NATO STANDARD

ATP-3.12.1.4

DEPLOYED FORCE INFRASTRUCTURE

Edition B, Version 1

JUNE 2023

NORTH ATLANTIC TREATY ORGANIZATION

ALLIED TACTICAL PUBLICATION

Published by the
NATO STANDARDIZATION OFFICE (NSO)

INTENTIONALLY BLANK

NORTH ATLANTIC TREATY ORGANIZATION (NATO)

NATO STANDARDIZATION OFFICE (NSO)

NATO LETTER OF PROMULGATION

27 June 2023

1. The enclosed Allied Tactical Publication ATP-3.12.1.4, Edition B, Version 1, DEPLOYED FORCE INFRASTRUCTURE, which has been approved by the nations in the Military Committee Land Standardization Board, is promulgated herewith. The agreement of nations to use this publication is recorded in STANAG 2632.

2. ATP-3.12.1.4, Edition B, Version 1 is effective upon receipt and supersedes ATP-3.12.1.4, Edition A, Version 1, which shall be destroyed in accordance with the local procedure for the destruction of documents.

3. This NATO standardization document is issued by NATO. In case of reproduction, NATO is to be acknowledged. NATO does not charge any fee for its standardization documents at any stage, which are not intended to be sold. They can be retrieved from the NATO Standardization Document Database (https://nso.nato.int/nso/) or through your national standardization authorities.

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

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

INTENTIONALLY BLANK

RESERVED FOR NATIONAL LETTER OF PROMULGATION

INTENTIONALLY BLANK

RECORD OF RESERVATIONS

CHAPTER	RECORD OF RESERVATION BY NATIONS

Note: The reservations listed on this page include only those that were recorded at the time of promulgation and may not be complete. Refer to the NATO Standardization Document Database for the complete list of existing reservations.

INTENTIONALLY BLANK

RECORD OF SPECIFIC RESERVATIONS

[nation]	[detail of reservation]
FRA	France does not use the same standards to calculate its energy needs and for the quality of its production of water for human consumption. Since it is impossible to obtain a compromise on these parameters, the STANAG data will be taken as an indication.
MNE	Armed Forces of Montenegro due to its size, in the area of operations, participates in the composition of the units of other countries and using the infrastructure in accordance with the agreements.
POL	Poland reserves the to fulfil requirements of the agreement in the line with financial resources and the organizational changes in PAF. Reservations of implementations of the agreement: -1.2 Categorization of infrastructure - due to the period of use; -3.3 Computer modelling - due to the lack of computer models; -A.1 Power generating - due to the voltage source used; -A.2 Water supply - due to equipment used; -A.3 Waste management - due to the equipment used. The requirements provided in the appendices below may not be met due to the separate regulations in the PAF: -B.1 Logistics facilities, -B2 Sanitation facilities; -B.3 Messing facilities; -B.4 Working accommodation; -B.5 Living accommodation; -Annex D Fire safety guideline for deployed force infrastructure. In reference to the above, it is possible to make changes after they have been approved by the base commander.

Note: The reservations listed on this page include only those that were recorded at the time of promulgation and may not be complete. Refer to the NATO Standardization Document Database for the complete list of existing reservations.

INTENTIONALLY BLANK

TABLE OF CONTENTS

INTENTIONALLY BLANK

REFERENCES AND RELATED DOCUMENTS[1]

A. MC 0469/1, NATO Military Principles and Policies for Environmental Protection

B. MC 0560/2, Military Committee Policy for Military Engineering

C. *Bi-SC Directive 85-1, Capability Package Directive (Edition 3), June 2015

D. Bi-SC Directive 85-5, NATO Approved Criteria and Standards for Airfields, 29 October 2010

E. ACO Directive 080-025, ACO Force Protection, 22 January 2018

F. 6100.01/SHLEX/067/090, SHAPE Guidance on NATO Security Investment Programme (NSIP) Funded Infrastructure and Communication and Information System (CIS) Projects on Crisis Response Operations (CRO), Revision 1, 23 December 2009

G. AJP-4, Allied Joint Doctrine for Logistics (STANAG 2182)

H. *AJP-3.12, Allied Joint Doctrine for Military Engineering (STANAG 2238)

I. AJP-3.13, Allied Joint Doctrine for the Deployment and Redeployment of Forces (STANAG 2532)

J. AJP-3.14, Allied Joint Doctrine for Force Protection (STANAG 2528)

K. AJP-4.10, Allied Joint Doctrine for Medical Support (STANAG 2228)

L. ATP-3.12.1, Tactical Doctrine for Engineering (STANAG 2394)

M. ATP-3.12.1.8, Test Procedure and Classification of the Effects of Weapons on Structures (STANAG 2280)

N. ATP-3.12.1.12, Emergency Supply of Water in Operations (STANAG 2885) (CURRENTLY IN STUDY)

O. ATP-104, Water Production, Storage and Distribution (STANAG 2629)

P. AEP-4133, Electrical Power Supplies: Standard Types and Rotating Generating Sets (AC-DC) (STANAG 4133)

[1] Related Documents are marked with an asterisk *. All other documents are referenced at some point in the publication.

Q. AJEPP-2, Environmental Protection for Military Camps in NATO Operations (STANAG 2582)

R. AJEPP-4, Joint NATO Doctrine for Environmental Protection during NATO-Led Military Activities (STANAG 7141)

S. AJEPP-6, NATO Camp Environmental File During NATO-Led Activities (STANAG 6500)

T. AJEPP-6.1, Manual for Environmental Sampling Protocols (Standards Related Document)

U. AMedP-4.1, Deployment Health Surveillance (STANAG 2535)

V. AMedP-4.2, Deployment Pest and Vector Surveillance and Control (STANAG 2048)

W. AMedP-4.9, Requirements for Water Quality during Operations (STANAG 2136)

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

Y. AASTP-1, NATO Guidelines for the Storage of Military Ammunition and Explosives (STANAG 4440)

Z. AASTP-5, NATO Guidelines for the Storage, Maintenance and Transport of Ammunition on Deployed Missions or Operations (STANAG 4657)

AA. STANAG 2982, Essential Field Sanitary Requirements

BB. STANAG 3929, Evaluation Guide for Crash/Fire/Rescue Services

CC. STANAG 4370, Environmental Testing (Allied Environmental Conditions and Test Publications)

DD. STANAG 7206, Assessment Guides for the Provision of Fire Services During Deployed Operations

EE. Energy Management Handbook: Energy Management for Military Deployed Force Infrastructure, NATO Energy Security Centre of Excellence

FF. *EU ST11516/17, Technical Requirements for Contracted Camp Building and Camp Management for EU Operations and Missions (EU Restricted)

PREFACE

1. Infrastructure requirements for deployed forces are normally a national responsibility. However, coordination and interoperability with the different stakeholders are required to facilitate multinational collaboration and transition phases between troop-contributing nations and the host nation.

2. This publication details the recommended scales, standards and procedures for accommodation and essential services for expeditionary forces, a system that is termed deployed force infrastructure (DFI). ATP-3.12.1.4 aims to provide a common understanding and frame of reference to DFI. In many cases it represents the minimum military requirement, and nations may have more stringent requirements.

3. DFI takes into account Allied Command Operations (ACO) directives, Capability Package directives of the two Strategic Commands (Bi-SC), Supreme Headquarters Allied Powers Europe (SHAPE) guidance, and existing doctrinal publications. Edition A of this publication superseded the *NATO Guide for Field Accommodation*, a guideline document published by the NATO Army Armaments Group[2].

4. The custodian for this ATP is Canada. The point of contact (POC) is an officer or civilian in the Joint Engineer directorate of Canadian Joint Operations Command. The POC is also the Canadian representative to the Infrastructure Management Panel (IMP) of the Military Committee Land Standardization Board (MCLSB) Military Engineering Working Group (MILENG WG). Hence, and in accordance with its Terms of Reference, the MILENG WG / IMP is responsible for this ATP.

[2] PFP(NAAG-LCG/7)D(2008)0001 dated 20 November 2008

INTENTIONALLY BLANK

CHAPTER 1 – INTRODUCTION

1.1. GENERAL

Deployed force infrastructure (DFI) comprises buildings, facilities and installations required to support military forces when deployed. This publication is intended as guidance[3] for the planning of national, coalition or multinational operations and recognizes the existence of various national standards[4]. It includes recommended scales and standards for essential services and accommodation for expeditionary forces. DFI is intended to mitigate the effects of climate and environment in order to preserve the health, welfare and overall operational effectiveness of an expeditionary force. This ATP facilitates the transfer of DFI between nations by identifying basic common standards to be used when designing and constructing camps. It should be read in concert with the references and NATO standardization agreements (STANAGs) listed in the References and Related Documents section.

1.2. CATEGORIZATION OF INFRASTRUCTURE

1. The NATO standard for deployed infrastructure is expressed in terms of tiers in *SHAPE Guidance on NATO Security Investment Programme (NSIP) Funded Infrastructure and Communication and Information System (CIS) Projects on Crisis Response Operations (CRO), Revision 1* (reference F) and *Bi-SC Directive 85-5 NATO Approved Criteria and Standards for Airfields* (reference D), as detailed below.

a. Tier 1 support is what the initial personnel deploying on operations can carry on their person or in their support vehicles. These personnel operate under field conditions. Tier 1 spans a period of several weeks or months. Some documents also refer to this as integral standard.

b. Tier 2 provides basic support for the initial phase of an operation. It provides only austere working and living space. It spans the period of between one and two months to two years. This document also uses the term initial standard when referring to Tier 2.

c. Tier 3 infrastructure provides semi-permanent accommodation for the sustainment phase of an operation. It spans the period of over six months to more than 10 years. This document also uses the term temporary standard when referring to Tier 3.

[3] The Concise Oxford English Dictionary (COED) defines guidance as “advice or information aimed at resolving a problem or difficulty”. The scales and standards in this ATP are aimed at solving the challenge of establishing a common quality of DFI in a NATO camp. By incorporating them in orders, a NATO Commander can establish them as the quality level that is to be implemented.

[4] The COED defines standard as “a required or agreed level of quality or attainment”. In many cases this ATP represents the minimum military requirement; nations may have scales and standards that are more stringent.

d. Tier 4 facilities are permanent infrastructure and installations, for example Supreme Headquarters Allied Powers Europe (SHAPE) near Mons, BEL. Some documents also refer to this as permanent standard.

1.3 SCOPE

1. The scope of this document is to provide direction and guidance on primarily Tier 2 standards of services and accommodation, and to a limited extent Tier 3. Additional details on standards for Tier 3 infrastructure and CIS assets are covered in *SHAPE Guidance on NSIP Funded Infrastructure and CIS Projects on CRO* (reference F). This Allied Tactical Publication (ATP) partially covers the technical specifications for infrastructure construction or design. Additional specifications can be found in the publications in the References and Related Documents section. For example, Annex D of ACO Directive 080-025, *ACO Force Protection* (reference E), contains a vast amount of details concerning force protection measures that can be implemented to provide security to personnel accommodated in DFI.

2. This ATP does not consider standards for maritime infrastructure (e.g. piers and jetties) and airfields. The former is under development in Allied Maritime Command, while the latter is covered in Bi-SC Directive 85-5 (reference D).

CHAPTER 2 – DEPLOYED FORCE INFRASTRUCTURE SYSTEM

2.1. GENERAL

Deployed force infrastructure (DFI) should be designed and developed as a fully integrated system that may be improved as operations mature and infrastructure requirements change. DFI consists of the service and accommodation components depicted in Figure 2.1 and described in the subsequent paragraphs. Recommended scales and standards of these components are provided in the annexes.

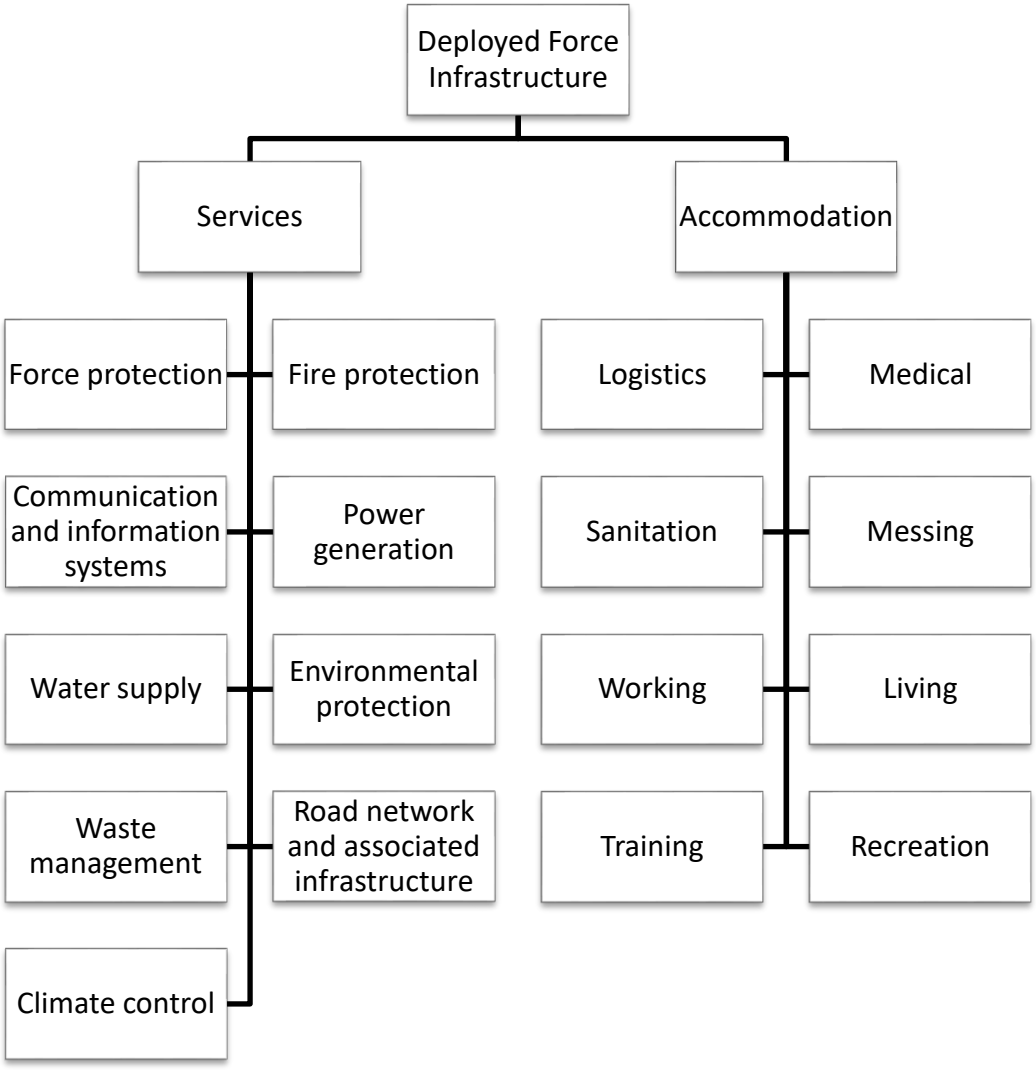

Figure 2.1: Deployed Force Infrastructure Services and Accommodation

2.2. DEPLOYED FORCE INFRASTRUCTURE SERVICES[5]

1. Force Protection. Force protection (FP) measures should be based on a detailed threat assessment and combine protective works and installation layouts that enhance protection and security against conventional and unconventional threats. Every reasonable effort must be taken so that the design of the camp and of individual facilities incorporates appropriate FP measures, for example using natural cover and concealment such as trees, shade and high ground, or selecting a site which offers good visibility from the perimeter to surrounding areas and avoids good visibility into the camp (e.g. from higher areas outside). Troop safety measures should also be considered, such as weapons clearing barrels/boxes located at each camp entrance and at other locations as required.

2. ACO Directive 080-025, *ACO Force Protection* (reference E), in Annex D, *Military Engineering Design Guidelines for Expeditionary Operations*[6], gives commanders and military engineers the tools necessary to implement the optimal level of physical FP measures for DFI. Military engineering (MILENG) support to FP is also discussed in ATP-3.12.1, *Tactical Doctrine for Engineering* (reference L) and in AJP-3.14, *Allied Joint Doctrine for Force Protection* (reference J). Additional physical threat information is provided in ATP-3.12.1.8, *Test Procedures and Classification of the Effects of Weapons on Structures* (reference M).

3. Fire Protection. Fire protection is considered part of MILENG support to FP. A proactive fire safety posture will reduce or mitigate unnecessary fire risk. Fire protection is a broad term which includes fire safety engineering for infrastructure and camps, fire safety programs within camps, and the provision of fire response to suppress fires. This protects personnel, equipment, materiel and infrastructure from injury or damage due to fire incidents, and preserves NATO's operational capabilities and readiness. Detailed guidance on fire safety for DFI is contained in Annex D, Fire Safety Guideline for DFI.

4. Communication and Information Systems. Communication and information systems (CIS) comprise a range of military and commercial communications systems. DFI must make provision for cabling runs, secure areas, antenna sites and power requirements for CIS assets. Camp design and development must be done in coordination with personnel responsible for CIS infrastructure design and implementation.

5. Power Generation. Power generation may comprise a mix of military and commercial deployable generators, hybrid systems, and innovative systems utilizing renewable energy sources, energy storage and energy management tools and

[5] The order of the DFI services and accommodation presented here broadly aligns with the priority of work described in Chapter 4, however the exact priority is always mission-dependent.
[6] ACO Directive 080-025 is classified NATO Restricted, however Annex D and its four appendices are NATO Unclassified.

processes, as well as host nation (HN) resources. Additional information on energy management is provided in Chapter 3, and specific principles and guidance on power generation for DFI are contained in Annex E, Power Generation for DFI. See also AJEPP-2, *Environmental Protection for Military Camps in NATO Operations* (reference Q) and AEP-4133, *Electrical Power Supplies: Standard Types and Rotating Generating Sets* (reference P).

6. High, medium and low-voltage lines safely distribute power to area facilities and individual users. Back-up power generation or energy storage capacity is required for operational functions where power interruption is unacceptable, such as the operations centre, essential CIS and security systems, and other critical services. The differences between European and North American electrical standards should always be considered. Distribution systems may include underground, surface and above ground elements.

7. Water Supply. Water must be sourced, treated, stored, distributed and disposed of. Water quality standards must be appropriate for a range of uses including drinking, cooking, washing, laundering, medical, firefighting and water-borne sewer systems. Water services include bulk storage with distribution being achieved through bulk deliveries, packaging and/or pipelines. Key references for water quality standards are AMedP-4.9, *Requirements for Water Quality during Operations and in Emergency Situations* (reference W) and ATP-3.12.1.12, *Emergency Supply of Water in Operations* (reference N). See also ATP-104, *Water Production, Storage and Distribution* (reference O).

8. Water supply should be considered holistically with waste water management. As far as practicable, water production, treatment, distribution and storage should be an integrated process that includes reuse, recycling, and waste water treatment. See AJEPP-2 (reference Q) for water and waste water management best practices.

9. Environmental Protection. Environmental protection (EP) during NATO-led military activities is a collective responsibility of NATO and the troop-contributing nations. However, each nation bears ultimate responsibility for the actions of its own forces. MILENG support to operations should include an environmental baseline study at the earliest opportunity in order to assess the environmental conditions upon occupying a camp and to protect against future litigation when the property is handed over to another nation, the HN, or a third-party entity. It should also include an environmental closeout study upon camp handover or closure. Key references include AJEPP-4, *Joint NATO Doctrine for Environmental Protection During NATO-Led Military Activities* (reference R) and AJEPP-6, *NATO Camp Environmental File During NATO-Led Activities* (reference S). MILENG EP support to operations is described in ATP-3.12.1 (reference L). EP best practices and standards, and the roles and responsibilities of the EP officer, are detailed in AJEPP-2 (reference Q). Effective implementation of the direction and guidance provided in the above references will

lead to operations-enhancing EP[7] and successful interoperability amongst Allied and Partner nations.

10. Waste Management. Waste management may be accomplished through a variety of means including incineration, solid waste disposal sites and packaged or constructed liquid sewage treatment schemes. Careful segregation of waste into different categories helps to minimize the quantities of waste. Hazardous wastes, e.g. medical, fuel, batteries, ammunition and asbestos, must be managed to comply with environmental regulations and practices that safeguard personnel, the HN and satisfy standards expected of a NATO nation. See also AJEPP-2 (reference Q). Some hazardous material may have to be removed from theatre and therefore may require separate holding or storage facilities.

11. Road Network and Associated Infrastructure. The road network and associated infrastructure (lighting, drainage, parking, etc.) must be properly planned and designed to allow the smooth and safe flow of traffic through the appropriate areas of the camp, and to facilitate future expansion. Camp entrances and exits are considered part of the road network. Regulations for military road traffic, route classification, route signing and lighting, are detailed in AMovP-1, *Road Movements and Movement Control* (reference X).

12. Climate Control. Climate control should provide reasonable working and living conditions in the deployed camp. This may require a range of active and passive measures taken to provide heating, ventilation and air conditioning, and must take into consideration power generation, insulation, shadowing and smart use of energy. Climate control also includes workspace lighting, and protection against insect vectors. See also AMedP-4.2, *Deployment Pest and Vector Surveillance and Control* (reference V).

2.3. DEPLOYED FORCE INFRASTRUCTURE ACCOMMODATION

1. Logistics. Logistics facilities provide for the storage of all classes of supplies including weapons, ammunition, fuel, and general stores; parking areas; and areas to repair equipment, vehicles and aircraft.

2. Medical. A medical treatment facility requires sufficient services to enable it to provide appropriate medical treatment and care for the mission. See also AJP-4.10, *Allied Joint Doctrine for Medical Support* (reference K), and AMedP-4.1, *Deployment Health Surveillance* (reference U).

[7] Furthermore, *NATO 2030: United for a New Era – Analysis and Recommendations of the Reflection Group Appointed by the NATO Secretary General* states that “NATO should continue to take steps to protect the environment, consider the impact on climate change from its own operations and act where possible to mitigate those effects” (25 November 2020).

3. Sanitation. Sanitation comprises showers, latrines, laundry facilities and local storage of water, waste water and refuse. Any specific improvisation of field sanitary appliances remains a national responsibility. See also STANAG 2982, *Essential Field Sanitary Requirements* (reference AA).

4. Messing. Messing facilities provide ration storage, refrigeration, food preparation, kitchen, dining and canteens.

5. Working. Working accommodation provides offices, command posts, communication centres and other specialist office-type applications. This component should be modular, multi-use and open-plan for flexible working spaces.

6. Living. Living accommodation provides dormitories for a range of users and an individual allowance for personal administration and amenities.

7. Training. Training facilities may be required inside a deployed camp depending on the circumstances.

8. Recreation. Recreation facilities provide morale and welfare amenities such as gyms, shops, libraries, internet services and places of worship.

INTENTIONALLY BLANK

CHAPTER 3 – PLANNING PRINCIPLES AND CONSIDERATIONS

3.1. PRINCIPLES

While every situation is different and there are often unique mission requirements that impact on infrastructure planning, there are also principles that should always be considered[8]. Camp location is vital for many reasons and **engineer advice** should always be sought before decisions are made. The suitability of a location may vary greatly depending on the time of year and **seasonal factors** are not always immediately obvious. The use of a location by the **local population** and the impact on this population as a result of NATO's use of an area must be considered. A **long-term view** of planning, through a master development or real estate plan should be taken whenever possible. **Real estate management** responsibilities and "ownership" of portions or all of the camp should be addressed as early as possible. Overall, a holistic approach to planning must be taken, so that while the principles need to be carefully considered independently, they should not be considered in isolation but rather serve to enhance the overall effect.

3.2. PLANNING AND DESIGN

1. The most effective planning begins with the end in mind. In other words, design and construction must also consider disposal. To that end, Annex H – Camp Closure Guide, provides a thorough description of camp closure best practices. Legacy is an important consideration related to camp closure. The camp should be designed to have a lasting, positive impact on local development, supporting the local context while contributing to the overall objectives of the mission.

2. Planning must consider sustainability[9]. The camp should be designed to minimize its impact on the local environment in terms of resources, logistics footprint, the natural environment and pollution. From cradle to grave, the camp must carefully consider sustainability and be tailored towards the responsible use, reuse and recovery of resources, preventing discharges to land, water or air that might harm the environment or human health. In parallel with sustainability, smart and efficient use of energy and water must be considered to reduce the logistic burden for the sustainment of the camp and thus maximize its support to combat power. In support of NATO and global goals to reduce greenhouse gas emissions, the design should seek to minimize the use of fossil fuels, within force protection (FP) and operational parameters.

3. The quality of construction should not be higher than is necessary to provide facilities suitable for the actual needs of the intended occupancy in accordance with

[8] See also AJEPP-2*, Environmental Protection for Military Camps in NATO Operations* (reference Q), Annex A – Infrastructure Planning, which has an extensive list of infrastructure planning principles.
[9] The *United Nations Brundtland Commission* defined sustainability as "meeting the needs of the present without compromising the ability of future generations to meet their own needs" (1987).

the minimum military requirement. However, long-term costs must also be considered. The design should consider economies that can be affected by the use of modern engineering practices, construction methods and skills, and the use of suitable local materials which are consistent with the intent of these criteria. Planning should consider multiple or flexible building use and should consider underground aspects prior to above ground if possible. Design scales and standards, and other planning specifications, are provided in the annexes.

4. Deployed force infrastructure (DFI) should facilitate rapid construction by military engineers and/or civilian contractors supported by locally-employed civilians where appropriate. It should be capable of being operated and maintained by military personnel and/or civilian contractors supported by locally-employed civilians. Planning for Tier 3 DFI under the NATO Crisis Response Operations Urgent Requirement (CUR) procedure requires a clear identification of the requirement as well as longer lead time due to the lengthy NATO approval and procurement process.

5. Soil conditions should be considered in relation to the expected camp life cycle and maintenance requirements. Settlement or residual settlement caused by soil composition and possibly by environmental conditions (e.g. thawing of frozen soil, or saturation by precipitation) can significantly impact infrastructure quality, safety and durability.

3.3. COMPUTER MODELING

Computer models can greatly assist in optimizing camp layout as well as energy and water management. It is recommended to use open standards such as Drawing Exchange Format (DXF) or Industry Foundation Classes (IFC). Camp design, construction and management models have been developed by several nations and at NATO workshops. Inquiries concerning these models may be directed to the Sustainability Cell Chief at the Military Engineering Centre of Excellence.

3.4. INFRASTRUCTURE AND LAND MANAGEMENT

1. Real estate, comprised of land and infrastructure, allocated for supporting military operations is a resource that must be accounted for and managed similar to any other military asset. Once acquired (purchased, allocated by the host nation (HN), leased or constructed), real estate should be catalogued in an inventory. There is considerable flexibility in how this can be achieved, and to what level of engineering detail is included in this inventory, but as a minimum, it should include the category (building, works or land), a unique identifier or name, location, and custodian. This management activity is greatly benefited by the use of a geographic information system (GIS). All contemplated additions to the inventory should be managed by an approval process as determined by the camp commander. Once acquisition is complete, a custodian should be assigned who will be responsible for identifying changes in use or custodianship to the inventory manager.

2. A facilities management system is vital. This will maintain accurate record keeping of infrastructure operation and maintenance, planning figures and specifications, and power generation or consumption throughout the facilities' life cycles. The facilities management system must also include the type and location of underground infrastructure and works. A computer-based system allows engineers to design and deliver the infrastructure, as well as logisticians and contractors to monitor and manage the facilities. This also facilitates the transfer of the infrastructure from an outgoing to an incoming force. See also Annex F – Camp Handover Guide.

3.5. MODULARITY AND SCALABILITY

1. In line with operational experience and practice, a modular system of DFI is recommended. Developed from a series of "building blocks", DFI would be the product of adding any number of basic modules to satisfy a given size or capacity requirement. Each individual module would provide a minimal level of functional capability, for example potable water, shelter, sanitation, power generation, laundry or kitchen facilities.

2. One way of approaching modularity is through the creation of modules with a predefined capacity, for example 125-person company groups. This approach is especially interesting for Tier 2 DFI because these are often built for a limited period of time, and typically house smaller elements than Tier 3 DFI.

3. Another approach would entail modularity on a lower scale, allowing for scalability, flexibility and speed in design while at the same time minimizing duplication of services. For example, a kitchen and dining facility for 125 persons would not make much sense for larger camps because for a 1,000-person camp this would result in eight kitchens and dining facilities. It would be far more sensible to have buildings that are built up through modules with standardized interfaces and are scalable in a predefined range. A module in this respect would, for instance, be a container or a tent which can be coupled (through standardized interfaces) to multiple other modules in order to create the required service or accommodation. This approach also allows for multiple standardized variants of modules to be created and even combined. For example, an office building containing 22 office containers, one toilet container, one climate control container and 12 hallway containers. The same hallway, toilet and climate control containers could also be used in an accommodation building. Such a building could be made as small or as large as required.

4. When employing the above approach to modularity, the basic structures of a camp would consist of three types of objects: standardized, modular and tailor-made, the latter being specific to the situation in which they are deployed. The decision tree in Figure 3.1 can be used to determine which type of object is needed for a certain accommodation or service.

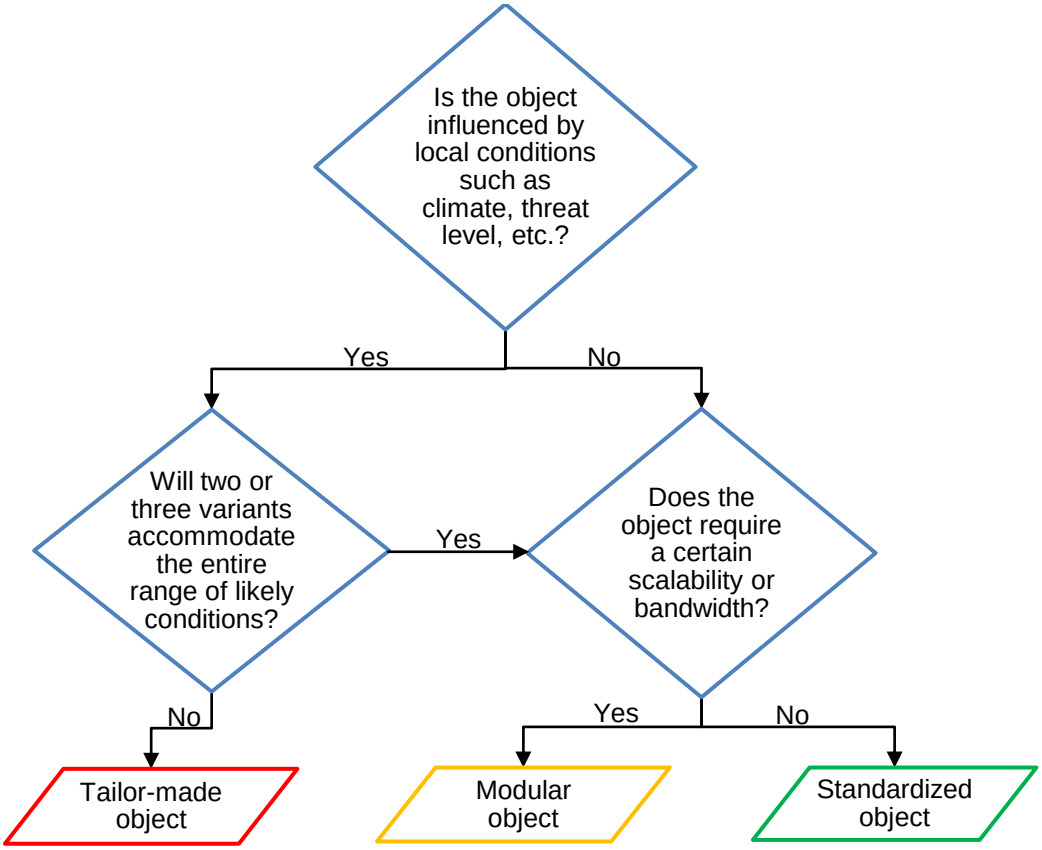

Figure 3.1: Modularity Decision Tree

5. Standardized objects are those which do not need to change to reflect local conditions and can be employed as part of DFI regardless of the deployed environment. Examples might include corridor units between structures or an anti-tank ditch. In order for these objects to fit together modularly, it is important to clearly define the interfaces of these objects.

6. The modular objects are made up of standardized modules which can be combined, added or removed depending on the necessary size and functions. This can be done within a certain bandwidth. If the bandwidth is exceeded an additional modular object of that type is needed. For instance, an accommodation building could consist of multiple accommodation containers. The smallest building could consist of 10 containers, while the largest could consist of 60 containers.

7. The tailor-made objects are those objects which have to be different on every occasion, because they are sensitive to external factors such as climate, local resources, or soil conditions. An example of a tailor-made object are foundations, water treatment systems and climate control systems. For these objects it is not

possible to have standardized or modular solutions. However, use of a standardized design process is possible, which allows for a speedy and accurate design.

3.6. STATUTORY COMPLIANCE

DFI shall comply with international, national and HN legislation concerning occupational health and safety and the environment as far as is practicable. Where this legislation does not exist, the standards of the troop-contributing nations, or theatre-agreed standards, shall apply. MC 469/1, *NATO Military Principles and Policies for Environmental Protection* (reference A), authorizes NATO commanders to establish environmental protection (EP) procedures and standards, and the AJEPPs provide the necessary details. Compliance with HN legislation might also concern technical aspects, such as authorization to use HN networks, use of renewable energy, and types of construction and demolition. As national standards may vary widely, DFI should aim to comply with the most stringent of the legislations.

3.7. SURGE CAPACITY

Deployed camps should be capable of absorbing a surge in occupancy to cope with fluctuations in operational demand. Troop rotations always generate higher occupancy. It is recommended that camps be capable of accommodating up to 125% of design capacity for a limited period of time. This could be achieved by doubling up in accommodation or using an austere location, rather than by constructing surplus capacity. DFI services should be over-designed to allow for the extra load. Other considerations such as population density and fire safety must also be factored into the planned layout, as well as potential redundancies of services.

3.8. INTEROPERABILITY

DFI should ensure interoperability with national equipment and facilitate camp integration and/or handover from one contingent to another. See also Annex F, Camp Handover Guide.

3.9. ENERGY MANAGEMENT

1. Allied and Partner nations, as well as relevant international organizations with which NATO has contact, have recognized the importance of energy efficiency in military operations. To that end, many nations are developing innovative materiel solutions in partnership with industry, government, academia and other defence partners. While some materiel solutions may be necessary as a matter of replacing outdated equipment, a focus on non-materiel solutions such as energy management may show more near-term results.

2. The optimization of all the energy process phases, e.g. production, management, distribution and consumption, can enhance NATO forces' sustainability, since

autonomy, asset mobility and resilience will be positively influenced, thereby improving the commander's operational capabilities. There are essentially two areas of intervention to achieve this optimization:

a. technological solutions such as the adoption of new technologies, e.g. replacement of inefficient equipment, research and development for future procurement, and improvements to processes, e.g. military plans and standard operating procedures (SOPs); and

b. non-technological solutions such as behavioural and cultural changes, through the provision of appropriate interventions, e.g. training, incentives, and removal of barriers.

3. Energy management can be described as "using organizational management, technological applications, and behaviour change to reduce or redistribute energy usage, without creating any shortage or negative effect to capabilities or operations"[10]. Resilience best describes NATO's aim concerning energy management. Operations planners can enhance resilience by considering energy management issues. DFI should be efficiently powered and managed, resulting in a reduced logistic burden (and commensurate reduced FP requirements) to sustain the camp, giving commanders greater flexibility while providing soldiers with no reduced quality of life. Camp planners, in consideration of the climate, can also incorporate simple vernacular design principles such as shading, wind catchers, solar tubes and earth construction, i.e. passive design measures. This not only enhances energy efficiency, it is also known to bolster the resilience of personnel by improving mental well-being.

4. The application of internationally recognized energy management models can provide quantitative energy savings, with implied resource availability for other capabilities, plus improved energy security and EP. For example, International Organization for Standardization (ISO) 50001, *Energy Management Systems* (EnMS), is designed to support organizations in all sectors by providing a practical way to improve energy use through the development of an EnMS. ISO 50001 establishes a systematic approach of continual improvement, providing an organization with a set of requirements needed to create, implement, maintain and further develop an EnMS.[11]

5. As an example, the NATO Energy Security Centre of Excellence, with some of its partners[12], has developed a guide to implement a deployed EnMS, based on the

[10] *Energy Management Handbook: Energy Management for Military Deployed Force Infrastructure* (reference EE).

[11] In June 2013, the Irish Defence Forces (IDF) became the first national military organization in the world to achieve ISO 50001 certification. Focused primarily on its static military infrastructure, the IDF began monitoring its energy usage in 2007. After adopting the ISO 50001 standard, the IDF realized an annualized energy savings of 12.3% over a five-year period (2007-2012), which equated to a total cost savings of €4M. (NavyToday.com, 2013)

[12] Other contributors to the Energy Management Handbook were the Military Engineering Centre of Excellence, the UK Ministry of Defence, and Natural Resources Canada.

principles in ISO 50001. The guide is entitled *Energy Management Handbook: Energy Management for Military Deployed Force Infrastructure* (reference EE). It is structured around the four-phase continuous improvement process of plan-do-check-act. Each step of the process addresses three pillars of energy management, namely command and control, technological applications, and behaviour change. The handbook also provides extensive information on energy metering procedures.

6. Operational energy efficiency stemming from improved energy management reduces energy use and fuel consumption. Through a documented and harmonized report-centric system of specific energy usage metrics, adoption of this guidance can provide NATO with the data necessary for military energy efficient designs, acquisition of innovative solutions, and improved processes for better energy performance. This energy management guidance can be applied independently to any organization and its energy challenges, and can align with other policies or SOPs.

INTENTIONALLY BLANK

CHAPTER 4 – DEPLOYED FORCE INFRASTRUCTURE DEVELOPMENT STANDARDS

4.1. DEVELOPMENT THROUGH TIERS

1. For deployments of more than two years duration, deployed force infrastructure is normally developed from Tier 2 to Tier 3 standards, subject to command direction and guidance, operational duration, climate, and logistic capability. The tiers overlap, as support standards are improved progressively and evolve from one tier to another. Thus, the Tier 2 deployable assets would be progressively supplemented and replaced by Tier 3 semi-permanent facilities. This process should start as soon as it is known or assessed that an operation will continue into a sustainment phase in order to provide the most cost-effective solutions with reduced operation and maintenance costs justifying the capital expenditure.

2. Tier 2 standard should be operational within two months of deployment and should be designed to operate for up to two years. It initially comprises essential services and accommodation such as force protection works, communication and information systems (CIS), power generation, water supply, medical, sanitation, ammunition and fuel. Tier 1 tentage and camp stores held by tactical units would initially provide the main parts of living and working accommodation. As the mission develops, services and accommodation should be upgraded as necessary. When the anticipated duration of the operation is between 90 days and two years, Tier 2 standard (austere conditions) should be implemented. The annexes to this ATP provide the relevant scales and standards.

3. Tier 3 standard is appropriate for deployments in excess of two years. A cost benefit analysis is recommended for operations planned to exceed two years in duration to decide whether to replace Tier 2 standard with Tier 3 infrastructure and CIS assets.

4.2. GENERIC CAMP PLAN

The design of each camp is specific to the location and mission. Nonetheless, camp design can be facilitated by starting with a generic plan. The generic camp plan must incorporate the services and accommodation described in Chapter 2 and bear in mind the principles and considerations articulated in Chapter 3. Nations are encouraged to develop generic plans. The custodian can be contacted for examples from other nations and from NSPA, or for national points of contact. To contact the custodian, refer to the NATO Standardization Office Protected Website or contact the Military Engineering Working Group Secretary.

4.3. PRIORITY OF WORK

1. Priority of work depends on the mission parameters and the requirements identified by the local commander and operations staffs. A broad scope of priority of work for Tier 3 infrastructure can be found in Annex C to *SHAPE Guidance on NATO Security Investment Programme (NSIP) Funded Infrastructure and CIS Projects on Crisis Response Operations (CRO), Revision 1* (reference F). However, for a typical deployed camp, construction should be conducted in the following priority[13]:

a. force protection;

b. command and control;

c. supply and storage of potable water, ammunition and fuel;

d. centralized power supply and distribution;

e. medical facilities;

f. sanitation (laundry and waste disposal facilities);

g. cooking and dining facilities;

h. centralized lighting;

i. living and working accommodation; and

j. recreation facilities.

[13] This order of priority is broadly aligned with the order of the DFI services and accommodation presented in Chapter 2, however the exact priority is always mission-dependent.

ANNEX A – SCALES AND STANDARDS FOR DEPLOYED FORCE INFRASTRUCTURE SERVICES

A.1. POWER GENERATION

Component	Standard	Facility	Recommendations
Power generation and distribution	Tier 2	Frequency and voltage[14]	Single phase alternating current systems: 50 Hz 230 V 60 Hz 240 V 60 Hz 120 V Three phase alternating current systems: 50 HZ 400/230 V 60 Hz 416/240 V 60 Hz 208/120V
		Briefing and operations areas	4x 16 amp socket filtered and 2x 16 amp socket unfiltered per workspace
		Administrative, medical and office areas	4x 16 amp socket filtered and 2x 16 amp socket unfiltered per workspace
		Basic load	0.7 kW / pers
		Sleeping accommodation	2x 16 amp socket / pers
	Tier 3	Basic load	1 kW / pers

Considerations:

1. Basic load is only indicative and should be part of the design criteria calculations. The recommended planning numbers in the table are the minimum, and depend greatly on the services that will be powered by electricity, such as heating, cooling, use of welfare devices, etc. Orders and enforcement are required to prevent users from plugging in high power devices that are unforeseen (for example, personal kettles and grills in living and working accommodations).

2. Automated standby generation and use of uninterruptable power supply for mission critical facilities such as operations, medical, and communication and information systems.

[14] See AEP-4133, *Electrical Power Supplies: Standard Types and Rotating Generating Sets (AC-DC)*, (reference P) for details (paragraph 8, Table A of Edition A, Version 1 dated March 2017).

3. Load shedding to enable continued supply to critical assets and load selection to enable efficient power management.

4. Ability to use commercial supply if available.

5. Integration of energy efficiency measures and alternative energy sources, especially as the standard transitions from Tier 2 to Tier 3. See also Annex F, Power Generation for Deployed Force Infrastructure, plus Power Generation in Chapter 2 and Energy Management in Chapter 3.

A.2. WATER SUPPLY

Component	Standard	Facility	Recommendations
Potable water	Tier 2	Production (pers)	75 L/pers/day
		Distribution (pers)	Drinking: 15 L/pers/day (30 L/pers/day in hot weather) Medical: 10 L/pers/day Personal hygiene: 10 L/pers/day Showers: 20 L/pers/day Food preparation: 10 L/pers/day Laundry: 10 L/pers/day
		Production (armoured fighting vehs)	20 L/veh/day
		Production (logistics support vehs)	5 L/veh/day
		Packaged water	2 L/pers/day
		Water temperature	Nominal hot water temperature 60^{o}C adjustable
		Flow rate (showers)	Minimum flow rate 0.15 L/s
		Pressure	Pumped to a head of 100 m from a source no more than 250 m from camp boundary
		Storage	Minimum seven days of supplies
		Minimum water quality standards	AMedP-4.9 (STANAG 2136)
	Tier 3	Production (pers)	145 L/pers/day
		Distribution (pers)	Drinking: 15 L/pers/day (30 L/pers/day in hot weather) Medical: 20 L/pers/day Personal hygiene: 10 L/pers/day Showers: 30 L/pers/day Food preparation: 10 L/pers/day Laundry: 10 L/pers/day Cleaning equipment: 50 L/pers/day
		Production (pers) large logistics base	365 L/pers/day
		Production (field hospital plus laundry)	150 L/pers/day plus 32,000 L storage for laundry
		Production (general hospital plus laundry and dental services)	250 L/pers/day plus 50,000 L storage for laundry

Considerations[15]:

1. Ability to integrate water reuse systems, especially as camp progresses from Tier 2 to Tier 3. See also Waste Management considerations (Annex A.3.).

2. Ensure the water supply plan incorporates all aspects, including but not limited to, treating, storing, testing, transporting, and distributing potable water to predetermined water points. Ensure sufficient space between water resources and other activities that could impact the water supply. For details, see AJEPP-2, *Environmental Protection for Military Camps in NATO Operations* (reference Q). To ensure personnel health and safety, potable water supplies must always be tested by qualified personnel and in accordance with NATO agreed standards.

[15] The water supply planning data in this annex has been harmonized with Annex B of ATP-104, *Water Production, Storage and Distribution* (reference O). However, since it contains recommendations in addition to those in ATP-104, it is being retained here. "Daily Rates of Potable Water Consumption" has been removed from ATP-3.12.1.12, *Emergency Supply of Water in Operations* (reference N), and included in ATP-104.

A.3. WASTE MANAGEMENT

Component	Standard	Facility	Recommendations
Sewage	Tier 2	Scale	11 L/pers/day (liquid) 0.1 kg/pers/day (solids)
		Treatment method	Chemical toilets or modular containerized waste water treatment plant (WWTP).
	Tier 3	Treatment method	WWTP or connection to local sewage infrastructure.
Waste water	Tier 3	Scale	40 L/pers/day (black water) 50 L/pers/day (grey water) Alternatively, planned volume of waste water can be calculated as 70% of planned volume of water.
		Treatment method	WWTP, evaporation ponds, leach drains (or equivalent), or run-off into waterways. Treated grey water may be used for toilet flushing or firefighting.
Solid waste	Tier 2	Scale	0.025 m^3/pers/day

Considerations:

1. Waste management needs to be planned from the beginning of the operations planning process. All subsequent development should be in accordance with an initial plan. Consideration should be given to developing initial standard areas separately from a unit's initial deployment areas.

2. Reused or recycled effluent (grey water only) from showers, vehicle wash racks and laundry units are able to supply water for firefighting, dust suppression, ablutions (toilets and urinals), vehicle wash racks and laundry units with proper camp design and layout. See AJEPP-2 (reference Q) for details on waste water management best practices and standards, including considerations for separate handling of black and grey water.

3. Solid waste management considerations include landfill siting and design, runoff, and impact on other aspects such as air quality and water supply, both for the deployed force and local inhabitants. Avoid the use of open-air burn pits to dispose of solid waste. See AJEPP-2 (reference Q) for waste management best practices.

4. For developed camps, consider alternative waste treatment systems such as waste to energy. Consider systems to capture waste heat in order to reduce the environmental and logistics footprint.

A.4. CLIMATE CONTROL

Component	Standard	Facility	Recommendations
Sleeping accommodation	Tier 2	Temperature (also applies to Tier 3)	Winter: 20-23°C Summer: 24-27°C (where feasible, difference not higher than 6°C compared to outside temperature) Relative humidity: 30-60%
		Noise	As low as reasonably achievable, ideally not to exceed 40 dBA with 45 dBA peaks
		Lighting	100 lux sleeping 200 lux showers and latrines
		Air exchange and filtering	40 m^3/pers/hour (max velocity 2 m/second), or 3-4 times the volume of the room per hour. Fine dust filter, EU or WHO regulations for PM2.5 and PM10. CO_2 concentration max 1200 ppm.
Office accommodation	Tier 2	Temperature (also applies to Tier 3)	Temperature range: 18-26°C, (where feasible, difference not higher than 6°C compared to outside temperature) Relative humidity: 30-60%
		Noise	Not to exceed 50 dBA with 55 dBA peaks
		Lighting	500 lux 800 lux operations centres
Kitchen and dining	Tier 2	Temperature (also applies to Tier 3)	Winter: 20-23°C Summer: 24-27°C (where feasible, difference not higher than 6°C compared to outside temperature)
		Noise	Not to exceed 55 dBA
		Lighting	300-500 lux kitchen 500 lux dining

Considerations:

1. Heating in tropical and semi-tropical environments is generally not required.

2. Heating for hydraulic infrastructure may be required in cold environments.

3. Dehumidifying of logistic components (e.g. ammunition storage) may be required.

4. Use of ceiling fans and insulation are highly recommended, depending on the environment. Insulation can also be used to control or reduce noise.

INTENTIONALLY BLANK

ANNEX B – SCALES AND STANDARDS FOR DEPLOYED FORCE INFRASTRUCTURE ACCOMMODATION[16] (Based on a Company Group of 125 Personnel)

B.1. LOGISTICS FACILITIES

Component	Standard	Facility	Recommendations
Storage	Tier 2	Unit Quartermaster store	250 m² as a baseline for the facility plus 0.4 m^2/pers
		General unit storage	0.35 m^2/tonne
		Ammunition (ground munitions)	0.25 m^2/tonne

Considerations:

1. Storage represents covered storage for 20% (by weight) of unit holdings.

2. Ammunition storage location and design shall be done in accordance with the appropriate Allied publications and associated STANAGs, e.g. AASTP-1, *NATO Guidelines for the Storage of Military Ammunition and Explosives* (reference Y) and AASTP-5, *NATO Guidelines for the Storage, Maintenance and Transport of Ammunition on Deployed Missions or Operations* (reference Z).

[16] Joint Construction Management System (JCMS), the USA-developed construction management software, is recommended for NATO adoption for use by all member nations. JCMS contains standard designs for Tier 2 and 3 facilities.

B.2. SANITATION FACILITIES

Component	Standard	Facility	Recommendations
Ablutions	Tier 2 or Tier 3	Washbasins, showers, latrines, urinals	In accordance with Table A of Annex B to *SHAPE Guidance on NSIP Funded Infrastructure and CIS Projects on CRO* (reference F)
Laundry (self service)	Tier 2	Washer	Minimum one / 25 pers
		Drying area	Drying room and clothes lines
	Tier 3	Dryer	Minimum one / 25 pers
Laundry (full service – optional)	Tier 2 or Tier 3		7 kg/pers/week 48 hrs turnaround time

Considerations:

1. Provide shelving for washing and shaving items with washbasins, as well as unbreakable (i.e. not glass) mirrors.

2. Provide changing areas and facilities for hanging clothes (i.e. coat hooks) at showers.

3. Provide facilities for hanging outer clothes at latrines and urinals.

4. Locate latrines and urinals close to washbasins.

5. Provide paper towel dispensers, garbage bins and shower enclosures.

6. Establish a cleaning point for equipment and footwear, and provide a drying room for wet equipment near the living accommodation.

B.3. MESSING FACILITIES

Component	Standard	Facility	Recommendations
Dining	Tier 2	Common dining room	150 m^2/125 pers (1.2 m^2/pers)
	Tier 3	Officer and Other Ranks Messes	30 m^2/125 pers
Kitchen	Tier 2	Meal output	One kitchen / 125 pers, three cooked meals per day for 120% of population
		Area	90 m^2
		Storage	72 hours supply of rations
	Tier 3	Refrigeration	40 m^2/125 pers
		Ration storage	40 m^2/125 pers
Welfare	Tier 2	Canteens	100 m^2/125 pers (0.8 m^2/pers)
		Recreation	100 m^2/125 pers (0.8 m^2/pers)
		Gymnasium	50 m^2/125 pers (0.4 m^2/pers)
	Tier 3	Gymnasium	80 m^2/125 pers
		Internet / telephone area	40 m^2/125 pers

Considerations:

1. Dining room furniture (for 125 pers): 80x folding chairs, 20x folding tables.

2. Initial standard kitchens should include manual dishwashing facility (3m x 3m). Temporary standard kitchens should be upgraded with automatic dishwashers.

3. Area dimensions can be increased to facilitate entrance and egress depending on the configuration of each facility.

4. Storage for seven days combat rations (number of days depends on the mission).

B.4. WORKING ACCOMMODATION

Component	Standard	Facility	Recommendations
Offices	Tier 2	Offices	6-8 m^2/pers
		Operations Centre	45 m^2
		Briefing Room	42 m^2
	Tier 3	Post Office	90 m^2
		Chaplain	12 m^2
		Guardhouse	~100 m^2

Considerations:

1. A single-occupant office is to have an area of at least 8 m^2. For multiple occupancy, this figure can be used as a guide and the area determined based on the task performed. Examples include:

   a. administration / orderly room area: 86 m^2;

   b. battalion headquarters (HQ) or battle group HQ: 240 m^2; and

   c. joint task force HQ: 550 m^2.

2. Area dimensions can be increased to facilitate entrance and egress dependent on office configurations.

3. A guardhouse is not generally required for a company-sized group. This facility may be required for each battalion-sized group in temporary standard development. The recommended size of 100 m^2 is based on one cell, a sleeping area with beds for guards and an area for desks.

4. Fire protection is to be considered in respect to minimizing the risk of the spread of fire, facilitating evacuation and the appropriate location of firefighting equipment. See Annex D, Fire Safety Guideline for Deployed Force Infrastructure.

B.5. LIVING ACCOMMODATION

Component	Standard	Facility	Recommendations
Dormitory	Tier 2	Bed space	6-10 m^2/pers
		Beds	Cots
		Personal storage	0.5 m^3 footlocker or individual case or trunk
	Tier 3	Commanders	12-18 m^2/pers
		Officers and Senior Non-Commissioned Officers	7.5 m^2/pers
		Junior Non-Commissioned Officers	6 m^2/pers
		Beds	Beds with mattresses or bunks
		Personal storage	1 m^3 footlocker plus upright locker (0.8m x 0.6m x 2.0m)

Considerations:

1. When designing living accommodation, make allowance for access between bed spaces and the use of equipment such as mosquito protection.

2. Preference for configuration of bed spaces is generally in two rows, with a centre corridor for access allowing for each bed space to be adjacent to one wall. This also permits a clear central corridor for evacuation.

3. Occupant comfort with the use of at least heating and ventilators, in support of natural ventilation, for initial standard and the introduction of heating and cooling systems for temporary standard, if required.

4. Fire protection is to be considered in respect to minimizing the risk of the spread of fire, facilitating evacuation and the appropriate location of firefighting equipment. See Annex D, Fire Safety Guideline for Deployed Force Infrastructure.

INTENTIONALLY BLANK

ANNEX C TO
ATP-3.12.1.4

ANNEX C – ENVIRONMENTAL CONDITIONS AND BASIC LOAD PARAMETERS

1. Deployed force infrastructure (DFI) planning must take into consideration the environmental conditions under which it will be deployed. It must be able to be deployed and operated under conditions A2 (hot dry), B3 (humid hot coastal desert) and C1 (intermediate cold) as specified in STANAG 4370, *Environmental Testing*, and its associated *Allied Environmental Conditions and Test Publications*, AECTPs (reference CC). (National requirements might be more demanding. Additional guidelines on the management of environmental testing of defence materiel, including climatic conditions such as snow, wind and temperature on DFI, can be found in the AECTPs.)

2. The general load parameters in Table C.1 below, based on typical load assumptions used to develop European construction norms, cover most environmental conditions that NATO forces can expect. However, environmental conditions should be assessed in each case to ensure the appropriate DFI is deployed.

Standard	Environmental Condition	Recommended Load Parameter
Tier 2	Snow	1.1 kN/m^2
	Wind	0.39 kN/m^2 (25 m/s)
	Horizontal acceleration (earthquake)	3 m/s^2
	Solar irradiation	1,000 W/m^2
	Dust particle	0.06-0.001 mm
Tier 3	Snow	1.5 kN/m^2
	Wind	0.56 kN/m^2 (30 m/s)
	Horizontal acceleration (earthquake)	3 m/s^2
	Solar irradiation	1,000 W/m^2
	Dust particle	0.06-0.001 mm

Table C.1: General Load Parameters

INTENTIONALLY BLANK

ANNEX D TO
ATP-3.12.1.4

ANNEX D – FIRE SAFETY GUIDELINE FOR DEPLOYED FORCE INFRASTRUCTURE

D.1. AIM

The aim of this guideline is to provide advice for fire prevention activities when NATO nations share deployed force infrastructure (DFI, i.e. camps) in a multinational setting. A proactive fire safety posture is part of force protection (FP), and will reduce or mitigate unnecessary fire risk. This protects personnel, equipment, materiel and infrastructure from injury or damage due to fire incidents, and preserves NATO's operational capabilities and readiness. It is intended that this guideline be considered during NATO contingency planning, operational planning and during the conduct of operations and exercises.

D.2. TERMINOLOGY

1. The following terms are used in this guideline:

   a. Fire Protection. In accordance with AJP-3.14, *Allied Joint Doctrine for Force Protection*, (reference J), military engineering (MILENG) support to FP is one of the eight FP fundamental elements, and fire protection is considered part of MILENG support. Annex A to AJP-3.14 provides a full description of each fundamental element of FP, and includes this description of fire protection: "Fire protection includes the design and construction of fire prevention and suppression systems within infrastructure. It includes the development, implementation and monitoring of fire safety programs within a NATO facility, which may include training, exercises and the evaluation of the fire protection plans, as well as fire response capabilities in coordination with other logistics capabilities and FP fundamental elements." Therefore, fire protection is a broad term which includes: 1) fire safety engineering for infrastructure and camps, 2) fire safety programs within camps, and 3) the provision of fire response to suppress fires.

   b. Fire Prevention and Fire Safety. Fire prevention is a sub-set of fire protection. It includes: 1) fire safety engineering for infrastructure and camps, and 2) fire safety programs within camps. In accordance with AJP-3.14 (reference J), the provision of fire response to suppress fires, i.e. firefighting, is primarily a consequence management function, and is not considered fire prevention. Fire safety is a term that is interchangeable with fire prevention.

   c. Fire Response. Fire response is a capability to suppress fires. Ideally, fire response is provided by professional firefighting services supplied by the

host nation, lead nation, a contractor, or through multinational contributions of personnel and equipment to generate or augment the capability. When professional firefighting services are not available, or are located too far for initial fire response, volunteer fire brigades may be organized and trained to provide initial fire response within the camp. Members of fire brigades may be from any occupational background. All military personnel should receive training in initial fire response, e.g. the use of portable fire extinguishing equipment.

D.3. OVERVIEW OF FIRE PREVENTION

1. This guideline addresses the following facets of fire prevention for NATO camps:

   a. planning and assessment of required capabilities;

   b. fire safety engineering guidelines;

   c. framework for managing fire prevention at NATO camps:

      (1) command direction,

      (2) specialist fire safety advice,

      (3) camp fire wardens, and

      (4) camp fire safety committee;

   d. fire inspections[17];

   e. incident reporting and investigation; and

   f. fire safety awareness and training.

D.4. PLANNING AND ASSESSMENT OF REQUIRED CAPABILITIES

1. Inclusion of fire protection considerations during the engineering reconnaissance is an essential component of effective infrastructure planning. Many fire protection measures are easier to implement when they are included at the planning stage of an operation or exercise. In accordance with AJP-3.14 (reference J) and as noted in

[17] A fire inspection is a routine activity to identify hazards and address them promptly. It is distinct from a fire risk assessment, which is a methodical examination of hazards that cannot be easily mitigated, resulting in options and recommendations to a Commander who can accept the risk.

Chapter 2 of this ATP, fire protection should be considered in the context of FP and in the design and layout of DFI. Planning considerations include:

a. terrain, environment, climate;

b. siting of fences and firebreaks;

c. siting of infrastructure and limiting distances to high hazard areas;

d. firefighting access routes;

e. siting of fire response facilities and equipment;

f. water supply and distribution for fire response - volume and pressure;

g. availability of professional firefighting services - personnel, equipment, facilities, distance or response time to DFI, services they provide (structural response, crash-fire-rescue response, vehicle extrication, technical rescue, etc.);

h. capacity for fire safety advice - senior firefighting personnel or military engineer; and

i. capacity for fire safety programs - firefighting personnel to conduct fire safety engineering inspections, conduct fire risk assessments, provide fire safety training, and conduct fire reporting and investigation.

2. Although they were developed for air operations, STANAG 3929, *Evaluation Guide for NATO Crash/Fire/Rescue Services* (reference BB) and STANAG 7206, *Assessment Guides for the Provision of Fire Services during Deployed Operations* (reference DD), are useful documents for fire protection planning and assessment. They offer a checklist of fire and life safety measures as well as a risk assessment methodology which can be applied when DFI does not meet the recommended guidelines.

3. In a general sense, it is important to consider the following factors: how fire can be prevented (a ban on smoking and open fires, a fire-safe interior, orders for the storage of flammable and combustible substances), how fire can be detected (fire alarm systems and smoke detectors), how the spread of fire and smoke can be limited (incombustible or fire-retardant materials), how to escape in the event of a fire (evacuation plans and escape routes), how to fight fires (extinguishing agents such as fire hose reels, extinguishers and automatic fire extinguishing systems), and finally how the infrastructure can be reached by emergency services (fire brigade entrance, fire brigade lift, connecting roads).

D.5. FIRE SAFETY ENGINEERING GUIDELINES

Basic fire safety engineering guidelines, including limiting distances, are found in Appendix D1, Minimum Distance between Facilities. For Tier 2, expedient fire protection systems such as local smoke and carbon monoxide alarms and portable fire extinguishers should be installed. As the standard of accommodation in DFI progresses beyond Tier 2, designs should incorporate engineered fire protection systems that are suitable for the intended occupancies. Depending on national standards, this may include smoke/heat/flame detection, and could include centrally monitored alarm systems and automatic fire suppression systems, such as sprinklers. Other fire and life safety considerations are found in the checklist in STANAG 7206 (reference DD).

D.6. FRAMEWORK FOR MANAGING FIRE PREVENTION

1. There are four essential components in the fire prevention framework for multinational NATO camps. They are command direction, specialist fire safety advice, camp fire wardens, and a fire safety committee.

a. Command Direction. Chapter 2 of AJP-3.14 (reference J) states that “FP is a core responsibility at every level of command and commanders should balance protection with mission accomplishment.” The commander of a NATO military camp should issue direction in the form of camp fire safety instructions or orders, outlining the fire prevention measures that must be followed and the fire response actions that will be taken if there is a fire incident. Camp fire safety instructions or orders are tailored for the specific camp and operational environment, and should include:

(1) identification and command relationship of fire protection personnel and resources, including senior fire safety advisor, professional firefighting service, camp fire brigade and camp fire wardens,

(2) responsibilities of the chain of command,

(3) actions to be taken in the event of a fire incident,

(4) actions to be taken upon hearing a fire alarm,

(5) evacuation plan,

(6) fire drills,

(7) fire points and basic firefighting equipment,

(8) fire brigade and firefighting training,

(9) fire incident reporting and investigation,

(10) fire risk assessment process,

(11) fire inspections and reports,

(12) siting (see Appendix D1, Minimum Distance Between Facilities),

(13) fire-watch and fire hazard control,

(14) fire safety awareness training,

(15) smoking hazards and identification of authorized smoking areas,

(16) camp housekeeping,

(17) electrical equipment and appliances,

(18) hot process work and cooking,

(19) vehicle parking, and

(20) storage, handling and use of hazardous material (HAZMAT), including flammable and combustible liquids and gases.

b. Specialist Fire Safety Advice. To balance fire protection with other aspects of FP and with mission accomplishment, Commanders require specialist fire protection advice. The Senior Fire Safety Advisor provides this advice to the Commander. The Senior Fire Safety Advisor may be the senior firefighter (if there is one) or may be a military engineer with experience in DFI. The Senior Fire Safety Advisor is responsible for fire safety engineering project review, fire risk assessment, fire safety waivers, advice to the Commander, fire protection planning, liaison with the firefighting service, organization and training of a fire brigade, as well as occupant fire safety awareness and training. Depending on the size of the camp and number of occupants, the Senior Fire Safety Advisor may have a small staff of qualified fire safety personnel to implement the fire safety program.

c. Camp Fire Wardens. Each distinct area of a NATO camp should have a fire warden. Fire wardens are volunteers (from any occupation), who are familiar with the operations in that area of the camp. Fire warden tasks may include conducting visual inspections for hazards, inspections of fire points, and assisting with fire drills. Camp fire wardens work closely with the Senior Fire Safety Advisor.

d. Camp Fire Safety Committee. This ATP recognizes the existence of various national standards for DFI and permanent infrastructure. This is equally true of national standards for fire protection. In order to communicate the Commander's direction for fire safety, and facilitate discussion of fire risks and fire prevention measures, multinational NATO camps should have a camp fire safety committee with representatives from each nation present at the camp and participation of all the fire wardens.

D.7. FIRE INSPECTIONS

For camps with mostly Tier 1 and Tier 2 infrastructure, there are two types of inspections that should be regularly conducted. The first type, called a "fire safety engineering inspection," is conducted by the Senior Fire Safety Advisor or their staff. During fire safety engineering inspections, expedient fire protection systems within infrastructure are inspected, to ensure they are properly located, installed correctly and perform properly. Other fire safety engineering measures such as limiting distances, firefighting access routes and availability of water supply for firefighting are also reviewed. The second type, called a "fire warden inspection," is conducted by the camp fire wardens, who visually inspect their assigned areas and identify fire hazards so that they can be corrected. Examples of fire hazards include smoking in unauthorized areas, incorrect storage of flammable liquids, improper disposal of waste, and electrical hazards. It should be noted that as a camp progresses to having Tier 3 infrastructure, engineered fire protection systems (detection systems, alarm systems and automatic fire suppression systems) require inspection, testing and maintenance by qualified technicians.

D.8. INCIDENT REPORTING AND INVESTIGATION

The goal of a fire prevention program is to reduce the risk of a fire incident occurring and to minimize the impact if a fire does occur. In order for the chain of command to maintain awareness of the occurrence of fire incidents, and then implement suitable mitigation measures to address deficiencies, it is essential that all fire incidents are reported to the Senior Fire Safety Advisor. The Senior Fire Safety Advisor shall maintain a record of all incidents and conduct investigations to determine the source and cause.

D.9. FIRE SAFETY AWARENESS AND TRAINING

The Senior Fire Safety Advisor develops a fire safety awareness and training program for the camp. Initial fire safety awareness information shall be provided to each occupant as part of the briefing process when they first arrive at a camp. With the Senior Fire Safety Advisor as a resource, the chain of command should reinforce fire safety awareness in orders and direction given to personnel. All occupants should receive training on the fire protection equipment in the camp and participate in fire

drills to practice the actions to be taken in the event of fire. Camp fire wardens and the camp fire brigade require training on their specific responsibilities.

D.10. ADDITIONAL FIRE SAFETY RELATED STANAGs

1. In addition to the references previously noted, the following NATO standardization agreements (STANAGs) are related to fire protection, and should be consulted for further details if required (see the NATO Standardization Office protected website, https://nso.nato.int/nso/, for the current version of each reference or related document):

a. Firefighting Equipment and Principals for Harmonization of Present and Future Equipment and Materials (STANAG 1169);

b. ATP-3.12.1.12, Emergency Supply of Water in Operations (STANAG 2885); (CURRENTLY IN STUDY)

c. Aircraft Rescue and Fire-Fighting Services Identification Categories (STANAG 3712);

d. Minimum Fire Protection Requirements for Aircraft Ground Operations (STANAG 3863);

e. Aerospace Emergency Rescue and Mishap Response Information (Emergency Services) (STANAG 3896);

f. AEP-4317, Procedures for the Assessment of Fire Protection Levels for Land Vehicles (STANAG 4317);

g. Crash, Fire-Fighting and Rescue (CFR) Response Readiness (STANAG 7048);

h. Minimum Requirements for Crash, Fire-Fighting and Rescue (CFR) Operations in Support of Home Station and Deployed Operations (STANAG 7051);

i. Personal Protective and Firefighting Equipment for Fire and Emergency Operations (STANAG 7132);

j. Minimum Core Competency Levels and Proficiency of Skills for NATO Fire Fighters (STANAG 7145);

k. Standardization of Physical Fitness Maintenance Program for Fire-Fighters (STANAG 7162);

l. Planning Guidelines for Fire and Emergency Services Response to Major Fire and Emergency Incidents (STANAG 7179);

m. The Minimum Crash, Fire-Fighting and Rescue (CFR) Equipment Standards for Aviation Capable Vessels (STANAG 7183); and

n. Incident Command System for Fire and Emergency Services Responses to Incidents (STANAG 7193).

APPENDIX 1 TO
ANNEX D TO
ATP-3.12.1.4

APPENDIX D1 – MINIMUM DISTANCE BETWEEN FACILITIES

Facility Group/Type	Minimum Distance Between Facilities
Petroleum, oils and lubricants (POL) facilities (bulk fuel stores)	500 m from any other facility (excluding supply)
POL facilities	800 m from supply facilities
Ammunition compounds	1000 m from any other facility (excluding POL)
High readiness ammunition storage	Depending on protection level of containment
Generator farms	a. 50 m from accommodation tentage b. 15 m from facility tentage
Portable generators	3 m from all other facilities
External fuel tanks <2,500 L (double-walled tank)[18]	a. prohibited in accommodations area b. 1.5 m from facility shelters
Flammable and non-flammable compressed gas storage	a. 100 m from accommodations area b. 15 m from any facility tent or structure c. 15 m from any designated pedestrian or vehicle route
HAZMAT storage	15 m from any occupied structure
Container storage	50 m from accommodations or occupied facility tentage (excluding maintenance and supply facilities, which are as per HAZMAT minimum distances)
Aircraft hangars and shelters (membrane-covered rigid-steel-frame structures)	23 m from all other structures
Vehicle parking and roadways	3 m from accommodation or assembly facilities
Access for firefighting	6 m wide routes for firefighting or withdrawal
Firebreaks	a. 3 m vegetation cleared on all sides b. 15 m between camp perimeter and wooded areas
Fencing	3 m from all other facilities
Incinerators	20 m from all structures (plus vegetation cleared at least 3 m on all sides and a minimum 15 m firebreak established)

[18] This refers to smaller individual external fuel tanks or compressed gas tanks that typically supply heaters for a dining or hospital facility, for example. Bulk fuel storage for vehicles or large generator farms, or compressed gas storage, naturally requires more separation as detailed in the next row in the table.

Facility Group/Type	Minimum Distance Between Facilities
Portable heaters (including drip tray)	1.5 m from tents and other structures
Facility structures	a. 5 m between food preparation/cooking facilities and tents used for dining/messing b. 6 m separation from similar occupancy tents, excluding high hazard facilities and facilities erected to house aircraft for storage and maintenance c. 20 m between facility tents of different primary use
Accommodation structures	a. 4 m between individual tents used for sleeping b. 7 m between packets of tents used for sleeping c. 20 m between soft-structure sleeping accommodations and all facility shelters except ablutions
Ablutions	6 m from all other structures
Smoking shelters and smoking points	6 m from all other structures and from dry or long vegetation

Limiting Distance Waivers. In the event that the selected site does not permit the limiting distances indicated in the table above, waivers are required. Requests for waivers shall be directed through the chain of command and must include substantiation and proposed mitigation measures. Waivers must be endorsed by the camp Senior Fire Safety Advisor and approved by the designated NATO Commander.

ANNEX E – POWER GENERATION FOR DEPLOYED FORCE INFRASTRUCTURE

E.1. GENERAL

1. This annex describes the principles and provides guidance to improve energy generation efficiency in support of deployed force infrastructure (DFI). The demand for energy during military operations has been increasing, in part because camps and soldiers have been equipped with additional energy demanding equipment that provides increased capabilities, safety and quality of life. The inefficient use of generators in camps, poor insulation of shelters, and a lack of desire or awareness of the requirement to control energy consumption have also contributed to the expanding demand. This has significantly increased the financial and logistical burdens and put soldiers and contractors at risk in convoys, for which the protection effort distracts time and resources from other missions.

2. Scales and standards for power generation for DFI are contained in Annex A, Scales and Standards for DFI Services. Scales and standards for climate control, a key factor impacting the power generation requirement, are also contained in Annex A.

E.2. PRINCIPLES

1. Every camp is different, and the optimum power production solution differs according to the location, climatic conditions, local resources, size, function, force structure, concept of operations, and the phase of the operation. To optimize energy efficiency, three key principles should be taken into account: modularity, interoperability and sustainability.

a. Modularity. A camp should be treated as a complex system in which all infrastructure construction and operations are interconnected and interrelated. DFI should be developed from a series of "blocks", such that the camp is the product of adding together basic modules, the sum of which satisfies the capacity requirement. In other words, it needs to be scalable. A module should provide complete real life support for a defined size of camp or a specific service for the camp (e.g. ablutions, laundry, kitchen facilities). Modular design of the power generation and management system enables capacity to be tailored to the energy requirements of the camp. All energy related equipment and material should be pre-installed as a functional system and prepared for easy set-up. It should be designed and developed as a fully integrated system that may be improved as operations mature and infrastructure requirements change. See also Modularity and Scalability in Chapter 3.

b. Interoperability. To achieve interoperability, the differences between European and North American electrical standards should always be considered in order to connect both systems, or in case of handover of all or part of DFI. Electrical devices should be capable of being used with either system, and with the power grid of the host nation (HN). A set of aligned power standards should be agreed across the nations in order to encourage interoperability, and to provide the catalyst for "plug and play" capability, development of power generation from renewable energy sources, and improvement of energy storage. Beyond "plug and play" capability, generated power should have an efficient power management system with measurement of the load from the platform services (even if belonging to different nations or owners), and intelligent monitoring and control of power sources to best match energy demands. The protocols of data exchange have to be compatible with all nations' information technology policies. To further support interoperability, during the planning phase of an operation or exercise, troop-contributing nations should provide an inventory of their equipment for power generation and energy storage and management, with a view to optimizing energy production efficiency and minimizing energy consumption.

c. Sustainability. Sustainability should be included in all facets of DFI designs. It should be taken into account as early as possible in the planning process and throughout the complete life cycle of DFI. When properly designed and built, a sustainable camp will minimize overall costs during its operation and maintenance (O&M), thus positively influencing autonomy and resilience. In addition, reducing the logistics footprint reduces adverse environmental impacts and could lead to better acceptance of the deployed force, as well as energy savings. Sustainability implies the ability to use innovative systems and equipment with low footprint, and local resources if available, leading the way to the stabilization phase and thus the handover of the camp to the HN. The use of renewable and alternative energy sources (e.g. solar, wind, fuel cells, waste-to-energy technology) is a potential way of reducing liquid fuel consumption. These sources of energy have to take into account the overall human and logistics load for their (O&M) in a deployed camp.

E.3. GUIDANCE

1. To successfully implement the principles of modularity, interoperability and sustainability, it is necessary to adopt a holistic approach, including power generation and management, infrastructure design and management, and command and control, training and awareness.

a. Power Generation and Management. Planning and coordination of power requirements, comprising all levels from individual and tactical combat

systems up to power generation for a large NATO camp, should be considered as key elements to contribute to increasing the effectiveness of existing energy systems and reducing liquid fuel demand. The use of multi-energy as well as multi-size systems, from the early stages of an operation, is recommended to ensure efficient and secure power. However, autonomous power generation and supply must be continuously available for operational functions and critical services in case of failure of a traditional centralized grid. In order to ensure scalability, reliability and flexibility of electric power, it is preferable to use microgrids, with a mixture of fossil fuel based generators, renewable energy sources, energy storage and HN power, if existing and usable. The location and the size of a camp are factors for choosing alternative and renewable energy as main or secondary energy sources. In small, remote or insular camps it is preferable to use renewable energy as the main energy source because the technology and the existing equipment allow a significant reduction of fossil fuel consumption. In larger camps, it is better to use it as complement to the main source to meet peak energy demand. See also Energy Management in Chapter 3.

b. Infrastructure Design and Management. Real property management responsibilities and "ownership" of portions or all of a camp should be determined as early as possible to enable efficient use of the facilities. The unused or excess infrastructure should be reallocated or demolished. Passive measures should be installed, such as sealing and insulating of accommodations and using additional protection if needed. Appropriate active measures such as variable load diesel generators and low energy consumption equipment (e.g. light-emitting diodes (LEDs) and low energy heating, ventilation and air conditioning (HVAC) systems) and occupant sensing switches (e.g. motion sensor lighting) should be installed. HVAC systems should be designed and controlled stringently to ensure that each is properly sized and only used when required.

c. Command and Control, Training and Awareness. Operational commanders are responsible for the use of resources under their command, including energy. In accordance with MC 560/2, *MC Policy for Military Engineering*, (reference B) the senior military engineer at all levels advises the commander on operational energy concerns such as energy conservation programs, awareness plans and training objectives. The implementation of an effective energy awareness campaign plays a key role in the success of any energy management program. By influencing individual actions and behaviours it is possible to reduce overall energy consumption. There are two elements to awareness; the first is to provide training to inform all personnel on the best practices in order to minimize energy consumption, and the second is to reinforce that training with feedback that highlights successes or potential areas for improvement. In order to validate the

impact of energy awareness campaigns and conservation programs, senior military engineers should establish performance measurement criteria to both guide decision making and provide focus for further conservation efforts. Most importantly, the support of the chain of command, beginning with the commander, is essential to instil an effective energy management ethos down to the lowest level.

ANNEX F – CAMP HANDOVER GUIDE

F.1. GENERAL

1. This annex is intended as a basic guide for the handover of deployed force infrastructure (DFI) from an outgoing troop-contributing nation (TCN) to an incoming TCN, or transfer to the host nation (HN) or designated third party such as a local private entity such as a landowner, a non-governmental organization (NGO) or other non-military entity. It may be used as a guide for nations who develop new or existing deployed infrastructure in order to plan to deliver a sustainable and responsible handover of camps. It elaborates on actions to be considered in the NATO planning stages (preparation, deployment, execution, transition, redeployment), with a primary focus on the engineering and design requirements for handover actions.

2. Terminology. In this publication, camp handover involves all actions of transferring DFI from one tenant or owner to another tenant or owner. The transfer can be total or partial; and it can consist of real estate, infrastructure and all supporting equipment and facilities

F.2. INTRODUCTION

1. Camp transition procedures are required when the military presence in a NATO operation is terminated or reduced, the force is reconfigured, or it no longer requires a particular location. The subsequent change of NATO's use of terrain requires proper camp transfer or closure[19] procedures to be conducted. Recent operational experience of camp transitions outline the need for deliberate handover planning.

2. Given the substantial investment, resources and expertise brought into a theatre of operations to build and operate camps, often in impoverished or imperilled locations, there rests a responsibility on NATO's transferred infrastructure to accommodate the needs of the new occupants. Camp handover principles are key to enable a sustainable transfer and deliver a meaningful legacy.

3. A successful handover of NATO's military infrastructure reduces costs (compared to a full redeployment), effectively ensures that NATO and national obligations are met, caters for national interests and expectations, and potentially supports long-term mission objectives. In addition, a well-executed handover safeguards the image of NATO as a responsible partner, and promotes goodwill and understanding with the HN and the international and local communities.

[19] Camp closure guidelines are provided in Annex G – Camp Closure Guide.

F.3. CAMP TRANSFER PRINCIPLES

1. The deployment area, geographic location, and operational environment for each mission are different. As such, a wide array of variables can impact how a camp handover is conducted. Planning for a sustainable transfer is in large part dictated by specific local circumstances. There is no single blueprint that outlines specifically how a camp handover should take place. However, the following guiding principles can govern a successful transfer and should be adhered to whenever possible.

a. Responsibility. With the construction of a deployed camp comes a responsibility to ensure that the camp infrastructure is properly utilized post-mission. The substantial resources and investments that are required to build and operate camps create the obligation to transfer such infrastructure responsibly and to meet national interests and expectations. It is NATO's responsibility to support the transition of a camp that caters for an effective future use of the area, whether it be civilian or military.

b. End State. Camp transfer should be based on a handover plan devised during the planning phase. From the earliest stages of preparation and design, the camp layout, buildings, facilities and installations should be tailored towards facilitating the intended end state. Anticipating the entire life cycle of a camp and the post-mission use of an area must be factored into the development of a master, or long-term, plan.

c. Legacy. Camps should be designed with delivering a meaningful legacy in mind. NATO's DFI must be built to fully support mission operations during deployment and should be an active asset that instills a positive impact on local development post-mission. The transfer and footprint of a camp must be tailored towards a sustainable legacy, contributing to a long-lasting improvement of the socio-economics and environment of the area of deployment. Through the careful design of the layout and transformation of a camp, NATO's former infrastructure can continue to support medium- and long-term objectives of a mission.

d. Prevention. Camps should not have a negative impact on the local population or context due to NATO's change of use of the area and subsequent handover of its infrastructure. A transfer or partial disposal of DFI, without a clear outline of its future use, must be prevented. The potential harmful effects of the transition of a camp on the surroundings must be addressed and mitigated whenever possible.

F.4. CAMP TRANSFER FRAMEWORK

1. The designated NATO Commander develops theatre policies and procedures for camp transfers as part of the overall theatre infrastructure strategy. This includes direction and guidance on the tasks to reconfigure, repurpose or partially dispose of military camps.

2. The basic concept of a transfer plan is not simply a reverse sequence of what was used during the initial build-up. As troop levels are reduced, the deployed force is consolidated into a fewer number of camps that are designated to remain open until the operation is concluded. The service and support capabilities that are vacated are subject to modifications based on new demand.

3. The scope of a sustainable transfer is defined by the distinctly different actors involved in a handover and their intended future use of the infrastructure. The change of tenant requires the camp to meet new needs and performance, impacting the camp's footprint and physical layout, especially in the handover to the HN or third-party entities. Depending on specific agreements, if they exist, the transfer process can be labour-intensive and may require modification of the camp.

4. In principle, a handover involves one of three distinctly different transitions, impacting the nature and end state of a camp. They are outlined below, following general property transfer activities.

F.4.1. Property Transfer

1. Transfers to another TCN or the HN shall be conducted in accordance with all applicable NATO and legal requirements. Any constructed buildings and improvements to existing HN facilities on HN real estate made by NATO forces may become property of the HN upon final transition back to the HN.

2. Departing NATO forces shall not remove water or sewer systems, plumbing fixtures, or heating or air conditioning systems permanently affixed to facilities that are to be transferred. Camps are to be left clean and orderly. Prior to the final camp handover, commanders are responsible for ensuring the proper disposal of official or classified documents, military equipment, materiel, personal items and all solid waste. A counterintelligence sweep of the camp is required. A photographic record of the condition of the entire camp on the day of transition should be taken.

3. The TCN must define HN materiel disposition, including concrete pads, construction materials, office furniture, generators, heating and air conditioning units, wiring, plumbing, water and sewerage materials, general supplies, and communications wire and equipment. Materials and equipment needing "sanitization"

(specific markings, classified materials, signals equipment, etc.) shall be removed, retrograded or properly disposed of.

4. Some items (e.g. reverse osmosis water purification units, communications infrastructure except for wire and cable, export licensing controlled equipment) can be restricted from transfer to the HN. Units shall either remove these items or request an exception to policy in order to transfer them to the HN.

F.4.2. Handover from one Troop-Contributing Nation to Another

1. Process. The camp is being transferred with the intention of full continuation of all ongoing military processes and operations.

2. Actors. All or large portions of the materiel and real property, infrastructure, and supporting equipment and facilities of the camp are turned over from one TCN to another force, often an Allied or Partner nation, for their occupation and use.

3. Actions. Given the intention of continued operations, camp modifications are generally limited. Modest alterations to real estate, building organization, infrastructure layout and land use are generally conducted by the incoming TCN during the transition phase or after completion of the handover. For transfer of a camp in this situation, the actions described below are required.

a. Prepare a plan for the transition phase. The transition phase is recognized as the most difficult period because both incoming and outgoing forces have potential requirements for their processes. All areas and facilities must be available for both entities, including maintenance areas, hazardous material (HAZMAT) storage sites, ammunition storage, waste treatment, etc. These sites have potential impacts on human health and the environment and therefore a transition plan is critical.

b. Produce a timeline for transfer, coordinated between both incoming and outgoing TCNs.

c. Identify responsible staff members and resources of both entities (personnel, equipment, funding).

d. Inspect the camp in the presence of representatives of both incoming and outgoing TCNs.

e. Remove sensitive and national equipment. Replace this equipment with equipment of the incoming entity or mitigate for normal operations if the equipment will not be replaced.

f. Conduct an environmental closeout study (ECS) with the incoming entity.

g. Transfer or terminate existing contracts. Discuss the existing contracts with the incoming entity and define their needs.

h. Liaise with local authorities and communities, with outgoing and incoming TCN representatives in attendance. Identify potential grievances originating from the camp's presence or operations, and address these in potential camp modifications.

i. Prepare required legal handover documentation. The use of real estate shall be governed by an existing memorandum of understanding (MOU) or technical arrangement (TA). The legal advisor should be directly involved with drafting the handover documentation. This mitigates the risk of any local land claims against the incoming TCN.

j. Provide a handover package. This includes the information contained in the real property file (history, existing leases or purchase agreements, etc.). Hand over copies of all environmental records. This includes the environmental baseline study (EBS), environmental condition reports (ECRs), sampling data, waste management records, etc. See AJEPP-6, *NATO Camp Environmental File During NATO-Led Activities* (reference S), specifically the environmental handover certificate (EHC) and the EBS checklist, concerning environmental file requirements.

F.4.3. Handover from a Troop-Contributing Nation to the Host Nation

1. Process. The camp is being transferred with the intention that its functions will partially continue or it will be a base for military or security support operations.

2. Actors. If no other TCN is taking on the responsibility for the camp, NATO is required to hand over all or portions of the real property, infrastructure and support facilities to the HN. The extent of handover to the HN depends on the agreed-upon end state of the camp.

3. Actions. The scale, complexity and organization of NATO camps and their operations might conflict with local practices and standards, the HN may lack the means and capacity to continue operations on the existing level, or the extant facilities might be suitable for use by others. Subsequently, NATO's land use and camp layout may need to be altered or restored to a specified final condition based on HN agreements, expectations or capacity. Transfer of a camp to the HN requires a process that is established by the outgoing nation in coordination with the HN. Coordinate closely with HN property staff, including regional and local community leadership and experts. The outgoing TCN must execute the actions described below.

a. Prepare a plan for the transition. The HN does not always have the same standards or regulations. A transition plan is required to make both parties aware of their responsibilities and to meet expectations.

b. Return the camp to an agreed-upon end state or modify it to facilitate future use, based on established agreements. Specialized engineering personnel may be required to guide and implement the camp transition. These may include vertical or horizontal construction assets (electricians, plumbers, carpenters, surveyors, heavy equipment support, etc.) or combat engineering assets (demining, barrier deconstruction, etc.).

c. Produce a timeline for transfer, including an agreed-upon date of departure, and clearly communicate this with the HN.

d. Plan and implement training for the HN on equipment, infrastructure and support facilities.

e. Remove sensitive or national equipment. The HN should replace this equipment with their own as required.

f. Disclose all environmental studies (EBS, ECR, ECS) to the HN. Complete an EHC. A remediation plan should be devised, detailing the requirement for any long-term monitoring or other follow-up activities, as well as any associated record keeping. Technical advice should be provided by the camp environmental protection officer. HN staff must participate in environmental studies and any subsequent follow-up assessments.

g. Inspect the camp with representatives of the HN.

h. Transfer or terminate existing contracts.

i. Conduct inventories. An up to date Facilities Catalogue greatly assists in determining which facilities to dispose of and which to transfer. An investigation of potential non-military use for the disposed infrastructure should be part of the inventory.

j. Liaise with local authorities and communities, addressing potential past grievances. Mitigate any negative impact originating from the camp’s presence or operations.

F.4.4. Handover from a Troop-Contributing Nation to a Third Entity

1. Process. The camp is being transferred with the intention of the complete termination of support and operations.

2. Actors. There are a great number of reasons why undertaking military or security operations from a camp are no longer preferable, e.g. developments in the theatre of operations, resource prioritization, improved security situation, or alternative strategies being pursued by the HN. In this case, all or portions of NATO's real property, infrastructure and support facilities may be transferred to a third-party entity, e.g. a local authority, a private entity, or an NGO.

3. Actions. The change of tenant means the camp needs to meet new needs and performance, impacting the camp's footprint and physical layout. Such handover is generally more labour-intensive than the other transitions described above, and may require large modifications or overhaul of the camp's footprint. When considering the feasibility of the required work in terms of resources and equipment, as well as the operational timelines for the handover, effective use of NATO's former infrastructure should be kept in mind. The determination of a camp's end state in the preliminary planning phase, and the commensurate camp design layout, greatly reduces costs, prevents undue liabilities (especially environmental), and safeguards NATO as a respected and responsible partner. NATO will be seen to be striving to achieve a standard of sustainability comparable to international best practices. The handover to a third-party entity is established by the outgoing TCN, and may be based on pre-arranged agreements, e.g. condition of the camp with the landowner. In addition to the above considerations, the outgoing TCN must take the actions described below into account.

a. The whole or partial camp infrastructure transfer to a third party generally involves a transition from military units to civilian entities. Demilitarization of the camp, materiel and equipment is required, including removing sensitive equipment. Special consideration must be given to the challenges associated with the reduction and removal of force protection (FP) measures to meet the requirements of the future occupant.

b. Execute the pre-determined handover plan when such exists. The extent that a camp layout may need to be altered greatly depends on the existence and design of a master plan that incorporates the intended future use or end state.

c. In the absence of a transition master plan, a site survey or inventory is required to determine which facilities can be utilized by the future occupant and which facilities should be disposed of. An investigation of potential non-military use of the disposed infrastructure should be part of the survey.

d. A transition timeline is required to make all parties involved aware of their responsibilities and to meet expectations. It is likely that several civilian stakeholders will need to be involved in outlining the plan. The shared timeline and associated actions need to be established, supported and clearly communicated with all stakeholders, including the date of departure, moment of handover and other milestones.

e. Inspect the camp with all stakeholders. Enable access to the site for all official civilian parties involved.

f. Support the development and intended organization of the camp layout. When feasible, make resources available (e.g. personnel, equipment).

g. Conduct environmental due diligence. Conduct an ECS, and prepare and execute an environmental remediation plan. It should detail the clean-up and restoration of the camp real estate and land use to the future occupants, including the requirement for any long-term monitoring or other follow-up activities, as well as any associated record keeping.

h. Terminate all existing contracts.

F.4.5. Transfer Timeline

Depending on the location, size and complexity of the camp, the transfer process can take from 90 to 365 days. The estimated transition timelines for planning purposes are 365 days for a larger (~ joint task force, JTF) sized camp, 180 days for a medium (~ battalion) sized camp, and roughly 90 days for a smaller (~ company) sized camp.

F.5. CAMP TRANSFER PLANNING GUIDANCE

The following sections provide camp transfer planning guidelines grouped into three categories: define, design and deliver. Given that each mission and context is unique and greatly dependent on local circumstances, the factors below must be regarded as only basic guidelines.

F.5.1. Define

1. A key element of the sustainable transfer of DFI is sound master planning at the very first stages of planning for operations. A camp's lifespan might continue well beyond the duration of a mission, leaving buildings, materiel and equipment in a theatre of operation. The physical infrastructure and resources of a camp are critical assets to potentially contribute to positive local relationships after the conclusion of a mission. Therefore, a long-term view of planning should be taken whenever possible.

2. Camp design should anticipate the entire life cycle of an installation in the preliminary planning phases. Defining the end state and potential future use of a camp, prior to its first occupation, is key. “Ownership” of all or portions of the camp should be addressed as early as possible. Based on the desired end state, camp layout, buildings and support facilities can be organized accordingly. In addition to defining the end state of a camp, the best means of achieving that end state should be set out, including provision of the tools to monitor progress. Given the complexities and variables involved in laying out and defining an early end state, designers, engineers, and other expert advice should always be sought.

3. A well-defined legacy plan minimizes the risk of delivering unsustainable installations to either a TCN, the HN or third-party entities. A comprehensive site assessment is a great asset in developing such a plan. It should be undertaken prior to the design/planning phase, incorporating physical, social, economic and spatial assessments of the deployment area – beyond geographical and seasonal factors. Relevant factors, like the urban context, presence of civilian facilities, activities by the local population, and potential future development areas provide a basic understanding of the local context and area use. Such “urban intelligence” provides design criteria and should inform the development of the long-term plan.

F.5.2. Design

1. The physical footprint of a camp tends to incrementally develop during the mission duration, especially on a multi-national base. The evolution of a camp necessarily follows the development and requirements of the operation that it supports. The initial deployment plan can therefore substantially differ from the layout during the re-deployment phase.

2. Design thinking forms an essential component in outlining the camp layout during the pre-planning, planning and construction phases. The design principles and planning considerations described below will assist in mitigating inevitable camp changes that occur during a mission.

a. The design of dual use or multi-purpose buildings. Design a flexible mission infrastructure such that real estate can be repurposed post-mission. Handover of “our things” should be regarded as leaving them “their things”.

b. The adaptation of the construction quality to the intended occupancy post-mission. It may be advisable to build facilities above the minimum military requirements standard or actual need, with long-term planning and sound engineering in mind.

c. The tailoring of camp design to the local context. Adapt to local building practices, construction methods and skills, utilizing local sourcing of available materials, equipment and labour when possible.

d. The catering for scalability. Deployed camps are generally capable of absorbing a surge in occupancy or cope with fluctuations in operational demand. In contrast to accommodating surplus, downsizing must be anticipated. Allowing for a flexible rearrangement of the camp layout should be an integral part of the master plan, with special attention to stand-off and FP measures.

e. The potential to accommodate shared use facilities between the deployed force and the local population during operations when possible, e.g. by making use of reserve capacity of, for instance, a Role 2 medical facility.

f. The prevention of total fortification, with full consideration and adherence to threat levels. When possible, incorporate areas of exchange with the local population, e.g. a community house, education facilities, or trade areas.

F.5.3. Deliver

1. The amount and size of NATO installations that require transfer within a relatively short time frame can be considerable. The impact of simultaneous transfer can be substantial. An overall view – not merely on the scale of a single encampment – is required to facilitate planning and determine transfer sequence.

2. Camp Adaptation Planning. The transfer of camp ownership potentially requires a site to cater for new requirements. In order to prevent a camp from having an adverse impact on the HN or local community upon transfer, camp adaptation planning should be delivered. In particular, camps that are fully discontinuing military processes and operations require expert planning and attention to detail.

3. Adaptation planning is a comprehensive endeavour to modify NATO's land use or camp infrastructure. It is a process of adjustment to facilitate effective use, meeting specific agreements and expectations. The goal of adaptation planning is to make a camp fit for future purposes. The extent that modifications of layout, facilities and other infrastructure is required depends primarily on specific arrangements and local practise and standards. All camp infrastructure and facilities, including land use, should be considered in adaptation planning for potential future use.

4. To retrocede the site as neutral as possible and with the minimal cultural and identity footprint, the following actions must be considered:

a. Memorials. If memorials have been erected on installations in the form of street signs, plaques or other reasonably transportable items, they should be collected and taken away.

b. Depersonalization. Paint over all unit logos, artwork, murals and graffiti using neutral colours and local standards.

c. Hazardous Structures. Determine if any structures pose a hazard to the public or the environment and remove them. If not, and with its agreement, make the HN aware of hazards and mark structures accordingly if they are hazardous.

d. Graves. Measures may be required for the repatriation of personnel buried at the camp. This may occur prior to or following the camp transfer and requires coordination with HN officials.

5. Methods. There are four prime mechanisms for real estate and infrastructure handover during the transfer of a NATO camp: disposal, sale, donation and transfer.

a. Disposal. The disposal of real estate and infrastructure shall follow the appropriate extant national or NATO regulations. To ensure the safety of all JTF personnel, materiel slated to be scrapped is completely rendered inoperable through authorized methods of destruction. Scrap material that does not fall under International Traffic in Arms Regulations (ITAR) shall not be left in a condition such that it may be used against coalition forces. The local disposal of non-ITAR scrap is conducted using local disposal contracts and in accordance with local or approved environmental regulations. Adherence to sustainable and “zero footprint” principles must be followed.

b. Sale. The sale of real estate and infrastructure can occur only if appropriate authority has been granted. The approving authority varies depending on national regulations. The JTF submits recommendations for the sale of building equipment and infrastructure to its higher headquarters or approval authority. National real estate authorities submit a Request for Interest to the NATO Investment Committee, officially declaring surplus infrastructure available to other nations. Once approval has been received, real estate or infrastructure can be offered for sale to either another TCN, the HN or a third entity. For all sales, the JTF must ensure that they are compliant with ITAR and Controlled Technology Access and Transfer. In the event there is no interested buyer, infrastructure may be torn down and the site returned

to a predetermined condition in accordance with NATO orders and extant agreements.

c. Donation. The donation of real estate and infrastructure normally occurs when a TCN donates it to the HN. Due to the complexity of such transactions, specific national direction, guidance and approval must be sought first.

d. Transfer. The transfer of real estate and infrastructure can occur between TCNs or between a TCN and the HN. Either way, national regulations are adhered to for such transfers. The process is similar to that of a sale; however, the transfer may occur without a financial transaction.

F.5.4. Administrative Procedure

1. A HN body must be established or identified at governmental level to oversee any transfer of camps from a TCN to the HN. This body is to be the authoritative body for all transfers of real estate and building equipment and infrastructure to any entity within the HN, although the authority may be delegated by the HN body. Principally, they should have the final say on whether the HN accepts any transfer, the quantity and type of property that is accepted, and to which entity within the HN the camp is transferred for use. It also oversees the resolution of land disputes through the HN land authority. Regular meetings must be held with the HN and appropriate documentation must be provided.

2. Objectives. The objectives of the administrative procedure are to:

a. ensure compliance with HN agreements affecting the camp;

b. give full force and effect to the real estate laws, customs and disposal policies and procedures of the HN, insofar as is consistent with the NATO mission, requirements and operations;

c. minimize TCN foreign real estate holdings;

d. clearly define TCN and HN obligations (e.g. restoration);

e. protect the TCN against unreasonable claims; and

f. use HN government agencies as much as possible, particularly in handling real estate matters with citizens of the HN.

3. Documentation. The documentation described below is provided to the HN representative and camp commander (or appropriate authority at the camp level) upon completion of the transaction.

a. Transfer and/or acceptance of military real estate, verifying that the official facility transaction has occurred and including the accepting representative's contact details.

b. Joint inspection verification and transfer documents, to validate the real estate inventories, ECS, EHC and overall condition of the camp or facility at the end of occupation and use by the TCN or NATO forces. The ECS and EHC detail the environmental condition of the camp or facility.

c. Real estate inventory, with existing property or facility graphics or schematic of the camp, depicting the facility as of the transfer date including one or more of the following:

(1) unclassified computer-aided design (CAD) drawing or electronic file;

(2) unclassified satellite imagery; or

(3) unclassified topographic map of the camp and surrounding areas (if available) with overlays or markings depicting the entire footprint that the property is on, exclusion zones or standoff, and real estate ownership (HN, private or unknown).

4. Transfer of Sites with Identified Environmental Impacts or Damage. NATO's policy is to remediate all areas which have been contaminated as a result of NATO operations associated with camp occupation. However, HN officials may agree that a camp be handed over prior to remediation being effected. This stresses the importance of the disclosure package to the HN prior to camp transfer and the EHC.

5. The HN may also continue operating infrastructure or equipment with potential environmental impacts after the camp is transferred, e.g. waste treatment facilities. In that case, the TCN and the HN entity receiving the camp work together to identify the existing environmental infrastructure or equipment to remain after the camp is transferred. Once identified, a disclosure package to accept the environmental infrastructure or equipment must be prepared and signed by the TCN representative and the gaining HN entity. The disclosure package should include a description of each site, current photographs, MGRS or GPS coordinates, and local and TCN authority contact information. The description must include all process elements required to safely and effectively operate the infrastructure or equipment according to the original intent. Only authorized and properly designed or constructed environmental infrastructure or equipment may be transferred to the HN, and the size

and capacity must be commensurate with the needs of the HN entity which will occupy the camp. Transferring environmental sites or equipment to the HN is not a substitute for clean-up if there is no valid, ongoing requirement for them.

F.6. INFORMATION CHECKLIST

When a nation constructs or occupies a camp, the information checklist below may be used as a guide for the types of information that should be gathered during the nation's tenancy in the camp in order to be prepared for a possible future handover.

F.6.1. Outgoing Nation

1. Upon handing over a property to the HN, property owner or a third-party entity, the outgoing nation should obtain or generate the three key legal documents described below, ensure they are duly signed, and retain them.

a. Disclosure Report. This legal document is used by the departing TCN to represent and disclose the following information to the incoming entity:

(1) any environmental issues on the property, and corrective or mitigation actions taken;

(2) a water analysis report that shows both biological and chemical analysis of the water on the property;

(3) a list of all chattels that the outgoing and incoming parties have agreed will be left behind; and

(4) a list of all damage and alterations known to have been caused or made during the outgoing nation's occupancy.

b. Handover Certificate. General statement that the incoming party accepts the property in satisfactory and "as is" condition.

c. Waiver. Absolves the outgoing nation from any future liability.

2. The outgoing nation should provide the incoming nation with the data and information to meet the requirements of the checklist detailed in the next section.

F.6.2. Incoming Nation, Host Nation or Other Entity

1. When receiving a property from another nation, the incoming nation, HN or other entity requires the information in the list below.

a. Why the site was originally chosen (operational, political and logistical).

b. Site ownership and condition. The site inventory report should include:

(1) identification of authorized site owner(s);

(2) survey records, land registry documents and photographic records to establish site pre-conditions;

(3) deeds/contracts/leases/licences authorizing the use of the site and existing infrastructure (include start date and end date);

(4) other documents authorizing the use of the site, such as agreements provided by the recognized local authority;

(5) agreements concerning freedom of access to the site and use of surrounding terrain;

(6) agreements concerning the use of utilities and services provided by the HN or other organizations;

(7) agreements concerning the condition of the site and infrastructure that must be met prior to returning the site to the authorized owner or recognized local authority;

(8) EBS and subsequent ECRs, and reports on radiological conditions. Upon handover, an ECS should be conducted;

(9) record of any archaeological and historic lands, objects, buildings or monuments that need to be preserved;

(10) Facilities Catalogue listing all land, facilities and services, including rough order of magnitude costs for replacement. This is the reference document for future facilities development planning and must therefore be kept current for reasons of safety, accountability, planning, cost recovery, disposal and efficiency. All operating and services manuals and schedules for installed equipment and building systems should be included in the Facilities Catalogue. Any changes to the infrastructure, including relocation of temporary facilities, should be annotated in the Facilities Catalogue. To prevent inadvertent exposure to HAZMAT while maintaining or repairing a building, the Facilities Catalogue should also include a record of any HAZMAT contained in the building;

(11) information related to local or foreign civilians currently employed, and the conditions of their contracts. In addition, information concerning former employees and contractors should be provided; and

(12) all information and agreements concerning other military tenants of the camp. This should identify the lead nation for the camp, the division of responsibilities for camp operation and maintenance, sharing of facilities, differences in camp standards, etc.

c. FP report (see also ATP-3.12.1.8, *Test Procedure and Classification for the Effects of Weapons on Structures*, reference M, and ACO Directive 080-025, *ACO Force Protection*, reference E) to include:

(1) threats considered when designing FP measures;

(2) defence, security and FP plans; and

(3) FP infrastructure, including drawings and design specifications for each threat that is being protected against.

d. Plans related to health and safety, fire protection and environmental protection (see also AJEPP-2, *Environmental Protection for Military Camps in NATO Operations*, reference Q), to include:

(1) potable water sources analysis;

(2) pest control;

(3) safety distances and waivers;

(4) fire protection plans;

(5) contaminated areas (soil, water) and mitigation measures;

(6) prevailing wind and air quality assessments;

(7) waste water treatment plan and facilities;

(8) solid waste disposal plan and facilities;

(9) petroleum, oils and lubricants storage;

(10) HAZMAT storage, and hazardous waste collection and disposal plan;

(11) medical waste disposal plan and facilities; and

(12) standards expected of the installations concerning electricity, water supply, waste water, heating and air conditioning, and quality of the medical treatment facility.

e. Explosive hazards (mines, unexploded explosive ordnance, etc.), including maps and details for cleared, not cleared and suspected areas.

f. Extant national and international (NATO, United Nations, European Union, etc.) agreements (MOU, TA, status of forces agreements, etc.) with the HN, and agreements with other than the HN.

g. Air mission related data including helicopter and aircraft landing zones and capacity, air approaches, and air restricted operation zones.

h. Lessons learned, including but not limited to:

(1) information and lessons learned regarding the camp, local area, special and rare natural events such as:

(a) seasonal flooding, typhoon, hurricane or tornado;

(b) heavy snow storm, ice storm or fog;

(c) seasonal vermin invasion (ants, grasshoppers, etc.) that can affect operations, infrastructure or cause health problems; and

(d) extreme temperatures or drought.

(2) local contractor and labour quality, quantity, reliability and honesty;

(3) reliability of local services (power, water, sewage, etc.); and

(4) quality of available fuel.

F.7. LESSONS LEARNED

The underlying mechanisms of a successful transfer and the challenges encountered in delivering a meaningful legacy post-mission must be harnessed in lessons learned, and possibly in a closeout study. Long-term monitoring of a camp handover assists planners with camp design in the future, with detailed information on ways to organize the camp layout, on siting infrastructure and considerations of how to incorporate

camps into the local context. Overall, analyzing and recording post-mission camp transfers helps protect NATO against unsustainable future investments.

ANNEX G – CAMP CLOSURE GUIDE

G.1. GENERAL

1. This annex is intended as a basic guide for the closure of a NATO camp. Closure of a camp is identified in the theatre closure plan, which describes the concept for closing non-mission essential camps and realigning forces within remaining camps to minimize the logistic footprint, reduce expenditures, and enable the timely withdrawal of forces.

2. Terminology. In this publication, camp closure involves all actions of closing a camp as a result of a redeployment of the force that is occupying it. It typically consists of a complete removal of all camp functions, removal or destruction of all structures and equipment, remediation of all environmental hazards, and a return of land or real estate to the landowner or host nation (HN) authority. It includes activities related to real estate, infrastructure, logistics, the environment, contracting and materiel.

G.2. INTRODUCTION

1. The theatre closure plan provides the necessary information that operational commanders need to develop the closure plan for each camp in their area of responsibility. The designated NATO Commander develops theatre policies and procedures for closures as part of the overall theatre infrastructure strategy. The theatre closure plan is based on many operational variables, such as established timelines for force reductions, retrograde or withdrawal as part of the overall exit strategy. It is developed in cooperation with multinational forces and governmental and non-governmental organizations (NGOs), adjusted as development of the exit strategy progresses, and executed based on decision points that are linked to transitions or operational phases.

2. Camp transition procedures are required when the military presence in a NATO operation is terminated or reduced, the force is reconfigured, or the force no longer requires a particular location. The transition of NATO camps may involve them being transferred[20], closed or abandoned. Conducting proper camp closure supports NATO operational priorities. The timely retrograde or withdrawal of NATO forces reduces costs, prevents undue environmental liabilities, and protects NATO and national interests while addressing the expectations of the HN.

3. It is important to identify local or HN authorities for the closure process. Closure agreements with the HN specify the status and end state of the camp, including:

[20] Camp transfer guidelines are provided in Annex F – Camp Handover Guide.

a. disposition of facilities;

b. condition of property;

c. standards for environmental clean-up;

d. procedures for unexploded explosive ordnance (UXO) removal;

e. procedures for site mapping;

f. potential handover of materials and supplies;

g. methods of determining or adjudicating liability and claims;

h. coordination for security; and

i. procedures for records archival.

4. Depending on specific agreements, if they exist, the closure process can be labour-intensive and may require the deconstruction of facilities and environmental mitigation or remediation. Additionally, there are legal and financial considerations that must be integrated into the planning to ensure that NATO and national obligations are met with the least amount of cost and effort, and which promotes goodwill and understanding with the HN and international and local communities. To close sites effectively, doctrine and policy must be consistent, initial planning and design must integrate measures that facilitate subsequent closure, and personnel must be trained in the proper procedures. Likewise, systems must be in place to archive records including plans, as-built drawings, contracts and environmental files[21]. To improve efficient use of resources and preclude each nation or unit from solving the same problems, some actions may be performed under agreement by a designated unit tailored to conduct closures, or under an operational area-wide contract to perform these tasks.

5. Camp closure always increases the challenges and risks associated with force protection (FP). These challenges can be mitigated through detailed planning, the early identification of closure requirements, and accurate record keeping. Commanders must establish procedures for abandoning or destroying camps in response to an emergency or controlled evacuation. In these scenarios, sensitive items must be accounted for and either removed or destroyed to prevent their use by hostile forces.

[21] Environmental documentation shall be in accordance with AJEPP-6, *NATO Camp Environmental File During NATO-Led Operations*, reference S.

6. The basic concept of a closure plan is a reverse sequence of the initial build-up. The real estate, service and support capabilities (including contracts) on the remaining camps are right-sized to accommodate fluctuations in populations and changes in demands. The camp closure plan is synchronized with higher headquarters (HQ) plans and unit standard operating procedures (SOPs).

7. Execution of camp closures are typically sequenced or phased to avoid competing demands between tactical mission requirements and closure requirements, such as the following key elements:

a. protection, security and defence resources;

b. transportation, to include land, air and maritime assets, needed for moving personnel, camp property, reusable supplies and materials, and waste; and

c. engineering and construction assets, or specialized teams needed for environmental remediation and dismantling or repair of facilities and infrastructure.

G.3. CAMP CLOSURE FRAMEWORK

The closure process encompasses a series of actions to prepare, document, execute and finally close camps. Many specific tasks are needed for closures in addition to the routine tasks required for unit redeployments and transfers of authority. The individual tasks can be broken down into parallel lines of effort, or focus areas, leading to the end state of final closure and documentation. The major focus areas are Real Estate Management and Disposal Actions, Contractor Support and Logistics Actions, Materiel Property Actions, and Environmental Actions, each having specific documentation requirements (e.g. record keeping). Figure G.1 illustrates these focus areas.

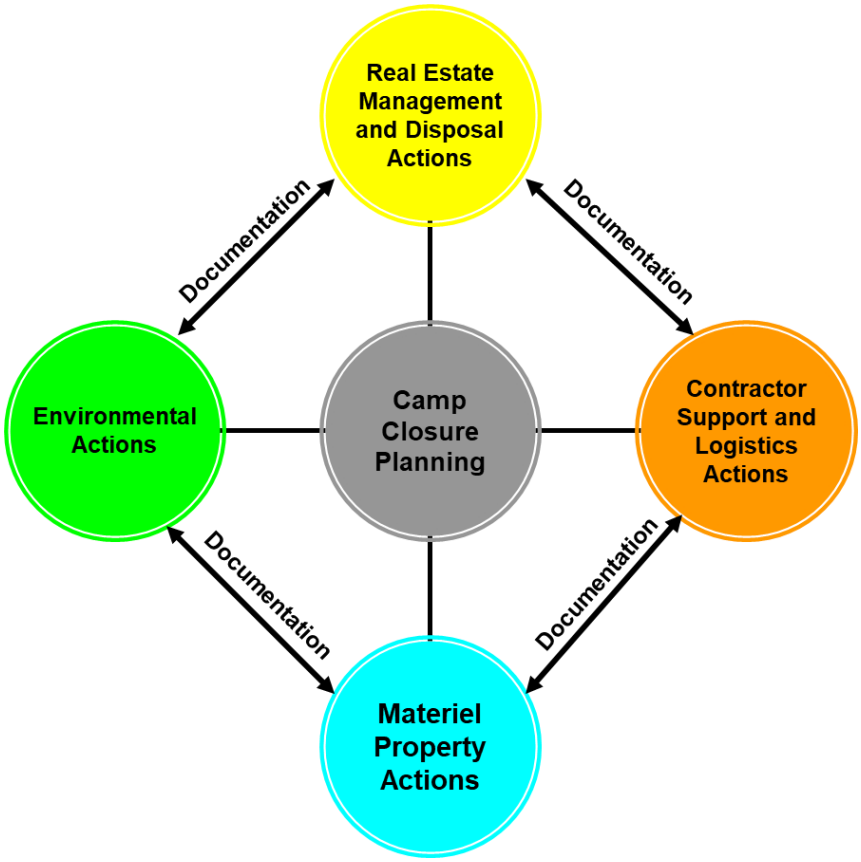

Figure G.1: Camp Closure Focus Areas

G.4. CAMP CLOSURE PLANNING GUIDANCE

1. A key element of sound master planning is that camp closure planning must start with the initial planning for the operation. Exit strategy development intensifies as the location selection process and the environmental baseline study (EBS) are executed, and land use and general site planning are accomplished. The strategy must go on to plan for the clean-up, restoration and closure of the camp real property.

2. The success of a camp closure depends on the ability to plan for most contingencies prior to termination of activities. The planning for camp closure is conducted in accordance with the NATO planning process. The alignment between NATO planning stages and camp closure phases is illustrated in Figure G.2. This annex focuses on the work required in the stages of Transition and Termination, and Redeployment.

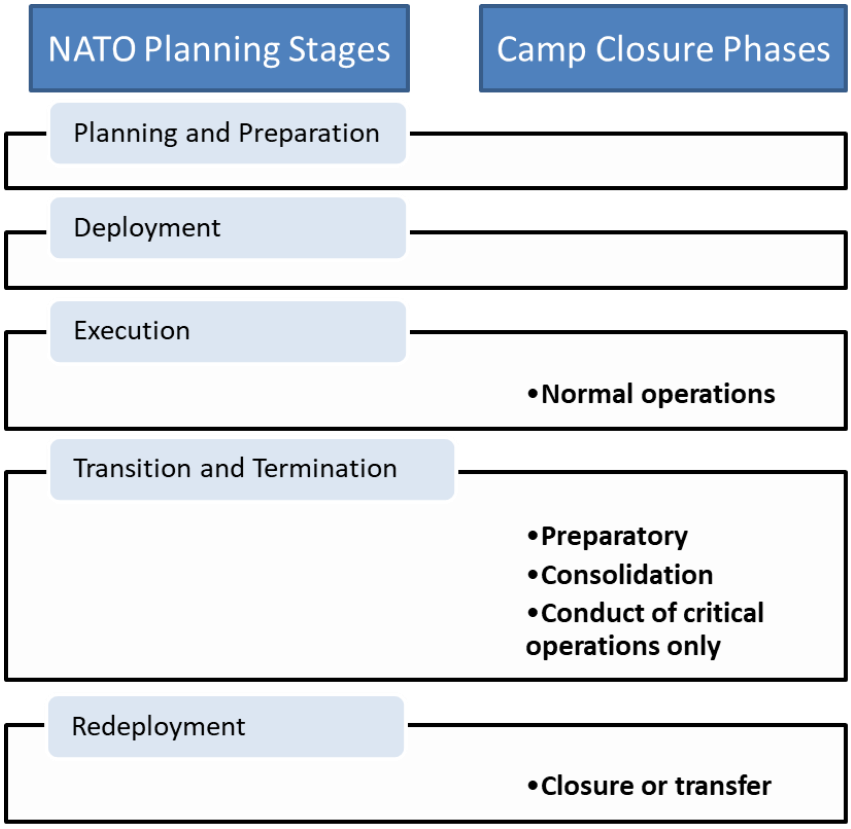

Figure G.2: NATO Planning Stages and Camp Closure Phases

G.4.1. Camp Closure Phases[22]

1. Normal Operations. The camp or a portion of the camp is operating at normal capacity with no interruption in operations or maintenance levels. Preparation and planning for consolidation and transition is underway. Operations support, and real estate inventory, should be conducted as early as possible to facilitate a seamless re-deployment and disposal. Contract identification and initial reviews during this phase are crucial to the successful transition of contractors. Identification of all environmental issues noted in environmental condition reports (ECRs) is begun, as well as identification of landownership.

2. Preparatory. Transfer of personnel, equipment and functions in preparation for site transition. Life support areas consolidate to at least 80% of maximum capacity, and unnecessary space is removed from operation and maintenance (O&M) contracts to save resources and money. The environmental closeout study (ECS) is conducted and coordination for site clean-up begins.

[22] Not all phases may be applicable depending on the camp's specific transition plan.

3. Consolidation. Units consolidate to designated areas to reduce the operational footprint. Reduction of the logistical and contractual footprint occurs. Electricity, fuel and water contracts are consolidated in anticipation of termination. A decrease in available labour during this phase is likely. Possible adverse impact executing the consolidation phase may cause camps originally reduced to expand unexpectedly for various reasons or to react to external events in-theatre, and their contracts increased quickly and substantially. Camp perimeter usually remains the same in this phase.

4. Conduct of Critical Operations Only. Only activities essential to the mission, camp infrastructure, or those which provide theatre-wide support that cannot easily be relocated remain functioning. Camp life support is limited to support minimal mission critical footprints. Perimeter security operations are ongoing and the camp is prepared for transition in 45 days or less.

5. Closure. Camps should shift to a 45-day transition posture during de-scoping. Personnel and services are reduced to facilitate final transition. Commanders balance mission requirements with retrograde and camp transition timelines. Only essential personnel remain on site. All remaining contracts are reduced to a minimum and are ready for termination within the final 45 days. Environmental clean-up work is completed. Just prior to camp closure, electricity, fuel and water are either shut off or contracts are terminated. This phase ends with the camp being closed in accordance with HN expectations.

G.4.2. Camp Closure Focus Areas Planning Considerations

1. In addition to the generally applicable camp closure principles of sustainability and zero waste, the camp closure focus areas previously identified (Figure G.1) must be considered. Detailed points of consideration are articulated in Figure G.3. Following the summary after Figure G.3 and a description of the key planning actors, the subsequent sections consider in detail the planning factors in each focus area. The primary focus is on the logistics and engineering requirements to support the closure activities.

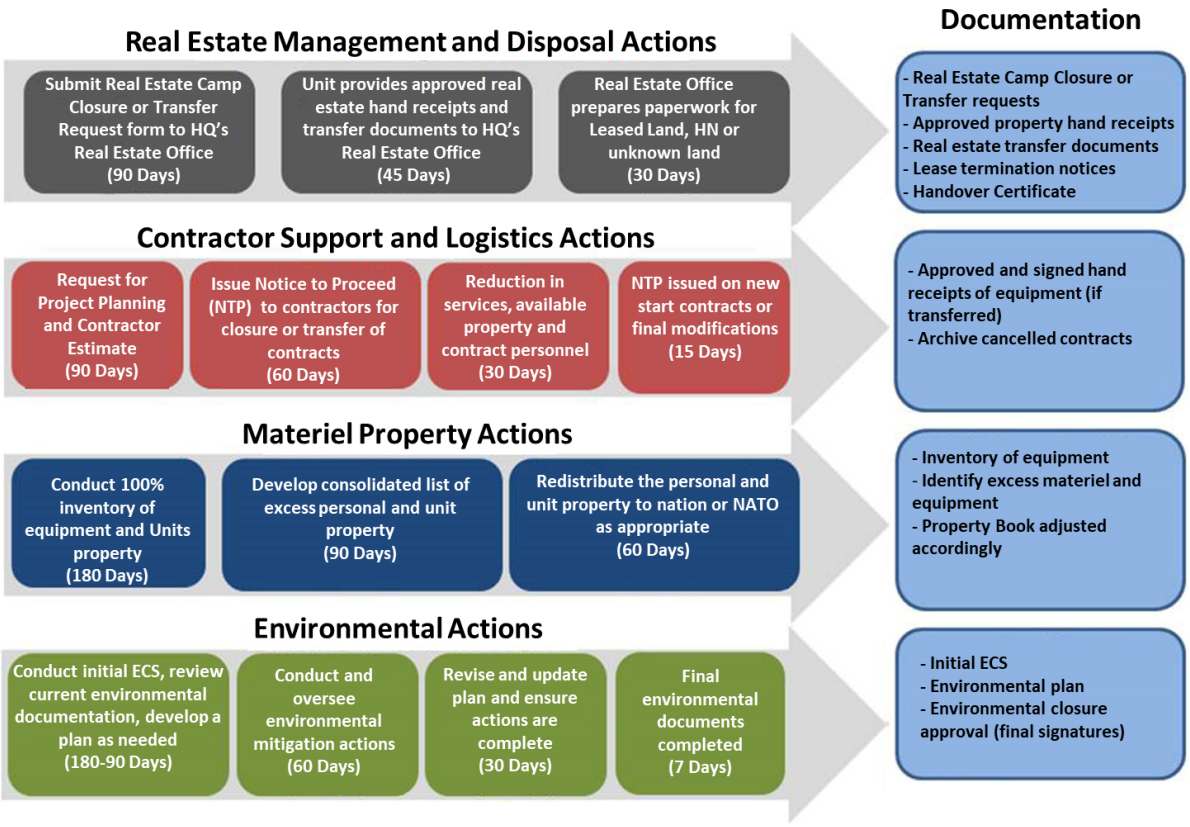

Figure G.3: Overview of General Requirements for Camp Closure

2. Real Estate Management and Disposal Actions. A critical task, from the very beginning of a camp's life cycle, is to identify the rightful landowner so that the necessary negotiations and lease payments can be made. The planning process should take into consideration the following factors for infrastructure assets: infrastructure development level, required repairs or renovations, method of infrastructure disposal, sequence of infrastructure disposal and responsibilities for infrastructure planning.

3. Waste disposal planning must consider factors including local or international waste disposal regulations, availability of authorized waste disposal contractors, type and quantity of waste generated and time available for closure activities. Waste water disposal planning must also ensure that the negative impact of such disposal operations on the local environment is mitigated. The use of authorized waste disposal sites or equipment is paramount in such planning considerations.

4. Planning for hazardous material (HAZMAT) and hazardous waste disposal must take international regulations, such as the Basel Convention[23], and national transportation of dangerous goods regulations, into consideration. Prior to any disposal, it is essential that storage and custodial responsibilities, as well as SOPs that include procedures and training on spill prevention and response for personnel who will handle or be exposed to HAZMAT or hazardous waste, are clearly defined and carried out by the disposing organization. Further advice can be obtained from the operation's environmental protection officer (EPO) and logistics staff. A useful reference is AJEPP-2, *Environmental Protection for Military Camps in NATO Operations* (reference Q).

5. Contractor Support and Logistics Actions. Factors to consider in contractor support and logistics actions may include reduction of support services, drawdown of stocks, relocation of all materiel and personnel, and contracting closure coordination.

6. Materiel Property Actions. Ensuring the proper disposition of real estate is critical to closures. Planning for materiel disposal, destruction and demilitarization must be considered.

7. Environmental Actions. NATO's policy is that recognized environmental issues on NATO camps must be properly cleaned up or mitigated. See AJEPP-2 (reference Q) and AJEPP-6, *Environmental Protection for Military Camps in NATO Operations*, (reference S) for more information on environmental considerations for military camps.

8. Environmental planning should consider an ECS, environmental equipment disposition, site specific remediation and contracts, waste disposal contracting and permitting or licensing, and HAZMAT disposal. The information contained in the Camp Environmental File, as outlined in AJEPP-6 (reference S), is essential to understanding the environmental history of the camp and enables staff to adapt and plan accordingly. The key environmental document in planning a camp closure is the ECS. Based on the information contained in this study, the environmental staff commence the planning for the environmental activities required prior to camp closure. Remediation planning must take into account the feasibility of the required work in terms of resources and equipment, as well as the operational timelines for property handover. In some cases, full remediation may not be possible, in which case options for risk management should be considered.

9. Documentation. Commanders maintain and archive records and documents to provide a historical record that facilitates camp closures and the development of lessons learned. Critical documents that must be maintained include master plans, real estate documents, contract documents, facility and property inventories and

[23] The full name of the Basel Convention is the *Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal*.

disposition documents, environmental documentation, final closure documents and legal reviews. During camp closure planning, there is a requirement to plan for documentation completion. The documentation consists of all legal requirements to transport, destroy and/or dispose of materiel and infrastructure prior to and following the camp closure. Along with the materiel and infrastructure documentation, military planners must consider the real estate and environmental documentation. Technical advice may be required from legal, logistics and environmental experts.

G.4.3. Camp Closure Actors

1. Joint Force Command. In a NATO-led operation, typically the Joint Force Command (JFC) is responsible for the operational scheme of maneuver while each troop-contributing nation (TCN) provides a specific level of support to their national units within the joint operations area. It is these types of unique command relationships, the multitude of TCNs, and the complexity of the battlespace that make closures difficult operations. The closure must be carefully coordinated to minimize negative impacts on operations while successfully meeting policy and regulatory requirements.

2. Camp Closure Team. A recommended coordination mechanism for the closure is the creation of a Camp Closure Team (CCT). This Team monitors the subordinate commands' camp forecasts, reviews and recommends requests to close, and directs redeployment of forces after TCN verification that all statutory requirements have been fulfilled. Though subordinate commands may have similar internal teams for vetting, it is imperative to work these in conjunction with higher HQ requirements given the complex multinational involvement in a theatre of operations.

3. To assist the CCT, it is critical for subordinate commands to continually assess their situation and forecast camp closures in a timely manner. For smaller tactical infrastructure, the commander may delegate authority to a lower level to reduce timelines. For larger camps, it is vital that subordinate units ensure sufficient lead times in submitting their requirements to the applicable NATO command requesting approval to begin closure actions.

4. Upon completion of all camp closure requirements, and approval at national and NATO HQ levels, the responsible unit or formation is notified[24] that a particular camp has fulfilled NATO requirements for proper closure. Based on this notice, the commander then in turn authorizes the unit to vacate a location.

5. Camp Closure Team Support and Enablers. To assure an appropriate and safe camp closure, the commander can be assisted by a support team. Depending on the circumstances, a part of this team works as enablers and fulfills their mission from a

[24] Depending on the level of the NATO operation, notification is done by the appropriate NATO authority (JTF Command, JFC or SHAPE).

distance (home-based), whilst another part must be integral to the CCT. The size of this team varies according to the size of the camp and complexity of the operation.

6. The camp closure plan is prepared by a combined, sometimes joint, planning team. Based on the timeline, the political decisions or the commanders' intentions, the climatic limitations, the security situation, and the resources at their disposal, the team prepares a general camp closure plan. Once this plan has been established, the enabler/support team can assist and work out the details. The conduct of camp closure requires the cooperation of all parties and relies heavily on the logistics and engineering components with a variety of subject matter experts (SMEs) required throughout the process.

7. The camp closure process may require transfer, retrograde or relocation of considerable number of personnel, and transportation of equipment by the TCN. The CCT can consist of, but is not limited to, the following specialized personnel and SMEs:

a. Materiel. Materiel SMEs assist in determining the disposition of all materiel. Specialist logistics personnel may be required to prepare equipment for shipment. Some materiel may require decontamination or detailed cleaning and a TCN customs inspection before final disposition can be achieved.

b. Transportation. Transportation SMEs plan and coordinate the movement, including contacting local authorities and customs to establish the required documents and procedures for the movement of equipment and personnel during camp closure activities.

c. Contracting. At mission closure all contracts are ceased. Subject matter expertise is required to manage the administrative aspects of contract termination.

d. Engineering. Specialized engineering personnel are needed to return the camp to an agreed-upon end state. These SMEs may include vertical or horizontal construction assets or combat engineering support.

e. Medical and Veterinary. Medical support must be organized throughout the camp closure operation. SMEs may be required to disinfect materiel and equipment. Medical advisor (MEDAD) support may also be required to conduct the Environmental Health Site Assessment (EHSA) during camp closure activities.

f. Communication and Information Systems. It is important to ensure that the communication networks are reconfigured or that parallel communication networks are established to support both the ongoing mission as well as the camp closure process.

g. Real Estate. Camp commanders must ensure that all property related issues are addressed prior to handing back the original facilities that existed prior to occupation of the camp. Real estate and legal personnel are familiar with real estate handover regulations and procedures.

h. Environmental. Environmental SMEs assist in identifying the existing environmental regulations and requirements and in elaborating the most appropriate solutions for any required remediation work for the camp.

i. Legal. To ensure proper legal coverage of the closure process, all relevant stakeholders for the signature of the turnover documents must be identified. The legal advisor (LEGAD) must work in close cooperation with the key players responsible for delivering effects. The LEGAD should prepare official documents that are required to be agreed to and signed by the deployed forces and the HN, and verify that they are legally correct and aligned with any existing memoranda of understanding, status of forces agreements, or technical arrangements (TAs). If the provisions of the existing documents cannot be respected, the LEGAD must determine mitigation actions that can be taken.

j. Personnel. Additional personnel may be needed to support the different SMEs (such as additional security forces).

G.5. REAL ESTATE MANAGEMENT AND DISPOSAL ACTIONS

All legal and operational requirements must be met before the camp can be closed. Real estate management involves the process of disposition of structures, materiel and contracts, and the transfer of land and possibly real estate that existed prior to NATO's use of the area, as well as security provisions or assistance in follow-up real estate planning. Site closure affects both the departing tenant and the HN. It is therefore essential to properly assess and document the final condition of the site as part of the redeployment and camp closure process to determine the extent to which the site was damaged by the force and if there are legal, environmental, health, or safety concerns or obligations.

G.5.1. Real Estate Officer

1. The appointed Real Estate Officer (REO) represents the nation with the landowner. The REO may be a dedicated position or may be taken from a logistics, contracting or engineering organization within the joint task force (JTF). The REO should be a single point of contact (POC) and the only delegated agent authorized to negotiate and enter into agreements on behalf of the nation to acquire and dispose of real estate, administer real estate contracts, and negotiate restoration or damage

settlements, in coordination with the LEGAD. The LEGAD must review all closure agreements or any documents that transfer assets that were used by NATO and existed prior to its arrival. This includes both government and privately owned land and facilities. During camp closure, the REO coordinates the termination of real estate agreements with the owner, including the following typical tasks and procedures:

a. develop a list of leases and pending claims for the camp property;

b. review all real estate leases (current and past) and instruments to confirm specific provisions for advance notice of termination;

c. terminate all existing facility renovation contracts;

d. participate in all camp closure assessments and inspections;

e. validate the location and ownership of all leased sites;

f. dialogue with landowners or HN representatives on property return procedures and arrangements;

g. acquire written acceptance by the owner for any property improvements;

h. participate in review meetings of the CCT closure schedule;

i. identify critical decision points for each real estate instrument in accordance with provisions of the existing lease (private lease) or international HN agreement (government);

j. validate that the facilities are ready for transfer;

k. obtain a cost estimate of damages caused by the JTF that are not going to be restored prior to turnover;

l. if the property owner and REO (or the responsible office) have identified and verified damages, negotiate a mutually agreed-upon settlement of damages;

m. complete signatories of the environmental handover certificate (EHC) and transfer documentation with the landowner; and

n. transfer keys to the landowner.

G.5.2. Lease Termination and Property Return Process

1. Land property ownership must be confirmed. This process begins with a deed verification request for the land comprising the camp. The property is normally returned to its original owner. If, after investigation, ownership remains unclear or ambiguous, then the HN's advice should be sought.

2. A notice of lease termination is issued to the HN or owner based on the anticipated return date provided by the CCT. However, the real estate cannot be reverted to the owner, and leases cannot be terminated and restoration or damage settlement finalized, until the following actions have been completed:

a. removal of forces and sensitive equipment;

b. the disposition of all moveable property (unit, personal, materiel, real, etc.).

c. the deconstruction or recycling of infrastructure and immoveable property (i.e. structures);

d. completion of the ECS and EHC; and

e. final approval by the CCT.

3. To retrocede the site as "neutral" as possible and with the lowest "culture and identity footprint" possible, actions must be taken concerning memorials, hazardous structures, identified contaminated sites, and graves. The actions are the same for a camp transfer, therefore see §F.5.3. Deliver under Camp Transfer Planning Guidance in Annex F – Camp Handover Guide.

4. The TCN must ascertain with the HN the original real estate and associated removal, recycling or disposition, including the following considerations:

a. land (rock and gravel removal, road removal, regrading, soil stabilization, and UXO removal);

b. key infrastructure and facilities, such as transportation infrastructure (bridges, airports, railways), energy infrastructure (electricity networks, electrical substations, power generation plants), water management infrastructure (waste water treatment facilities, potable water production facilities), communications infrastructure (telephone networks, internet backbone), and waste management facilities (solid waste landfills, incinerators, medical waste, hazardous waste treatment facilities); and

c. FP measures (barbed wire, fighting positions, concrete barriers, fencing, lighting, guard towers, HESCO barriers, sandbags, protective berms).

5. Land, buildings and facilities that existed prior to NATO's arrival shall be repaired, remediated and reinstated in accordance with HN arrangements and lease agreements. This should take into account any applicable international standards, national requirements and local laws. Battle damage and damage incurred prior to occupation by TCN forces is exempt from repair unless the damage poses a threat to public safety. Any repair and remediation plan must also reflect the condition of the site on initial occupation. When there are no records of a site's initial condition, a professional and practical judgment should be made as to what damage, if any, has been caused by a TCN. Remove or fill bunkers, trenches, fighting positions and FP barriers, to match the surrounding area, unless other agreements exist with the HN.

6. There must be a final inspection between the REO and the property owner to facilitate closure communications. The property owner's expectations shall be validated. If there is any property to be left in place, written approval signed by the CCT must be forwarded to the REO. Any information required for the safe management of a site shall be handed over, e.g. electrical power, excavations, demolition, and structural alterations.

G.6. CONTRACTOR SUPPORT

1. Joint forces commonly employ contractors from local (i.e. HN) and/or national commercial organizations, so contracts will be in place prior to the redeployment and camp closure phase of an operation. In addition to its own national contractual agreements, a TCN may draw off a NATO or coalition partner's contract, in which case a TA will have been created. These contracts provide a number of goods and services to camps such as catering, laundry, waste handling, refueling, transportation, cleaning, health services and construction. The use of contractors should not prevent consideration of the use of HN support or multinational arrangements between TCNs. Camp closures are dynamic, challenging and evolving missions; camps with contracted services have even greater challenges and requirements.

2. The local unit or entity is one of the key contract-related stakeholders. The notification of property closure should be documented to announce the upcoming change in status for the camp and the estimated change date. It starts the closure process especially for local contractors. While contracts are flexible and designed to support operations, advanced notification allows all parties to determine the most prudent solutions.

3. The contractor demobilization clause requires contractors to remove contractor-owned equipment and materiel from the camp. This may include removal of trash and other property from the premises. If a contractor fails to properly demobilize from the

camp, the contracting officer shall be notified and appropriate measures taken to ensure compliance. Final payment can be withheld and poor performance noted in the contractor performance assessment reporting system in order to prevent future contracting with NATO, and a claim can be filed against the contractor. The local contracting unit should also be notified of the possibility of contractors abandoning their property.

G.6.1. Camp Closure Contracting Considerations

1. A single POC for contracting should be appointed within each camp, with appropriate supporting personnel. This may require additional qualified personnel to be requested from outside the unit, which may be part of a surge requirement. The POC should initiate and maintain dialogue between the camp closure operations centre, JTF HQ and other relevant actors.

2. Sufficient time should be allocated to plan and execute contracts, ensuring the contractor tasks are achievable within the timeline and the end date is feasible.

3. Achieve agreement on language, including any translation requirements and the level of authority with interested parties, both civilian and military.

4. All aspects of contracts must be considered, particularly regarding the access and administration of contractor personnel to military camps, and specialist contracts such as environmental. It is important to clarify what type of contract is to be undertaken, at what level of authority both parties need to sign, and when and at what level contracts are to be terminated.

G.6.2. Operation and Maintenance Contracts Considerations

1. When possible, it is preferable to retain the O&M support of camps throughout the entire transition. If O&M services are contracted there are three possible transition methods to be considered: status quo, reduced scope with consolidation, and termination. The type of transition depends on the type of contract mechanism providing the services. Transition of O&M services usually occurs in mission-critical phases and their impacts on the ongoing operations must be taken into account.

a. Status Quo. Areas and facilities remain at normal operating levels. Service order requests and facility maintenance and inspections continue as normal. All basic life support services continue.

b. Reduced Scope with Consolidation. Service order requests are not transferred, but completed if possible. Real life support contracts, such as electricity, water and fuel, are consolidated in anticipation of termination.

The end state is a reduction of the logistical and contractual footprint with basic life support services minimized.

c. Termination. No service orders are accomplished. Electricity, fuel and water production or delivery is shut off. All facilities are closed and turned over to the authority responsible for the camp real estate.

G.6.3. Additional Contracts for Camp Closure

1. While some contracts draw down and close out prior to camp closure (i.e. during the redeployment phase of the operation), there may be a requirement for an increase in other contracted services in the surge period prior to closure, such as waste handling (particularly hazardous waste) and transport. The duration of these additional contracts must be carefully determined, and an end date assigned. Ensuring the most cost-effective and operationally efficient use of contracts across the force is a major coordination task. A thorough analysis of existing and new contracts is therefore required, coordinated by JTF HQ. See also AJP-3.13, *Allied Joint Doctrine for the Deployment and Redeployment of Forces* (reference I).

2. Contracts can be entered into with commercial organizations by NATO or independently by TCNs. JTF HQ provides in-theatre coordination of the NATO contractor support to operations, and NATO common funding may be used when there are valid operational and cost-effective reasons for doing so. However, TCNs may arrange their own in-theatre contracts, as well as draw on their own contracts from outside the joint operations area for a variety of services, for instance strategic lift. Regardless of the contract originator or recipient of contracted services, JTF HQ must retain complete visibility of all contracts associated with camp closure, perhaps through the Joint Logistic Support Group if deployed. This ensures that contracts are monitored and coordinated to limit competition for scarce resources and there is adherence to agreed-upon priorities. The NATO Support and Procurement Agency (NSPA) can also be used for contracting support. NSPA is capable of coordinating contracts on behalf of both NATO organizations and TCNs.

G.6.4. Contract Responsibilities

To support the closure of camps, NATO and TCNs should cooperatively, through JTF HQ, identify support requirements that could be met by civilian contractors, put into place contractual arrangements, and share the provision and use of contractor capabilities and resources, through prior agreed-upon sharing arrangements. TCNs have the ultimate responsibility for ensuring, individually or by contractual or cooperative arrangements, the provision of support to their forces and the closure of the camps for which they are responsible. TCNs retain control over their own resources, and JTF HQ assumes control of commonly provided resources as agreed with TCNs. JTF HQ is responsible for establishing the support requirements for

redeployment and closure, and coordinating both support planning and the provision of contracted support to the camp.

G.6.5. Contract Execution and Documentation

A camp closure operations centre should be created with a contract action list, showing responsible departments and a timetable. The timetable must be synchronized with the redeployment plan and camp closure timeline. During camp closure execution, the operations centre and the action list should be adhered to as agreed-upon, with any amendments discussed and coordinated with JTF HQ and all affected nations and other parties. All contracts and supporting documentation must be archived in an appropriate, accessible manner for the process to be followed and audited, and to prevent claims in the future. The archive is to be handed over to both NATO and national authorities after the closure or redeployment process is complete.

G.7. LOGISTICS ACTIONS

The logistics element of the deployed force and its respective national technical chain of command has, in addition to contracts, many activities connected with the closure of a military camp. It is important for the military engineering (MILENG) and logistics staffs to coordinate all aspects of camp closure, specifically those related to equipment and materiel.

G.7.1. Camp Closure Logistics Considerations

1. Closure activities must be integrated into an operation plan (OPLAN), or if the force is being redeployed, the overarching redeployment plan, which may also have a support plan (SUPPLAN). TCNs and JTF HQ support staff should consider the following key factors as early as possible when planning closure. Coordination of all these factors and support enablers must be effected by JTF HQ, especially when there are multiple locations undergoing closure activities, to reduce the likelihood of competition for the scarce resources between TCNs.

a. Scale and Scope. The number of personnel and the volume of equipment and materiel that must be prepared for movement.

b. Time and Space. The date on which current operations cease must be determined, which will indicate the “tipping point” (see *SHAPE Guidance on NATO NSIP Funded Infrastructure and CIS Projects on CRO*, reference F) when the focus of activity will switch to redeployment, part of which is closure. This will also indicate when the retrograde movement of personnel, vehicles and materiel can commence.

c. Availability and Quantity of Theatre Support Resources. Logistics support (e.g. supply (including fuel, water, rations and ammunition), movement control, and maintenance), as well as communication and information systems (CIS), medical and administrative support, must be prepared, reduced or introduced to conduct in-theatre tasks associated with closure. Any surge of personnel and equipment into camps must be determined and accommodated.

d. Equipment and Maintenance. Equipment must be prepared for redeployment or handing over. If equipment is to be transferred to the HN or coalition partners, negotiations must be made regarding training or material support to ensure that the equipment remains functional.

e. Impact on Ongoing Military Operations. Closure must be balanced with the possible impacts that such support activities may have on the conduct of ongoing military operations.

f. Lines of Communications. Theatre and strategic lines of communications must be assessed, and their use de-conflicted between nations, coordinated by JTF HQ.

g. Priorities and De-confliction. Priorities for the relocation of personnel, equipment and materiel are to be identified by TCNs and coordinated by JTF HQ. Redeployment infrastructure requirements (e.g. vehicle and equipment maintenance areas) are de-conflicted through JTF HQ, and the location of any shared real estate (e.g. staging areas, convoy support centres) is determined by JTF HQ.

h. Security. FP is coordinated by JTF HQ, while CIS security issues including the handling of cryptographic material, controlled equipment list items and communications security material are the responsibility of TCNs.

2. Residual Logistics Footprint. There may be a requirement for a residual commitment of specialist logistics or engineering personnel to remain after the closure has been completed and the camp has been handed over to another entity, to assist with remediation and reconstruction as previously agreed-upon between parties.

G.7.2. Camp Closure Logistics Tasks

1. Typical logistics camp closure tasks for TCNs include:

a. reducing theatre-level support services (logistics, MILENG, CIS, medical, military police) commensurate with the need to maintain and support an appropriate level of operations;

b. calculating required stocks and ensuring their timely drawdown;

c. identifying, accounting for, cleaning, refurbishing and shipping vehicles, equipment and stocks back to nationally assigned locations (or redeployed operation locations);

d. demilitarizing and disposing of materiel that remains in-theatre, either through donation or sale to a coalition nation or to the HN;

e. preparing and moving personnel from the theatre of operations back to nationally assigned locations (or redeployed operation locations);

f. closing all logistics contracts, e.g. transport, food services, fuel, accommodation service (see §G.6. Contractor Support); and

g. finalizing any outstanding investigations that involve more than one nation or the HN, including military police and vehicle accidents, and any outstanding legal and financial matters between nations or the HN.

G.7.3. Critical Logistics Sequence of Events

1. While the time available for camp closure may not be known in advance and may require swift execution, the following sequence of events should not alter significantly:

a. closure planning (as early as possible during deployment);

b. issue of national directives;

c. issue of NATO chain of command directives;

d. surge of necessary logistics enablers;

e. cessation or refocus of current operations;

f. commencement of closure activities;

g. commencement of redeployment activities; and

h. closure of camp.

2. Impacts of Timeline Modifications. It is possible that an operation may be terminated before the originally envisaged campaign end state is reached. This may be caused by the commander determining that the situation in their area of

responsibility differs significantly from that which was originally conceived during the campaign planning or through a political decision following a change of circumstances or re-appraisal. The effects of premature termination must be considered, as it may have physical and financial consequences.

G.7.4. Redeployment

1. Camp closure may be part or all of a redeployment, i.e. the final phase of an operation, in which case diplomatic, operational planning and support activities required to conclude an operation all need to be considered and coordinated through JTF HQ (see also AJP-3.13, reference I). This includes liaison with multinational staff, diplomatic engagement, concluding HN agreements and theatre closing.

2. Theatre Closing. In the context of redeployment, theatre closing refers to the dismantling of the theatre support structure. The theatre support structure consists of all materiel, infrastructure, services and arrangements. In the case of theatre closing, all camps and military locations are handed over to another TCN, handed back to the HN or transferred to a civilian entity.

3. Closure Completed. Camp closure activities should begin early during the redeployment or transition stage of an operation. It is normally considered complete once the theatre support structure has been dismantled, the JTF elements have been physically relocated, all materiel has been shipped or disposed of locally, and all contracts have been closed.

4. National Responsibilities. TCNs are responsible for their own redeployment but are to apply the principles of collective responsibility and efficiency in their planning and execution, and therefore should strive for multinational solutions in accordance with AJP-3.13 (reference I). Nonetheless, it is a national responsibility to provide strategic direction and guidance on support related matters in accordance with AJP-4, *Allied Joint Doctrine for Logistics* (reference G), including the relocation, repatriation or disposal of all materiel and personnel and the close-out of national contracts.

G.8. MATERIEL PROPERTY ACTIONS

1. During closure of a NATO camp, the return of property that existed prior to NATO's use must be considered. All legal and operational requirements must be achieved before the camp can be closed and property handed over to the HN or a private owner. The property may include real estate and building equipment and infrastructure. Normally, personal and unit property (materiel) are shipped home to the TCN using national assets and are not left in a theatre of operations following camp closure.

2. Real estate and building equipment and infrastructure have some special requirements. Real estate includes those areas which have been leased or rented by TCNs during the conduct of the NATO operation, or any real property occupied as a result of existing agreements. It is important to seek the advice of a real property SME prior to making any decision. There are four options for final disposition of the property: disposal, sale, donation or transfer. The options are the same for a camp transfer, therefore see §F.5.3. Deliver under Camp Transfer Planning Guidance in Annex F – Camp Handover Guide.

G.8.1. Property Disposition Execution

1. Inventory. The organization accountable for real estate and building equipment and infrastructure authorized for transfer to the HN or other TCN should complete a joint inventory with the receiving stakeholders no later than 72 hours prior to the scheduled date of transition of the camp. This allows time for corrections of any discrepancies that may be found prior to the signing and closure ceremony. In preparation, the outgoing force must conduct and update its inventory far in advance of this time.

2. Translation and Signatures. Transfer memoranda, building equipment and infrastructure inventory spreadsheets and real estate transfer documents shall be translated into the HN's language. A minimum of two copies each of English and HN versions are signed upon execution of the transfer. The documents include the printed name, rank, title, and signature of the designated NATO and HN representatives. No signatures are obtained until the day of transfer. Units can receive signed completed copies from their HQ after the HQ obtains the HN receivership secretariat's signature.

3. Property Book Accounting. For transferred items that are resident on a unit's property book (organizational or theatre), units shall adhere to national and service specific procedures for vouchering losses. All excess theatre-provided equipment, contractor-managed government-owned equipment, and other equipment authorized for transfer should be documented on the real estate and building equipment and infrastructure inventory records. Consolidation of information by property book holders should start to take place as soon as a closure is announced.

G.9. ENVIRONMENTAL ACTIONS

1. In accordance with MC 469/1, *NATO Military Principles and Policies for Environmental Protection* (reference A), HN environmental laws shall be respected unless an agreement on specific exceptions has been reached. International environmental legislation, rules, regulations and conventions shall also be applied. TCN standards should be used if they are more stringent than HN standards. While NATO and TCNs have a collective responsibility for the protection of the environment, TCNs are responsible to clean up any damage caused by their troops. Therefore, they

should plan ahead and take appropriate precautions prior to, and during, their occupation of a site. Key environmental considerations required during a camp closure include documentation, closure studies, remediation (including firing ranges) and technical guidance for specific projects. Force health protection (FHP) issues shall also be considered (see §G.9.3. FHP Considerations).

2. In principle, TCNs should remove all materials not earmarked for disposition to the HN, e.g. HAZMAT, hazardous waste, and petroleum, oils and lubricants (POL), clean up waste management areas and remediate spill sites. Concerning landfill and latrine areas, agreement with the HN may specify closure requirements, to include long-term monitoring.

3. Damage repair or restoration may be required for cultural sites. SMEs must be consulted. Plans must be coordinated closely with the HN, and no repair or restoration work undertaken without HN approval.

4. All historical artifacts and display weapons are the property of the HN and shall be transitioned to the HN. Display weapons should be turned over to entities within the Ministry of Defence. Units shall document transfers of historical artifacts and weapons to the HN. The document shall record what items and when they were transitioned, and which HN ministry received them.

G.9.1. Organization and Plan

1. For environmental aspects of camp closure planning and implementation, the team of staff and experts includes an EPO plus MILENG, logistics and medical officers. All these pers may be included in the CCT. Camp closure from an environmental perspective requires development of a plan, usually in three steps:

a. identify all required actions and resources, e.g. funding, equipment or personnel;

b. sequence the actions into a timeline (see Appendix G1, Generic Timeline); and

c. perform a risk assessment against the timeline.

2. The period from camp closure planning to actual camp closure presents an increased risk of an environmental incident. Factors such as a reduced and weary workforce, site retrograde, movement of POL and HAZMAT, bulk storage, abandonment of equipment, vehicle preparation for air or sea transportation and inappropriate or ad hoc waste disposal present challenges during closure. It is important that the closure plan take these issues into account.

G.9.2. Environmental Protection Considerations

1. Environmental Closeout Study. The ECS is the key environmental document during closure procedures. It consists of a detailed study of the existing conditions of the camp at the time of closure. The ECS is compared against the EBS to determine the augmented level of contamination (if any) at the time of closure. The studies are also used to develop a remediation plan for the camp if required, which is used to return the camp to the agreed level of environmental condition. As a minimum, the ECS consists of a physical survey of the camp. A sampling program may be developed where additional information is required. The sampling program[25] needs to consider the elements below.

a. Sampling Standards. Due to the multinational context of a NATO camp, it is important to determine which sampling standard is to be used. This also includes agreement on which lab to use for sample analysis. Specific direction and guidance on lab contracts may exist for the mission or for camps where a lead nation is present. The mission or site EPO should be consulted to confirm local requirements.

b. Sampling Equipment. Planning for sampling equipment is based on the quantity and type of sampling to be conducted, as well as the media to be sampled (soil, water, air). The camp EPO can provide technical advice.

c. Sample Import Permits. Depending on national requirements, a sample import permit may be required to ship soil and water samples to an accredited lab for analysis. The time required for permit approval must be factored into sampling plans.

d. Sample Shipment. The shipment of samples must be planned since sample integrity degrades over time or with improper storage or transportation. This may have an impact on the level of confidence that a lab can guarantee. It is essential to plan accordingly and take measures to preserve sample integrity during shipment.

e. Laboratory Analysis. Samples shall be analysed at an accredited lab to assure confidence in the validity of the results. International Organization for Standardization (ISO) 17025:2005 is the internationally recognized accreditation standard for analytical labs and is the preferred choice for multinational operations. However, national standards may be used by the HN or TCNs. The type of accreditation that is appropriate for the situation should be considered when selecting a lab for analysis.

[25] See AJEPP-6, *NATO Camp Environmental File during NATO-Led Activities* (reference S), and AJEPP-6.1, *Manual for Environmental Sampling Protocols* (reference T).

2. Firing Range Closure. When closing a camp, there is often a requirement to close military firing ranges. Depending on the level of complexity of the firing range, this may require cleaning up the backstop as well as remediation of the range to remove heavy metals. See AJEPP-2 (reference Q) for guidance on soil remediation standards for firing ranges. The EPO must be consulted during any firing range closure to ensure that appropriate measures are taken and remediation is conducted according to regulations.

3. Well Closure. If the camp contains water wells, these should be closed prior to camp closure in order to prevent future contamination. Well closure advice should be sought from the EPO or camp engineer, and external contractors may be required. Generally, the following work is required when conducting well closure:

a. remove pumps and casings associated with the well;

b. install a grout pipe into the well and fill the pipe with grout (usually clay or bentonite) to the extent of the well;

c. remove external casings and level the ground around the well head; and

d. mark the location of the well for future reference (e.g. GPS or MGRS coordinates, marked on a map, etc.). If it is known that this site may be reoccupied or occupied by another TCN, an option would be to cap the well for future use.

4. Hazardous Waste Management. Previous camp activities may often generate, store, recycle and dispose of various hazardous wastes, which may contaminate soil and ground water. Hazardous waste contamination can be a serious hazard to human health and the environment. Clean-up goals and strategies are usually site specific and depend upon the clean-up standards, exposure potential, affected population and nature and extent of contamination. All of these factors determine the threat to human health and the environment. Clean-up efforts during camp closure activities are carried out primarily by contractors in accordance with the remediation plan established by the EPO. See also AJEPP-2 (reference Q).

5. Environmental Equipment. During the planning and execution of camp closure, the status of environmental equipment needs to be considered. This may include the removal or relocation of water treatment, waste water treatment or solid waste management equipment. When equipment is removed or relocated, provisions need to be made to replace these services (e.g. through local contract) when this equipment will be rendered inoperable prior to final departure of personnel.

G.9.3. Force Health Protection Considerations

1. The MEDAD, as a member of the CCT, should ensure that medical FHP is properly incorporated into all levels of camp closure activities. AJP-4.10, *Allied Joint Doctrine for Medical Support* (reference K), states that one of the principles of medical support is to "always strive to achieve a standard of care equating to internationally accepted best medical practice". This standard of care continues to apply during camp closure activities. In addition, AJP-3.14, *Allied Joint Doctrine for Force Protection* (reference J) defines FP as "measures and means to minimize the vulnerability of personnel, facilities, equipment, materiel, operations, and activities from threats and hazards in order to preserve freedom of action and operational effectiveness thereby contributing to mission success".

2. Components of FHP which require specific attention during camp closure activities include the following:

a. health and disease surveillance;

b. preventive medicine and disease control;

c. occupational, environmental and industrial health hazards;

d. chemical, biological, radiological and nuclear (CBRN) health threats;

e. field sanitation, food and water hygiene, veterinary services in the context of foodborne and waterborne diseases; and

f. health promotion and health readiness.

3. Preventive medicine staff assist in the execution of FHP closure activities. Their duties may include the following:

a. site inspections;

b. supervision of decontamination of vehicles and equipment;

c. pest control;

d. continued monitoring of water and air quality (and soil where warranted);

e. medical attention for accidents and other medical issues arising during the closure; and

f. storage and disposal of medical and infectious waste.

4. The CCT must use data on health threats, collected by NATO medical CIS, to have a clear operational picture during the camp closure. Any known FHP issues need to be documented on personnel medical records. This may include acute exposure to specific chemicals, noise, etc. or over prolonged periods of time.

G.10. DOCUMENTATION

1. The JTF OPLAN or camp closure plan should stipulate the records to be kept, as well as by whom and where. Accurate documentation of existing conditions, incidents and actions taken is essential for the well-being of the deployed troops during force rotations, addressing claims and facilitating final camp closure. These records should be maintained, updated and archived in an accessible and logical format.

2. The central repository for record keeping and the duration of record retention varies depending on the type of document, as determined by the CCT. For example, a daily log of activities may be kept at the unit level, but for reporting up the chain of command and for purposes of the effective rotation of forces, these daily logs could be summarized in quarterly reports which could then be retained for a period of time as determined by the CCT. The record keeping central repository should include a lessons learned database.

3. Translation. All documents (transfer memorandums, inventories, ECS, etc.) should be translated into the HN language.

G.10.1. Important Documents

1. As a minimum, certain important documents must be archived during camp closure procedures. See also Documentation in §F.5.4. Administrative Procedure under Camp Transfer Planning Guidance in Annex F – Camp Handover Guide. Examples of key documents to archive are:

a. environmental studies and reports (EBS, ECS, ECR, environmental audit reports, geological and hydrogeological surveys, etc.);

b. accident and clean-up reports;

c. support contracts;

d. relevant orders and directives (OPLANs, SOPs, etc.);

e. waste water and HAZMAT handling processes on site; and

f. real estate leases, agreements; and handover documents.

G.10.2. Environmental File

1. It is the responsibility of the CCT to establish and maintain the environmental file, with assistance from enablers such as MILENG, logistics, medical and CBRN specialists. The proper maintenance and organization of the records ensures a complete and transparent camp closure. The records become a camp's historical archive in the event of any questions concerning the camp's performance and management. Therefore, accurate and organized files are essential.

2. On a multinational camp, each nation is responsible to establish and maintain its own environmental file for locations made available for their use. In some instances this may be done by the lead nation EPO. This assures transparency and consistency during any handover or closure procedures. Due to the restrictions placed on releasing documents with a NATO classification, it is recommended that the environmental file contain no classification, unless sensitive information requires a specific classification. Further details on the recommended contents of the environmental file are outlined in AJEPP-6 (reference S).

INTENTIONALLY BLANK

APPENDIX 1 TO
ANNEX G TO
ATP-3.12.1.4

APPENDIX G1 – GENERIC TIMELINE

INTENTIONALLY BLANK

APPENDIX G2 – NATO CAMP CLOSURE TASK LIST

Functional Area	Action	Task
Real Estate	Validate land transfer and ownership	• Verify lease and deed ownership • Conduct interviews with HN
	Begin negotiation with landowner or HN representative	• Negotiate restoration and damage settlements • Acquire written acceptance from owner of improvements to be left on the property
	Notice of intent to terminate lease	• Obtain release of liability / record of return
	Conduct inspection of real estate inventory	• Identify CIS drawdown plan • Develop real estate drawdown plan • Identify infrastructure to be deconstructed
	Identify damages	• Prepare cost estimates • Prepare property damage report
	Joint inspection of real estate	• Conduct initial inspection with HN • Document inspection results • Disclose inspection results with HN or landowner
	Negotiate final disposition actions	• Prepare documentation • Conduct legal review of documentation • Obtain landowner acceptance of documentation
	Execute agreed-upon final disposition actions	• Complete agreed-upon final disposition actions (clean-up, restoration, etc.) • Conduct final inspection
	Validate property ready for transfer	• Verify documentation requirements have been met • Conduct legal review of documents • Conduct site survey
	Transfer property (including legal review)	• Draft handover certificate for signature and complete signing • Archive documentation

APPENDIX 2 TO
ANNEX G TO
ATP-3.12.1.4

Functional Area	Action	Task
Property / Materiel / Infrastructure	Conduct initial property disposal and inventory plan	• Develop disposal plan (sale, donation, return, destruction) • Develop training plan for equipment to be transferred
	Conduct disposal actions (sale, donation, return, destruction)	• Establish transportation contracts • Establish movement plan for material disposal • Liaise with air and seaport facilities • Conduct customs procedures
	Conduct final documentation for disposal actions	• Complete national documentation for disposal
	Review environmental documentation	• Obtain and review EBS • Review environmental incident reporting, ECRs and environmental impact assessments
	Plan for closure, transfer or handover	• Identify surge requirements • Plan support requirements during surge
Contracting	Validate contracts	• Review existing contracts • Manage continuing contracts • Identify functional responsibility for new contracts
	Begin negotiations with contractors	• Setup contractor meeting(s) • Inform contractors of intent • Establish contract requirements and milestones before and after closure
	Provide notice of intent (renewal, transfer or termination) of contracts	• Identify all support contracts needing modification or initiation • Conduct legal review of documentation
	Negotiate settlements	• Perform financial review of settlements • Draft settlement documentation
	Provide final notice of termination or transfer	• Draft contract termination documentation • Conduct legal review of documentation (if required)

Functional Area	Action	Task
	Conduct final verification of contract deliverables	• Conduct inspection with contractor • Develop corrective action plan (if required) • Conduct final follow-up to ensure contract delivered as agreed upon
	Archive documentation	• Collect required documentation
	Identify new contracts	• Conduct needs assessment • Evaluate in situ capacities
	Establish new contracts	• Prepare statement of work or request for proposal • Draft contract • Conduct legal review • Tender and award contract
	Execute contract	• Monitor contract work • Effect corrective action as required • Conduct acceptance of contract services provided • Pay contractor
	Terminate contracts	• Draft letter of release for contractors
	Negotiate contract renewal	• Identify contracts requiring renewal • Negotiate renewal with contractor
Environmental	Conduct ECS	• Complete ECS checklists • Establish sampling plan • Conduct field sampling • Send samples to lab for analysis • Complete ECS report • Coordinate with MEDAD (EHSA)
	Develop remediation plan	• Establish remediation contract • Supervise remediation activities

Functional Area	Action	Task
	Conduct clean-up and remediation activities	• Conduct clean-up of contaminated sites, in particular POL and HAZMAT locations • Monitor remediation activities • Conduct field sampling to confirm remediation • Remediate predetermined sites with integral assets • Coordinate post transfer remediation activities
	Coordinate with HN	• Conduct inspection with HN • Complete and sign EHC
	Archive documentation and monitor	• Maintain all environmental documents for archiving

APPENDIX 3 TO
ANNEX G TO
ATP-3.12.1.4

APPENDIX G3 – EXAMPLE REAL ESTATE INVENTORY

Camp and Location: _____ Date: _____

Section I: Permanent Construction

List all immovable permanent buildings, facilities or structures constructed, including major infrastructure facilities such as a power plant or waste water treatment plant. (For certain systems it is appropriate to have sub-component inventories conducted and documented for greater clarity and accuracy.) (*Expand the table and use additional sheets as necessary*.)

Description (size, colour, building number, location info (GPS, MGRS))	**Quantity**	**Material** (block, concrete, wood, etc.)	**Notes** (current and past uses of the building)

Additional Comments:

Verifying Official: _____ Date: _____
Signature and Printed Name
(*gaining or receiving unit or HN representative*)

Provide Contact information – Unit, Country, Phone, Email and Address

Verifying Official: _____ Date: _____
Signature and Printed Name
(*departing or donor unit representative*)

Provide Contact information – Unit, Country, Phone, Email and Address

APPENDIX 3 TO
ANNEX G TO
ATP-3.12.1.4

Camp and Location: _____ Date: _____

Section II: Temporary Construction

List all temporary structures constructed to include movable buildings, K-spans, clamshells, modular systems, tentage by type, all specialized functional facilities (e.g. dining facility, HQs, command posts, etc.) and any modular containers (e.g. reefers). (*Expand the table and use additional sheets as necessary*.)

Type (tents, ISO)	**Quantity**	**Material** (fabric, wood, metal, etc.)	**Notes** (Condition, use, estimate of remaining lifespan)	**Structure Remaining** (Yes or No)

Additional Comments:

Verifying Official: _____ Date: _____
Signature and Printed Name
(*gaining or receiving unit or HN representative*)

Provide Contact information – Unit, Country, Phone, Email and Address

Verifying Official: _____ Date: _____
Signature and Printed Name
(*departing or donor unit representative*)

Provide Contact information – Unit, Country, Phone, Email and Address

APPENDIX 3 TO
ANNEX G TO
ATP-3.12.1.4

Camp and Location: _____ Date: _____

Section IIIa: Heating and Air Conditioning Units

Type (e.g. Chigo)	**Quantity**	**Notes** (include serial number, size (BTU), manufacturer, model, fuel/power source,

Section IIIb: Generators

Type and Size (military/civilian, diesel/gasoline)	**Quantity**	**Manufacturer**	**Leased / Owned**	**Notes** (model, serial number, output, maintenance log/data)

(*Expand the tables and use additional sheets as necessary*.)

Additional Comments:

Verifying Official: _____ Date: _____
Signature and Printed Name
(*gaining or receiving unit or HN representative*)

Provide Contact information – Unit, Country, Phone, Email and Address

Verifying Official: _____ Date: _____
Signature and Printed Name
(*departing or donor unit representative*)

Provide Contact information – Unit, Country, Phone, Email and Address

APPENDIX 3 TO
ANNEX G TO
ATP-3.12.1.4

Camp and Location: _____ Date: _____

Section IV: Protective Structures

List all protective structures used to harden facilities and protect personnel, equipment and supplies. (*Expand the table and use additional sheets as necessary.*)

Type (bunkers, HESCO, other barriers, guard towers)	**Quantity**	**Notes** (condition, age)	**Structure Remaining** (Yes or No)

Additional Comments:

Verifying Official: _____ Date: _____
Signature and Printed Name
(*gaining or receiving unit or HN representative*)

Provide Contact information – Unit, Country, Phone, Email and Address

Verifying Official: _____ Date: _____
Signature and Printed Name
(*departing or donor unit representative*)

Provide Contact information – Unit, Country, Phone, Email and Address

APPENDIX 3 TO
ANNEX G TO
ATP-3.12.1.4

Camp and Location: _____ Date: _____

Section V: Contracts

List all land use agreements, leases, support or service contracts and pending contracts. (*Expand the table and use additional sheets as necessary*.)

Description	Contractor / Landowner	Contracting Office	Owner POC	Notes

Additional Comments:

Verifying Official: _____ Date: _____
Signature and Printed Name
(*gaining or receiving unit or HN representative*)

Provide Contact information – Unit, Country, Phone, Email and Address

Verifying Official: _____ Date: _____
Signature and Printed Name
(*departing or donor unit representative*)

Provide Contact information – Unit, Country, Phone, Email and Address

APPENDIX 3 TO
ANNEX G TO
ATP-3.12.1.4

Camp and Location: _____ Date: _____

Section VI: Miscellaneous Items

List any miscellaneous real estate found on camp not previously identified.
(*Expand the table and use additional sheets as necessary*.)

Type	Quantity	Notes

Additional Comments:

Verifying Official: _____ Date: _____
Signature and Printed Name
(*gaining or receiving unit or HN representative*)

Provide Contact information – Unit, Country, Phone, Email and Address

Verifying Official: _____ Date: _____
Signature and Printed Name
(*departing or donor unit representative*)

Provide Contact information – Unit, Country, Phone, Email and Address

APPENDIX 4 TO
ANNEX G TO
ATP-3.12.1.4

APPENDIX G4 – EXAMPLE AGREEMENT FOR THE RETURN OF PRIVATELY OWNED PROPERTY[26]

Possession Number: _____, Property Number: _____

I, the undersigned ___*(HN or incoming TCN representative)*___ hereby declare that I fully understand and accept the offer as presented by ___*(outgoing TCN)*___ on ___*(date)*___.

I agree that the offer made by ___*(outgoing TCN)*__ is as follows:

- The property will be handed over "as is" on _*(when or condition)*_. If there is any gravel or concrete on my property, _*(outgoing TCN)*_ will leave it as is when leaving the Camp.
- The ___*(outgoing TCN)*___ will conduct an environmental closeout study and remediate where necessary to ensure that the site is in the same condition, or better, than it was when the Rental Agreement for this property was signed for the first time.

I understand that this agreement can be terminated legally and unilaterally by _____ if one or more of the property owners in _____ do not accept the offer as presented by ___*(outgoing TCN)*___. In such an event, I agree that I will not hold ___*(outgoing TCN)*___ liable in any way for any losses I may incur. In the event that this agreement is terminated by _____, I understand that my property will be returned to me in accordance with the terms of the Rental Agreement.

I understand that this agreement is to be considered as a notice of termination of the Rental Agreement, and that I will receive a final date for the return of my property. The final date for the return is expected to be in ___*(number of days, weeks or months)*___.

I understand and agree that I will forward no further claims regarding _____ renting of my property to _____ or any other authority and that this agreement is the full and final settlement of any issues arising out of _____ having rented my property. A final document containing a final description and assessment of my property will be made when the property is actually returned to me – this document will be signed by myself and _____.

I understand that I will have to provide __*(outgoing TCN)*_ with the necessary documentation certifying that I am the rightful owner of this property before conclusion of this agreement.

[26] This example should be used as a guideline only. It must be amended to meet the specific requirements of the operation, camp or nation.

APPENDIX 4 TO
ANNEX G TO
ATP-3.12.1.4

If any discrepancy between the English and ___*(HN or incoming TCN language)*___ version of this agreement occurs, the English version shall prevail.

By signing this document I agree that I am authorized to enter into this agreement.

Location: Camp ___*(camp name)*_____ Date: _____

LEXICON

PART I – ACRONYMS AND ABBREVIATIONS

AASTP	Allied Ammunition Storage and Transport Publication
ACO	Allied Command Operations
ACT	Allied Command Transformation
AECTP	Allied environmental conditions and tests publication
AEP	Allied engineering publication
AJEPP	Allied joint environmental protection publication
AJP	Allied joint publication
AMedP	Allied medical publication
AMovP	Allied movement publication
ATP	Allied tactical publication
Bi-SC	Bi-Strategic Command (ACO and ACT)
CBRN	chemical, biological, radiological and nuclear
CCT	Camp Closure Team
CIS	communication and information systems
COED	Concise Oxford English Dictionary
CRO	crisis response operation
DFI	deployed force infrastructure
EBS	environmental baseline study
ECR	environmental condition report
ECS	environmental closeout study
EHC	Environmental Handover Certificate
EHSA	Environmental Health Site Assessment
EnMS	energy management system
EP	environmental protection
EPO	environmental protection officer
FHP	force health protection
FP	force protection
GPS	global positioning system
HAZMAT	hazardous material
HN	host nation
HQ	headquarters

ICI	Istanbul Cooperation Initiative
ISO	International Organization for Standardization
ITAR	International Traffic in Arms Regulations
JCMS	Joint Construction Management System
JTF	joint task force
LEGAD	legal advisor
MC	Military Committee
MD	Mediterranean Dialogue
MEDAD	medical advisor
MGRS	military grid reference system
MILENG	military engineering
NCM	non-commissioned member
NGO	non-governmental organization
NSIP	NATO Security Investment Programme
NSPA	NATO Support and Procurement Agency
O&M	operation and maintenance
OPLAN	operation plan
PfP	Partnership for Peace
POC	point of contact
POL	petroleum, oils and lubricants
REO	Real Estate Officer
SHAPE	Supreme Headquarters Allied Powers Europe
SME	subject matter expert
SOP	standard operating procedure
STANAG	NATO standardization agreement
SUPPLAN	support plan
TA	technical arrangement
TCN	troop-contributing nation
UXO	unexploded explosive ordnance

PART II – TERMS AND DEFINTIONS

contract
a written or spoken agreement intended to be enforceable by law.
(COED)

environment
the surroundings in which an organization operates, including air, water, land, natural resources, flora, fauna, humans, and their interrelations.
(NATO*Term* – NATO Agreed)

environmental baseline study (EBS)
a study of the environmental conditions in a defined area prior to the commencement of military activities.
(NATO*Term* – NATO Agreed)

environmental closeout study (ECS)
a study of the environmental conditions in a defined area at the cessation of military activities.
(NATO*Term* – NATO Agreed)

environmental condition report (ECR)
A report on the environmental conditions in a defined area.
Note: The report may be periodic or may follow an environmental incident.
(NATO*Term* – NATO Agreed)

environmental impact assessment (EIA)
study of the environmental impact of an activity or project.
(NATO*Term* – NATO Agreed)

environmental protection (EP)
the prevention or mitigation of adverse environmental impacts.
(NATO*Term* – NATO Agreed)

environmental protection officer (EPO)
an officer, non-commissioned officer or civilian to whom environmental protection responsibilities have been assigned by a commander.
(NATO*Term* – NATO Agreed)

force protection (FP)
all measures and means to minimize the vulnerability of personnel, facilities, equipment and operations to any threat and in all situations, to preserve freedom of action and the operational effectiveness of the force.
(NATO*Term* – NATO Agreed)

hazardous material (HAZMAT)
material that may pose a risk for the population, property, safety or the environment owing to its chemical or physical properties or the reactions that it may cause.
(NATO*Term* – NATO Agreed)

host nation (HN)
a nation which, by agreement: a. receives forces and materiel of NATO or other nations operating on/from or transiting through its territory; b. allows materiel and/or NATO organizations to be located on its territory; and/or c. provides support for these purposes.
(NATO*Term* – NATO Agreed)

infrastructure
the basic physical and organizational structures (e.g. buildings, roads, power supplies) needed for the operation of a society or enterprise.
(COED)

logistics
the science of planning and carrying out the movement and maintenance of forces. In its most comprehensive sense, those aspects of military operations which deal with: a. design and development, acquisition, storage, movement, distribution, maintenance, evacuation, and disposal of materiel; b. transport of personnel; c. acquisition or construction, maintenance, operation, and disposition of facilities; d. acquisition or furnishing of services; and e. medical and health service support.
(NATO*Term* – NATO Agreed)

materiel
military materials and equipment.
(COED)

military engineering (MILENG)
a function in support of operations to shape the physical operating environment.
(NATO*Term* – NATO Agreed)

real estate
real property; land.
(COED)

real property
property consisting of land or buildings.
(COED)

remediation
the action of remedying something, in particular environmental damage.
(COED)

INTENTIONALLY BLANK

ATP-3.12.1.4(B)(1)