Destination Authority</td>
</tr>
<tr>
<td>SHAPE</td>
<td>Supreme Headquarters Allied Powers Europe; SACEUR's Headquarters</td>
</tr>
<tr>
<td>SHARE</td>
<td>Stock Holding Assets and Requirements Exchange</td>
</tr>
<tr>
<td>SHOC</td>
<td>SHAPE Operations Centre</td>
</tr>
<tr>
<td>SHORAD</td>
<td>Short Range Air Defence (weapons/missile systems etc.)</td>
</tr>
<tr>
<td>SITCEN</td>
<td>Situation Centre</td>
</tr>
<tr>
<td>SNLC</td>
<td>Senior NATO Logisticians’ Conference (AC/305); the senior NATO advisory body on consumer logistics, consisting of both civil and military members</td>
</tr>
<tr>
<td>SOFA</td>
<td>Status of Forces Agreement</td>
</tr>
<tr>
<td>SOP</td>
<td>Standard Operating Procedure</td>
</tr>
<tr>
<td>SPG</td>
<td>Stockpile Planning Guidance</td>
</tr>
<tr>
<td>SPOD</td>
<td>Seaport of Debarkation</td>
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<tr>
<td>SPOE</td>
<td>Seaport of Embarkation</td>
</tr>
<tr>
<td>Abbreviation</td>
<td>Description</td>
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<tr>
<td>STANAG</td>
<td>Standardization Agreement (NATO) (see AAP-4)</td>
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<tr>
<td>STANAV-</td>
<td>Standing Naval Force Atlantic</td>
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<tr>
<td>FORLANT</td>
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<tr>
<td>STANAV-</td>
<td>Standing Naval Force Channel</td>
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<td>FORCHAN</td>
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<tr>
<td>STANAV-</td>
<td>Standing Naval Force Mediterranean</td>
</tr>
<tr>
<td>MED</td>
<td></td>
</tr>
<tr>
<td>STC</td>
<td>SHAPE Technical Centre</td>
</tr>
<tr>
<td>TOA</td>
<td>Transfer of Authority</td>
</tr>
<tr>
<td>TOW</td>
<td>Anti-tank Weapon (Tube-launched Optically-tracked Wire-guided missile)</td>
</tr>
<tr>
<td>UN</td>
<td>United Nations</td>
</tr>
<tr>
<td>WELG</td>
<td>Western European Logistics Group</td>
</tr>
<tr>
<td>WEU</td>
<td>Western European Union</td>
</tr>
<tr>
<td>WG</td>
<td>Working Group</td>
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<td>WP</td>
<td>Working Paper</td>
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