DEPARTMENT OF OPERATIONAL SUPPORT

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AVIATION MANUAL

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Aviation Manual

A. EXECUTIVE SUMMARY

PURPOSE

1. Field Missions operate in unique and demanding environments, with various contributing nations providing both civil and military aviation support. The regulation of these diverse aviation assets, while challenging to manage, is essential for meeting DPO operational requirements.

2. All States are required by the Convention on International Civil Aviation (Chicago Convention) to provide a National Code of airworthiness, legislations, regulations, norms and practices. Some of these national regulations are mentioned in the Aeronautical Information Publication (AIP) issued by or with the authority of each State. State regulations are based on the International Civil Aviation Organization (ICAO) Standards and Recommended Practices (SARPs) contained in the 19 Annexes to the Chicago Convention. Annex 6: Operation of Aircraft requires every air operator to develop an operation manual for the use and guidance of the operational personnel. Each troop-contributing country (TCC) develops its own military flight regulations.

3. Aviation support has been an essential part of DPO since it was set up in 1993. While there have been changes to the management, structure and safety of aviation support since 1994, it underwent major restructuring in 1998 with the introduction of an integrated Aviation Programme.

4. As the Aviation Programme evolved within the Department of Operational Support (DOS), changes in terms of scope, direction and responsibilities, alongside enhancements in technical criteria and aviation infrastructure occurred. To reflect these developments in standards and roles, it was necessary to update the United Nations Air Operations Manual, which became this DOS Aviation Manual.

5. The first edition of the DOS Aviation Manual was published in 2005. Since then, there have been enormous changes in the global aviation industry, as well as emerging aviation initiatives, the restructuring of DPO, creation of DOS, implementation of the Global Field Support Strategy and new challenges in the peacekeeping environment. All this meant the need for a holistic revision of the DOS Aviation Manual. This new edition reflects all these changes, incorporates new best practices and lessons learned from field experience.

6. This Manual has been developed in line with the AVSTADS. It is based on the evolution of United Nations peacekeeping operations and aviation industry practices, and in line with the Quality Management System principles established by the Air Transport Service of DOS.

SCOPE AND APPLICABILITY

7. The provisions of this Manual apply to all United Nations Missions and UNHQ personnel who are assigned the responsibility of oversight, managing, supervising and executing aviation related services.

8. Compliance with this Manual is mandatory and mission leadership have primary responsibility for its implementation.

9. This Manual recognises the fact that field missions vary in mandate, organizational structure and tasks, and that specific operational dynamics may exist. This DOS Aviation Manual provides criteria, policy guidelines, procedures and practices with which also air carriers and TCCs must comply, when registering or engaging in United Nations air operations contracted by DOS.

SUMMARY OF THE MANUAL

10. This Manual provides technical criteria, policy guidelines, procedures and practices in line with the 19 Annexes of the Convention on International Civil Aviation, Aviation Standards for Peacekeeping and Humanitarian Operations (AVSTADS) and Department of Peace Operations (DPO) military aviation manual, directives and policies. It provides guidance to the field entities and to the UNHQ, on commercial and military aviation, including UAS, providing aviation services to the Organization.

B. AIR TRANSPORT SERVICE – MISSION STATEMENT

"Deliver safe, secure, effective and efficient aviation services."

11. While each United Nations field mission is different, three basic principles are to be followed:

- **First**, operational safety and security shall not be compromised for any reason.
- **Second**, in carrying out the mission mandated objectives, AVSTADS, all United Nations aviation civilian and military manuals, policies, directives must be followed at all times.
- **Third**, without compromising the first two principles, the most cost-effective operational performance and efficiency must be maintained.

12. Based on these three principles, it is essential that the aviation operational support provided to United Nations field missions shall be:

- **Responsive** to the needs of the mission and able to support all levels of anticipated air transport requirement
- **Economical** with regard to cost-efficiency, where consistent with maintaining safety and security, and in accordance with the aviation operational standards
- **Flexible** and able to be agile, effective and timely in response to changing logistic, administrative and operational requirements
- **Safe**, by satisfying the three requisites above, without jeopardizing people and resources, and observing the established DOS aviation regulatory regime
- **Secure,** by protecting the resources (personnel, aircraft, equipment, etc.) from unlawful interference by following aviation security standards.

C. PURPOSE

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E. ORGANIZATION AND FUNCTIONS

E.1. The United Nations System Structure

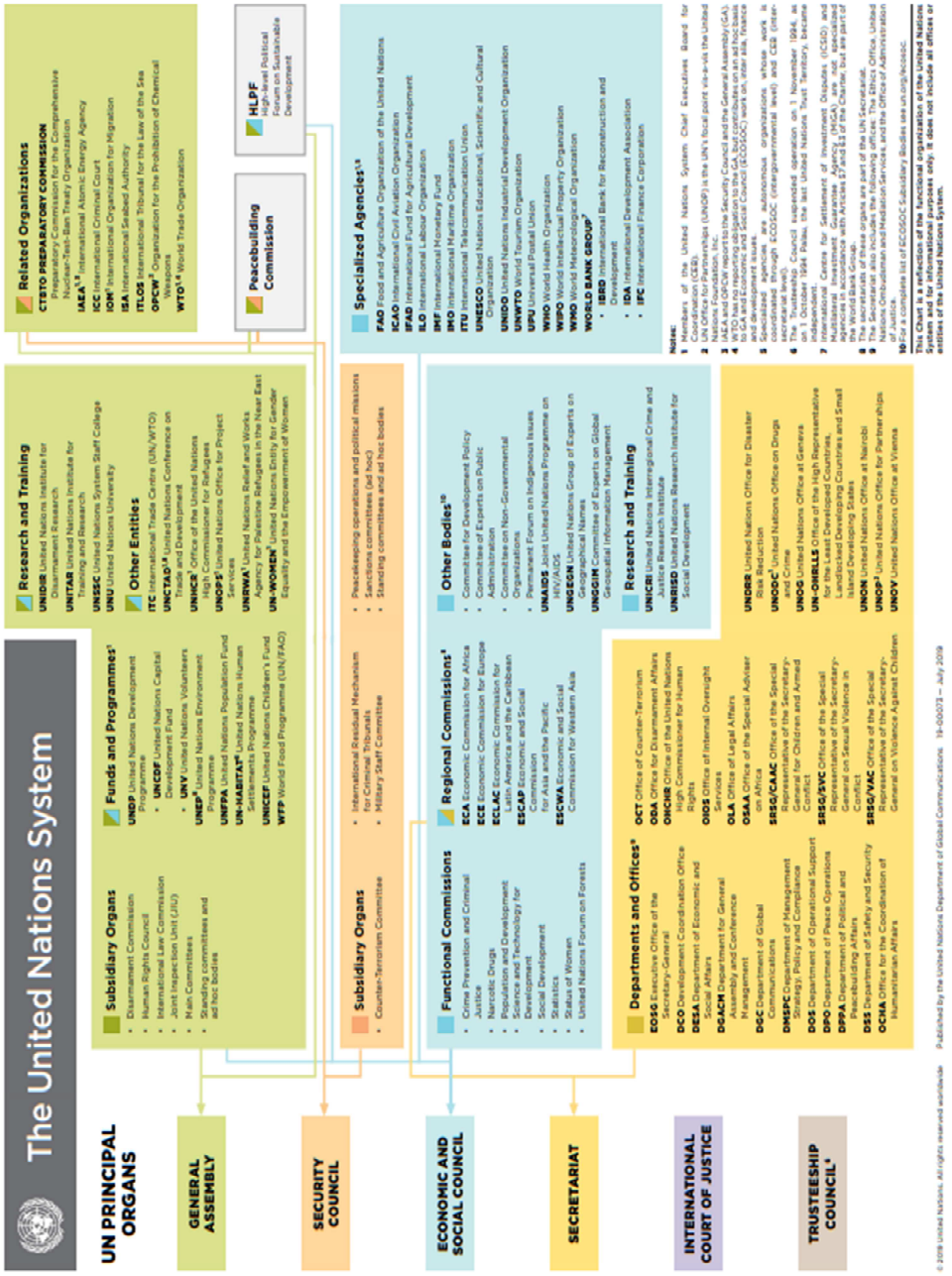


Figure 1. The United Nations System Chart (July 2019)

E.2. Department of Peace Operations (DPO)

23. United Nations peacekeeping missions provide the most visible presence in the resolution of a conflict environment. The Department of Peace Operations (DPO) works with other United Nations agencies such as the High Commissioner for Refugees (UNHCR), the World Food Programme and the Office of the High Commissioner for Human Rights (OHCHR). Peacekeeping often deals with problems associated with refugees and displaced persons and contributes to reconciliation and reconstitution of essential elements supporting United Nations operations.

24. DPO oversees the establishment, expansion and ongoing operations of United Nations peacekeeping activities. That function included providing administrative support to missions up to 1 July 2007, when the General Assembly approved the restructuring of the department and the establishment of the Department of Operational Support (DOS), which would report to the Department of Peace Operations on peacekeeping matters.

25. Under the arrangement, DPO maintains responsibility for the political direction of peacekeeping operations, while DOS is responsible for administrative and logistical support. DOS also provides support services to the Department of Peacebuilding and Political Affairs (DPPA) in the creation and servicing of special political missions. Consequently, in peacekeeping and special political missions, the overall authority and responsibility for administrative functions in DOS at Headquarters are vested in the Under-Secretary-General for Operational Support.

26. The organizational structure of peacekeeping operations reflects in part the dual reporting and accountability lines with regard to the management and operation of peacekeeping missions.

27. Peacekeeping operations have traditionally involved the deployment of military personnel from contributing nations, under United Nations command, in order to control and resolve armed conflicts. The implementation of peacekeeping objectives has become more challenging, as world events are more commonly characterized by civil wars and other conflicts within States, which threaten international peace and security. Frequently, these conflicts take place between multiple armed factions with varied political objectives and fractured lines of command. Security Council resolutions establishing peacekeeping missions are mandated to perform and support United Nations civilian and military functions to maintain peace, to enable reconstruction and institution-building to commence.

28. The phrase “peace operations” is a contentious one. Broadly speaking, “peace operations” may be described as a generic phrase for all operations supported by DPO and mandated as operations by the Security Council under Chapters VI, VII or VIII of the United Nations Charter. Peacekeeping missions generally fall into these categories:

    - “traditional” peacekeeping missions (e.g. UNMISS);
    - multidimensional peacekeeping missions (e.g. MONUSCO);
    - political and non-military missions (i.e. UNAMA);
    - transitional administration missions (i.e. UNMIK).

29. “Peace operations” is therefore a useful phrase for describing the range of functions carried out by DPO: typically, “traditional” peacekeeping, support to DPPA and other field missions, and other responsibilities mandated by the United Nations Security Council.

E.3. DEPARTMENT OF OPERATIONAL SUPPORT (DOS)

30. The Department of Operational Support (DOS) is under the Under-Secretary-General for Operational Support and is the main supporting department for conducting field operations. The department provides administrative and logistical support services to DPO and DPPA,

as directed by the Secretary-General, through the delivery of dedicated support to United Nations peacekeeping operations, special political missions and other field presences, henceforth referred to as “field operations”. This includes services in the areas of human resources, finance and budget, conduct and discipline, supply chain management and logistics, information and communication technology.

31. DOS ensures the integration of efforts with DPO and DPPA, maintaining arrangements for coordination, consultation and information-sharing, to formalize relationships and coordinate strategic advice, policy and political guidance with different partners in support of field operations. DOS participates in integrated task forces, when established, for any mission, along with other United Nations entities.

E.4. OFFICE OF SUPPLY CHAIN MANAGEMENT (OSCM)

32. The Office of Supply Chain Management (OSCM) is under the Assistant Secretary-General for the OSCM. The Office covers a wide scope of services including supply chain planning and performance management, logistical support, procurement, vendor management and supplier diversity, aviation safety, and uniformed capabilities support. In addition to operational services and support, OSCM also provides advisory services and guidance to client missions.

E.5. LOGISTICS DIVISION (LD)

33. The Logistics Division (LD) provides strategic direction and advice on logistical matters, monitors and executes the delivery of strategic transportation; and offers specialized support services in key functional areas, including passengers and cargo air and ground transport, engineering, medical, fuel, rations and general supply. The Division also leads global integrated supply chain planning to facilitate demand, source and delivery planning across all technical areas within its functional scope.

E.6. AIR TRANSPORT SERVICE (ATS)

34. The Air Transport Service (ATS) is the office primarily responsible for managing the United Nations Headquarter Aviation Organization and Programme. It provides advice and technical expertise to the senior leadership, for the decision-making process. At the mission level, it provides technical advice, standards, policies, procedures and guidance for implementing air operations, as well as supporting and monitoring all areas of aviation activity. In addition, ATS provides the heading guidelines for planning, organizing, training and equipping field missions with air assets, personnel and aviation services, along with the criteria for assessing and evaluating the overall aviation operation under the scope of a Quality Management System.

35. ATS reports directly to the Office of the Director of LD, Office of Supply Chain Management (OSCM) in DOS.

36. Specific functions under the authority of the Chief of ATS are outlined below.

E.6.1. Regulatory compliance and management policy

37. Regulatory: ATS establishes standards, policies, procedures and practices for the entire air operations in order to safely carry out the mission-mandated objectives authorized by the Security Council resolutions and in compliance with the *International Civil Aviation Organization (ICAO) Convention on International Civil Aviation (Chicago Convention)* and its Annexes.

38. Policy/directives: ATS establishes internal policies, procedures and directives for technical and administrative management. It provides advice to Senior Management at United Nations Headquarters and field missions on aviation-related matters.

E.6.2. Planning

39. Corporate planning/development: ATS is responsible for strategic business planning for the Aviation Section and overview of all aviation aspects of a new field mission start-up planning, concept of operations design and ongoing development.

40. Budget preparation and analysis: ATS provides financial information, cost estimates for aviation requirements and monitoring of budget expenditures.

41. Accounting: ATS verifies Aircraft Use Report (AUR) processing and contractual invoicing payments.

E.6.3. Human resources

42. Personnel: In terms of personnel, ATS:

    42.1. Analyses the aviation personnel requirements in conjunction with the field missions, coordinating with DOS and Field Personnel Division for the recruitment of these personnel and for progressive specialist aviation personnel career development;

    42.2. Participates in the professional qualifications evaluation and recruitment process of the Chief Aviation Officers and Chief of Units personnel within the field missions and ATS;

    42.3. Upon field mission recruitment of aviation mission personnel, provides the necessary technical clearance of key aviation positions in field missions, according to the professional qualification requirements established in the AVSTADS.

43. Training: ATS conducts formal initial and refresher aviation officer training courses, monitors mission's on-the-job training Programmes and coordinates all training needs for ATS personnel in coordination with the integrated mission training centre or training focal point.

E.6.4. Aircraft/equipment/services contracts and management

44. Contract management: ATS participates, along other HQ stakeholders, in the acquisition of aircraft contracts, equipment and support services. ATS acts as the contract manager of the said contracts while delegating the daily monitoring to the field missions.

45. Technical compliance: ATS provides oversight of technical contractual matters in conjunction with the field missions.

E.6.5. Quality assurance/standards – regulatory compliance

46. Quality Assurance Programme: ATS manages and executes the Aviation Quality Assurance Programme, as an integral part of a Quality Management System.

47. Standardization: ATS develops technical standards, polices, procedures and guidelines.

E.6.6. Strategic operational management

48. Fleet management: ATS provides oversight for fleet planning and composition of new and ongoing field missions. It verifies and ensures the efficient utilization of United Nations air assets.

49. Performance monitoring control: ATS uses a business intelligence model to monitor fleet performance, as part of the decision-making process.

50. Strategic operational guidance: ATS provides strategies for asset/resource sharing, strategic airlift support, segment optimization, etc., to yield benefits on efficiency, operational flexibility, responsiveness and effectiveness.

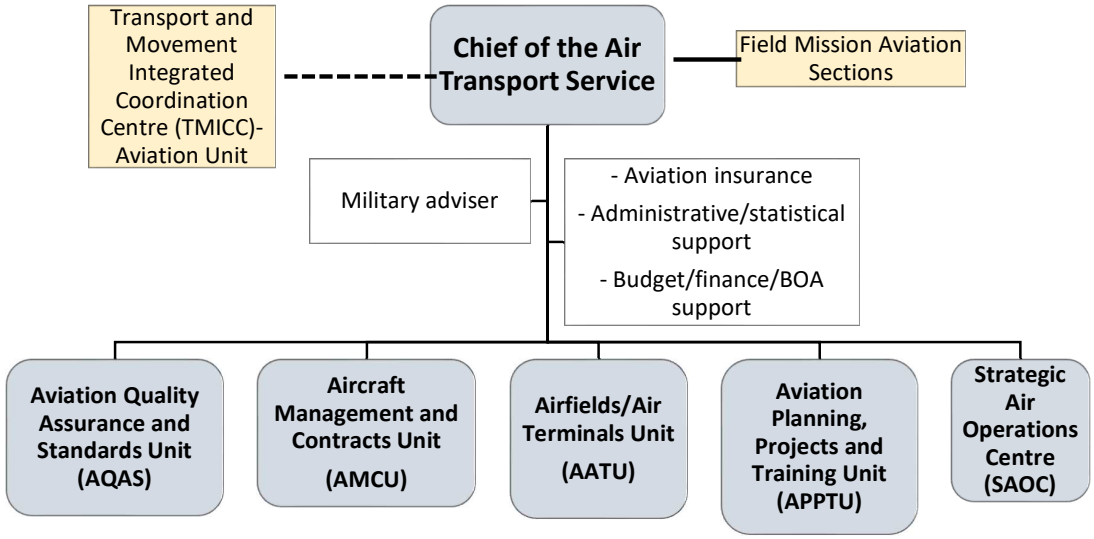


Figure 2. Structure of the Air Transport Service

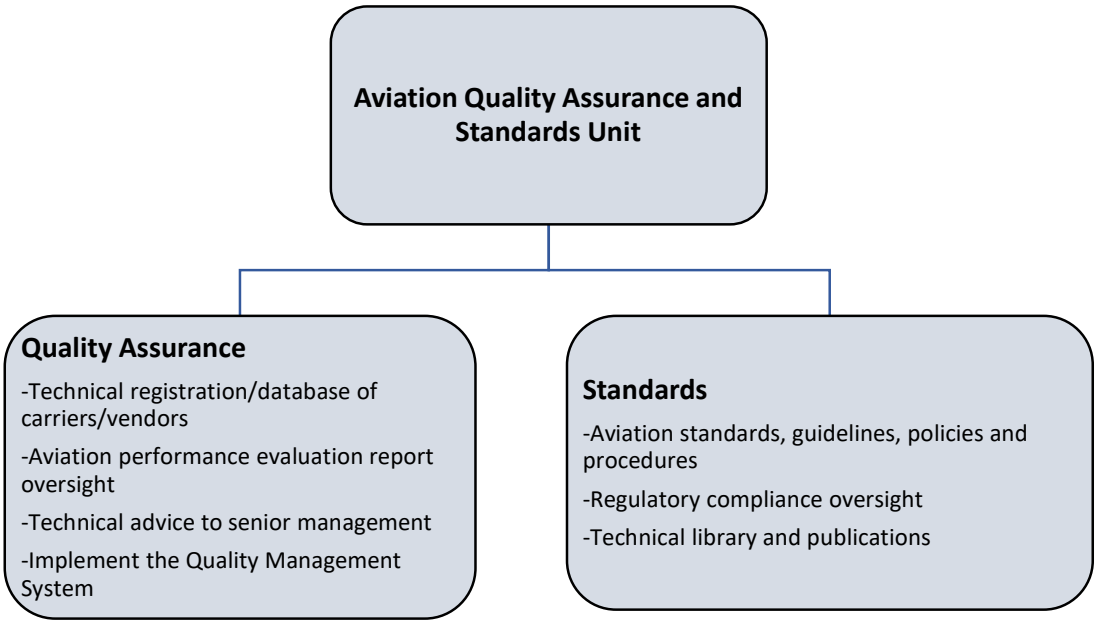


Figure 3. Structure of the Aviation Quality Assurance and Standards Unit (AQAS)

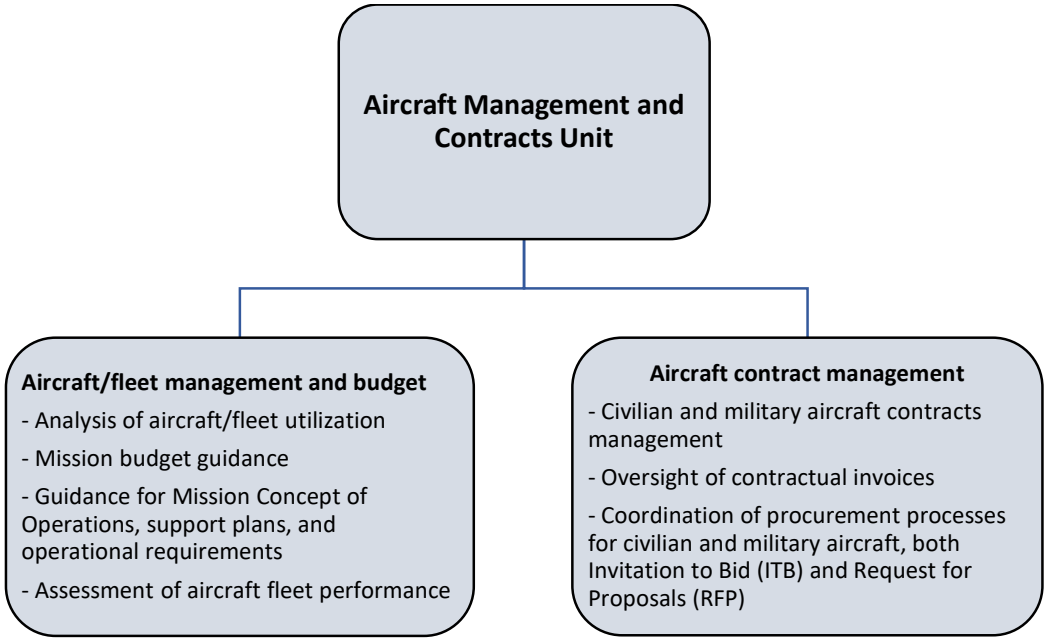


Figure 4. Structure of the Aircraft Management and Contracts Unit (AMCU)

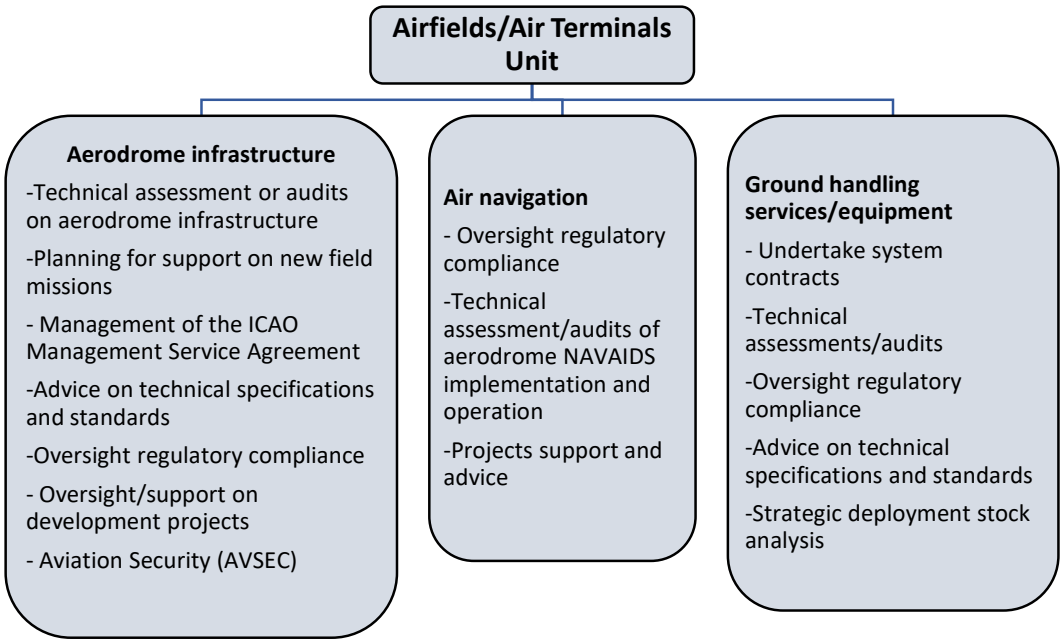


Figure 5. Structure of the Airfields/Air Terminals Unit (AATU)

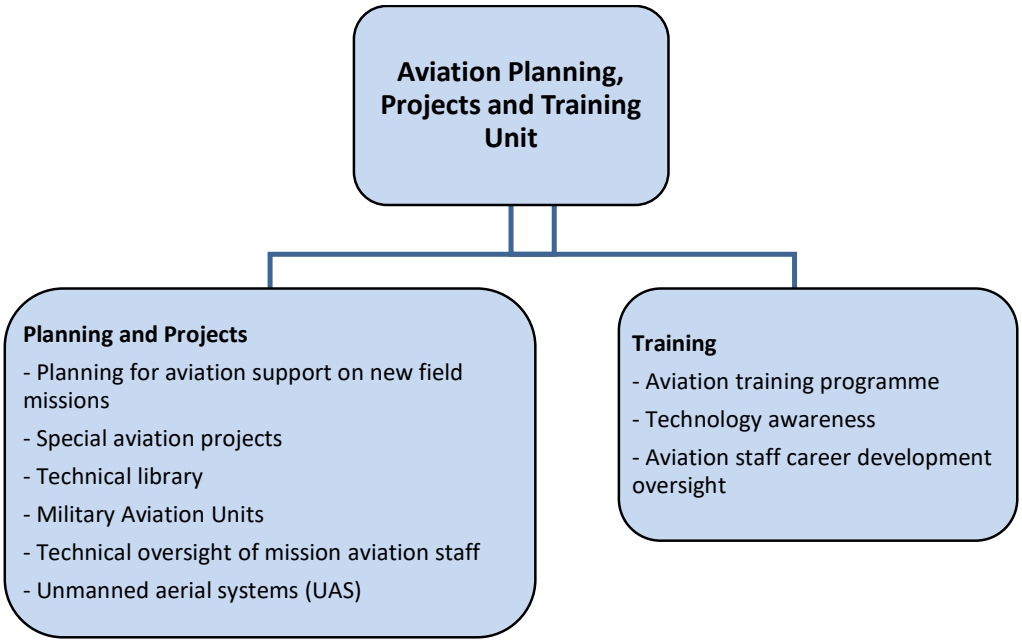


Figure 6. Structure of the Aviation Planning, Projects and Training Unit (APPTU)

E.6.7. Strategic Air Operations Centre (SAOC) – Global Service Centre, Brindisi

51. The core functions of SAOC include:

- Strategic flights operational planning;
- Satellite air tracking and monitoring;
- Coordination of strategic airlift;
- Operations/Strategic movement of personnel/troops;
- Aircraft operational performance analysis;
- Training.

E.7. Field mission: Aviation Section organization

52. In each field mission where DOS aviation assets are deployed, an Aviation Section shall be established. This section is responsible to the DMS/CMS for all aspects of the civilian and military air operations.

53. The Aviation Section is responsible for conducting uninterrupted aviation service that is safe, effective, efficient, agile and reliable in support of the Mission's mandate through the day-to-day management of the mission's air assets and the development of the necessary aviation infrastructure. The Aviation Section shall be composed of Mission Air Operations Centre, Airfields/Air Terminal Unit, and Technical Compliance Unit.

54. The Aviation Section falls under the direct authority of the Chief of Service Delivery (CSD). The overall functions and responsibilities of the above-mentioned Units are explained in this chapter and shall be detailed in the respective mission Aviation Section Standard Operating Procedures (SOPs).

55. Also, in large missions, due to the size and complexity of air operations, an Aviation Quality Assurance cell should be established, reporting to the Chief Aviation Officer (CAVO).

56. Furthermore, the Budget functions may be assigned out of the scope of the Aviation Technical Compliance Unit (TCU), as a separate cell reporting to the CAVO.

57. All of the above shall be specified in the Aviation Section's SOPs.

58. Aviation Sections within field missions are, according to the USG DOS Supplementary guidance on mission support structures of September 2017, structured as established in this Manual in order to maintain a standard organizational structure and to allow the basic functions to remain essentially the same.

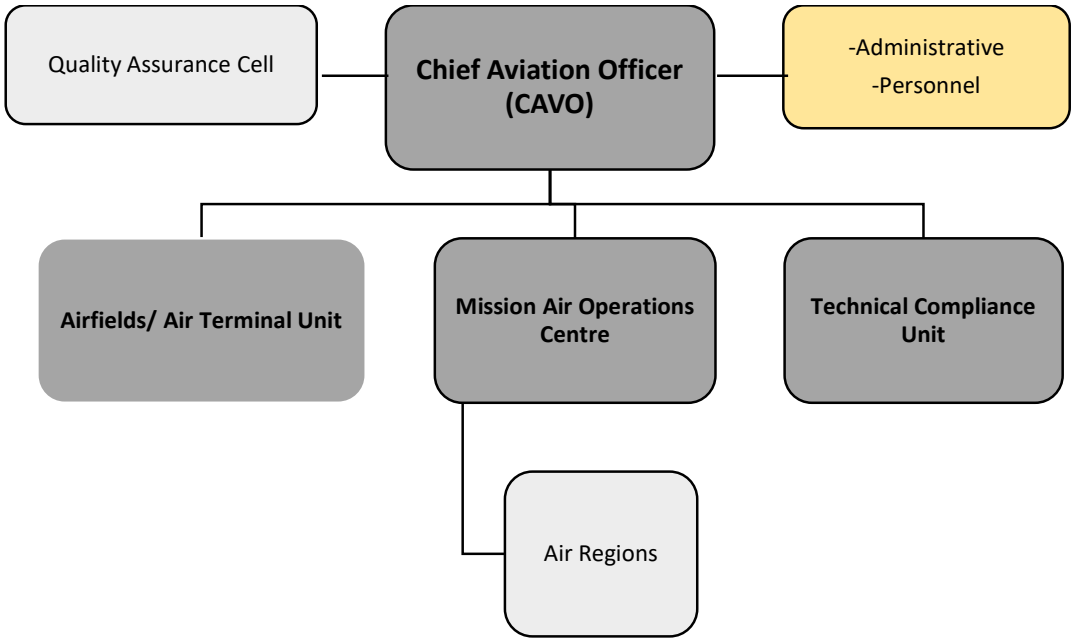


Figure 7. Model structure of a field mission Aviation Section

E.7.1. Mission Air Operations Centre

59. The Mission Air Operations Centre is responsible for coordinating and tasking the mission flight operations. The unit is headed by an Air Operations Officer, who is accountable to the CAVO.

60. The functions of the unit shall include, but are not limited to, the following:

- Supervise all mission flight operations, including pre-task review, aircraft planning, scheduling, tasking, and aircrew oversight;
- Develop, implement and maintain an applicable set of SOPs for the unit;
- Provide for Aviation Risk Management (ARM), using the mission integrated security threat assessment reports and the established Aviation Risk Management Policy;
- Perform Flight Following, aircraft satellite tracking and ensure communications are effective at all times of the flight;
- Provide aeronautical information when local services are not established/adequate;
- Coordinate for emergency response related actions: Emergency Crash and Rescue (ECR) and Search and Rescue (SAR).

61. To accomplish the primary objective of ensuring that United Nations aviation assets are safely, efficiently and effectively operated, the unit shall:

- Ensure that the Air Tasking Order (ATO) is properly authorized, specifically that the contractual scope, performance capabilities of the aircraft and aircrew assigned are met and that the task is achievable within the operational risk assessment's acceptable levels for civil or military operations;
- Ensure that the passenger and cargo manifest and aircraft flight dispatch documentation (Flight Plan) are received completed and authorized;
- Ensure all aircrews are properly briefed on the assigned task and provided with the relevant flight dispatch information (weather report, risk assessment, en-route information, etc.);
- Issue the ATO and publish it within the Daily Flight Schedule (DFS);
- Conduct periodic reviews of flight scheduling, aircrew rotation, operational performance and all aircraft utilization;
- Perform oversight that ECR and Security services are available and suitable for all tasked operations;
- Coordinate for special air tasks for out of mission area flights, United Nations Headquarters support, etc. (overfly/landing permits, aircraft ground services, aircrew support, flight services, etc);
- Coordinate on common tasking with other United Nations agencies conducting air operations in the mission area.

62. Each Aviation Section shall establish the following standard organization for the Mission Air Operations Centre. Any deviation is dependent on the complexity of the air operation.

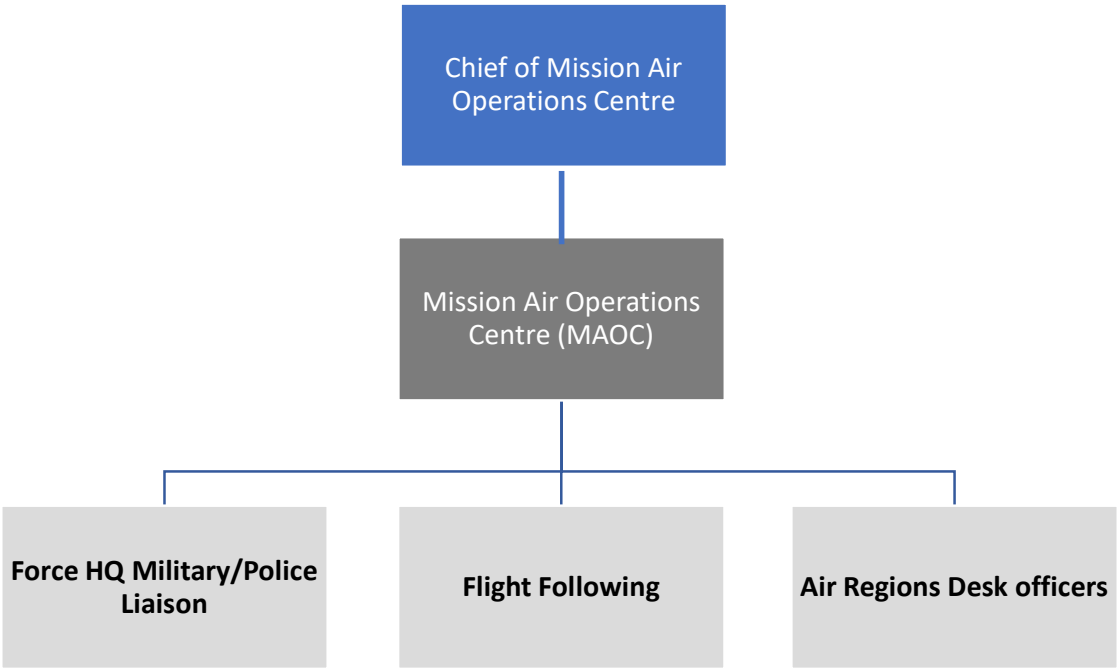


Figure 8. Standard Organization for the Mission Air Operations Centre

E.7.2. Airfields/ Air Terminal Unit

63. The Airfields/Air Terminal Unit is mainly responsible for liaising with the local airport and civil aviation authorities over the adequate provision of aerodrome infrastructure and services, as established in *Annex 14 to the Convention on International Civil Aviation: Aerodromes and related documents*.

64. The unit is headed by the Chief Airfields Support Officer, who is accountable to the CAVO. The functions of the unit include, but are not limited to, the following:

- Provide technical advice, oversight and conduct technical assessments of airfields, landing sites, services and aerodrome-related equipment;
- Ensure that ECR and SAR services are integrated in an Emergency Response Plan (ERP) available for the United Nations air operation;
- Ensure Aviation Security (AVSEC) procedures are established for United Nations aircraft, and all related aerodrome areas (air terminals, hangars, airside premises, etc.);
- Ensure airport ground handling services (GHS) are adequate and available for United Nations aircraft;
- Ensure airport ground support equipment (GSE) is adequate and available for United Nations aircraft;
- Ensure essential Navigational Aid (NAVAIDS), communication and weather forecast services are available for United Nations aircraft;
- Coordinate with Movement Control (MOVCON) for passenger and airfreight management services and related matters;
- Management of GHS and GSE contracts, to ensure all contractual provisions are carried out within technical standards and administrative parameters.

65. Each Aviation Section shall establish the following standard organization for the Airfields Terminals Unit. Any deviation is dependent on the complexity of the air operation.

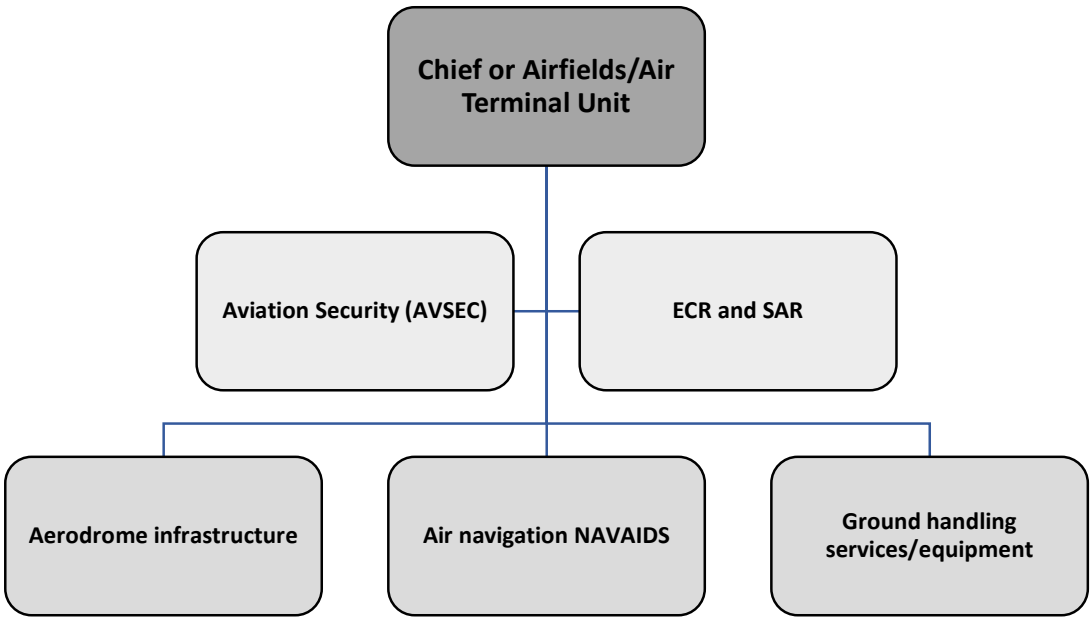


Figure 9 Standard Organization for the Airfields/ Air Terminal Unit

E.7.3. Technical Compliance Unit

66. The Technical Compliance Unit (TCU) is responsible for the management of United Nations contracted aircraft under an Aircraft Charter Agreement, Letter of Assist (LOA), pro bono agreement or Memorandum of Understanding (MOU). It provides for aircraft utilization statistics, cost control and Aviation Budget preparation. The unit is headed by the Technical Compliance Chief Officer, who is accountable to the CAVO. The functions of the unit include, but are not limited to, the following:

- Manage liaison with DOS-contracted aircraft to ensure all contractual provisions are carried out within technical standards and administrative parameters;
- Monitor aircraft/fleet utilization for civil and military aircraft assigned to the mission;
- Perform aircraft acceptance inspections in conjunction with Aviation Safety;
- Maintain and control AURs, crew and aircraft contracts databases;
- Verification and processing for cost recovery or reimbursement of all operational expenses (fuel, ground services, navigation fees, crew expenditures, etc.) related to the contracted aircraft utilization;
- Aviation Budget preparation and accounting.

67. Each Aviation Section shall establish the following standard organization for the TCU. Any deviation depends on the complexity of the air operation and shall be specified in the mission Aviation SOPs.

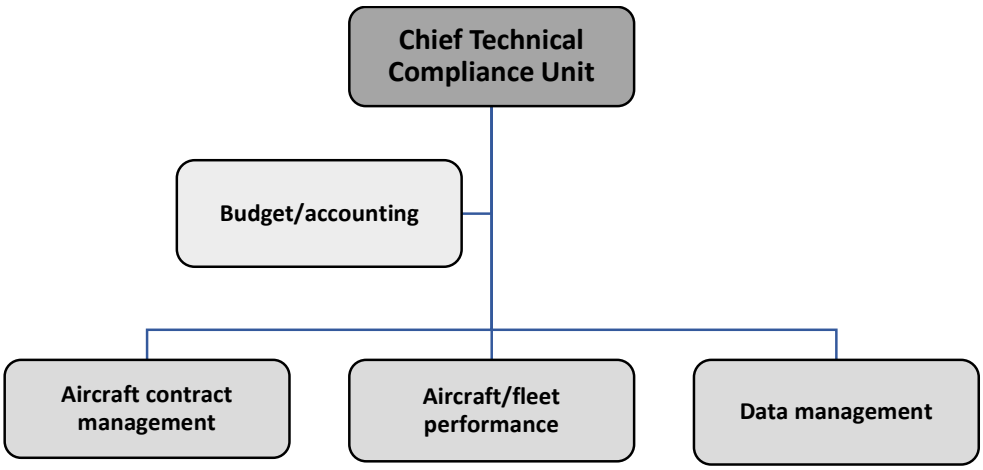


Figure 10. Standard Organization for the Technical Compliance Unit

E.8. Field mission – aviation authority and functions

68. The DMS/CMS on each field mission is accountable and responsible, as delegated by the Head of Mission, for the proper utilization of all mission air assets, whether they are provided under pro bono agreement, LOA or commercial contract. Also, the DMS/CMS is responsible for ensuring that these assets are operated in a manner consistent with the established United Nations aviation regulatory regime, as per Chapter F of this Manual.

69. The DMS/CMS delegates this responsibility to the appointed CAVO in the mission. The CAVO, as delegated by DMS/CMS authority, is responsible for all aspects of aviation in the field and for providing timely advice and counsel to the DMS/CMS, under the oversight and guidance of the Chief of the Air Transport Service – as the sole United Nations Headquarters Aviation Programme Manager – (in LD, OSCM of DOS).

70. In line with the mission support structure, those field missions considered large should include a Deputy CAVO position staffed by a military seconded officer or a staff officer, in order to assist the CAVO on daily operational matters, due to the size and complexity of the mission.

71. In the absence of the CAVO and in case a Deputy CAVO does not exist, the CAVO shall designate an Officer-in-Charge (OiC) to the Aviation Section. This OiC ideally should be an international staff member, assigned to the Aviation Section, and could be the Chief of the Air Operations Unit, Technical Compliance Unit or Airfields Terminals Unit. The OiC will assume all duties and responsibilities of the CAVO during the absence period.

72. The mission shall not, at any time, delegate this authority and responsibility to an individual with no aviation experience/background nor to someone outside the administration chain of command/authority, as specified above.

E.9. Aviation safety

73. The United Nations has established a formal Aviation Safety Programme. Each mission should have a DOS-designated Aviation Safety Officer reporting to the mission DMS/CMS. If there is no assigned Aviation Safety Officer, a Regional Aviation Safety Officer shall provide Aviation Safety guidance to the CAVO. Guidance on the Safety Oversight Programme and Safety Management System (SMS) are contained in the DOS Aviation Safety Manual. Aviation Officers will coordinate and communicate with the CAVO on the observance of the Safety Oversight Programme and SMS.

F. REGULATORY FRAMEWORK

F.1. DOS aviation regulatory regime

74. In 2000, ICAO informed the Department of Peacekeeping Operations (DPKO)[1] that the department should establish regulatory functions and roles to standardize their air operations. Currently, the Air Transport Service is performing this regulatory role through the main standardized regulatory document AVSTADS. This Manual provides an adequate standardized framework for operational procedures, specifications and technical guidelines, to produce a high level of effectiveness, efficiency and operational safety. It comes mainly under the scope of the *Convention on International Civil Aviation (Chicago Convention) and Annexes*.

75. The technical elements of this Manual's regulatory framework consists mainly of the *Chicago Convention and Annexes* and related documents, national civil aviation regulations (country of operations, country of aircraft registry or country of Air Operator Certificate or AOC) and TCC Government or military regulations.

76. **The *Convention on International Civil Aviation* is not applicable for military operations.** Military operations come under the scope of this Manual, their own Government regulations, and the *United Nations Peacekeeping Missions Military Aviation Unit Manual*.

77. In addition, military aviation SOPs in line with the DOS aviation regulatory regime, shall be developed by each Force Headquarters (FHQ) in coordination with the Aviation Section for the particular mandated operation in the field mission.

78. The UN/DOS Aviation Regularity Regime establishes and clearly defines, at the highest Senior Management level, the guidance and principles relating to United Nations Headquarters air transport operations, as well as the commitment and responsibilities required to meet these. Following this policy, operations shall be in full compliance with all

[1] DPKO became DPO in 2019.

relevant regulatory requirements, maintaining and supporting the most efficient and effective utilization of air assets, while at the same time striving to achieve the highest levels of quality and operational safety.

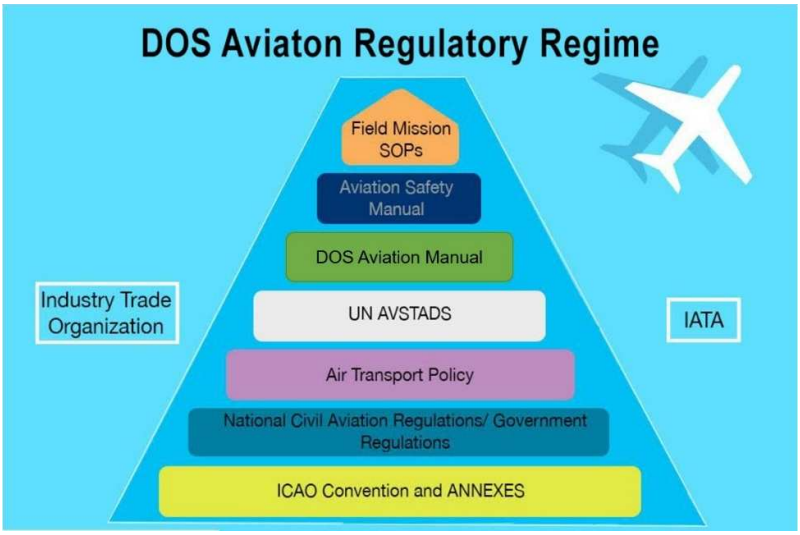


Figure 11. DOS aviation regulatory regime

79. In the absence of any State aviation regulations, or when the national Civil Aviation Authority (CAA) is not fully exercising its authority in accordance with the provisions of the *Convention on International Civil Aviation*, the *ICAO Annexes* shall be followed to the maximum extent possible.

80. If there is doubt about which regulation is applicable, the field mission must comply with the most restrictive interpretation.

81. An exception to this rule may only apply for military aircraft operating on tasks of a military nature, when operational considerations outweigh the risks associated with such operations. These special flights must specifically be coordinated by the Force Commander and authorized by the Special Representative of the Secretary-General (SRSG) or his/her designated person based on the particular ARM level.

82. In line with this regulatory regime, the International Air Transport Association (IATA) manuals and other industry trade organizations' references and accepted aviation best practices should be used, when applicable.

F.2. Management and tasking control of United Nations air assets

83. The head of a field mission is accountable overall for the Aviation Safety and Air Operations (United Nations aviation staff, equipment/services and aircraft). The DMS/CMS is responsible for the effective, efficient and safe utilization of all the mission's aviation resources.

84. The designated CAVO within the mission is responsible for the overall management and control of the aviation resources, under the delegated authority of the DMS/CMS.

85. The scope of responsibilities includes all aircraft and aviation resources assigned to the mission. The CAVO is also responsible for maintaining close coordination with the mission Aviation Safety Officer for compliance with the DOS Aviation Safety Programme.

86. In accordance with the *Convention on the Privileges and Immunities* of the United Nations, all DOS-contracted aircraft and operators are exempt from taxes and customs duties. Member States may offer special status regarding this provision.

87. In 1992, the United Nations requested ICAO, and it was approved, to register the United Nations call sign 'UNO' prefix for use by DOS-contracted aircraft, based or chartered by the United Nations, while these aircraft are under the direct tasking control of the United Nations. To distinguish their special status, United Nations aircraft are designated by being painted white with regulation United Nations markings in black.

88. The United Nations utilizes chartered aircraft provided by operators from different contracting States, similar to commercial airlines. However, United Nations aircraft differ since they do not operate for hire, and are under a non-profit air operation. The United Nations does not hold an AOC and **does not exercise operational control of any aircraft.** It only exercises **tasking coordination/control**, which consists of flight scheduling and task management of the air assets.

F.3. International Civil Aviation Organization (ICAO)

89. The International Civil Aviation Organization (ICAO) is the international specialized agency within the United Nations that establishes SARPs for State Members concerning international civil aviation.

90. The SARPs are applicable for civil aviation only. Military aircraft are exempt and must avoid conflict with national regulations that follow ICAO. Some countries issue special regulations for military aircraft, usually applicable to flights under special conditions. Mission level SOPs should address the conduct of military operations in active civil airspace, and such military operations must be conducted with due regard to commercial operations, particularly when being conducted under different standards of weather minimums or other limiting parameters.

91. ICAO publishes the SARPs in 19 Annexes to the *Chicago Convention*. The various contracting Member States that subscribe to the *Chicago Convention* implemented these Annexes with notified differences according to their legislated laws in the form of national civil aviation regulations.

92. Definitions for ICAO SARPs and Notes are intended to clarify and illustrate various major headings that occur throughout the ICAO Annexes. See the ICAO Annexes for details.

F.3.1. ICAO applicability to DOS Air Operations

93. Since the United Nations is not a State, it is therefore not a contracting party to the *Chicago Convention*. United Nations contracted civilian aircraft mainly operate, for safety purposes, under the scope of the AVSTADS and this Manual, based on the *ICAO Annexes and related documents*, in a similar operational way to non-scheduled commercial aviation.

F.4. International Air Transport Association (IATA)

94. The International Air Transport Association (IATA) is an international trade body created by a group of scheduled airlines. IATA also represents, leads and serves the airline industry in general. Airlines must become members of IATA in order to participate in international aviation.

95. IATA publishes manuals containing industry airline regulations to be followed by all IATA member airlines. These regulations are not issued under ICAO; however, they are accepted industry best practices.

96. One example of this is IATA *Dangerous Goods Regulations Manual* in relation to Annex 18 to the Convention on International Civil Aviation: The Safe Transport of Dangerous Goods by Air, and the associated *Technical Instructions for the Safe Transport of Dangerous Goods by Air* (Doc. 9284-AN/905 as amended). IATA's manual is recognized as the sole legal source material in the air transport of dangerous goods among ICAO Member States.

97. DOS considers IATA to provide acceptable complementary guidance for additional requirements that reflect industry best practices.

F.5. Civil Aviation Authority (CAA)

98. Each contracting Member State to ICAO has the responsibility to establish its own national regulatory system in line with the 19 Annexes to the *Chicago Convention*.

99. In order to discharge its responsibility, each State legislatively enacts aviation law that provides for the development and promulgation of a Code of Air Navigation Regulations. In the development of this code, each State adopts provisions that govern its role in the implementation of the operational regulations.

100. United Nations aircraft must comply with the aviation regulatory requirements established by the Host Nation's national CAA and under bilateral agreements with various national CAA under which the aircraft AOC and registry is affected.

F.6. Aviation Standards for Peacekeeping and Humanitarian Air Transport Operations (AVSTADS)

101. Commercial air operators comply with the rules and regulations of their respective CAA and, through them, with ICAO SARPS. However, differences in national regulations and practices might exist that could potentially generate different operational standards.

102. AVSTADS were developed pursuant to specific recommendations issued by ICAO to facilitate interoperability.

103. These standards shall apply to all persons or organizations operating and/or maintaining aircraft operating for and/or on behalf of the United Nations. See the AVSTADS for details.

104. United Nations-contracted military aircraft operate under the scope of this Manual and the *United Nations Military Units Aviation Manual (UNMUM)*.

F.7. Status of Forces Agreement (SOFA)

105. A Status of Forces Agreement (SOFA) is the basis for the drafting of individual agreements to be concluded between the United Nations and countries on whose territory a peacekeeping operation is deployed. As such, it is subject to modifications that may be agreed upon between the parties in each case. Provisions within the SOFA have a major impact on United Nations aviation operations.

106. At a minimum, the SOFA should include the following provisions:

F.7.1. United Nations flag and vehicle markings

107. Vehicles, vessels and aircraft of the United Nations forces and operations shall carry a distinctive United Nations identification, which shall be notified to the host Government.

F.7.2. Communications

108. The United Nations forces and operations shall have authority to install and operate radio stations for the purpose of sending and receiving, as well as satellite tracking systems for Flight Following within Air Operations. Also, the government shall provide the United Nations forces and operations with suitable radio broadcasting frequencies and the right to unrestricted communication by radio.

F.7.3. Travel and transport

109. The United Nations forces, operations and their members, as well as international contractual personnel, shall enjoy, together with their vehicles, vessels, aircraft (including chartered aircraft) and equipment, freedom of movement throughout the territory that is coordinated with the host Government.

110. Chartered aircraft of the United Nations forces and operations shall not be subject to registration or licensing by the Government, if all such vehicles carry the third-party insurance required by relevant legislation.

111. The United Nations forces and operations, with their chartered aircraft specifically used for the carriage of authorized personnel by the United Nations, may use airfields without the payment of dues, tolls or charges. However, United Nations forces and operations shall not claim exemption from charges for services rendered.

F.7.4. Recruitment of local personnel

112. The United Nations forces and operations may recruit local personnel as required.

F.8. Additional technical guidance

113. In addition to the above, information contained in the following sources should be considered when conducting air operations or developing the mission concept of operations and related operational documents:

- State AIP;
- Air carriers' Operations Manuals and SOPs legislated by the national CAA of the AOC and aircraft registration;
- TCC national or military aviation regulations;
- DOS, Aviation Safety Manual;
- Aviation Risk Management Policy;
- DOS, Movement Control Manual;
- DPO, United Nations Peacekeeping Missions Military Aviation Unit Manual.

114. Deviations from an Aircraft Charter Agreement or LOA shall only occur after the completion of a proper and formal technical analysis originating in the field mission by the CAVO, authorized by the DMS/CMS and submitted for coordination for approval, at United Nations Headquarters to the Chief of the Air Transport Service.

115. All forms published in this Manual are to be used as standard documentation for the different purposes established.

116. ATS/Aviation Quality Assurance and Standards Unit (AQAS) is authorized to maintain a record of all forms, as well as to assign a codification number to each. Mission SOPs shall contain particular forms for other operational purposes.

G. AIR TRANSPORTATION PROCEDURES

G.1. General information

G.1.1. Scope

117. This chapter provides general aviation administrative and technical procedures and guidelines for the planning and execution of mandated air operations within a field mission.

G.1.2. Utilization of United Nations aircraft

118. DOS-contracted aircraft shall be used for official purposes only, in support of the mission mandate, concept of operations and mission support plan. Determination of whether their use is official falls under the authority of the Head of Mission who may delegate this to the mission DMS/CMS. DOS-contracted aircraft shall not be used to conduct flights for personal use.

G.2. Air transportation of cargo and passengers – general procedures

G.2.1. Transportation of passengers

119. Under ICAO provisions, types of aircraft certified for cargo purposes only cannot be used for the transportation of passengers, except for flight coordinators. Non-compliance for commercially contracted aircraft may expose the United Nations to potential liabilities.

120. On an exceptional basis, such as for flights conducted under conditions of emergency evacuation, threat to life or loss of limb, cargo aircraft may be used for transporting passengers under authorization from the DMS/CMS.

G.2.2. Flight coordinator

121. The CAVO shall determine whether there is a need for a flight coordinator on board an aircraft. This person shall be listed on the manifest. In cases where MOVCON requires a coordinator, this must be coordinated with the CAVO.

G.2.3. Passenger categories

122. The following categories of passenger exist, as established in the UN Movement Control Manual:

- United Nations personnel: All United Nations system accredited international and national staff, including volunteers, Police and Military staff;
- Non-United Nations personnel where travel is related to the implementation of the mission mandate.

G.2.4. Passenger/cargo booking priorities

123. Booking procedures and space authorization shall be determined and assigned by MOVCON, by delegation of the DMS/CMS, based on field mission requirements. See the DOS *Movement Control Manual* for details.

G.2.5. Passenger restrictions

124. The carrying of passengers on board the following flight tasks is not authorized, and only the minimum essential aircrew should be manifested in the following flight operations:

- Aircraft maintenance test flights;
- Flight training or operational exercises to maintain operational proficiency;
- Aircrew familiarization or orientation flights;
- Flights where known hostile conditions exist, unless part of an armed response force or evacuation or crisis response, or in direct support activities in the implementation of mission mandate;
- Flights for the transportation of dangerous goods on cargo-only aircraft types, unless

travelling as cargo monitors on board;

- Helicopter landing site recce flights, except for designated Air Operations and Aviation Safety staff, as well as security elements, if required.

G.2.6. Transportation of infants/children

125. Infants and children may only be transported on board a United Nations aircraft if:
    - An approved child restraint system, properly secured on the aircraft approved passenger seat or berth, is used;
    - The aircraft is properly equipped with certified survival equipment for infants and children (life jackets, survival and first aid kits, etc.);
    - They are accompanied by an adult parent, guardian or attendant designated to attend to the safety of the child during the flight.
126. Infants on board a United Nations aircraft may be held by an adult passenger who is occupying an approved seat or berth, provided that the person being held has not reached his or her second birthday and does not occupy or use any restraining device.

G.2.7. Transportation of pregnant women

127. It is strongly recommended that women in the last trimester of pregnancy do not travel by air. But, if such travel is necessary, it is strongly recommended that the traveller has medical clearance prior to travelling, to determine whether or not there is a risk involved. This procedure does not apply in case of medical or casualty evacuations (MEDEVAC/CASEVAC) authorized by the United Nations Medical Section.
128. MOVCON must authorize the travel of any pregnant passenger and shall advise and coordinate with Aviation Section on all necessary special aviation-related arrangements.

G.2.8. Passengers boarding without MOVCON/Aviation/United Nations personnel

129. Before boarding, the crew shall check the passenger's identification (ID) card against the passenger manifest and approved Movement of Personnel (MOP) document provided before the flight. All passengers must be in possession of a photo ID, valid passport or an acceptable national ID card. In case of passengers not turning up for the flight, the crew shall mark the names as "no show passenger" in the manifest.
130. If passengers do not match with those listed in the manifest, the crew should contact Air Operations for clarification. In case of MEDEVAC/CASEVAC authorized by the United Nations Medical Section, see section G.2.17 below.
131. In cases where a passenger is not listed in the manifest but is in possession of an approved MOP, crew shall contact the MAOC by any available means, for verification and boarding approval. If the contact is not available, the aircrew shall contact MOVCON directly.
132. In cases of CASEVAC transportation that has not been arranged at the base station, the Pilot in Command (PIC) must ascertain the patient's medical condition and obtain at least a verbal approval from Air Operations/MOVCON by any means of communication before boarding a CASEVAC passenger, **unless a threat to life or limb is imminent**.
133. For all other cases, the PIC shall contact MAOC or MOVCON and get at least a verbal approval for boarding. **No passenger boarding is authorized without this approval.**

G.2.9. Cargo

134. Detailed procedures are established in the DOS *Movement Control Manual* and in the air carrier's or TCC Operations Manual. See *Annex 18 to the Convention on International Civil Aviation: The Safe Transport of Dangerous Goods by Air*, and IATA *Dangerous Goods Regulations Manual*.

G.2.10. Transportation of live animals/flora

135. The transport of live animals, including pets, and flora on board a United Nations aircraft is prohibited. See DOS *Movement Control Manual* for applicable exceptions and detailed procedures.

G.2.11. Catering on board United Nations aircraft

136. Catering services are not established as a regular practice on board United Nations flights.

137. When required, these services shall be contracted locally by the field mission or by the air carrier itself, if applicable, and should be commensurate with the flight duration and transits.

138. Aviation TCU is responsible for any necessary related coordination.

G.2.12. Transportation of weapons/ammunition on board civilian aircraft

139. The carriage of weapons and ammunition on board United Nations aircraft is permitted on properly tasked aircraft (via ATO) and strictly in accordance with the provisions of the particular Aircraft Charter Agreement. The DOS *Movement Control Manual* establishes special procedures on weapons and ammunition load preparation, packaging for transportation by air and ground handling in accordance with IATA *Dangerous Goods Regulations Manual.*

140. MOVCON, in coordination with the local Air Operations Officer and the Department of Safety and Security (DSS), shall ensure the adequate storage of weapons/ammunition on board.

141. The air carrier's Operations Manual prevails over the DOS *Movement Control Manual.*

142. No passenger, **under any circumstances**, regardless of rank or position, travelling on a scheduled United Nations flight with regular passengers on board, is allowed to carry on weapons and/or ammunition. Weapons and ammunition must be properly packed and handed over to the aircrew to be properly and securely stored.

G.2.13. Transportation of detainees

143. Detainees shall be transported under United Nations Police/DSS supervision and in prior coordination with Mission Air Operation Centre (MAOC), MOVCON and the PIC. Guidelines for transportation of detainees can be obtained from IATA *Airport Handling Manual* and the air carrier's Operations Manual.

G.2.14. Transportation of physically disabled passengers

144. Passengers with a physical disability, who are to be transported on a non-CASEVAC/MEDEVAC flight, shall report their condition to MOVCON personnel for the necessary coordination with MAOC for any special arrangements on the ground and on board the aircraft.

G.2.15. Transportation of money/valuables

145. Air transport of money or valuables on board United Nations aircraft is a sensitive matter and requires confidentiality.

146. Special AVSEC measures shall be put in place at the airside area for the isolation and protection of the aircraft. This shall be coordinated by the Airfields/Air Terminal Unit (AATU).

147. See DOS *Movement Control Manual* for particular procedures.

G.2.16. Transportation of human remains

148. ICAO and IATA provisions, in line with the World Health Organization (WHO) regulatory framework, emphasize that it is essential to have a corpse "medically prepared and properly delivered in a coffin" before loading on an aircraft. The provisions also stress the procedures for issuing "proper documents" by relevant authorities regarding a corpse, before it is accepted on board an aircraft. As with any cargo, the corpse must be registered on the Cargo Manifest or General Declaration Form. Designated persons (escort) may travel with the human remains. No other passenger besides the escort should be on board the aircraft. See DOS *Movement Control Manual* for detailed procedures.

149. The mission Medical Officer shall determine the need for any special procedures in coordination with MOVCON and the Aviation Section. It is recommended that body bags are always available in every Air Region.

G.2.17. Transportation of patients

150. Passengers with a medical condition shall be authorized by the United Nations Medical Section for transportation on a non-CASEVAC/MEDEVAC flight. They shall report their condition to MOVCON personnel for the necessary coordination with MAOC for any special arrangements/procedures on the ground and on board the aircraft.

151. Medical Section shall be directly responsible for the authorizations and reporting outlined above, as well as for the patient before, during and until the completion of the flight.

152. Medical Section shall provide MOVCON and MAOC with the WHO Standard Medical Protocols and Procedures, to be followed on the ground and during the flight.

153. The above provisions are also applicable for MEDEVAC/CASEVAC flights mentioned in Annex G5 of this Manual.

G.3. Air Tasking – General

154. The complexity of field missions requires proper management of the air operation through an established coordination and planning system. MAOC, under the CAVO authority, is the support element that combines civilian and military staff, and is responsible for providing all the required aviation support for all the mission's operational needs.

155. The Mission Support Centre (MSC) and the Joint Movement Control Centre (JMCC) and Centralized Passenger Booking Office under MOVCON, are established to coordinate all logistics requirements. JMCC is the planning element responsible for managing and coordinating the internal or external movement and transportation of all personnel and cargo in the mission.

156. JMCC, in coordination with MOVCON, determines the optimum method of transportation: by sea, road, rail or air. If air support is required, a request shall be sent to the Aviation MAOC, which shall evaluate the feasibility of the air transportation request and determine the most suitable aircraft to be used, the availability and risk assessment, and issue the ATO.

157. Tasking an aircraft is accomplished through an ATO process. This integrated, centrally coordinated and managed process is aimed at ensuring responsive, safe and cost-effective aviation support that meets operational requirements and provides for optimal flexibility and responsiveness to the head of mission, Force Commander (FC) and other component heads in executing the mission mandate responsibilities.

158. The ATO is the unique legal document, issued by the field mission, based on duly approved tasking sources (Special Flight Request, Military Aircraft Tasking Request, non-revenue flight, etc.), to task and approve a United Nations civilian or military/police flight. Moreover, the ATO provides authority for United Nations staff to coordinate or request airport ground handling services, aircraft fuel, and any operational related equipment/services for the execution of the ATO.

159. Requests for aviation support come from various offices in the mission. Only flights listed on the Daily Flight Schedule are considered “authorized by the mission” and eligible for reimbursement. The CAVO is delegated with the overall responsibility of approving, changing or cancelling ATOs.

160. Military air assets that are required by the United Nations FC on standby for ***specific pre-planned*** tactical/combat/surveillance armed and/or immediate rapid response must therefore be coordinated, requested and scheduled in advance, as above.

161. Once that has been done, the FC has the authority to release the aircraft for the approved task, provided it is in compliance with the United Nations aviation regulatory regime. **At no time, however, does the tactical commander have the authority to further task the aircraft beyond the scope of the original approved ATO.**

162. It is recognized that, on occasions, there may be unforeseen tactical circumstances/emergencies where time and responsiveness are of the essence. In these cases, tasks can be verbally authorized through the MAOC and all administrative documentation followed up retrospectively.

163. Field missions shall develop procedures on their SOPs regarding ATO changes, considering updated ARM, crew duty time, weather forecast, etc.

164. It is not necessary to restart the ATO approval process for military flight changes or modifications by the Force Headquarters (FHQ). When modifications are required by the operational situation, these changes to the ATO shall be authorized by the FC (or delegated) within the risk-acceptance authority specified in the ARM matrix, with prior coordination with MAOC. Airspace coordination shall be ensured before the changes are implemented. The amendment of DFS/ATO shall be issued as soon as practically possible.

165. The original issued ATO shall reflect the condition of amendment and include the necessary modifications.

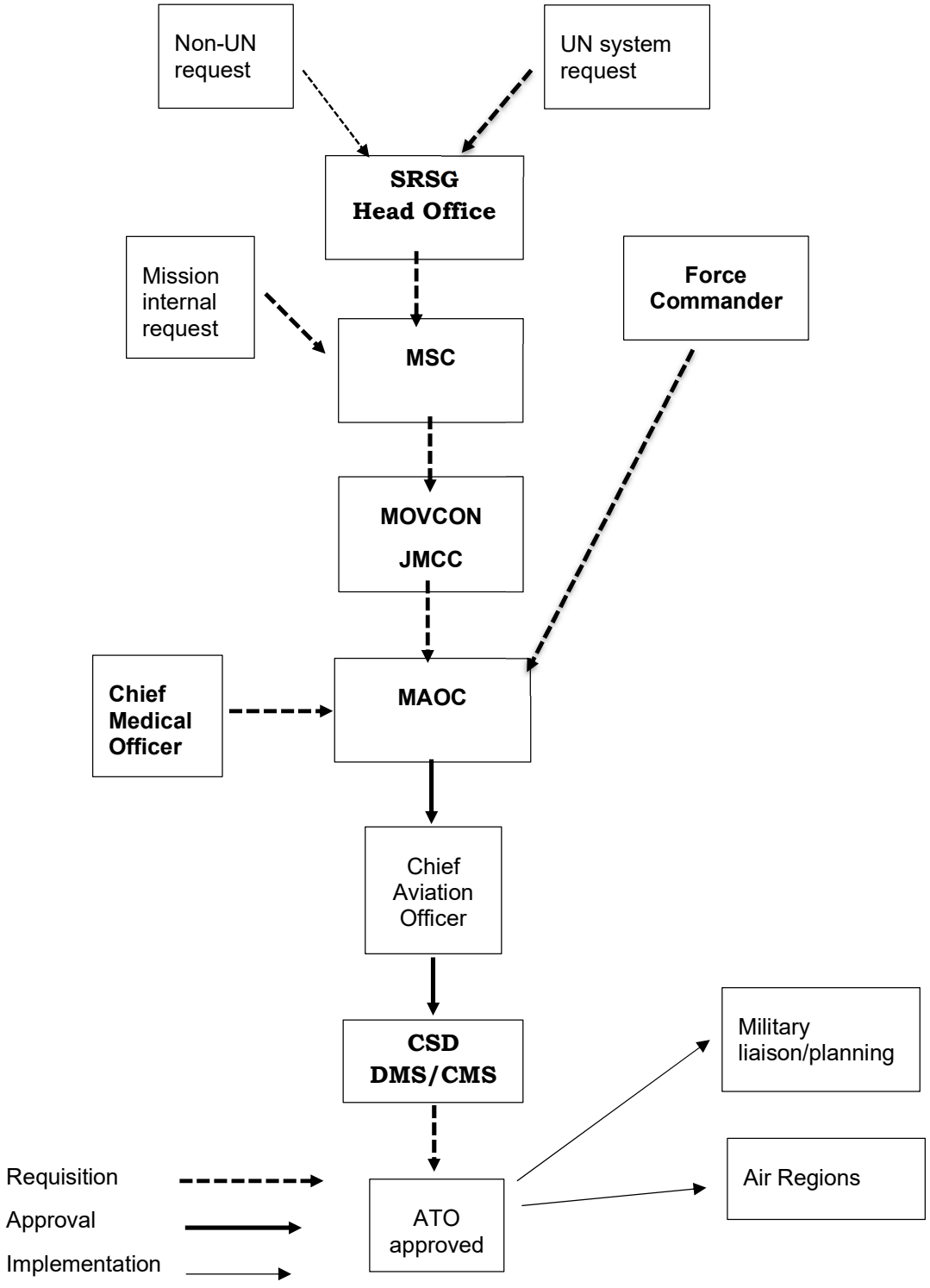


Figure 12. Air Tasking Order - General process flow

G.3.1. Air tasks description

166. Air Transport taskings within the field missions are divided into four major categories, irrespective of whether civilian or military aircraft are in operation:

- Regular flights;
- Special flights;
- Military operation flights;
- Non-revenue flights (NRF).

167. As directed by the DMS/CMS, United Nations aircraft are assigned to meet the following operational and administrative requirements in support of the mission mandate, concept of operations and mission support plan:

- CASEVAC/MEDEVAC;
- Emergency evacuations or operations by civilian/police/military;
- VIP special flights;
- TCC rotations/supply;
- Logistic support, in the form of passengers or cargo;
- Welfare;
- Military operations;
- Other tasks as defined by the mission administration.

G.3.2. Regular flights

168. Regular flights are **scheduled** flights in support of the mission mandate, such as the transportation of passengers and cargo, and are approved by the CAVO under the CMS/DMS delegation of authority.

169. Particular SOPs for tasking source, scheduling, publication and approval shall be developed by the mission.

G.3.3. Special flights

170. A special flight is an **unscheduled** flight, which requires special authorization from the CMS/DMS.

171. A Special Flight Request (SFR), apart from those for emergency support, SAR and CASEVAC flights, is originated/coordinated through MSC and MOVCON, before submission to MAOC for the planning process.

172. Upon this, MAOC is responsible for the approval and its publication within the Daily Flight Schedule.

173. The SFR document shall contain at least the following information:

- Task description and requesting person;
- Route, including transit points and overnights;
- Estimated time of departure (ETD) and arrival (ETA) for each segment and date;
- Passenger and cargo information;
- Flight cost calculation;
- SFR tracking number and origin date;

- Aircraft United Nations call sign and national registration;
- ARM information.

174. In the event of hostile action, civil disturbance or natural disaster requiring the relocation of aircraft and aircrews, the CAVO, in conjunction with the air operator, shall decide the best course of action based on the circumstances and time available. General ATO procedures shall be followed under the provisions of an SFR.

175. For an SFR into a helicopter landing site (HLS) or airfield where a United Nations presence and/or locally contracted security guards are unavailable, the CAVO or SFR requester shall coordinate for security/military/police escorts on board or on the ground, if required, based upon the ARM analysis.

G.3.4. Military flights

176. Military flight operations are performed in support of a mission mandate by the United Nations military/police components. This support is provided by Member States through negotiated LOAs or pro bono agreements. Military attack or utility helicopters, unmanned aerial systems, and fixed wing tactical transport provide mobility and logistics for armed military forces and at the same time may be used to supplement the aviation support role of commercially contracted aircraft. Typical armed military roles include: escort/patrol, tactical response, show of force, combat, troop insertion and extraction, search and rescue, CASEVAC/MEDEVAC and reconnaissance flights, among others. Typical military logistic support roles include: cargo and troop transportation flights, re-supply, observation/patrol/reconnaissance, etc.

177. A Military Aircraft Tasking Request (MATR) is a tasking source equivalent to the SFR used by the mission military component, under the FC operational control authority, to request exclusively relevant military aviation support, such as combat/tactical/surveillance operations.

178. Each request for a military flight is processed through MAOC, in accordance with the DPO *United Nations Peacekeeping Missions Military Aviation Unit Manual*, Military Aviation SOPs and this Manual.

179. Risk assessment in accordance with ARM SOP shall be performed establishing the level of risk and mitigation measures for the desired task, within an area of operation not exceeding a radius of ten (10) nautical miles from the planned route. Based on this, the type of aircraft, flight routes, altitude profiles, aerodromes, required personnel, number and sequence of the sorties, etc. are defined and recorded in the MATR.

180. The MATR, once signed by the Military Unit Commander, is to be sent to the respective FC or Brigade/Sector Headquarters for processing through the Air Region. Thereafter, the MATR shall be sent to MAOC, for final approval by the CAVO and inclusion in the Daily Flight Schedule.

181. If any amendments are required to the MATR, the same procedure should be followed as for a new one. No MATR is to be launched unless approved by the CAVO.

182. Urgent military flights, which have to be launched at short notice, shall be given verbal approval through MAOC. However, in such cases, the MATR must be processed and signed subsequently.

183. The PIC is authorized to change or abandon the pre-planned route/area of operations under special operational circumstances detailed in the TCC aviation regulations, e.g. bad weather conditions, mechanical failure, injuries on board, etc. Otherwise, authorization shall **only** be granted through MAOC.

184. During military operations, the PIC is authorized to take on board additional passengers, under certain circumstances, provided that MAOC is informed as soon as practicable.

185. For planned military operations, the Unit Military Commander, in coordination with MAOC, has the authority to divert an aircraft in flight **only** under special circumstances and upon performing a new tactical risk assessment and re-planning.

186. Military aircraft used for civilian purposes, as described in this chapter, shall follow the same applicable procedures as for a civilian aircraft ATO.

G.3.5. Non-revenue flights (NRF)

187. A non-revenue flight (NRF) is not considered a United Nations flight and is executed due to the convenience of the contracted air carrier or TCC for their own purposes, such as flight crew training, maintenance test, ferry flight, gunnery, engine ground time, etc.

188. These flights are unscheduled in nature and are out of the scope of the Aircraft Charter Agreement/LOA provisions and liabilities. They shall be indicated in the Daily Flight Schedule under support flights and follow the ATO-established procedures for approval.

189. The AUR shall indicate the flight information as with any other United Nations flight, for the purpose of NRF time computation.

190. The United Nations is not obligated to reimburse or provide fuel and support for NRFs, positioning or de-positioning flights, unless the Aircraft Charter Agreement/LOA provides for this. Only in exceptional cases, where no commercial fuel is available to the operator to fly to the next transit place in which fuel is available, under the approval of the DMS/CMS through CAVO and CSD, and on a cost-recovery basis, may fuel be provided. All cost recoveries are to occur at the mission level.

G.3.6. Air tasking priorities

191. As standard, the assignment of an aircraft to cover a civilian air task is done by the CAVO, under the following priority criteria:

- CASEVAC – Immediate;
- Emergency evacuations/operations – Immediate;
- Search and Rescue response (SAR) – Immediate;
- VIP – Priority on a case by case basis;
- MEDEVAC – Immediate or routine depending on the case;
- Logistic support (passengers/cargo) – Routine;
- Welfare – Routine;
- Others – Routine or on a case by case basis.

192. Military-related operations priorities are determined by the FC.

G.3.7. Flight schedules

193. A Daily Flight Schedule shall be prepared by MAOC on a daily basis for the next following flight day, containing all the planned flights for that particular date. Once all requests for ATOs are revised and approved by the Chief of MAOC, a draft document shall be released for the verification and signature of all required stakeholders and final approval of the CAVO, as delegated from CMS/DMS, prior to its publication by MAOC. The Daily Flight Schedule shall be released no later than 1400 hours local time each day.

194. The Daily Flight Schedule shall contain at least the following information:

- Aircraft United Nations call sign and national registration;

- Route, including transit points and overnights;
- ETD and ETA for each segment and date;
- Task description;
- Payload information (passenger, cargo, armament or sensors, special configuration or equipment);
- Any other relevant information or instructions including en-route hazards/threats.

195. In some cases, the mission shall additionally publish a weekly/monthly flight schedule, subject to periodic review, to meet their regular flights requirements.

196. Conflicting priorities may occasionally arise, particularly during periods of peak activity or during the conduct of several major operations at the same time.

197. Where a conflict in tasking priorities arises, the SRSG is the decision-making authority to define the priorities and manage any conflict resolution.

G.3.8. Out of mission area flight planning

198. When an ATO is required for flying out of the mission area in support of the mission mandate or any other support, the ATO falls under the category of a strategic flight.

199. For the purpose above, the mission area comprises:

- Mission area of operations (AO): Within territorial boundaries of the field mission host country;
- Mission area of interest (AI): For flights within the AI, which includes the territories of the neighbouring countries and/or special destination(s) outside of territorial boundaries of the field mission host country, the Out-of-Mission flight request should be submitted to SAOC minimum five (5) working days in advance. The only exception are MEDEVAC/CASEVAC flights outside the Mission area to established level III or level IV hospitals or medical evacuation points as prescribed by the respective Mission Medical Section, for which the Out-of-Mission area flight request is not required.

Strategic flight

200. A strategic flight is defined as Any DOS-contracted aircraft flight that is intended to operate outside the mandated geographic confines of its respective mission (or missions) area of operations, and/or other destinations not covered by, or directly linked to, its mission (or missions) mandate(s).

201. The following describes specific examples of common strategic flights:

a) Special flights:
   - VIP (General Assembly, Security Council, Secretary-General, delegations, envoys, etc.);
   - Logistics cargo/passenger operations;
   - Welfare flights.

b) Emergency flights:
   - CASEVAC/MEDEVAC;
   - Humanitarian relief operations;
   - Relocation and emergency evacuation of personnel;

- SAR operations.

202. The following criteria and guidelines shall be followed:

- The ATO request shall be sent electronically directly to SAOC for processing/approval, under delegation of authority by the Chief of ATS. Office of the Chief of ATS will be copied in on all requests. Full information about the ATO, including operational details, cost, alternative options, etc. shall be specified.
- The request shall be made ten (10) days in advance and demonstrate that commercial options are not available. Also, a cost comparison shall be provided, showing that the selected aircraft is the most cost-effective option.
- SAOC shall analyse and evaluate all available options to ensure that the task is feasible, and the best option is chosen. If required, in liaison with ATS, alternative options shall be presented; ensuring global fleet utilization, optimization and efficiency.
- SAOC shall coordinate with the involved missions for any necessary in transit/en route flight support services, as well as, for the required overflight and landing clearances.
- Upon completion of the ATO, the requester must forward all relevant documents pertaining to the task, including billing information to SAOC, to initiate the cost-recovery process.
- On those flight requests generated at United Nations Headquarters in New York, the ATO request shall be directed to the Chief of ATS to initiate the processing through SAOC.

G.3.9. Use of military aircraft for logistics operations

203. The use of military aircraft for logistic flights for the transportation of civilian passengers and cargo is authorized when such military aircraft is **not** engaged in any military operations. This type of use of military aircraft shall be approved through the ATO process. See section G.3.

G.3.10. Use of commercial aircraft for military operations

204. The use of civilian aircraft to engage in offensive armed military operations is strictly FORBIDDEN. That is, the airframe itself is forbidden to have installed or inherent offensive weapons (kinetic) capabilities. Civilian registered aircraft could be used in logistic support of military/police for aerial observations/surveillance/patrol/reconnaissance, re-supply, cargo and troop transportation, MEDEVAC/CASEVAC, etc., subject to the respective specific ARM. Depending on operator and respective regulator providing oversight, commercial aircraft may be used for a range of military operations, to include those carrying armed troops into troop insertion or extraction and observations flights. See military/police logistic support described in section G.3. above.

G.3.11. Diplomatic clearance

205. The contracted air carrier or TCC is responsible for pursuing the necessary flight clearances for the purpose of any non-revenue flight.

206. MAOC can eventually assist, for coordination purposes only, to liaise locally with the country CAA.

207. All other flights shall be coordinated by MAOC with the pertinent authorities. The Aviation Section SOPs shall reflect the detailed procedures.

G.4. Aerodrome operations – General

208. AATU is responsible for ensuring the adequate provision of aerodrome operational support to United Nations flights, in compliance with, to the extent possible, *Annex 14 to the Convention on International Civil Aviation: Aerodromes*. This support includes air terminal operations, landing surfaces, airside areas, Emergency Crash and Rescue (ECR), NAVAIDS, ground handling services (GHS) and ground support equipment (GSE), etc. AATU is also responsible for the oversight of AVSEC, in compliance with *Annex 17 to the Convention on International Civil Aviation: Security*.

209. All services listed above may be performed directly by United Nations staff or by a contracted commercial airport ground handling service provider or a TCC military Airfield Support/Service Unit. On services not provided directly by United Nations staff, AATU shall perform the operational tasking, oversight functions for the services provided, and maintain the overall compliance responsibility with the provisions of this Manual.

210. When services are provided by United Nations staff, they shall be under the responsibility and accountability of the Aviation Section. Specifically, on services related to passengers and cargo handling, as part of the GHS provided by United Nations staff, they shall be under the management of MOVCON. See DOS *Movement Control Manual* for details.

211. Access to all airside areas is to be controlled for vehicles, bags/cargo and persons. In addition, there should be X-ray (if available) or visual inspections of passenger baggage for departing passengers, to ensure that unauthorized items are not present. This control shall be performed under the scope of *Annex 17 to the Convention on International Civil Aviation: Security*. The overall accountability falls under the authority of the CAVO.

212. The smooth flow of passenger traffic through the air terminal is essential to meet scheduled departure times. The Air Terminal Officer must coordinate with DSS and MOVCON to allow for punctual departures.

213. The Aviation Section SOPs shall reflect the detailed procedures relating to aerodrome operations.

G.5. Flight operations – General

214. These general guidelines are to be used as a basis for establishing the Aviation Section's specific SOPs.

G.5.1. Pilot in Command (PIC) authority and crew

215. All assigned commercial pilots shall be qualified, with a current and appropriate licence for their respective roles, as specified in *Annex 1 to the Convention on International Civil Aviation: Personnel* Licensing, Chapter 2. The air carrier is responsible for ensuring that pilots remain current and operationally proficient to fulfil the Aircraft Charter Agreement requirements.

216. Military pilots provided by a TCC must meet the minimum flight experience determined by their Government and the United Nations in the agreed terms and conditions in the LOA or pro bono agreement. See the *United Nations Peacekeeping Missions Military Aviation Unit Manual* and related documents, for crew qualification/experience requirements, established between ATS and the Office of Military Affairs (OMA).

217. The PIC is responsible for the operation and safety of the aircraft and all persons or cargo on board. Therefore, the PIC of the aircraft shall have final authority as to the operation of the aircraft while in command.

218. At no time shall any other person, except as noted above, be authorized to pilot a United Nations aircraft or sit at a flight control station while the aircraft is in flight.

219. At no time may any person attempt to usurp this authority or coerce the PIC into deviating from their CAA regulations, air carrier policies, TCC national directives or any other established DOS aviation regulatory regime-related procedure or directive.

220. The only personnel authorized to access the aircraft cockpit, at any time, are those specifically authorized by the AVSTADS. The CAVO, his/her designated representative or the Aviation Safety Officer, in conjunction with an official on scheduled flight-monitoring duty, may only monitor ground and flight operations from the cockpit, providing that authorized access has been granted by the PIC prior to the flight commencing, and the individual does not interfere with ground and flight operations. These individuals may be in the cockpit for take-offs and landings, provided they occupy an approved seat and use a proper seat belt and/or shoulder harness.

G.5.2. Crew rest/flight time limitations

221. Crews must adhere to their CAA, company or military directives for flight time and duty day limitations. At no time shall an aircrew be tasked to perform flight duties in excess of those limitations.

222. The mission Aviation Section shall monitor compliance for flight time and duty day limitations for all assigned flight crews.

223. Scheduled crew rotations shall be monitored by TCU and notified to MAOC at least ten (10) days in advance.

G.5.3. Pre-flight procedures

224. Before each initial flight, or series of flights, a designated representative from the Aviation Section shall brief the PIC, to ensure complete understanding of the flight requirements in the ATO. However, if this type of briefing is not possible due to operational considerations and location of aviation assets, the mission shall develop procedures to ensure the PIC is briefed and completely understands the ATO. Military crews shall be briefed by their military command when performing a military task.

225. See the ATO Pre-Flight Checklist in Appendix ATS-006 to this Manual for details.

G.5.4. Flight procedures

226. All crews must comply with the prescribed ICAO standards, host nation or State of the operator/registry regulations, company/aircraft Operations Manual or military directives, whichever is applicable for the conduct of a flight, regarding:

- Weather minimums;
- Visual flight rules or instrument flight rules (VFR/IFR);
- Communications;
- Air traffic control (ATC) clearances;
- Minimum descent altitude (MDA);
- Decision height (DH);
- Others.

227. Military flights are subject to their own government/military regulations for the purpose of establishing their weather minimums during a military operation. When a military aircraft is performing a civilian task with passengers on board, the military crews must comply with the civilian requirements prescribed above, host nation regulations or ICAO standards.

228. When the flight terminates, the PIC shall annotate and sign it off on the AUR and After Mission Report (AMR). Then, the PIC must close the Flight Plan with the appropriate authority and debrief the designated Air Operations Officer, if required, for any relevant aspect of the flight.

229. The AUR shall be submitted to the United Nations, by the carrier/TCC, within 24 hours of completion of the flight.

G.5.5. General safety/security procedures

230. No crew shall operate a United Nations aircraft in a careless, reckless manner or in a way that would endanger the life or property of others.

231. No member of the aircrew shall continue to perform their duties, if they are aware of any decrease in their physical or psychological condition that would jeopardize the likelihood of a safe flight.

232. Consumption of alcoholic beverages is prohibited on board United Nations aircraft.

233. No person shall travel on board United Nations aircraft under the influence of intoxicants or narcotics, except:

- Passengers in an emergency condition;
- Patients under proper medical care.

234. Smoking is prohibited on board United Nations aircraft and within 15 meters (50ft) of an aircraft on the ground. Smoking may be authorized only in designated areas on the ground.

235. Aircraft must be grounded during fuelling operations, arming, oxygen-servicing and loading or unloading of flammable or explosive cargo.

236. Internal fuel tanks on civilian aircraft are only to be used when carrying cargo. They are not to be used when transporting passengers. The only exception is during extraordinary situations, when no other means are available for medical emergencies (CASEVAC), or during security situations that require additional range to enable the aircraft to reach endangered personnel. In this situation, the CAVO, on a case by case basis, may permit a flight upon an adequate ARM assessment.

237. A civilian aircraft with purpose-built internal fuel tanks and certified by the State of registry, for use as an integral part of the aircraft, may be used when carrying passengers. However, consideration must be taken into account of the operational limitations prescribed in the carrier's AOC or the aircraft Certificate of Airworthiness.

238. On military aircraft, the use of internal fuel tanks is allowed in accordance with the TCC directives. However, **NO** civilian passengers shall be carried, unless in an extraordinary situation, and following the prescribed procedures above.

239. Manufacturer aviation approved seats and seat belts or shoulder harnesses for each crew member and passenger must be installed on each aircraft. Passengers must be briefed by the cabin crew and be able to operate and wear them, as required.

240. Patients on litters shall be restrained by litter-restraining straps during take-offs, landings and turbulence.

241. All cargo must be covered and net-strapped.

G.6. United Nations Standards of Conduct

242. At all time while deployed with a United Nations field missions, aircrew members and all other members of the aviation contracting company or TCC personnel assigned to aviation functions must observe the United Nations standards of conduct, included in the contract

and general conditions of contracts concluded with each aviation contracting company or in the Memorandum of Understanding signed between the United Nations and TCC. The following represents some, but not all, of the United Nations standards of conduct:

- All personnel are obliged to respect and comply with the laws of the host State and of any States where they may be entering while deployed with a United Nations field mission.
- No person shall engage in any act of sexual harassment, or any other forms of harassment, abuse of authority or discrimination or any form of sexual exploitation and abuse. Any sexual activity with a person under the age of 18 shall be considered as sexual abuse. Any sexual activity in exchange of money, goods or any other consideration shall be considered as sexual exploitation.
- No person shall engage in illegal acts such as smuggling, drug dealing, human or animal exploitation, etc.
- No person shall perform any aviation related functions while intoxicated with alcohol or drugs.
- All personnel have an obligation to report any breach of the United Nations standards of conduct, including of local laws, and to cooperate with any United Nations authorised investigation.

243. The mission Conduct and Discipline Team (CDT) receives, assesses and refers allegations of misconduct involving all categories of United Nations personnel, including contractors, for appropriate action. In this regard, the CDT liaises with all investigative entities on follow-up to misconduct allegations.

244. While on duty, aircrew members and all other members of the aviation contracting company or TCC personnel assigned to aviation functions must observe the following aviation specific performance requirements:

- Every member of the aircrew or ground crew shall report to duty for the purpose of performing an ATO, no later than one hour before the ETD as per the Daily Flight Schedule.
- In case of any unexpected event that would mean the non-execution or disruption of the scheduled flight, the crew member must report the event via immediate communication with the Air Operations Office.
- If the event is related to sickness, a United Nations medical certificate shall be obtained through the Medical Office and presented to the Air Operations Office in order to certify a sickness. See Annex I5 of this Manual.
- Every crew member shall wear proper attire (company/military uniform) to perform their duties.

245. Persons involved in the acts listed above shall be immediately relieved of their duties and requested to leave the mission. The CAVO is authorized to execute this action for the sake of security and safety reasons.

G.7. Operational deviations

246. No party or officials may interfere with the crew duties or make any change to the Daily Flight Schedule or ATO, regardless of the nature of the approved task (civilian or military/police). Changes are **only** allowed through the established ATO process.

247. Deviations from the provisions of this chapter are authorized **ONLY** during emergencies, in life-threatening situations, and in the interest of flight safety. A PIC who deviates from the applicable provisions of this Manual must report to MAOC in writing, within 24 hours, on the pertaining details.

248. Examples of emergency situations include, but are not limited to:

- Unexpected severe weather conditions;
- Hostile act or security threat/consideration on the ground or in flight;
- Emergency mission personnel evacuation;
- Loss of crew member functional capabilities or serious passenger sickness;
- Aircraft engine and/or system in flight emergency and/or failure, as determined by the PIC;
- ATC commands/restrictions on route and/or destination change (unless these commands contradict aircraft performances/limitations or applicable operational safety rules);
- Any other conditions that may present a risk to flight safety/security.

249. Any other deviation from the Daily Flight Schedule or ATO during the flight must be duly coordinated and authorized through MAOC by radio or telephone.

250. On each deviation case, full information must be provided by the crew, as soon as practicable, to the Air Region's Flight Following Officer or MAOC. In addition, at the earliest opportunity but within 24 hours upon return to base, the PIC must provide a written report, with an acceptable explanation, justifying the deviation.

G.8. Reporting of occurrences and hazards

251. Occurrences related to an incident or accident shall be reported in an Occurrence Report (OR). Actual or potential hazards or hazardous conditions identified in various areas shall be reported in a Hazard Report (HR); as established in the DOS *Aviation Safety Manual*.

G.9. United Nations Aviation staff work duty time

252. The CAVO is responsible for overseeing the Aviation Human Factors related to the United Nations Aviation staff that could adversely affect the safety of the air operations.

253. The DMS/CMS is responsible for ensuring that Aviation staffing is adequate to the workload estimated in support of the mission concept of operations and mission support plan requirements, and sufficient to comply with the work and rest hour norms established by the United Nations Staff Rules and Regulations.

G.10. Complementary technical library

254. The following is a list of publications that each field mission shall have in its technical library for reference:

- Convention on International Civil Aviation, Annexes and related documents;
- Jeppesen flight publications;
- Host nation AIPs;
- IATA manuals.

G.11. Aircrew information file and aviation library

255. The field mission shall establish an aircrew information file (AIF) and/or an aviation library accessible for crew, site managers and military/police aviation units. It must contain the "need to know" aircrew information relating to air operations. The AIF and/or aviation library shall be updated by the responsible Air Operations Officer at the MAOC. Aircrews must have

immediate access to the documents for flight planning and reference. Procedures to ensure that all aircrews have access to the AIF and/or aviation library shall be in place.

256. Documents to be included and reviewed are:

- DOS Aviation Manual and AVSTADS;
- Host nations' CAA AIP;
- DOS Movement Control Manual;
- Mission's Aviation SOPs;
- DOS Aviation Safety Manual;
- Respective TCC SOPs (for LOA units).

257. Current new information shall include new aeronautical information, such as changes to any of the above references, new airport procedures or any new data that the aircrews need to perform flights safely. The library must be updated periodically, and relevant changes be notified to the aircrews.

258. For additional information and guidance, please refer to the following annexures to Chapter F of this Manual.

- ANNEX F1: FLIGHT FOLLOWING;
- ANNEX F2: WEATHER OBSERVATION REPORTS;
- ANNEX F3: INTER-MISSION/OUTSIDE OF MISSION AREA FLIGHTS;
- ANNEX F4: OPERATIONS WITH UNMANNED AIRCRAFT SYSTEMS;
- ANNEX F5: AEROMEDICAL EVACUATIONS;
- ANNEX F6: AVIATION RISK MANAGEMENT (ARM);
- ANNEX F7: OPERATIONAL CRITERIA FOR UNITED NATIONS FLIGHTS;
- ANNEX F8: HELICOPTER ROTORS RUNNING ON-LOAD/OFF-LOAD PROCEDURES;
- ANNEX F9: SEARCH AND RESCUE;
- ANNEX F10: AIRCRAFT REFUELLING FROM DRUMS;
- ANNEX F11: HELICOPTER EXTERNAL LOAD OPERATIONS;
- ANNEX F12: NIGHT FLIGHT OPERATIONS;
- ANNEX F13: REMOTE HELICOPTER LANDING SITES (RHLS) – CRITERIA;
- ANNEX F14: HELICOPTER LANDING SITES (HLS) –TECHNICAL CRITERIA.

H. AIR/GROUND SERVICES ACQUISITION PROCESS

H.1. Acquisition process for air services

259. The Air Transport Service (ATS) is the proponent office for all commercial and military aircraft services agreements. Missions are not authorized to establish or arrange for any air services directly, except in emergency situations and then only after coordination with ATS and through Headquarters Procurement Division.

260. Aircraft services with civilian air operators may be undertaken through Long-Term Aircraft Charter Agreements (LTAC), Short-Term Aircraft Charter Agreements (STAC) or Stand-by Aircraft Charter Agreements (SACA). The military aviation services may be provided through LOAs, pro bono agreements, or MOUs.

261. The acquisition process for air services has several steps, which include requirement identification, bidding process, technical assessment, commercial evaluation, budget analysis and United Nations Headquarters Committee on Contracts (HCC) review/recommendations for cases that exceed the total amount of $200,000. The following general procedures and criteria are used by DOS for acquiring aviation services and for assessing the responses to Invitations to Bid (ITBs) for LTAC and STAC:

- DOS reviews and analyses the mission mandate, mission support plan, concept of operations and technical justification for the aviation assets required. This is to determine viability and any special operating requirements, such as 24-hour or seven (7) days per week coverage, CASEVAC, night operations, etc. This analysis is performed in coordination with the mission Aviation Section.
- The technical justification should include a description of the mission area of operations, characteristics and variables, aircraft configuration required, crew experience, aerodrome infrastructure, airspace and NAVAIDS, domestic and international airports, threat analysis, aviation security, political situation, weather and any other factor that may impact on the air operations. See: Chapter E and Chapter I of this Manual for additional guidance.
- An aircraft performance analysis is conducted, when necessary, to ensure that aircraft have adequate performance capability to meet the operational requirements. Consideration is given to operating altitudes and temperatures, aircraft range, single-engine performance and minimum runway criteria, among others.
- The budget requirements are assessed to ensure sufficient funding is available by liaising with the Field Budget and Finance Division (FBFD) in DOS on any requisition.

H.2. Technical evaluation criteria – General

262. The air carrier and aircraft technical documentation must be reviewed to verify the AOC and operational specifications, related supplemental type certificates, Certificate of Airworthiness, Certificate of Registration, Noise Level Certificate, air carrier's Operations Manual, Aircraft Flight Manual, Aircraft Property Title/Lease Agreement, etc. The carrier's insurance policy must be verified as well, to ensure that it includes hull, third party liability, war risk and any other additional insurance coverage required.

263. The air carrier's crew requirements must be reviewed to ensure that they meet the minimum requirements established by DOS. Attention should be given to ensure that the pilots meet the aircraft type qualifications, total flight time and time in aircraft experience, night and instrument time, and any other crew requirement specified in the bid.

264. Military aircraft shall be evaluated in respect of their relevant government documentation and aircraft technical manuals.

265. Civilian and military aircraft positioning time schedule should be assessed to ensure uninterrupted air services to the field mission.

266. Past performance of the air carrier or TCC should be assessed, based on performance evaluation reports, initial aircraft and aircrew inspection reports, and end of contract evaluations provided by the mission. Performance history is an essential element of the Aviation Quality Assurance and the Aviation Safety systems.

267. Evidence is required that aircraft exceeding twenty (20) years of age shall either undergo a manufacturer's ageing aircraft programme or are not required to do so.

H.3. Commercial Aircraft Charter Agreements structure

268. Aircraft and contract management is one of the primary responsibilities of the Aircraft Management and Contracts Unit (AMCU) in ATS. Due to compliance with safety regulations and aviation standards, it is essential that the aviation staff responsible for monitoring the execution of and compliance with the contracts fully understand the terms and conditions therein.

269. In the mission, the DMS/CMS is accountable for all aviation assets. However, as aviation is a highly technical activity requiring certified knowledge and experience, it is the duty of the CAVO, by delegation, to manage the aviation contracts and provide advice to the DMS/CMS on all aviation matters.

270. All aviation contracts are to be handled in a confidential manner, and not to be provided to any unauthorized persons, agencies or offices.

271. Although aviation contracts' general terms and conditions are standard, unique differences could exist in aircraft configuration and aircrew experience, which would directly affect the tasking of the aircraft. Aircraft are not allowed to be tasked outside of the contractual terms, the AVSTADS and the provisions of this Manual. Any contract-related questions, interpretations, discrepancies or amendments required are to be directed to ATS.

272. The following content, at a minimum, must be part of all aircraft contracts:

H.3.1. General information

273. The Aircraft Charter Agreement must include the contract date and name of the carrier, as well as the contract start date and effective time period of validity.

H.3.2. Services

274. The agreement must indicate what services the contractor is chartered to perform. These services must meet the carrier's Air Operator Certificate. The proposed aircraft shall be fitted, equipped and maintained as operative/airworthy for the specific requirements. The flight crew shall be qualified, competent and licensed for the required duties, following ICAO provisions, their CAA and the United Nations AVSTADS. The contractor shall perform all flights in line with the described United Nations aviation regulatory regime.

H.3.3. Certifications, licences and manuals

275. The following valid documents shall be maintained:

- Air Operator Certificate (AOC) and related documents;
- Aircraft Certificate of Registration;
- Aircraft Certificate of Airworthiness;
- Aircraft Noise Certificate;
- Aircraft Radio Licence;
- Aircraft Insurance Policy, as per contract provisions;
- Company Aviation/Flight Safety Policy statement;
- Crew licences and certificates;
- Any other documents, as per the DOS Aviation Safety Manual.

H.3.4. Aircraft compliance

276. The agreement should state that the United Nations has the right to inspect the aircraft, and any document, at any time. Special attention is to be given to this requirement when the aircraft first arrives in the mission area and for any replacement aircraft as well.

H.3.5. Reporting of accidents

277. The agreement should state that the carrier must report any accidents or incidents involving a United Nations aircraft in line with the provisions of this Manual.

H.3.6. Annex A of the contract

278. The Annex A should describe the nature of the air transportation services to be provided. This is the most technical part of the contract for the aircraft and aircrew. It includes the following:

- Operational area: A description of the mission area in which the aircraft is to fly and the main operating bases. All United Nations flights outside the mission area must be approved, as described in Chapter G of this Manual. It should also describe the number of maintenance or non-available days authorized for the carrier per month.
- Aircraft painting and markings: The aircraft is to be painted and marked as per United Nations standards. The paint and markings are to be professionally and uniformly applied, without streaking, bleed-through, chipping and over-sprays. The paint and aircraft should represent the United Nations professionally.
- Performance capability and aircraft configuration: This section should include the following:
  - Minimum service ceiling;
  - CASEVAC/MEDEVAC requirements;
  - Minimum cargo and passenger capacity/configurations;
  - Minimum flight ranges;
  - Minimum aircraft speed performance;
  - Special weather;
  - High altitude fields special performance;
  - Special additional equipment;
  - Tax exemption.

H.3.7. Annex B of the contract

279. Annex B is the general conditions section of the contract. Special attention should be given to the following areas:

- Policy for utilization of excess aircraft space;
- Settlements of contractual disputes.

H.3.8. Annex C of the contract

280. Annex C is the payment schedule for the contract.

H.4. Troop-contributing countries – Military Letter of Assist structure

281. Military LOAs are the ways in which TCCs provide aviation services to the United Nations, for military support to the mission mandate, concept of operations and the mission support plan. Military aviation activities may include but are not limited to: passengers and cargo transportation, tactical operations (including troop insertions and extractions), quick reaction force support, Search and Rescue, Personnel Recovery, air reconnaissance/surveillance (including use of manned and Unmanned Aircraft Systems), support for airmobile operations, patrol observation, monitoring flights, deterrence operations through show of force, fire support to ground forces, armed reconnaissance, combat resupply, armed escort, redeployment of forces and support to ground combat operations.

282. This military support shall be executed within the DOS aviation regulatory regime described in Chapter F of this Manual.

283. As such, the CAVO, as delegated by the DMS/CMS, has the right to review and inspect the aircraft and documentation relating to the experience level and current medical status of the flight aircrew. The CAVO shall actively communicate with the military aviation contingent commander to ensure safe, effective, efficient and coordinated use of all aviation assets within the mission.

284. All flights that fall under the scope of the LOA, or outside it, must be coordinated with MAOC and approved by the CAVO. See the detailed process described in Chapter G of this Manual.

285. As soon as possible, the TCC Aviation Unit shall provide the CAVO with an English copy of their Government Military Aviation Rules and Standards or equivalent document formally signed by the respective authorities, which includes information on crew rest, weather minimum, flight limitations for day, night, over water, mountains, pilot currency requirements, crew mixture and minimum crew requirements. Furthermore, all pilots and any other crew members involved in radio communications must speak fluent English and be certified with English language proficiency as per national regulations and ICAO Level 4 or equivalent.

286. Figure 13 shows the minimum military crew requirements, within the DOS aviation regulatory regime, to operate a TCC-contracted aircraft.

UN MILITARY AVIATION UNIT (RW / FW)

UTILITY AIRCREW EXPERIENCE REQUIREMENTS

		TOTAL [1] F/H Min	If experienced in both FW & RW – minimum FW/RW F/H@	PIC hours On FW and RW	PIC hours on type	IFR[2] qualified with min F/H	NVG qualified w/min FH	Flight Currency DAY / NIGHT / NVG / IFR
Rotary wing	AMC*	1200				-		45-days
	PIC	1000	600	300	150	80	50	
	CP	300	200	-		20	30	
Fixed wing	PIC	1200	1000	500	250	200	50	
	CP	600	500	-	-	100	30	

***Air Mission Commander (AMC) –aviation task force (Unit) commander**

UN MILITARY AVIATION UNIT (LIGHT FW ATTACK/ISR) SPECIFIC AIRCREW EXPERIENCE REQUIREMENTS							
		TOTAL F/H[1]	PIC hours	PIC hours on Type	IFR[2] qualified w/min F/H	NVG qualified w/min FH	Flight Currency DAY / NIGHT / NVG / IFR
Light FW Attack/ ISR	AMC	1200			-		45-days
	PIC	600	300	100	80	50	
	CP	200	-	-	20	30	

UN MILITARY AVIATION UNIT (RW ARMED/ATTACK AND EMBARKED) SPECIFIC AIRCREW EXPERIENCE REQUIREMENTS								
		TOTAL F/H[1] Min	If experienced in both FW & RW – minimum FW/RW F/H@	PIC hours On FW and RW	PIC hours on type	IFR[2] qualified with min F/H	NVG qualified w/min FH	Flight Currency DAY / NIGHT / NVG / IFR
Attack and Embarked Rotary wing	AMC	1200				-		45-days
	PIC	600	400	200	150	80	50	
	CP	300	200	-		20	30	

1. Credit of simulator hours is limited to 100 hours for the Pilot in Command (PIC) and 10 hours for the Co-pilot (CP).
2. Instrument flight rules (IFR) qualification is required for both PIC and CP as per national standards.

Figure 13 United Nations military aviation crew requirements

287. Tasking authority is vested in specified senior mission leaders (Head of Mission Control, Head of Mission Police Contingent, or D/CMS) and includes the authority to assign tasks to mission enabling assets and deploy, redeploy and employ all or part of a mission enabling asset (Enabling assets consist of construction engineer units, Unmanned Aerial Systems, manned airborne as intelligence, reconnaissance and surveillance (ISR) aircraft, enabling assets with composite engineer units, medical, utility and cargo military aircraft, logistics units, signal, transportation and movement units and supply. The classification of these units is agreed in the Statement of Unit Requirement (SUR), MOU/ LOA prior to deployment). Mission enabling assets are considered “whole of mission” assets because their capabilities are required by all mission organizational units and consolidated tasking allows maximum utilization.

288. The tasking of mission enabling assets should be guided by an integrated approach to planning and resource allocation, informed by mandate priorities determined by the HOM and mission-wide priorities informed by the mission resource allocation structure, described in paragraph 22 of Policy, Command and Control in United Nations Peacekeeping

Operations. It is the responsibility of the HOM to ensure an accountable and cooperative approach to tasking and resource allocation in the mission.

289. The DMS/CMS, as delegated by the HOM, is responsible and accountable for the effective utilization and tasking of all United Nations commercial/military mission enabling assets. The MSC (or equivalent section/office in MSD) is the mission integration and control mechanism responsible for ensuring the coordinated implementation of mission priority tasks, including the necessary resources.

290. Planning, coordination, and scheduling of all mission aviation assets is managed through MAOC in compliance with the mission priorities, as determined by the HOM, to ensure final coordination amongst the necessary mission components and appropriate oversight and support is provided.

291. The HOMC exercises sole tasking authority over all combat units, i.e. attack helicopters and combat engineers. Tasking is done in coordination with and/or through the MSC and MAOC, as necessary. (The term combat support refers to the provision of specialized support to combat units in the areas of combat operations, to include fire support, combat engineering, explosive ordnance disposal (EOD), troop insertion or delivery of resupply into an ongoing hostile fire area. Combat support assets include combat aviation, UAS/Remotely Piloted Aircraft Systems; aircraft used exclusively for combat support tasks such as ISR, combat engineers, EOD and ISR units. The classification of these units is agreed in the MOU/LOA prior to deployment.)

292. All missions shall establish standing approval procedures for tasking of mission enabling assets on short notice in times of operational urgency (e.g. deployment of Quick Reaction Forces, high-risk operations launched on short notice), and process for CASEVAC (in accordance with the Policy on Command and Control in United Nations Peacekeeping Operations) to be communicated by the Military Mission Leadership Team (MLT) to all mission organizational units. (The HOM is responsible to ensure that an integrated CASEVAC system is in place and the mission has the necessary administrative and logistical support to conduct CASEVAC operations. The HOM must ensure that all mission personnel are aware of their authorities, roles and responsibilities within the CASEVAC system, through the conduct of regular exercises of the system. The HOM shall designate a Senior Leader responsible for the overall ownership/management of the CASEVAC system. This typically is the DMS/CMS. See *DPO/DOS/DPPA/DSS Policy on Casualty Evacuation in the Field*.) In larger missions, which may have Field Offices and/or military sector HQs at sub-national level, authority for CASEVAC operations should be decentralized and delegated to these offices and HQs, where appropriate. The Mission Health Support Plan and CASEVAC SOP must articulate where delegated launch authorities within the CASEVAC system rest in the mission.

H.5. Member States pro bono agreements structure

293. Pro bono agreements with United Nations Member States, as with LOAs, are an important part of the air transport operations within a field mission. The purpose of these air services is to support the mission mandate, concept of operations and mission support plan. These services may include, but are not limited to: cargo re-supply, troop movements, VIP transport, air medical evacuation, patrol/observation/surveillance flights, etc.

294. The pro bono agreement format is different from that of a commercial contract and LOA, but all pro bono agreements are similar in format. As each pro bono agreement is negotiated individually with the contributing Member State, the specific provisions may vary between individual agreements.

295. All flights that fall under the scope of the pro bono agreement, or outside it, must be coordinated with MAOC and approved by the CAVO. See the detailed process defined in Chapter G of this Manual.

H.6. Acquisition process for airfields/air terminals ground handling services and equipment

296. Missions are responsible for developing their requirements, in the form of a Statement of Work (SOW) or Technical Specifications, providing proper justification on their needs for contracting aviation GHS and acquiring related GSE.

297. When there is a need for a technical clearance from a Local Procurement Authority or for strategic technical support, the mission should address their requirements through ATS.

298. Some specific common requirements are:

- Air traffic control/airspace management advice;
- Aviation security services/equipment;
- NAVAIDS equipment and maintenance;
- Emergency Crash and Rescue (ECR) services/equipment;
- Training of aerodrome specialists;
- Airfield ground lighting systems or portable lights;
- Meteorological services;
- Aeronautical information/communication services;
- Airport GHS.

H.6.1. Aerodrome infrastructure maintenance, repair and construction

299. Requirements and justifications for the needs of contracting or directly executing aerodrome infrastructure maintenance, repair and construction of any engineering related works shall be referred to Engineering Section and coordinated with ATS. Coordination by the mission with ICAO via ATS may be required for particular technical expertise, construction management, specifications and/or aviation certifications.

300. Some specific common civil engineering related requirements are:

- Maintenance, repair or construction of terminal building, hangars, airside surfaces, fences, control towers, etc.;
- All forms of airport grounds maintenance including foreign object damage (FOD) control, grass cutting, drainage control, solid waste management including the treatment and disposal of hazardous wastes and materials (e.g. spent Petroleum, Oil & Lubricants – POL, lead-acid batteries, etc.) general cleaning services, provision of water; among others;
- Control of obstacles impacting on the operation of aircraft, including construction, modification, repair, lowering, lighting, marking, demolition and maintenance;
- Airport physical security, including construction, repair and modification of perimeter fences, gates, watchtowers, lighting and electrical monitoring devices (remote video monitors, etc.);
- General airport perimeter access construction, repair and maintenance, including roads on and in the vicinity of the airport.

301. Some specific common general requirements are:

- Establishment, repair and maintenance of meteorological, communication or radar equipment;
- Support in removal of disabled aircraft;

- Navigation aids installation, repair, calibration, certification and periodic survey, including ground and flight checks and emergency power backup systems.

302. In some cases, ATS may request, through the Management and Services Agreement signed between the United Nations and ICAO or with any other UN agency, a technical assessment, advice or oversight services on the execution of any related civil engineering or aviation services/equipment.

303. The mission Aviation Section is responsible for the compliance oversight on the airfield/air terminal related local service contracts and for the TCC airfield service/maintenance units under LOA or pro bono agreements. The mission Engineering Section is responsible for construction project management and facility-related repairs and maintenance contracts.

H.6.2. Aviation-associated equipment and services

304. It is the responsibility of the CAVO to coordinate and follow up, within the mission, with other primary account holders of aviation-associated equipment and/or services. This includes:

IT/Communications Section:

- HF/VHF radios;
- Weather reporting equipment;
- Satellite telephones, etc.;
- Mobile control towers;
- Handheld GPS, etc.;
- Satellite tracking system and related devices;
- Software.

Surface Transport Section:

- Main deck pallet/container loaders;
- Forklifts;
- Baggage carts;
- Aircraft stairs;
- Tow vehicles;
- Ground power units;
- Vehicles, 4x4, buses;
- Ambulances;
- Fire and ECR trucks;
- Fuel / Water trucks;
- Airfield sweeping and FOD cleaning vehicles.

Supply Section:

- Fire extinguishers and mobile emergency response kits;
- Windsocks;
- Airfield portable lights;
- Industrial safety equipment;
- Security and personal protection equipment, etc.

Engineering Section:

- Airfield maintenance, repair and construction civil works;
- Portable hangers/rubber halls;
- Office/accommodation facilities;
- General facility repairs, maintenance and operations;
- Water, electricity, sanitation services;
- Hazardous and non-hazardous waste collection, treatment and disposal;
- Helicopter portable landing mats, etc.;
- Power units.

I. AVIATION QUALITY ASSURANCE PROGRAMME

I.1. General

The Quality Assurance Programme is the key element of the Quality Management System, which includes the DOS Aviation Quality Policy and Objectives, description of processes, organization, the audit programme, etc. The Quality Assurance Programme executes quality audits, with performance results on the established quality processes and regulatory and policy compliance levels. The Programme also leads on advice to Senior Management for continuous quality system improvement.

I.2. DOS Aviation Quality Assurance Programme

The DOS Aviation Quality Assurance Programme is based on ISO 9001 principles established for the Quality Management System. The Programme is an integral part of the main DOS Aviation Section documentary system and is managed by AQAS in the ATS. The programme is executed at the mission level by the Quality Assurance cell at the TCU under the supervision and final responsibility of the CAVO.

The Programme is the baseline against which DOS Aviation, air carrier and TCC processes are measured for compliance with the established standards. A detailed description of the approved Programme is on the DOS Aviation Quality Assurance Programme document itself.

The DOS Aviation Quality Assurance Programme is a process-oriented tool. A process is a set of interrelated or interacting activities, which transforms inputs into outputs. These activities require allocation of resources, such as personnel, software, hardware, environment, etc.

Some examples of the Programme's main activities are:

- Defining the processes;
- Establishing clear responsibility and accountability for managing key activities;
- Identifying the interfaces of key activities within and between functions;
- Focusing on objective factors such as, resources, methods, standards, results, etc.

I.2.1. Quality audit records

These shall be kept and maintained on:

- Management reviews;
- Board of Auditors, Board of Inquiry, Aviation Security and Aviation Safety audits;
- ATS Quality audits;

- Aviation Safety assistance visits;
- Performance evaluation reports for air carriers and LOAs;
- End of contract evaluation reports;
- Aviation third party services.

I.2.2. Quality assessment

The primary purpose of a quality assessment is to verify that a particular established standard is followed during an observed event.

I.2.3. Quality audit

An audit is a methodical, planned review used to determine how a process is being conducted and compares results with how the process should have been conducted in accordance with any established procedures. The various techniques that comprise an effective audit are:

- Interview personnel (e.g. to find out how the individual understands and applies day-to-day operations and/or individual tasks);
- Review documents (e.g. to compare the interviewed personnel's interpretation and application of the procedures specified in the documents);
- Observe operations (e.g. to find deviations from the documented procedures, or to recognize where improvements in the process are necessary);
- Select samples (e.g. to check details of processes or specific activities);
- Document results of the audit.

I.2.4. Audit follow-up

This is a continuous process to ensure that follow-up on areas of non-compliance or non-conformity (e.g. found in an audit) is completed, after a root cause analysis. In order to identify and monitor trends, subsequent evaluations and conclusions must be made. The root cause analysis shall be shared with those audited, and with CAVOs in other missions where pertinent.

I.3. Programme implementation levels

DOS Aviation Quality Assurance Programme is implemented at three management levels: strategic, tactical and operational.

I.3.1. Strategic level

The strategic level may be identified as the activities and responsibilities of Senior Management related to the implementation of the quality system. These activities and responsibilities comprise:

- Setting up of the DOS Aviation Quality Policy;
- Management commitment to the policy;
- Determination of quality processes and objectives;
- Implementation of Quality Assurance Programme;
- Continuous improvement actions to be taken to enhance aviation safety, efficiency, effectiveness, etc.

I.3.2. Tactical level

The tactical level consists of the development and implementation of the quality system main regulatory framework, in line with the total quality management practice established. This main framework consists of:

- AVSTADS;
- DOS Aviation Manual;
- DOS Aviation Quality Manual and Quality Assurance Programme;
- DOS AVSEC Programme;
- ATS SOPs;
- ATS Training Programme.

I.3.3. Field mission's operational level

The strategic and tactical level objectives are put into practice at the operational level. Each field mission Aviation Section or Unit has to implement a quality management system within the guidelines provided in the strategic and tactical levels.

This system shall include, but is not limited to: the mission Aviation SOPs and the Mission Aviation Quality Audit Programme in line with the DOS Aviation Quality Programme.

I.4. Field mission Quality Audit Programme

Each field mission Aviation Section or Unit shall develop and implement a Quality Audit Programme that contains the following audits:

- Compliance with Aviation Section / Unit SOPs and DOS Aviation Manual;
- United Nations operational bases (personnel, equipment, facilities, etc.);
- Contracted/utilized aviation-related third-party services;
- Air carriers' and TCCs operational performance.

I.5. Quality Assurance reviewing system

I.5.1. Aviation occurrence review

Aviation Quality Assurance shall review all aviation preliminary and final Occurrence Reports and Hazard Reports submitted by the mission or Aviation Safety Section, on any aviation accident or incident. These reports are maintained by Aviation Safety, including subsequent investigation reports, on file for future reference.

If the situation is critical and time sensitive, initial corrective measures may be derived from the Occurrence Report and sent to the missions as an advisory message. This action shall allow the mission to take extra precautions in a suspected problem area.

I.5.2. Air carrier performance reports

Aviation Quality Assurance shall review all air carrier and LOA inspection reports and performance evaluation reports as part of the audit programme. Information from the reports shall be entered into the air carrier database.

I.5.3. Mission assessment

ATS shall conduct mission assessments, through the Quality Assurance Audit Programme. Results obtained from these assessments indicate the compliance level of the mission Aviation Section or Unit, air carriers and TCCs. During the analysis of the existing mission assessment, any deficiencies noted shall undergo root cause analysis by the mission, to enable the implementation of a corrective action plan.

I.5.4. Aviation trend identification and analysis

One event may be considered an isolated incident; two similar events may mean the start of a trend. Trends can be positive and contribute to safety, or negative and impair it. Both positive and negative trends must be identified and analysed. Identifying aviation trends, analysing their root causes and implementing the corresponding response is one of the most critical tasks performed by Quality Assurance. Upon evaluation, certain trends shall be shared with the CAVOs for preventive safety purposes, in the form of recommendations, advisory and/or proposed corrective action(s).

I.5.5. Aviation Safety assessments

DOS Aviation Safety Section shall conduct safety oversight assessments of the mission's Air Operations to verify compliance with the established DOS Aviation Safety Programme. Quality Assurance shall evaluate the safety reports in order to produce the necessary implementation measures, to ensure the desired safety standards.

I.5.6. Sharing of information

Information derived as part of the quality assurance process is of no value unless it is adequately shared. It must be shared with Senior Management as the situation directs, so they can make the appropriate changes in policy and necessary implementation of resource.

I.6. Air carriers database

AQAS at Headquarters shall develop and maintain an aircraft fleet, air carriers and missions database. The database must contain information regarding relevant Member States' aviation regulations, as well as relevant contractual and operational technical data for air carriers and TCCs, and the Quality Assurance Audit Programme reports.

Access to the database is restricted to ATS, according to internal procedure and through coordination with AQAS. Other DPO/DOS staff may access the database only by express authorization of the Chief of ATS.

I.7. Air carrier pre-registration process

A prospective air carrier, who intends to supply air services to the United Nations, should be provided with the full information concerning the type of operations that may be performed and the established technical standards required by DOS Aviation. The applicant must have a clear understanding of the pre-registration and qualification process, as well as the required documentation for the formal application procedures, as established by United Nations Headquarters Procurement Division.

Under this air carrier pre-registration process, Aviation Quality Assurance ensures that the guidelines for ITB and Request for Proposals (RFP), evaluation of aircraft specifications, personnel qualification and training requirements are all adequate as per the established standards. This technical evaluation function shall only be performed by ATS, as the authorized specialized Aviation Section within DOS.

For additional information and guidance, please refer to the following annexures to Chapter H of this Manual.

- ANNEX H1: QUALITY ASSURANCE FIELD AUDITS

J. AVIATION TECHNICAL COMPLIANCE

J.1. General

305. The Aviation Technical Compliance Unit (TCU), under CAVO delegation, is the sole authority responsible for managing and oversight of compliance of all the aircraft contracts assigned to the mission, in liaison with the Aircraft Management and Contracts Unit (AMCU). TCU is responsible for maintaining and managing the aircrews and aircraft utilization databases, invoice verification/processing on aviation services, cost recoveries, and statistical information/analysis of aircraft utilization.

306. Details in respect of TCU functions shall be established in the mission Aviation Section's SOPs, in line with these provisions and Chapter E of this Manual.

J.2. Technical reports

307. Technical reports, such as the Aircraft Inspection Report, air operator's or military unit's End of Contract and Quarterly Performance Evaluation Reports and Air Carrier's Assessment Reports, shall be used by the mission to provide ATS and Aviation Safety with relevant information on the technical condition of the aircraft, their equipment and documentation, the level of the operator's or military unit's performance, and compliance with the terms of the contract, LOA and/or any other United Nations requirements.

308. Technical reports are used as a safety enhancement tool and for improvement of the quality of services provided by the civilian air operators and military aviation units. To ensure this, all observations, identified shortcomings or cases of non-compliance with the terms of the contracts or LOAs shall be reflected in the technical reports, and deadlines established for their rectification. Depending on the significance of the issues, corrective actions should be taken at the mission level, at United Nations Headquarters level, or both.

309. The compilation of technical reports requires collective effort and close coordination with the mission Aviation Safety Section. Compilation responsibilities are presented in Figure 14.

Type of report	Compilation	Input
Aircraft inspection (long term or LOA)	Safety	Aviation
Quarterly Performance Evaluation Report (long term or LOA)	Aviation	Safety
End of Contract Air Carrier Performance Evaluation Report (long term or LOA)	Aviation	Safety
Aviation Carrier Evaluation Report (short term)	Safety	

Figure 14. Responsibility for compilation of technical reports

310. Missions should write the technical reports as descriptive statements and base conclusions without personal opinion or speculation, based on observed facts by the writer of the report.

311. The CAVO must ensure that the Aviation staff performing these technical reports are adequately trained with sufficient aviation background and experience to perform these functions to the degree required.

312. AQAS shall refer to these reports as part of the established Quality Audit Programme. Also, feedback evaluation results shall be sent to AQAS and AMCU units for follow-up purposes.

313. These reports are considered part of the ITB/RFP, technical assessment process. The performance results observed on the reports may affect the award or continuation of an Aircraft Charter Agreement or LOA.

314. In cases where the discrepancies found in the reports are not corrected by the air operator, the mission shall notify AQAS and AMCU units in order to advise United Nations Headquarters Procurement Division of the necessary actions required due to contractual non-compliance.

315. For a detailed description, guidelines and procedures relating to technical reports, see the *DOS Contract Performance Reporting Tool (CPRT) - Commercial and Military Aviation* and DOS *Aviation Safety Manual*.

J.3. Contractual reimbursements and cost recoveries

316. For established guidelines on financial contractual reimbursements or cost recoveries on flight time not for AURs, see Chapter O of this Manual.

J.4. Management of United Nations air assets

317. The management of aviation-related civilian and military contracts, due to the highly specialized nature of the aviation activity, are carried out by the Aviation Section under delegation of the DMS/CMS. Only aviation specialized staff are to be assigned for this purpose.

318. The overall responsibilities applicable to the contractual management of United Nations air assets provided under a commercial Aircraft Charter Agreement, LOA or pro bono agreement in a field mission are:

- Fleet composition analysis;
- New aircraft procurement requirements;
- Contractual extensions or amendments;
- Monthly AUR Report;
- Contract/Crew/AUR database management;
- Fleet utilization programme;
- Aircraft acceptance inspections;
- Contractual performance evaluations;
- Cost recoveries/reimbursements.

319. Contractual interpretations regarding the contractor's and United Nations obligations within the field missions shall **only** be provided by TCU in consultation with AMCU when necessary.

320. Company site managers, as well as TCC Aviation Military Liaison Officers, shall be accredited with TCU, in order to be recognized as the official representatives for any related contractual matters within the field mission. Thereafter, this representation shall be communicated through the mission administration to other sections.

321. TCU provides to MAOC the technical contractual information required for the adequate planning of air assets within the contractual scope and limitations.

322. TCU provides statistical operational information to MAOC and the CAVO, to ensure an effective and efficient utilization of the air assets, within the scope of the mission mandate.

323. The implementation of the Aviation Information Management System (AIMS) streamlines the data collection and core business processes. A Fleet Management Module is included, which contains vital contractual information in order to reflect the actual and forecast utilization of the fleet. This allows the Aviation Section to perform the most appropriate operational tasking and monitoring.

324. TCU shall maintain a crew database containing information about crew members:

- Passport numbers and expiration dates;
- Professional licenses and their validity;
- English proficiency levels (as appropriate);
- Flight hours required as per contract (logbooks);
- Medical certificates and their validity;
- Dangerous goods certificate of training and validity;
- Mission ID card and validity.

J.5. Aircraft Use Reports (AURs)

325. The Aircraft Use Report (AUR) is the basis for gathering aviation statistical flight information. AURs are submitted on a daily basis, upon completion of the flight, from the air carrier and TCCs. Based on the data from the single AURs, a Monthly AUR Report for all aircraft must be produced and sent to AMCU/ATS on the first week of the following month.

326. Original AUR hard copies shall be retained and archived by the missions for record purposes. These copies may be required for audit purposes, both at Headquarters and within the missions. See general administrative archiving directives.

327. AIMS provides for an AUR module for automatic aircraft use reporting and invoice processing for contractual flight time utilization.

328. For the purpose of AUR standard flight time computation and reporting for fixed wing and rotary wing aircraft, refer to the Terms and Definitions in this Manual, under Flight Time – Aeroplanes and Flight Time – Helicopters respectively. Use these definitions unless otherwise specified in the particular LTAC or LOA.

J.6. Operational support – Ground handling services, accommodation, meals and transportation for air and ground crews

329. The Aircraft Charter Agreements or LOAs shall mention the entitlements when an operator is required to overnight at a location other than the main operating base, either within or outside the mission area. The mission should:

- Coordinate suitable overnight accommodation and transportation at no cost to the affected air and ground crew members on the same standard as for United Nations international staff, when possible;
- Coordinate the reimbursement of the carrier for reasonable operational support expenses incurred by the affected air and ground crew in providing their own accommodation, meals and transportation at the overnight location;
- Coordinate the accommodation of military personnel in military facilities; or, where

no military accommodation is available, provide the same accommodation as for civilian crews;

- Ensure that, when a transit or destination stop is expected to be longer than four (4) hours, the crew is entitled to accommodation, meals and transportation from and to the airport; either within or outside the mission area.

330. TCU is responsible for coordinating the necessary operational support services for the performance of the approved ATO, either within or outside the mission area. These services include, but are not limited to: aircraft fuelling and servicing, overflight permits, GHS/GSE, catering, etc.

331. For additional information and guidance, please refer to the following annexures to Chapter J of this Manual

- ANNEX J1: LOCAL AREA ORIENTATION AND AIRCREW IN-PROCESSING;
- ANNEX J2: UNITED NATIONS AIRCRAFT CALL SIGNS;
- ANNEX J3: AVIATION FUEL MONITORING PROGRAMME;
- ANNEX J4: OPERATIONAL AND EMERGENCY EQUIPMENT REQUIREMENTS;
- ANNEX J5: CREW FITNESS HEALTH PRECAUTIONS.

K. AVIATION CONCEPT OF OPERATIONS

K.1. Aviation planning process

332. This chapter outlines the basic aviation planning process for Aviation Officers to prepare, at the strategic level, an aviation concept of operations (ConOps) is an integral component of the mission concept of operations.

333. The aviation planning process starts with the Security Council mandated objectives as stated in the Security Council resolution. Provisions in the resolution could include self-protection, protection of United Nations personnel and equipment by use of force, and coalition operations. Air tasks are described in Chapter G of this Manual.

334. Additional guidance is found in the mission SOFA and ConOps for Military, UN Police (UNPOL), Political Affairs and Administration. Air Transport Service participates in the development of the mission ConOps, as an aviation advisory office to the head of mission.

335. In order to support the mission ConOps for initial and subsequent operations, the involved Aviation Officer must know, understand and consider the following:

- Threats to aviation assets/infrastructure;
- The Aviation Risk Management process;
- United Nations Military and Police Force structure and basing;
- Main operating base and deployed locations for passenger and cargo movements;
- Specific requirements for special aviation tasks;
- Timelines and mission support phases.

336. Additionally, the Aviation Officer must review the mission operational support plan/map, which provides further details and benchmarks, the logistical support plan, expansion, sustainment and drawdown to fulfil the objectives.

337. The Aviation ConOps drives the mission Aviation budget submission in terms of the required personnel, assets, support equipment and services to accomplish the tasks within an acceptable level of risk.

338. Each mission phase, as listed below, shall be analysed for necessary resources, strategic objectives, timelines, etc:

- Initial mission start-up;
- Rapid build-up;
- Sustainment;
- Expansion;
- Drawdown;
- Natural disaster/crisis/emergency evacuation;
- Liquidation.

339. The mission security and threat levels shall be considered. Refer to DSS for details on current threats and security level.

340. Aviation ConOps shall understand and address the limiting factors and constraints that may affect local and regional aviation operations. These factors include, but are not limited to:

- The aviation infrastructure/services in the mission and adjacent countries;
- Airspace management, NAVAIDS, communications, air traffic control system, etc.;
- Multimodal transportation network with consideration of international, regional and local airports, road network and river and waterways;
- Geographical and environmental factors, such as topography (mountains, desert, water, jungle and volcano activity) and climate conditions or weather phenomena (summer temperatures, snow and ice and winter conditions, fog, thunderstorms, monsoon rain and typhoons and hurricanes);
- Geopolitical aspects of warring factions, centres of influence and restricted or prohibited areas;
- Other United Nations agencies and programmes and activities in the mission area;

341. Aviation ConOps shall be periodically reviewed, considering changes in the mission mandate, aviation infrastructure, security/political situation, etc.

K.2. Mission start-up planning

342. Initial planning assessment for new field missions is provided by ATS as part of a Technical Assessment Mission (TAM), in coordination with other United Nations Headquarters departments.

343. The following are considered during a TAM:

- Initial operational requirements/assumptions, operational environment, mission mandate, evaluation of available resources/infrastructure in the host country, threats and risks, etc.;
- The aviation staff participating on a TAM, which should be composed of members from ATS and could include aviation staff from field missions.

344. Upon completion of the TAM, a report shall be prepared together with the proposed initial Aviation ConOps, for approval by the Chief of ATS prior to DOS Senior Management approval.

L. MISSION AVIATION BUDGET

L.1. General scope

345. This chapter provides guidelines for the preparation of the mission Aviation budget in support of the ConOps, mission support plan and mandate. The budget requires intricate detail and highly specific information to substantiate the cost of aircraft rental and related operational requirements.

346. The mission CAVO is responsible for the timely preparation and submission of the Aviation budget proposal, in strict compliance with *United Nations Financial Regulations and Rules* and with ST/SGB/2019/2, *Delegation of authority in the administration of the Staff Regulations and Rules and the Financial Regulations and Rules*. Copies of both must be duly maintained in the Aviation Technical Compliance Unit.

347. It is extremely important for the Aviation budget to be submitted in a timely and accurate manner. Without an Aviation budget submission, funding shall not be made available to the given mission. For a Peacekeeping Mission (PKM), the annual budget period is from 1 July to 30 June of the next calendar year, while for a Special Political Mission (SPM) it is from 1 January to 31 December. Mission Budgets are routinely developed from April to June for the SPMs (for the following calendar year's budget) and from August to October for the PKMs (for the following fiscal year's budget). In this regard, budget submissions for new or additional aircraft should be developed and submitted approximately nine months in advance of the aircraft's anticipated arrival date.

348. Chief Aviation Officers should have a copy of their mission budget for reference throughout the fiscal year and as a basis for determining the Aviation budget for the next fiscal year.

349. The Aviation budget shall have main entries for the following:

- Aircraft fleet composition (manned and unmanned aircraft) and flight hours (rental and operations);
- Petrol, oil and lubricants;
- Liability insurance;
- Aircrew subsistence allowance;
- Air navigation, landing fees and airport charges;
- Services (airfield, GHS, training, special tasks, etc.);
- Aviation equipment and supplies;
- Personnel (training, travel, etc.);
- Technical publications;
- Others.

350. Preparation of the mission Aviation performance report for expenditure in a given fiscal year is also the responsibility of the mission CAVO. The information obtained from the performance report shall assist in the formulation of the following year's budget, such as flight hour requirements, fuel usage and fuel prices.

L.2. Budget structure

351. The mission Aviation budget shall be composed mainly of two parts:

- Air Operations explanatory notes;
- Air Operations Budget estimate spreadsheet.

352. The Air Operations explanatory notes are to be included as a separate annex in the mission Aviation budget submission. See Annex L1 in this Manual, for a template for these notes with additional guidance; and Annex L2 for a completed example of a mission's submission.

353. The Explanatory Notes are to include a brief description of the anticipated air activity within the mission area during the budget year and provide relevant information requested by United Nations Headquarters. Particular notice is to be given to the Advisory Committee on Administrative and Budgetary Questions (ACABQ) recommendations presented to the General Assembly, which are outlined below:

- Full explanations are to be given in the budget document when the mission proposes changes to the existing level of air assets;
- In determining the required air assets for a mission, full account should be taken of the availability of other transportation alternatives, such as road, rail, water, etc.;
- Use of mission aircraft shall be restricted to official purposes and any deviation shall, without exception, require appropriate reimbursement;
- In performance and budget reports, information on the passengers and cargo, both budgeted and non-budgeted, are to be provided in tabular form;
- Information provided on the use of air assets should be up to date;
- Efforts are to be made to integrate and plan for the use of inter-modal transport in an effective and cost-efficient manner;
- A commensurate human resources capacity to manage air operations should be installed;
- Estimates for budget expenditures on items such as positioning/depositioning and painting of aircraft must take into account whether the aircraft is being replaced or not;
- Requirement for MEDEVAC facilities should not be used as a justification for the maintenance of expensive and under-utilized air assets. MEDEVAC should not be taken as the primary function of the aircraft, and available/appropriate air assets are to be utilized for MEDEVAC/CASEVAC.

354. The budget shall be prepared in the Umoja Business Planning and Consolidation module. This is an Excel-based semi-automatic tool embedded in Umoja and developed by United Nations Headquarters to make the preparation of budgets easier and to reduce data entry error. All of the Air Operations account codes are under the direct control and accountability of the CAVO.

355. ATS shall provide advice when a new field mission budget is required and shall coordinate with the new field mission to prepare cost estimates that are mandated for denoted periods of time.

L.3. Aviation personnel structure

356. Figure 15 below is an estimate of the aviation staff required by ATS as part of the Budget submission process. The actual positions, grade and associated number of personnel may vary between missions and based on the Mission ConOps and the Mission Aviation Support Plan (i.e. daytime only or 24/7 ops). ATS shall ensure that a balanced staffing table is developed to support the initial start-up phase and allow for future growth.

357. Provisions shall be made to maintain certain necessary aviation staff during a mission downsize period, to allow for the lowest levels of aviation risk.

MISSION AVIATION PERSONNEL STAFF											
Section -Unit	Task Area	Position	Grade	P5	P4	P3	FS	GS	NO	UNV	TOTAL
Aviation Section	Aviation	Chief Aviation Officer	P5	1							6
Aviation Section	Aviation	Administrative Assistant	GS					1	1		
Aviation Section	Aviation	Clerk/Driver	LN						3		
Aviation Section	OPS	Chief, Mission Air Ops. Centre	P4		1						17
Aviation Section	OPS	Aviation Officer	FS				2		1		
Aviation Section	OPS	Aviation Assistant	UNV						1	3	
Aviation Section	OPS	Radio Operator	LN						4		
Aviation Section	OPS	Air Traffic Controller	LN						5		
Aviation Section	Accounting	Chief, Tech. Compliance Unit	P3			1					12
Aviation Section	Contract	Contract Monitor	FS				1		1		
Aviation Section	Accounting	Contract Monitor Assistant	UNV						1	2	
Aviation Section	Accounting	Accounting Assistant	GS					2	1		
Aviation Section	Accounting	Clerk/Driver	LN						3		
Aviation Section	Terminal	Chief, Airfield Support Unit	P3			1					17
Aviation Section	Terminal	Aviation Officer	FS				1		1		
Aviation Section	Terminal	Aviation Assistant	UNV						1	3	
Aviation Section	Terminal	Passenger Booking Clerk	LN						1		
Aviation Section	Terminal	Cargo Handler	LN						4	2	
Aviation Section	Terminal	Fuel Handler	LN						3		
Sector Aviation Unit, Sector#1	OPS	Sector Aviation Officer	P3			1					14
Sector Aviation Unit, Sector#1	OPS	Aviation Officer	FS				1		1		
Sector Aviation Unit, Sector#1	OPS	Aviation Assistant	UNV							1	
Sector Aviation Unit, Sector#1	OPS	Passenger Booking Clerk	LN						1		
Sector Aviation Unit, Sector#1	OPS	Cargo Handler	LN						3		
Sector Aviation Unit, Sector#1	OPS	Fuel Handler	LN						3		
Sector Aviation Unit, Sector#1	OPS	Air Traffic Controller	LN						3		
Sector Aviation Unit, Sector#2	Aviation	Sector Aviation Officer	P3			1					14
Sector Aviation Unit, Sector#2	Aviation	Aviation Officer	FS				1		1		
Sector Aviation Unit, Sector#2	Aviation	Aviation Assistant	UNV							1	
Sector Aviation Unit, Sector#2	Aviation	Passenger Booking Clerk	LN						1		
Sector Aviation Unit, Sector#2	Aviation	Cargo Handler	LN						3		
Sector Aviation Unit, Sector#2	Aviation	Fuel Handler	LN						3		
Sector Aviation Unit, Sector#2	Aviation	Air Traffic Controller	LN						3		
Sector Aviation Unit, Sector#3	Terminal	Sector Aviation Officer	P3			1					14
Sector Aviation Unit, Sector#3	Terminal	Aviation Officer	FS				1		1		
Sector Aviation Unit, Sector#3	Terminal	Aviation Assistant	UNV							1	
Sector Aviation Unit, Sector#3	Terminal	Passenger Booking Clerk	LN						1		
Sector Aviation Unit, Sector#3	Terminal	Cargo Handler	LN						3		
Sector Aviation Unit, Sector#3	Terminal	Fuel Handler	LN						3		
Sector Aviation Unit, Sector#3	Terminal	Air Traffic Controller	LN						3		
			TOTAL	1	1	5	7	3	64	13	94

Figure 15 - Mission Aviation staffing table - Sample for a Mission with an HQ and three different Air Regions and a Chief Service Delivery at the D1 level. For Missions with less Air Regions and a Chief Service Delivery at the P5 level, the grades and number of the Aviation staff should be reduced accordingly.

358. For additional information and guidance, please refer to the following annexures to Chapter L of this Manual

- ANNEX L1: AIR OPERATIONS BUDGET EXPLANATORY NOTES;
- ANNEX L2: AIR OPERATIONS BUDGET – MISSION EXAMPLE.

M. AVIATION FINANCIAL / RESOURCE MANAGEMENT

M.1. Financial and resource management

359. Along with Aviation budget preparation and monitoring, financial resource management is one of the most critical responsibilities of the Aviation Section. This chapter contains information to assist in financially managing aviation resources in the field mission.

360. The mission Aviation Section shall maintain a database of aircraft by tail and registration number with their respective United Nations call signs. This database should contain the Aircraft Charter Agreement or LOA number, together with the start and expiration date, for every aircraft assigned to the mission.

361. In addition, a database of all aviation-related services providers (GHS, NAVAIDS, etc.) shall be maintained, reflecting the relevant contractual and cost information.

M.2. Budget tasks

362. The Monthly Aviation Report (MAR) requires a record of the number of flight sorties per task. However, the budget requirement task is to record the number of flight hours performed in basic tasks, such as:

- Hours in passenger/cargo transportation;
- Hours in patrol/defence/observation/protection defence;
- Hours in CASEVAC/MEDEVAC and Search and Rescue;
- Hours in other tasks.

363. Based on the MARs provided by the Field Missions during the first five days of the following month, ATS shall compile all information in a single database called e-MAR. The MAR is used for statistical reporting purposes and for the verification/certification of services of commercial aircraft contractual invoices. The verification/certification of services of aircraft under LOAs is done by the Field Mission.

364. AIMS provides real-time digital MAR reports and automated processing of invoices in conjunction with the FBFD. (Regardless of the system used to record and report the flight hours, the latter shall be rounded to the second decimal. e.g. 10.56182 flight hours = 10.56 flight hours).

M.3. Operational charges reimbursement to operators

365. Air operators should be advised that invoices for operational charges entitled under the Aircraft Charter Agreement or LOA (fuel, NAVAIDS fees, airport/landing fees, etc.), when not provided by the mission, should be submitted as soon as possible to TCU to avoid delays in processing. The following information must be included in the claim package:

- The **original** invoice from the service provider;
- Proof of payment by the operator;
- Cover letter requesting the reimbursement including bank account details for transferring funds.

M.4. Aircrew accommodation, meals and transportation reimbursement

366. Reimbursements for aircrew accommodation, meals and transportation shall not exceed the official daily subsistence allowance (DSA) rate. Copies of the ATO and AUR should accompany invoices.

367. In exceptional cases, and with justification, the DMS/CMS may authorize reimbursements exceeding the applicable DSA rate.

368. When transportation shall be provided by the mission to the carrier as per the Aircraft Charter Agreement, and the mission does not have the resources to do so, the carrier may request the mission for reimbursement of the transportation expenses incurred as per the established United Nations rules.

M.5. Non-revenue flights – Cost recovery

369. The mission shall seek to recover any cost incurred by the United Nations relating to an NRF. Each mission shall include, in their respective SOPs, the mechanisms for cost recovery procedures mentioned in this chapter.

M.6. Non-mission passengers/cargo – Cost recovery

370. Cost recovery for the transportation of non-mission passengers/cargo on board DOS aircraft, when established by the mission, shall be processed by MOVCON in line with the mission DMS/CMS directives. Aviation Section shall provide the necessary financial information, as per the related Aircraft Charter Agreement or LOA.

M.7. Welfare flights

371. DOS aircraft may be used for welfare flights, provided the aircraft is not otherwise required for operational tasks, and all costs are paid by the individuals participating in the flight.

372. Costing for welfare flights shall be based on the aircraft operational cost only, rather than the guaranteed cost. Operational cost includes: flight hour cost, fuel, crew accommodation and meals, NAVAIDS fees, ground handling, when not provided by the mission.

373. To determine each passenger's share, divide the total cost by the number of passengers.

M.8. Inter-mission support flights

374. DOS aircraft used for inter-mission flights in support of the United Nations system shall be reimbursed by the requestor by variable costs only, such as flight hours, ground handling, navigation, fuel, HOTAC, etc. The daily aircraft contractual fixed cost is already paid by the mission who contracted the aircraft. However, in exceptional cases when Missions utilize different budget source for a special occasions (such as electoral support or other similar projects) which is not part of Missions approved regular yearly budget, Missions may agree to reimburse, all incurred costs which includes Fixed, Variable and other related costs).

M.9. Aircraft utilization calculation

375. Aircraft utilization is a statistic reflecting various components regarding the usage of the aircraft, which includes number of passengers, amount of cargo, aircraft capacity, and number of flights performed.

376. Unlike in commercial air operations, air movements in United Nations missions are special in nature and purpose. Tasking of an aircraft could be different from a commercial operation, such as supporting the mission mandate, required standby aircraft for SAR or aero MEDEVAC, a border patrol flight with observers on board, CASEVAC flight, transporting a

technician to fix a remote antenna, etc. These tasks are not necessarily maximizing the aircraft utilization, as it would be considered in the aviation industry.

M.9.1. Methodology

377. A clear distinction shall be made between regular flights (RFs) and special flights (SFs), as the objectives of these flights differs.

378. The objective of the flight task is to be considered the main driving element for this methodology.

Regular flights (RFs)

379. The utilization of RFs calculation shall be based on sorties without counting ferry legs, due to the fact that dead legs are necessary to accomplish the task. However, flight hours shall be accounted for.

380. Ferry legs are those flight segments without passengers and/or cargo from/to the aircraft base to/from other locations for technical reasons, such as refuelling, positioning/de-positioning.

Special flights (SFs)

381. SFs achieve 100% of the mission's objective regardless of the number of passenger/cargo transported, as this flight is special in nature. Tasks include CASEVAC/MEDEVAC, SAR operations, training and orientation flights, patrolling, military operations, re-supply, etc. Therefore, the aircraft utilization for all SFs is considered to be 100% utilization.

M.9.2. Aircraft capacity utilization

382. There are three distinguished types of aircraft: passengers only, cargo only, and combined (combi). The maximum number of seats and maximum amount of cargo the aircraft can upload, or a combination of both, shall be considered for aircraft capacity utilization.

383. The capacity of most aircraft is affected by several factors, such as area of operation, distance, field elevation, availability of diversion airfields, prevailing weather conditions, airport infrastructure, NAVAIDS, fuel availability, etc. Sometimes, the mission shall task a type of aircraft, whether its entire capacity is fully utilized or not.

384. For example, a passenger aircraft with a capacity of 220 seats flying to far destinations might only be able to transport half of its capacity. Likewise, an MI-8 helicopter with a capacity of 22 seats or 4 tons of cargo might only be able to carry half of its capacity to far destinations where fuelling or diversion points are not available along the route.

M.10. Audit source documentation

385. Internal and external auditors shall conduct regular audits of the mission and the Aviation Section. These guidelines should assist the Aviation Officers in complying with United Nations Procurement and Financial regulations. For this purpose, the following is to be considered:

- Ensure United Nations civil and military aviation contractors are in compliance with the provisions of the Aircraft Charter Agreements and LOAs;
- Verify goods and services were rendered/provided;
- Establish an accounting system to verify, track and monitor invoices for payments or claims to recover; and perform follow-up actions with Procurement and Finance within the mission.

386. The following documents, among others, are the main source for auditing purposes:

- AURs with supporting documentation (GH services invoices, ATO, fuel charge notes/invoices, etc.);
- Aircraft Charter Agreements, LOAs and pro bono agreements with relevant amendments;
- Policy/guidance instructions;
- Mission Aviation Section SOPs;
- Cost recovery request document.

M.11. Exemptions under a Status of Forces Agreement (SOFA)

387. The SOFA shall provide specific details in respect of the charges exemptions regarding air operations performed by a United Nations marked aircraft.

388. Those exemptions are typically: airport and airspace dues, landing fees, hangar space, parking and overflight fees.

389. Charges for services rendered to the United Nations shall be charged at the most favourable rates.

N. AIRFIELDS/AIR TERMINALS MANAGEMENT

N.1. General

390. All airfields/air terminals infrastructure, services and equipment under United Nations falls under delegation of authority from the CAVO to the Chief of AATU. As an aeronautical activity, all airfields and air terminals infrastructure, services and equipment are under the scope of the *Convention on International Civil Aviation Annexes 9 (Facilitation), 14 (Aerodromes) and 17 (Security)* respectively, and related documents.

391. ATU ensures that all mission-operated aircraft are provided with adequate ground handling services/equipment, NAVAIDS, adequate aerodrome infrastructure, ECR, meteorology, AVSEC, etc.

392. See also IATA *Airport Ground Handling Services Manual* for details on services and ground support equipment.

N.2. Airfields/air terminals – Personnel

393. Qualified aviation staff should be designated to fill at least the following positions under the standard ATU organizational chart structure, when these services are to be provided by the United Nations:

N.2.1. Aerodrome operations management

- Air Terminal Station Manager;
- Airside Manager;
- Aviation Security Officer.

N.2.2. Emergency Crash and Rescue

- Aviation Fire Chief;
- Chief Fire Station;

- ECR medical specialist;
- Medical technician/ambulance driver;
- Fire fighters/driver.

N.2.3. Airside ramp management/Fleet aircraft servicing

- Airside security personnel;
- Marshallers/Wing walkers;
- Aircraft GSE operators;
- Ramp/FOD controllers;
- Aircraft servicing/Handling personnel;
- Dispatch/Commissary.

N.2.4. Meteorology services

- Meteorology Officer;
- Meteorology Assistant;
- Weather Observer.

N.3. Airfields Terminals Unit (ATU) – Core functions

394. Field missions routinely conduct aviation operations in completely or partially non-functioning aviation infrastructures, with no or limited airport services. This chapter provides guidance on the minimum required standard functions to allow safe, effective, efficient and secure aerodrome operations.

395. The Chief of ATU must coordinate all elements to ensure that staff perform their functions to the highest standard and that they possess and maintain current valid licences and/or qualifications to conduct their duties.

396. The following are considered the core functions assigned to ATU:

N.3.1. Passenger/cargo handling oversight

397. Monitor the passenger/cargo/mail handling operations. The handling execution is under the responsibility of MOVCON. See DOS *Movement Control Manual* for details.

N.3.2. Airport ground handling services (GHS)

398. ATU is responsible for the overall GHS services and the airside area movements. All areas outside the air terminal building or warehouse itself, within the aerodrome perimeter, are considered to be the airside area.

- Ensure for overall GHS: electrical power, potable water, latrine service, air conditioning, cleaning, waste management, air start-up, etc., when required;
- Ensure adequate GSE availability;
- Arrange/provide for aircraft towing, manoeuvring, ramp parking, etc.;
- Ensure for aircraft refuelling equipment and facilities;
- Ensure that proper and accurate aircraft load documentation is delivered to the PIC in a timely manner.

N.3.3. Aviation Security Services (AVSEC)

399. AATU is responsible for the implementation and oversight of aerodrome and aircraft AVSEC compliance through DSS. This includes: access to the air terminal, access control to airside areas, passenger/baggage/cargo security screening process before entering into the assigned sterile areas, etc. See *Annex 17 to the Convention on International Civil Aviation: Aviation Security* for details, and Chapter P of this Manual.

N.3.4. Emergency Crash and Rescue (ECR)

400. AATU shall ensure that adequate ECR services are provided in support of the air operations. The operating hours for this service depend on the airport operating times and the Daily Flight Schedule. ECR coverage may be required for other services, such as refuelling and dangerous goods handling.

401. Aviation ECR specialized equipment (such as fire trucks, portable personal protection, rescue gear, etc.) are under the full responsibility of the Aviation Fire Marshall under ATU. Other ECR equipment (such as aviation fire extinguishers) should be coordinated with DSS for serviceability and implementation.

402. Aviation Safety is responsible for developing the ERP Plan in coordination with Aviation Section, the local authorities and MAOC.

403. ECR services should meet with *Annex 14 to the Convention on International Civil Aviation: Aerodromes*, related documents and host country directives. Services should also be commensurate with the level of aircraft operations. In cases where the mission cannot meet these requirements, adequate risk mitigation actions must be taken in coordination with MAOC.

N.3.5. Training programme

404. A training programme for ATU personnel shall be developed in conjunction with the mission Aviation Section Training Programme and should consist of a combination of classroom and on-the-job training. Most of the total training time should be dedicated to on-the-job training, which replicates situations that may be encountered in the work environment.

N.3.6. Ground support equipment maintenance

405. ATU shall coordinate with the mission Transport Section for the required maintenance to the ground support vehicles/equipment to ensure their serviceability.

N.3.7. Aeronautical Information Services (AIS)

406. AIS are to be provided by the local CAA, as per *Annex 15 to the Convention on International Civil Aviation: Aeronautical Information Services*. In locations where those services are limited or not available, the field mission under the authorization of ATS, on a case by case basis, shall provide certain services to DOS aircraft only, in an advisory role. Coordination with the local CAA shall be made.

407. Note: Air traffic control services are to be provided by the local CAA or designated agency, as per *Annex 11 to the Convention on International Civil Aviation: Air Traffic Services*. **Field missions are prohibited from providing air traffic services given the liabilities to the organization involved in this.**

N.3.8. Aerodrome infrastructure

408. ATU provides oversight and ensures, when applicable, the adequate condition of the airside area (ramp, runway, taxiway, access roads, etc.), air terminal building, control tower, fence, etc., through the implementation of a construction, repair and maintenance programme. Civil works related aspects are referred to the Engineering Section for relevant contracting and management action for construction, repairs and maintenance. The scope of responsibilities may also include:

- All forms of airside ground maintenance, including foreign object damage (FOD) control, grass or tree cutting, drainage control, solid waste management including the treatment and disposal of hazardous wastes and materials (e.g. spent Petroleum, Oils & Lubricants- POL, lead-acid batteries, etc.), general cleaning services, provision of water, among others;
- Removal of disabled aircraft (fixed/rotary wing);
- Wildlife control, to include birds and domestic stock, shall be in place as per ICAO SARPs and detailed in the FOD programme;
- Control of obstacles impacting on the operation of aircraft, including construction, modification, repair, lowering, lighting, marking, demolition and maintenance;
- Navigation aids installation, repair, calibration and certification, including ground and flight checks and emergency power backup systems;
- Airport physical security including construction, repair and modification of perimeter fences, gates, watchtowers, lighting and electrical monitoring devices (remote video monitors, etc.);
- General airport infrastructure construction, repair and maintenance, including roads on and in the vicinity of the airport;
- Establishment, repair and maintenance of meteorological**,** communication, radar and lighting equipment.

N.3.9. Meteorological services

409. In coordination with MAOC, ATU shall ensure that all the necessary meteorological services are available for DOS aircraft.

410. Those services shall either be provided by United Nations staff or through a contracted service, when the host country's services are not sufficient, or the mission deems it necessary.

N.3.10. Information management

411. Gather, process and disseminate all relevant AATU information.

412. Report all unusual events, incidents and accidents and FOD occurrences.

413. Immediately advise on any injured person in the air terminal or aerodrome area under its supervision.

N.4. Ground handling services (GHS)

414. Commercial or TCC-provided GHS are considered for those places in which services are not provided by hosting Country or by the Mission aviation section civilian staff.

415. Requisitions shall be made as per the established United Nations Procurement Rules and Regulations and in coordination with the Air Transport Service.

416. A Statement of Requirements/Works (SOR/SOW) shall be prepared by the mission Aviation Section, in line with the guidelines provided by the Air Transport Service.

417. The SOR/SOW shall include a detailed description of the required services, as per related ICAO Annexes and IATA *Airport Handling Manual* and a minimum of standardized management core elements, including, but not limited to:

- Performance review (Quality Audit System including Key Performance Indicators);
- Project management;
- Operations management;
- Quality Management Systems Programme Safety Management System;
- Response capacity/planning assumptions.

418. For additional information and guidance, please refer to the following annexures to Chapter N of this Manual.

- ANNEX N1: MARSHALLING;
- ANNEX N2: AIRSIDE AREA – SAFETY;
- ANNEX N3: AVIATION FUELLING OPERATIONS;
- ANNEX N4: WINDSOCKS;
- ANNEX N5: AVIATION RAMP MANAGEMENT;
- ANNEX N6: FOREIGN OBJECT DEBRIS (FOD) PROGRAMME.

O. MISSION AVIATION STANDARD OPERATING PROCEDURES

O.1. Guidance

419. Each field mission with DOS-contracted aircraft shall develop Aviation SOPs, in line with the general operational provisions established in this Manual and stating how it shall implement the requirements contained in the DOS aviation regulatory regime.

420. The Aviation SOPs should be coordinated with other Sections (MOVCON, Security, Aviation Safety, FHQ, etc.) for inputs on related common matters, and signed by the CMS/DMS or higher mission Senior Management for approval.

421. As part of the Aviation Quality Management System, the CAVO is responsible for the compliance oversight on the SOPs.

422. As the SOPs are “living documents”, they must be reviewed continuously, and amended as required, with a review taking place at least every two years.

423. As a United Nations guideline, all SOPs shall be formatted as per the standard template provided by the DPO Policy and Best Practices Service. See the United Nations website.

O.2. Aviation SOP content

424. As a guideline, the following proposed standard content shall be considered.

Aviation Standard Operating Procedures

1.0 General information

1.1 Aviation Section vision/mission statement
1.2 Aviation Section organizational chart
1.3 Aviation Section and Aviation Safety interaction process

2.0 Description of role of key mission personnel

2.1 Director/Chief of Mission Support
2.2 Chief of Service Delivery – Chief of Supply Chain Management
2.3 Chief Security Officer
2.4 Chief Aviation Officer
2.5 Safety Officer
2.6 MOVCON

3.0 Aviation Section organization and staff responsibilities

3.1 Air Operations Unit and Mission Air Operations Centre (MAOC)
3.2 Airfields Terminals Unit (ATU)
3.3 Technical Compliance Unit (TCU)
3.4 Designated Air Region
3.5 Budget
3.6 Assurance
3.7 Training
3.8 Cell
3.9 Air Operations Liaison Officer – Military Aviation cell

4.0 Air transportation – Procedures

Describe general procedures in line with Chapter 3 of this Manual.

5.0 Airfields terminals – Procedures

Detail procedures in line with Chapter 10 of this Manual.

6.0 Technical compliance

Detail procedures in line with Chapter 6 of this Manual.

7.0 Assurance and Standards / Quality Audit Programme

Detail procedures in line with Chapter 5 of this Manual.

8.0 Budget

Detail procedures in line with Chapters 8 and 9 of this Manual.

9.0 Aviation personnel and training

Detail procedures in line with Chapters 8 and 14 of this Manual.

10.0 General procedures

Detail procedures in line with the Annexes and Appendices of this Manual.

P. AVIATION SECURITY (AVSEC)

P.1. General

425. This chapter has been developed in line with An*nex 17 to the Convention on International Civil Aviation: Aviation Security*, and *Annex 6 (Operation of Aircraft*), *Annex 9 (Facilitation)* and *Annex 18 (The Safe Transport of Dangerous Goods by Air)*, and related documents.

426. The primary objective of AVSEC is to assure the protection and safeguarding of passengers, crew, ground personnel, the general public and facilities of an airport against acts of unlawful interference perpetrated on the ground or in flight.

427. This chapter is to provide general guidelines and procedures to the field mission Aviation Sections, in order to develop their own AVSEC Programme and SOPs, in line with their particular operational environment and mandate.

428. These general guidelines are not intended to replace the AVSEC programmes of the DOS-contracted commercial air carriers or local authorities.

P.2. Responsibility and accountability

429. The overall responsibility and accountability over the United Nations Security Management System, which includes AVSEC, rests with the DSS. See: ST/SGB/2013/5.

430. Delegation of authority may be granted through the Air Transport Service, at the strategic level, for AVSEC-related matters. At the field level, the AVSEC overall authority delegation is transferred through the DMS/CMS by the HOM.

431. The CAVO is directly responsible, by delegation, for the development, implementation and oversight compliance of the related AVSEC procedures at the operational/tactical level, in conjunction with ATS strategic advice.

P.3. AVSEC commitment

432. The Air Transport Service provides strategic oversight and guidance to the field missions to pursue the highest AVSEC compliance levels on the intended air operations.

433. Field missions are to guarantee the highest levels of AVSEC at the operational and tactical levels.

P.4. Core functions

434. Among those AVSEC core responsibilities/functions inherent to each Aviation Section are:

- Develop and implement the mission AVSEC programme;
- Develop and implement the mission AVSEC SOPs;
- Implement an AVSEC Continuous Quality Control and Staff Training Programme;
- Liaise with the United Nations Aviation-related contractors/operators for AVSEC compliance and implementation;
- Liaise with local civil aviation or airport authorities and law enforcement for the appropriate implementation of the AVSEC programme.

P.5. Operational guidance

435. AVSEC shall be considered by the Air Operations Planning Officers and MAOC, for the purpose of issuing and approval of an ATO, embedded as part of the Aviation Risk Management process.

436. The mission AVSEC Programme shall include its own procedures for risk assessment on security-related matters.

437. An ERP is to be supported by the AVSEC Programme.

438. The Chief of AATU, under the CAVO delegation, is responsible for the implementation of the AVSEC Programme. This includes liaising and coordinating with the local authorities.

439. A monthly AVSEC occurrence summary report shall be prepared by the Chief of AATU for the CAVO.

440. A quarterly AVSEC meeting shall be conducted by the Chief of AATU with the main related stakeholders, in order to address the necessary matters for the improvement of the AVSEC conditions within the mission.

Q. UNITED NATIONS AVIATION INSURANCE

Q.1. General

441. The aviation insurance policies cover the United Nations and its programmes worldwide, and other participating organizations of the United Nations system, in respect of legal liabilities. For details about insurance coverage and exclusions, see the insurance policy itself.

442. This chapter provides a summary overview and guidelines in respect of the United Nations aviation insurance policies and does not replace the Insurance Policy itself or any applicable United Nations policies and directives related.

443. Field missions are required to provide information to ATS, prior to the renewal of the policy, on operated aircraft, airport operations, passengers/cargo transported, etc.

444. Should the field mission have airfield services contracts established, the mission should review the contract to ensure that airport liability and war risk airport liability, including aviation products and completed operations, are included.

Q.2. Master Aviation Third Party Liability Insurance – Coverage

445. The Master Aviation Third Party Liability Insurance Policy covers United Nations legal liability to third parties, excluding troops, UN employees, agents and servants, arising from aviation operations. The policy has historically consisted of three sections, as follows:

Q.2.1. LOA and pro bono military aircraft – United Nations primary coverage

446. Third party liability includes passengers for bodily injury and property damage (aircraft for which no underlying primary insurance exists) arising out of the operation of the aircraft.

Q.2.2. Commercial contracts (Aircraft Charter Agreement) – Coverage

447. The primary aviation insurance coverage is provided by the carrier. The United Nations coverage is contingent and/or excess liabilities in respect of leased and/or chartered aircraft operations. Coverage includes long-term charters, flights undertaken by the Secretary-

General and/or his representatives in non-owned/chartered aircraft and TCC/Police Contributing Countries (PCC) rotation flights.

Q.2.3. Liability involving airport operations

448. This includes mobile equipment used in the United Nations airport operations (for example, loading and offloading aircraft at their mission locations). It should be noted that in the instances when airport operations, including aircraft refuelling, are outsourced to an outside contractor, the underlying insurance for airport liability should be provided by the contractors.

449. Coverage is provided worldwide 24 hours a day.

Q.3. Air Travel Insurance Policy – Coverage

450. The Policy **covers** the following categories of personnel:

- The United Nations Secretary-General and staff members of the United Nations and its agencies, separate funds and programmes and subsidiary organs;
- Staff members of other international organizations who are temporarily assigned by their respective organizations to the United Nations and its agencies, separate funds and programmes and subsidiary organs;
- All other persons eligible for compensation under Appendix D to the United Nations Staff Rules or equivalent compensation provisions, and travelling on United Nations business at UN expense;
- Officials and members of the International Court of Justice and International Criminal Tribunals;
- Members of the United Nations Commissions, Committees or similar bodies;
- All personnel assigned to the United Nations missions to the capacity of UN Military Observers (UNMOs) or UN Police (UNPOL).

451. The Policy **does not cover** for:

- Military contingents;
- Active participation in war (direct combat engage).

452. The air travel must be on the instructions and at the cost of the United Nations or other participating organizations.

Q.4. Malicious Acts Insurance Policy – Coverage

453. Coverage under this policy is related to malicious acts (for example, for death or disability, including post-traumatic stress disorder (PTSD), caused directly or indirectly by war, invasion, hostilities, acts of foreign enemies (whether war be declared or not), civil war, revolution, rebellion, insurrection, military or usurped power, riot or civil commotion, sabotage, explosion of war weapons, terrorist activities (whether terrorists are the country's own national or not), murder or assault or any attempt threat.

454. The condition for the applicability of coverage is that the United Nations staff member should adhere to DSS Guidelines and Procedures.

455. The Policy covers the following categories of personnel:

- Professionally recruited and field/general service staff, both international and locally recruited and national professionals;
- Casual daily workers and interns;

- Non-staff members while on a DSA.

456. Coverage is provided worldwide 24 hours a day.

457. Nuclear, chemical, or biological terrorism is covered under the current Malicious Acts Insurance Policy (MAIP) policy.

458. Passengers flying on military aircraft are covered if these are used for civilian purposes only (not military operations).

Q.5. Insurance claims

459. Aviation Sections shall report immediately to the DMS/CMS, Mission Claims Unit and ATS UNHQ any occurrences of fatalities, bodily injuries and/or property damage. The Mission Claims Unit must immediately report any incidents involving aircraft and third parties to the ATS UNHQ and the Insurance and Disbursement Service (IDS) and provide relevant information.

460. This information, as available, shall include:

- Date and place when incident/accident occurred;
- Aircraft information (e.g. registration, make, model, United Nations call sign);
- Number of crew and passengers;
- General cargo information;
- Casualties or injuries (number of injured and nature of injuries);
- Third-party property damages;
- Description of the event;
- Incident and/or investigation report.

R. AVIATION STAFF TRAINING

R.1. GENERAL

461. ATS is responsible for the strategic oversight and standardization of all aviation training conducted, whether at UNHQ or in the field. It is essential that a training programme enables competencies to be maintained at the highest levels, which in turn will keep aviation staff at the cutting edge of the highly technical and ever-changing aviation industry.

462. The CAVO is responsible to ATS for ensuring that all aviation staff are given the opportunity to receive training relevant to their duties and level of responsibility/accountability. All staff shall have a training record, updated on a regular basis and uploaded into the learning management system. It is essential that missions adopt a long-term organizational training culture. As part of the mission Aviation budget preparation, the CAVO should assess the training requirements for the staff, identify courses and schedules, and submit a list of courses and costs for inclusion in the budget and comprehensive Mission Training Plan.

463. The ATS Aviation Training Programme consists of four components: Initial Training, Refresher Training, On-the-Job Training (OJT) and Specialized Aviation Training. It is designed to provide continued updated information on training requirements and available resources for the aviation personnel at UNHQ and in the field missions.

R.1.1. Initial training

464. Initial training is designed for new Aviation staff and is divided in two groups:

- Aviation Officers: A comprehensive five-day course for new aviation recruits at the professional level covering DPO/DOS aviation operations, contract management, United Nations organization and structure, Aviation Risk Management, etc. This course is conducted at UNHQ, New York, as part of the initial indoctrination.
- Aviation field service and general staff: A comprehensive three-day course for new Aviation recruits covering an overview of DPO/DOS Aviation operations, contract management, United Nations organization and structure, Aviation Risk Management, etc. This course is conducted at the mission level, as part of the initial indoctrination.

R.1.2. Refresher training

465. Refresher training is designed for Aviation staff with an emphasis on aviation standards, lessons learned, updates for changes in guidance, etc.

R.1.3. On-the-Job training (OJT)

466. On-the-Job training is designed to provide practical learning over certain skills/techniques related to the area of responsibilities of the trainee, to ensure awareness and standardization.

R.1.4. Specialized aviation training

467. Specialized aviation training is designed to provide learning over certain highly specialized aviation matters, to ensure appropriate knowledge and skills on the Aviation industry best practices, management and technology awareness.

468. For additional information and guidance, please refer to the following annexures to Chapter R of this Manual

- ANNEX R: ON-THE-JOB TRAINING (OJT) PROGRAMME – MISSION.

S. ABBREVIATIONS, TERMS AND DEFINITIONS

469. The abbreviations given in this document are for the purposes of this Manual only. They are in no way intended to reflect or imply a broader or more general meaning or definition beyond the scope of this document.

S.1. Abbreviations

Abbreviations	Definitions
AATU	Airfields and Air Terminals Unit
ACABQ	Advisory Committee on Administrative and Budgetary Questions
AGL	Above Ground Level
AI	Area of Interest
AIC	Aeronautical Information Circular
AIF	Aircrew Information File
AIMS	Aviation Information Management System
AIP	Aeronautical Information Publication
AIS	Aeronautical Information Service
ALSE	Aviation Life Support Equipment
AMCU	Aircraft Management and Contracts Unit
AME	Aero Medical Evacuation

Abbreviations	Definitions
AMR	After Mission Report
AO	Area of Operations
AOC	Air Operator Certificate
APPTU	Aviation Planning Projects and Training Unit
AQAS	Aviation Quality Assurance and Standards
ARM	Aviation Risk Management
ASOS	Automated Surface Observing System
ATA	Actual Time of Arrival
ATC	Air Traffic Control
ATD	Actual Time of Departure
ATO	Air Tasking Order
ATS	Air Transport Service, LD/OSCM/DOS
AUR	Aircraft Use Report
AVSEC	Aviation Security
AVSTADS	United Nations Aviation Standards for Peacekeeping and Humanitarian Air Transport Operations
AWOS	Automated Weather Observing System
BRLOS	Beyond Radio Line of Sight
C2	Command and Control
CAA	Civil Aviation Authority
CASEVAC	Casualty Evacuation
CAVO	Chief Aviation Officer
CDT	Conduct and Discipline Team
CMLS	Chief Military Liaison Officer
CMO	Chief Medical Officer
CMS	Chief of Mission Support
COE	Contingent-Owned Equipment
C of A	Certificate of Airworthiness
C of R	Certificate of Registration
ConOps	Concept of Operations
CP	Commercial Pilot
CPL	Commercial Pilot Licence
CSD	Chief of Service Delivery
DOS	Department of Operational Support
DG	Dangerous Goods
DH	Decision Height
DMS	Director of Mission Support
DPPA	Department of Peacebuilding and Political Affairs
DPO	Department of Peace Operations
DSA	Daily Subsistence Allowance
DSS	Department of Safety and Security

Abbreviations	Definitions
DZ	Drop Zone; Dropping Zone
EASA	European Aviation Safety Agency
ECR	Emergency Crash and Rescue Services
ELT	Emergency Locator Transmitter
EMI	Estimated Moon Illumination
EP	Evacuation Point
ERP	Emergency Response Plan
ETA	Estimated Time of Arrival
ETD	Estimated Time of Departure
FARs	Federal Aviation Regulations
FATO	Final Approach and Take-Off Area
FBO	Fixed-Base Operation
FC	Force Commander
FHQ	Force Headquarters
FIR	Flight Information Region
FLIR	Forward-Looking Infrared
FOD	Foreign Object Damage
FSS	Flight Service Station
GHS	Ground Handling Services
GNSS	Global Navigation Satellite System
GPS	Global Positioning System
GPU	Ground Power Unit
GSE	Ground Support Equipment
HCC	Headquarters Committee on Contracts
HF	High Frequency
HLS	Helicopter Landing Site
IATA	International Air Transport Association
ICAO	International Civil Aviation Organization
ICG	Integrated Command Group
IFR	Instrument Flight Rules
IMC	Instrument Meteorological Conditions
ISO	International Organization for Standardization
ITB	Invitation to Bid
JMAC	Joint Mission Analysis Centre
JMCC	Joint Mission Control Centre
LO	Liaison Officer
LOA	Letter of Assist
LOS	Line of Sight
LD	Logistics Division
LTAC	Long-Term Aircraft Charter Agreement
LZ	Landing Zone

Abbreviations	Definitions
MAOC	Mission Air Operation Centre
MASO	Mission Aviation Safety Officer
MATR	Military Aircraft Tasking Request
MDA	Minimum Descent Altitude
MEC	Medical Emergency Coordinator
MECC	Medical Emergency Control Centre
MEDEVAC	Medical Evacuation
MILAD	Military Adviser
MMEL	Master Minimum Equipment List
MOB	Main Operating Base
MOP	Movement of Personnel
MOU	Memorandum of Understanding
MOVCON	Movement Control
MSL	Mean Sea Level
MTOW	Maximum Take-Off Weight
NA	Not Available
NDB	Non-Directional Beacon
NFR	No Flight Required
NFZ	No-Fly Zone
NOD	Night Observation Device
NOTAM	Notice to Airmen
NRF	Non-Revenue Flight
NVA	Night Viewing Aid
NVD	Night Vision Device
NVE	Night Vision Equipment
NVG	Night Vision Goggles
NVIS	Night Vision Integrated System
NVS	Night Vision System
OAT	Outside Air Temperature
OFZ	Obstacle-Free Zone
OHCHR	Office of the High Commissioner for Human Rights
OIC	Officer-in-Charge
OIOS	Office of Internal Oversight
OJT	On-the-Job Training
OMA	Office of Military Affairs
OPCON	Operational Control
OR	Occurrence Report
PBN	Performance-Based Navigation
PC	Police Commissioner
PCN	Pavement Classification Number
PIC	Pilot in Command

Abbreviations	Definitions
PTSD	Post-Traumatic Stress Disorder
RA	Restricted Area
RDF	Rapid Deployment Force
RFI	Request for Information
RFP	Request for Proposals
ROE	Rules of Engagement
ROL	Remote Operator Licence
ROZ	Restricted Operating Zone
RPAS	Remotely Piloted Aircraft System
RPL	Remote Pilot Licence
SACA	Stand-by Aircraft Charter Agreement
SAOC	Strategic Air Operations Centre
SAR	Search and Rescue
SARPs	Standards and Recommended Practices
SFR	Special Flight Request
SIGINT	Signal Intelligence
SMS	Safety Management System
SOFA	Status of Forces Agreement
SOPs	Standard Operating Procedures
SOR	Statement of Requirements
SOW	Statement of Work
SRSG	Special Representative to the Secretary-General
STAC	Short-Term Aircraft Charter Agreements
STOL	Short Take-Off and Landing
SUR	Statement of Unit Requirements
SVFR	Special Visual Flight Rules
SZ	Security Zone
TAM	Technical Assessment Mission
TCAS	Traffic Alert and Collision-Avoidance System
TCC	Troop-Contributing Countries
TCU	Technical Compliance Unit
TLOF	Touchdown and Lift-Off area
TMICC	Transport and Movement Integrated Coordination Centre
UA	Unmanned Aircraft
UAS	Unmanned Aircraft System
UAV	Unmanned Aircraft Vehicle
UHF	Ultra-High Frequency
UNHCR	United Nations High Commissioner for Refugees
VFR	Visual Flight Rules
VHF	Very High Frequency
VMC	Visual Meteorological Conditions

Abbreviations	Definitions
WGS 84	World Geodetic System 84
WHO	World Health Organization

S.2. Terms and Definitions

470. The terms and definitions given in this document are for the purposes of this Manual only. They are in no way intended to reflect or imply a broader or more general meaning or definition beyond the scope of this document.

Terms	Definitions
Accident	An occurrence associated with the operation of an aircraft which takes place between the times any person boards the aircraft with the intention of flight until such time as all such persons have disembarked, in which: a) A person is fatally or seriously injured as a result of: ▪ being in the aircraft; or ▪ direct contact with any part of the aircraft, including parts which have become detached from the aircraft; or ▪ direct exposure to jet blast or rotor down-wash, except when the injuries are from natural causes, self-inflicted or inflicted by other persons, or when the injuries are to stowaways hiding outside the areas normally available to the passengers and crew; or b) the aircraft sustains damage or structural failure which: ▪ adversely affects the structural strength, performance or flight characteristics of the aircraft; and ▪ would normally require major repair or replacement of the affected component; ▪ except for engine failure or damage, when the damage is limited to the engine, its cowlings or accessories; or for damage limited to propellers, wing tips, antennas, tyres, brakes, fairings, small dents or puncture holes in the aircraft skin; or c) the aircraft is missing or is completely inaccessible
Aerodrome	A defined area on land or water (including any buildings, installations and equipment) intended to be used either wholly or in part for the arrival, departure and surface movement of aircraft.
Aerodrome control service	A unit established to provide air traffic control service to the aerodrome.
Aerodrome control tower	A unit established to provide air traffic control service to aerodrome traffic.
Aerodrome traffic	All traffic on the manoeuvring area of an aerodrome and all aircraft flying in the vicinity of an aerodrome.
Aero medical evacuation (AME)	The movement of patients under medical supervision to and between medical treatment facilities by air transport; the evacuation can be inter-theatre or intra-theatre.
Aeronautical data	A representation of aeronautical facts, concepts or instructions in a formalized manner suitable for communication, interpretation or processing.
Aeronautical information	Information resulting from the assembly, analysis and formatting of aeronautical data.
Aeronautical Information Circular (AIC)	A notice containing information that does not qualify for the origination of a NOTAM or for inclusion in the AIP, but which relates to flight safety, air navigation, technical, administrative or legislative matters.

Terms	Definitions
Aeronautical Information Publication (AIP)	A publication issued by or with the authority of a State and containing aeronautical information of a lasting character essential to air navigation.
Aeronautical Information Service (AIS)	A service established within the defined area of coverage, responsible for the provision of aeronautical data necessary for the safety, regulatory and efficiency of air navigation.
Aeroplane	A power-driven heavier-than-air aircraft, deriving its lift in flight chiefly from aerodynamic reactions on surfaces which remain fixed under given conditions of flight.
Aircraft	Any machine that can derive support in the atmosphere from the reactions of the air other than the reactions of the air against the earth's surface. A fixed wing aircraft is an aircraft capable of heavier-than-air flight whose lift is generated not by wing motion relative to the aircraft, but by forward motion through the air. A rotary-wing aircraft (or rotorcraft) is a heavier-than-air flying machine that uses lift generated by rotor blades that revolve around a mast.
Aircraft Operating Manual	A manual, acceptable to the State of the operator, containing normal, abnormal and emergency procedures, checklists, limitations, performance information, details of the aircraft systems and other material relevant to the operation of the aircraft.
Aircraft Use Report (AUR)	A report submitted by air contractor/troop-contributing country, indicating how the assigned task was executed, including block times, routes, passenger and cargo data, fuel uplifts, as per the standardized format. It is used as the primary source to affect payments to vendors for aviation services rendered.
Airlift	The carrying of troops and equipment over large distances by air to bring them into crisis areas rapidly.
Air Logistics Support	Support provided by aircraft, including aerial supply, movement of personnel, evacuation of casualties, etc.
Air operation	The use of aircraft for the purpose of air navigation.
Air Operations Planning	A cell within the mission Air Operations Centre in charge of planning, scheduling and tasking available air assets.
Air Operator Certificate (AOC)	A certificate granted by a State, authorizing an operator to carry out specified air transport operations.
Air strike	A strike against any tactical or strategic target and, as such, should be distinguished from close air support, which involves protecting friendly troops on the ground against attack and striking directly at the immediate source of the threat.
Airside area	The area within the aerodrome perimeter, outside the Air Terminal building itself, on which aviation activity takes place.
Air Tasking Order (ATO)	This includes: a) Military/police operations: Task and flight information for tactical, combat or surveillance missions, which contains date of flight, aircraft departure/arrival points, estimated take-off and landing times, routes or geographical area of the mission, and itinerary. Also contains assigned targets, flight profiles or altitudes, planning details such as armament configuration, special equipment on board (e.g. air drop containers), sensor configuration, and any additional tasking information. It will be incorporated in the Daily Flight Schedule. b) Civilian operations: Task and flight information for common (logistics, admin or surveillance) missions, which contains date of flight, aircraft departure/arrival points, estimated take-off and landing times, routes or geographical area of the mission, and itinerary. Also contains flight profiles or altitudes, planning details such as aircraft configuration, special equipment on board (e.g. air drop containers or SAR equipment), sensor configuration, and any additional tasking information. It will be incorporated in the

Terms	Definitions
	Daily Flight Schedule.
Air traffic	All aircraft in flight or operating on the manoeuvring area of an aerodrome.
Air traffic service	A generic term meaning, variously, flight information service, alerting service, air traffic advisory service, air traffic control service (area control service, approach control service or aerodrome control service). AIS product: Aeronautical information provided in the form of the elements of the Integrated Aeronautical Information Package (except NOTAMs), including aeronautical charts, or in the form of suitable electronic media.
AOC authority	The Civil Aviation Authority of the State that issued the AOC to the operator.
AOC holder	A civil air transport operator in possession of a valid AOC. Note: AOC holder is used as an alternative to “operator” when referring to a civil air transport operator.
Appropriate Air Traffic Authority	The relevant authority designated by the State responsible for providing air traffic services in the airspace concerned.
Apron / ramp	A defined area, on a land aerodrome, intended to accommodate aircraft for purposes of loading or unloading passengers, mail or cargo, fuelling, parking or maintenance.
Attack helicopter	Any military/police helicopter, with adequate armament on board, which supports ground military/police forces in their operations.
Automated Flight Following	Is a GPS aircraft tracking that is mandated by the UN for its aircraft and it shall meet the following criteria: ▪ GPS device must transmit position reports every three minutes, whilst it should be able to be adjusted to one minute, if required; ▪ GPS device must automatically report take-off and landing events; ▪ Position reports must be pushed into the third-party database, and from there must be forwarded to the United Nations Service provider, and ▪ GPS device must be capable to establish two-way communications.
Aviation Information Management System (AIMS)	A standard web-based system for supporting the function of operational aviation activities, providing real-time monitoring and analytics of the associated data.
Aviation Life Support Equipment (ALSE)	Covers a broad spectrum of equipment and procedures for protecting aircrews, passengers and support personnel during aviation activities, including mishap or survival situations.
Aviation Safety	This section ensures that the United Nations Aviation Safety Policy, ICAO SARPs, and related directives and guidance are followed by all UN assigned or contracted air services and personnel.
Aviation Safety Officer (ASO)	Provides guidance addressing aircraft safety, operations, maintenance and training. Provides oversight and monitoring of management’s effectiveness through reviews of and staff visits to mission Aviation Safety Programmes.
Aviation Security (AVSEC)	This section safeguards civil aviation against acts of unlawful interference. This objective is achieved by a combination of measures and human and material resources. See: Annex 18 to the Convention on International Civil Aviation: Aviation Security.
Briefing	A short and concise summary usually conducted before an operation begins, to inform the involved units about operational goals, situation, special orders, etc.
Call sign	A combination of letters and numbers used to represent certain persons, teams, operations or organizations, used in radio communications.
Cargo manifest	Document providing all information concerning number and weight of items constituting a cargo on board a ship or an aircraft.
Casualty evacuation (CASEVAC)	Casualty evacuation involving injured military or civilian personnel where a threat to life or limb exists. This entails the movement of an injured or seriously ill person, usually to the first available level of medical care.

Terms	Definitions
Certificate of Airworthiness (C of A)	Document issued by a State in which an aircraft is registered, in respect of the airworthiness condition of the aircraft.
Certificate of Registration (C of R)	Document issued by a State in which an aircraft is registered, in respect of the national registration assigned.
Chief Aviation Officer (CAVO)	Officer responsible to the Chief/Director of Mission Support for all aviation activities within the field mission. This report line is through the Chief of Service Delivery. Also reports operationally to the Chief of Air Transport Service, DOS.
Chief Military Liaison Officer (CMLO)	The senior officer in charge of the Military Liaison Office, principal advisor to the head of mission on military questions.
Chief of Mission Support (CMS)	The CMS exercises operational control over the entire field mission Logistic Support System.
Chief, UN Police (Chief UNPOL)	The police officer in charge of the United Nations Civilian Police Unit in the field mission.
Civil Aviation Authority (CAA)	Legislated by a State with the principal function of promoting safety in civil aviation, and to ensure the country's obligations under international civil aviation agreements are implemented.
Commercial Air Transport Operation	An aircraft operation involving the transport of passengers, cargo or mail for remuneration or hire. See: Annex 6 to the Convention on International Civil Aviation: Operation of Aircraft.
Contingent-owned equipment (COE)	Major equipment, minor equipment and consumables deployed and operated by a contingent in the performance of peacekeeping operations.
Contracting States	All States that are signatories to the Convention on International Civil Aviation (Chicago Convention).
Coordinated Universal Time (UTC)	The primary time standard by which the world regulates its clocks and time. It is within about 1 second of mean solar time at 0° longitude; it does not observe daylight saving time. It is one of several closely related successors to Greenwich Mean Time (GMT). For most purposes, UTC is considered interchangeable with GMT, but GMT is no longer precisely defined by the scientific community.
Daily Flight Schedule	Document prepared by the mission's Aviation Section and approved by DMS/CMS, unless the approving authority is delegated to CAVO, providing a summary of all air tasks (civilian and military), referenced to the appropriate tasking document, for the following day.
Dangerous goods (DG)	Articles or substances that are capable of posing a risk to health, safety, property or the environment and which are shown in Annex 18 to the Convention on International Civil Aviation: Aviation Security, Chapter 3, or which are classified in accordance with IATA's Dangerous Goods Regulations Manual.
Department of Operational Support (DOS)	The United Nations department which provides dedicated support to peacekeeping operations, special political missions and other field presences. DOS provides support in the areas of budget and finance, logistics, information, communication and technology (ICT), human resources and general administration to help field missions promote peace and security.
Department of Peace Operations (DPO)	The United Nations department responsible for the planning, preparation, conduct and direction of United Nations peacekeeping operations under the Security Council Mandate.
Department of Safety and Security (DSS)	The United Nations department responsible for providing leadership, operational support and oversight of the security management system.
Director of Mission Support (DMS)	Head of the Mission Administrative Division under the authority of the SRSG; responsible for all administrative functions (finance and personnel) and technical services relative to the mission's activities. A D-2 or D-1 level staff.
Distressed aircraft	An internationally recognized means for obtaining help. The distress signal is transmitted by the Alert Signal generated from the tracking device and indicates that an aircraft is threatened by a serious or imminent danger and requires immediate assistance.

Terms	Definitions
Drop zone or dropping zone (DZ)	Area designated for the parachute insertion of airborne forces or stores.
Emergency Crash and Rescue (ECR)	See: Annex 14 to the Convention on International Civil Aviation: Aerodromes.
Emergency Management System	Is a system based on the Satellite Tracking Solution to improve the speed of response of SAR teams to an aircraft Distress call.
Emergency phase	A generic term meaning, as the case may be, uncertainty phase, alert phase or distress phase.
Emergency Response Plan (ERP)	A set of organized processes, procedures and clear roles and responsibilities to co-ordinately respond to an emergency.
Emergency Response Team	Deployed in case of humanitarian emergencies, such as refugee crises, sometimes in conjunction with a peacekeeping operation.
Evacuation point (EP)	The location at which personnel or equipment is collected for evacuation.
Evacuation system	A series of medical-treatment stations and facilities and the evacuation routes along which they are positioned; "chain of evacuation" is also used to refer to: (a) the series of prisoner-of-war collecting points and cages, and routes by which prisoners of war and civilian internees are collected and evacuated from a combat zone to rear areas; and (b) the series of installations for evacuating disabled or salvaged materiel.
Flight (of an aircraft)	A process by which an aircraft moves through the air by aerodynamically generating lift.
Flight crew members	A licensed crew member charged with duties essential to the operation of an aircraft during a flight duty period.
Flight Following	The recording in real time of departure and arrival messages by operational personnel to ensure that a flight is operating and has arrived at the destination airport of landing zone.
Flight Information Region (FIR)	An airspace of defined dimensions within which flight information service and alerting service are provided.
Flight Monitoring	In addition to requirements defined for Flight Following, Flight Monitoring includes the: ▪ Operational monitoring of flights by suitably qualified operational control personnel from the point of departure throughout all phases of flight; ▪ Communication of all available and relevant safety information between the operational control personnel on the ground and the flight crew, and ▪ Provision of critical assistance to the flight crew in the event of an in-flight emergency or security issue or at the request of the flight crew.
Flight Time – Aeroplanes	The total time from the moment an aeroplane first moves under its own power for the purpose of taking off for a flight tasked by the United Nations, until the moment it comes to rest at the end of the flight; as recorded by the United Nations Aircraft Satellite Tracking System or the Air Operations/FF Officer. This standard shall be used for AUR purposes. Note: Flight time as defined here is synonymous with the term “block to block” or “chock to chock” time in general usage.
Flight Time – Helicopters	The total time from the moment a helicopter first moves under its own power for the purpose of taking off for a flight tasked by the United Nations, until the moment it comes to rest at the end of the flight, except for rotors turning emplaning/deplaning operations that have been specifically authorized by the mission; as recorded by the United Nations Aircraft Satellite Tracking System or the Air Operations/FF Officer. This standard shall be used for AUR purposes, unless otherwise specified in the particular LTAC/LOA.
Flight Watch	In addition to all of the elements defined for flight following and flight monitoring, flight watch includes the active tracking of a flight by suitably qualified operational control personnel throughout all phases of the flight to ensure that it is following its prescribed route, without unplanned deviation, diversion or delay and in order to satisfy State requirements.

Terms	Definitions
Force Commander (FC)	A military officer, the head military authority of the DPO Military Personnel and Operations within a field mission. Responsible for carrying out the mission mandate in respect of all military operations; reports to United Nations Headquarters through the mission SRSG.
Forward-looking infrared (FLIR)	See: Night vision device.
Global navigation satellite system (GNSS)	A satellite navigation system with global coverage that uses satellites to provide autonomous geo-spatial positioning.
Global positioning system (GPS)	The identification of a position by means of satellite navigation.
Ground handling services (GHS)	Those airport services found within the airside area, including: aircraft interior/exterior cleaning, de-icing, catering, provision of ground power and air conditioning, lavatory service, towing/marshalling and cargo/passenger handling.
Ground support equipment (GSE)	Any vehicle/equipment used for the provision of airport ground handling services. See: IATA's Airport Ground Handling Services Manual.
Hazard	A condition or an object with the potential to cause death, injury, illness to personnel, damage to equipment or structures, loss of material, or reduction of ability to perform a prescribed function.
Heliborne operation	An operation involving the movement of troops and equipment by helicopter.
Helicopter landing site (HLS)	A designated landing area in which a helicopter can land.
Helipad	A prepared area designated and used for take-off and landing of helicopters (including touchdown or hover). It may be a circular or rectangular area, in or near a camp, which has been cleared of obstacles and marked for helicopter landings. The (rudimentary) equipment usually includes a wind cone, a beacon light and coloured flares. See also helicopter landing site.
Heliport	An aerodrome or a defined area on a structure intended to be used wholly or in part for the arrival, departure and surface movement of helicopters. A heliport contains two or more helipads.
Hostile act	Any act of aggression either in the air or on the ground that results or could have resulted in damage to an aircraft or injury to any of its occupants. Hostile acts include, but are not limited to: ▪ Illegal interference with the operations of a United Nations aircraft ▪ The use of weapons and explosives against, near, or in the general direction of a United Nations aircraft, whether or not damage occurred
Hour (H)	The specific hour on a day (D) at which a particular operation commences. It may be the commencement of hostilities.
Human factors principles	Principles that apply to aeronautical design, certification, training, operations and maintenance, and which seek safe interface between the human and other systems components by proper consideration of human performance.
INCERFA – Uncertainty Phase	A situation wherein uncertainty exists as to the safety of an aircraft and its occupants" Having a "concern" is different of having uncertainty.
Incident	An occurrence, other than an accident, associated with the operation of an aircraft which affects or could affect the safety of operation.
Instrument flight rules (IFR)	Aviation flight category that describes weather conditions that require pilots to fly primarily by reference to instruments, and therefore under instrument flight rules (IFR), rather than by outside visual references under visual flight rules (VFR). An IFR flight is a flight conducted in accordance with the instrument flight rules.
Instrument meteorological conditions (IMC)	Meteorological conditions expressed in terms of visibility, distance from cloud, and ceiling, less than the minima specified for visual meteorological conditions. See: Annex 2 to the Convention on International Civil Aviation: Rules of the Air.

Terms	Definitions
International Air Transport Association (IATA)	Aviation organization that represents and serves a group of airline industry members. It works to promote safe, reliable and secure air services and to achieve recognition of the importance of a healthy air transport industry for worldwide social and economic development.
International Civil Aviation Organization (ICAO)	United Nations agency that provides for civil aviation Standards and Recommended Practices (SARPs) for air navigation through the ICAO Annexes to the Convention on International Civil Aviation (Chicago Convention).
Joint Mission Control Centre (JMCC)	The JMCC, under Movement Control, is responsible for the overall detailed planning and coordination of non-routine moves including deployments, rotations and repatriations of contingents, cargo and passenger movements.
Joint Mission Analysis Centre (JMAC)	Is responsible to analyse and process information related to the tasking of non-tactical UAS.
Landing zone (LZ) or landing area	A specified zone within a larger area, used for landing aircraft. Any specified zone used for the landing of aircraft.
Letter of Assist (LOA)	A contractual document that the United Nations signs with Member States, authorising the latter to provide specific goods and/or services to the United Nations. In that, the United Nations either agrees to acquire the goods and/or services from the Member State or authorises the Member State to supply them, subject to reimbursement by the United Nations.
Logistics Division (LD)	Part of the Department of Operational Support, responsible for the implementation and monitoring of policies and procedures for all logistic issues in field operations, including supply chain planning, general supply, engineering, and medical support, as well as ensuring effective logistics capabilities in terms of strategic air, land and sea lift for movement of military and civilian personnel and cargo.
Long-Term Aircraft Charter Agreement (LTAC)	A contractual document signed between the United Nations and a commercial air operator for carrying air transport services.
Maintenance	Maintenance refers to: ▪ All action taken to retain materiel in a specified condition or to restore it to that condition, including inspection, testing, servicing, classification as to serviceability, repair, rebuilding and reclamation. ▪ All supply and repair action taken to keep a force in the necessary condition to carry out its mission. A programme of maintenance scheduled at regular intervals as required by the manufacturer, usually performed at an approved maintenance facility, depending on the level of maintenance required.
Manoeuvre	A manoeuvre refers to one of two things: 1. A movement to place ships or aircrafts in a position of advantage. 2. A tactical exercise carried out at sea, in the air, on the ground, or on a map in imitation of an operation.
Manoeuvring area	That part of an aerodrome to be used for the take-off, landing and taxiing of aircraft, excluding aprons.
Master Minimum Equipment List (MMEL)	A list of items, of which one or more is permitted to be unserviceable at the commencement of a flight, established for a particular aircraft type by the organization responsible for the type design, with the approval of the State of Design. The MMEL may be associated with special operating conditions, limitations or procedures.
Maximum take-off weight (MTOW)	Maximum permissible aircraft weight allowed by the Aircraft Operations Manual and the aircraft type design for take-off purposes (includes fuel, lubricants, cargo, persons, etc.).
Medical evacuation (MEDEVAC)	Evacuation of medical cases between levels of care (triage) established in theatre (intra-theatre MEDEVAC) or to medical facilities out of theatre (inter-theatre MEDEVAC) that do not constitute an emergency. Evacuation may be performed by using a medically equipped aircraft able to provide a certain level of treatment on board by certified medical staff. See Casualty Evacuation.

Terms	Definitions
Memorandum of Understanding (MOU)	A Memorandum of Understanding establishes the administrative, logistical and financial terms and conditions governing the contribution of personnel, equipment and services provided by a troop- or police-contributor in support of a UN peacekeeping operation and specifies United Nations standards of conduct for personnel.
Military adviser (MILAD)	To the SRSG; liaises with military authorities and advises on military matters.
Military/Police Liaison Officer	An officer responsible for the maintenance of contact or intercommunication between elements of United Nations military/police forces to ensure mutual understanding and unity of purpose and action.
Military/Police operations	See: Air Tasking Order.
Minimum descent altitude (MDA)	The lowest altitude, expressed in feet above mean sea level, to which descent is authorized on final approach or during circle-to-land manoeuvring in execution of a standard instrument approach procedure where no electronic glideslope is provided.
Minimum Equipment List (MEL)	A list of particular items of equipment that may be inoperative, which provides for the operation of aircraft under specific conditions, as prepared by an operator in conformity with, or more restrictive than, the Master Minimum Equipment List (MMEL) established for the aircraft type.
Minimum safe altitude (MSA)	Altitudes depicted on approach charts which provide at least 1,000ft of obstacle clearance for emergency use within a specified distance from the navigation facility upon which a procedure is predicated. These altitudes will be identified as minimum sector altitudes or emergency safe altitudes.
Mission Air Operation Centre (MAOC)	Operational centre that plans, schedules, tasks and monitors execution of flights within the mission scope under the authority of the CAVO.
Mission Aviation Safety Officer (MASO)	Designated staff responsible for the Aviation Safety Programme and oversight under the CMS/DMS.
Mission Support Centre (MSC)	Under Operations and Resource Management with the primary role at the mission Headquarters level to provide all components of Mission Support Division with timely, coordinated and efficient logistic support planning for operational priorities and key project implementation.
Movement Control (MOVCON)	Office responsible for coordination and authorization of personnel movement and cargo.
Movement of Personnel (MOP)	MOVCON document, duly authorized and approved by the designated United Nations authority that authorizes personnel movement.
Night vision device (NVD)	Also known as night observation device (NOD); night sight; night viewing aid (NVA); night viewing weapon sight; night vision equipment (NVE); night vision goggles (NVG); night vision integrated system (NVIS); forward-looking infrared (FLIR). A variety of devices, using (passive) image intensifiers (intensification of residual light) and/or thermal (infrared) imagers to improve observation, target acquisition or aiming in low light conditions. They can be coupled with (active) laser aiming lights (laser illuminators or designators, target markers or spot projectors). They take the form of handheld or helmet-mounted binocular and monocular goggles, pocket scopes, rifle-mounted weapon sights, or armoured vehicle periscopes.
No flight required (NFR)	Aircraft not required for an Air Tasking Order.
No-fly zone (NFZ) or no-fly area	Air exclusion zone. An airspace in which only air operations by United Nations forces are allowed.
Non-directional beacon (NDB)	A radio transmitter at a known location, used as an aviation or marine navigational aid.
Non-revenue flight (NRF)	A flight or engine runtime that is not to be cost-reimbursed by the United Nations to the operator under the provisions of the LOA or Aircraft Charter Agreement; for example, maintenance test flights, company convenience, ferry flights, etc. See: section 5.3.5 of this Manual.
Not available (NA)	Refers to a day on which an aircraft is not operationally available for flight.
Notice to Airmen (NOTAM)	A notice distributed by means of telecommunication containing information concerning the establishment, condition or change in any

Terms	Definitions
	aeronautical facility, service, procedure or hazard, the timely knowledge of which is essential to personnel concerned with flight operations.
On-the-job training (OJT)	Practical training designed to demonstrate the execution of an assigned task.
Operational control	The exercise of authority over the initiation, continuation, diversion or termination of a flight in the interest of the safety of the aircraft and the regularity and efficiency of the flight.
Operator	A person, organization or enterprise engaged in or offering to engage in an aircraft operation.
Patrol	In the context of peacekeeping operations, patrols – mounted and dismounted – are part of surveillance operations and only carried out in an overt, high-profile manner. In a military/police context, a distinction is traditionally made between “combat patrols”, “escort patrols”, “reconnaissance patrols”, “ambush patrols” and “standing patrols”.
Pavement Classification Number (PCN)	A number expressing the bearing strength of the pavement of a runway, taxiway or apron.
Payload capacity	The sum of the weight of passengers and cargo or armament configuration (attack aircraft) or sensors configuration (unmanned aerial vehicles) that an aircraft can carry for a specific flight task.
Performance-based navigation (PBN)	Comprising area navigation (RNAV) and required navigation performance (RNP), this describes an aircraft’s capability to navigate using performance standards on an Air Traffic Service (ATS) route, terminal procedure or in a designated airspace. See: ICAO.
Pilot in Command (PIC)	The pilot designated by the operator as being in command and charged with the safe conduct of the flight.
Police Commissioner (PC)	Head of United Nations Police component (UNPOL) on the field.
Quality	“The totality of features and characteristics of a product or service that bear on its ability to satisfy stated or implied needs”. In simpler words, one can say that a product has good quality when it “complies with the requirements specified by the client”. See: The International Organization for Standardization (ISO).
Quality assurance	See: The International Organization for Standardization (ISO).
Quality control	See: The International Organization for Standardization (ISO).
Quality Management Systems	See: The International Organization for Standardization (ISO).
Rapid deployment force (RDF)	Described as short-notice contingency forces, RDOS can be formed both unilaterally and with partners, and be deployed in situations where their military organization, training and equipment, such as transport and communications, enable them to cope with a totally civil situation. Their activities range from disaster relief (earthquakes, floods, etc.) and humanitarian relief (famines) to operations to maintain the peace by separating warring sides and to actual warfare. RDF is the generic term, whereas rapid reaction force is the name given to various specific formations.
Reconnaissance or recce	A reconnaissance or recce refers to one of two things: 1. The collection of visual, photographic, infrared or electronic information about enemy forces or terrain 2. The employment of probing forces (involving combat) to induce the enemy to reveal his dispositions or weapon locations
Remote Helicopter Landing Sites (RHLS)	See Annex F13 to this Manual.
Remotely piloted aircraft system (RPAS)	See: Annex F4 to this Manual.
Restricted area (RA)	Airspace of defined dimensions, above the land areas or territorial waters of a State, within which the flight of aircraft is restricted in accordance with certain specified conditions.
Revenue flight	A flight that is to be cost-reimbursed by the United Nations to the operator under the provisions of the LOA or Aircraft Charter Agreement.

Terms	Definitions
Risk	Is the effect of uncertainty on objectives, expressed in terms of a combination of the consequences of a hazard and the associated likelihood of occurrence.
Risk assessment	The systematic process of identifying hazards and evaluating their associated risk levels within a particular task or activity.
Risk management	A logical and systematic method of establishing the context, identifying, analysing, evaluating, treating, monitoring and communicating risk associated to aviation related activities in a way that will enable organizations to minimize losses to an acceptable level and maximize opportunities.
Rules of engagement (ROE)	Directives issued by DPO, and/or the designated United Nations authority, that specify the way in which military units must act in relation to hostile parties and the population.
Runway	A defined rectangular area on a land aerodrome prepared for the landing and take-off of aircraft.
Runway incursion	Any occurrence at an aerodrome involving the incorrect presence of an aircraft, vehicle or person on the protected area of a surface designated for the landing and take-off of aircraft.
Safety	The state, in which risks associated with aviation activities, related to, or in direct support of the operation of aircraft, are reduced and controlled to an acceptable level.
Safety Management System (SMS)	See: Annex 19 to the Convention on International Civil Aviation: Safety Management.
Search and rescue (SAR)	The use of aircraft, surface craft, submarines, specialized rescue teams and equipment to search for and rescue personnel or equipment in distress on land or at sea.
Search and Rescue Service	The performance of distress monitoring, communication, coordination and Search and Rescue functions, initial medical assistance or medical evacuation, through the use of public and private resources, including cooperating aircraft, vessels and other craft and installations.
Sector	An area designated by boundaries within which a unit operates and for which it is responsible.
Security check	Security screening personnel, vehicles and baggage when entering or leaving a United Nations security restricted area.
Security zone (SZ)	An area in which no armed forces or heavy military equipment are allowed.
Short take-off and landing (STOL) (aircraft)	The ability of an aircraft to clear a 50ft (15-meters) obstacle within 1,500ft (500 meters) of commencing take-off or in landing, to stop within 1,500ft (500 meters) after passing over a 50ft (15-meters) obstacle.
Special Flight Request (SFR)	Document used to request and approve a special flight. Valid for a period of seven days.
Special Representative of the Secretary-General (SRSG)	Designated official generally for DPO/DPPA missions and acts as the head of mission or country team. The Special Representatives and Envoys of the United Nations Secretary-General are engaged in preventative diplomacy and mediation in the world's trouble places.
Special visual flight rules (SVFR)	A set of rules that allows departure or arrival into controlled airspace without an IFR clearance when the visibility is at least 1 nautical mile and the pilot can remain clear of clouds.
Special VFR flight	A VFR flight cleared by air traffic control to operate within a control zone in conditions below visual meteorological conditions.
Standards and Recommended Practices (SARPs)	Promulgated and published by the International Civil Aviation Organization in its Annexes to the Convention on International Civil Aviation (Chicago Convention).
Standard Operating Procedures (SOPs)	A standardized detail of processes for a particular task.
Status of Forces Agreement (SOFA)	Agreement between the United Nations and the host country.

Terms	Definitions
Strategic Air Operations Centre (SAOC)	Located at Global Service Centre in Brindisi, Italy under the authority of the Chief of Air Transport Service, Logistics Division, Office of Supply Chain Management at, Department of Operational Support.
State of the operator	The State in which the operator's principal place of business is located or, if there is no such place of business, the operator's permanent residence.
State of registry	The State on whose register the aircraft is entered.
Surveillance	A systematic observation of airspace or surface areas by visual, aural, electronic, photographic or other means. Also, the systematic observation of a given area for patterns of activity of any kind, as opposed to more focused scouting or reconnaissance. See also: Reconnaissance.
Tactical or combat surveillance, and patrol insertions or extractions (military/police aircraft only)	For the purpose of United Nations operations, these are defined as aircraft operations into a hostile environment where the landing zone may not have been previously surveyed and its security could not be guaranteed. Only military/police personnel are to be carried on such flights, other than in the case of an emergency evacuation (as defined by threat to life or loss of limb).
Tasking	The process of translating the allocation (personnel, supplies and equipment) into orders, and passing these orders to the units involved. See also: Air Tasking Order.
Tasking control	The designated authority to plan, schedule, task and manage air assets; usually associated with financial accountability for the assets involved.
Taxiing/hover taxi	Movement of an aircraft/VTOL above the surface of an aerodrome, normally in ground effect and at a ground speed normally less than 37km/h (20 knots).
Threat	An indication of imminent danger, hazard or harm.
Traffic Alert and Collision-Avoidance System (TCAS)	Aircraft device that provides information about air traffic on a certain range area during flight.
Transport and Movement Integrated Coordination Centre (TMICC)	Located at the Regional Service Centre (RSCE) in Entebbe, Uganda, provides logistic transportation planning and coordination within their scope, under the authority of the Chief of the RSCE.
Troop-contributing countries (TCCs)	Member states providing formed units to peacekeeping missions under an MOU and reimbursed in accordance with the General Assembly agreed framework.
Ultra-high frequency (UHF)	Radio designation for frequencies in the range between 300 MHz and 3 GHz, also known as the decimeter band, normally used for military operations.
Unmanned aerial vehicle (UAV)	See: Annex F4.
Unmanned aircraft systems (UAS)	See: Annex F4.
UTC	see Coordinated Universal Time.
Very High Frequency (VHF)	Radio frequencies from 30 to 300 MHz in amplitude modulation (AM) known as air band and frequency modulation (FM) known as city band.
Visual flight rules (VFR)	A set of regulations under which a pilot operates an aircraft in weather conditions generally clear enough to allow the pilot to see where the aircraft is going.
Visual meteorological conditions (VMC)	Meteorological conditions expressed in terms of visibility, distance from cloud, and ceiling, equal to or better than specified minima. See: Annex 2 to the Convention on International Civil Aviation: Rules of the Air.
VOR–VHF omni-directional radio range	Air Navigation equipment that provides an aircraft with a 360-degree range information from a specific ground radio beacon.
Vertical take-off and landing (VTOL)	Is one aircraft that can hover, take off, and land vertically. This classification includes fixed-wing aircraft as well as helicopters and other aircraft with powered rotors, such as cyclogyros/cyclocopters and tiltrotors.

Terms	Definitions
World Geodetic System 84 (WGS 84)	This refers to the US Defence Mapping Agency's (DMA) modelling of the Earth from a geometric, geodetic and gravitational standpoint. It allows referencing of local geodetic systems to a single geocentric system; also serves as the reference system for GPS equipment.
Zulu time	Military nomenclature for UTC. See: Coordinated Universal Time.

T. REFERENCES

The following references were used in the development of the DOS Aviation Manual:

Regulatory compliance:

- International Civil Aviation Organization (ICAO), Convention on International Civil Aviation (Chicago Convention), Annexes and related documents;
- United Nations Aviation Standards for Peacekeeping and Humanitarian Air Transport Operations (AVSTADS);
- International Air Transport Association (IATA) manuals;
- European Aviation Safety Agency (EASA);
- United States Federal Aviation Regulations (FARs).

United Nations guidance:

- Department of Operational Support (DOS) policies and guidance;
- DPO, United Nations Peacekeeping Missions Military Aviation Unit Manual;
- DOS, Movement Control Manual;
- DOS, Aviation Safety Manual;
- United Nations, Procurement Manual;
- United Nations, Master Aviation Insurance Policy.

Reports:

- International Civil Aviation Organization Review of DPKO in 2000;
- Advisory Committee on Administrative and Budgetary Questions (ACABQ) reports;
- Office of Internal Oversight (OIOS) audit reports;
- Aviation Accident Investigations and Board of Inquiry recommendations.

Other references:

- Aviation industry practices;
- ISO 9001.

U. MONITORING AND COMPLIANCE

471. The Office of the Director of the Logistics Division (LD) shall monitor the implementation of this Manual, through CAVO under the CMS/DMS delegation of authority, and by way of ensuring that aviation technical assessment visits are conducted to the field missions, when required, with air assets assigned to them, as well as assessment visits to air operators and national civil aviation authorities. In addition, the Office shall ensure that further recommendations that might arise from such visits are effectively implemented by the field entity.

472. The USG DOS can approve technical changes to this entire Manual based on technical advice provided by Chief ATS through Director LD. No official at any field mission level has the authority to vary or waive even a single conceptual requirement of this Manual.

V. HISTORY

473. This new edition document supersedes the 2018 edition of the DOS Aviation Manual.

W. REVISION CONTROL

474. The Air Transport Service (ATS) is the office with the primary overall responsibility over the content of this Manual. This includes making necessary recommendations to the USG DOS when required amendments and waivers.

475. Any proposed amendments should be forwarded to the attention of the Chief of ATS through Director Logistics Division. Proposals from the field missions shall be sent through the mission CMS/DMS to ATS.

476. The Aviation Quality Assurance and Standards Unit (AQAS) in ATS, will technically evaluate the proposed change and issue recommendations through Chief of ATS and Director Logistics Division for USG DOS approval.

477. The distribution process for all revisions will be managed by AQAS together with a current distribution database containing the list of all the Manual holders with their relevant status information.

478. This Manual is a living document and periodic changes will be issued accordingly. This page should be used to determine the status of the document. As changes are issued, ATS will notify the field missions through Director Logistics Division. A new status page and list of effective pages will be provided with each amendment.

479. Amendments will be in the form of replacement pages. Replacement pages will be annotated to show the date of issue, revision number, and the portion of the text that has been changed, as indicated in bold type. All amendments will be recorded in the Manual status page and list of effective pages.

480. Note: Any amendment will be indicated as “Revision” on the bottom of each page. Temporary Revisions will be indicated by a letter “T” and will be printed on light blue colour paper.

481. LD will make considerations on the application of a temporary revision as required. A temporary revision will be used as a method for changes before or after the annual revision. All temporary revisions will be expeditiously approved, in the interest of safety.

482. If a proposed change involves a safety matter, it will be addressed immediately, after evaluation with Aviation Safety Section. The ATS will send a communication by fax through Director Logistics Division to all field missions indicating the new adopted change. This communication will be superseded by a temporary revision (T) to this Manual.

483. All other accepted changes will be included on the annual revision of this Manual at the beginning of each year, when the temporary revisions will also become included as permanent, as required.

484. The authority to grant waivers to the provisions of this Manual rests with the Department of Operational Support. This waiver authority is not delegated to the missions.

485. If in the opinion of a DMS/CMS, the field mission cannot comply with a specific requirement of this Manual, the DMS/CMS may send a request for a waiver to USG DOS, citing the specific area together with the supporting rationale.

RECORD OF REVISIONS		
REVISION #	**ISSUE DATE**	**COMMENTS and SIGNATURE**

LIST OF EFFECTIVE PAGES		
PAGE	**ISSUE DATE**	**COMMENTS**

ANNEXURES TO CHAPTER F: Air Transportation Procedures

ANNEX F1: FLIGHT FOLLOWING/ SATELLITE TRACKING SYSTEM

1. Flight Following (FF) is a key part of aircraft operations. Radio/satellite tracking contact must be maintained with DOS aircraft during the flight, including LOA. The primary means of aircraft position and event reporting, as per United Nations standards, shall be through the contracted Automated Flight Following (AFF) system or satellite tracking system administrated by the Strategic Air Operations Centre (SAOC), which requires a position report a minimum of every three minutes and mandatory automated report of take-off and landing based on which the AFF system provides the real-time monitoring of each contracted aircraft and enables the Alert System.

2. The Alert System is built-up into the AFF and is activated when the AFF is losing three consecutive aircraft position reports (APR) or 12 minutes of the last aircraft position reported or when the crew manually pushes the Alert/Panic/Distress button of each tracking device. When the tracking device does not transmit automatically neither take-off nor landing, the FF Office must request SAOC to deactivate the Alert System after completing a risk assessment and implementing mitigation actions. The Alert System enables the Emergency Management System (EMS) of the Mission.

3. The Mission Air Operation Centre (MAOC) is responsible for implementing flight following system, organize Search and Rescue, Emergency Management System (EMS) and schedule regular tests to check the level of preparedness of all components as a system. MAOC shall ensure the functioning of each component as detailed as per below:

    - Functioning of the FF through satellite tracking system, in parallel with the radio communication, which requires reporting to the designated FF as a minimum every 20 minutes, when there is a partial or total outage of the AFF system or the system is not available.

    - Development of the process for Emergency Management System (EMS) which relates to the normal SAR procedures. It is recommended to use the high-level flow chart process of the form ATS 013.

    - Regular testing, on monthly basis, of the Alert System generated from the Alert/Panic/Distress button on the tracking device with all carriers operating in support of Field Missions. The testing exercise and the result of it must be reported to SAOC (saoc@un.org).

4. The FF system should be organized by shifts in order to fully cover all the flight schedules, from the beginning of the first flight to the end of the last one, as detailed in the published Daily Flight Schedule.

5. When the FF shift change occurs, a short handover briefing should be presented to the new duty FF by the departing colleague.

6. When a satellite tracking system is implemented and embedded within the MAOC, an assigned staff will monitor it on the basis of the Daily Flight Schedule.

7. FF offices should be manned at least one hour before the first movements and remain available until the last flight is safe on the ground.

8. Standard aviation techniques and language should be used in line with Annex 10 to the Convention on International Civil Aviation: Aeronautical Telecommunications, when communicating between the aircraft and FF.

9. The minimum adequate facilities for FF duties are:

- VHF/FM and/or VHF/AM radios;
- HF single side-band;
- Two landline numbers;
- Fax machine;
- Computer with enough capacity to run the AFF;
- Satellite tracking;
- Mobile phones;
- Satellite phones;
- Internet.

10. Care must be taken to ensure that there is the capability to communicate between aircraft and the ground using the same type of radio with compatible frequencies.

Table 5A.1 gives a general idea of the frequency ranges available for different radio types, although it is comprehensive. However, since some of these radio types may operate in a different bandwidth, each radio should be checked for compatibility. Table 5A.1: List of frequency ranges for radio types

Radio	**Frequency**
HF	1.0–29.00
VHF/AM	118.000–135.975
VHF/FM low band	150.000–170.000

11. FF offices may be used to provide pertinent weather information to aircraft in flight. Whenever weather information is to be provided, it must be obtained from the local authorities or from an established weather office acceptable to the mission.

12. During the flight the aircraft must follow regular scheduled routes as per the Air Tasking Order (ATO). FF office should report any deviations observed to the MAOC.

13. Aircraft monitored in the AFF System are considered in distress when 12 minutes have passed from the last aircraft position reported (APR), or when an Alert Signal from the aircraft is received (the system will generate an Alert Message). In both cases, the FF shall contact flight crew to confirm the validity of the Alert Signal via:

    - Initiation of a radio communication check with the distressed aircraft, or
    - Confirm if the Alert Message generated in the tracking system is a false one, the alert shall be acknowledged and recorded in the AFF system and reported to SAOC.

14. Aircraft are considered overdue when 30 minutes have passed from the last APR in the AFF, and it is a cause to advise the MAOC and initiate the established INCERFA phase sequence as per below:

    - Continue the radio communication check with the overdue aircraft, if possible;
    - Confirm and check with MAOC if the flight schedule was created in the AFF or confirm the planned points along the flight route, and
    - Check with the local air traffic control services on the status of the flight.

15. Search and Rescue (SAR) is a State responsibility. Therefore, the local Civil Aviation Authority has the overall responsibility for SAR within its territory. However, at times due to local government limited resources, field missions shall ensure availability of adequate specialized SAR aircraft with rescue crew on board to cover the Mission area of operations.

16. When using a radio system, the FF Radio Log (on paper or electronically) shall be kept on file and preserved in the archives. All radio communications between DOS contracted aircraft and FF should be logged and contain the following minimum information:

- Actual start, taxi and shutdown times (for purposes of Aircraft Use Report verification);
- Estimated and actual times of departure and arrival (ETD/ETA, ATD/ATA, etc.);
- Aircraft United Nations call sign/registration/military code;
- Complete planned route;
- Time of radio contacts;
- Passengers and cargo on board, and
- Present position report/ GPS coordinates or geographical location and flight level or altitude or height and next position.

17. The FF office, in coordination with TCU, is responsible for submitting the technical details of a new tracking device installed on an aircraft, with all the mandatory details, with enough time in advance to process the request for activation of the device in the AFF system. It is mandatory the use of the Form ATS-012 listed in this Manual.

18. There are no specific requirements for aviation licences or certificates to perform as a FF. The assigned staff shall have previous aviation experience and undergo specific training for familiarization with Annex 10 to the Chicago Convention.

19. The AFF System, shall not be used to provide any kind of air traffic control, flight information or aeronautical information services. The FF services are limited to communication and logging of flight tracking information as per above provisions.

ANNEX F2: WEATHER OBSERVATION REPORTS

20. In the airspace environment, weather conditions can be very unstable as they change rapidly. In areas where meteorological stations are not readily available, information provided by aircrews regarding weather conditions could help other aircrews to avoid situations that may place them at risk. For example, timely reporting about wind-shear encounters during landing/taking off has, in the past, averted disaster.

21. Flight Following will receive and disseminate the inflight weather report after abnormal weather conditions have been observed by the crews (pilot report or PIREP), as instructed during the ATO Pre-Flight. See: Appendix F.

22. For every flight observing abnormal weather, an attempt should be made to provide a report using the following format:

    a) Aircraft identification;
    b) Location of the phenomena (by GPS or landmark);
    c) Type of phenomena;
    d) Aircraft altitude;
    e) Time of encounter;
    f) Intensity;
    g) Outside air temperature (OAT);
    h) Tendency for the phenomena;
    i) Additional information.

23. See the following explanation for assistance in completing the weather report:

    a) Aircraft identification: The Pilot in Command (PIC) will identify himself with the assigned United Nations aircraft call sign.

    b) Location of the phenomena: Pilot must record the exact position of the phenomena using GPS coordinates, and if, for any reason, this is not possible will do so using landmarks, or a combination of both.

    c) Type of phenomena: Pilot will report the type of the phenomena encountered such as turbulence, rain, icing conditions, wind shear, extensive formation of clouds, widespread areas of low ceilings and/or visibility or bird migration.

    d) Altitude: Present altitude at which the phenomena was encountered.

    e) Time: Time the phenomena was encountered.

    f) Intensity: Light, moderate or severe.

    g) Outside air temperature (OAT): Mainly for those Aircraft operating from isolated landing areas where operations are conducted but there is no air traffic control (ATC) available.

    h) Frequency of phenomena: Constant or intermittent.

    i) Any related additional information.

24. As well as the in-flight reporting requirements for crews, observed weather at remote locations shall be reported by crews or Air Operations personnel to the nearest Flight Following station.

25. This report will provide advance weather information for next flights.

26. In case there is no equipment available to transmit a simple weather report document, a verbal report can be transmitted by using any available equipment (phone, radio, etc.) and by using the guidance information in the established format.

ANNEX F3: INTER-MISSION/OUTSIDE OF MISSION AREA FLIGHTS

27. To request inter-mission or outside of mission area flights, missions shall contact the SAOC at the Global Services Centre in Brindisi to arrange the ATO processing. Full information about the flight, including operational details, shall be specified in the ATO.

28. Adequate justification for the type of flight (VIP, liaison, medical evacuation, welfare flights, etc.) must be provided in the ATO. Details should include date, flight route, transit points, estimated duration of the flight and any other operational and ground or aviation security-relevant information. If non-United Nations personnel will participate on the flight, the field mission must specify this in the request form.

29. The ATO must adhere to the established operational procedures as per Chapter 5 of this Manual.

30. The ATO shall be planned and performed in the most economical and efficient way. Approved funding must be available for the flight.

ANNEX F4: OPERATIONS WITH UNMANNED AIRCRAFT SYSTEMS

Introduction

1. Unmanned aircraft systems (UAS) have had an increasingly important role in support of United Nations field missions on the implementation of their mission mandate. Because of the flexibility and diversity of UAS/RPAS, various stakeholders can use them effectively in many different scenarios and situations for a wide range of tasks. The UAS utilised by the United Nations are not armed. The utilization of unmanned aircraft must adhere to the ICAO published Unmanned Aircraft Systems (UAS) Guidance Materials, Standards and Recommended Practices (SARPs) stipulated in the ICAO Annexes and documents, troop-contributing countries' military regulations and United Nations established applicable policies, procedures and practices.

2. All aircraft that are intended to be operated with **NO pilot** on board are classified as unmanned aircraft. An unmanned aircraft that **is piloted** from a remote pilot station is an RPA.

3. **All unmanned aircraft**, whether remotely piloted, fully autonomous or combinations thereof, are subject to the provisions of Article 8 of the Convention on International Civil Aviation (hereinafter referred to as the Chicago Convention): "No aircraft capable of being flown without a pilot shall be flown without a pilot over the territory of a contracting State without special authorization by that State and in accordance with the terms of such authorization. Each contracting State undertakes to ensure that the flight of such aircraft without a pilot in regions open to civil aircraft shall be so controlled as to obviate danger to civil aircraft." This legal obligation is a **mandatory precondition** for all field operations that intend to utilize these types of assets.

4. In addition, any time a UAS/RPAS is flown for any purpose (including but not exclusively for the collection of imagery or data) in the vicinity of the international borders of any sovereign neighbouring State, an agreement between the United Nations and those neighbouring States must be in place (MOU, SOFA, etc.) to regulate the exact employment of those systems. **No** UAS/RPAS should fly closer than 0.5 nautical miles to any neighbouring State's international airspace without the proper authorization provided by the respective authorities.

Definitions

5. **Unmanned aircraft (UA):** An aircraft that does not carry a human operator and is operated remotely using varying levels of automated functions, is normally recoverable and can carry a different number and types of payloads.

6. **Remotely piloted aircraft (RPA):** An aircraft that, whilst it does not carry a human operator, is flown remotely by a pilot, is normally recoverable, and can carry multiple different types of payloads.

7. **Unmanned Aircraft System (UAS):** A system whose components include the unmanned aircraft, the supporting network and all equipment and personnel necessary to control the unmanned aircraft.

8. **Remotely Piloted Aircraft System (RPAS):** An unmanned aircraft that is controlled from a remote pilot station by a pilot who has been trained and certified to equivalent standards as a pilot of a manned aircraft.

9. **Autonomous System:** An Unmanned Aircraft system, including hardware, software or a combination of the two that enables a system to make decisions independently and self-sufficiently. That can operate without any human intervention. It can take off, carry out missions, and land completely autonomously. An autonomous system is capable of understanding higher level intent and direction. From this understanding and its perception of its environment, is able to take appropriate action to bring about a desired state. It is capable of deciding a course of action from a number of alternatives, without depending on human oversight and control, although this might still be present.

Classification and generation of UAS

10. There is a large variety of UAS available. Systems are categorized by various parameters, including type of operations, different performance parameters and sensor types. However, other classifications might be valid, as the miniaturization of sensors and subsystems coupled with new engine developments already enable UAS to fly higher, farther and longer than earlier UAS were capable of. For the purpose of this Manual, Air Transport Section (ATS) classifies UAS by operational employment (see Table 5D.1).

11. It is to be noted that some of the UAS could fit into one or more of the established four classes (Class I, II, III and IV). The classification of the UAS does not limit its use. The operation of the System is based on the functionality of the capability and/or crew's ability to operate in different operational environments under specific aircraft performance categories.

- Class I UAS: Small, mini and micro UAS, only operated up to a maximum operating altitude of not more than 10,000ft above ground level (AGL), normally with a weight of between 1 and 25kg, and within radio line of sight (RLOS) of the operator, with a maximum range of up to 100km.

- Class II UAS: Tactical UAS, normally with a maximum take-off weight (MTOW) between 150kg and 600kg. Normally operated up to 20,000ft AGL, with a maximum range of 500km. Payload limitations and airworthiness restrictions may limit these systems to operations in restricted or special use airspace.

- Class III UAS: Typically, MALE and HALE UAS, normally weighing more than 600kg and operated up to 65,000ft AGL with unlimited range (beyond radio line of sight or BRLOS), equipped for limited or even unrestricted use of airspace with an equally less restrictive or even unrestricted airworthiness certificate. These systems are normally used at the level of command and control level for the area of responsibility (AOR).

- Class IV Autonomous aircraft systems: Due to the fast-evolving technology in this area, it is necessary to include a new Class of Unmanned Aircraft, the so called autonomous. Which can be fully operated autonomously, with no involvement from humans whatsoever. These can be categorised as small, mini and micro, with an operating altitude of 10,000ft and a maximum range of 100Km. It must be noticed that operation of these Class IV might involve additional restrictions and Aviation safety considerations and will be the subject of further UN direction as the capability develops. Autonomous drones need a level of verification of compliance with the technical requirements that is not compatible with the system put in place for Class I.

12. Generation of UAS of any type will be undertaken by United Nations Headquarters and in coordination with the field missions based on Mission's operational requirements previously defined and agreed upon. The procurement process will conclude with a commercial contract or, in case of contribution by a troop-contributing country (TCC), with a Letter of Assist (LOA) or pro bono agreement. Military UAS will be generated upon approval of the specific Statement of Unit Requirements (SUR). In case of micro and mini UAS **Class I (Not applicable to Class IV autonomous systems as defined in this Manual)** , when provided by a TCC contribution under an approved DPO Statement of Unit Requirements (SUR), it will be considered as contingent-owned equipment (COE) and will be part of the respective Memorandum of Understanding (MOU) agreed between the TCC and the United Nations. In any case, as aviation assets, **all UAS** in support of a field mission are subject to international aviation rules and regulations and will be operated in line with this Manual , the Policy on Authority, Command and Control in United Nations Peacekeeping Operations and the Peacekeeping-Intelligence, Surveillance and Reconnaissance Staff Handbook 2020 (PKISR HB).

Table 5D.1: UAS/Autonomous system Classification

UN UNMANNED TABLE

Class	Category	Max Operating Altitude AGL	Range
Class III	HALE	<65,000 ft	Unlimited (BVLOS)
	MALE	<45,000 ft	Unlimited (BVLOS)
Class II	Tactical	<20,000 ft	<500 km (BVLOS)
Class I	Small	<10,000 ft	<100 Km (BVLOS)
	Mini	<10,000 ft	<50 Km (BVLOS)
	Micro	<400 ft	<5km (LOS)

UN AUTONOMOUS TABLE

Class	Category	Max Operating Altitude AGL	Range
Class IV*	Small	<10,000 ft	<100 Km (BVLOS)
	Mini	<10,000 ft	<50 Km (BVLOS)
	Micro	<400 ft	<5km (LOS)

* Autonomous systems must be classified separately form unmanned aircraft systems and must be subjected to different operation and aviation safety considerations

Definition of UAS operational requirements

13. Once the UAS operational requirement has been identified by the United Nations and proper permissions have been granted (as precluded by the Chicago Convention Article 8), the mission, in coordination with the NYHQ UAS joint cell, coordinated by ATS will define the operational requirements for the acquisition of UAS, taking into consideration the aviation regulatory framework and any related legal aspects. Due to several cross-cutting matters, a holistic approach with the main stakeholders (operational, technical, safety, procurement, legal, etc.) must be taken along the whole process, including this first step that is to define the operational requirements.

14. The mission UAS Operational Requirement document is intended to provide a specific and detailed definition of a particular capability (such as ISR), cargo airdrop, medical resupply, etc.). In order to facilitate an effective acquisition process, it will identify if the requirement could eventually be performed by a commercial operator, TCC, or in some cases by a combination of both options. Even though the detail of this document will depend on the particular need on a case-by-case basis, as a general rule it is recommended to cover the following aspects on the mentioned determination of operational requirements:

Summary

15. As an introduction, the document must contain a short summary of the required capability, based on the mission mandate and related concept of operations (ConOps). The document shall include a benefit analysis and the main justifications for why the mission is in need of such assets. This is intended to provide a solid situational awareness that will eventually support any final recommendations to the senior leadership on the generation of UAS capability.

Logistic support

16. Often the most complex area to identify since there is a natural tendency in operational field missions to focus all the efforts on the operational employment of the UAS. However, logistic support is critical for the successful employment of the assets. In fact, poor logistic planning could result in unexpected cost increases and reduced contracted UAS services availability, as experience has shown on several occasions. General logistics includes

areas (such as infrastructure, electrical power, water, fuel, security, transportation, accommodation, mobility, etc. within the mission area, and special attention needs to be paid to the identification and analysis of these areas. In addition, logistics includes information, communications and technology (ICT) requirements, involving frequency management, bandwidth, data storage, power supply, radio and data-link spectrum required and/or available (HF, VHF, UHF, SATCOM, etc.)

Deliverables

17. Description of required usage, such as reconnaissance, surveillance, signal intelligence (SIGINT), communications relay, medical support/supply, humanitarian aid aerial delivery, etc. Detailed performance specifications shall be included, such as required slant range, altitude of detection and identification to distinguish combatants from non-combatants, capability to detect and count human-sized objects by day and night under different environmental conditions e.g. desert, rainforest, flooded areas, etc.

Capabilities

18. The robustness or capability to safely operate in different locations/infrastructure/conditions, such as specific surface or airfield conditions, remote or austere locations or infrastructure, under extreme meteorological conditions (thunderstorms, sandstorms, high/low temperatures, etc.). Desired UAS operational tempo (maximum task duration, surge time, average daily/weekly/monthly usage, readiness 24/7, time on station, etc.). Area size and distances to be surveyed, tasking lines that will be needed simultaneously, required voice and/or chat functionalities, etc.

Tactical/operational scenarios

19. Military operations, humanitarian uses, logistic support, law enforcement and police operations, etc. Joint scenarios are regularly the most common and realistic situations.

Operational safety and risk analysis

20. For the intended area of operations, ground threats/air threats, environmental threats (temperatures, humidity, altitude, geography, winds, thunderstorms, icing, dust, etc.), operational support, airspace availability, ATC and weather services availability, air navigation, operational and safety procedures and Standard Operating Procedures (SOPs).

21. The safety requirements for the UAS are to ensure safe and effective UA operations in all spectrum of operations. All safety requirements focus towards integrated and safe operations irrespective of the type of UAS or type of operations undertaken. Following safety areas as a minimum will always be part of the safety requirements from UNHQ or mission safety teams.

    a) Implementation of Safety Management as per the type and complexity of UAS;
    b) Airspace type and related - ATM vs UTM;
    c) Emergency Response Plan (ERP);
    d) UA Safety Equipment.

UAS Aviation Security

22. The UAS aviation security requirements must be able to secure from sabotage or unlawful malicious interference and unauthorised access. The Remote pilots and payload operators also have the standard background checks as recommended in ICAO Doc 8973 or military equivalent.

Sensors – Technical specifications

23. The sensors are an essential core component of the UAS. This document must provide a good idea of which type of sensors would be ideal to fulfil the required tasks. Sensors could include cameras day/night, radars (including tracking devices), laser range finders that might be useful for specific applications like Counter Improvised Explosive Devise (C-IED),

weather or foliage penetration, etc.

Authority, command and control

24. The Mission must provide a clear description of the intended levels of command and control structure, as well as the specific tasking procedures. In addition, it is important to mention and describe the intended procedures for handling, sharing, storage, dissemination and distribution of information or data gathered by the UAS, including live video feeds to those locations of interest. These procedures must be in line with the Secretary-General's Bulletin *Record-keeping and the Management of United Nations Archives* (ST/SGB/2007/5), *Information Sensitivity, Classification* (ST/SGB/2007/6) and the *Handling and Human Rights Due Diligence Policy on United Nations Support to Non-United Nations Security Forces* (A/67/775–S/2013/110).

Licence Requirements for UAS/RPAS Operators/Pilots

25. UAS/RPAS pilots and other crew members shall be trained and licensed within the context of the ICAO and, in case of military staff, in accordance with their country military regulations and standards. All pilots and related crew members shall be able to operate all features and equipment of the UAS/RPAS and sensor packs to the fullest extent of their capability as established in the UAS/RPAS operational and technical Manuals.

26. For guidance purposes, the following UAS/RPAS pilots and observer/payload operator criteria are established:

Pilot:

a) Age: Above 18 years.

b) Medical: Category II or military equivalent.

c) English Language proficiency: Level IV or military language certification as per national regulations.

d) Licence: Should hold a valid Remote Pilot/Operator Licence (RPL/ROL) or military equivalent (licence or certificate). If not:

- Proof of theoretical knowledge (Valid Commercial Pilot Licence (CPL)/military equivalent for the type of UAS).

e) Instrument flying: Valid instrument flight rules (IFR) certification/license.

RPA observer/payload operator:

a) Age: Above 18 years.

b) Medical: Category III.

c) UAV/RPA observer competency certificate issued by the operator or military equivalent.

27. Due to the variety of UAS/RPAS and the actual international civilian and military regulatory framework development process that is taking place worldwide on the employment of these systems, it is not possible to determine specific criteria for all the different types of UAS. Therefore, the crew requirements will be revised and discussed on a case-by-case basis during the UAS/RPAS generation/procurement process, in line with the appropriate Civil or Military Aviation Authority rules and regulations.

Recommendations on the employment of Class I (micro and mini under 10kg) UAS

28. To mitigate the potential hazards for Class I (micro and mini) UAS categories operation, the following Do's and Don'ts from ICAO and Industry Best Practice are recommended to be followed by all UN Field Missions and Troop Contributing Countries that conduct safe and efficient UAS operations:

- Operations within 5 Miles from an airfield or heliport are restricted. They are only allowed with prior coordination with the Mission Aviation Section. If the operations are conducted within the area of an airfield/heliport with no Aviation Section presence, Local Air Traffic Control authorization will be required if available. Military micro and mini UAS may continue to operate close to airports and heliports under authorised operational requirements;
- At all times the Class I unmanned aircraft must remain close enough and in visual line of sight (VLOS) to the remote pilot/operator in command and/or the person manipulating the flight controls of the UA;
- UA may not operate over any persons not directly participating in the operation, not under a covered structure, and not inside a covered stationary vehicle;
- For night operations, activities should be coordinated with the Mission's Aviation Section;
- Must not be flown in the proximity close to other aircraft, in any case yield right of way to other aircraft;
- Maximum altitude of 400 feet above ground level (AGL) or unless a flight plan is filed and approved;
- Minimum weather visibility of 3 miles from control station;
- No person may act as a remote pilot/operator in command for more than one UA operation at one time;
- No operations from a moving vehicle unless the operation is over a sparsely populated area (military convoys might deviate from this rule if operational situation demands);
- No careless or reckless operations especially close to people and population;
- No carriage of hazardous or dangerous materials unless authorised;
- No external load operations unless certified and authorised;
- The UA Operator in command must conduct a pre-flight check of the UA to ensure its serviceability is in condition for safe operation;
- UA operator must be conversant with manufacturer instructions and trained for safe operations;
- All micro and mini UAS flight operations must be suitability authorised and documented with adequate and approved SOP's.
- Remote pilots operating Beyond-Visual-Line-of-Sight (BVLOS) shall additionally be knowledgeable of:

    a. Weather conditions;
    b. Performance of the Unmanned Aircraft;
    c. Airspace Segregation of the overflown area;
    d. Lost Link Procedures;
    e. Reporting of Safety Occurrences and Hazards.

29. All UAS operators, civilian and military, in the Mission area are required to abide by the above guidelines, coordinating all UAS operations with the Mission aviation authorities as

required. Operationally driven deviations might be authorised by the competent Mission Aviation Authority. All UAS operators are encouraged to report all occurrences and observed hazards to Mission Aviation staff promptly.

Authority and Command and control (AC2)

30. Tasking authority is vested in specified senior mission leaders (HOMC, HOPC, or D/CMS) and includes the authority to assign tasks to mission enabling assets and deploy, redeploy and employ all or part of a mission enabling asset (Enabling assets consist of construction engineer units, Unmanned Aerial Systems, manned airborne ISR aircraft, enabling assets with composite engineer units, medical, utility and cargo military aircraft, logistics units, signal, transportation and movement units and supply. The classification of these units is agreed in the Statement of Unit Requirement (SUR), MOU/Letter of Assist (LOA) prior to deployment). Mission enabling assets are considered “whole of mission” assets because their capabilities are required by all mission organizational units and consolidated tasking allows maximum utilization.

31. The tasking of mission enabling assets should be **guided by an integrated approach** to planning and resource allocation, informed by mandate priorities determined by the HOM and mission-wide priorities informed by the mission resource allocation structure. It is the responsibility of the HOM to ensure an accountable and cooperative approach to tasking and resource allocation in the mission.

32. The D/CMS, as delegated by the HOM, is responsible and accountable for the effective utilization and tasking of all United Nations commercial/military mission enabling assets. The MSC (or equivalent section/office in MSD) is the mission integration and control mechanism responsible for ensuring the coordinated implementation of mission priority tasks, including the necessary resources.

33. Planning, coordination, and scheduling of all mission aviation assets is managed through the MAOC in compliance with the mission priorities, as determined by the HOM, to ensure final coordination amongst the necessary mission components and appropriate oversight and support is provided (The MAOC is the mechanism for mission integration, control and coordination described in the UN Policy for Authority, Command and Control).

34. The HOMC exercises sole tasking authority over all combat units, i.e. attack helicopters and combat engineers. Tasking is done in coordination with and/or through the MSC and MAOC, as necessary (The term combat support refers to the provision of specialized support to combat units in the areas of combat operations, to include fire support, combat engineering, EOD, troop insertion or delivery of resupply into an ongoing hostile fire area. Combat support assets include combat aviation, UAS/Remotely Piloted Aircraft Systems; aircraft used exclusively for combat support tasks such as ISR, combat engineers, explosive ordnance disposal (EOD) and ISR units. The classification of these units is agreed in the MOU/LOA prior to deployment).

Roles and responsibilities

35. **FHQ/U2** is responsible for the collection, validation and prioritization of all force and mission or United Nations agencies RFIs that might require a UAS. U2 will pass validated requests and prioritization to the U2 UAS collection cell, as well as notify G2/ISR Company/MAOC. U2 will work in close coordination with JMAC to ensure synchronization between Mission and Force collection needs. This will include both the direct and analysis elements of the cycle.

36. **FHQ/U6** is responsible for coordinating the provision of the required information and communications technology (ICT) service support (frequency, allocation, bandwidth, data storage equipment, link management, etc.), as well as any requested integration with existing mission systems (e.g. Common Operating Picture), in coordination with the mission ICT.

37. **FHQ/U4** is responsible for the coordination of any logistics support required (e.g. fuel, relocation vehicles, etc.).

38. **FHQ/U2 UAS collection cell** is responsible for higher-level task planning, assigning RFI requests to the appropriate airborne sensor (UAS or manned ISR platform) to ensure economy of effort and maximize coverage for all user RFI requests.

39. **MAOC** is responsible for airspace management/de-confliction coordination and flight planning, ensuring that Notices to Airmen proposed by U2 UAS collection cell are submitted in a timely manner to the host nation or authorities for approval/clearances. Additionally, the MAOC is responsible for planning, approval and publishing of both civilian and military UAS flights in the Flight Schedule Annex A/B. In addition, the MAOC is responsible to ensure coordination during UAS execution and/or Emergency Response Plan activation.

40. The **Technical Compliance Unit (TCU)** is responsible for the overall UAS LOA/contract technical compliance, periodical performance evaluation, use report verification and processing, and for e-SFR/e-MATR costing estimates.

41. The **Chief of the Air Region** is responsible for UAS on-site coordination of operations, Aviation Risk Management (ARM), verification and processing of UAS requests (SFR/MATR), planning, release of the authorized flight, flight monitoring, post-flight reporting, organization of UAV recovery response in case of emergency and facilitation of FHQ UAS representatives and/or the User/Requestor (RFI originator) duties at the Air Region operations cell during execution to ensure successful accomplishment of the ATO.

42. The **Chief/ Mission Aviation Officer (CAVO)**, is also responsible for the overall UAS LOA or commercial contract management, ARM, verification of UAS tasking source (e-SFR/AMTR and e-MATR), authorization and release of UAS assets through the DFS/ATO and overall compliance with the United Nations aviation regulatory regime.

43. The **Mission Aviation Safety Officer (MASO)**, is responsible for the overall aviation safety of the UAS LOA/Contractual assets provided. This includes and is not limited to: initial aircraft acceptance inspections, briefing of the aircrews, support risk management, conduct safety assurance activities, Occurrence /Hazard reports analysis and investigations, facilitate coordination and support with local authorities and outside entities and partners in the AOR on safety related matters.

44. The **ISR Company/UAS contractor** is responsible for detailed flight planning and sensor management, and for providing the requested data back to the requesting user in a timely fashion according to the standard requested by the user, as well as for performing the flights in accordance with DFS/ATO restrictions and limitations and providing all data to FHQ/U2 and JMAC (when required).

45. The **User/Requestor (RFI originator)** is responsible for specifying the type of data required and may provide on-site monitor(s) to the ISR Coy / Air Region operations cell during execution to ensure ATO success.

ANNEX F5: AEROMEDICAL EVACUATIONS

31. Evacuation of personnel by air for medical reasons falls into two distinctive categories: **MEDEVAC and CASEVAC.**

32. **MEDEVAC** is a medical evacuation of a patient or patients, from one facility to another, that does not constitute an emergency. This type of evacuation is considered an administrative move. The use of dedicated air resources assigned for emergencies may not be required. Essentially, the transportation is provided for a patient under stable conditions and may or may not be accompanied by a medical escort or doctor.

33. **CASEVAC** is a casualty evacuation involving injured military or civilian personnel where a threat to life or limb exists. This entails the movement of an injured or seriously ill person, usually to the first available level of medical care, by whatever available means and will usually involve the use of dedicated air resources available on a continuous **24/7** basis. Approval by the Chief Medical Officer (CMO) or his/her delegated authority is required and will determine the appropriate casualty categorization as per the medical standards. Additional guidance can be found on DOS/DPO/DPPA/DSS Policy on Casualty Evacuation in The Field.

34. A **MEDEVAC** is normally requested by the mission CMO or his/her delegated authority, on regular scheduled flights (passenger priority 1). However, a Special Flight Request (SFR) can be done; if the condition of the patient requires a medical equipped aircraft and unique medical care during the transportation, or if the destination of the patient is not served by scheduled flights.

35. A **CASEVAC** may be requested by anyone in the field mission, and authorized by the Medical Emergency Control Centre (MECC), which is led by the Medical Emergency Coordinator (MEC) under the delegated authority of the CMO. A CASEVAC may be performed utilizing any available aircraft.

36. Once it has been decided that an evacuation by air is to be conducted, a risk assessment must be accomplished to ensure that the risks involved are understood and the level of risk is within acceptable safety parameters. The MAOC should assign United Nations air resources appropriate to execute the evacuation and perform the necessary operational coordination for the flight.

37. Permanent clearances enabling unrestricted CASEVAC flights should be obtained by MAOC, from the Civil Aviation Authorities or air traffic control of neighbouring countries.

38. The 2015 High-Level Independent Panel on Peace Operations indicated MEDEVAC operations as an item of high interest and concern. A MEDEVAC/CASEVAC is far more than the aviation assets that are involved or even the contributing aviation support plan. A Casualty Evacuation in the Field Policy has been issued to this effect.

Supporting MEDEVAC/CASEVAC Operations

The following matters must be considered when devising and refining an Aviation ConOps or a mission Emergency Response Strategy/Plan that supports MEDEVAC/CASEVAC operations.

Responsiveness and agility of the air service

39. This is an essential matter that must be considered as part of the whole medical/casualty evacuation process, in order to comply with the stringent medical requirements of the 10-1-2 timeline for life-threatening medical emergencies. This refers to medical attention occurring within: 10 minutes for immediate haemorrhage and airway control; one hour for advanced trauma care; two hours for damage control surgery.

40. It is not only imperative that there are clear channels of command, control and

communication in place for notifications and approvals, but also that crews and aircraft are positioned in the most effective posture possible to respond to the medical demand. Relocating rescue assets in proximity of high-risk operations in order to reduce response times is a possibility. The response should take place immediately following the notification of an emergency medical need.

41. Missions should consider various postures of readiness and standby in their Emergency Response Strategy/Plan. Depending on the location of the incident and the distances to various types of hospitals, the response could involve the initiation of an air tasking process for more than one aircraft. For example, as an immediate response, a helicopter crew is notified and prepares to fly. Simultaneously, coordination take place to have a fixed wing aircraft arrive to meet the helicopter in order to prepare for transfer to a higher-level medical facility.

42. In order to provide medical attention within an hour, pickup from an incident location away from a base must happen quickly, within 30 minutes as far as practical. It is possible that alternate staging locations or even airborne standby should be considered for certain operations based on this tight timeline.

Communications

43. Without knowledge of any incident, crews and aircraft are useless. It is essential that missions have clear, comprehensive and straightforward notification capabilities and procedures. This could be by landline, mobile phone, satellite phone or radio. TCCs operating outside bases should have a clear line of communication to the sector or regional headquarters that is associated with the nearest rescue aircraft. Backup forms of communication should be encouraged and enforced (such as radio and satellite phone).

44. A rescue communication plan for any patrol or trip in areas outside bases should be discussed, briefed and approved in cases of high risk. Troops must have ground to air VHF/UHF radios, GPS and handheld weather station devices at all times while in transit; troops should be trained and capable of providing coordinates.

Approvals

45. It is essential that approval for medical evacuation be delegated to the **lowest possible level when matters of life and limb are at stake**. The direct authorization should be at the level of communication that connects troops or staff to their first line of notification. For pre-planned standby aircraft in support of particular mission operations under fragmentary order or operational order, this would be at the local Regional Aviation Officer, G4 Medical Office and Sector Commander level, delegated from Force Commander, Chief Medical Officer or DMS/CMS, and in coordination with the MAOC. Notification to all the proper authorities and the completion of associated paperwork can be done ex-post-facto.

Standby postures

46. Depending on the requirements of the ConOps or Emergency Response Strategy/Plan, various postures shall be considered:

- Availability of rest/alert facilities for aircrews or AMET in or near airports and helipads.
- Possibility of having specialized aircraft positioned and prepared, and aircrews or AMET ready for immediate launch when operations are conducted at significant distances.
- Procedures for securing a landing zone (LZ) at the site of evacuation within a high-risk area, which are critical to reduce risk levels. Troops/security must be able to communicate that an LZ is prepared, secured, ready for pickup of injured, has passed accurate GPS coordinates, and basic obstacle information around LZ and a weather

conditions/report.

- In case of a very high security threat and inability to properly secure (as per previous paragraph) the evacuation LZ by troops on the ground, the coordination to task attack helicopters or armoured air support may be necessary or to allow for an earlier confirmation of a secured LZ.
- Identification and/or preparation of a helicopter landing site (HLS) or remote helicopter landing site (RHLS).
- The hospital level II facilities' landing zones (i.e. the destination) and the air bases or main operating base of the standby or connecting aircraft shall be equipped with adequate NAVAIDs and lighting systems for particular weather and geographic conditions, to ensure that the aircraft can perform evictions under instrument meteorological conditions (IMC) and instrument flight rules (IFR).

Weather

47. For helicopter operations, TCCs and commercial operators must adhere to the rules that apply to their operations, whether that is their respective military regulations (for military aircraft) or ICAO Annexes rules, Civil Aviation Authority requirements or company procedures. In many cases, in uncontrolled airspace, helicopters must remain clear of clouds as a minimum. The lowest generally acceptable weather minimum for day visual flight rules (VFR) or special visual flight rules (SVFR) for helicopter operations is a visibility of 800 meters. At night, the minimum is 1500 meters (approx. 1 nautical mile), under night vision goggles (NVGs). Once coordinates are known, aircrew should accomplish a map study and annotate the highest terrain or obstacle within 10 nautical miles of their route. This is not to preclude or national or relevant CAA requirements, and aviation risk management will be needed to fully capture the risk added by poor weather.

48. Again, poor weather can preclude any rescue attempt, and operations outside close driving distance of a level one or two facilities should keep this in mind. Ceilings below 200 meters and ½ nautical mile (400 meters) visibility generally preclude helicopter operations. Host nation and company minimums should be adhered to, or respective TCC weather minimums as per military regulations.

Night operations

49. For fixed wing aircraft, airfields will need to have some form of airfield lighting and/or NAVAIDs systems in order for those aircraft to be able to arrive or depart at all hours, facilitating the ability to transfer patients to higher-level hospitals day and night under IMC. Helicopters may be tasked to fly from one stable location to another, but it is more likely that they would be required to fly to an ad hoc pickup location based on the site of an incident. If flying to an approved HLS equipped with landing lights, unaided (non-NVG) flight is possible, while not recommended. Even in this case, aircrew must be current, in line with their air carrier's or TCC procedures and regulations.

50. In many cases, it is impractical for an aircrew in many field mission locations to maintain a night flight certificate current. Flying to unprepared or unlit sites at night makes night vision devices, such as NVGs, night vision integrated systems (NVIS), enhanced further by forward-looking infrared (FLIR) a necessity in most cases. Aircrew must be kept up to date and proficient on NVGs, and having a training or orientation programme in place will allow aircrew to become proficient with the local environment at night, so as to be better prepared for an actual night medical evacuation. NVGs in and of themselves are not a solution with current and qualified aircrew; it takes a training programme that may be difficult to maintain under normal daytime operational taskings.

Aircraft capability

51. The type of aircraft and its capabilities will affect the service to be provided. Range, speed and load capacity must all be considered when planning medical evacuation operations. Lack of NVGs, ballistic protection, external tanks and other enhancing features will impact on how an aircraft is used, and with that, how troops are employed operationally in order to ensure full coverage. It is important to keep in mind that all aircraft are generally capable of some sort of CASEVAC capability. All resources should be used to the maximum extent possible. In an example, an NVG-capable aircraft may be best suited to remote locations with no proximate airfield, while daytime-only helicopters could then be fully utilized in other locations, with airfield lighting and instrument approaches, maximizing the hours under which these less capable aircraft could depart and arrive in support of a CASEVAC. If aircrew's knowledge of the local environment at night is kept up to date (although perhaps a challenge), night flight is not impossible in helicopters without NVGs, if between lit airfields and helipads.

Infrastructure

52. During the build-up or planning phases, consideration shall be given not only to distances in Air Regions and remote locations, but also to maximizing and improving available aviation-related infrastructure and ground support equipment and services, such as fuel facilities, lighting, landing surfaces, NAVAIDS, etc.

53. Improved infrastructure may lead to longer-term financial savings (e.g. fixed wing options vs. rotary wing), reliability of evacuations and higher safety and lower aviation risk levels.

Landing zone

54. Landing at an ad hoc, non-approved remote site is a higher risk operation. In most cases, these sites must be surveyed in a relatively expeditious manner, from the air, and in coordination with ground personnel. All troops should receive training on how to assess and coordinate an ad hoc remote landing site. Night operations increase the level of risk, as it may not be possible to assess any obstacles on the ground or the surface. The use of night vision compatible glow sticks for night operations can help ground troops prepare a landing zone for rescue CASEVAC aircraft.

Operations

55. Diverse operational scenarios and special procedures should be considered; for example, instrument approaches would allow evacuations to take place under considerably worse weather conditions, and provide for a margin of safety during periods of deteriorating weather. As well, dusty conditions at remote landing zones associated with outposts may make both night and day operations difficult or impossible due to brown-out conditions.

Threat

56. High-threat environments may require a more complex response and close coordination with local security and military forces/command structure in order to confirm that a site is secure for landing. It is likely that the time required to secure a site may delay the medical 10-1-2 timeline response, so it is essential that procedures and training are already in place in this regard. In areas of highest risk, support from the mission attack helicopters may be necessary in order to secure a landing site and reduce the aviation risks to acceptable levels.

Transition to fixed wing

57. Procedures shall be established for transfer from a helicopter to a fixed wing medical

evacuation. Accurate operational calculation must be made (notifications, distances, aircraft type, etc.), and the transfer location and capabilities are to be evaluated.

Other considerations

58. Periodic exercises of CASEVAC / MEDEVAC procedures should be conducted by MAOC with all involved personnel; for example, Air Regions, FHQ/Sector HQs, aircrews, Flight Following, Emergency Crash and Rescue, Movement Control (MOVCON), Department of Safety and Security (DSS) and United Nations medical and military staff.

59. Evacuation of non-United Nations personnel by air for humanitarian reasons may be undertaken when the potential for loss of life or limb is imminent. The mission Medical Section shall determine the need, and the final decision rests with the head of mission and/or DMS/CMS.

60. Emergency night CASEVAC can require flight into previously un-reconnoitred/unfamiliar landing site. As such, night flights can be tasked, but the final sole discretion of the aircraft commander, upon the ARM results, will prevail. By their nature, such flights require aircraft fitted with special equipment and specially trained crews. While some commercial operators can provide a night CASEVAC capability, military aircraft and crews are normally better equipped, self-protected and trained to meet these requirements for high-risk or combat areas through the use of NVGs. These flights shall only be conducted if and when the circumstances categorize the casualty as priority 1 (immediate danger to loss of limb, sight or life).

61. The mission Aviation Section shall develop a complete and detailed set of SOPs in respect of this Annex and in line with this Manual.

ANNEX F6: AVIATION RISK MANAGEMENT (ARM)

General

63. Aviation Risk Management (ARM) is defined as: A logical and systematic method of establishing the context, identifying, analysing, evaluating, treating, monitoring and communicating risk associated with aviation-related activities in a way that will enable organizations to minimize losses to an acceptable level and maximize opportunities.

64. This Annex has been developed in accordance with the existing DOS/DPO Aviation Risk Management Policy, guidelines and related approved documents. These documents contain the detailed information necessary for missions to develop their ARM system throughout their aviation activity (flight, airside, ground support, etc.).

65. Chapter 5 of this Manual establishes the requirements to perform an ARM before a flight task is executed. Detailed guidance on the full extent of the ARM process can be found in the ARM Policy.

General accountability, responsibilities and delegation

66. In field missions, the head of mission is responsible and accountable for the implementation of ARM procedures within the mission and is ultimately responsible for decisions made in the risk management process associated with the employment of mission aviation resources.

67. The CAVO is responsible for ensuring that ARM SOPs are implemented within the field mission and followed in accordance with the ARM Policy and related directives and guidelines. In addition, the CAVO is responsible for ensuring that the ARM is systematically applied to the Air Tasking Order decision-making process in order to mitigate the risks associated with the mission's aviation operations and that the ARM is effectively integrated in all relevant daily air operational activities.

68. Delegation of authority by the DMS/CMS on certain levels can be granted to the CAVO in order to initiate the decision-making process in terms of accepting or not a determined risk level for the execution of an ATO.

69. The Force Commander is responsible for ensuring that the ARM process is effectively integrated in the military decision-making process regarding the use of military aviation assets. The assessment shall be made in coordination with the Military Liaison Officer.

70. The degree of risk determines the level of acceptance by the decision authority – Special Representative to the Secretary-General (SRSG), Force Commander, CMS/DMS, CAVO. When resources to control a high risk are not available, the risk issue must be elevated to the next higher level. This process continues until the information is presented to the level of responsibility that has the resources and authority to eliminate the hazard or control it to an acceptable level. In this manner, a conscious and informed decision is made to commit the resources to control the hazards or accept the risk.

71. The Aviation Safety Officer in each mission is responsible for advising the DMS/CMS on Aviation Safety matters in compliance with the DOS Aviation Safety Manual, Aviation Safety Policy and ARM Policy. Furthermore, Aviation Safety personnel will closely monitor the ARM process to ensure that no steps are omitted and that risk levels are constantly re-evaluated.

72. The administrative authority of the mission, as described above, **cannot in any circumstance**, supersede the ultimate **operational control** authority of the Pilot in Command (PIC), as established in the Aircraft Charter Agreement and granted through the air carrier's Air Operator Certificate (AOC). This is based on Annex 6 to the Convention on International Civil Aviation: Operation of Aircraft, or, for military operations, governed by

the TCC/government rules, the existing LOA and the scope of the mission mandate for this purpose.

73. Air Operations Officers throughout the mission Air Regions shall participate on the ARM process in conjunction with the PIC, providing operational and security information, and coordinating with the MAOC for any higher-level operational or administrative advice.

74. Having all the necessary elements of information, the PIC will make for an operational decision in terms of the execution or not of the ATO, under the PIC's **operational control authority**.

The aviation risk assessment process

75. ARM is a continuous process that provides the structure to detect hazards, assess their risk, and implement and sustain risk control measures. The logic of the process rests with a decision-making process based on the comparison of the actual (new) risk level with the (pre-determined) acceptable risk.

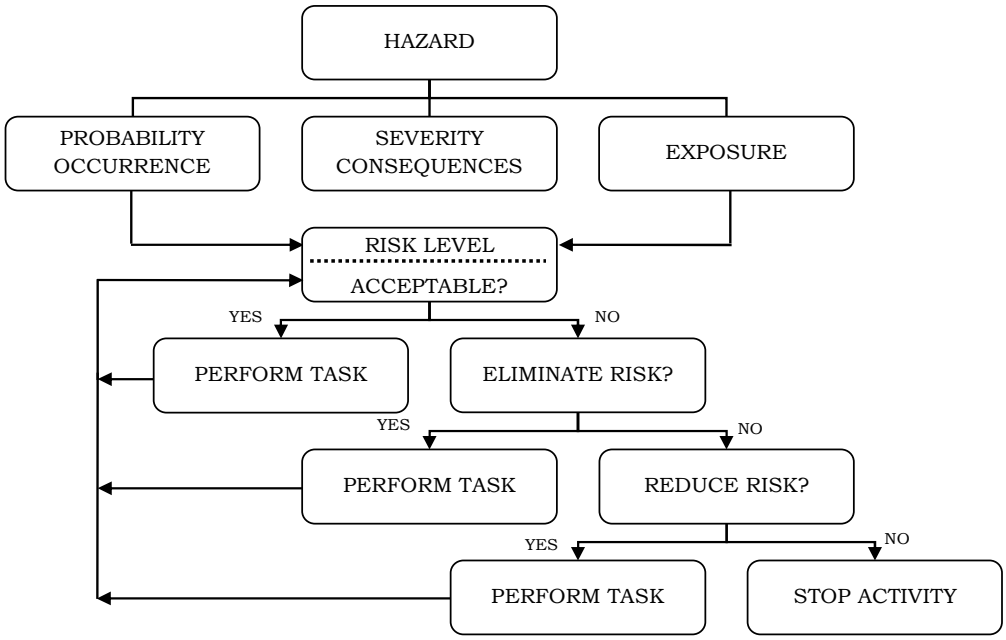


Figure 5F.1: Aviation risk assessment process

Guidelines

76. The following are guidelines for issues to be taken into consideration for the ARM. Procedures should be developed regarding internal flight clearances to areas where the military / security situation is unstable, including a pre-flight threat assessment based on all information available. Whenever a security guarantee is sought from a party to the conflict, the guarantee must be provided in a timely manner and in writing. Verbal guarantees do not suffice. The written guarantee must be scrutinized and should serve only as an indicator for the threat assessment. Should the information received be considered controversial or doubtful, flights should be cancelled.

77. A risk map should be developed and kept up to date, with codes depicting the level of threat throughout the mission area, including possible "red zones" over which United Nations flights should not be authorized to fly. It should identify alternative flight routes that avoid volatile areas.

78. Particular attention should be paid to MEDEVAC/CASEVAC flights into/over disputed areas, where hazard identification and risk analysis should be conducted separately for every flight.

79. There should be a timely flow of information between the Air Regions/Sectors and the mission headquarters on the one hand, and between the mission headquarters and United Nations Headquarters on the other hand. There should also be close coordination and cooperation between all components concerned in the mission: Political, Military, Police, Security, Air Operations, Aviation Safety, as well as commercial operators and military aviation units.

80. The Integrated Risk Matrixes and likelihood/severity criteria tables (Table 5F.1, 5F.2 and 5F.3) should be used to execute the ARM in line with the DOS *Aviation Safety Manual* guidelines.

Table 5F.1: Integrated Risk Matrix (DOS ARM and DSS SRM) – Model

RISK MATRIX			SEVERITY / IMPACT				
UN DOS – ARM			Insignificant	Minor	Moderate	Major	Catastrophic
UN DSS – SRM			*Negligible*	*Minor*	*Moderate*	*Severe*	*Critical*
			1A	2	3	4	5
LIKELIHOOD	Frequent / *Very likely*	A	1A Medium	2A Medium	3A High	4A Very high	5A Unacceptable
	Occasional / *Likely*	B	1B Low	2B Medium	3B Medium	4B High	5B Very high
	Possible / remote / *Moderately likely*	C	1C Low	2C Low	3C Medium	4C Medium	5C High
	Unlikely / improbable / *Unlikely*	D	1D Very low	2D Low	3D Low	4D Medium	5D Medium
	Exceptional / *Very unlikely*	E	1E Very low	2E Very low	3E Low	4E Low	5E Medium

Table 5F.2: DOS ARM and DSS SRM likelihood criteria table – Model

Likelihood				
DOS – ARM / *DSS – SRM*			STATISTICS	HISTORY
LIKELIHOOD	Frequent / *Very likely*	A	> 0.5 occurrence per 10,000 hrs > 1 in 10	• Is expected to occur in most circumstances • Has already occurred frequently
	Occasional / *Likely*	B	0.005–0.5 occurrence per 10,000 hrs 1 in 10–100	• Will probably occurs at some time • Likely to occur sometimes • Has occurred infrequently
	Possible / remote / *Moderately likely*	C	0.001–0.005 occurrence per 10,000 hrs 1 in 100–1,000	• Might occur at some time • Reasonable to occur within the assessed timeframe
	Unlikely / improbable / *Unlikely*	D	0.00001–0.001 occurrence per 10,000 hrs 1 in 1,000–10,000	• Could occur at some time • Doubtful to occur within the assessed timeframe
	Exceptional / *Very unlikely*	E	0.00001–0.001 occurrence per 10,000 hrs	• May occur only in exceptional circumstances • Not known to have occurred • Unrealistic to occur within the assessed time frame

Table 5F.3: DOS ARM and DSS SRM severity criteria table – Model

Criteria	**Severity / impact and consequences**				
DOS – ARM ***DSS – SRM***	**Safety of the aircraft**	**People**	**Asset**	**System processes**	**Reputation**
Insignificant ***Negligible***	No significant impact on aircraft-related safety	Injuries or ailments not requiring medical treatment	Up to 20% damage	Minor errors in processes requiring corrective actions No significant impact on mission	Internal review
Minor ***Minor***	Degrades or affects normal aircraft operational procedures or performance	Minor injury First aid treatment	Up to 40% damage	System slightly affected Process review required Some mission objectives not achieved	Internal scrutiny
Moderate ***Moderate***	Partial loss of significant or major aircraft systems, or results in abnormal flight operations procedure application	Serious injury with hospitalization Multiple medical treatment	Up to 60% damage	Partial system degradation Mission compromised or not entirely accomplished	Scrutiny required by external bodies, Auditor General, etc.
Major ***Severe***	Complete loss of significant or major aircraft systems, or results in emergency application of flight operations procedures	Life-threatening injury Multiple serious injuries with hospitalization	Up to 80% damage	Critical system degradation Mission seriously degraded	Intense political, public and media scrutiny TV, newspaper front page
Catastrophic ***Critical***	Aircraft/hull loss	Death Multiple life-threatening injuries	More than 80% damage	System failure Mission failure	BOI External investigation Adverse media

ANNEX F7: OPERATIONAL CRITERIA FOR UNITED NATIONS FLIGHTS

Background

81. As DOS aircraft routinely operate in difficult and hostile environments without a functioning or only partially functioning aviation infrastructure, extreme caution must be taken to ensure that flight operations are conducted in the safest manner and to the maximum extent possible within the established DOS aviation regulatory regime.

82. In order to mitigate this inherent aviation risk, DOS has established the following applicable minimum aviation criteria for all DOS-contracted aircraft and airfield operations as a complementary guideline for Chapters 5, 9 and 12 of this Manual.

General requirements

83. The ATO must be authorized by the mission CAVO through the established process.

84. The mission area security levels must be considered, and an ARM must be completed prior to the flight in conjunction with the aircrew, following the established DOS Aviation Safety Policy.

85. All landing areas, including HLS, must have been previously surveyed and approved for use, following established procedures in this Manual. Landing areas must be included in a mission landing area map or directory. The only exceptions are responses to in-flight aircraft emergencies, military (tactical/combat/surveillance operations), hostile fire or activity, SAR or CASEVAC operations, unanticipated and un-forecast weather or specific flights authorized by the CAVO on a case-by-case basis.

86. All landing areas, including HLS, that are used on an exceptional basis or verbally approved without previously having been surveyed shall be processed as after the incident, with an ex-post facto survey report and included in the mission aerodrome/HLS directory.

87. The airside area or landing site must include overruns and stop-ways, for fixed and rotary wing aircraft, and at least one final approach and take-off area (FATO) must be an obstacle-free zone (OBZ), free of landmines and unexploded devices. Hazardous material, such as fuel and ammunition, may not be stored in the vicinity of the airside apron areas, to avoid damage to aircraft or helicopters if detonated.

88. The mission aviation operated aerodrome infrastructure/services shall include adequate provisions as described in Chapter 12 of this Manual.

89. The following minimum criteria shall be met to the extent possible:

- Landing strip/runway, taxiway and apron to be in good repair and free of damage, pot holes and debris which could cause damage to an aircraft or impair the operation of an aircraft system, as well as having sufficient width, length and load-bearing capacity for anticipated aircraft usage, following Annex 14 to the Convention on International Civil Aviation: Aerodromes.
- The landing area must have an operational wind indicator visible to the pilot from the air.
- An aerodrome Emergency Response Plan shall be established for aircraft emergencies, sabotage, bomb threats, unlawfully seized aircraft, dangerous goods, fires and natural disasters.
- Fire-fighting equipment specifically designed for aviation use and qualified personnel shall be available, as established in Annex 14 to the Convention on International Civil Aviation: Aerodromes.
- A two-way VHF or HF radio or ground communication with DOS aircraft.

- When in use at night, the landing area, taxiways, parking apron and wind indicator shall be adequately lit by a reliable fixed airport lighting system or by a temporary/portable lighting kit specifically designed for aviation use.
- Designated aerodromes shall meet the requirements for the intended VFR/IFR/VMC/IMC operation.

ANNEX F8: HELICOPTER ROTORS RUNNING ON-LOAD/OFF-LOAD PROCEDURES

General

90. As a general policy for safe operation at all airfields and landing sites used by the United Nations, the rule is to conduct **static** (engines shut down) embarking and disembarking procedures, while performing routine civilian helicopter operations. However, rotors running procedures can be implemented on an exceptional basis.

91. Under the following cases, a helicopter rotor running on-load or off-load might be authorized:

- CASEVAC and emergency operations.
- When adverse weather conditions may result in the aircraft arriving after the official sunset time or in leaving a helicopter at the unattended airfield or HLS overnight.
- When the HLS slope is more than that authorized by the air carrier's Operations Manual for the purpose of shutting down engines. Such helipads must be properly annotated in the HLS directories and remarks must be included in the ATO.
- When hostile threat is detected near the landing site.
- Any military operation requiring minimum time on ground.

92. In all the above-mentioned cases, rotors running on-load or off-load must be authorized by Air Operations or by the CAVO, and must be pre-planned whenever possible. However, in some cases, the PIC can take a decision at his/her discretion, based on the guidelines herein provided and the aircraft operational procedures. In the event of PIC exercising their discretion to keep the rotors on, this must be reported to FF and in the After-Mission Report.

Preventive safety measures

93. For aircrews and ground operations staff who are directly involved in helicopter operations with rotors running loading or off-loading, the following safety measures should be considered to help prevent accidents at the landing site areas:

- Brief passengers and staff before commencing operations.
- Ensure static training, as applicable, is accomplished before boarding.
- Flight engineer/flight attendant is to be the first one on the ground directing and supervising movement of personnel to/from the helicopter.
- Do not approach a helicopter from the back.
- Extreme caution should be exercised if the decision is taken to conduct rotors running on-loads/off-loads at night-time. The tail rotor cannot be seen in dark.
- Staff directly involved with enplaning or deplaning passengers and aircraft servicing should be instructed as to their specific duties through proper training, with emphasis placed on the dangers of rotating rotors.
- ATC tower, marshallers, and ground handling services staff are to be advised regarding the rotors running activities.
- When it is necessary to emplane/deplane a passenger from an aircraft on which the engine is running or rotors spinning, never have the aircraft with the tail rotor in the path of the passenger's route to/from the aircraft. Special safety considerations shall be applied.
- Passengers are to be escorted by competent, qualified or trained ground staff by a safe route to/from the helicopter.

94. **Note**: In the absence of qualified Unite Nations personnel, it is the responsibility of the Pilot in Command to ensure that involved personnel are adequately briefed.

95. The CAVO is responsible for coordinating with the mission Aviation Safety Officer for the appropriate training for the Aviation and MOVCON airside area personnel.

ANNEX F9: SEARCH AND RESCUE

96. Search and Rescue (SAR) operations are the responsibility of the host nation, following Annex 12 to the Convention on International Civil Aviation: Search and Rescue. Field missions will coordinate their SAR Plan with the host nation's pertinent authorities. In areas where the State does not have functioning Search and Rescue capability, SAR operations then become the responsibility of the field mission in coordination with the host nation, to the maximum extent possible within its capabilities. This coordination extends to adjacent countries from which DOS aircraft operate as well. In those regions where sovereignty is undetermined, SAR services should be coordinated through regional agreements.

97. For each mission SAR regions will be clearly delineated and should, as far as possible, coincide with the boundaries of the corresponding country Flight Information Region (FIR). Search and Rescue boundaries between regions should not overlap.

98. Field missions will establish a Search and Rescue Centre, as part of the Mission Air Operations Centre, for each Air Region under their control. Furthermore, a sub-centre should be established for each SAR region, broken down into smaller areas, as necessary.

99. In those areas where public telecommunication systems do not exist, field missions should coordinate with local government officials to establish suitable alert posts. An alert post is a unit designated to receive information from the general public regarding aircraft in emergency and to forward the information to the associated rescue SAR Centre.

100. Each SAR Centre will have immediate and direct communication established with the following:

- The associated air traffic control system
- Regional sub-centres, and alerting posts if established
- Appropriate direction-finding aircraft and position-fixing stations
- Appropriate coastal radio stations capable of communicating with vessels, as applicable (channel 16 on marine radios)
- The established SAR units in the Air Regions and adjacent sub-centres
- A designated meteorological office or at a minimum access to weather information
- The **COSPAS** (Cosmicheskaya Sisteyama Poiska Avariynich Sudov) is a Russian acronym for Space System for Search of Distress Vessels and the **SARSAT** (Search and Rescue Satellite-Aided Tracking) control centre servicing the SAR region.

ANNEX F10: AIRCRAFT REFUELLING FROM DRUMS

101. Refuelling from fuel drums, although not encouraged, is a universal practice in remote areas where it is not possible to set up standard refuelling facilities. However, it should only be resorted to after strict compliance with standard procedures and required checks to ensure that contamination-free fuel is supplied for refuelling. Additionally, refuelling procedures shall include adequate measures to avoid fuel spillage on bare soil (e.g. availability of Oil spill kits, conducting refuelling over hard surface areas, etc.).

102. Aviation fuel within the field missions is managed, controlled and supplied through the Fuel Unit of the Supply Section, under the provisions established in the DOS *Fuel Operations Manual* and aviation industry practices.

103. Some specific characteristics/criteria of aviation fuel are:

- Appearance: Clear, bright, visually free from solid matter and undissolved water at normal ambient temperature. Usually water white, although it may occasionally have a yellow tinge.
- Chemical composition: A mixture of hydrocarbons, mainly alkanes having 10–16 atoms per molecule structures based on Cn H2n+2.
- Density: By specification, Jet A-1 has a density of between 775.0 and 840.0kg/m^3.

Minimum quality checks

104. In order to be able to ascertain that the above criteria exist, the following minimum quality checks shall be made by the mission Fuel Unit or by the Pilot in Command, prior to refuelling the aircraft from a drum:

- Check the seal on the fuel drum is intact;
- Check the expiration date of the fuel is mentioned on the drum;
- Check that the fuel has been previously tested (within the last 48 hours) for impurities, contamination, water;
- Verify the type of fuel;
- Perform a visual examination (optional).

Visual examination

105. Fuel should be clear, bright and free from solids. The visual examination test can be applied to any sample, collected from any part of the fuel system, when the minimum quality check mentioned above does not provide a positive result. An appropriate sample will be approximately 2.5–5 litres of fuel.

106. Fuel should be considered unfit for use in an aircraft, if visual examination shows:

- Sediment: Solid (or particulate) matter generally consists of small amounts of rust, sand, scale, etc. suspended in the fuel or settled out on the bottom of the sample vessel. Typically, regarding sediment, “free from” should be interpreted as:
  - Naked eye: Not more than five particles per litre, barely visible to the naked eye;
  - Readily identifiable: “Barely visible’” means that the contamination must be obvious within 15 seconds of shaking, stirring, or inverting the sample container.
- Globules of water: Undissolved water (sometimes referred to as “free water”) will appear as droplets on the sides or as accumulated water on the bottom of the water vessel.

- Hazy or cloudy appearance: When suspended water is present in a fuel sample, it will appear to be cloudy or hazy. This can be further checked by the application of a water test device.
- Clear and bright: This term does not refer to the natural colour of the fuel but means:
  - Clear: The absence of sediment or emulsion.
  - Bright: A sparkling appearance indicating the fuel is free from cloud or haze.
  - Colour: Aviation turbine Jet A-1 is undyed. It can vary in appearance from “water white” to “stray yellow”.
- Smell: As an additional check, Jet A-1 has a distinctive smell that experienced operators will readily recognize. Deviation from a “normal” smell could indicate the presence of trace elements of alternative fuels.

ANNEX F11: HELICOPTER EXTERNAL LOAD OPERATIONS

107. External load operations for helicopters must be conducted in a way that is consistent with procedures outlined in the air carrier's Operations Manual, TCC military directives and this Manual.

108. Missions will ensure that the procedures are incorporated in the mission SOPs regarding external loads to include training and qualification for United Nations personnel.

109. Before undertaking such an operation, the load must be properly rigged by a trained and qualified rigger. Air carriers and TCCs are responsible for rigging their aircraft.

110. At a minimum, the following must be considered when performing external load operations:

- The weight of the load is restricted to the aircraft's operating capability. Load instability during flight may restrict the aircraft's airspeed or manoeuvring ability and may result in the release of the underslung cargo in flight;
- Environmental conditions, such as altitude, temperature and winds, may affect the aircraft's lift capability;
- The pickup zone's size and condition must allow unimpaired movement of the aircraft to include a designated emergency landing area;
- A ground personnel rendezvous point should be established;
- Load pickup points are equipped with grounding stakes for static discharge wand;
- The static probe handler grounds the aircraft by touching the static discharge wand to the cargo hook and maintains contact until the hook-up person clears the load;
- The hook-up person positions him/herself on or near the load in a stable position and connects the load to the cargo hook;
- Adequate personal protective equipment is required by ground personnel in the pickup and landing zones;
- Rotor wash from the helicopter operating out of ground effect may lift and move unsecured equipment and debris in the area;
- The flight route should be planned to avoid all built-up and congested areas;
- In case of an aircraft malfunction during the hook-up procedure, the aircraft should move left, away from the cargo, and the ground personnel should move right, away from the aircraft towards the safety area.

ANNEX F12: NIGHT FLIGHT OPERATIONS

Definitions

111. **Night:** The hours between the end of evening civil twilight (last light) and the beginning of morning civil twilight (first light) or such other period between sunset and sunrise, as may be prescribed by the appropriate established national Civil Aviation Authority (CAA). If night has not been prescribed, for the purpose of United Nations air operations, see the definitions for Last Light and First Light.

112. **Last Light:** In the latitudes between the Tropics of Cancer and Capricorn, local sunset plus 15 minutes; in the latitudes north of the Tropic of Cancer and south of the Tropic of Capricorn, local sunset plus 30 minutes.

113. **First Light:** In the latitudes between the Tropics of Cancer and Capricorn, local sunrise minus 15 minutes; in the latitudes north of the Tropic of Cancer and south of the Tropic of Capricorn, local sunrise minus 30 minutes.

General

114. Night flying operations are to be undertaken within the context of the DOS aviation regulatory regime.

115. The aircraft must be properly equipped and certified for specific requirements for night operations.

116. Crew members must meet their respective AOC or national government requirements for night flying, as well as the mission operational familiarization requirements. Each mission shall maintain records of those flights.

117. The aerodrome and helicopter landing site must meet the requirements.

118. The operator must be authorized by their national CAA or government to perform the requirements of the United Nations, including landing on unequipped sites.

119. When required, appropriate authorization from the local CAA shall be obtained by the United Nations for a particular tasked operation.

120. For NVG operations, consider the carrier and TCC military weather minimums, illumination minimums and flight license/certification requirements to be current. Generally, training should not be planned when illumination is less than 5 per cent estimated moon illumination (EMI). In cases of less than 20 per cent EMI, forward-looking infrared (FLIR) and/or searchlight with infrared filter is recommended for training purposes. The training should be planned within the applicable scope of the air carrier and or TCC regulatory regime.

Aerodrome and helicopter landing sites

121. Since local Civil Aviation Authorities do not normally allow flying at night into landing sites that are not built and equipped in accordance with ICAO standards, particular attention must therefore be placed on the effective capabilities of the operator to conduct the tasks required.

122. The aerodrome or landing site must be safe and operational for night operations.

123. The aerodrome or landing site should be equipped with a means to determine wind direction and velocity, barometric pressure and outside temperature. Windsocks are highly desired but not mandatory for operations, as long as alternate methods for determining prevailing winds are available and utilized, such as GPS, radio, weather forecast, practice approach, etc.

124. The aerodrome or landing site must be lit by an appropriate landing light kit indicating the landing zone(s), approach area(s), fixed obstacles and windsock(s). If NVG operations are undertaken, specific airfield lighting is not required but NVG compatible lights are highly desired.

125. Aerodrome or helicopter landing sites (HLS) that are identified for regular use must be equipped with two-way radio communications between aircraft and ground.

126. At least one person must be available on the ground with ATC training, or be familiar with aeronautical radio procedures and phraseology, to enable two-way radio communications with aircraft on established frequencies, in order to provide traffic advisory, status of site security, prevailing weather, hazard, and any other information required.

127. There must be in place at least one IFR approach procedure to an airport reachable by the aircraft being used for night flights from an alternate point of the planned night flight. This procedure is to be used for recovering to the selected airport, in case of weather deterioration, inadvertent entry into IMC conditions, loss of visual contact with the terrain, loss of situational awareness, or any other emergency situation. This is not required for helicopter flight, but a VFR alternate (forecast) must be available in order to launch the flight.

128. The Pilot in Command has the final operational decision on whether to perform the night flight.

ANNEX F13: REMOTE HELICOPTER LANDING SITES (RHLS) – CRITERIA

130. Due to the diverse nature of peacekeeping mission aviation operations, some helicopter landing sites are considered to be remote helicopter landing sites (RHLS) and are mostly not required to meet the full ICAO requirements for an HLS. Each field mission shall develop procedures related to RHLS.

131. Helicopter landing sites that are not designated as an approved HLS or RHLS may be used under the following conditions only:

- When the aircraft is experiencing an in-flight emergency, which includes adverse weather conditions, and must land;
- When the specific purpose of the flight is to recognize the landing area for potential use as an approved RHLS. In this situation, the flight must be so annotated on the Air Tasking Order. This includes ad hoc, one-time special flights to new locations. Such sites must be surveyed prior to landing;
- In situations where aircrews must respond to an unanticipated and actual emergency in a situation to save lives.

132. A database shall be created to include information on all the mission-approved RHLS for use. Only those RHLS included will be used for routine use. At a minimum, the on-file information for all approved RHLS will include the following information:

- Designation of the RHLS;
- Location in WGS 84 (World Geodetic System) format;
- Terrain elevation with dimensions;
- Slope or grade;
- Recommended approach and departure routes;
- Obstacles and hazards in the RHLS and in the vicinity;
- Number and type of aircraft(s) approved for use;
- Restrictions;
- ATC procedures and controlling authority;
- A sketch, drawing or photograph must accompany this data.

133. These RHLS should have a windsock or other wind indicator. If the RHLS is to be used at night, it must be lit by an appropriate method. Use of portable or permanent NVG-compatible lighting is desired for associated operations. If available, NVG-compatible glow sticks should be used, or a reflector installed on the ground to mark the appropriate landing spot. Helicopter landing site lighting is not required for NVG operations.

134. The following criteria, at a minimum, should be considered in the selection of all RHLS:

Tactical criteria:

- Location: The RHLS should be as close to the supported objective as possible.
- Security: Security requirements must be considered and included as part of the ATO pre-flight integrated risk assessment and briefing.
- Site ownership: This must be determined, whether it be a meadow, field, airport or airstrip. Coordination with the owner of the land (private or government) shall be made to determine if use of the site is appropriate, and any mitigation measures that must be taken.
- Number of aircraft: Consideration must be given to the number of helicopters landing

at the same time.

- Landing formation: The types of formations, if used, should be considered in determining RHLS.
- Loads: Larger RHLS may be required for helicopters with heavy internal or external loads.
- Surface conditions: Surface conditions should allow use without resulting in the helicopter sinking into the surface, excessive dust or blowing debris. The area should be as free as possible from loose objects.
- Slope: The surface should be as level as possible. Degree of slope angle must not exceed the capability of the aircraft in order to prevent dynamic rollover. If the slope is excessive, the helicopter must be able to terminate the approach at a hover.
- Size of the RHLS: The size of the RHLS must be able to support the approved number and type of helicopters using the area.
- Obstacles: The approach and departure end of the RHLS should be free of obstacles. Obstacles in the RHLS that cannot be eliminated must be noted in the on-file information.
- Approach and departure direction: Approach and departure directions should be over the lowest obstacles, along the long axis of the RHLS and into the wind.

Meteorological criteria

135. These criteria are to be considered only when selecting an RHLS immediately before use.

- Ceiling: Cloud base in relation to the RHLS elevation must be considered. It is important to note that ceiling information is given in above ground level (AGL) elevation from the reporting station. The altitude of the RHLS is provided in MSL elevation. These two elevations must be correlated when operating in mountainous areas.
- Visibility: The effects of sunlight and other restrictions to visibility must be considered.
- Density altitude: Density altitude is determined by pressure altitude, temperature and humidity. As a general rule, as density increases, the size of the RHLS must also be increased.
- Prevailing winds: Prevailing winds in the area should be considered when selecting RHLS.

ANNEX F14: HELICOPTER LANDING SITES (HLS) –TECHNICAL CRITERIA

References

- Annex 14 to the Convention on International Civil Aviation: Aerodromes, Vol. 2: Heliports
- ICAO, *Heliport Manual* (Doc 9261-AN/903)

General

136. The purpose of these guidelines is to provide an understanding of the basic helicopter safety operational elements and set out factors that may be used to determine the suitability of a place for the landing and take-off. Experience has shown that, in most cases, application of these guidelines will enable a take-off or landing to be completed safely, provided that the Pilot in Command has sound piloting skills.

Basic helicopter safety operations

137. Contrary to popular belief, helicopters do not normally land “on a dime”, but rather require or desire a sizable landing zone, particularly at high elevation. Helicopters generally will not take off or land vertically. Rather, they need a landing zone that may be hundreds of meters long. The ideal landing zone is a flat strip 30m wide and 90m long.

138. Since the typical helicopter will rotor wash in excess of 100mph on take-offs and landings, the landing site should be free of lightweight objects that will blow away. Tall dry grass and shrubs should be avoided to prevent possible damage to the sensitive tail rotor. Tree stumps should be less than 1ft/30cm high.

Recommended criteria for an HLS

139. Since an HLS could be used for operations both day and night under visual meteorological conditions (VMC), it should satisfy the tactical, technical and meteorological criteria.

Tactical criteria

Location

140. The landing zone should be close to the unit it will support. But, at the same time, it is recommended that a landing zone is located in a position that avoids risk for people on the ground and on board the helicopter in case of power unit failure and rejection during take-off, or one engine inoperative landing, or force landing. Road access is recommended.

Security

141. The landing zone should be secured, and ground-to-air communication should be established whenever it is possible.

Technical criteria

Surface conditions and ground slope

142. Surface conditions must be firm enough to prevent helicopters from bogging down or creating excessive dust. The area should be as free as possible of loose debris or stones. The bearing strength of the surface should be sufficient to withstand the dynamic and static loading imposed by the heaviest helicopter that will operate in and out of landing zone. A levelled surface is recommended. If the level surface condition cannot be meet, the criteria below must be used:

    - Ground slope for use by day: By day, the ground slope must not exceed the limits for

landing and take-off capability of the helicopter in any direction if the helicopter is to land.

- Ground slope for use by night: For night operations the surface must be level.

Touchdown and lift-off area (TLOF)

143. At least one touchdown and lift-off area (TLOF) shall be provided at a heliport, with the following criteria:

- The TLOF may or may not be located within the final approach and take-off area (FATO).
- Additional TLOFs may be co-located with helicopter stands.
- The TLOF shall be of a sufficient size to contain a circle with a diameter of at least 0.83 of the greatest overall dimension (0.83 D) of the largest helicopter that the area is intended to serve.
- A TLOF may be any shape.
- Slopes on a TLOF shall be sufficient to prevent accumulation of water on the surface of the area, but shall not exceed a gradient of 2 per cent in any direction.
- Where the TLOF is within the FATO, the TLOF shall be dynamic load-bearing.
- Where a TLOF is co-located with a helicopter stand, the TLOF shall be static load-bearing and be capable of withstanding the traffic of helicopters that the area is intended to serve.
- Where the TLOF is within the FATO, the centre of the TLOF shall be located not less than 0.5 D from the edge of the FATO.

Obstacles

144. The approach and departure path for the landing site should be free of obstacles above the approach angle. Obstacles within the landing site that cannot be eliminated must be noted.

Final approach and take-off area (FATO)

145. A surface-level heliport shall be provided with at least one FATO. The FATO may be located on or near a runway strip or taxiway strip and shall be obstacle-free. The dimensions of a FATO shall be:

- Where intended to be used by helicopters operating in performance class 1, as prescribed in the *Helicopter Flight Manual* (HFM), except that, in the absence of width specifications, the width shall be not less than 1 D of the largest helicopter the FATO is intended to serve.
- Where intended to be used by helicopters operating in performance class 2 or 3, of sufficient size and shape to contain an area within which can be drawn a circle of diameter not less than:
    - 1 D of the largest helicopter, when the MTOW of the helicopters that the FATO is intended to serve is more than 3,175kg; or
    - 0.83 D of the largest helicopter, when the MTOM of the helicopters that the FATO is intended to serve is 3.175kg or less.

146. Note: Where the term FATO is not used in the HFM, the minimum landing/take-off area specified in the HFM for the appropriate flight profile is used.

147. Recommendation: Where intended to be used by helicopters operating in performance class 2 or 3 with MTOM of 3.175kg or less, the FATO should be of sufficient size and shape

to contain an area within which can be drawn a circle of diameter not less than 1 D of the largest helicopter.

148. The mean slope in any direction on the FATO shall not exceed a gradient of 3 per cent. No portion of a FATO shall have a local slope exceeding:

- 5 per cent where the heliport is intended to be used by helicopters operating in performance class 1; or
- 7 per cent where the heliport is intended to be used by helicopters operating in performance class 2 or 3.

149. The surface of the FATO shall:

- Be resistant to the effects of rotor downwash;
- Be free of irregularities that would adversely affect the take-off or landing of helicopters;
- Have bearing strength sufficient to accommodate a rejected take-off by helicopters operated in performance class 1.

See Annex 14 to the Convention on International Civil Aviation: Aerodromes for details.

Approach and departure paths

150. The direction of approach or departure should be over the lowest obstacles and predominate wind direction should be taken into consideration. High terrain, power lines and other objects must be considered. See Annex 14 to the Convention on International Civil Aviation: Aerodromes for details on day/night operations.

Wind indicator

151. A wind indicator is recommended. Smoke may be used but should be placed at the downwind side to avoid obscuring the touchdown point.

Safety area

152. A FATO shall be surrounded by a safety area, which need not be solid. See Annex 14 to the Convention on International Civil Aviation: Aerodromes for details.

Meteorological criteria

Ceiling

153. Cloud base in relation to field elevation of the landing zone should be considered.

Visibility

154. The effects of sun and possibility of ground fog are factors to be evaluated.

Density altitude

155. The density altitude is determined by pressure altitude, temperature and humidity. For planning purposes, as density altitude increases, the size of the landing site must be increased proportionately because, generally, the lift capabilities of helicopters are decreased.

Prevailing wind

156. Downwind operations should be avoided and cross-wind operations are kept to a minimum, because the ability to land in a crosswind or land downwind will vary depending on the type of aircraft.

Helicopter landing sites information

157. Helicopter landing site information must include all necessary and important data (such as GPS coordinates, elevation, size of landing zone, obstacles, etc.) and a description of the landing zone, surface condition, obstacles, gradient slope and location, closed sectors and recommended sectors for an approach and departure.

158. There should be a detailed helicopter landing site chart. The landing zone should be drawn to the north direction. All hazards and obstacles shown, plus degree of gradient slope and climb in per cent. The obstruction angle is measured from the point where the landing or take-off path the stipulated “clear to ground level” area of the landing point. Recommended or best approach and departure path should be marked by a blue line. Note that the diagram will not provide the complete information but contain only the most hazardous objects.

159. Pictures and/or photographs are required for better visual recognition of landing sites.

HLS approval process

160. The approval authority for HLS is with the mission CAVO. He/she will normally approve HLS following a survey of the HLS and on the recommendation from the qualified specialist in the field mission.

161. A MAOC or Airfields and Air Terminals Unit (AATU) staff member should be nominated as the custodian of the aerodromes database produced from the HLS surveys. A copy of the database should be made available for the operators. Such a database is to be kept updated and operators notified as changes occur.

ANNEXURES TO CHAPTER H

ANNEX H1: QUALITY ASSURANCE FIELD AUDITS

162. The following main areas will be audited by Aviation Quality Assurance Standards in Air Transport Service, under the established Quality Assurance Audit Programme, as part of the implemented DOS Aviation Quality Management System:

- Aviation resources management;
- Aviation Risk Management (ARM);
- Aviation Section Standard Operating Procedures (SOPs);
- Mission Air Operations Centre (MAOC) and Air Regions;
- Operated aerodromes, ground support equipment and services;
- Dangerous goods handling procedures;
- Aircraft acceptance procedures;
- Night operations;
- Special flights tasking procedures;
- Flight Following/satellite tracking system;
- Fuelling procedures and quality;
- Operated airspace;
- Aircraft dispatch and aeronautical information;
- Aviation security procedures.

ANNEXURES TO CHAPTER J

ANNEX J1: LOCAL AREA ORIENTATION AND AIRCREW IN-PROCESSING

163. Local area orientation is an important part of the Mission Familiarization Programme for newly assigned aircrews and ground crews. It is divided into three general areas: United Nations Air Operations and Procedures, aerodromes, and a local area orientation flight. Before performing any operational task, aircrews will complete a local area orientation given by the delegated Air Operations Officer in coordination with TCU and the Mission Aviation Safety Officer (MASO).

United Nations Air Operations and Procedures

164. Aircrews will receive a tour and a briefing on United Nations Air Operations facilities. The tour should include the flight planning room and related Flight Plan/dispatch information, automatic/manual Flight Following, aerodrome operations, Emergency Crash and Rescue Services (ECR), weather facility, etc.

165. The briefing should include the established SOPs for:

- Obtaining notices to airmen (NOTAMs);
- Obtaining maps, charts, etc.;
- Filing Flight Plans;
- Aviation Security (AVSEC);
- Obtaining weather information;
- MEDEVAC/CASEVAC;
- Obtaining range and restricted-area/no-fly information;
- Information on local medical facilities, frequencies and access phone numbers;
- A review of VFR and SVFR requirements for the airfields and local area;
- A review of IFR and instrument recovery procedures;
- A review of airspace and NAVAIDS in the local area;
- Noise abatement procedures, if applicable;
- Aerodromes, HLS and available ground support equipment and ground handling services.

Aerodromes

166. Aircrews will receive a tour of:

- Cargo facilities;
- Airside areas;
- ECR facilities;
- Obstacles or hazards to flight;
- NAVAIDs and control facilities;
- Maintenance areas.

Local area orientation flight

167. Before performing duties, the newly assigned PIC will receive a local area day and night orientation flight, if considered necessary by the mission CAVO. The night flight will be

accomplished before performing night PIC duties. These orientation flights should be accomplished during an operational task, as far as possible. Items peculiar to the local area or those that cannot be adequately covered during the ground portion will be pointed out, demonstrated or discussed during the flight.

168. The following checklist model will be used to document this in-processing and saved as records. Missions may augment this briefing due to individual operational environments/situations; however, the following checklist form includes the minimum in-processing requirements.

Aircrew in-processing checklist form – # ATS-011

TOPIC	**Date completed / Remarks**
1. WELCOME BRIEFING AIRCREW UN CALL SIGN _____	
• ISSUE UN IDENTIFICATION CARDS • AIRFIELD AREA PASSES • UN DRIVER'S LICENCES • RADIOS / TELEPHONES • MISCELLANEOUS EQUIPMENT	
2. ATO PLANNING AND DISPATCH PROCEDURES	
3. MOP PROCEDURES	
4. INVOICING/FUNDING/RECEIPTS/REIMBURSEMENT	
5. AVIATION RISK MANAGEMENT BRIEFING	
6. MISSION GENERAL/GROUND SECURITY BRIEFING 6A. AIR SAFETY BRIEFING 6B. AVIATION SECURITY BRIEFING	
7. MISSION SOPs REVIEW AND AIRCREW INFORMATION FILE	
8. AIRCRAFT USE REPORT (AUR) • FLIGHT TIME • FUEL CONSUMPTION • PASSENGER and CARGO	
9. OFFICE SPACE / PHONE DIRECTORY	
10. AERODROMES/AIR TERMINAL PROCEDURES	
11. ACCOMMODATION / LOCAL TRANSPORTATION	
12. ZERO TOLERANCE POLICY FOR SEXUAL HARRASEMENT AND ABUSE	
13. ZERO TOLERANCE POLICY FOR ALCOHOL AND OTHER SUBSTANCES 14. ANY ADDITIONAL TOPIC (Specify)	

Name and signature of the Aviation Section Officer in-processing the aircrew: _____

Name and signature of the PIC crew member: _____

Date: _____

ANNEX J2: UNITED NATIONS AIRCRAFT CALL SIGNS

169. United Nations call signs are allocated to **all** DOS-contracted aircraft. Call signs are not allocated to aircraft not tasked by the United Nations; for example, on Short-Term Aircraft Charter Agreements or military deployments, rotations, repatriating or TCC support flights, without the sanction of DOS Air Transport Service. The United Nations call sign may not, under any circumstances, be used as a substitute for the air carrier's own ICAO designator or military designation.

170. When an aircraft arrives in the field mission area, a United Nations call sign shall be assigned to that specific registration number upon **satisfactory completion** of the Aircraft Inspection Report. Regardless of where the aircraft is based within the mission area, it retains the same United Nations call sign throughout its time in the mission. Call signs are not interchangeable between more than one registration number currently used in the mission area in order to avoid significant problems when trying to account for such issues as maintenance downtime, aircraft replacement and overflight records and billing.

171. Field missions are not authorized to deviate from the below block designations without permission from Aircraft Management and Contracts Unit in ATS. The United Nations call sign database is managed by the Aviation Quality Assurance and Standards Unit at ATS.

172. The following general guidelines are applied:

- The **first three characters** of the call sign will remain **UNO**.
- The **last three numerals** of the call sign are as follows:
  - 020–029 – UNFICYP (Cyprus)
  - 030–039 – UNSMIL (Libya)
  - 040–119 – MINUSMA (Mali)
  - 120–149 –
  - 150–189 –
  - 190–199 – OSESGY-UNMHA (Jordan)
  - 200–249 – UNAMA (Afghanistan)
  - 250–299 – UNIFIL (Lebanon)
  - 300–329 – MINUSCA (Central African Republic)
  - 330–340 – UNAMI (Iraq)
  - 341–349 –
  - 350–399 – UNISFA (South Sudan/Sudan)
  - 400–449 –
  - 450–499 – UNOWA (Senegal)
  - 500–599 – UNMISS (South Sudan)
  - 600–619 – MINUSMA (Mali)
  - 620–629 – UNVMC (Colombia)
  - 630–650 –
  - 651–699 – UNSOS (Somalia)
  - 700–749 –
  - 750–799 – UNAMID/UNITAMS (Darfur-Sudan)

- 800–899 – MONUSCO (Democratic Republic of the Congo)
- 900–949 –
- 950–979 – MINURSO (Western Sahara)
- 9000–9999 – SACA (Stand-by Aircraft Charter Agreement)

173. DOS-contracted aircraft shall have the letter “P” after the flight number (e.g. UNO 123P). Humanitarian air services shall have the letter “H” after the flight number (e.g. UNO 123H).

174. Note: Radiotelephony example: UNO123H would be transmitted as “UNITED NATIONS 123 HOTEL” and UNO321P would be transmitted as “UNITED NATIONS 321 PAPA”.

175. DOS-contracted aircraft numbers will be managed by DOS and humanitarian numbers will be managed by the World Food Programme (WFP).

176. The aircraft shall cease to use its assigned United Nations call sign upon departure from the mission area at the end of its contract/LOA or in case it is relocated to another field mission; the new field mission will comply with the established procedures above, for assignation of a new United Nations call sign.

177. DOS Air Transport Service will update the above list as field missions are added or deleted.

178. When a replacement aircraft arrives in the mission area, the procedures above are applicable, as well.

179. Aviation Technical Compliance Unit in the mission is responsible for maintaining and managing a complete database of assigned United Nations call signs.

180. Official notification shall be given to all in the mission Aviation Section and Aviation Safety when a call sign is assigned or removed.

181. The mission’s Monthly Aviation Report and Aircraft Use Reports (AURs) should indicate the aircraft registration/tail numbers along with the assigned United Nations call signs.

182. Only Stand-by Aircraft Charter Agreements (SACA) will use four numerals in the last part of the call sign to differentiate from others.

183. **NO** additional letters shall be used, besides the U-N-O letters detailed above.

ANNEX J3: AVIATION FUEL MONITORING PROGRAMME

184. In order for a field mission to track the fuel consumed by an aircraft more effectively and to ensure adequate planning, the following procedures shall be executed.

185. A weekly update report for fuel consumed/uploaded shall be prepared by each Air Region office within the mission. This is especially important when jet fuel is provided from remote sites.

186. Aviation TCU will, in conjunction with Fuel Unit (Supply Section), randomly monitor the fuel average consumption per flight hour on each particular type of aircraft.

187. In case of discrepancies of + /- 10%, the consumption shall be compared with the aircraft flight manual and the weekly uplift reports prepared by the Air Regions, in order to find the explanation.

188. Each time aviation fuel is uplifted by the aircraft, the quantity of fuel and the date shall be recorded on the Aircraft Use Report (AUR) and the fuel uplift receipt attached.

189. TCU shall verify the invoices from the fuel supplier against the records shown on the AUR. If these invoices are submitted for payment more often during the month and the AURs are submitted only on a monthly basis, a summary of the invoices shall be made when invoices are available from the fuel vendor to permit verification and reconciliation with the AURs. Should the AURs show any discrepancies with the correct invoices, the aircraft contractor shall provide an explanation in writing, stating the reason for the discrepancies. The Aviation Section must submit this verification and reconciliation to the Supply Section of the Fuel Unit, confirming that the fuel invoices correspond to the AURs.

190. In order to confirm accuracy of refuelling for large aircraft, the following procedures may be used. These practices can be modified for use with smaller aircraft:

- Log existing fuel on board the aircraft in tonnes as indicated by the aircraft fuel gauges.
- Ensure that the fuel truck/pump meter is reading zero. Note the reading of the small meter indicating total fuel on the truck/pump.
- Note and record the total fuel discharged by the truck/pump in litres. Compare this amount with the total registered on the truck's small meter.
- Note and log the uplifted fuel on board the aircraft in tonnes as indicated by the aircraft fuel gauges after refuelling.
- Note and log the difference between the amount of fuel on board the aircraft before and after refuelling, in tonnes.
- Ensure that the fuel on the fuel truck/pump meter equals the fuel noted on the receipt.

191. The following guidelines should be observed in the planning and execution of flights in relation to fuel saving. Aircrews will be briefed on these guidelines and monitored for compliance.

- Flights should be planned in the most direct manner practicable while operating safely within the allowable constraints of air traffic control, the aircraft's navigational capabilities, and the mission operating parameters. Mission Air Operations personnel should familiarize themselves with the performance characteristics of the aircraft in their mission.
- Without compromising safety, aircraft fuel loads should be tailored to the individual task. It should be remembered that it *costs fuel to carry fuel*.

192. During the last month of each financial year, the Aviation Section should provide the DMS/CMS with the aviation fuel requirements for the new financial year. The fuel

requirement shall be classified by the respective account code. It shall also include, whenever applicable, estimated aviation fuel requirements outside the mission area with the same classification.

193. During aircraft positioning, de-positioning and replacement of aircraft the following should be considered:

- During aircraft de-positioning, verify and record the quantity of remaining fuel in the aircraft and the remaining fuel quantity shall be reimbursed to the mission.
- During aircraft replacement, verify and record the quantity of remaining fuel in both aircraft (IN and OUT) and the difference in fuel quantity shall be reimbursed to the mission.
- During aircraft positioning, verify and record the quantity of remaining fuel in the aircraft which belongs to the Air Operator. This fuel quantity should be recorded by TCU of the Mission. Consider using this fuel when performing a non-revenue flight or remaining fuel shall be balanced at the end of the contract during de-positioning.

- SAMPLE -

WEEKLY JET FUEL UPLIFT REPORT

MISSION …….. WEEK …….

RE-FUELLING LOCATION ……..

Date	Time	UN call sign	Reg. no	Flying from	Flying to	Total fuel uplift	Verified by
TOTAL							

ANNEX J4: OPERATIONAL AND EMERGENCY EQUIPMENT REQUIREMENTS

194. When flying over designated land areas in which Search and Rescue (SAR) would be especially difficult, DOS-contracted aircraft should be properly equipped with adequate crew and passenger survival kits and equipment.

195. This equipment includes signalling devices and survival equipment (including means of sustaining life), sufficient for the survival on the ground of each person on board, given the geographical area, the season of the year and anticipated seasonal climatic variations. The equipment should provide the means (as applicable to the area of operations) for:

- Appropriate clothing and footwear for the area and the temperatures;
- One or more reliable methods of fire starting for heat, cooking and signalling (to include fuel if self-contained);
- A method of providing shelter;
- Two or more methods of signalling distress by means of: signal fires, pyrotechnic distress signals, a flashlight, a strobe light, a signal mirror, conspicuity panels, and whistles;
- Suitable cooking utensils;
- Food that is sufficient in quantity to provide 500 calories per person per day for a 72-hour period, packaged and stored to ensure its protection against deterioration by heat, cold, or moisture; and inspected by the owner or operator of the aircraft every 12 months, or at manufacturer's recommendation, to ensure it remains in a satisfactory condition;
- A method of providing at least 0.5 litres of purified water per person per day, for a 72-hour period;
- A compass;
- One or more of the following cutting tools:
    - An axe;
    - A collapsible or flexible saw;
    - A snow knife;
    - A hunting knife.
- Snare wire;
- Fishing equipment, including suitable bait;
- Mosquito nets or netting and insect repellent;
- A sleeping bag or blanket of natural or synthetic material, or a combination of each, per person where the daytime temperatures can reasonably be expected to be less than 7 degrees, on commercial aircraft weighing less than 12,500lbs. One sleeping bag per person is required when operating north of 60 degrees north latitude between 1 November and 1 April;
- A survival manual in both official languages that provided instruction in survival methods and the use of equipment and supplies, together with a list of contents and inspection data attached to each container;
- Portable emergency locator transmitter (ELT – 406 MHz frequency);
- Equipment for making the pyrotechnical distress signals described in Annex 2 to the Convention on International Civil Aviation: Rules of the Air.

197. Aircraft shall carry life jackets or equivalent individual floatation devices for each person on board, stowed in position easily accessible from the seat or berth of the person for whose use it is provided when:

- Flying over water and at a distance of more than 50 nautical miles away from the shore;
- Flying en-route over water beyond gliding distance from the shore, in the case of all other aircraft;
- Taking off or landing at an aerodrome where, in the opinion of the State of the operator, the take-off or approach path is so disposed over water that in the event of a mishap there would be a likelihood of a ditching.

198. ICAO SARPs for water survival equipment call for life rafts for all operations beyond 100, 200 or 400 nautical miles from suitable land for making an emergency landing, regardless of the presence or absence of passengers. Life-saving rafts must be included in sufficient numbers to carry all persons on board, stowed so as to facilitate their ready use in an emergency, provided with such life-saving equipment (including means of sustaining life) as is appropriate to the flight to be undertaken.

ANNEX J5: CREW FITNESS HEALTH PRECAUTIONS

Alcohol

199. Alcohol has a detrimental effect on human skills and efficiency when related to aviation activities. Flight crews must adhere to their CAA, company or military directives in relation to the consumption of alcohol.

200. The in-processing crew briefing must include the United Nations directives on the restrictions of alcohol consumption by flight crew members in regard of flight duties.

201. Fitness requirements for crew members establish that no person shall act or attempt to act as a crew member on a DOS-contracted aircraft while under the influence of alcohol or any other toxic substance and, in particular, no person shall:

- Consume any alcoholic beverage within 12 hours prior to the specified reporting time for flight duty or the commencement of a stand-by time;
- Commence a flight duty period with a blood alcohol level in excess of 0.2 per mill;
- Consume alcohol during the flight duty period or while on stand-by.

202. Under the authority of the CMS/DMS, the CAVO and MASO are authorized to conduct a breathalyser test of a crew member up to 12 hours prior to or immediately after acting or attempting to act as a crew member. Aviation Safety will develop the pertinent SOPs for testing for alcohol.

203. In addition to the above, crew members shall not consume alcoholic beverages while wearing a uniform, in circumstances/locations where the action could reflect badly on the United Nations.

204. It is expected that the implementation of the above procedures and practices will receive immediate and continued attention, in order to increase the safety of United Nations personnel travelling aboard DOS-contracted aircraft.

205. The CAVO and MASO shall be informed immediately on any breach of the above guidelines/procedures and not entertain any failure on the part of the air operators to comply with them. Any crew member involved in any alcohol-related non-compliance incident will be repatriated due to safety and contractual violation. Additionally, the United Nations may take any other appropriate action to prevent re-occurrence.

Narcotics and drugs

206. The use of narcotics/drugs is expressly forbidden at any time, unless they have been prescribed by a medical practitioner. This also applies to sleep-inducing drugs.

Medication

207. Medications may have an adverse effect on the nervous system, which may be more pronounced in flight than on the ground. If a crew member finds it necessary to take some form of medication, aero-medical advice must be obtained before performing flight duties. Crew members should not self-medicate.

Immunization

208. Medical advice is to be sought concerning the period to be observed before returning to flying duties following immunizations.

Blood donation

209. Crew members should not normally act as blood donors. If they have done so, they are to advise the CAVO, Site Manager or respective Commander immediately following such donation and not conduct flight duties for at least 24 hours.

Deep sea diving

210. Crew members will not fly for 24 hours if they have dived underwater at depths greater that 30 meters or any dive that required a decompression stop.

Meals

211. Sensible precaution should be taken to avoid the risk of food poisoning where both pilots would be incapacitated.

Sleep and rest

212. Crew members should take advantage of crew rest periods. A crew member shall not perform flight duties in flight if he/she feels unfit to the extent that the flight may be endangered. Sufficient notification to United Nations Air Operations must be made in order to make alternate tasking.

Surgical procedures

213. Aeronautical medical advice should be sought prior to returning to flying duties following any surgical procedure.

Crew sickness report

214. In the event that a crew member needs to report in sick, an initial verbal report shall be made to the nearest United Nations Air Operations Office, as soon as possible. Thereafter, a written report shall be submitted within 24 hours to the Air Operations Office. A United Nations doctor, if available, is required to certify the sickness and to release the patient when it is appropriate for them to be a crew member on another flight.

ANNEXURES TO CHAPTER L

ANNEX L1: AIR OPERATIONS BUDGET EXPLANATORY NOTES

215. Below is a template for the Air Operations Budget Explanatory Notes and guidance for the completion of that particular area. Paragraph numbering is to be adjusted to suit the required response.

(MISSION NAME)

Air Operations concept

216. A brief description of the operational concept that dictates a requirement for air assets in the field mission is to be entered. The description should flow from the mission mandate and concept of operations in its Budget proposal. Dependent on the size of the mission fleet, this description should require no more than two paragraphs of six to ten lines. It should only provide general descriptions of the reasons aircraft are required. More detailed substantiation for the types of aircraft required is to be provided below.

Continuation of Air Operations concept

Proposed changes to mission air assets

217. If no changes are proposed, enter “nil”. Where changes are proposed, a separate paragraph explaining each type of proposed change is to be completed. Each paragraph is to provide a general description of the operational activity affected, the current number and type of air resources available for that activity, the proposed change in these resources and a substantiation / justification of the reasons for the proposed change.

Continuation of any proposed changes to mission aircraft

218. Note: Regarding the justification, a draft text based on number of additional troops or mandate changes is not sufficient. Justification must include the way in which the changes were calculated. Supporting document based on concept of operations mathematical calculation, logical explanation and technical data must be provided, clearly indicating that the additional aircraft or the changes are absolutely necessary.

Concept of operations mathematical example

- 1,000 troops to transport from A to B (distance 200 nautical miles) (task)
- Needs to be done in one week, with rotation every two months (mission concept/timeframe)
- Fixed wing not possible because no suitable runway is available
- Because of the one-week concept we need to get helicopter(s) with max passenger capacity (e.g. a MI-8MTV = 20 pax per flight)
- MI-8MTV specs = range 500 nautical miles, speed 120 knots
- Flight time per leg = 200/120 = 1.67 hours (round trip = 3.34 hours)
- Number of legs to transport 1,000 troops = 1000/20 = 50 round trips (or 100 legs)
- Because of the distance, only two round trips (four legs) per day can be done safely
- One helicopter would need 50/2 = 25 days to do the transportation job
- As it must be done in one week (5 days), we need 25/5 = 5 helicopters
- Because of maintenance and possible breakdown, six helicopters should be requested
    - HOURS: 3.34 * 50 = 167 flight hours would be required

- The mission will have to supply the troops (food, ammunition, equipment, etc.)
- Let's say that 5kg of supply must be provided per person every two days (concept). Total supply would reach 5*1,000 = 5 tonnes
- In average, one MI-8MTV can transport 2 tonnes. So, you need 3+1 helicopters every two days.
- Flight hours would be 3.34 * 3 * 15 = 150 hrs per month * 12 = 1,800 hrs / year
- Rotations every two months = 167 * 6 = 1,002 hours / year
- Total hours = 167 + 1,800 + 1,002 = 2,969 hours / year with six helicopters
- Requirement will be six MI-8MTV and 500 annual hours per helicopter

Fleet description and historical usage data including trend analysis (if applicable)

219. (Mission Name) currently has (number) fixed wing and (number) rotary wing aircraft supporting the mission. Of these aircraft, (number) are under commercial contracts and (number) are under Letter of Assist. Descriptions of the types of aircraft in the fleet, their tasks and usage, and any proposed changes (with reference to the specific details provided under "Proposed changes to mission air assets"), tasks performed, and historical usage data based on the previous financial year (or the results of the latest trend analysis).

220. The following list provides the template for information on current air assets in the mission and any proposed changes. For each aircraft type, information is to be provided on the number and type of aircraft currently in the mission (for example, "4 MI-8"). If more than one type, then indicate both (for example, "Total 6 comprising 4 MI-8 and 2 MI-8MTV"). Separate paragraphs are to be raised for each aircraft type.

- Aircraft provided under commercial contract and Letter of Assist are to be listed in separate paragraphs even if of similar type.
- Provide a general description of the aircraft including if they are under commercial contract or Letter of Assist. For example, "This is a rotary wing aircraft under commercial contract capable of carrying (number) of passengers, small cargo transport and slung loads."
- Provide a general description of the requirement and major tasks performed by these aircraft. If there are likely secondary tasks, then add these tasks with a relevant caveat, for example "May perform Search and Rescue operations when required". Unless specifically allocated for MEDEVAC/CASEVAC, this activity should not be used as a substantial justification for the asset. For Letter of Assist aircraft, the task description must place specific emphasis on the military operational requirement.
- Proposed number of aircraft for this Budget: indicate changes, for example, "It is proposed to reduce the number of aircraft to 2 MI-8s as explained at paragraph 4 above." If no change is proposed, enter nil with an explanation, for example, "Level of activity and requirement for these aircraft is forecast to remain the same as current."
- For historical usage during the last 12 months (one-year period): the following table is to be completed and repeated for each type of aircraft in use in the field mission. Continuation of fleet description and usage data, as required.

Table 10A.1: Budgeted air activity during the last 12 months

For period 01 July to 30 June 20.... (1)

Aircraft Type and #	Contract or LOA	Required hours set up in the contract	Excess hours set up in the contract	# of sorties	Hours flown (usage)	% of hours flown / required hours	Total # of pax	Total qty of cargo (MT)	Avg pax per sortie / % capacity	Avg Cargo per sortie/ % capacity
(2)	*(3)*	*(4)*	*(5)*	*(6)*	*(7)*	*(8)*	*(9)*	*(10)*	*(11)*	*(12)*

Notes for Table:

(1) This is the last 12 months of operations (one-year period) or the previous financial year. If the field mission or the contract was not established for the full year, enter the relevant period. If the aircraft were not in the mission for the full 12 months a “Note 1” is to be added below the table providing the actual time periods that the aircraft were in the mission. Note numbering is to be adjusted to match the notes included.

(2) Enter aircraft type and number (e.g. 8 MI-8MTV).

(3) Enter the contract or LOA number signed by the United Nations for the utilization of the required aircraft.

(4) Enter the hours set up in the contract for the number of aircraft mentioned in column (2) for the full year or the indicated part period (not the monthly hours).

(5) Enter the “excess” hours set up in the contract for the number of aircraft mentioned in column (2) for the full year or the indicated part period (not the monthly excess hours). If this is a Letter of Assist, enter “N/A” for not applicable. If the contract does not have excess hours, enter “None”.

(6) Enter the number of sorties (flights) undertaken during the full year or the indicated part period for the number of aircraft that you mentioned in column (2).

(7) Enter the number of hours flown during the full year or the indicated part period for the number of aircraft that you mentioned in column (2).

(8) Divide the number of hours flown by the required flight hours to obtain a percentage. Enter the percentage. If it is less than 80%, a note is to be added below the table to explain why the aircraft were not fully utilized as per mission initial requirement. If the percentage exceeds 100%, a note is also to be added below the table to explain why the aircraft were over-utilized in comparison with the mission’s initial requirement.

(9) Enter the total number of passengers transported during the full year or the indicated part period for the number of aircraft mentioned in column (2).

(10) Enter the total quantity of cargo transported (in metric tonnes) during the full year or the indicated part period for the number of aircraft that you mentioned in column (2). In general, cargo is only to be entered for aircraft designed and tasked to carry cargo. Baggage with passenger aircraft is not classified as cargo. Depending on the records, if baggage is included as cargo, it can be included here.

(11) Enter the result of the total number of passengers from column (9) divided by the number of sorties from column (6). Then, compare the result with the “payload” capacity of the aircraft by dividing the result by the passenger’s capacity of the aircraft to obtain a

percentage. Enter this percentage. If it is less than 70%, a note is to be added below the table to explain why the capacity of the aircraft was not fully utilized.

(12) Enter the result of the total quantity of cargo from column (10) divided by the number of sorties from column (6). Then, compare the result with the "payload" capacity of the aircraft by dividing the result by the cargo's capacity of the aircraft to obtain a percentage. Enter this percentage. If it is less than 70%, a note is to be added below the table to explain why the capacity of the aircraft was not fully utilized.

Non-budgeted air activity and welfare travel

221. Flights associated with non-budgeted air activity and welfare flights during the previous financial year are to be reported as in Tables 10A.2 and 10A.3. Non–budgeted air activity is defined as flights provided to other United Nations agencies, non-United Nations agencies and non-government organizations, outside of the peacekeeping mandate that is not normally planned or scheduled flight for which full reimbursement is to be sought.

222. Welfare flights are defined as for United Nations or other authorized personnel for which reimbursement is to be sought. Where no such flights or activity took place, this paragraph is still to be included with the comment "There were no non-budgeted activities or welfare flights during the previous financial year". If only one of these actions took place, the comment is to be adjusted to suit. Details are to be provided as follows.

Non-budgeted air activity

223. Enter here a general description of the types of activity undertaken and complete the following table.

Table 10A.2: Non-budgeted air activity during the last 12 months

For period 01 July 2…. to 30 June 2…. (1)

Aircraft type and number	Contract or LOA number	Hours flown	Total assessed cost	Reimbursement sought	Reimbursement paid
(2)	*(3)*	*(4)*	*(5)*	*(6)*	*(7)*

Notes for Table:

(1) This is the last 12-month period or the previous financial year. If the mission or the contract was not established for the full year, enter the relevant period.

(2) For each row, enter the type and number of aircraft used for non-budgeted activity.

(3) Enter the contract or LOA number signed by the United Nations for the utilization of the required aircraft.

(4) For each type of aircraft, enter the number of hours flown, pro-rated as required. If activities were in conjunction with budgeted activities, add a note below the table explaining the activity.

(5) Enter the total assessed cost.

(6) Enter the amount sought for reimbursement. If this varies from the total assessed cost, add a note below the table with an explanation.

(7) Enter the amount received. Add a note below the table explaining any discrepancy and actions being taken.

Welfare travel

224. Enter here a general description of the types of liberty travel undertaken and complete the following table.

Table 10A.3: Welfare air activity during the last 12 months

For period 01 July 2….. to 30 June 2…… (1)

Aircraft type and number	Contract or LOA number	Hours flown	Total assessed cost	Reimbursement sought	Reimbursement paid
(2)	*(3)*	*(4)*	*(5)*	*(6)*	*(7)*

Notes are as for non-budgeted travel adjusted to suit.

Commercial alternatives

225. The field mission is to provide a short explanation of its review of locally available resources and efforts to use these resources to ensure effective and cost-efficient use of aircraft in the following areas:

- Ground Transport: Enter a brief description of available ground resources (road, rail, waterways) being utilized to reduce aircraft use and plans for future efforts in this area.
- MEDEVAC and/or CASEVAC: Enter a description here of what other commercial resources are or are not available, how the mission employs the aircraft for this activity and why commercial resources, if available, are not suitable. Where a mission justifies an aircraft primarily on MEDEVAC/CASEVAC grounds, a detailed explanation is to be entered here substantiating the requirement and providing an outline of the results of its analysis of local resources and the reasons they are unacceptable.

Mission Air Operations staff

226. The Advisory Committee on Administrative and Budgetary Questions (ACABQ) has specifically stated that DPO should “Install an effective and adequate Mission capacity to manage and monitor the use of Mission air assets”. Though staffing is proposed elsewhere in the Budget, the mission here is to enter its assessment of its current Air Operations staffing and an assessment of its capability to provide effective and adequate management. It is also to extract its current and proposed staffing in the following table adjusted to suit the mission circumstances. For example, the mission may wish to show separate rows for each Air Operations location and use this area to include any justifications for a change in staffing.

Table 10A.4: Air Operations staffing

	P5	P4	P3	P2	P1	Total	FS	GS	Local	UNV	Grand Total
Current											
Proposed											

ACABQ queries

227. The missions are to refer to the previous year's ACABQ report, General Assembly resolution, Recommendations of OIOS/BOA, etc. on missions' budgets to assess if there are other areas not covered above for which additional explanations have been sought. A separate paragraph is to be included for each additional point with a suitable heading and the explanatory details requested.

Airfield support services requirements

228. Missions may assess a requirement for additional services to ensure safe aircraft operations. Such services may include airfield infrastructure improvements (lighting, surfaces, etc.), communication and navigation equipment, meteorological services, air traffic control support, etc.

229. As these are specialized areas, relevant staff should undertake a thorough analysis prior to inclusion in the Budget and will require an additional annex to be included in the Budget submission specifically detailing the requirement, providing substantial justification and a clear cost assessment. Relevant cost estimates would be included in other areas of the Budget (for example, engineering).

ANNEX L2: AIR OPERATIONS BUDGET – MISSION EXAMPLE

Air Operations concept

230. Requirements under this heading would provide for the charter, hire and operating costs of one small passenger jet, one B-200, and one medium passenger/cargo aircraft for the period from 01 April 2015 to 31 March 2016.

231. The anticipated breadth and range of the required flight tasks and the deployment of staff and operations countrywide necessitates the use of three aircraft to meet the mission needs. The jet aircraft would be configured for passenger use to transport the Head of Mission and their staff between the Mission Headquarters in Kabul and the regional offices, as well as the Mission Liaison Offices in Islamabad, Dubai and Tehran and to shuttle senior staff to meetings in neighbouring capitals. The B-200 aircraft would be configured to transport staff members between Kabul and all the regions and in particular to Bamian, as this aircraft is the only one that can fly to/from Bamian.

232. A medium passenger/cargo aircraft, the AN-72, is also required for the transport of staff into the Mission from the point of entry in Dubai and for the transport of cargo consignments to Kabul and trans-shipment to other locations within the country.

233. These three aircraft would also be equipped to transport MEDEVAC cases out of the Mission area. Given the lack of adequate level III medical facilities available in Afghanistan, in line with the medical survey of existing conditions in Afghanistan conducted in Kabul in December 2014, the Mission must provide for the safe transportation of serious casualties to suitable facilities located in neighbouring cities. As such, these aircraft constitute an integral part of the Mission Medical Evacuation Plan.

Proposed changes to Mission aircraft

The B-200 aircraft

234. The B-200 currently in the Mission was contracted for MONUSCO. This aircraft stayed in the new Mission UNAMA for an initial period of three months and then was extended until the end of the year 2014.

Proposed changes

235. The Mission was budgeted to have one executive jet and one medium combi passenger/cargo aircraft to support a total number of 100 international staff in the Mission. The B-200 is definitely needed in addition to the other two aircraft in the Mission area for the following reasons:

- The number of UNAMA staff members will exceed 600 staff between international and local staff, of which about 170 international staff and the rest are local staff;
- The Mission carries many flights in support of the national government in Afghanistan to different regions;
- The B-200 is the only aircraft in the Mission capable of landing in Bamyan airfield due to the surrounding terrain. Losing the B-200 will stop any Mission support to Bamyan regional office.

Fleet description and historical usage data/results of trend analysis

236. UNAMA currently has three fixed wing aircraft supporting the Mission. All of these aircraft are under commercial contracts. Descriptions of the types of aircraft in the fleet, their tasks and usage, and any proposed changes are as follows:

Aircraft Lear-60 (jet)

237. This is a fixed wing aircraft under commercial contract capable of carrying eight passengers, or one litter and four attendants without removing the seats, or two litters and two attendants when removing the seats. Details as follows:

- Tasks: High-speed executive jet fitted with forward/rearward-facing removable seats for eight passengers to be used to transport passengers throughout UNAMA Mission area. Accommodating and securing a minimum of two litter cases and seating for two in-flight medical attendants plus space for emergency medical equipment. The aircraft may also perform Search and Rescue operations when required.
- Number of aircraft currently in the Mission: 1 Lear-60 (jet).
- Proposed number of aircraft for this Budget: Level of activity and requirement for this aircraft is forecast to remain the same as currently.

Aircraft B-200

238. This is a fixed wing aircraft under commercial contract capable of carrying eight passengers, or two litter cases and two attendants. This aircraft was not in the Mission's Budget and its contract was extended and changed from MONUSCO to UNAMA for an initial period of three months and then was extended until the end of the year 2014. Details as follows:

- Tasks: Fitted with forward/rearward-facing removable seats for eight passengers to be used to transport passengers throughout UNAMA Mission area. Accommodating and securing a minimum of two litter cases and seating for two in-flight medical attendants, plus space for emergency medical equipment. This aircraft is the only aircraft in the Mission that can operate to/from Bamyan region. The aircraft may also perform Search and Rescue operations when required.
- Number of aircraft currently in Mission: 1 B-200.
- Proposed number of aircraft for this Budget: Level of activity and requirement for this aircraft is forecast to remain the same as currently.

Aircraft An-72-100

239. This is a fixed wing aircraft under commercial contract capable of carrying 38 passengers, or 10 litters and/or body-boards and medical equipment provided for the sustainment of the patients in-flight. Details as follows:

- Tasks: Medium passenger/cargo combi/quick change transport aircraft fitted with forward-facing removable seats for 38 passengers, to be used to transport passengers throughout UNAMA Mission area. Accommodating and securing a minimum of 10 litter cases and seating sufficient medical equipment and personnel. The aircraft may also perform Search and Rescue operations when required.
- Number of aircraft currently in Mission: 1 An-72-100.
- Proposed number of aircraft for this Budget: Level of activity and requirement for this aircraft is forecast to remain the same as currently.

Historical usage

Table 10B.1: Budgeted air activity during the last 12 months

For period 01 July to 30 June 20…..

Aircraft type	Contract or LOA #	Required hours set up in the contract	Excess hours set up in the contract	Hours flown (usage)	% of hours flown / required hours	Total # of pax	Total qty of cargo (MT)	Average pax per sortie / % capacity	Average cargo per sortie / % capacity
Citation – II	PD/CO…..	184	100	157.15	%	537	0	3.53	0
B-200		240	120	110.4	%	1084	30.09	3.34	.09
An-72		200	60	175.7	%	1736	123.9	10.52	.75

Non-budgeted air activity and welfare travel

Non-budgeted air activity

240. Enter here a general description of the types of activity undertaken and complete the following table:

Table 10B.2: Non-budgeted air activity during the last 12 months

For period 01 July to 30 June 20…..

Aircraft type	Hours flown	Total assessed cost	Reimbursement sought	Reimbursement paid
An-72	4.6	US$15,739	US$15,739 (1)	Yes (1)
An-72	6.26	US$28,930.46	US$28,930.46 (2)	No (2)
An-72	6.59	US$19,895.52	US$5,851.89 (3)	Yes (3)
An-72	65.34	US$335,772.6	US$156,145.26 (4)	No (4)
An-72	6.95	US$35,474.74	US$35,474.74 (5)	No (5)
Citation II	14.13	US$30,911.62	US$30,911.62 (6)	Yes (6)
B-200	2.45	US$2,847.21	US$2,847.21 (7)	No (7)

Notes:

(1) Flight was in support of UNICEF relocation from Islamabad to Kabul.

(2) Flight was in support of the XX Embassy in Kabul.

(3) Flight was in support of UNAMI operations. The CAVO authorized the charges of the actual operational costs only.

(4) Flight was in support of Afghan police programme sponsored by the XX Government. The SRSG authorized the recovery of the actual operational cost only.

(5) Flight was in support of the visit of Mr. XX.

(6) Flight was in support of Mrs. XX visit to Kabul.

(7) Flight was in support of the visit of Mr. XX.

Welfare travel

241. There were no liberty flights during the previous financial year.

Commercial alternatives

- Ground transport: UNAMA depends solely on-air transportation due to the lack of roads connecting regional offices. The available roads become very difficult to use in wintertime because of snow. Afghanistan has no railways or waterways.
- MEDEVAC and/or CASEVAC: No MEDEVAC/CASEVAC dedicated aircraft is available in UNAMA.

Mission Air Operations staff

242. UNAMA Air Operations is budgeted for 13 staff members as shown in the following table, which are sufficient to run a safe, timely and cost-effective operations.

Table 10B.3: Air Operations staff

	P5	P4	P3	P2	P1	Total	FS	GS	Local	UNV	Grand Total
Current		1					4		8		13
Proposed											

ACABQ queries

- Landing fees and ground handling: UNAMA Air Operations do not pay for landing charges, both in Pakistan and in Afghanistan. However, it pays for ground handling upon services rendered.

Airfield support services requirements

243. None.

ANNEXURES TO CHAPTER N

ANNEX N1: MARSHALLING

244. It is the Marshall's responsibility to make sure that the aircraft is guided and parked in a safe manner. The Marshall should know the differences between aircraft in terms of their dimensions and their special needs regarding marshalling.

245. This Annex is designed to provide United Nations Marshalls with guidance to perform their duties in line with details provided in Annex 2 to the Convention on International Civil Aviation: Rules of the Air.

246. The Marshalls are placed under control of the Ramp Manager, who assigns the Marshalls to the different incoming aircraft and their parking spots.

247. As Aviation Safety is a prime consideration, the following principles apply:

- If there is any doubt whether an aircraft can be accommodated on the ramp, then it shall not be parked, and the Ramp Manager should be contacted.
- When marshalling aircraft, no part of the moving aircraft should be less than 3 meters from any obstacle. This includes buildings, other aircraft, vehicles, personnel.
- Be aware of other movement on the ramp. If necessary, stop the aircraft and wait until the problem is solved, or contact the Ramp Manager.
- Make sure that correct signals are used. If necessary, contact the aircraft by radio and explain the signals before continuing marshalling.
- If the aircraft doesn't follow your signals, give the signal "STOP" and contact the Ramp Manager or the aircraft on the radio.
- If it is dark, use the flashlight wands. Always wear a reflective vest or belt.
- No personnel or vehicles are allowed near the aircraft until the aircraft has come to a complete halt and the engines have stopped.
- Report all safety violations as soon as possible no matter how small it may seem.

248. To enhance safety for both Marshalls and aircraft, the following equipment must be used:

- Reflective vest;
- Hearing protection;
- Wooden bats / wands for daytime use;
- Illuminated wands for night-time use;
- VHF/AM radio;
- A microphone and headset that fits inside the hearing protection, if available.

249. All Marshalls must successfully complete a training course before they are allowed to marshal any aircraft at the ramp. If a formal course is not available, on-the-job training is acceptable.

250. Marshalls must at all times use standard marshalling signals specified in Annex 2 to the Convention on International Civil Aviation: Rules of the Air.

ANNEX N2: AIRSIDE AREA – SAFETY

General

251. Strict safety rules to the airside must be maintained to provide aircraft and ground operations with maximum Aviation Safety and Aviation Security levels. The oversight compliance follows under the responsibility of the Airfields and Air Terminals Unit (AATU) Officer within the field mission.

252. Violations are to be reported to the Ramp Manager who will report the violation(s) through the CAVO. Proper action will be taken and documented and, in the worst case, the person and or the vehicle will be denied access to the ramp.

253. See details in Annex 14 to the Convention on International Civil Aviation: Aerodromes and Annex 17: Security, as well as the IATA *Security Manual*.

Access to the airside areas

254. The AATU Ramp Manager controls all access to or from the ramp to other airside areas. All vehicles and personnel to work on or desiring access must coordinate with the Ramp Manager, in order to get a special pass and to procure with the local aerodrome authorities for any necessary coordination.

255. This coordination applies to everybody, including VIP or vehicles with “permanent” access passes to the apron. Coordination can also be done through the Air Operations Officer.

256. Under no circumstances will crossing between the United Nations apron and the public apron be allowed. The only exception is when the local authorities have approved such a crossing.

257. The following guidelines are applicable for vehicles and on-board persons:

- Maximum vehicle speed allowed is 15km/hr;
- Follow the traffic lanes/pattern; do not drive/walk on aircraft designated ways;
- Vehicles will not pass under any part of an aircraft or between wing tips of adjacent parked aircraft;
- Vehicles will not be parked closer than 3 meters from an aircraft except for ground handling services;
- When parked:
  - Ignition off, key in lock;
  - Parking brake set, transmission in neutral/park;
  - Wheel chocked if within 3 meters of aircraft;
  - Parking lights/flashers on.
- Another qualified individual will act as a guide and pre-positioned, additional chocks will be used when reversing a vehicle to an aircraft;
- Any special purpose vehicle without a functional, positive locking device will be chocked anytime the driver dismounts;
- Parked vehicles will be pointed away from the aircraft and in such a way that they can depart going forward;
- Obtain clearance to cross an active runway or to drive on a taxiway, from the tower. Radio contact should be maintained with the tower (aircraft have right of way);
- Ground equipment will be chocked, as necessary, when parked next to the aircraft;

- Always wear seat belts/safety straps on vehicles with open side or rear doors;
- Check tires for foreign object debris (FOD) when entering flight line areas from grass/dirt;
- Maintain at least 50 meters behind aircraft with engines operating;
- Never park in front of a fuel tanker when it is re-fuelling an aircraft;
- Drivers must be properly licensed for the type of vehicle / ground support equipment and keep vehicles to a minimum on the ramp;
- A list of vehicles with permanent access to the United Nations ramp is to be maintained / updated by the Ramp Manager.

258. The following guidelines are applicable for accessing walking persons:

- A list of authorized names with United Nations ID# should be provided to the United Nations airport security or local authorities to facilitate access. Changes should be updated, in writing, as soon as possible;
- Entry for aircrews should be through a designated gate after the formality of passing through passport control;
- Personnel destined to perform only work on the aircraft may proceed directly to the aircraft;
- All personnel must display their United Nations ID card while on the ramp.

Maintenance operations

259. Parked aircraft must be properly grounded and chocked.

260. Proper fire extinguishers coverage must be available during refuelling and engine operations.

261. Maintenance stands must be approved, properly locked/chocked, and used with extreme care when being towed or used around aircraft.

262. Ground power unit (GPU) cords must be extended to full length.

Aircraft loading

263. Coordination between loading personnel and aircrew load masters is essential.

264. Ensure that aircraft loading struts are positioned prior to loading.

265. Ensure that fuel tanks in rolling stock are purged or serviced as required.

266. Don’t walk behind cargo that is being winched or driven up the ramps.

267. Winch operations are not authorized during refuelling unless using concurrent refuelling.

268. During engine-running off-loads, personnel and vehicles must proceed well clear of the aircraft before turning.

Safety rules

269. Don't wear rings or loose jewellery near airplanes, ramps, and machines.

270. No smoking on the ramp.

271. Look for FOD and place it in appropriate receptacles.

272. All equipment should be stored when not in use.

273. Non-essential personnel must stay clear of the aircraft during refuelling and loading operations.

274. Ensure sufficient lighting is available during night operations.

275. Wear gloves when working on equipment, pallet build-up, or loading operations.

276. Wear reflective gear during day/night operations.

277. Wear eye, hearing protection adequate protective shoes.

Air terminal access

278. United Nations air terminal facilities are under the responsibility and management of MOVCON, in consultation with AATU, unless otherwise determined by Mission management, for the purpose of passenger and baggage processing and handling. Access through United Nations air terminals is for the purpose of boarding a flight only.

279. Access control is conducted through the established security checkpoints and the walk-through metal detector. This applies to **all passengers without exceptions**.

280. The air terminal design shall ensure that there is no possibility of mixing contact between arriving or departing passengers already checked in and non-travellers, by maintaining the sterile areas isolated and controlled.

281. The air terminal is part of the Airport Emergency Response Plan.

282. All security equipment shall be checked daily for proper operation.

283. In the event of an attack, crash, bomb threat, or major fire, assist in notifying and securing the air terminal and adjacent areas.

284. Maintain a list of points of contact and phone numbers for key personnel.

285. Maintain close coordination with the air terminal and the aerodrome cross-cutting stakeholders: MOVCON, Security, UNPOL, Military detachments, etc.

ANNEX N3: AVIATION FUELLING OPERATIONS

Fuel supplier responsibilities

286. A company supplying aviation fuel for use in a field mission is responsible for the quality, specifications and compliance with safety measures of its products up to the point of actual delivery.

287. All aviation fuel containers, including vehicles, should be clearly marked with the grade of the fuel they contain. Containers should not be used for any other product or purpose other than that for which they are marked.

Mission responsibilities

288. Following fuel delivery, the mission is responsible for the correct storage, handling, and usage of aviation fuel, as well as for the verification of the fuel quality delivered by the supplier. The execution of these responsibilities is under the Mission Fuel Unit.

289. The DOS *Fuel Operations Manual* establishes the related policies and procedures.

290. Aviation Section, as far as is practically possible, shall verify the quality of the fuel received, prior to refuelling aircraft. This verification should be in the presence of air carriers and fuel suppliers.

291. Aviation Section will provide Supply Section with technical-related information on a particular air operator or for any aviation fuel regulatory requirements.

292. AATU staff will supervise the process, and related safety provisions within the fuelling zone, to check they are adequate. In conjunction with the air carrier, AATU staff will verify the fuel ticket information for accuracy.

Air carrier responsibilities

293. The fuelling / de-fuelling of an aircraft requires attention and expertise by all participant persons and must be supervised by a qualified crew member. Precise aircraft details are in the Aircraft Manual and the air carrier's Operations Manual in respect of applicable procedures.

294. The supervising crew member must check that the fuel receipt confirms the type of fuel, quality and the quantity of the product received.

Fuelling zone

295. A fuelling zone shall be established extending not less than 6 meters radially from the filling and venting points on the aircraft and the fuelling equipment and, or when applicable, from the hydrant valve in use for the fuelling.

296. When de-fuelling is taking place, the vehicle will be venting and will generate a fuelling zone radiating from the tank vent. Aviation fuel that has been de-fuelled from an aircraft cannot be re-used; it must also be stored in a different fuel tanker/bladder. The fuel can only be re-used if it has been re-certified by a fuel expert or fuel company.

Safety perimeter

297. A safety perimeter bounds the fuelling zone in the immediate vicinity of the aircraft and/or fuelling vehicles, which are parked in the normal fuelling position. Fuelling vehicles must have a clear exit in the event of an emergency.

298. This area falls within a curve, which is three meters, envelops the fuel tanks, the fuelling lines and the pumps. A diagram of the fire safety perimeter according to the type of aircraft

should be given in the air carrier's Operations Manual. No point within the safety perimeter should be less than 10 meters from a building. This perimeter shall be controlled by the Airfields/ Air Terminal Unit.

General restrictions

299. Only authorized persons should be permitted within the fuelling zone or safety perimeters during fuelling.

300. Personnel working within the fuelling zone and those engaged in fuelling should not carry matches or other means of ignition or wear footwear with exposed iron, steel, studs, metal tipped or nailed shoes.

301. Photographic flash bulbs or electronic flash equipment should not be used within 6 meters of the fuelling equipment, any fuelling or venting points of the aircraft. Nor should mobile telephones.

302. Passengers are not allowed within the fuelling zone. "No Smoking" signs should be displayed at a distance of no less than 50 meters from the fuelling equipment and aircraft tank vents. **Smoking is prohibited on United Nations airside areas.**

303. When the pressure refuelling system is used during fuelling of commercial aircraft, maintenance work is authorized providing the tools are used in such a way that no sparks can occur and no electrical tools are used. Dropping or throwing of tools, equipment, or dragging of metal ladders over the ground is prohibited.

304. Provisions established in the air carrier's Operations Manual (Part A), **if more restrictive, shall prevail and be strictly adhered to.**

Aircraft restrictions

305. Fuelling operations while the engines are running and any operations generating sparks are **prohibited**.

306. The use of aircraft electrical system controlling equipment in the wings, or very close to the tanks, which are not needed for fuelling operations, are also **prohibited**.

307. All radio receivers and transmitters in the aircraft must be turned off during fuelling operations. Batteries must not be serviced or replaced, and no electrical cords, droplights, floodlights, etc. supplied by outside power are permitted on or near the aircraft. Also, battery carts or ground power units are not to be used.

308. Aircraft should not be fuelled within 30 meters of radar or HF radio equipment under test. Only checking and limited maintenance work such as the exchange of units should be allowed on radio, radar and electrical equipment. Any use or testing of such equipment should be deferred until fuelling is complete.

309. An external power source may be connected to the aircraft provided it is outside of the safety perimeter.

Passenger restrictions

310. No aircraft should be refuelled while passengers are embarking, on-board or disembarking, **unless**:

- A flight crew member remains at a specified location (cockpit) during fuelling operations with passengers on board. This person must be capable of handling emergency procedures concerning fire-fighting, communications and initiating and directing an evacuation.
- A two-way communication shall be established and shall remain available by the

aircraft's inter-communications system or other suitable means (e.g. striking the side of the aircraft to attract attention) to ensure an instant response to the required hand signals between the ground crew supervising the refuelling and the crew member on board the aircraft. It is essential that the pilot knows when headsets are not being used so that an alternative agreed communication between the pilot and the refuelling supervisor is established using hand signals.

- In the event of an incident that may require the prompt disembarkation or rapid evacuation of the passengers, the ground engineer/refuelling supervisor will use the quickest available means of communication to notify the flight/cabin crew (e.g. service interphone or any suitable aural or visual signals).
- One cabin crew member for every 50 passengers or part thereof must be stationed at one of the main cabin doors and will be responsible for notifying the refuelling staff immediately should any fuel vapour be detected in the passenger compartment or if any condition arises that might constitute a potential hazard. In this event, all cleaning activities using electrical equipment within the aircraft must be stopped immediately and not be resumed until conditions permit.
- Passengers remaining on board must be informed that refuelling is about to take place and that they must remain in their seats with their seatbelts unfastened and that they must not smoke nor operate electrical equipment. The "Fastened Seat Belts" sign must be off and the "No Smoking" signs must be on, together with sufficient interior lighting to enable the exits to be identified.
- Where appropriate to the aircraft type, the emergency lighting master switch must be selected to "arm".
- The passenger addressing system must be serviceable.
- Any ground servicing activities and work within the aircraft (cleaning/catering) must be conducted in such a manner that at least the minimum amount of aircraft exits remain unobstructed.
- Loading of baggage through the aft service door is prohibited during refuelling. If passenger/baggage reconciliation (ID) is necessary, it must be carried out away from the refuelling area.
- Where it is desired to move passengers to and from the aircraft during fuelling, the authorised refueller must ensure that the passenger movement paths are well clear of aircraft wing tip tank vents and fuelling equipment and that the movement of passengers through the refuelling area is supervised by a responsible person. Passengers must not be allowed to linger near the aircraft.
- The airport fire service must be alerted to the fact that fuelling procedures are about to take place with passengers on board.
- The main door usually used for passenger embarkation must be open, clear of obstruction and manned. A loading bridge, power-operated gangway or a set of passenger steps must be positioned at the door.
- Where applicable, a serviceable secondary forward exit door may remain closed but must be clear or manned. The authorized refueller must be instructed to ensure that the ground beneath the secondary door is kept unobstructed.
- The cabin crew must ensure that the aisles and at least the doors listed above are clear and kept unobstructed. At least one cabin crew member must be positioned at each pair of doors.

Weather restrictions

311. Fuelling operations should be suspended during severe lightning disturbances in the vicinity of the aerodrome or within 5 nautical miles.

312. Also, during extreme climatic conditions, such as sandstorms, electrical storms, heavy rain or extreme cold, special care shall be exercised.

313. When an unexpected natural disaster occurs, such as flooding, earthquakes, hurricanes, typhoons, etc., fuelling shall be suspended.

General safety preventive measures

314. Fire extinguishers must be readily available and positioned less than 15 meters from the aircraft. A class 55B extinguisher containing at least 10kg of powder is required if the fuelling rate is less than 750 litres per minute. A class 233B trolley extinguisher containing at least 20kg of powder is required if the fuelling rate is greater than 750l litres per minute.

315. These particular classes of extinguishers can be replaced by smaller capacity extinguishers, provided that the total quantity of the extinguishers complies with the total product quantity requirements.

316. Fuelling equipment should be positioned so that there is no requirement for vehicles to reverse before departure. All vehicles and equipment must be positioned to allow unobstructed exit of persons from the aircraft in case of any emergency.

317. The Airfields/ Air Terminal Unit or air carrier should ensure that all personnel working on, inside or in the immediate vicinity of the aircraft are made aware that fuelling will be taking place.

318. Vehicle engines should not be left running in the fuelling zones. Equipment with all metal wheels or metal-studded tyres capable of producing sparks should not move within the fuelling zones.

319. No aircraft maintenance work, which may create a source of ignition, can be carried out in the fuelling zone, such as:

- Electrical, hydraulic and radio equipment may not be checked.
- Radar must not be operated during fuelling operations or when within 30 meters of such operations, fuel tanks, fuel trucks or fuel storage areas.
- Strobe lights are not to be operated or tested during refuelling or de-fuelling.
- All ground servicing activities and work within the aircraft must be conducted in such a manner that aircraft exits are not obstructed.
- Aircraft oxygen systems should not be replenished, if applicable.
- Aircraft combustion heaters should not be used.
- If during fuelling operations, the presence of fuel vapour is detected, or any hazard arises during fuelling or de-fuelling, fuelling should be stopped immediately.

Aviation fuel types

320. The following chart depicts equivalent types of aviation fuel for the countries noted. The information provided may assist aviation personnel in determining the appropriate fuel for DOS aircraft. DOS-contracted aircraft shall be able to operate with these fuel types.

Table 12C.1: Equivalent types of aviation fuel in different countries

Commercial		USA	UK	French NATO	Russia	Lubricity Min. level
Jet A-1		JP-1	DERD 2494	AIR 3405 F-35	TC-1 PT	.85

ANNEX N4: WINDSOCKS

321. An aerodrome or landing site will be equipped with at least one wind direction indicator. See: Annex 14 to the Convention on International Civil Aviation: Aerodromes, Vols. I and II, for details and specifications.

322. A wind direction indicator shall be located near the runway, so as to be visible from aircraft in flight or on the movement area, and in such a way as to be free from the effects of air disturbances caused by nearby objects. Where a touchdown and lift-off area may be subject to a disturbed airflow, then additional small lightweight wind vanes located close to the area may prove useful.

323. The wind direction indicator shall be certified for aviation use.

324. A heliport or helicopter landing site shall be equipped with at least one wind direction indicator. It shall be visible from a helicopter in flight, in a hover or on the movement area. Where a touchdown and lift-off area may be subject to a disturbed airflow, then additional wind direction indicators located close to the area should be provided to indicate the surface wind on the area.

325. A wind direction indicator at an aerodrome or helicopter landing site intended for use at night shall be illuminated.

ANNEX N5: AVIATION RAMP MANAGEMENT

326. Aviation ramp management is under the main responsibility of the Airfields/ Air Terminals Unit, in liaison with MOVCON and the local airport authorities. Duties include, but are not limited to, the following:

- Ensures that aircraft and vehicle movements on the United Nations ramp and in the vicinity of the hangar are conducted in accordance with appropriate procedures in this Manual.
- Ensures that ground support equipment is in working condition and properly maintained.
- Ensures that adequate training is conducted for all supervised staff.
- Monitors and verifies fuel upload for all United Nations aircraft, ensures that such operations are conducted in a safe manner.
- Verifies cargo manifest and oversight loading and handling of all cargo.
- Collects aircraft weight and balance records and load manifest. Reports any irregularities to the Operations Officer.
- Supervises all personnel on the ramp to ensure that airside procedures are followed.
- Monitors ramp access.
- Monitors passengers embarking and disembarking in coordination with MOVCON personnel and local airport authorities.
- Plans aircraft parking locations in accordance with local airport authorities and MOVCON. Ensures aircraft are properly parked with breaks and chocks applied.
- Ensures the ramp is clear of items that could cause foreign object damage (FOD).
- Possesses knowledge and understanding of the established Airport Emergency Response Plan.
- Conducts periodic security inspections of DOS aircraft for insect infestation, cleaning, contraband and illegal items.

ANNEX N6: FOREIGN OBJECT DEBRIS (FOD) PROGRAMME

Introduction

327. A Foreign Object Debris Programme shall be in place on each airside area (aprons, ramps, taxi/landing strips, etc.) under AATU responsibility.

328. The Foreign Object Debris Programme is designed to increase individual awareness and protect critical resources from foreign object-induced damage.

Definitions

329. **Foreign object debris** (**FOD**): Refers to a substance, debris, article, animal, etc. that could potentially cause damage.

330. **Foreign object damage** (**FOD**): Any damage attributed to a foreign object that can be expressed in physical or economic terms, which may or may not degrade the aircraft required safety and/or performance characteristics.

General

331. Foreign object damage (FOD) happens when any foreign object, debris or substance is introduced to a system and causes that system to malfunction or be degraded. Debris takes many forms – tools, flashlights, paperwork, duct caps, gravel, metal shavings, etc. Outside of the aircraft, belt buckles, entry work stands, and chemicals used by personnel can mar airplane skins and cause FOD situations. Some of the worst FOD polluters are people who never lay a hand on an aircraft component, like food services, luggage handlers, refuellers and construction crews.

332. Foreign object debris can be **alive** too. Birds striking the airplane while both are in flight, or birds ingested during engine testing, or even wildlife such as deer on the runway, can significantly damage the aircraft, as well as cause human casualties.

FOD – General preventive actions

333. Brief newly arrived United Nations Aviation, MOVCON and ground handling service providers on the FOD Programme. Training should be continuous for the working staff, and regularly updated.

334. Miscellaneous materials, like protective covers, trash barrels, and signs to highlight FOD awareness to be placed at all operating locations. FOD containers to be placed strategically near work areas so it is easy for staff to collect and dispose of debris.

335. Potential FOD hazardous areas to be identified in addition to the already known.

336. Regular meeting with the local airport authorities to be conducted to ensure that taxiways and runways are inspected and swept on a regular and frequent basis.

337. FOD and wildlife events to be tracked, reported and recorded as accurately as possible.

338. Progressive wildlife events (such as anthills, lizard holes, grass, etc.) to be eliminated through regular wildlife control, as far as practicably possible.

Responsibilities

339. The local airport authority is primarily responsible for the implementation of Annex 14 to the Convention on International Civil Aviation: Aerodromes. In case there is no exercise of this responsibility, the mission shall take the necessary actions in order to provide the maximum safety levels for the air operation.

340. The CAVO is responsible for overall management of the FOD Awareness and Prevention Programme.

341. The Chief of the AATU is responsible for_developing and implementing the FOD Programme.

342. Related responsibilities in the daily field operation shall be performed by the assigned AATU staff, under the overall supervision of the Aviation Chief of the Air Region. In case where there are no AATU staff available, the Air Operations Officer shall be responsible for these duties.

343. All United Nations staff operating within the airside area and the DOS-contracted operators are responsible for actively following the FOD Programme.

ANNEXURES TO CHAPTER R

ANNEX R1: ON-THE-JOB TRAINING (OJT) PROGRAMME – MISSION

Mission Aviation Training Officer

344. Under the guidance and supervision of the CAVO, the assigned Aviation Training Focal Point is responsible for managing the overall training programme.

345. In the field, the CAVO is responsible to ATS for ensuring that all Aviation Staff are given the opportunity to conduct relevant on-the-job training (OJT) and developmental aviation-related training.

Selection of personnel for training

346. All Aviation staff may be trained in their specific duties and general administrative matters, to ensure familiarization with this Manual and technical procedures and aspects of aviation.

Training procedures

347. In order to standardize the aviation training programme across missions, lessons and training modules may be selected from the list specified below. Not all modules are required to be selected for any individual. Only select those lessons or modules that apply to the functions to be performed or in which the trainee has demonstrated a lack of knowledge or proficiency. See: Chapter 16 of this Manual for guidance.

348. Missions may add modules to their training programmes, as required to meet individual mission requirements.

349. Recommended timeframe for OJT covering all the modules below – A, B, C and D – is one week (40 hours). However, the circumstances and commitments of each mission may eventually determine the length of each module programme.

350. Missions shall record all training undertaken in the learning management system to facilitate easy reporting and retrieval of data on training conducted.

Training modules

A. <u>General information</u>

A.1. Aviation Section SOPs and mission organization structure;
A.2. Airspace structure and NAVAIDS;
A.3. Aerodromes and helicopter landing sites database;
A.4. Aviation assets (aircraft, vehicles, ground support equipment, etc.);
A.5. Flights in support of mission mandate and general flight tasking procedures;
A.6. Aviation Risk Management Policy;
A.7. Mission Aviation Safety Programme;
A.8. Emergency Response Plan and crisis management;
A.9. MOVCON procedures for passengers and cargo handling;
A.10. AVSEC overview;
A.11. DOS *Aviation Manual* and AVSTADS overview;
A.12. Overview of the Annexes to the Convention on International Civil Aviation.

B. <u>Mission Air Operations Centre (MAOC)</u>

B.1. MAOC duties and responsibilities;

B.2. Aerodromes and helicopter landing sites (locations, procedures, weather, threat assessment, safety concerns, communications, etc.);
B.3. Aircraft fleet (types, configuration, capacity, limitations, etc.);
B.4. Flight planning procedures (routing, clearances, reporting, Flight Plans, weather info, etc.);
B.5. Special flights;
B.6. Air Tasking Order process;
B.7. Aviation Risk Assessment process;
B.8. Flight Following and satellite tracking procedures;
B.9. Meteorology;
B.10. Search and Rescue;
B.11. Air Operations documentation (reports, forms, logs, etc.).

C. Airfields and Air Terminals Unit (AATU) operations

C.1. AATU duties and responsibilities;
C.2. Airfields and helicopter landing sites management;
C.3. Ramp access and control;
C.4. Aircraft towing and marshalling;
C.5. Aircraft refuelling;
C.6. Aircraft start-up, arrival and departing procedures;
C.7. Hangars;
C.8. Ground support equipment use and maintenance;
C.9. Ground handling services;
C.10. Foreign Object Debris (FOD) Programme;
C.11. Emergency Crash and Rescue (ECR) operations;
C.12. AATU documentation (reports, forms, logs, etc.).

D. Technical Compliance and Quality Assurance

D.1. TCU duties and responsibilities;
D.2. Aircraft and aircrew databases;
D.3. Aircraft contract management;
D.4. Aircraft Use Reports (AURs) processing;
D.5. Aircraft inspection and operators' performance evaluation reports;
D.6. Aviation Budget and financial management;
D.7. Fuel accountability;
D.8. TCU documentation (reports, forms, logs, etc.).

351. It is strongly recommended that all newly posted Aviation staff shall thoroughly study the following documents, as part of Module A above:

- Annexes to the Convention on International Civil Aviation (Annex 6: Operation of Aircraft, Annex 8: Airworthiness of Aircraft, Annex 14: Aerodromes, Annex 17: Security);
- Local Aeronautical Information Publications (AIP);
- DOS *Aviation Manual* and AVSTADS;
- DOS, Aviation Safety Manual;
- IATA, Dangerous Goods Regulations Manual.

UN AVIATION FORMS

FORM # ATS-001: AIR TASKING ORDER – GENERIC FORM

Reference: **Air Tasking Order *(Number)*** Date created: *(Day/Month/Year)*
Time: (Time)

To: (*List Addressees)*

From: **Mission Air Operations Centre (MAOC)**
Phone:
Mobile:
Fax No:

Number of pages: ATO requestor ref:
JMCC # :

Purpose of the Air Task:
Customer:
Revenue Flight: YES ….. NO …..

AIRCRAFT TYPE / CALL SIGN	FROM	ETD / Zulu	TO	ETA /z	PAX	CARGO WEIGHT	REMARKS

Drafted by:
Name:
Signature:

Authorization and release
CAVO name and signature
CMS/DMS name and signature

FORM # ATS-002: FLIGHT FOLLOWING – LOG FORM

EXAMPLE

DATE: / /2002 PAGE OF

Hour	Call sign	Point of dep.	ATD	Dest	ETA	POB	Fuel endur.	Altitude (F.L.)	ATA	Entry or Exit points		Position Reports						Remarks
										Time	Name	Time	Co-ord.	Time	Co-ord.	Time	Co-ord.	

DUTY FLIGHT FOLLOWER: NAME: _____ SIGNATURE: _____ DUTY TIME: from _____ to _____

DUTY FLIGHT FOLLOWER: NAME: _____ SIGNATURE: _____ DUTY TIME: from _____ to _____

DUTY FLIGHT FOLLOWER: NAME: _____ SIGNATURE: _____ DUTY TIME: from _____ to _____

FORM # ATS-003: OBSERVED HAZARD REPORT

OBSERVED HAZARD REPORT	***Fax or email this report to your Mission Safety Officer.***
	TODAY'S DATE:
LOCATION OF HAZARD:	
DATE OF OBSERVATION:	TIME OF OBSERVATION:
DESCRIPTION OF HAZARD OR DANGEROUS SITUATION: **DO NOT WRITE BELOW THIS LINE**	
RESULT OF INQUIRY:	
DISPOSITION OF REPORT:	
AVIATION SAFETY OFFICER:	DATE:

FORM # ATS-004: In-flight Weather Report

EXAMPLE

A. Aircraft identification: _____

_____

B. Location of the phenomena: _____

_____

C. Type of phenomena: _____

_____

_____

D. Aircraft altitude: _____

E. Time of encounter: _____

_____

F. Intensity: _____

G. Outside air temperature:_____

H. Tendency for the phenomena:_____

I. Additional information: _____

_____

_____

PIC Name and signature Date _____/____/____

FORM # ATS-005: Simple Weather Observation Report

Outgoing fax msg. no.		No. of pages	
To:		From:	
Fax no.		Fax no.	
Attn:		Date:	
Info			
Subject:	**SIMPLE WEATHER OBSERVATION REPORT**		

Report Time: …….. Date: ……..

1. Wind (Circle one)

Direction (Coming from)	North	South	West	East	NE	SE	SW	NW	Variable
Speed	Calm	Light	Fresh	Strong	Very strong				

2. Thunderstorms Yes No

Direction (from team-site) ……
Distance ……
Moving from ……. (direction) To …….

3. Rain Yes No Direction ……

Distance ……
Moving from……...(Direction) To……..

4. Hailstones Yes No

5. Obstacles Can you see the top of mountains, hills, towers etc? Yes No

6. Clouds

Quantity relative to sky	Nil	1/8	2/8	3/8	4/8	5/8	6/8	7/8	8/8
Cloud base	Low	Medium	High						

7. **Visibility**

Zero	100–300m	300–500m	1–3km	3–5km	5–8km	10km	Unlimited
Below 5km, Haze	Yes	No					
Below 1km, Fog	Yes	No					

This format shall be use for the purpose of transmitting basic weather information from one place to another.

Name of reporting person: …….

FORM # ATS-006: ATO Pre-Flight Checklist

352. The Air Tasking Order (ATO) Pre-Flight Checklist is designed to aid Air Operations personnel and aircrews as a validation and confirmation that the Pre-Flight standards and procedures established in this Manual for the safe execution of an ATO were conducted and documented through this checklist. The checklist shall be completed and signed as accomplished by the Pilot in Command of each aircraft performing flights under a United Nations contract, Letter of Assist (LOA) or pro bono agreement.

353. If a TCC has an established, formal checklist as part of their troop-contributing country (TCC) Aviation Standard Operating Procedures (SOPs), the TCC checklist must be attached to the one provided in this Manual. The completed checklists are to be permanently filed and placed in the archives at the Air Operations Office.

354. The following areas will be reviewed prior to each flight:

- A Pre-Flight Brief will be conducted by the Air Operations Officer with the aircrew to ensure complete understanding of the ATO requirements.
- An Aviation Risk Assessment and brief will be accomplished.
- The aircrew will conduct adequate ATO planning as per their Operations Manual, TCC military directives and the DOS *Aviation Manual*; and include at a minimum the following:
    - Check and confirm that destination location (HLS/ Airport) is available and ready to receive and support the flight.
    - Check aircraft performance based on aircraft weight, temperature, pressure, density altitude, power available and any other performance planning criteria required.
    - Familiarize themselves with destination, alternate airports, heliports, landing sites and the enroute air structure for the proposed route of flight.
    - Review NOTAMS, if established, pertinent to the flight.
    - Receive an adequate weather briefing for destinations and enroute segments for the duration of the flight.
    - Review fuel requirements for the flight.
    - Check the aircraft will remain within the weight and balance limitations of the aircraft according to the air carrier's Operations Manual for the aircraft.
    - Ensure that all required flight clearances are obtained prior to flight.
    - Check that necessary ground support services are available at the destination, transit and established diversion places.
    - Ensure that adequate NAVAIDS are recognized and available.
    - Receive Flight Following and in-flight communication instructions from United Nations Air Operations.

355. The aircrew will further acknowledge that:

- The entire flight can be conducted within their specific crew rest and crew duty day limitations.
- They are experienced and current in the type of mission to be flown, such as night, instrument flight rules (IFR), night vision device (NVD), external loads, etc.).
- They are healthy and fit to fly, without any residual effects of medications or alcohol.
- They are familiar with the flight route, terrain, approach procedures for the proposed

flight.

- They have the required supplies and equipment required for successful completion of the flight (maps, flash lights, FLIP material, etc.).
- The flight complies with the Air Operator Certificate or TCC military directives.
- The aircraft is in safe airworthy condition and the aircraft systems are in correct working order.
- The flight can be conducted within the time available to the next maintenance event or inspection.

356. The Pilot in Command will check either “Yes” or “No”, as applicable, in the appropriate space adjacent to the requirement. If a “No” is checked in any of the areas annotated, the aircraft will not take off until corrective actions have been made or the area is further assessed and adequate risk mitigation procedures have been established for that item, as required. All items marked “No” must be explained in the “Comments” section. The Pilot in Command may make other additional comments as necessary. The Air Operations Officer shall verify the correct completion of this procedure.

EXAMPLE FORM # ATS-006

Area	Yes	No	Comments
Pre-flight			
1. Pre-mission brief completed			
2. Operational risk assessment done			
3. Mission planning: a. Aircraft performance b. Destination and flight route c. NOTAMS d. Weather forecast e. Fuel requirements f. Weight and balance g. Flight clearances h. Ground support i. NAVAIDS j. Flight Following instructions k. In-Flight communications instructions l. Post-flight reporting instructions (Pilot Report/PIREP, Hazards, etc.)			
1. Aircrew			
1. Adequate crew rest			
2. Crew experienced and current for type of air task to be flown (night, IFR, etc.)			
3. Crew healthy and fit to fly			
4. Crew familiar with route, terrain, approaches, etc. (maps annotated properly)			
5. Remain overnight crew arrangements			
ATO type of flight mission			
1. Complies with operator AOC / TCC military directives			
2. Complies with UN directives			
Aircraft			
1. Aircraft is safe and airworthy			
2. Aircraft systems in correct working order			
3. Necessary equipment on board and working to accomplish the flight			
4. Maintenance deficiencies properly checked and cleared as per the Operator and Aircraft Maintenance Manuals			

Signature and name of Pilot in Command: _____

UN call sign: _____ Date: _____

FORM # ATS-007: Helicopter Landing Site Survey Evaluation

Table 1: General information

1.1 INSPECTION DATE AND NAME OF SURVEYOR	
1.2 NAME OF LZ / LOCATION	
1.3 GEOGRAPHICAL COORDINATES (WGS-84)	
1.4 GRID REFERENCE	
1.5 ELEVATION (Feet / Meters)	
1.6 PURPOSE FOR USE DAY/NIGHT	
1.7 OPERATIONAL TASK	
1.8 TACTICAL/REGULAR SCHEDULE/EXTERNAL LOADS	

Table 2: Site Location

2.1 SUPPORTED UNIT (Indicate the name of Unit)	
2.2 ROAD ACCESS (Indicate type of vehicle)	
2.3 SECURITY SITUATION AT DATE OF SURVEY (Indicate unit responsible to secure the place)	

2.4 COMMUNICATION FACILITIES (Air/Air to Ground)	

Table 3: Physical characteristics

3.1 SIZE (Meter)	
3.2 SURFACE CONDITION/TYPE (Specify the exact type)	
3.3 GROUND SLOPE (Degree and direction)	
3.4 TOUCHDOWN/LIFT-OFF ZONE (Dimensions, type of surface)	
3.5 TAXI WAY (Yes/No, If Yes, specify: Ground/air, width/surface type)	
3.6 SAFETY AREA (Length and width)	
3.7 FINAL APPROACH TAKE-OFF AREA (Bearing/length/width/slope/surface)	
3.8 APPOACH PATH (Course or magnetic degrees)	1.
	2.
3.9 DEPARTURE PATH (Course or magnetic degrees)	1.
	2.
3.10 CLEAR WAY (Length/ground profile)	

3.11 TYPE OF HELICOPTER	

Table 4: Obstacles and restrictions

4.1 OBSTACLES IN THE VICINITY (Yes/No, If Yes, specify: Distance in nautical miles and Elevation in feet)	
4.2 HIGH TERRAIN (Yes/No, If Yes, specify: Distance in nautical miles and Elevation in feet)	
4.3 POWER LINE (Yes/No, If Yes, specify: Height/Distance/Gradient slope/Location)	
4.4 TREES (Yes/No, If Yes, specify: Height/Distance/Gradient slope/Location)	
4.5 OTHER OBSTACLES (Yes/No, If Yes, specify: Height/Distance/Gradient slope/Location)	
4.6 OTHER OBSTACLES (Height/Distance/Gradient slope/Location)	
4.7 OTHER OBSTACLES (Height/Distance/Gradient slope/Location)	
4.8 RESTRICTIONS	

Table 5: Visual aids

5.1 SITE IDENTIFICATION MARKING	

5.2 WIND DIRECTION INDICATOR	
5.3 VEHICLES CROSS HEAD LIGHTS	
5.4 METHOD “T”	
5.5 PERIMETER LIGHTS	
5.6 OBSTACLES MARKING OR ILLUMINATION (Indicate Yes or No, If Yes, Type of Obstacle)	

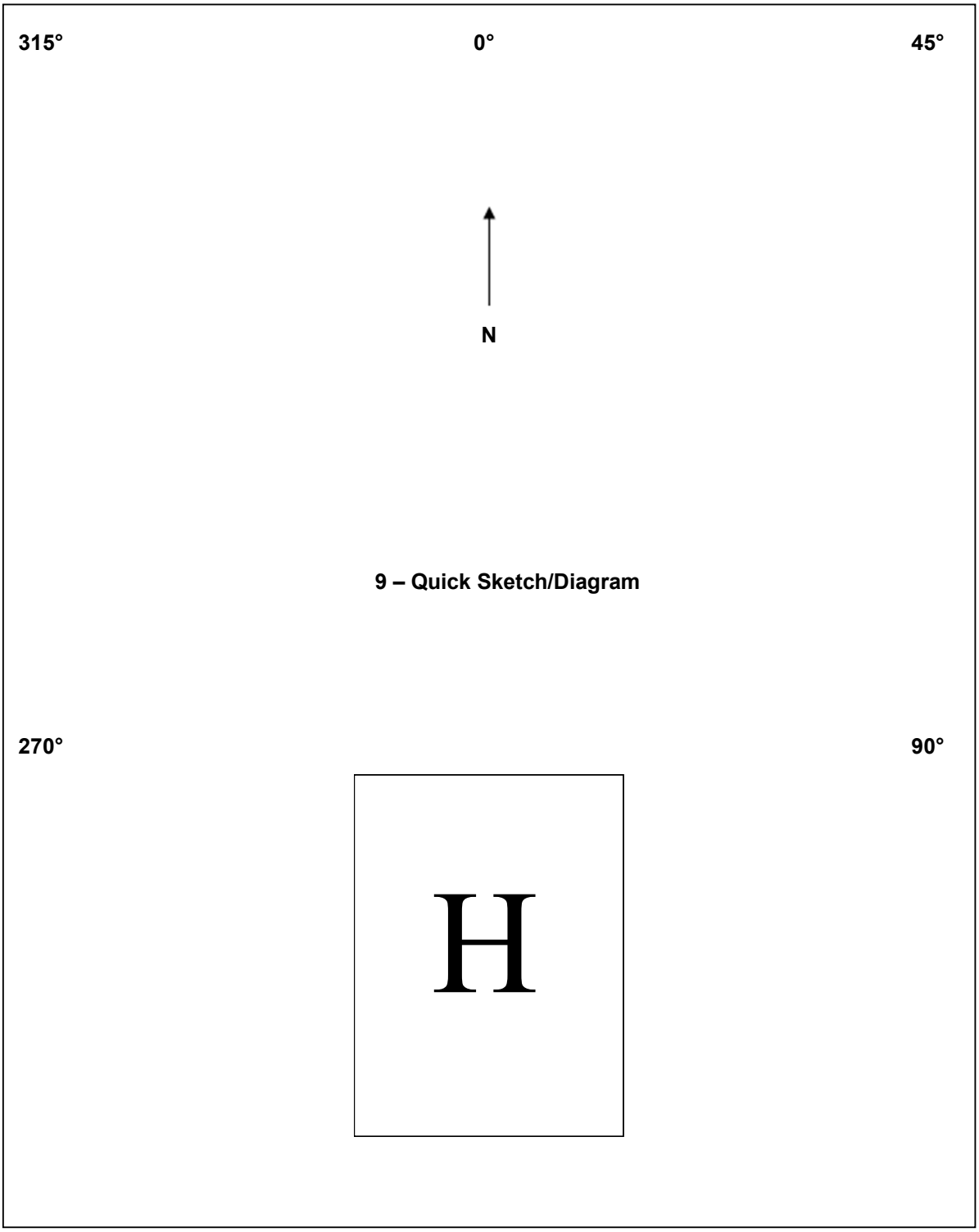
Table 6: Weather information

6.1 PREVAILING WIND (Direction/Speed)	
6.2 PREVAILING WEATHER CONDITIONS (Cloud base, visibility etc.)	
6.3 EFFECT OF SUN/MOON	

Table 7: Remarks

Table 8: Approved for Use/ Not Approved for Use

NAME/TITLE	LZ AUTHORIZED FOR USE	LZ NOT AUTHORIZED	SIGNATURE


315°
0°
45°
N
9 – Quick Sketch/Diagram
270°
90°
H

FORM # ATS-008: Over Flight And Landing Clearance Request

AIRCRAFT TYPE: _____ REGISTRATION NO.: _____

UN CALL SIGN: _____ AIRCRAFT OPERATOR: _____

CAPTAIN'S NAME: _____

RANK: _____ NATIONALITY: _____

CREW NAMES/ RANK/ NATIONALITY:

_____ / _____ / _____

_____ / _____ / _____

_____ / _____ / _____

_____ / _____ / _____

PURPOSE OF FLIGHT: _____

DATE OF FLIGHT / ETD: _____

COUNTRY TO OVER FLY or LANDING / ROUTE FROM-TO: _____

FIR ENTRY POINT / TIME (UTC) / DATE: _____ / _____ /_____

EXIT POINT / TIME (UTC) / DATE: _____/ _____ / _____

CRUISING LEVEL(S): _____

INTERMEDIATE LANDING POINT / TIME (UTC): _____ /_____

GH SERVICE / ACCOMMODATION / TRANSPORT REQUIRED:

_____

DESCRIPTION OF CARGO CARRIED (IF ANY):

_____

WEAPONRY / DANGEROUS CARGO:

_____

REMARKS: _____

UN REQUESTING OFFICER: _____

SIGNATURE / DATE: _____

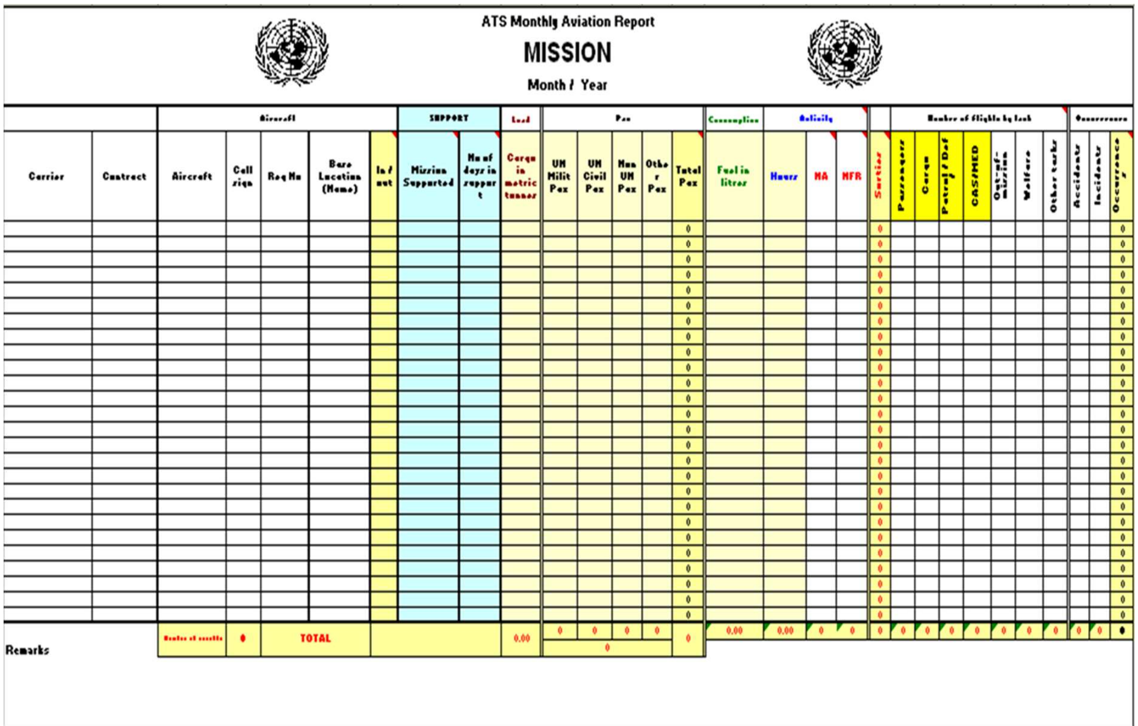
FORM # ATS-009: After Mission Report (AMR)

AREA	YES / NO	COMMENTS
AIR OPERATIONS		
1. Refuelling of aircraft completed in due time before flight		
2. As required “last minute” updates/changes received from Air Operations or FF before/during flight		
3. Radio contact maintained during flight with FF centres		
4. For extended ground stops (+2 hrs) crew was offered transport and/or access to proper rest area		
5. At all destinations (including home base) Air Operations personnel were present upon arrival and/or departure		
6. Runway/taxiway and tarmac conditions adequate for normal operations		
7. Air traffic control and ground operations showed professional behaviour in their assigned tasks		
8. Were the obtained clearances adequate for the whole flight?		
9. Did the crew encounter any problems with local authorities/military? If so, was proper assistance rendered by Air Operations personnel?		
MOVEMENT CONTROL		
1. Cargo and passengers loaded and/or off-loaded in due time without delay?		
2. Cargo and passengers manifest presented in due time and accurately completed		
3. MOVCON personnel present at all times to supervise loading/off-loading of passengers and cargo		
4. If any dangerous goods were transported, were “Dangerous Goods Declaration” properly filled out and signed?		

_____ _____ _____ _____

Signature of PIC Call sign Date Flight From/To

FORM # ATS-010: Monthly Aviation Report



357. The below information related to the e-MAR is valid only while the relevant reporting if it has not yet been replaced by AIMS or the Mission temporarily doesn't have access to AIMS.

358. The electronic Monthly Aviation Report (e-MAR) must be completed using the specific Excel-format master table provided by ATS and sent electronically by email to Aircraft Management and Contracts Unit (AMCU) at ATS before the end of the first week of each following month.

359. Data consistency and accuracy are essential in order to properly compile thousands of pieces of data from different sources together into a single database. This single database is used by ATS to provide annual reports and aviation statistic calculation to Senior Management, as well as for invoice verification, Budget preparation and performance reports.

360. The format of this master table **must** not be altered. The cells must not be merged. Additional lines can be inserted if the table does not have enough space for the number of aircraft operating. The table is unprotected, so you **must**, therefore, be very careful when you record the data.

361. The following guidelines apply for adequate data entry:

(1) Contracts and LOAs must be recorded by using the aircraft represented by its call sign and registration number and the pertinent contract or LOA:

- **Contract**: (Example PD/C0025/01 or PD/C0125/02). There are always four numbers between the "C" and the "/". Make sure to record zero "0" and not "O" when you record the number.

- **LOA**: (Example: LOA 2001-125). Make sure to put a space between the A and the year.

(2) Name of the carrier (first column) and aircraft type must be accurately recorded. Abbreviations are not accepted unless the name is too long for the size of the cell. In any case, for data consistency purposes, you must contact ATS to determine which name is the most appropriate.

(3) Call sign must be written “UNO”, followed by a space then the number (example: UNO 024).

(4) The registration number must be recorded as it is on the aircraft body. Then, you must always record the same registration number the same way every month for consistency purposes, in confirmation of the contract.

(5) The base location name is the base of the aircraft in the mission area (for example, Kinshasa for MONUSCO).

(6) The In / Out function is used to determine if the aircraft under a contract is leaving the mission and replaced by another aircraft under another contract. It is used in the ATS database to calculate the number of aircraft, which are counted as “In”. An aircraft signed as “Out” will not be counted as part of the mission fleet. This is to make the difference when a contract is replaced by another contract. Without this sign, the system will count two aircraft during a rotation, for example, while actually you have only one aircraft type, which is rotating.

(7) Procedure:

- Select “In” when the aircraft is part of the number of aircraft that should be counted as part of your fleet for the considered month.
- Select nothing (leave it blank), if the aircraft is not part of the number of aircraft that should be counted for the month
- Select “Out” when the aircraft is leaving during a rotation only.

Example during an aircraft rotation. You could have two similar aircraft during one or two days but only one should be counted. In fact, by recording the flight data per aircraft and per row, the system sees two aircraft during the month, while you have only one aircraft under contract.

The “In” and “Out” will facilitate the calculation of the number of aircraft in your fleet. The number of “In” should represent the exact number of aircraft operating under contract in your mission during the considered month.

(8) Mission supported: Record the name of the mission that used your aircraft in a share option or during a short period “lend/borrow” process. This information is very important as we are sharing more and more aircraft between several field missions.

IMPORTANT: During the sharing or the “lend/borrow” process, you must coordinate very well with the other missions to make sure that data flight hours are not duplicated several times. Example, if MONUSCO share one of their aircraft with UNMISS, then MONUSCO must liaise with UNMISS to get the flight hour activity from them. Thereafter, MONUSCO should confirm that the data will be recorded by and a copy of the e-MAR will have to be sent to UNMISS, with written confirmation that the shared data has been coordinated.

(9) No. of days in support: This is the number of days the aircraft stayed in your mission or the other supported mission. Example: If your mission has the aircraft from 1 May and lent it to another mission from 18 May to 5 June, you will have to

record 17 days for your support and 14 days for the support of the other mission in the Monthly Aviation Report for May. If your aircraft is not shared or borrowed, you must record the number of days of the month.

(10) Cargo: The load is in metric tonnes. Be careful not to record the data in kilograms.

(11) The number of passengers must be recorded according to their category. If the passengers do not belong to a specific category, then use column “Other Pax”. When “Other Pax” is used, a “comment” should be inserted in the relevant cell to report what kind of passengers they are.

(12) The number of “Total Pax” must not be filled out as the cells contain formula, which is the sum of the other pax categories. If an additional line is inserted, the corresponding formula must be copied in the new cells.

(13) The fuel consumption is in litres. Use a “dot” (.) to start decimals: number data does not support comma for decimal. The cells are formatted for numbers.

(14) Hours: The flight time must be recorded as elapsed time in hours and decimals, **not** in hours and minutes.

(15) NA = Not Available = Number of days where the mission planned or could have planned a flight or required the aircraft and the crew to be in stand-by and where they were not available or could not be tasked (maintenance, crew sickness, or something else). In this case, the reason must be recorded in the remark field. These NA days can be split in half NA days.

(Example 1: The site manager of a company in your mission requests one of its aircraft to be in maintenance for eight days. You therefore cannot schedule any task with this aircraft. It is therefore counted as 8 NA.)

(Example 2: You scheduled a flight and the crews are sick. They cannot fly for two days and this is the only crew so you have to cancel the flights. It is therefore counted as 2 NA.)

(Example 3: You decide to put the crew and the aircraft on two hours stand-by. The air carrier decides to start a small maintenance job. You task them and they take off within the two hours. It is not counted as a maintenance day where the aircraft is not available. This is acceptable.)

(Example 4: You decide to put the crew and the aircraft on two hours stand-by. The air carrier decides to start a small maintenance job. You task them and they report that they can take off within three hours only. This could work in two ways: Either it is still acceptable with your schedule, and it is not counted as a maintenance day. Or, it is not acceptable with your schedule and you have to cancel the flight; it is therefore counted as 1 NA.)

(Example 5: The Certificate of Insurance expires. You cannot fly. These days are NA.)

(Example 6: The crew need a rest day and the air carrier asks to take the aircraft off the flying programme. This day is NA.)

(Example 7: You normally do not fly Sundays and you tell the air carrier this. The air carrier uses the day for crew rest and maintenance. This is acceptable. This is a NFR, not NA.)

(Example 8: In Example 7, you change your mind on the Sunday morning and need to fly the aircraft. This will be an NFR, unless the air carrier agrees to accommodate your request.)

(Example 9: The air carrier wants to do maintenance from Friday morning to Monday night. Sunday is usually a NFR day. But the air carrier is withdrawing the aircraft from service. All four days will be NA.)

(Example 10: Sunday is an NFR day. The air carrier wants to take Sunday and Monday for maintenance or company flight training. One day is NFR and one day is NA.)

(Example 11: The aircraft flies in the morning but goes unserviceable in the afternoon. Record as a flying day. No NFR and no NA are recorded.)

(Example 12: The crew is late arriving and the flight goes ahead with some reduction in task. Record as a flying day and make comment on Performance Report.)

(Example 13: The crew is late arriving and the flight has to be cancelled. NA applies, unless it was due to natural unavoidable disaster.)

(Example 14: One aircraft has two crews but one crew is sick. The aircraft achieves all the tasking. This is acceptable.)

(Example 15: One aircraft has two crews but one crew is sick. The aircraft achieves about half the tasking. Record half the day as NA.)

(Example 16: Aircraft experienced a technical issue during the flight and returned to the departure point without completing any leg of the Air Tasking Order for this day. Record half the day as NA, whist the fuel is paid by the Mission.)

There may be more examples, but we cannot list all of them. There will always be some days that need judgement and common senses is to be exercised. Read the terms and conditions of the contract in order to avoid penalizing when it is not applicable.

(16) NFR = No Flight Required: This is the number of days where the mission did not plan any flights and where no aircraft and crew on stand-by were required. (Example: A holiday where the mission will not require any flight and where the crew is authorized to be off that day. In this case, if the crew decides to start a small maintenance on their aircraft, they can and it is not counted as “NA” (Not Available.)

(17) The number of “Sorties” must not be filled out. The cells contain formula, which is the sum of the number of sorties per task. If a line is inserted, the corresponding formula must be copied in the new cells.

(18) Number of flights by task: This is the number of sorties per task. Tasks must be recorded according to their category. If the task does not belong to the category mentioned in the table then use “Other tasks”. When “Other tasks” is used, a “comment” should be inserted in the relevant cell to report what kind of task it is.

Budget tasks: The AUR requires a record of the number of sorties per task; however, the Budget requirement work is to record the number of flight hours performed per basic tasks, such as:

- Hours in passengers or cargo transportation
- Hours in patrol/defence/observation
- Hours in CASEVAC/MEDEVAC Search and Rescue
- Hours in other tasks

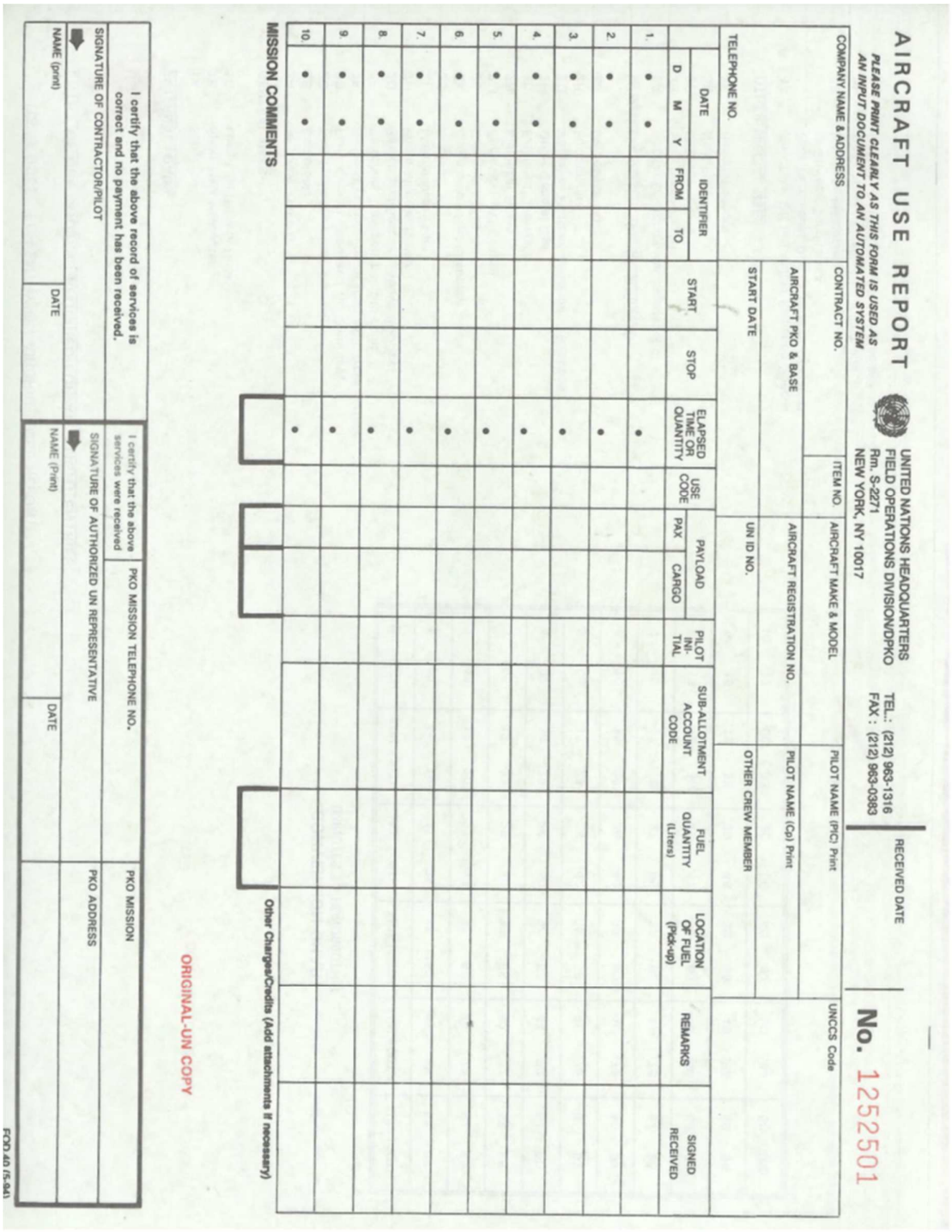
It is therefore recommended that, for Budget and performance report purposes, the mission Aviation Section record a separate specific Monthly Aviation Report for tasks, recording the number of sorties, as well as the number of flight hours performed per task, type of aircraft/contract/etc.

(19) Occurrences: The number of “Occurrences” (last column) must not be filled out. The cells contain formula, which is the sum of the accidents and incidents. If a line is inserted, the corresponding formula must be copied in the new cells.

362. The Monthly Aviation Report shall include the following data:

- Number of hours flown
- Number of NA days (Not Available)
- Number of NFR days (No Flight Required)
- Total number of sorties
- Number of tasks per category:
  - Tasks passengers and cargo
  - Tasks patrol / defence / observation
  - Tasks CASEVAC/MEDEVAC
  - Tasks out-of-mission support
  - Tasks welfare
  - Other tasks
- Cargo transported in metric tonnes
- Number of passengers:
  - United Nations military and civilian passengers
  - Non-United Nations passengers
  - Other passengers
  - Total passengers
- Fuel consumption in litres
- Number of accidents/incidents/occurrences, if any
- Name of air carrier/TCC
- Contract or LOA number
- Type of aircraft
- United Nations call sign
- Registration no. of the aircraft
- Base location (Name)
- In / out contract expiration indication
- Name of mission supported and number of days in support

FORM # ATS-011: Aircraft Use Report (AUR)



AIRCRAFT USE REPORT

PLEASE PRINT CLEARLY AS THIS FORM IS USED AS AN INPUT DOCUMENT TO AN AUTOMATED SYSTEM

UNITED NATIONS HEADQUARTERS
FIELD OPERATIONS DIVISION/DPKO
Rm. S-2271
NEW YORK, NY 10017

TEL.: (212) 963-1316
FAX : (212) 963-0383

RECEIVED DATE

No. 1252501

COMPANY NAME & ADDRESS

CONTRACT NO.

ITEM NO

AIRCRAFT MAKE & MODEL

PILOT NAME (PIC) Print

UNCCS Code

AIRCRAFT PKO & BASE

AIRCRAFT REGISTRATION NO.

PILOT NAME (Co) Print

START DATE

UN ID NO.

OTHER CREW MEMBER

TELEPHONE NO.

	DATE D M Y	IDENTIFIER FROM	IDENTIFIER TO	START	STOP	ELAPSED TIME OR QUANTITY	USE CODE	PAYLOAD PAX	PAYLOAD CARGO	PILOT INI-TIAL	SUB-ALLOTMENT ACCOUNT CODE	FUEL QUANTITY (Liters)	LOCATION OF FUEL (Pick-up)	REMARKS	SIGNED RECEIVED
1.	• •					•									
2.	• •					•									
3.	• •					•									
4.	• •					•									
5.	• •					•									
6.	• •					•									
7.	• •					•									
8.	• •					•									
9.	• •					•									
10.	• •					•									

MISSION COMMENTS

Other Charges/Credits (Add attachments if necessary)

ORIGINAL-UN COPY

I certify that the above record of services is correct and no payment has been received.

SIGNATURE OF CONTRACTOR/PILOT

NAME (print)

DATE

I certify that the above services were received

SIGNATURE OF AUTHORIZED UN REPRESENTATIVE

NAME (Print)

DATE

PKO MISSION TELEPHONE NO.

PKO MISSION

PKO ADDRESS

FOD 40 (5-94)

FORM # ATS-012: Registration of Aircraft Carriers Tracking Device

DOS-ATS SAOC Form 001

Aircraft & tracking devices information Form

Select IN for AC coming active & OUT viceverse | Select from dropdown enu or autocalculated | Mandatory Information | Voluntary information | Today: 12/14/2020

AC IN & OUT	DPKO Mission	A/C Model	A/C Registration	UN Call Sign	Satellite Service Provider	Equipment Type	Waiver for Portable Devices?	Start date of Waiver	End date of Waiver	Serial Number	Satellite ID
OUT	MINUSMA	MI-8MTV-1	RA-25489	UNO-040	Skytrac	ISAT-200	NO	**2/23/2019**	**5/24/2019**	40875	300125060613370
IN	SAOC	Aladin	**RA-25489**				YES				

Carrier, Gov or Mission owner	Contract No.	Contract Start	Contract Exp	Max Payload Kg	Max Passengers	Max Cargo in Kg	Max Volume in M3	MTOW Kg	Flight Level	Avg Speed Knt	Remarks
Utair	**PD-C0252-17**	**2/23/2019**	**6/23/2019**	13,000	22	4,000	23	13000	130	230	
Utair											
Utair											
Utair											

Contract Satellite Tracking Requirements for an INSTALLED TRACKING DEVICES

dd. 1. The approved Aviation Global Satellite Aircraft Tracking unit shall meet RTCA/DO-160E aviation standard certification or a Supplemental Type Certificate for aircraft type approved by the governing authority of where the AC is registered. Installation requires a transmitter and fixed antenna, which meets the air carrier's CAA approval along with detailed operational procedures within the operations manual. The Air Carrier's fixed tracking unit shall provide Position Reports at 3-minute intervals to the United Nations Global Satellite Tracking Service provider according to Automatic Flight Following (AFF) standards as follows:

4. If the Air Carrier is not able to comply with requirements within Paragraph 1, a 90-day grace period subsequent to signing of the contract shall be granted. During the medium, the contracted Air Carrier shall operate with an approved portable tracking unit that meets the approved AFF standards at no extra cost to the United Nations. Note: further clarification on United Nations Tracking Unit data delivery and third party exchange requirements can be provided upon request.

Date: _____

Name of Site Manager: _____ Mobile Number _____ Email: _____

Verifying TCU Officer : _____

FORM # ATS-013: Emergency Management System flow chart based on the AFF System