

**United Nations
Peacekeeping Missions
Military Signals Unit
Manual**

**Second Edition
2023**



**DEPARTMENT OF PEACE OPERATIONS
DEPARTMENT OF OPERATIONAL SUPPORT**



Produced by:

Office of Military Affairs,
Department of Peace Operations
UN Secretariat
One UN Plaza, New York, NY 10017
Tel. 917-367-2487

Approved by:

Jean-Pierre Lacroix,
Under-Secretary-General for Peace Operations
Department of Peace Operations (DPO).

Atul Khare
Under-Secretary-General for Operational Support
Department of Operational Support (DOS)

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Foreword

We are delighted to introduce the second edition of the United Nations Peacekeeping Missions Military Signals Unit Manual - an essential guide for commanders and staff deployed in peacekeeping operations, and an important reference for Member States and the staff at the United Nations Headquarters.

Over the past several decades, United Nations peacekeeping has evolved significantly in its complexity. The spectrum of multi-dimensional, international UN peacekeeping includes evermore challenging tasks such as restoration of state authority, protection of civilians, and disarming, demobilizing and reintegrating ex-combatants. In today's context, peacekeeping missions are deployed into environments where they can expect to confront asymmetric threats, increased use of advanced technology, mis and dis-information tactics by armed groups over large geographic areas. Consequently, the capabilities required for successful peacekeeping Missions demands continuous training, improvement in equipment and Command leadership and mindset.

UN peacekeeping operations are rarely limited to a single type of activity. Whether deployed in the context of a political framework supporting a peace agreement, or in the context of creating the conditions for a return to stability, Peacekeeping Missions require military units to perform challenging tasks and the judicious use of force. To meet these complex peacekeeping challenges, military components often play a pivotal role in providing and maintaining a secure environment. Under these circumstances, the deployment of UN Military Signals Units can contribute decisively towards successful achievement of the Mission's goals by assisting the Force Commander with the communications network needed for the unhampered transmission of command-and-control information.

As the UN continues its efforts to foster the diversity of troop-contributing countries, there is a vital need to formalize capability standards to meet the complex threats in the ever-changing operational environment and ensure operational efficiency. In order to formalize the capability standards of UN Military Signal Unit, the Department of Peace Operations in collaboration with the Department of Operational Support and military experts from numerous Member States have revised this UNMUM as a means of enhancing the preparation, operational readiness and efficiency of a deploying signal unit. In recognition of the work done, we would



like to express our sincere gratitude to the Member States who volunteered and devoted their time, energy, and expertise to the revision of this Manual. The result is an updated document that builds and consolidates the relevant dimensions of the UN Military Signals Unit into a single, convenient reference.

The Department of Peace Operations and the Department of Operational Support will continue to refine and update this Manual ensuring its relevance in an ever-changing operational environment. In the meantime, we have every expectation that this document, especially with the concerted efforts of its intended readers, to contribute immensely to improving and enhancing our collective performance in the pursuit of peace.



A handwritten signature in blue ink, appearing to read 'Jean-Pierre Lacroix'.

Jean-Pierre Lacroix
Under-Secretary-General
Department of Peace Operations

A handwritten signature in blue ink, appearing to read 'Atul Khare'.

Atul Khare
Under-Secretary-General
Department Operational Support

Preface

I am very pleased to introduce the United Nations Peacekeeping Missions Military Signals Unit Manual, a practical guide for troop contributing countries, commanders, subordinate commanders, UN Headquarters planners and other decision makers on the planning, employment, functions and capabilities required of a military Signals Unit.

I would like to express my sincere gratitude to the Member State working group, Field Missions, other peacekeeping practitioners and stakeholders and colleagues from the Department of Operational Support for their dedicated support and substantial contribution provided in the revision of this Manual. This document will contribute immensely to improving and enhancing our collective performance in the pursuit of peace.



General Birame Diop
Assistant Secretary-General
Office of Military Affairs
Department of Peace Operations



Working Group for Second Edition of UN Military Signals Unit Manual

Serial	Name & Country
1.	Col Marcelo Gomes da Silva - (Brazil) Chair
2.	Col Vicente Marti Solsona (Spain)
3.	Col Bilal Sarwar (Pakistan)
4.	Lt Col Nur Mohammad Sarwar (Bangladesh) Deputy Chair
5.	Lt Col Mohammad Manzur Hossain (Bangladesh)
6.	Lt Col Roberto Dominguez Gonzalez (Spain)
7.	Lt Col Immaculate Muendi Wambua (Kenya)
8.	Maj Benson Ndung'u Kamau (Kenya)
9.	Capt Waqas Nazar (Pakistan)
10.	Mr Phillippe Schifferling DOS/Office of Information and Communications Technology
11.	Maj Florence Keter DOS/Office of Information and Communications Technology
12.	Lt Col Myagmarjav Dorj (OMA/Military Performance Evaluation Team)
13.	Wg Cdr Samatha Gomani (OMA/Policy and Doctrine Team)
14.	Wg Cdr Nkechi Esionye-Uzodimma (OMA/PDT) - Project Coordinator
15.	Col Stephanie Tutton (OMA/Chief, Policy and Doctrine Team)



Purpose

The United Nations Signals Unit Manual provides field commanders and their staff a guide for planning and conducting Military Signals Unit operations in support of United Nations peacekeeping Missions.¹ Troop Contributing Countries, United Nations Headquarters and Mission staff will find this Peacekeeping manual an essential reference as they plan, generate and employ Military Signals Units for UN Peacekeeping Missions.

The intent of this manual is not to override the national military doctrine of individual Member States (MS) or Troop Contributing Countries (TCCs), nor impose requirements on national training, operations or structures. This manual does not prescribe military tactics, techniques and procedures, nor is it the intent of this manual to serve as an instrument for unit selection. Indeed, unit structures will be adapted, ultimately, in accordance with specific Mission requirements and any Memorandum of Understanding (MOU) negotiated between the UN and a TCC. This manual serves as a complement to existing or emerging TCC military doctrine, and in preparation for the enhanced performance achieved through interoperability with other TCCs participating in a peacekeeping operation or deployed to a UN Mission.

This manual is primarily written for the operational level. It is based on UN guidance reflecting lessons learned, feedback from Field Missions and input from peacekeeping practitioners deployed as a part of a UN Military Signals Unit. It is designed to assist contingents in the re-orientation of their signals units from a national military focus to one in which they are an integral part of a unified UN peacekeeping operation.

The second edition is a result of deliberations undertaken by a working group in 2021 to identify areas that needed to be modified or changed based on recent UN doctrinal development, feedback from Field Missions, and the feedback directly from deployed UN Military Signals Units. The result is a more comprehensive body of thought on UN Military Signals Unit operation that promotes operational efficiency.

¹ Throughout this document, a capital M in the word “Mission,” as in, “the UN Mission,” is used to refer to a UN peacekeeping *organization*; as opposed to a small “m,” as in, “a military mission” indicating a *task or operation*.



Scope

This manual describes UN Military Signals Unit operations, focusing on military signals in support of a UN Mission and its Force/Sector Headquarters. Always scalable in size, modular in function and Mission-tailored, the UN Military Signals Unit's size and composition depends on the overall UN Field Mission's requirements and key physical characteristics of the Mission area (See Annex A for sample configuration and strength numbers). The manual provides a generic set of planning, coordination and operational considerations for signals units within the context of UN Field Missions. These requirements are specified in the Statement of Unit Requirement (SUR) produced by the Office of the Military Affairs, Department of Peace Operations.

A brief description of the integrated Mission support system is described in this manual and will be useful for military personnel unfamiliar with this aspect of UN field operations. In the UN system, military enabling assets such as signals, logistics, construction engineers, aviation, transportation, medical and explosive ordnance disposal units function as part of the Mission-level support network tasked and coordinated by the civilian, not military component².

Chapter 1 explains the concept of employing a Military Signals Unit. UN planners will find Chapters 2 and 3 particularly helpful regarding detailed capabilities, organizational structure and tasks of a military Signals Unit as they tailor military signals capabilities according to Mission requirements and the UN military performance standards described in this manual. UN Military Signals Unit commanders and staff should plan and manage resources based on the guidance provided in Chapter 4, while Chapters 5 and 6 provide training and evaluation criteria for UN Military Signals Units to achieve and maintain appropriate operational readiness levels.

This manual should be read in conjunction with other UN manuals, especially the UN Infantry Battalion Manual, in order to gain an increased understanding of UN standards, policies and procedures related to peacekeeping operations.

² Tasking and coordination of military enabling assets that are an integral part of larger military formations (e.g. ISR Task Force; Mobile Task Force) may be delegated to the military components pending operational requirements of the Force and MoU negotiations between the United Nations and the TCC.



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CHAPTER 1

Employment Concept for the UN Military Signals Unit

1.1 Introduction

The role of the UN Military Signals Unit is to provide and support communications³ connectivity and information technology services to the Mission and the Force. The UN Military Signals Unit provides robust military capacity and augmentation to the Mission's Field Technology Section⁴ (FTS) thereby serving the entire Mission wherever military capability would be more appropriate than that offered by UN civilians or contractors. For example, the UN Military Signals Unit might be a better choice for providing communications and information technology support in coordination with FTS to deployed military units, when urgently deployed headquarters or new camps/sites (i.e., Temporary Operating Base (TOB)/Forward Command Post (FCP)) are established, especially when the FTS personnel cannot be deployed. The UN Military Signals Unit would be tasked by the Chief, FTS, and unit tasks coordinated through the Force U-6. However, the UN Military Signals Unit's main efforts remain focused on ensuring communications and information interoperability between elements of the military headquarters at Force, Sector, Battalion, and independent Unit Headquarters level.

1.2 Employment Concept

UN Military Signals Units are specialized military communications and information technology support providers in the Force Headquarters and various command centres. UN Military Signals Unit support focuses on the Mission's information nerve centres such as Joint Operations Centres, Situation Centres, Mission Support Centres,⁵ Joint Mission Analysis Centres and planning and communication centres. A UN Military Signals Unit is deployed to each Mission Sector to support the Force Headquarters and/or Sector Headquarters in that Sector, and all Sector-assigned Battalions and independent units with UN/FTS-provided communications, information

³Including radio communications.

⁴In some UN Missions, the FTS is a Field Technology Service vice a Section.

⁵Formerly known as Joint Logistics Operations Centres.



technology equipment installation, maintenance, and training. As a rule, FTS, augmented by the UN Military Signals Unit, supports the Force Headquarters and Sector Headquarters. Communications and information technology support within a TCC's contingent, i.e., from battalion to company or platoon/team/detachment level, is a TCC responsibility. Each sector-assigned UN Military Signals Unit is to be capable of supporting one Force or Sector Headquarters, comprised of up to five battalions or independent unit headquarters.⁶

As the following chart illustrates (Figure 1), FTS provides the primary communications and information technology support between the Force and higher UN authorities including the mission, regional UN offices and the UN Headquarters. FTS is also the primary provider between the Force Headquarters and Brigade or Sector Headquarters. However, as the dashed red lines in Figure 1 indicate, FTS may be augmented by elements of the UN Military Signals Unit as required. Between Brigades or Sectors, with separate Battalions (those not organic to the Brigades) and independent units in the Sector, the UN Military Signals Unit has primary service responsibility, and may be supported by FTS. TCC contingents have primary responsibility for communications and information technology support between their organic elements, i.e., from Brigade to Battalion to Company to Platoon, Team, Detachment or independent unit within that Brigade or Sector if those units are all from the same TCC. In those cases where a Brigade or Sector has subordinate Battalions or units not from the same TCC, the UN Military Signals Unit, working on behalf of FTS, will provide the primary support connecting those units from multiple TCCs to ensure interoperability.

⁶ The actual structure for a specific UN field Mission depends on the operational requirements and geographic dispersal of troops.

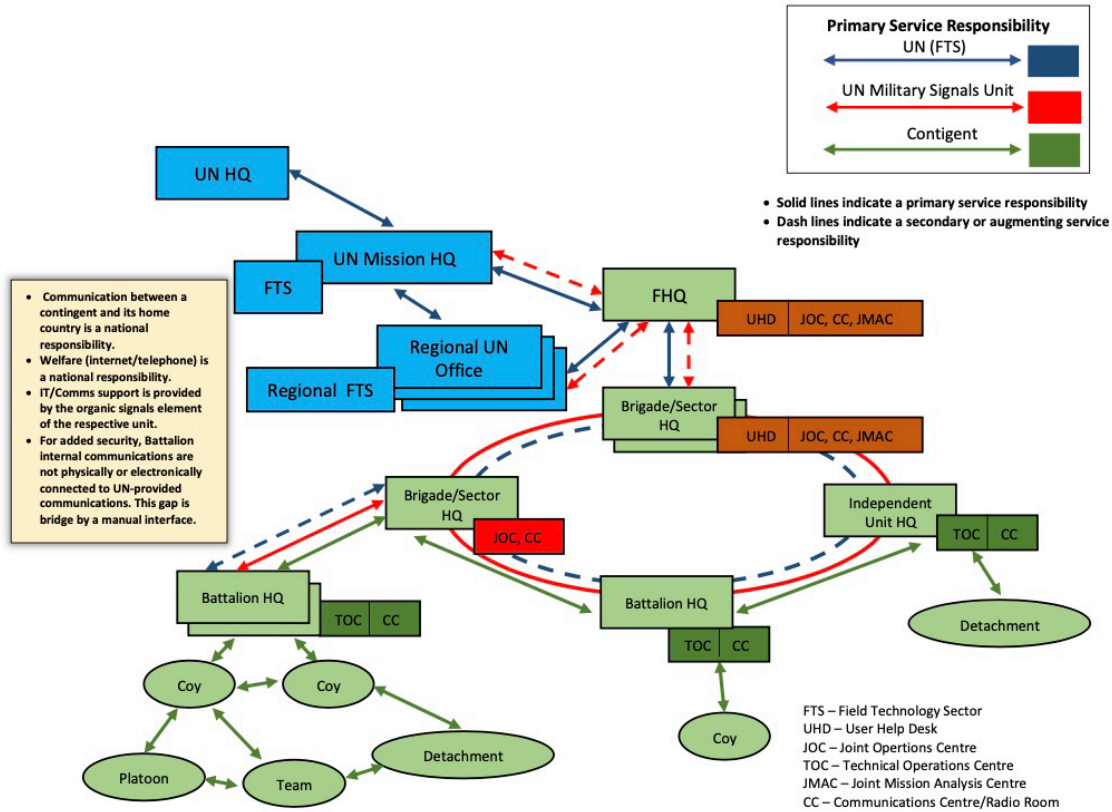


FIGURE 1: SUPPORT STRUCTURE OF UN MISSION FIELD TECHNOLOGY SECTION AND UN MILITARY SIGNALS UNITS

1.3 Communications and Information Technology Support

The Mission and Force receive communications and information technology support from the UN Military Signals Unit (acting on behalf of FTS), including installation, configuration, operation and maintenance of UN-owned communications and information technology equipment, as well as the required training of military and civilian personnel on that equipment. The UN Military Signals Unit also supports the configuration and maintenance of UN-provided jammer-equipment in close cooperation with UN Counter-Improvised Explosive Device (C-IED) and Explosive Ordnance Disposal (EOD) experts. The UN Military Signals Unit supports permanent facilities and compounds, such as headquarters and offices, and has a mobile capacity to support temporary facilities and mobile tactical operations, such as command and observation posts.

1.4 UN Military Signals Units within the Overall UN Mission Structure

The following diagrams⁷ (Figure 2 and 3) illustrate the overall UN Mission structure and the placement of the UN Military Signals Unit within that structure. A UN Peacekeeping Mission Headquarters is comprised of the senior management team, the integrated decision making and support structures and the various substantive components. A typical UN Mission Headquarters structure is depicted below. Note the red oval highlighting the fact that the Office of the Director/Chief of Mission Support provides consolidated guidance and tasking for the Mission’s information technology and telecommunications systems’ civilian and military units, equipment, and capabilities—including those of the UN Military Signals Unit.

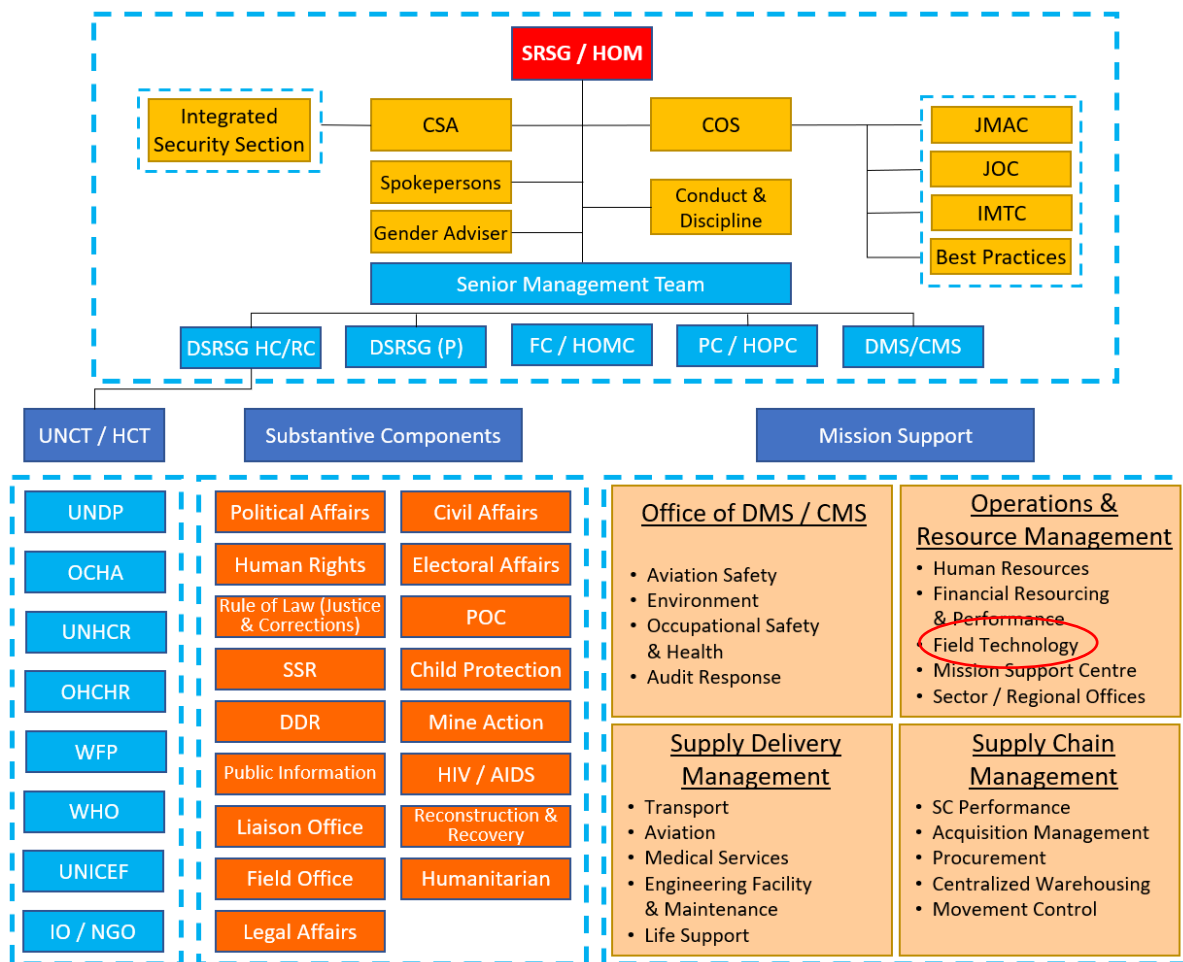


FIGURE 2: TYPICAL UN MISSION HEADQUARTERS (ARRANGED BY FUNCTION, NOT OFFICE TITLE)

⁷ This diagram and structure are taken from the *UN Deployed Military Field Headquarters Handbook* (Ref 2023.08, dated July 2023).



1.5 Relationship between FTS and UN Signals Unit

Military Signals Units are enabling units which support the FTS efforts in providing Communications and Information Technology services to Mission personnel. FTS maintains close coordination with respective U6/G6 military staff officers at FHQ/SHQ level. UN Military Signals units work alongside FTS in providing day to day communication services. For new signals requirements, FTS approaches the FHQ/SHQ to determine if any support is required from the Military Signals Units which is not mentioned in the SUR. FTS also provides necessary training to UN Military Signals Unit personnel on UN Owned Equipment (UNOE).

1.6 Military Component Command and Control Military Operational Chain of Command

The HOMC shall establish the military operational chain of command, as follows and as needed: HOMC; Sector Command (Brigade Command); Battalion Command and sub-units. This military chain of command for operations is issued as a “Field Command Framework”. The HOMC will ensure that individually deployed staff officers, or individually deployed experts, are not placed in command of formations, or units. Units that respond directly to FHQ shall be designated as such. The “Field Command Framework” will include chain of command succession arrangements at all levels of command, including FHQ, Sector/Brigade and Battalion HQs, considering internal national contingent procedures for the succession of command.

1.6.1 Operational Command and Control of Military Personnel

The HOMC is accountable to the HOM for the management of the military component with responsibility to ensure effective mandate implementation consistent with the Mission Plan and in compliance with UN policies and procedures. Decisions regarding major military operations, or redeployment of troops within the mission area of operations, should result from consultations between the HOM, COS, HOPC and the D/CMS and must have the HOM’s concurrence.

The HOMC exercises “UN Operational Command (OPCOM) and Operational Control (OPCON)” over all military units and individually deployed military experts (i.e. military observers, staff officers, military liaison officers) assigned to the mission. “UN OPCOM and OPCON” allows the HOMC to assign tasks to individually deployed military experts, units and sub-units within the military component, in consultation with the National Contingent Commander

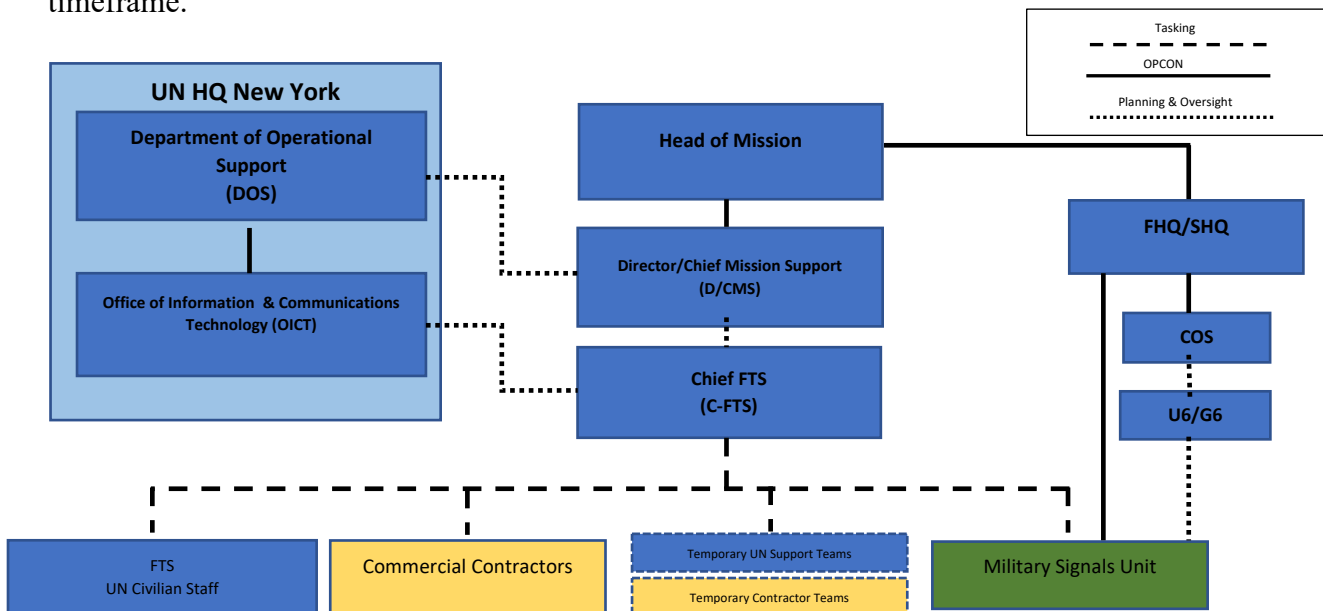


(NCC), as appropriate. The HOMC may delegate “UN OPCOM and OPCON” to subordinate command levels, as defined within the military component’s “Field Command Framework”⁸.

Nonetheless, military enabling assets remain OPCON to the Force Commander and any FTS assigned requirements are coordinated through the military command and staff structure. UN Military Signals Unit tasking priorities are routinely determined by the Chief, FTS in cooperation with, and working through the Force U-6/Sector G-6 and the UN Military Signals Unit Commander.⁹

1.6.2 Field Technology Section

The FTS, headed by the Chief, FTS, has overall responsibility and oversight for the provision of communications and information technology services (including Internet access) to all appropriate Mission elements and sites. The Chief, FTS is part of the Mission Headquarters and reports to the Director of Mission Support (DMS) or Chief of Mission Support (CMS). Note how the following diagram illustrates that UN Military Signals Units are OPCON¹⁰ to the Force Commander and are subject to U-6 planning and oversight. The UN Military Signals Unit is tasked by the Chief, FTS, and those tasking are coordinated through the Force U-6 and UN Military Signals Unit Commander who determine how best to execute the tasking within the requested timeframe.



⁸ DPO/DOS Policy on Authority, Command and Control in United Nations Peacekeeping Operations (Ref. 2019.23, dated October 2019)

⁹ For further discussion of the chain of command authorized to command and control different Military Signals Unit missions, refer to the DPO/DOS Policy on Authority, Command and Control in United Nations Peacekeeping Operations (Ref. 2019.23, dated October 2019).

¹⁰ Ibid., Para.60.

FIGURE 3: MISSION COMMAND AND CONTROL AUTHORITY FOR UN MILITARY SIGNALS UNITS

1.6.3 Force Headquarters Structure¹¹

A typical organization for the Force Headquarters is depicted in the chart below. The fundamental role of the Force Headquarters is the command and control of the Mission’s military operations in support of the Mission’s mandate. Regardless of the nature of the Mission, every Force Headquarters has common functions executed by functional groups, including communications and information technology (note the red circle around the “U-6” staff section below). The U-6 staff plan and coordinate communications and information systems support for the Force.

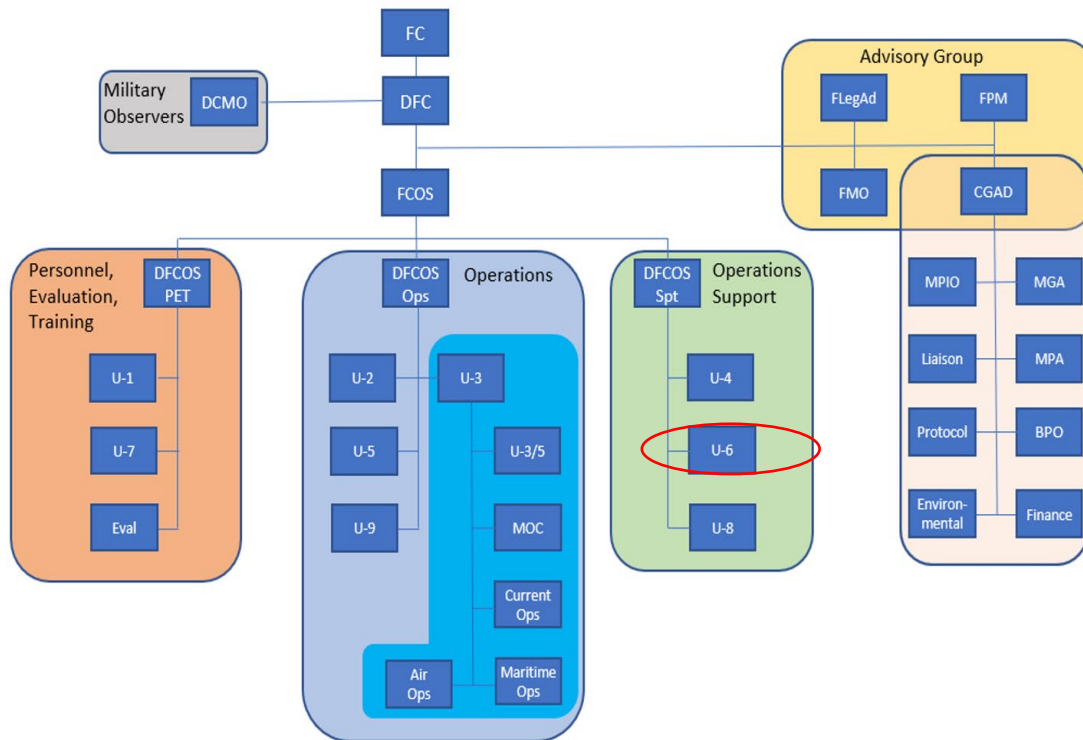


FIGURE 4: GENERIC STRUCTURE OF A MULTIDIMENSIONAL UN MISSION FORCE HEADQUARTERS

¹¹ See also the *UN Deployed Military Field Headquarters Handbook*, (for signature 2022).

1.6.4 Sector Headquarters Structure

The Force Headquarters has a number of Sector Headquarters responsible for mandate execution in specified operational areas under which subordinate battalions execute assigned tasks. A typical organization of the Sector Headquarters is shown in Figure 5 below.

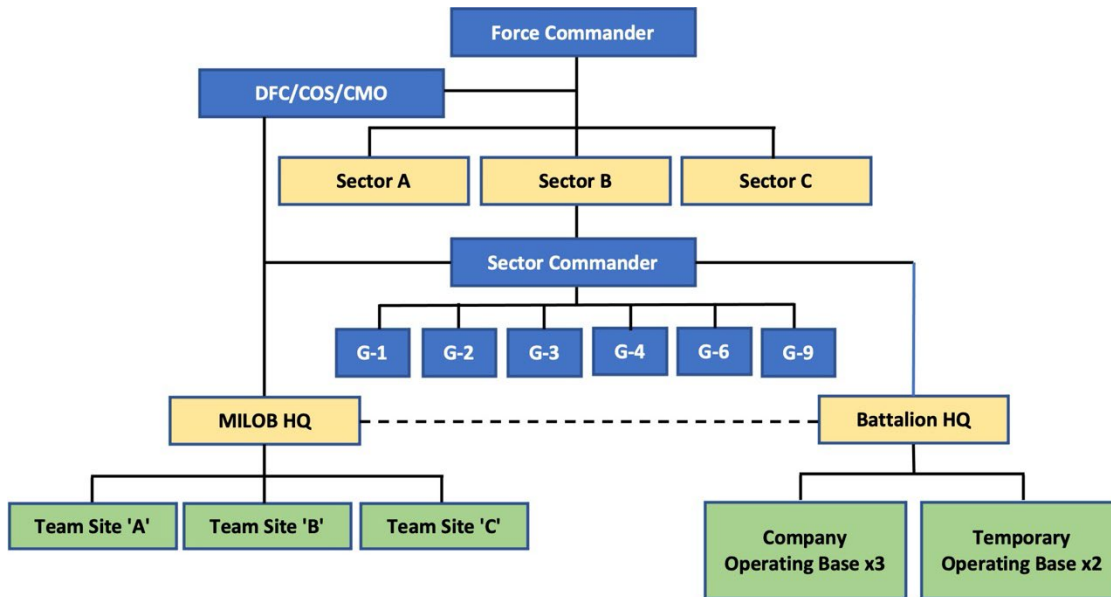


FIGURE 5: TYPICAL ORGANIZATION OF A UN SECTOR HEADQUARTERS

1.6.5 U-6 Structure at Force or G-6 at Sector Headquarters

The U-6 section is located within the Force Headquarters to support and advise the commander's communications requirements across the area of operations. The Force Headquarters Chief U-6 Branch is the principal staff officer for all matters concerning military communications operations. At FHQ level, the U-6 branch works for and reports to the FC, and coordinates with the Chief, FTS. Similarly, the G-6 of a Sector Headquarters works for and reports to the Sector Commander and serves in direct support to the head of the FTS element in the affiliated local UN field headquarters. Therefore, one of the major tasks of the Chief, U-6/G-6 is to harmonize and balance these responsibilities. The U-6/G-6 exercises technical oversight and works closely with the Force's Military Signals Unit Commander.

As shown in the following chart, the FHQ U-6 branch is organized to address the tasks of operational planning, and to conduct oversight and guidance for its subordinate elements: Operations, Plans and Projects, and Information Security and Spectrum Management.

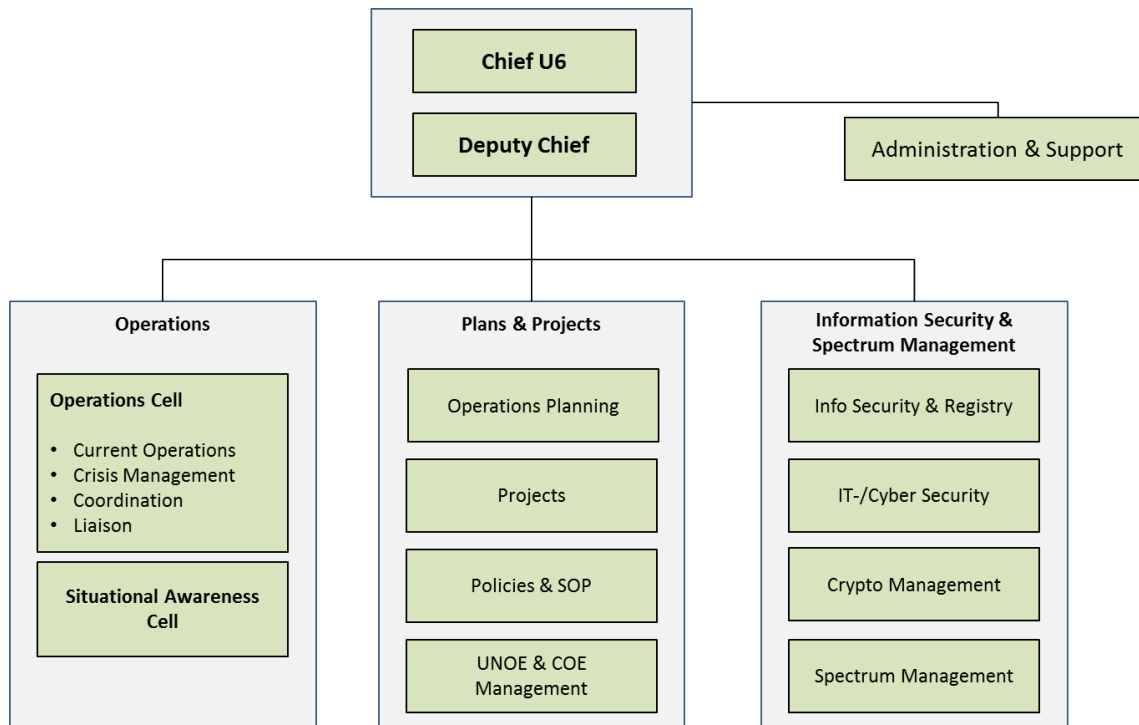


FIGURE 6: U-6 BRANCH AT FORCE HEADQUARTERS

If the Force, Sector and Mission Headquarters are co-located, the U-6 branch should be co-located with the respective FTS at that headquarters. The U-6 provides a liaison element that serves within the FTS to provide information sharing and integrated planning and decision making. Force Headquarters U-6 staff responsibilities include:

- Advise the commander, staff, and subordinate commanders on communications requirements, operations and network priorities.
- Prepare, maintain and update command, control, communications and computer operations, operations estimates, plans, and orders.
- Coordinate, plan, and manage electro-magnetic spectrum within the area of responsibility.
- Develop, produce, change/update, and distribute signals operating instructions and Standard Operating Procedures (SOPs) for command posts.
- Establish communications policies and procedures for the use and management of information tools and resources.
- Plan and coordinate with higher and lower headquarters regarding information systems integration, upgrades, replacement and elimination.



- Coordinate, plan and direct all information architecture activities and communications operations vulnerability and risk assessments (in conjunction with FTS, and in coordination with other staff elements (U-1 to U-9).
- Actively coordinate with external agencies to develop the information and communications plans, manage the information network, obtain required services, and support Mission requirements.
- Confirm and validate user information requirements in direct response to the Mission.
- Manage distribution of communications equipment (including mobile phones for staff) and collection of non-operational equipment.

1.7 Summary of Chapter 1

The UN Military Signals Unit provides robust military capacity and augmentation to the Mission's FTS. Its main efforts are focused on ensuring connectivity and communications interoperability between elements of the military Headquarters at Force, Sector, Battalion, and independent Unit Headquarters level. Military Signals Units are deployed to each Mission supporting the FHQ and/or SHQ. The UN Military Signals Unit also supports the configuration and maintenance of other communications equipment, in close cooperation with respective experts. Military Signals Units are enabling units which supports FTS efforts in providing Communications and Information Technology services to Mission personnel.

The FTS is part of the Mission Headquarters and reports to the DMS/CMS. FTS maintains close coordination with respective military staff officers/branch at FHQ/SHQ level and works alongside the UN Military Signals Unit in providing day to day communication services. As an enabling unit, the UN Military Signals Unit falls under the tasking authority of the DMS/CMS through the Chief FTS. Nonetheless, military enabling assets remain OPCON to the Force Commander and their FTS assigned tasks are subject to U-6 planning and oversight. The U-6 Branch provides a liaison element that serves within the FTS. The branch's responsibilities include providing information sharing and integrated planning and decision making. The U-6 Chief reports to the Force Commander and coordinates with the Chief, FTS, and is the principal staff officer responsible for all matters concerning military communications.

CHAPTER 2

Capabilities of the UN Military Signals Unit

2.1 Introduction

The UN Military Signals Unit capabilities generally involve installing, maintaining, and operating UN-owned/FTS provided communications and information technology equipment and services. These services are crucial to the Mission's ability to exercise command and control in the area of operations. The UN Military Signals Unit is capable of providing communications and information technology services to all Mission components as tasked by FHQ/SHQ, while TCCs retain responsibility for communications and information technology requirements and services internal to their contingents. Considering specific UN Peacekeeping mandate tasks, the UN Military Signal Unit may provide signals peacekeeping-intelligence capability and technical support to Peacekeeping-Intelligence, Surveillance and Reconnaissance (PKISR) Units.

2.2 UN Military Signals Unit Requirements

The UN Military Signals Unit's capabilities are based on Mission-specific requirements as specified in the Statement of Unit Requirements (SUR) (drafted by UNHQ). UN Military Signals Units are required to respond in a timely manner with the appropriate resources to restore services and communications and information technology infrastructure after a loss of service due to electrical power outages, mechanical/technical failure, extreme weather or attacks by hostile forces. Through Force/Sector tasking and coordination, UN Military Signals Units install, maintain, and operate UN-provided communications and information technology equipment and services with an emphasis on Mission critical elements such as communications centres, radio rooms, situation centres, Joint Operations Centres (JOC), Joint Mission Analysis Centres (JMAC), as well as Mission Support Centres.

2.3 Core Capabilities

UN Military Signals Unit shall be capable of:

- Establishing connectivity between multiple Headquarters.



- Enabling command, control and situational awareness.
- Providing and supporting internal and external communications and information technology services in larger camps.
- Providing prompt restoration of services.
- Providing the technical support to a Peacekeeping-Intelligence Surveillance Reconnaissance (PKISR) unit.
- Providing signals peacekeeping-intelligence.
- Self-sustainment.

2.3.1 Establishing Connectivity Between Headquarters

UN Military Signals Units must be capable of establishing, maintaining, operating, protecting¹² communications and information systems between key entities of the Mission anywhere in the area of operations. Capabilities of a single, company size UN Military Signals Unit include:

- Interconnectivity of, up to one FHQ or SHQ, five Battalion or independent Unit Headquarters and up to two temporarily deployed Headquarters.
- Establishing communications by installing, operating and maintaining the links through satellites, microwave (LOS), HF/VHF/UHF radios, fibre optic, telephone systems, and commercial services such as the Internet.
- Providing reliable and secure data connectivity.
- When tasked to augment FTS, support connectivity to offices of the Mission's civilian component headquarters and assistance to governmental organizations.
- Installing, operating and maintaining auxiliary equipment used for connectivity such as generators, and deployable or transportable communications equipment.

¹² In this context, protecting communication means a secure method for communication through encryptions, firewalls, etc.



FIGURE 7: SATELLITE AND SOLAR PANEL INSTALLED IN UN FIELD MISSION

2.3.2 Enabling Command and Control and Situational Awareness

Enabling C2 is the essence of communications and information technology support. Providing the technological means to exercise effective and efficient C2 enables the Mission's components to accomplish their mandates by facilitating the direction and coordination of communications assets. Situational awareness is also imperative and enables comprehensive analysis, threat assessments, deliberate planning and appropriate decision making. In addition to the aforementioned tasks associated with supporting key communications and information technology nodes/centres (see para. 2.1 above), UN Military Signals Unit capabilities include:

- Hosting C2 and situational awareness applications, granting access to open information sources such as the Internet and operating information exchange systems and technologies for presentation and meeting support (in close collaboration with FTS).



- Staffing and operating the Headquarters radio room/communications centre with appropriate management and language skills.

2.3.3 Providing and Supporting Internal and External Communications and Information Technology Services in Larger Camps

UN camps that accommodate more than one contingent or major unit have an inherent need to coordinate and integrate all units in the camp. Requirements include the need to coordinate internal logistics, synchronize responses to security and safety issues and task and exchange general information. To use local communications and information technology resources in the most economical and effective way, UN Military Signals Units are often required to support FTS efforts in large camps, providing communications and information technology support to enable information exchange between the camp's key entities. UN Military Signals Units must be capable of:

- Providing technical and operational support to camp-based communications centres, radio rooms or Technical Operations Centres.
- Providing training and configuration support on communications equipment issued to UN Staff, troops, or units.
- Installing, operating and maintaining encrypted microwave-based communications network links.
- Installing, operating and maintaining HF/VHF/UHF radio networks, mobile telephone systems, integrated camp security and early warning systems for camp security.
- Installing, configuring, operating and maintaining information technology systems and applications within the premises of the camp.
- Supporting the assigned units in their Communications and Information Technology training.
- Installing and maintaining ground-to-air radio systems if there are UN airports or landing strips, in coordination with air traffic control elements.
- Providing and supporting a public address system within a large camp by installing exchanges.



FIGURE 8: INSTALLING HF/VHF ANTENNA IN UN FIELD MISSION

2.3.4 Providing Prompt Establishment and Restoration of Services

UN Military Signals Unit must have the capability for prompt restoration of service in case of disruption. Requests for temporary capacity increases, temporary expansion of camps and fast response to other operational requirements may also be required. A single, company size UN Military Signals Unit should have the capability to respond with support for up to two urgent/temporary headquarters requirements in coordination with FTS simultaneously.

2.3.5 Providing Technical Support to PKISR Units

UN Military Signals Units should have the capability to provide support to the integration of UN PKISR Units¹³ and facilitating the Command and Control structure at the FHQ or SHQ. Supporting the UN PKISR Unit includes technical assistance in terms of connectivity, installation of various IT related equipment and data storage.

¹³ See UN Peacekeeping Missions Military Peacekeeping-Intelligence Surveillance Reconnaissance (PKISR) Unit Manual (Ref 2022.12, dated October 2022).



2.3.6 Providing Signals Peacekeeping-Intelligence

A Signals Peacekeeping-Intelligence (SIGINT) platoon¹⁴ may be integrated in a UN Military Signals Unit to increase the operational capabilities, especially in understanding armed groups intent and through the provision of indicators and warnings. The SIGINT platoon should be capable of providing threat warning, analysis of intercepted voice communications, interception of threat related signals, and dissemination of signals related products to support force and mission level priorities.

A SIGINT platoon should also be able to collect and exploit signals of interest and provide geo-location of threats to tactical level decision makers. A SIGINT platoon is capable of:

- Intercepting communications and transcriptions.
- Detecting and identifying hostile electromagnetic and digital sources/emitters.
- Processing, Exploiting, and Disseminating (PED) acquired information.

2.3.7 Self-Sustainment

Self-sustainment requirements for UN military units are listed in the COE Manual and in the respective MOU between the TCC and the UN. The UN Military Signals Unit self-sustainment requirements include integral support and maintenance elements, in order to sustain its operations at permanent and temporary deployment locations. A detailed guideline of the requirements and standards for all self-sustainment categories is contained in the COE Manual¹⁵.

2.4 Summary of Chapter 2

The UN Military Signals Unit capabilities generally involve installing, maintaining, and operating UN-owned/FTS provided communications and information technology equipment and services. Considering specific UN Peacekeeping mandates, the UN Military Signals Unit may provide signals peacekeeping-intelligence capability and technical support to PKISR Units. The UN Military Signals Unit's capabilities are based on mission-specific requirements specified in the SUR. The Unit must be able to respond in a timely manner to restore services and communications

¹⁴ SIGINT platoons are a high value asset of the Force and supplement Force assets capabilities. SIGINT platoon could also be an integral part of a PKISR or other mobile Force assets or could be deployed separately (see para. 4.1.) and are subject to MoU negotiation.

¹⁵ Refer to COE Manual (A/75/121) (2020), See Chapter 3, Appendix B.



after a loss of service due to electrical power outages, mechanical/technical failure, extreme weather, or attacks by hostile forces.

UN Military Signals Units must be capable of establishing, maintaining, and operating communications and information systems between key entities of the Mission. Capabilities include interconnectivity of up to one FHQ or SHQ, five Battalion or independent Unit Headquarters and up to two temporarily deployed Headquarters.

UN Military Signals Units are to provide the technological means to exercise effective and efficient C2 and communications and information technology support to enable information exchange between all key entities. UN Military Signals Units are to be capable of providing technical and operational support to camp-based communications centers, radio rooms or technical operations centers. They are also required to provide training and configuration support on communications equipment issued to staff, troops or units.

UN Military Signals Units should have the capability to respond for urgent/temporary headquarters requirements in coordination with FTS which includes temporary capacity increases, temporary expansion of camps and fast response to other operational requirements. The UN Military Signals Unit should have the capability to provide technical support to integrate the UN PKISR Unit and facilitate the command and control with the FHQ or SHQ. Further, SIGINT platoons shall be capable of providing threat warning, analysis of intercepted voice communications and interception of threat related signals. The UN Military Signals Unit is required to be self-sustained, with the ability to conduct operations at permanent and temporary deployment locations as negotiated in the MOU between the TCC and the UN and reimbursed as stipulated in the COE manual.



CHAPTER 3

Organization and Task of the UN Military Signals Unit

3.1 Introduction

A FHQ/SHQ is normally supported by one company-size UN Military Signals Unit consisting of subordinate elements tailored to the Force or Sector's HQ requirements. A Military Signals Unit supporting an FHQ/SHQ and its subordinate Sectors or units consists of five technical platoons: a Headquarters Support Platoon, a Communications Center Support Platoon, a Strategic Links Support Platoon, a Communications and Information Technology Support Platoon, and the Administration and Support Platoon. Only the Administration and Support Platoon directly supports the UN Military Signals Unit, the other four technical platoons support external organizations. Considering specific UN Peacekeeping mandates, a SIGINT Platoon can be added to the UN Military Signals Unit. Alternatively, the SIGINT platoon can be deployed or integrated as a force asset (e.g., PKISR unit, Mobile Task Force). The detailed task organization will be described later in this chapter.

UN Military Signals Units provide support to Sector Battalions, independent Units and temporarily deployed headquarters through task-organized teams and detachments from the Military Signals Unit's technical platoons. A Quick Response Team is pre-designated from the UN Military Signals Unit's existing structure, and only comes into existence when immediate establishment and restoration of services is required. The Military Signals Unit should also have the organic capacity to provide liaison elements to the U-6 or G-6 Branch and to the FTS.

The UN Military Signals Unit supporting both a FHQ/SHQ requires a more robust composition due to the additional communications and information technology requirements. For example, additional personnel and specialized support will be needed to support the JOC, JMAC and User Help Desk at FHQ/SHQ as there will be more extensive communications and information technology links and services required. For the difference in staffing, see the personnel requirements at Annex A.



3.2 Organisation of UN Military Signals Unit

The diagram below illustrates a UN Military Signals Unit capable of detaching elements to provide task-organized support to a FHQ and an entire Sector including Sector-assigned Battalions, independent Units and temporary Headquarters. If a UN Military Signals Unit is to perform the additional task of Signals Peacekeeping-Intelligence, then an additional Signals Peacekeeping-Intelligence platoon (See blue box in Figure 9) may be added to the generic organization. If the UN Military Signals Unit is required to support a SHQ instead of the FHQ, then only the strength numbers will change. If the requirement is to only perform SIGINT tasks, then a separate SIGINT Unit can be deployed. However, the final organization will depend on the Mission Mandate, MOU and SUR.

Military Signals Units are also scalable; it may be more efficient to deploy one unit and increase the size and skills to handle an increased workload. The increase will be based on the requirements of each Mission. In general, to maintain sufficient levels to meet technical requirements, not less than seventy per cent of UN Military Signals Unit personnel should be qualified communications and information technology experts. Approximately ten percent of the UN Military Signals Unit's staff may account for leadership, including commissioned officers of all ranks from the commander, the second in command, down to platoon commanders and team leaders. The balance of up to twenty per cent may account for self-sustainment, such as drivers, mechanics, logistics, and administrative support. These are, of course, planning figures that may vary to an extent, depending on specific Mission requirements.

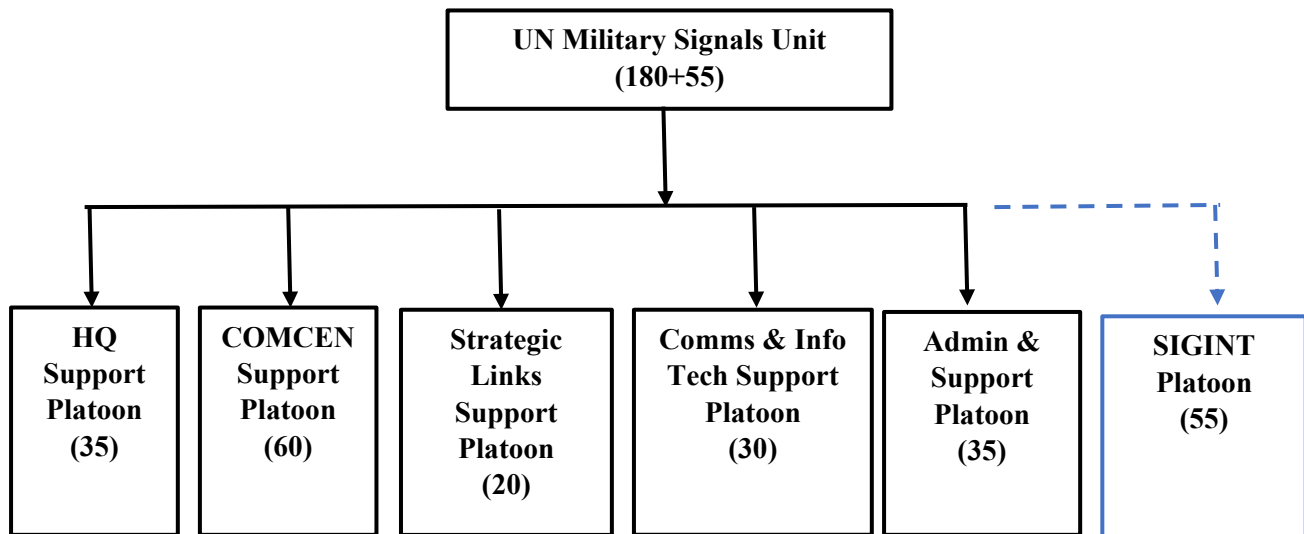


FIGURE 9: STRUCTURE OF A UN MILITARY SIGNALS UNIT SUPPORTING A FORCE HEADQUARTERS AND FOUR SECTOR HEADQUARTERS (DEPENDS ON UN MANDATE, MOU AND SUR)

3.3 Tasks of UN Military Signals Unit

3.3.1 Headquarters Support Platoon

Given the increasing importance of the communications and information technology networks emanating from the FHQ/SHQ, the UN Military Signals Unit provides an entire platoon dedicated to this capability. The Headquarters Support Platoon provides FHQ/SHQ communications and information technology installation, configuration, operation and maintenance. The set of tasks of Headquarters Support Platoon include:

- Operate Radio Room/COMCEN with appropriate language skilled personnel for continuous communication between FHQ and Sectors/Units.
- Assist U-6/G6 to assign call signs for units and military personnel.
- Spectrum management.
- Configure and maintain HF/VHF/UHF radios and antennas including radio interoperability system (RIOS).
- Install and maintain telephone systems.
- Install and maintain UNOE IT and communications equipment. In close collaboration with FTS, host C2 and situational awareness applications.

- Assist FTS in installing, configuring and operating video tele-conference systems.
- Support users within the Service Desk structures of the Force Headquarters.
- Maintain communication with Military Staff Officers (MSO)/Military Observers (MILOB) within and outside base.
- Maintain communication with Friendly Forces.
- Monitor and track location of convoys/patrols/personnel.
- Distribute Task Order / Fragmentary Order through available communication means.
- Assist in installation and maintenance of network infrastructure (local area network).
- Support training of mission personnel in application and use of communications and IT equipment.
- Assist in operating public address system for FHQ.



FIGURE 10: MAINTAINANCE of UNOE COMMUNICATIONS EQUIPMENT

3.3.2 Communications Centre Platoon

This platoon provides personnel to operate radio rooms and communications centres for continuous communications. The tasks of Communications Centre Platoon are to:



- Configure and operate HF/VHF/UHF radio systems including radio interoperability system (RIOS)
- Submit written and verbal military messages and reports.
- Provide Radio Operators with appropriate language skills for continuous communication with SHQ and subordinate Units.
- Assist U-6/G-6 to assign call signs for units and military personnel.
- Spectrum management and cyber security.
- Maintain communication with MSOs/MILOBs within and outside base.
- Maintain communication with Friendly Forces.
- Monitor and track location of convoys/patrols/personnel.
- Distribute Task Order / Fragmentary Order through available communication means.
- Installing and maintaining ground-to-air radio systems and satellite phone.
- Monitor integrated camp security and early warning systems.

3.3.3 Strategic Links Support Platoon

This platoon establishes and maintains connectivity between headquarters/units. The tasks of Strategic Links Support Platoon are to:

- Install, configure, and maintain HF/VHF/UHF radio systems.
- Install, configure, and maintain microwave systems.
- Install, configure, and maintain Very Small Aperture Terminal (VSAT) system.
- Deploy, set-up and operate deployable and transportable command posts including installation, operation, and maintenance of auxiliary equipment (generators, containers, uninterrupted power supplies, etc.).
- Install and maintain antenna masts and towers.
- Provide technical support for connectivity of PKISR equipment.

3.3.4 Communications and Information Technology Support Platoon

The Communications and Information Technology Support Platoon installs, configures, operates, and maintains communications and information technology systems and terminals. The tasks of this platoon are to:

- Install, configure, and maintain telephone systems.
- Install and maintain UNOE IT and communications equipment.



- Support users within the Service Desk structure of Sector Headquarters.
- Support training of mission components on applications (Unite Aware, Office365, MS Teams etc.) and use of Communications and Information Technology equipment.
- Operate and maintain VTC equipment within Sector.
- Provide IT support for operation of PKISR equipment.

3.3.5 SIGINT Platoon

Due to the increased threat to Peacekeeping forces, incorporation of SIGINT into UN Military Signals Units has become an essential option. It increases the capabilities, especially in understanding armed groups intent and activity and through the provision of indicators and warnings. The SIGINT platoon is designed to provide threat warning, analysis of intercepted voice communications, interception of threat related signals, and dissemination of signals related products to support Force and mission level priorities. The platoon collects and exploits signals of interest and provides geo-location of threats to tactical level decision makers. The platoon is considered an additional capability to a UN Military Signals Unit, and therefore, performs limited tasks. If a Mission requires the full SIGINT capability, then a SIGINT Unit needs to be generated and deployed¹⁶. The tasks of a SIGINT platoon include:

- Employ sensors according to operational/tactical level priorities determined by the Force Commander and Sector Commander in coordination with the FHQ.
- Provide analysis of signals of interest within a defined area.
- Intercept and provide transcription and translation of voice and text of acquired signals of interest.
- Provide timely, accurate and relevant finished SIGINT products in support of the FHQ priorities.

Note: Normally, SIGINT is a U2/G2 function, however when a SIGINT platoon is deployed as part of a Military Signals Unit, the U6/G6 will task this platoon in close coordination with the U2/G2.

¹⁶ Further information on SIGINT Units can be found in the (UNMUM) UN Peacekeeping Missions Military Peacekeeping-Intelligence Surveillance Reconnaissance (PKISR) Unit Manual (Ref: 2022.12).



3.3.6 Administration and Support Platoon

This platoon supports the UN Military Signals Units, providing administrative support, logistics, installation, and maintenance of basic infrastructure including power supply support. The tasks of this platoon are to:

- Provide administrative support to the UN Military Signals Unit Commander and senior Non-Commissioned Officer.
- Install networks, power cables and plugs inside and outside buildings.
- Install and rigs masts and larger antennas.
- Install, operates, and maintains power generators and solar systems.
- Plan and provides all logistics support to the UN Military Signals Unit.

3.4 Major Equipment of UN Military Signals Unit

3.4.1 Contingent Owned Equipment

UN Military Signals Unit will need to have different types of technical and administrative equipment/items as per the MOU/SUR. Typical major COE items for UN Military Signals Units providing communication and IT support to a FHQ and Sector HQs are listed below:

Ser	Equipment	Quantity	Remarks
1.	Generator 20-30 KVA	2	Depends on Number of Sector to be supported
2.	Generator 31-40 KVA	2	
3.	Generator 41-50 KVA	02	
4.	Generator 51-75 KVA	06	
5.	Generator 151 KVA	03	
6.	Generator 201-250 KVA	02	
7.	Water Treatment Plant, up to 2,000 LPH, storage up to 5,000	05	Depends on Number of Sectors to be supported
8.	Crew Served Machine Guns (up to 10 mm)	04	Depends on Threat and number of Camps
9.	Ablution Facilities (50 pers), rigid structure	05	Depends on number of Camps
10.	Ammunition Storage Container	05	
11.	Other Container	25	
12.	4x4 with rack for long range HF radios (Fit for radio) (FFR) 4x4 Vehicle	19	
13.	Shelter Containers	10	Depends on Threat and number of Camps
14.	Truck utility /cargo 2.5-5 ton	04	



15.	Truck utility /cargo jeep type under 1.5 ton	10	
16.	Truck utility /cargo 6-10 ton	02	
17.	Truck Maintenance (medium)	01	
18.	Truck pallet loading	05	
19.	Tents for deployable squad, 08-10 Pers	13	
20.	Truck water (up to 5,000 liters)	05	Depends on number of Camps
21.	Truck Tanker (Over 5,000 and up to 10,000 liters)	01	Depends on number of Camps
22.	Truck Tanker (up to 5,000 liters)	03	
23.	Water trailer (up to 2,000 liters)	04	Depends on number of Camps
24.	Water Storage 12,001 - 20,000 liters	02	Depends on number of Camps
25.	Water Storage 5,001 -7,000 liters	03	
26.	Special SIGINT Equipment	TBD	To be determined during MOU negotiation or Letter of Assist (LOA) ¹⁷

TABLE 1: TYPICAL MAJOR EQUIPMENT FOR THE UN MILITARY SIGNALS UNIT
(Type and Quantity to be decided as per UN Mandate, COE Manual, SUR and MOU)

3.4.2 UN Owned Equipment (UNOE)

FTS also provides some UNOE to UN Military Signals Units which must be operated and maintained. This list of equipment is not exhaustive and may vary according to the mission's mandate and is situation dependant. An example of the type of equipment is listed below:

Ser	Types of Equipment
1.	Transceiver UHF Hand-held TETRA
2.	Transceiver UHF base station TETRA, 380 Mhz-430 MHz
3.	Transceiver HF, base station, rugged, military, 3mhz-30 MHz
4.	Transceiver UHF mobile TETRA, 380 Mhz-430Mhz
5	Sat phone (iridium) 9555+access
6	Desk phone
7	DECT phone
8	Motorola GM 360 base station
9.	Transceiver UHF TETRA handheld MTP-3250
10.	Transceiver HF
11.	TETRA base station

Table 2: Types of UNOE Provided to UN Signals Units

3.5 Summary of Chapter 3

A company size UN Military Signals Unit supporting a FHQ/SHQ and its subordinate sectors and units consists of five technical platoons that include Headquarters Support Platoon,

¹⁷ Refer to Supply Chain Operational Guidance - SR3: Acquire Through letters of Assist (REF. DOS/2020.11)



Strategic Link Support Platoon, Communications and Information Technology Support Platoon, Communications Centre Platoon and Administration and Support Platoon. Due to the increased threat to peacekeeping Forces, incorporation of SIGINT in UN Military Signals Units has become an essential option. In a UN Military Signals Unit, approximately ten percent of the staff should account for leadership, while 70 percent should be communications and information technology experts and the balance of up to 20 per cent may account for self-sustainment requirements.

CHAPTER 4

Support for the UN Military Signals Unit

4.1 Introduction

Sustainment operations in UN peacekeeping is a shared responsibility between military units and the Missions they are deployed to support. The extent to which military units plan and integrate their logistics operations within the Mission directly impacts success in the field. Understanding how and where shared sustainment responsibilities intersect will ensure the success of UN Military Signals Units. For instance, since 2013, mobile convoys, convoy escorts, patrols and quick reaction forces suffered the highest number of fatalities in peacekeeping missions. Other fatalities were consequences of direct and indirect attacks on UN camps, team sites and positions. The primary causes for military fatalities remain small arms fire, a combination of improvised explosive devices (IED) and vehicle born improvised explosive devices (VBIED), indirect fire (e.g., mortars and rockets) and land mines. Lessons learned from these incidents demand improvements in first-line tactical medical capacity and ground-air communications with MEDEVAC/CASEVAC teams. Military Signals Units supporting extended operations over long distances should take these factors into account for risk mitigation. This chapter provides an overview of the mission support concept, planning considerations, MEDEVAC/CASEVAC and logistics planning considerations.

The Mission DMS or CMS is charged with the provision of supplies and services for contingent forces deployed in their respective Missions. Such services and supplies provided by the Mission include major engineering, medical and MEDEVAC/CASEVAC support, transportation, fuel and rations, and accommodations.

4.2 Equipment and Personnel Deployed to the Mission

Military Signals Units may deploy to the mission under a “dry lease¹⁸” program according to which the TCC deploys personnel and equipment to the Mission area and the UN or a contracted Third party assumes responsibility for maintenance of COE. Alternatively, UN Military Signals

¹⁸ Refer to COE Manual (A/75/121) (2020).



Units may also deploy under a “wet lease¹⁹” program whereby the TCC deploys personnel and equipment and assumes responsibility for maintaining COE. The number of troops, types and quantities of COE authorized for deployment to the Mission area is codified in the COE portion of the memorandum of understanding (MOU) and is negotiated between the TCCs, the Mission and UN Secretariat before the unit’s deployment. Equipment reimbursement rates and types of leases are governed by the COE Manual and MOU respectively.

4.3 Mission Support Concept

The UN peacekeeping logistics support concept relies on integration of resources that are UN-owned, contracted and from military units. All mission support and service functions are considered common to the UN and shared between Mission entities, and offered on a uniform and equitable basis, depending on mission priorities. Delivering these common support goods and services is primarily the responsibility of the DMS or CMS. UN Military Signals Units are responsible for monitoring and reporting their supply consumption, forecasting and logistics requirements for various mission support activities.

Supplies and services provided in the mission area generally include:

- Distribution of major commodities such as fuel, water and rations.
- Construction and management of accommodation.
- Movement Control (MOVCON) planning and scheduling for unit personnel, equipment and commodities.
- Medical, environmental health and if specified, dental services.
- Civil engineering projects.
- Geographical Information System (GIS) services.
- Ground, air and water transportation services.
- Installation and operation of communications and IT services.

Upon arrival in the Mission area, the unit Logistic Officer should establish an effective working relationship with Mission Support. Active participation in sustainment working group meetings and planning sessions is essential.

¹⁹ Refer to COE Manual (A/75/121) (2020).



4.4 UN Military Signals Unit Logistics Requirements

UN Military Signals Units are expected to meet self-sustainment requirements in accordance with the respective MOU and current COE Manual. This includes deployment of essential personnel to support internal unit logistics and administrative functions. Immediately upon arrival in the Mission area, the unit logistics officer should work with the U4 or G4 staff, to determine reporting requirements and request procedures for fuel, rations, water, movement control and medical support. The UN Military Signals Unit is usually split into three to four groups capable of operating independently. Each group must:

- Possess an independent logistics capability to include food, water, accommodation, hygiene and sanitation, mobility, repair and recovery, medical support, welfare and waste management.
- Maintain adequate support to accomplish unit operations, tasks, and functions through timely, effective, and enduring provision, stocking and replenishment.

4.5 Logistics Planning Factors

4.5.1 Power Generation

Units are generally required to provide their own major power generators (>20 KVA and above) to meet their main power generating requirements. Units are also generally required to be self-sustained in the category of electrical supply²⁰, to provide decentralized power for small sub-unit locations and to provide an emergency backup if the main power supply is interrupted. The UN will provide fuel for generators. The common operating voltage and frequency for field missions are 220-volt 50Hz. Generators up to 36KVA are normally in single phase configuration, while the larger sets above 36KVA are configured for three-phase (380volt/50Hz). However, UN encourages TCCs to use renewable/Green Energy to optimize management and minimize greenhouse gas emissions.

4.5.2 Medical and MEDEVAC / CASEVAC Support

The health and well-being of a UN peacekeeper deployed to UN Peacekeeping operations is dependent on planning, coordination, execution and standardized monitoring of medical

²⁰ Self-sustained categories and rates can be found in the most current COE Manual.



facilities in the field. UN peacekeeping operations are characterized by unique features that fundamentally impact medical support. These include:

- Political complexity and dynamic nature of peacekeeping operations.
- Geographic, demographic, cultural and linguistic variations within mission areas.
- Specific prevailing epidemiological and disease patterns.
- Multi-national participation in peacekeeping operations with varying national standards of training, operational procedures, equipment and supplies.

UN Military Signals Units do not deploy with their own integrated medical teams. They will normally receive Level 1 medical support or higher from other co-located military medical units. MEDEVAC or CASEVAC of UN Military Signals Unit casualties to a Level 1, Level 2 or Level 3 hospital should follow the Mission specific SOP. The procedures should be verified before deployment.

4.5.3 Medical Timeline

Medical research has indicated that the risk of death or permanent disability is significantly reduced if a casualty is treated as soon as possible after the onset of a life-threatening injury or illness. It is of the utmost importance that appropriate life, limb and eyesight saving procedures are provided as quickly as possible. The UN follows a 10-1-2 guideline for CASEVAC operations. This model requires application of immediate lifesaving measures at the point of injury within ten (10) minutes; evacuate and commence advanced medical care within one (1) hour; and delivery to the next level of care and/or damage control surgery within two (2) hours. The ability of unit personnel to perform tactical combat casualty care and buddy first aid is paramount to saving lives. Field medical care is a critical and perishable skill and should be refreshed and rehearsed throughout a unit's deployment.

4.5.4 CASEVAC

CASEVAC is defined as the primary evacuation of any casualty from the point of injury (POI) to the closest appropriate medical facility, utilizing the most appropriate means of transportation. The conduct of CASEVAC is a complex chain of events involving coordination, command and control, security, transportation and military, police and civilian medical facilities. For any CASEVAC operation to achieve its purpose, it is imperative that Missions establish an integrated approach with the capability of responding to CASEVAC within the 10-1-2 guideline



on a 24/7 basis across the entire AO. When 10-1-2 goal is not able to be met, a risk assessment is conducted to mitigate risks, where possible.

4.5.5 MEDEVAC

Medical evacuation (MEDEVAC) is a fundamental component of medical support, which involves the transport of sick or injured to complete the entire continuum of medical treatment and rehabilitation. In developing a MEDEVAC plan, it is important to note travel distances, evacuation times (i.e., by land, rotary or fixed-wing platforms), availability of suitable evacuation routes, landing zones and airfields, day or night and weather conditions.

4.6 Environmental Management

As part of the DOS Environmental Strategy for Peace Operations²¹, it is important for UN Military Signals Units to commit to sound environmental management by implementing UN environmental guidance which includes; the DPKO/DFS Environmental Policy for UN Field Missions²², the Waste Management Policy for UN Field Operations²³, and the UN Environmental Management Handbook for Military Commanders in UN Peace Operations²⁴. It is mandatory for UN Military Signals Units to adhere to mission-specific environmental guidance, standards, policies, and SOPs. The COE Manual further states that site energy plans must be developed for both existing and planned sites based upon energy assessment and forecasts. Unit Commanders should ensure that all members of the unit conduct themselves in an environmentally conscientious manner and observe all UN rules and regulations. Failure to comply with the latter could result in possible misconduct procedures.

Therefore, Military Signals Unit Commanders should plan and implement environmental management actions throughout their deployment. Environmental management is organized across five pillars: energy, water and wastewater, solid waste, wider impact, and management systems (See figure 11 below).

²¹ 2019 DOS Environmental Strategy for Peace Operations

²² 2009.06 DPKO/DFS Environmental Policy for UN Field Missions

²³ 2018.14 Waste Management Policy for UN Field Missions

²⁴ 2021.02 UN Environmental Management Handbook for Military Commanders in UN Peace Operations 1st Edition

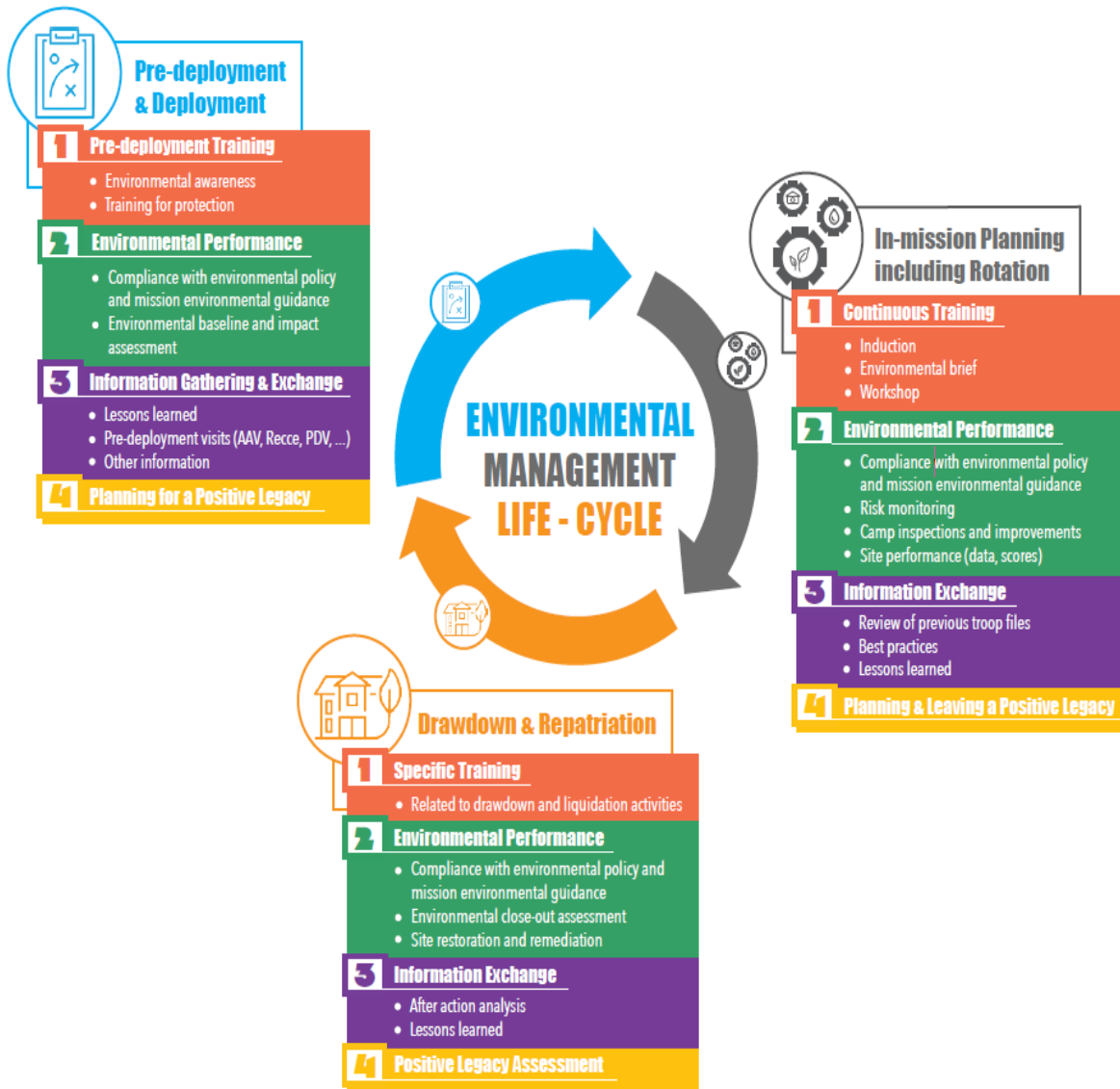


FIGURE 11: ENVIRONMENTAL MANAGEMENT LIFE CYCLE

4.7 Summary of Chapter 4

Sustaining operations in UN peacekeeping is a shared responsibility between military units and the Missions. Understanding how and where shared sustainment responsibilities intersect will ensure the success of the UN Military Signals Unit. The DOS at UN Headquarters provides dedicated support to TCCs in the areas of, logistics support services, communications and information technology, human resources, and general administration through each mission's



support division. The DMS or CMS is primarily responsible for delivering common support goods and services.

Prior to deployment, commanders should ensure their logistics officer understands they must communicate and manage relationships with mission stakeholders to effectively advocate for the unit's logistics requirements. Additionally, UN Military Signals Units generally do not deploy with their own integrated medical capability. They will receive Level 1 and higher medical support from other co-located military medical units. The UN follows a 10-1-2 guideline for CASEVAC operations. And finally, all military units are required to adhere to mission-specific environmental guidance, standards, policies, and SOPs.



CHAPTER 5

Training for the UN Military Signals Unit

5.1 Introduction

This chapter is intended to assist Signals Unit Commanders and planners in their efforts to prepare contingent personnel for UN peacekeeping operations. According to General Assembly Resolution A/RES/48/37 (1995), it is a national responsibility to ensure that troops are adequately trained in individual and collective military skills, and communication and information technology skills before and during deployment in UN Peacekeeping operations.

TCCs at the National level should put more emphasis on specialised training for the UN Military Signals Units preparing for a UN deployment and utilize the UN military performance standards to support preparation. This means that TCCs must re-orientate the operational capabilities of a Signals Unit, to the parameters set by the UN, so that it can operate effectively in a peacekeeping environment.

The UN Headquarters is available to provide assistance and guidance on relevant training requirements and policy documents. This chapter should be read in conjunction with the UN DPO Guidance Core Pre-deployment Training Materials (CPTM)²⁵. Training should be focused on preparing National Signals Units to accomplish the tasks and functions outlined in Chapter 2 and 3 of this UNMUM.

The UN system also provides specialised training materials based on requirements and tasks contained in the SUR and supports courses offered at the United Nations C4ISR Academy for Peace Operations (UNCAP). These materials include policies, use of UNOE and communication and Information technology systems and processes.

²⁵ Core Pre-deployment Training Materials can be found at <https://research.un.org/revisedcptm2017>.



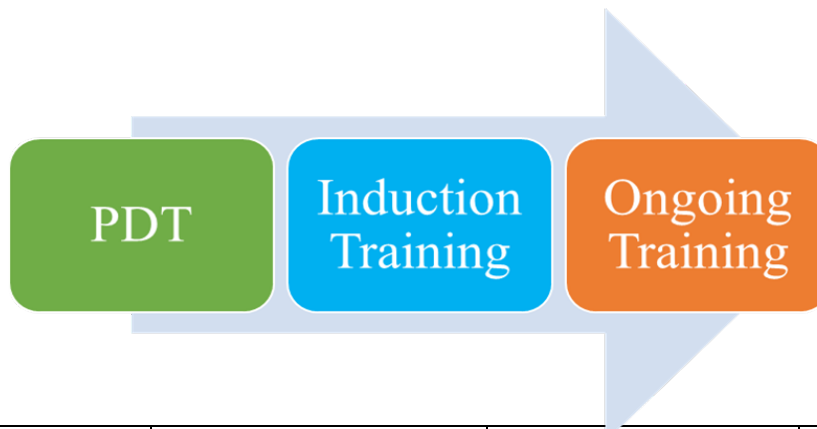
5.2 Phases in Peacekeeping Training

According to the Policy on Training for all United Nations Peacekeeping Personnel (2010)²⁶, the following phases are identified:

- **Pre-deployment Training (PDT)**: PDT refers to generic, specialized, and where appropriate mission-specific peacekeeping training based on United Nations policies, guidance and UN military performance standards and takes place prior to deployment to field operations. This training is delivered by TCCs at national training centers to military personnel and formed units in their home country and, at designated locations.
- **Induction Training**: The UN provides induction training, upon arrival to the mission. Individual training on specialist roles and generic tasks are mandatory and are conducted by the FHQ immediately upon arrival in the mission area²⁷. Induction training is required and covers topics such as conduct and discipline, Human Rights, gender awareness, POC, environmental awareness, etc. Induction training in missions is intended to supplement training conducted during the pre-deployment phase.
- **On-going or Refresher Training**: Refers to any training or learning activity for military personnel undertaken during their duty assignment at peacekeeping mission, subsequent to induction. During deployment, the UN provides continuous mission-specific training. UN Military Signals Units also have the responsibility to provide on-going training (refresher training).

²⁶http://dag.un.org/bitstream/handle/11176/89508/2010.20%20DPKO_DFS_POL_TrainingforallUNPKPersonnel_1May2010.pdf?sequence=1&isAllowed=y

²⁷ <http://dag.un.org/handle/11176/387382>



When	Before Deployment	After Deployment (Induction)	During Deployment
Where	In Own Country	In Mission	In Mission
Purpose	To prepare for performing tasks in mission area as individual and collectively according to UN standards	To prepare for performing tasks specific to that mission following UN standards	To perform the tasks as expected by UN
Responsibility	TCC	UN	UN and Unit
Type of Trainings	Generic, Specialized, Mission Specific (where applicable)	Mission Specific, Safety, Awareness, Gender, Role Specific, etc.	Refresher

FIGURE 12: UN TRAINING OVERVIEW

Pre-deployment training²⁸ usually takes place three to six months before deployment to a UN mission. During this phase, UN peacekeeping competencies are added to basic military skills and collective training. Training during this phase should reflect the operational requirements of the Mission, and the unique operating environment in which the UN Military Signals Unit will deploy. The following steps are offered as a guide to the UN Military Signals Units:

Step 1: Technical Training (Pre-deployment phase)

- Basic technical and tactical skills training, basic soldier skills
- Collective training

²⁸ For pre-deployment training guidance, refer to the most recent UN Policy on Operational Readiness Assurance (2015) and Guidelines on Operational Readiness Preparation (2018).



- All personnel meet national pre-deployment requirements

Step 2: UN Training (Pre-deployment phase)

- Delivery of Mandatory UN pre-deployment training
 - Core Pre-Deployment Training (CPTM)
 - Specialised Training Materials (STMs)
 - Other relevant UN provided guidance and training materials
- Virtual on-line courses offered through UNCAP website²⁹

Step 3: Mission Specific Training (Pre-deployment phase, On-going phase)

- Commanders, staff officers and key personnel conduct mission specific training.
- Methods and Examples include theory classes, Command Post Exercises (CPX), Scenario Based Exercises (SBE), Map Exercises (MAPEX), Field Training Exercises (FTX) and Tabletop Exercises (TTX) related to the Field Mission.
- Commanders and national authorities evaluate operational readiness of national contributions

Step 4: Integration Training (Induction phase, On-going phase)

- Military contingents take part in Field Training Exercises (FTX)
- Commanders and national authorities evaluate operational readiness of national contributions
- Participate immediately in the respective Field Mission induction training
- Unit commanders periodically conduct in-mission refresher training as situational awareness increases after deployment

NOTE: Planners can prepare training plans and programmes based on the following reference materials:

- United Nations: DPO-DOS Core Pre-Deployment Training Materials (CPTM)³⁰ and Specialized Training Materials (STMs)³¹.
- Missions: Missions identify operational and tactical requirements.
- National: national military self-evaluation of current capacity and capability

²⁹ UNCAP technology training portal [Technology Training Portal \(un.org\)](https://research.un.org/technology-training-portal)

³⁰ Core Pre-deployment Training Materials can be found at <https://research.un.org/revisecptm2017>.

³¹ Signals unit STM and other STMs can be found at <https://peacekeepingresourcehub.un.org/en/training/stm/signal>



All Military units scheduled for deployment must be fit for UN purpose. Personnel screening, unit certification, and ensuring that equipment is ready as per the SUR and COE manual, must be accomplished during the pre-deployment phase.

5.3 United Nations Mandatory Pre-Deployment Training Requirements

The United Nations Secretariat additionally sets the following mandatory requirements prior to deployment.

- Prevention of Sexual Exploitation and Abuse by UN Personnel.
- Basic Security in the Field – Staff Safety, Health and Welfare Training.
- Advanced Security in the Field.
- Prevention of Workplace Harassment, Sexual Harassment, and Abuse of Authority in the Workplace.
- HIV/AIDS in the Workplace Orientation Programme.
- Ethics and Integrity at the United Nations.
- Information Security Awareness Foundational.
- United Nations Human Rights Responsibilities.
- I Know Gender.

5.4 Determining Mission-specific Operational and Tactical Requirements

Focusing as much as possible during pre-deployment, on operational and tactical requirements through mission analysis includes specific requirements of mandated mission tasks. Mission mandated tasks can be studied and analysed through review of the following:

- Mission Concept of Operations (CONOPS).
- Operational Environment.
- Rules of Engagement (ROE) or Directive on the Use of Force (DUF).
- Material to be operated.
- MOU.
- Current situation in the mission at time of deployment.

5.5 Summary of Chapter 5

It remains a national responsibility to ensure that all deployed troops are adequately trained in individual and collective military skills, and for UN Military Signals Units communication and



information technology skills before deployment. The TCCs should emphasis specialized training for the UN Military Signals Units based on the specific UN operating environment to which they will deploy. Training should focus on preparing their Signals Units to complete the functions and tasks outlined in this manual. UN Peacekeeping training has three phases - pre-deployment, mission-specific training, and on-going (refresher) training. Training during these phases should always reflect the operational requirements of the mission. With a focus on the CONOPS, Operational Environment, ROE, MOU and current reports or situational awareness of the environment at the time of deployment. Signals Units Commanders also have the responsibility to provide on-going training (refresher training) for their units and training should be scenario-based and realistic.



CHAPTER 6

Evaluation of UN Military Signals Unit

6.1 Introduction

Evaluations are extremely useful to TCCs, Signals Unit Commanders, UN planners and Mission leadership to organize, train, equip, deploy and employ military personnel. TCCs and Commanders should conduct evaluations (reinforced by FHQ/SHQ in-mission evaluations) to assess and monitor the state of individual and collective training, and to check the maintenance and performance of equipment. Formal evaluations assist TCCs and Military Signals Unit Commanders in meeting national and UN standards of performance and interoperability.

6.2 Types of Evaluations

6.2.1 Self-Evaluation

The UN encourages TCCs to perform evaluations as per UN Military Performance Standards - Tasks, Standards, and Indicators (TSI) at Annex B. It is a Commander's responsibility to maintain the operational readiness of their unit and to ensure training and evaluation is conducted as required. Evaluation should analyse task-oriented activities at each level within the military contingent to include individuals, task-oriented groups and commanders. The evaluation checklists at Annex B include broad peacekeeping evaluation criteria, as well as those that are more UN Military Signals Unit specific.

6.2.2 In-Mission Evaluations

In-Mission evaluations help Force, Sector, and Unit Commanders identify and correct problems that affect unit performance based on gaps identified in the Mission operating environment. Subordinate units are to be evaluated by the Force and Sector Headquarters during the period of their deployment³². This evaluation process involves a Force or Sector Headquarters team visiting the Military Signals Unit scheduled for evaluation.

³² See SOP - Force and Sector Commander's Evaluation of Subordinate Military Entities in Peacekeeping Operations January 2016



In-Mission evaluations and process generally include:

- Conducting an in-mission evaluation the second or third month of deployment to validate performance and capability standards achieved prior to deployment. Subsequent quarterly/six monthly evaluations in accordance with Mission SOPs.
- Continuous and simultaneous monitoring and review of performance in-Mission by the contingent commander and FHQ or SHQ leadership.
- Identifying areas subject to improvement and instituting periodic selective evaluations to administer corrective actions.
- Reassessing capabilities and skills when the Mission's operational situation changes, or when there is a gap between requirements and performance.
- Taking note of clearly visible performance capability gaps during critical times and adverse situations and addressing them expeditiously.
- Validating key appointments in command and staff positions to verify ability and responsibility and providing guidance and support where required.

6.3 Summary of Chapter 6

The purpose of formal evaluations is to assist TCCs and Military Signals Units in meeting national and UN standards of performance. A Military Signals Unit's operational readiness should be evaluated based on distinct criteria such as mission requirements, organizational structure, operational standards, the capability to perform mission essential tasks, standards achieved in training, as well as administrative and logistics standards. The development and use of detailed standards and evaluation checklists will yield great benefits in terms of operational readiness and early identification of unit gaps and capabilities that need improvement.



ANNEXES

Sample Military Signals Unit Personnel Requirements³³

Force Headquarters-Level Military Signals Unit

	HQ Support Platoon	COMCEN Support Platoon	Strategic Links Support Platoon	Comms & Info Tech Support Platoon	Admin & Support Platoon	SIGINT Platoon ³⁴	Total
1 x Force HQ	35			6	19	55*	60+55*
4 x Sector HQs		4 x 15=60	4 x 5=20	4 x 6=24	4 x 4=16		120
Total	35	60	20	30	35	55*	180+55*

* SIGINT Personnel

Sector-Level Military Signals Unit Personnel Requirements³⁵

(Including Sector HQ, Battalions and Independent Unit HQs)

	HQ Platoon	COMCEN Platoon	Strategic Links Platoon	IT & Tele Comms Platoon	Admin & Support Platoon	Total
1 x Sector Headquarters	23	8	2	4	9	46
5 x Battalion/ Independent Unit Headquarters		5 x 4=20	5 x 2=10	5 x 2=10	5 x 3=15	55
Total	23	28	12	14	24	101

³³ Adjusted to respective UN Mandate, MOU and SUR.

³⁴ Adjusted to deployment area if deployed as a separate SIGINT unit, additional personnel numbers subject to MoU negotiations.

³⁵ Adjusted to respective UN Mandate, MOU and SUR.



Force Headquarters Military Signals Unit Personnel Requirements

	HQ Platoon	COMCEN Platoon	Strategic Links Platoon	Comms & IT Support Platoon	Admin & Support Platoon	SIGINT Platoon	Total
Leadership & National Tasks	10				6	3	16 + 3*
Establishing connectivity between headquarters	6						6
C2 and Situational Awareness	15					4	15+ 4*
Providing communications and IT services	4			6			10
Self-sustainment					13	3	13+3*
Provide SIGINT						45	45*
Total	35			6	19	55	60+55*

* SIGINT Personnel

Sector Headquarters Military Signals Unit Personnel Requirements

	COMCEN Platoon	Strategic Links Platoon	Comms & IT Support Platoon	Admin & Support Platoon	Total
Leadership & National Tasks	2				2
Establishing connectivity between headquarters		5			5
C2 and Situational Awareness	13				13
Providing communications and IT services			6		6
Self-sustainment				4	4
Total	15	5	6	4	30

UN Military Performance Standards: TASKS, STANDARDS AND INDICATORS

“For the most up-to-date Tasks, Standards, and Indicators (TSI), please visit the United Nations Peacekeeping Resource Hub at <https://peacekeepingresourcehub.un.org/en/training>.”

Function 1: Establish Command, Control and Situational Awareness

TASK DESCRIPTION: The Military Signals Officer is tasked to lead, direct, and control their staff and subordinate units/detachments.

TASK CONDITIONS: The Military Signals Officer demonstrates the accomplishment of all tasks of Communication and information technology support in all operational phases

UN Military Signals Unit Function 1 – Command, Control and Situational Awareness				
Sub-function	Standard Number	Standards	Indicators	Score
F 1.1				
Operational Planning	F 1.1.1	The unit has identified and analyzed key factors of the Operations Environment.	1. The Signals Officer has identified the key physical terrain and weather factors and determined how these impact/affect to communication and IT support.	
			2. The unit has identified all limitations (constraints/restraints) on communication and IT support.	
			3. The unit has determined the assets available to the unit to implement the mission/mandate	
			4. The unit establishes a support concept.	
	F 1.1.2	The Commander has developed a plan to effectively implement the tasks.	1. The plan has a clear purpose and addresses all aspects of the mission/mandate, higher HQs guidance and tasks. (Completeness).	
			2. The plan describes the tasks that the Military Signals Unit, its teams will execute.	
			3. The plan describes critical timings (when certain actions will be carried out).	
			4. The plan quantifies the future logistic requirements based on past logistic activities and the planned operations	



			5. The plans are sufficiently flexible to respond to unanticipated events.	
			6. The plan is aligned with UN policy, levels of risk, own Force Protection considerations (threat assessment).	
			7. The contingency plan is rehearsed.	
F 1.2				
Command and Control	F.1.2.1	Commander exercises effective command and control.	1. Commanders exercise sound and timely decision making.	
			2. Guidance and orders are clear, simple, concise, and based on developed plans and/or situation development.	
			3. Commanders ensure that all operations of the unit are coordinated and integrated with other UN contingents for ease of execution.	
			4. Seeks responsibility and is willing to take the initiative.	
			5. Ensures unity of command by establishing clear responsibilities and tasks for sub-units.	
			6. Ensures that assigned tasks are understood, supervised, and accomplished (conducts briefing, debriefing and operational rehearsals).	
			7. The employment of sub-units/elements in accordance with their capabilities.	
	F 1.2.2	Commander organizes command and control of all sub-units and attached elements	1. Establishing command hierarchies that clearly assign responsibility and accountability for all subordinate elements	
			2. Ensuring that ROEs are understood and applied correctly by all unit personnel.	
			3. Assigning clear tasks and objectives to sub-units.	
4. Establishing a clear chain of command for the successful accomplishment of all operations.				



			<p>5. Keeping unit members with situation awareness.</p> <p>*Situational Awareness</p>	
			<p>6. Ensures the maintenance of discipline and good order (including the reporting on misconduct) of entire unit personnel.</p>	
			<p>7. All operations including self-Protection and security tasks are planned and executed.</p>	
	F 1.2.3	All operations are conducted in accordance with documented orders and are continuously monitored.	<p>1. Orders are based on guidance received from higher HQs (SHQs/FHQs) or situation developments. Orders are clear, simple and concise.</p>	
			<p>2. Correct sets of orders (OPORD, FRAGO etc.) are used and orders are coordinated with other staff functions.</p>	
			<p>3. Unit’s Radio room/signal centre is set up to monitor unit’s daily operational activities</p> <p>*Situational Awareness</p>	
			<p>4. Mobile operations of the unit are monitored.</p>	
			<p>5. The unit has standard operating procedures (SOP) to harmonize staff work and standardize the reaction to and reporting of situations.</p> <p>*Situational Awareness</p>	
			<p>6. All subordinate commanders/staff officers clearly understand their roles and responsibilities and react to the situation (hostile/ non-hostile, technical) in accordance with the SOP.</p> <p>*Situational Awareness</p>	
UN Military Signals Unit Function 1 – Command and Control				
Observation & Recommendations:				



Function 2: Self-Sustainment

DESCRIPTION: Self-Sustainment is a must-be task for each and every military unit deployed in the field. A self-sustained company has all the function to enable the Military Signals Unit to function properly. These include maintenance, personnel admin, unit administration, communications / information technology and supply/catering.

CONDITIONS: The self-sustainment support is primarily limited to the Military Signals Unit and teams.

UN Military Signals Unit Function 2: Self-Sustainment				
Sub-function	Standard Number	Standards	Indicators	Score
F 2.1				
Personnel/ Administration	F 2.1.1	Personnel administration of the unit is guided by Mission SOPs.	1. UN Military Signals Unit SOPs are written in Mission official language and TCC national language.	
			2. Personnel reporting procedures are covered in UN Military Signals Unit SOPs.	
			3. Conduct and discipline procedures are covered in UN Military Signals Unit SOPs.	
			4. Contingent leave policy is covered in UN Military Signals Unit SOPs.	
			5. Welfare measures are covered in UN Military Signals Unit SOPs.	
			6. Job descriptions are available for all functions in the unit ³⁶ .	
	F 2.1.2	UN Military Signals Unit maintains, reports and records	1. Daily/Weekly unit strength reports are provided to Sector/ Force HQs.	

³⁶ Are the Job Descriptions in English language, put into the UN template, using the current naming conventions and containing the necessary pre-deployment skills? Has every single member of the Unit signed a personal copy of their job description?



		operational strength status of the unit.	<p>2. The personnel section maintains the clear status of all unit personnel including the deployed locations.</p> <p>3. Subordinated units report daily strength status of all soldiers.</p> <p>4. Personnel section reports critical shortfalls regarding personnel to Unit Commander.</p> <p>5. The Unit’s authorized strength is in line with the MOU.</p> <p>6. The unit’s operational strength (actual strength) (MML, i.e., 75%) in line with the specific field missions SOP is maintained at all locations of the UN Military Signals Unit.</p> <p>7. Repatriations/rotations of personnel before the end or at the end of the normal tour of duty are correctly recorded and documented.</p>	
	F 2.1.3	The Unit meets UN specific gender parity strategy requirements.	<p>1. 9% of all deployed contingent pers. are females (9% in 2022, 10% in 2023).</p> <p>2. Female personnel are employed and operating in the unit as per their assigned function. (Comment: Question female soldiers.)</p> <p>3. Female personnel have been assigned mentors in the contingent.</p> <p>4. The Unit has a trained Gender Focal Point /Adviser.</p> <p>5. Commanders are aware of the FC’s Gender responsive document and conforming to its intent.</p> <p>6. Unit leadership ensures gender training and awareness is being conducted in regular intervals.</p>	
	F 2.1.4	Creating an enabling environment: Physical requirements are in place according to UN gender strategy.	<p>1. Separate accommodation, showers and toilets are available for female personnel.</p> <p>2. Women’s ablution and washrooms are in close distance to their accommodation.</p>	

			3. Safety lighting is installed around all camps to ensure safe movement of personnel at night.	
			4. Suitable accommodation for women to allow full access, able to travel and operate in all areas in the mission is available.	
			5. Women have access to female sanitary products and there are disposal points for sanitary products in the ablutions.	
	F 2.1.5	Contingent personnel meet UN specific requirements. Ref.: COE Manual Chapter 9 Annex A	1. Contingent has no personnel under 18 years of age.	
			2. Contingent has no personnel older than 55 years of age (excluding ranks above Lt Col/Senior Warrant Officer).	
			3. Key personnel of the unit is capable to communicate in English with higher levels of Command.	
			4. Personnel on the platoon level can communicate in the Mission language (e.g., English).	
			5. Personnel in specialized functions is trained. (<i>Check the qualification and training record.</i>)	
F 2.2				
Conduct & Discipline and SEA prevention	F 2.2.1	Understanding of SEA prevention and UN standards of Conduct.	1. All unit members questioned can explain the UN standards of conduct.	
			2. All unit members questioned can explain the prohibitions against SEA and sexual relationships with members of the local population.	
			3. All unit members questioned demonstrate awareness of the possible consequences of SEA for troops, victims, the TCC and mission/UN	
			4. All unit officers and senior NCOs (Staff sergeants and above), and all other unit members questioned, know and can explain the process/procedure/appropriate	



			reporting channels for reporting suspected misconduct.	
			5. All unit personnel carry the “No Excuses” card and the “Ten Rules: Code of Conduct for Blue Helmets” translated into unit’s mother tongue.	
			6. There are visible awareness-raising messages (e.g., posters, regular town halls) regarding SEA prevention and UN Code of Conduct present in the Unit.	
	F 2.2.2	The Unit includes deployed personnel authorized and trained to serve as National Investigation Officers (NIOs).	1. The NIO is formally authorized to obtain DNA samples of contingent members who are alleged to have committed SEA for criminal, military judicial, or administrative action. (Comment: Authorization needs to be documented.)	
			2. The NIO is formally authorized to obtain DNA samples of contingent members against whom there is a claim for paternity and/or child support. (Comment: Authorization needs to be documented.).	
			3. The NIO is formally authorized to obtain DNA samples of mothers and children as relevant to their investigations. (Comment: Authorization needs to be documented.)	
			4. There is a written document that the NIO has received training on UN code of conduct, including SEA.	
			5. Units of over 300 strength are required to authorize 2 NIOs, for units below 300 strength 1 NIO. *Unit may authorize NIO from another unit deployed in same mission from same TCC	



	F 2.2.3	The Military Signals Unit commander has control measures to prevent misconduct (violations of UN standards of conduct, including the zero-tolerance policy on SEA).	1. The unit commander and all sub-unit commanders maintain a record showing they communicate on conduct and discipline to those under their command on a regular basis (at least monthly), including on the standards related to SEA.	
			2. Where personnel are deployed to Temporary Operating Bases or other remote locations, the unit commander conducts regular (monthly) visits to ensure adherence to UN standards of conduct.	
			3. The unit and sub-unit commanders demonstrate that they are actively monitoring the plan and measures to mitigate the risk of misconduct.	
			4. The unit commander maintains records and decisions of all disciplinary cases in the unit.	
			5. Unit commander and sub-unit commanders have a clear understanding about the procedure to deal with/administer the violation of conduct and discipline and SEA cases.	
			6. Appropriate action has been taken to address the violation of conduct and discipline and SEA cases.	
	F 2.2.4	Unit personnel adheres to UN standards of conduct and discipline incl. SEA.	1. During the reporting timeframe no contingent member has been repatriated as a result of disciplinary issues.	
			2. During the reporting timeframe no violation of the UN standards of conduct of a current contingent member is documented.	
			3. During the reporting timeframe the UN Military Signals Commander and personnel cooperated during investigations.	
			4. The unit commander conducts own investigations on cases of misconduct and penalizes	



			contingent members that are found guilty (in accordance with authorization by national law) (Comment: Records to be presented.)	
			5. All cases of misconduct allegations and investigations are documented incl. the outcome (sentence) (Comment: Records to be presented.)	
F 2.3				
	F 2.3.1	UN Military Signals Unit personnel adheres to UN standards of safe driving. Ref.: UNMIM para. 2.17.	1. Certification of drivers (driver’s license or course completion certificate) for military pattern, armored, specialized and heavy vehicles are available.	
			2. A system is in place to ensure that drivers are rotated when driving over longer distances/ for longer time periods.	
			3. The unit has a responsible officer to manage vehicles, tasking, drivers, licenses, safe driving measures in accordance with mission specific guidelines.	
			4. The unit trace traffic violation cases, conduct investigations (also in cooperation with local authorities and MP) and take disciplinary measures if required (e.g., gross negligence).	
	F 2.3.2	The unit has implemented a Road Safety Program Ref.: UNMIM 2.17.6	1. The unit has clearly documented safety regulations and Standard Operating Procedures (SOPs) which are understood by drivers and vehicle occupants. These measures must be strictly enforced (e.g., speed limits, use of seat belts, alcohol control, vehicle breakdown drill).	
		2. Training, testing and certification of drivers to operate vehicles in all weather conditions, during night and low-visibility and		



			<p>over rough terrain replicating conditions in the AO.</p> <p>3. Drivers know how to respond to accidents, perform self-extraction, operator-level emergency repairs, report on accidents, break-downs and faults, provide first-aid and attend to injuries en-route.</p> <p>4. Vehicle operators of the unit are performing daily Preventive Maintenance Checks and Services (PMCS) prior to the operation of any vehicle, recording checks and services in logbooks assigned to the vehicle.</p> <p>5. All vehicles are equipped with emergency repair and towing equipment, fire extinguishers, emergency triangles and first aid equipment.</p>	
F 2.4				
Welfare	F 2.4.1	<p>The UN Military Signals Unit has the required equipment, infrastructure and processes to provide effective welfare for its members. Ref.: UNMIM Chapter 8</p>	1. NO shortfalls regarding the Self Sustainment category of Catering as per COE inspection.	
			2. NO shortfalls regarding the Self Sustainment category of Welfare (sports facilities, phone facilities etc.)	
			3. NO shortfalls regarding the Self Sustainment category of Internet Access as per COE inspection.	
			4. Recreational space/ facility is available.	
			5. Entertainment facility, TV, religious facilities, library, and indoor/outdoor sports areas are available.	
	F 2.4.2	<p>The unit has implemented procedures to ensure the welfare of its members. Ref.: UNMIM Chapter 8</p>	1. The unit has documented leave plans as per UN regulations for the contingent.	
			2. Temporary deployments at remote locations are not exceeding 30 days (unit members are rotated at these locations).	
3. All Unit and sub-unit commanders have implemented				



			and documented a duty system allowing for rest and recuperation.	
			4. The unit has an appointed unit/contingent welfare officer responsible for unit welfare.	
			5. The unit welfare officer has developed and a documented welfare plan and program for unit members (e.g., game nights, sport competitions, movie nights).	
			6. The unit has a system in place to inform all personnel (e.g., current situation, incidents, and upcoming events) to avoid speculation, rumours and frustration.	
			7. The unit has established a designated counsellor for contingent members to raise problems and concerns.	
F 2.5				
Sustainment	F 2.5.1	Weapons, ammunition and Personal Protective equipment are available and serviceable.	1. All soldiers are equipped with personal weapons, combat helmet (with blue cover) and basic flak jacket (fragmentation vest). (Comment: Conduct spot checks).	
			2. Based on the last COE verification inspection 90% or more of Armaments (as per DOS KPI categories) are available and serviceable. Ref.: COE Manual 2020, Chapter 8	
			3. All crew served weapons and main weapons systems of vehicles are sighted (zeroed-in), calibrated and periodic test firing has been conducted. Ref.: COE Manual 2020, Chapter 3, Annex A, para 28 and para 42.	
			4. Individual and crew served weapons and weapons related equipment is enough to perform All assigned tasks without limitation	



			5. Armaments are enough to perform all assigned tasks without limitation	
F 2.5.2	Food and water are properly stored and maintained.		1. The Military Signals Unit orders the supply of fresh, frozen, chilled and dry rations based on the mission specific cycle (e.g.: 30/60 days) and provides them to subordinate units. Ref.: UNMIM 9.9.7	
			2. Storage for deep freeze (when required), cold (7days) and dry food is available at each contingent location and food storage facilities include appropriate temperature monitoring and control devices. Ref.: UNMIM 9.9.7	
			3. The rations stored in date order to allow for stock rotation.	
			4. Food items are separated and segregated appropriately in store	
			5. The unit keep temperature logs and they are up to date.	
			6. Separate static water storage for drinking and bulk water is provided for a minimum of three days water per person.	
			7. Each person of the UN Military Signals Unit receives a minimum of 4.5 l of drinking water per day and has access to treated bulk water for cleaning, shower, ablutions and other uses (80 l/ 3 days). Ref.: UNMIM 9.4.3.	
F 2.5.3			1. Stock book is kept, and contents are accurate.	



		The Catering procedures are maintained properly.	2. . Catering Officer understand the rations demands process and the CMR allocation of rations.	
			3. . The Unit Conducts Combat Ration Packs (CRP) and Bottled water stock checks regularly.	
			4. The Unit reports stocks replenishment requirement in a timely manner.	
F.2.6				
Medical Support	F 2.6.1	The Military Signals Unit has the required levels of equipment and supplies to ensure basic medical support Ref.: COE manual Chapter 3 Annex C	1. 100% of unit personnel deployed with a first aid kit.	
			2. 100% of tourniquets available in all first aid kits	
			3. 60 days of medical supplies and consumables are available	
			4. Proper stores for consumables and for medical equipment are available	
			5. Medical equipment for assigned task is enough to perform All assigned tasks without limitation.	
UN Military Signals Unit Function 2: Self-Sustainment (Overall Assessment):				
Observation & Recommendations				



UN Military Signals Unit Task 1 –: Connectivity

TASK DESCRIPTION: The Military Signals Unit should establish, maintain and operate communications and information systems between key Headquarters of the Mission anywhere in the area of operations

TASK CONDITIONS: Assessed throughout all operational phases from planning through to execution for all tasks of Communication and information technology support.

UN Military Signals Unit Task 1 – Connectivity				
Sub-Task	Standard Number	Standards	Indicators	Score
T 1.1				
Providing connectivity.	T.1.1.1	The Signals Unit connects FHQ/SHQ with subordinate units using HF/ VHF/UHF radios.	1. The unit ensures continuous, timely and accurate passage of information between subordinate units and FHQ/SHQ. Comments: Check radio rooms log book and continues radio check lists.	
			2. The unit installs/maintains HF/VHF/UHF with antennas for static ops including radio interoperability system (RIOS).	
			3. The unit installs/maintains HF/VHF/UHF with antennas for mobile ops.	
			4. The unit sets frequency and tunes radio set and maintains radio communication 24/7.	
			5. Unit establishes communications up to signal strength. (All nets are operational and voice Comms is loud and clear)	
			6. The unit programs radio for secure operations.	
			7. The unit employs Electronic Counter Counter Measures (ECCM) and radio procedures.	
	T 1.1.2	The Signals Unit connects FHQ/SHQ with subordinate units using VSAT	1. The unit installs, configures (VSAT parameters, angle, elevation etc.) , and maintains VSAT (Very Small Aperture Terminal) system.	
			2. The unit has capability (equipment) to mount the Mobile VSAT system.	



			3. Unit has specialized personnel operating encrypted Microwave, VSAT equipment to support Field Technology Section (FTS).	
			4. The unit deploys crew at the site.	
			5. The unit operationalize and maintain VSAT station (VSAT telephone and data cables are operational)	
	T 1.1.3	Unit establishes connectivity between headquarters/units with other communication means and information technologies.	1. Unit installs, configures, and maintains, microwave system.	
			2. The unit has ability to deploy transportable command posts with auxiliary equipment. (Generators, containers, uninterrupted power supplies, etc.)	
			3. Unit has ability to install and maintains antenna masts and towers.	
			4. The unit installs networks, power cables, and plugs inside and outside facilities.	
			5. The unit installs, operates and maintains power generators and solar systems.	
			6. The unit installs and rigs masts and larger antennas.	
T 1.2				
Maintaining continuous communication and information technology networks to FHQ and SHQs.	T 1.2.1	The unit operates and maintains continuous communication through Radio room /COMCEN with FHQ and Sector HQs	1. The unit operates Radio room with adequate number of personnel and personnel are assigned in shifts to maintain continuity of the Radio room operations (24/7).	
			2. The unit has personnel who has adequate language skill for continuous communication with FHQ and SHQs.	
			3. The units assists U-6 to assign call signs for units and military personnel and spectrum management. Comments: Evaluators check assignment of logbook of the unit.	
			4. The unit processes messages requiring encoding/decoding with no errors.	



			5. The unit distributes Task order / Fragmentary Order through available communication means.	
			6. The unit monitors and tracks location of convoys/patrols/personnel outside and maintains operations map.(check radio logs)	
	T 1.2.2	The Military Signals unit maintains IT and communications at the FHQ/SHQ.	1. The unit maintains telephone systems.	
			2. The unit assists installation and maintenance of network infrastructure (local area network).	
			3. The unit installs and maintains UNOE (UN Owned Equipment) IT and communication equipment. In close collaboration with FTS, host C2 and situational awareness applications.	
			4. The unit supports FTS in installing and operating configuring, video tele-conference systems.	
			5. The unit supports users within the Service Desk structures of the Force Headquarters.	
			6. Unit installs and maintains ground-to-air radio system and satellite phone.	
			7. The unit assists in operating Public Address system for FHQ/SHQ.	
UN Military Signals Unit Task 1 – Connectivity				
Observation & Recommendations:				



Military Signals Unit Task 2: Providing and supporting internal and external communications in large camps

TASK DESCRIPTION: The Military Signals Unit is tasked to provide and support internal and external communications and information technology services in larger camps.

TASK CONDITIONS: Assessed throughout all operational phases from planning through to execution for all tasks of Communication and information technology support.

UN Military Signals Unit Task 2: Providing and supporting internal and external communications in large camps.				
Sub Task	Standard Number	Standards	Indicators	Score
T 2.1				
Establish Communication, Information Systems to Support both internal and external communications	T 2.1.1	The unit has established effective internal and external communications networks in large camps.	1. The unit operates & maintains Radio room/COMCEN with HF/VHF/UHF and Ground to Air radio networks to ensure command and control and security awareness from FHQ/SHQ and down under command unit..	
			2. Unit personnel dedicated for Camp security, Early Warning system will have adequate knowledge on those matter.	
			3. The Units specialized personnel are capable of operating encrypted Microwave, VSAT equipment to support FTS.	
			4. The Military Signals Unit has Radio communication procedures outlined in a unit SOP and aligned with UN procedures.	
			5. The Unit has Signal instructions issued regularly to include details of code words, radio net diagrams and frequency management issues during operations and static duties.	
	T 2.1.2	The unit has maintained effective internal and external communications.	1. The Unit has set procedures and personnel to maintain communications	
			2. The Unit Conducts periodical basic maintenance of communications assets	



			3. The Unit Maintenance personnel are trained and equipped on basic repair and maintenance.	
			4. The Unit has set procedures to liaise with FTS for major repair and maintenance.	
			5. The Unit keeps maintenance records	
UN Military Signals Unit Task 2 – Providing and supporting internal and external communications in large camps				
Observation & Recommendations:				



Military Signals Unit Task 3: Prompt Restoration of Services

TASK DESCRIPTION: The Military Signals Unit and commanders at all levels should be capable of prompt restoration of service in case of any communication disruption.

TASK CONDITIONS: Assessed throughout all operational phases from planning through to execution for all tasks of Communication and information technology support.

UN Military Signals Unit Task 3– Prompt Restoration of Services				
Sub- Task	Standard Number	Standards	Indicators	Score
T 3.1				
Prompt Restoration of Services	T 3.1.1	UN Military Signal Unit to have dedicated arrangement for prompt restoration of services in case of communication disruption.	1. The Unit has established Monitoring Mechanism to Identify System Outages/Downtime (Radio Check, Help Desk etc.)	
			2. Users have been issued with help manuals for Self trouble-shooting of system problems.	
			3. The Unit has team dedicated to respond to system problems	
			4. Maintenance team is competently trained in the various equipment/systems in place	
			5. Maintenance team has tools to conduct emergency repairs	
			6. The unit has set procedures to coordinate for spares as/if required	
			7. The unit conducts analysis of past incidences in order to mitigate them in future(Incident log)	
			8. The unit has mechanism to coordinate with FTS on quick restoration of services	
UN Military Signals Unit Task 3 – Prompt Restoration of Services				
Observation & Recommendations:				



UN Military Signals Unit Task 4: Providing Signals Peacekeeping-intelligence

TASK DESCRIPTION: Provide threat warning, analysis of intercepted voice communications, interception of threat related signals, and dissemination of signals related products to support Force and mission level priorities.

TASK CONDITIONS: Assessed throughout all operational phases from planning through to execution for all tasks of Communication and information technology support.

UN Military Signals Unit Task 4 Provide signals peacekeeping-intelligence				
Sub-Task	Standard Number	Standards	Indicators	Score
T 4.1				
Provide SIGINT	T 4.1.1	Interception of Communications and Transcriptions	1. The unit has SOPs and set procedures conforming with FHQ guidelines on Interception	
			2. The unit has qualified and trained personnel to carry out intercepts and transcriptions	
			3. The unit has mechanisms to record Signal emissions of Interest	
			4. The unit is capable to transcribe and decipher Signals of Interest	
	T 4.1.2	Detection and identification of electromagnetic and digital sources/emitters.	1. Provide Radio Frequency (RF) spectrum surveillance to detect and identify the RF signals	
			2. Employ sensors according to operational priorities	
			3. Identity and track locations of signal emissions of interest	
	T 4.1.3	Processing, Exploitation and Dissemination of acquired Information	1. The unit has an automated or a partial automated system to process information	
			2. The unit has appropriate personnel and tools to process and analyze acquired information.	
			3. The Unit disseminates Signals peacekeeping-intelligence on a need to know basis	
			4. The Unit maintains a secure database and storage of the acquired information.	
	UN Military Signals Unit Task 4: Providing signals peacekeeping-intelligence			



Observation & Recommendations:

List of Abbreviations

Abbreviation	Acronym
C4ISR	Command, Control, Communications, Computers Intelligence, Surveillance and Reconnaissance
C2	Command and Control
CASEVAC	Casualty Evacuation
C-IED	Counter Improvised Explosive Device
CIS	Communications and Information Systems
COE	Contingent Owned Equipment
COMCEN	Communication Center
CONOPS	Concept of Operations
CPTM	Core pre-deployment Training
CPX	Command Post exercise
CRSV	Conflict Related Sexual Violence
DECT	Digital Enhanced Cordless Telecommunications
DMS/CMS	Director/Chief mission Support
DOS	Department of Operational Support
DPO	Department of Peace Operations
DUF	Directive on the Use of Force
ECCM	Electronic Counter Counter Measures
EOD	Explosive Ordnance Disposal
FCP	Forward Command Post
FHQ	Force Headquarters
FSS	Field Support Suite
FTS	Field Technology Section
FTX	Field Training Exercise
GIS	Geographical Information System
HQ	Headquarters
HF	High Frequency
IED	Improvised Explosive Devise
IMTC	In-Mission Training Center
ISR	Intelligence Surveillance Reconnaissance
LOA	Letter of Assist
LOS	Line of Sight
LPH	Liters per Hour
MAPEX	Map exercise
MEDEVAC	Medical Evacuation
MILOB	Military Observers
MML	Minimum Military Level
MOU	Memorandum of Understanding



MOVCON	Movement Control
MSO	Military Staff Officer
MSV	Military Skill Validation
NSE	National Support Element
OICT	Office of Information & Communication Technology
OPCON	Operational Control
PDV	Pre-deployment Visits
PED	processing exploitation and Dissemination
PKISR	Peacekeeping-intelligence, Surveillance, and Reconnaissance
POC	Protection of Civilians
RF	Radio Frequency
RIOS	Radio Interoperability System
ROE	Rules of Engagement
RTP	Reinforcement Training Packages
SEA	Sexual Exploitation and Abuse
SBE	Scenario Based Exercise
SIGINT	Signal Intelligence
SOP	Standard operating procedure
STM	Specialized Training Materials
SUR	Statement of Unit Requirement
TCC	Troop Contributing Country
TOB	Temporary Operating Base
TTX	Tabletop exercise
UN	United Nations
UNCAP	United Nations C4ISR Academy for Peace Operations
UHF	Ultra-High Frequency
UNOE	United Nations Owned Equipment
VBIED	Vehicle Borne Improvised Explosive Device
VHF	Very High Frequency
VSAT	Very Small Aperture Terminal



References

United Nations Peacekeeping Operations, Principles and Guidelines (UN Capstone Doctrine) (2008)

2020.01 United Nations Infantry Battalion Manual (Second Edition)

2020 United Nations Security Management System, Security Management Operation Manual

2019 United Nations Security Management System, Security Policy Manual (Revised)

2020.9 United Nations Procurement Manual.

2019.23 Authority, Command and Control in United Nations peacekeeping Operations (Policy).

The Online Strategic Movements and Force Generation Knowledge Center

2008 Generic Guidelines for Troop Contributing Countries Deploying Military Units to the United Nations Peacekeeping Missions (under revision).

2020 Manual on Policies and Procedures Concerning the Reimbursement and Control of Contingent-Owned Equipment of Troop/Police Contributors Participating in Peacekeeping Missions - COE Manual (A/75/121)

2015.12. Medical Support Manual for UN Field Mission

UN Integrated Assessment and Planning Handbook

2008 United Nations Peacekeeping Operations Principles and Guidelines

2012 United Nations Peacekeeping Operations Planning

ST/SGB/2019/2 Delegation of Authority in the Administration of the Staff Regulations and Rules and the Financial Regulations and Rules.

2009.06 Environmental Policy for UN Field Missions.

2018.14 Waste Management Policy for UN Field Missions.

United Nations Secretary General's Environmental Strategy for Field Missions.

2021 Environmental Management Handbook for Military Commanders in Peace Operations.

2019 Military Peacekeeping-Intelligence Handbook.

2015.17 National Support Element Policy.



Training Materials

The following list of training materials and references will be of great value to UN military unit commanders and their staff. These documents provide better understanding of the peacekeeping training system, its participants' roles and responsibilities, and available resources. These and other important peacekeeping documents are available at Peacekeeping Resource Hub website: <https://peacekeepingresourcehub.un.org/en/training>

2005.03 Policy on Pre-deployment Visits to TCC/PCC.

2009.21 Policy on Support to Military and Police Pre-Deployment Training for UN Peacekeeping Operations.

2009.09 Guidelines on Roles and Training Standards for UN Military Staff Officers.

2009.22 SOP on Training Recognition.

2009.24 SOP on Training-of-Trainers.

2010.20 Policy on Training for all UN Peacekeeping Personnel.

2015 SOP on Mobile Training Teams.

2015.16 Operational Readiness Assurance and Performance Improvement Policy.

2018. 29 Operational Readiness Preparation for Troop Contributing Countries in Peacekeeping Missions (Guidelines).

2017 Core Pre-Deployment Training Materials for United Nations Peacekeeping Operations

2019.01 Peacekeeping Capability Readiness System.

2020.10 SOP on Planning and Conducting Assessment and Advisory Visits.

2019.03 Policy on Weapons and Ammunition Management.