



## INTERNAL AUDIT DIVISION

### REPORT 2023/006

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**Audit of air operations in the United Nations Organization Stabilization Mission in the Democratic Republic of the Congo**

**The Mission needed to coordinate with other stakeholders in developing the aviation concept of operations, improve the monitoring of the implementation of aviation projects, enhance controls over special flight cost recovery process and conduct regular exercises and drills on its emergency response plan**

**8 March 2023  
Assignment No. AP2022-620-01**

# **Audit of air operations in the United Nations Organization Stabilization Mission in the Democratic Republic of the Congo**

## **EXECUTIVE SUMMARY**

The Office of Internal Oversight Services (OIOS) conducted an audit of air operations in the United Nations Organization Stabilization Mission in the Democratic Republic of the Congo (MONUSCO). The objective of the audit was to assess the effectiveness and efficiency of the management of air operations in MONUSCO to ensure reliable and cost-effective aviation services in support of the Mission's mandate. The audit covered the period from 1 July 2020 to 30 June 2022 and included planning of aviation operations, utilization of air assets, management of aviation infrastructure and aviation quality assurance.

MONUSCO had developed an aviation concept of operations and the aviation work plan for 2021/22 to provide safe, responsive and cost-effective aviation services towards fulfilling the Mission's mandate. However, the Mission needed to coordinate with all stakeholders to develop the aviation concept of operations, improve its monitoring of aviation projects implementation, enhance controls over the special flight cost recovery process and conduct regular drills and exercises on its emergency response plan.

OIOS made seven important recommendations. To address issues identified in the audit, MONUSCO needed to:

- Coordinate with all components of the Mission and the host government when developing the aviation concept of operations to ensure efficient air transport services are provided to all Mission components;
- Enforce the requirement that special flight requests are submitted to the Aviation Section at least 72 hours before the planned departure date, including proper justification, and ensure adequate record-keeping of special flight requests;
- Ensure the: (a) timely preparation, attestation, and approval of the cost acceptance form for special flights; (b) timely preparation of accurate invoices related to special flights approved on cost reimbursement; and (c) reconciliation of the flights against the invoices generated;
- Review and assess the possibility of recovering long-outstanding receivables, and where necessary, follow the established process to write off receivables deemed unrecoverable;
- Shorten the procurement lead time of essential items and regularly monitor the infrastructure maintenance plans and equipment to identify the need for, and initiate, timely corrective actions;
- Conduct regular training, drills and exercises on its emergency search and rescue plan and assimilate all persons involved in the aviation emergency search and rescue programme; and
- Develop a mechanism to monitor the performance evaluation of air operations vendors and expedite the review and update of the aviation standard operating procedures to address the operational gaps.

MONUSCO accepted the recommendations, implemented one, and has initiated action to implement the remaining. Actions needed to close the recommendations are included in Annex 1.

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# **Audit of air operations in the United Nations Organization Stabilization Mission in the Democratic Republic of the Congo**

## **I. BACKGROUND**

1. The Office of Internal Oversight Services (OIOS) conducted an audit of air operations in the United Nations Organization Stabilization Mission in the Democratic Republic of the Congo (MONUSCO).
2. Air transport service is critical for operational and logistical support in implementing the mandated activities. This includes supporting troop rotation, special military operations, transporting passengers and cargo, and medical and casualty evacuation (MEDEVAC/CASEVAC) of Mission personnel. The Department of Operational Support (DOS) Aviation Manual, Aviation Standards for Peacekeeping and Humanitarian Air Transport Operations (AVSTADS), International Civil Aviation Organization (ICAO) standards and Mission-specific aviation standard operating procedures (SOPs) govern and guide air operations. The Air Transport Service (ATS) in DOS provides technical advice to MONUSCO on aviation-related matters, supports and monitors all areas of aviation activity and provides guidelines for planning, organizing, training and equipping the Mission with the necessary air assets and personnel.
3. The Mission's Aviation Section is primarily responsible for providing safe, effective, and efficient air transport (both military and civilian) to support the Mission's mandate implementation. The Section provides air transport solutions, advises the Mission's leadership on aviation matters, and maintains a constant readiness posture to respond to emergency tasks. As of 30 June 2022, MONUSCO had a fleet of 36 aircraft, comprising 7 civilian and military fixed-wing aircraft and 29 helicopters. These aircraft operated from and to six airfield locations in Goma, Kalemie, Beni, Bukavu, Bunia and Kinshasa.
4. The Aviation Section is headed by the Chief Aviation Officer (CAVO) at the P-5 level, who reports to the Director of Mission Support (DMS) through the Chief of Service Delivery Management. As of 30 June 2022, the Aviation Section had 146 authorized posts. These comprised 46 international staff, 8 national officers, 52 national general staff and 40 United Nations volunteers. The budgets for air operations for the fiscal years 2020/21 and 2021/22 were \$126 million and \$110 million, respectively.
5. Comments provided by MONUSCO are incorporated in italics.

## **II. AUDIT OBJECTIVE, SCOPE AND METHODOLOGY**

6. The objective of the audit was to assess the effectiveness and efficiency of the management of air operations in MONUSCO to ensure reliable and cost-effective aviation services in support of the Mission's mandate. The audit addressed four main audit questions:

- To what extent has the Mission effectively planned its air operations to enable reliable, cost-effective, responsive aviation support?
- To what extent has the Mission efficiently utilized its air assets?
- How effectively has the Mission managed its aviation infrastructure?
- To what extent has the Mission effectively implemented the aviation quality assurance programme?

7. This audit was included in the 2022 risk-based work plan of OIOS due to the high reputational, financial and operational risks associated with aviation operations in MONUSCO.

8. OIOS conducted this audit from February to September 2022. The audit covered the period from 1 July 2020 to 30 June 2022. Based on an activity-level risk assessment, the audit covered higher and medium risk areas which included: planning of aviation operations; utilization of air assets; management of aviation infrastructure; and aviation quality assurance. The audit did not include aviation safety and unmanned aerial systems activities, as these were covered in the audit of aviation safety (AP2022-620-04) and the audit of unmanned aerial vehicles (AT2021-620-01).

9. The audit methodology included: (a) interviews with key personnel, (b) a review of relevant documentation, (c) an analytical review of aircraft utilization and flight operating cost data and after-mission reports, (d) a test of aircraft authorization, the accuracy of billing and cost recovery of a randomly selected sample of 161 out of 6,478 flight requests, (e) review of 132 of 30,296 aircraft usage and monthly aviation reports, 28 maintenance records of four of seven fixed-wing aircraft and 8 of 29 helicopters, and (f) field visits to four of the six air operating locations in Kinshasa, Goma, Bunia and Bukavu to observe airfields and facilities physically.

10. The audit was conducted in accordance with the International Standards for the Professional Practice of Internal Auditing.

### **III. AUDIT RESULTS**

#### **A. Planning of aviation operations**

The Mission needed to coordinate with other stakeholders when developing the aviation support concept of operations

11. Air transportation is critical to fulfilling the Mission's mandated activities. Therefore, aviation activities should be delivered in a coordinated manner and in recognition of the Mission's existing and changing operating environment, air transport demand, risks and other factors that affect aviation operations.

12. The aviation concept of operation is an annual strategic planning document. MONUSCO had developed an aviation concept of operations and the aviation work plan for 2021/22. One of the main objectives of the concept of operations was to provide safe, responsive, and cost-effective aviation services towards fulfilling the Mission's mandate. The concept of operations also spelt out the fleet size, description, capacity, and proposed locations. In addition, it indicated forms of air services to be provided by the Aviation Section, proposed budget flight hours, the number of staff and the proposed number of airfields and helipads to be used. MONUSCO also prepared budget estimates and notes highlighting the different aircraft and their respective capacities, contractual flight hours as per existing agreements, and approved budgeted flight hours, including sorties and the projected number of persons and cargo to be carried.

13. However, the Aviation Section did not involve all stakeholders, such as the Mission's military and police components and the host government, when developing its concept of operations. Involvement of all Mission components would enable the Aviation Section to gather information and insight to better understand air service needs which could lead to effective and efficient utilization of air assets. For instance, during field visits, OIOS noted that MONUSCO was in the process of procuring automated weather observing systems for the airfields in Bunia, Beni, Bukavu and Goma despite the host country having

procured and installed the same for these locations. Lack of proper coordination among stakeholders could result in inefficient and uneconomic use of resources.

14. The Aviation Section attributed the above lapse to staffing constraints and competing priorities. However, in OIOS opinion, the absence of adequate coordination and consultation mechanisms among Mission components and the host government in developing the aviation concept of operation was the primary cause.

- (1) **MONUSCO should coordinate with all components of the Mission and the host government when developing the aviation concept of operations to ensure efficient air transport services are provided to all Mission components.**

*MONUSCO accepted recommendation 1 and stated that the Aviation Section concept of operations had been updated incorporating inputs from the Mission's draft concept of operations and the Force's concept of operations.*

## B. Aircraft Utilization

### Need to enhance controls over special flights

15. MONUSCO conducted 2,231 special flights during the period under review. These flights were related to MEDEVAC/CASEVAC, civilian and military operations, Mission support to the United Nations agencies, funds and programmes on a cost recovery arrangement and the host government. A review of 64 special flight requests, including six MEDEVAC/CASEVAC-related flights, indicated that requests were validated by the designated officials and approved by CAVO or his designated representative. However, the following exceptions were noted:

- Eighteen of the 64 flight requests were not submitted to the Aviation Section within the required 72 hours prior to the travel date. None of these requests provided details of any exigencies that resulted in the late submission contrary to the operating procedures.
- There were significant delays in the approval of special flight requests. Twelve requests were approved on an ex-post-facto basis more than 10 days after the flight had been completed.
- The Mission conducted 11 special flights with an average occupancy rate of 9 persons on routes and dates where regular flights were available. However, there was no documentation to ascertain their justification and approval due to inadequate record-keeping by the Aviation Section.

16. The Aviation Section stated that the major causes of these lapses included the urgency of the flight, especially in the case of the six MEDEVAC/CASEVACs, the absence of the approving officers in the office and oversight. The Section also stated that no flight was operated without approval, and even in the CASEVAC cases, verbal approval was provided and documented later. OIOS confirmed subsequent documented approval. Despite requests for special flights for medical emergencies contrary to the established criteria, such requests could be justified as they involved the need to save lives. However, non-compliance with submitting flight requests at least 72 hours before the travel departure date, lack of adequate supporting documents for some special flight requests, and late approval of special flight requests were control weaknesses that needed to be addressed. The late submission of flight requests gave little or no time for the required thorough analysis and risk assessments by the Aviation Section.

- (2) MONUSCO should: (a) enforce the requirement that special flight requests are submitted to the Aviation Section at least 72 hours before the planned departure date, including proper justification, especially for flights conducted on days and routes with regular flights; and (b) ensure adequate record-keeping of special flight requests.

*MONUSCO accepted recommendation 2 and stated that it would review its procedures for special flight requests and consider adjustments. The DMS Office would notify special flight requestors to adhere to the submission timelines and, in coordination with the Movement Control Section, review the special flight approval process to ensure efficiency. The Mission further stated that Joint Movement Control Center (JMCC), which owned the travel request process, would keep records of all special flights. Additionally, justifications for special flights would be recorded in the travel requests maintained in the Mission by JMCC.*

The cost recovery process for air transport services provided to third parties needed to be improved

17. MONUSCO had defined processes for managing special flights, beginning with a request from the would-be beneficiary, confirmation of the aircraft availability, and completion of a cost acceptance form for the provision of aviation support by the technical compliance unit of the Aviation Section. Also, after the flight, the process required completing the aircraft usage report to spell out the actual type of aircraft used and the flight time. The above information was used to generate the cost breakdown, the flight bill, and the subsequent invoice to the beneficiary for settlement.

18. A review of 19 randomly selected special flights out of the 76 provided to third parties under cost recovery arrangement indicated the following control weaknesses:

- The preparation and attestation of the cost acceptance form (the commitment by the requestor to settle the bill) were not always done timely. For instance: (a) in three cases, the form was prepared and approved a day before the flight operation; (b) in three other cases, the form was approved after the flights had departed; and (c) in one case, approval was on a post-facto basis a week after the flight had been conducted. The failure to obtain such commitment before the flight date exposed the Mission to disputes and the risk of non-recovery of the cost.
- Some anomalies were noted in the air transport services' billing process. These ranged from significant delays in generating the bills/invoices, inaccuracies in computing the actual bills and failure to bill third parties. For instance, on two occasions, the unit cost per flight hour of a passenger jet aircraft in the actual cost breakdown computation was stated as \$590 instead of the contracted cost of \$174 without any explanation. This resulted in overcharging the beneficiaries. In another five cases, the Mission generated invoices more than six months after the completion of the flights. At the time of the audit, 35 special flights estimated at \$233,523 were not billed/invoiced for reimbursement. Some of these had been conducted as far back as December 2020. This was due to inadequate follow-up by the Aviation Section to ensure aviation service providers timely submitted third-party handling costs, which form part of the final invoice to the beneficiaries.
- The collection of receivables was not timely. As of 30 August 2022, the total value of receivables related to invoiced special flights was \$487,862. Of this amount, \$166,614 was related to flights conducted as far back as 2020. OIOS also noted that the Mission continued to provide special flight services to some beneficiaries with long outstanding arrears.

19. The Aviation Section attributed the anomalies to the delays in receiving invoices from aircraft operators. According to the Section, some operators forwarded actual invoices four to six months after the

respective flights. Notwithstanding this, OIOS noted further delays of another two to three months on average after receipt of operator invoices. In OIOS view, the leading cause was the lack of a central point of oversight, reconciliation of flights billed against those operated, and follow-up process as different staff and units handled various activities in the billing and cost recovery process. For instance, while the Mission Aviation Section in Goma approved and prepared the bills, the Entebbe Regional Service Center Finance Section prepared the invoices sent to third-party beneficiaries, and the Mission's Finance Section in Kinshasa tracked and followed up to recover the receivables. Consequently, the Mission was exposed to financial loss due to the delays in billing and sometimes failure to invoice for the flights conducted, especially where services are rendered in one financial period and invoices are raised in the subsequent period.

- (3) **MONUSCO should strengthen oversight and follow-up mechanisms to ensure: (a) the timely preparation, attestation and approval of the cost acceptance form for special flights; (b) the timely preparation of accurate invoices related to special flights which were approved on cost reimbursement; and (c) the reconciliation of the flights against the invoices generated.**

*MONUSCO accepted recommendation 3 and stated that the DMS Office would notify requesters to adhere to the submission timelines. Timely requests and approval of flights on a cost reimbursement basis would directly impact/improve the timely preparation and submission of cost acceptance forms and accurate related invoices. MONUSCO further stated that a monthly tracking sheet was created to allow the Aviation Section to monitor cost recovery progression. The Aviation Section would henceforth share the tracking sheets with the Budget and Finance Section for their awareness and final comments on the status of receivables.*

- (4) **MONUSCO should: (a) review and assess the possibility of recovering long-outstanding receivables and, where necessary, follow the established process to write off receivables deemed unrecoverable; and (b) intensify efforts to recover outstanding receivables in respect of special flights from the respective beneficiaries.**

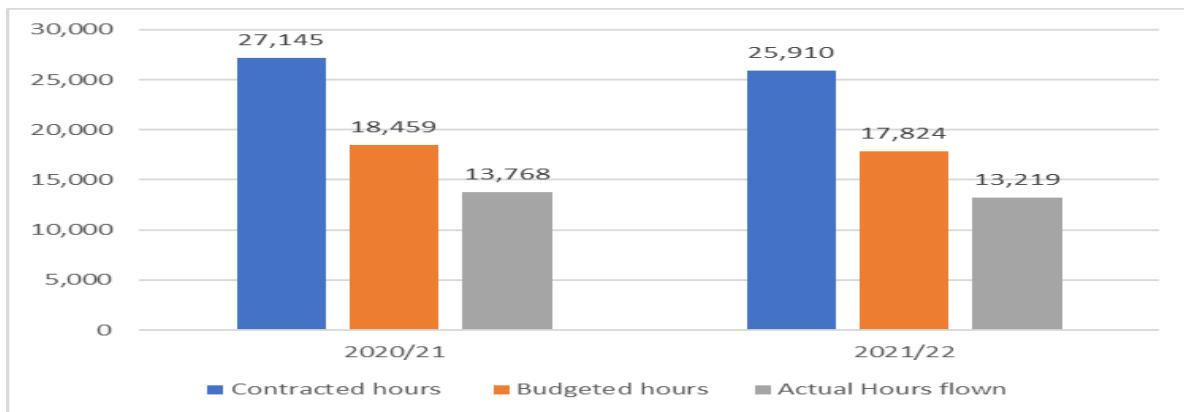
*MONUSCO accepted recommendation 4 and stated that it would review long-outstanding receivables and follow the established procedures to write off unrecoverable receivables.*

Need to continually review the use of air assets to achieve effective and efficient operations

20. The expected maximum flight hours each aircraft would undertake per year was included in the aircraft contract agreements. The expected annual flight hours per aircraft were also defined in the Mission's budget. The total flight hours contracted for the 40 aircraft in 2020/21 was 27,145, and 25,910 for the 39 aircraft in 2021/22. In the same period, the budgeted flight hours were 18,459 and 17,824, respectively.

21. An analysis of flight hours showed that the actual hours were much lower than the budgeted and contracted hours. MONUSCO utilized 51 per cent and 74 per cent of the contracted and budgeted aircraft hours in 2020/21 and 2021/22, respectively, as illustrated in figure 1 below.

**Figure 1: Comparison of contracted and budget with actual flight hours in 2020/21 and 2021/22**



22. Further review of the aircraft fleet utilization in 2020/21 indicated 7 aircraft were utilized more than their budgeted hours for the period, while another 11 aircraft were utilized under 50 per cent of their budgeted hours. An analysis of actual flown hours against the total budgeted hours for individual aircraft of the same capacity and functions over the period under review indicated usage disparities. For instance, the four A-type helicopters had an average utilization of 56 and 63 per cent in 2020/21 and 2021/2022, respectively, while the three B-type helicopters had an average utilization of 0.2 and 6 per cent, respectively, in the same period. Likewise, the utilization rate of C-type passenger aircraft was 55 per cent and 70 per cent compared to D-type passenger aircraft, which had 46 per cent and 43 per cent in the same period.

23. The above analysis showed that Mission operations in the review period would not have been adversely affected if fewer aircraft had been deployed. Non-utilization or underutilization of aircraft did not depict effective and efficient use of available resources. However, OIOS also noted that MONUSCO conducted an analysis to determine its air asset needs.

24. The Aviation Section explained that: (a) the determination of the size and type of the fleet for the Mission was based on several factors beyond its control, including unpredictable operating conditions such as fuel unit cost, consumption rates and other chargeable rates; (b) the volatile security environment, the purpose of the flight activity, types and availability of aircraft from the Member States; (c) the 27,145 and 25,910 flight hours contracted for 2020/21 and 2021/22, respectively, was to allow room for deployment when needed to support other Missions and regional peace initiatives; (d) the budgeted flight hours took into account the average flight hours flown over the past five fiscal years; and (e) the payment for 28 aircraft contracted under letters of assist (LOA) arrangements was on actual flown hours, and it did not entail any cost for non-utilization. The Aviation Section also attributed the limited utilization to travel restrictions following the COVID-19 pandemic and the May 2021 volcanic eruptions in the host country.

## C. Management of aviation infrastructure

### Some runways and landing sites needed improvement

25. The Mission developed an infrastructure and ground maintenance plan to support efficient and safe air operations, which specified its aviation infrastructure and maintenance needs. The plan identified aviation-related infrastructure gaps that required improvement during the period under review.

26. The Mission contracted all airfield terminals' management and ground handling services to a third-party private vendor. The airfields were adequately equipped with ground service equipment and aircraft

towing facilities, and adequate security was also provided. Additionally, accurate passenger and cargo manifest records were maintained. Daily inspection of the runways for any debris and other obstacles was also conducted.

27. To improve the infrastructure, the Aviation Section, together with the Engineering and Procurement Sections, analyzed the status of the aviation infrastructure and identified 11 projects to undertake in the 2020/21 fiscal year. These included the renovating runways, providing automated weather observing systems, constructing equipment hangers, and providing jet blast deflectors. Four of these projects were completed at the time of the audit, six were in progress, and the Bunia runway resurfacing needed to begin four months after its projected completion time.

28. The review noted the following areas that required improvement:

- The Mission had not reviewed its ground handling contract to exclude the airfields from which it ceased operations. For example, the service agreement covered Kananga airfield, where the Mission ceased its operations two years ago. Similarly, the discontinuation of operations in Kalemie airfield in June 2022 still needed to be communicated to the service provider.
- Major delays in the execution of projects were noted. For instance, the revised completion date for the Bunia runway renovation project was June 2022; however, work was yet to begin during OIOS field visit in June 2022. Similarly, as of June 2022, several projects planned for completion in the 2020/21 fiscal year, such as an Automated Weather Observing System (AWOS) for Beni, Bunia, Bukavu and Goma, Jet Blast Deflectors and the installation of an Airfield Lighting System and Precision Approach Path Indicator (PAPI) were still under various procurement phases ranging from the selection of a contractor to delivery of items.
- The airfields in Bunia, Bukavu and Beni lacked proper lighting to facilitate emergency night flights and were not fenced off, which increased the security risk. The Bunia Aviation Office informed OIOS that it was improvising with some temporary flood lights supported by generators. However, at the time of the field visit, none of the generators were operational.
- The Mission did not timely replace the aircraft towing equipment in Kinshasa, which broke down in March 2022. Instead, as a stop-gap measure, the Kinshasa Aviation Office rented one at a daily cost of \$600. The replacement was deployed in October 2022, when MONUSCO had paid about \$49,800 for the seven months the machine was not operational.

29. The Aviation Section attributed the delays in the implementation of projects to several factors. These included a lengthy procurement process (some required items had been under procurement for more than two years), project design flaws, the poor performance of some contractors, the challenging operating environment, the effects of the COVID-19 pandemic on the global supply chain, and delays in the customs clearance process in the host country. Furthermore, the lack of proper lighting at the airfield exposed the Mission aircraft to security threats and property loss through theft. For example, over 4,000 liters of fuel were stolen from packed helicopters in Bunia during the audit period. In addition, the delay in resolving the above issues increased the risk of accidents.

**(5) MONUSCO should shorten the procurement lead time of essential items and regularly monitor the infrastructure maintenance plans and equipment to identify the need for, and initiate, timely corrective actions.**

*MONUSCO accepted recommendation 5 and stated that it would make efforts within the stated constraints to improve the timely initiation of corrective action regarding infrastructure maintenance.*

The Mission needed to conduct regular drills and exercises on its emergency response plan to ensure effective emergency readiness

30. The development of a Mission specific emergency response plan (ERP) that integrates Emergency Crash and Rescue (ECR) and Search and Rescue (SAR) services strengthens air transport safety and ensures proper emergency response, coordination, and action.

31. MONUSCO developed an aviation ERP. The plan defined the purpose of aviation emergency response, the roles to be performed and checklists, notifications and accident response. Similarly, the command-and-control structure, emergency crash and rescue facilities, drills and exercises, monitoring, compliance and communication were spelt out. The Mission also deployed ECR equipment in six airfields and had agreements with the authorities of Entebbe airfield, where ECR was under national civil aviation authorities. Furthermore, the Mission installed satellite tracking devices in all aircraft to visually track them during flights. In addition, it equipped its air operations duty room with high and very-high-frequency radios and telephones to enable aviation staff to maintain contact with the pilot-in-command during flights every 15 and 20 minutes for rotary and fixed-wing aircraft, respectively.

32. A review of satellite tracking reports for all flights from September 2021 to March 2022 indicated that the aircraft sent regular position reports every three minutes as required. However, two cases were noted when the flight followers had not updated the tracking system despite manually taking the times on radio log sheets when communication with the aircraft was received. The Section indicated that the isolated cases were due to system hanging and a heavy workload during peak times, which did not permit immediate updates of the flight following system.

33. Following the issuance of the detailed audit results, MONUSCO published its updated SAR plan on 01 October 2022. The Mission's training records indicated that fire marshals received training on ECR operations and fire extinguishing drills had been conducted in 5 of the 6 airfields during the audit period. However, the same training programmes in the ECR plan were not extended to the other process owners, such as CAVO, the Chief of Air Operations and flight followers. Also, the Mission's SAR mechanisms did not include accidents outside the airfields.

34. OIOS noted that the Aviation Section needed to prioritize the drills and exercises on the ERP. The entire process was a class activity because the Aviation Section had not trained the different process owners identified in the plan through drills and exercises. The drills and exercises would prepare process owners to respond in the event of an actual incident and expose shortcomings in the plan for corrective action. The Mission attributed these weaknesses to staffing limitations and stated that it had implemented some remedial measures to address the deficiencies noted. These included updating the SOPs and developing a search and rescue plan.

**(6) MONUSCO should conduct regular training, drills and exercises on its emergency search and rescue plan and assimilate all persons involved in the aviation emergency search and rescue programme.**

*MONUSCO accepted recommendation 6 and stated that it had updated its search and rescue (SAR) plan and published it on 1 October 2022. It further stated that according to the SAR plan, full-scale exercises were to be conducted once a year and the desktop exercises after every six months. Similarly, the Mission indicated that since SAR plan was approved, it had carried out an actual operation in support of the host government authorities for a civilian aircraft.*

## D. Quality Assurance

35. A comprehensive aviation quality assurance programme ensures efficient and effective delivery of safe, responsive and cost-effective aviation operations and services to fulfil the MONUSCO mandate. It also monitors operating procedures, individual contracts, and vendor performance.

*(a) The Mission needed to develop an aviation quality assurance programme*

36. The Aviation Section established a Quality Assurance Unit and recruited its head and an air operations officer in February 2022. The Unit's primary responsibilities included implementing and monitoring the effectiveness of the Mission's aviation quality management systems, overseeing and administering the Aviation Section's staffing requirements, and managing and supporting the Section's aviation-specific and mandatory United Nations training requirements. The Unit conducted one quality assurance review in June 2022 and provided some capacity-building sessions to some Aviation Section staff. The quality assurance review report raised five recommendations related to the pavement of the airfield ground surface and runway, taxiway and apron renovation and the daily inspection of runways, among others.

37. However, the Section had yet to develop and implement an aviation quality assurance programme to guide the quality assurance processes, including benchmarks and quality assurance audits. Therefore, the basis for conducting the June 2022 quality assurance audit was unclear, as there were no established benchmarks and no proper assessment of aviation-related risks undertaken to guide the selection of the areas to visit. Following the issue of the detailed audit results, the Section developed an aviation quality assurance programme.

38. Furthermore, the Aviation Section had not conducted any capacity assessments to identify staffing gaps to guide the Section's capacity development programmes. The few staff training exercises conducted during the audit period were not based on any staff training and development needs assessment but on historical training data. For example, during the visit to Bunia and Kinshasa, OIOS noted that despite the new automated weather reading systems in these locations, the operating staff had not been trained to utilize them effectively. As a result, the staff could not adequately interpret the information being transmitted onto these systems. The field staff also complained about the inability of technical staff to solve real-time technical issues relating to the flight following system. Consequently, these offices mainly relied on vendors of the equipment.

*(b) Vendor performance evaluations related to contracted services needed to be enhanced*

39. To ensure air operators are delivering contracted services, MONUSCO needed to prepare aircraft arrival inspection reports, quarterly performance evaluation reports of commercial air operators and biannual reports for aircraft under LOAs.

40. A review of 32 of the 36 vendor performance evaluation reports for the 4 commercial aircraft contractors and 5 Troop Contributing Countries (TCCs) that provided aircraft to the Mission indicated that performance evaluation reports were not always completed and timely approved. For example, of the 36 quarterly performance reports, 23 were fully signed off, while 13 were awaiting the signoff of the Chief Aviation Safety Officer and CAVO. Of the 23 fully approved and signed-off reports, 6 were timely approved, while it took an average of six months for 17 to be approved. Three aircraft left the Mission during the audit period in October 2021, January 2022 and June 2022 upon the expiry of contract terms; however, the required vendor performance evaluation at the end-of-contract was completed for only one

aircraft contractor. Moreover, the Mission did not conduct routine aircraft inspections, and thus, it could not ascertain the physical state of the aircraft.

41. A review of the LOAs between MONUSCO and TCCs indicated that four of the eight LOAs had expired in 2020. Nevertheless, the Mission continued to operate the related aircraft by obtaining temporary approvals from ATS of DOS through fax communications on the same contractual terms. The expired LOAs covered 17 of the 29 rotary-wing aircraft in the Mission's fleet.

42. The Mission's aviation SOPs were yet to be updated to capture the changes in the DOS Aviation Manual and reflect the changes in the Mission operating environment since their inception in 2016. For instance, the SOPs still reflected staffing requirements of 205 personnel, which have since changed and field offices in Lubumbashi, Kamina, Kisangani, Uvira and Dungu areas where the Mission had ceased operating. In addition, they contained charters flights that were no longer applicable and spelt out manual procedures overtaken due to automation.

43. The Aviation Section attributed these anomalies to staffing constraints and SOPs that needed to be comprehensive. The Aviation Section also informed that a work plan had been developed to address the issues identified. OIOS confirmed the work plan included measures to address quality assurance reviews, capacity development and review and update of SOPs. However, adequate monitoring to identify and timely address shortfalls needed to be part of the plan. The absence of a comprehensive quality assurance programme meant that the Mission senior management was not provided with all the information and data to enable timely corrective action, thereby increasing the risk of failure to achieve some mandated tasks that rely on air transport.

- (7) **MONUSCO should: (a) develop a mechanism to monitor the performance evaluation of air operations vendors; and (b) expedite the review and update of the aviation standard operating procedures to address the operational gaps.**

*MONUSCO accepted recommendation 7 and stated that it would make efforts to improve the timely submission of contract performance reports in the Contract Performance and Reporting Tool (CPRT) module. Since each contract has its own timeline, the administrator of the CPRT system will be requested to implement a software solution to prevent late submissions. The Mission also stated that the review and update of the Aviation SOP were ongoing, and it had solicited feedback from stakeholders.*

#### **IV. ACKNOWLEDGEMENT**

44. OIOS wishes to express its appreciation to the Management and staff of MONUSCO for the assistance and cooperation extended to the auditors during this assignment.

Internal Audit Division  
Office of Internal Oversight Services

## STATUS OF AUDIT RECOMMENDATIONS

### Audit of air operations in the United Nations Organization Stabilization Mission in the Democratic Republic of the Congo

Rec. no.	Recommendation	Critical <sup>1</sup> / Important <sup>2</sup>	C/ O <sup>3</sup>	Actions needed to close recommendation	Implementation date <sup>4</sup>
1	MONUSCO should coordinate with all components of the Mission and the host government when developing the aviation concept of operations to ensure efficient air transport services are provided to all Mission components.	Important	C	Implemented. Action completed.	21 December 2022
2	MONUSCO should: (a) enforce the requirement that special flight requests are submitted to the Aviation Section at least 72 hours before the planned departure date, including proper justification, especially for flights conducted on days and routes with regular flights; and (b) ensure adequate record-keeping of special flight requests.	Important	O	Receipt of evidence (a) that special flight requests are submitted to the Aviation Section at least 72 hours before the planned departure date and proper justification for special flights on days and routes with regular flights; and (b) of adequate record-keeping of special flight requests.	30 June 2023
3	MONUSCO should strengthen oversight and follow-up mechanisms to ensure: (a) the timely preparation, attestation and approval of the cost acceptance form for special flights; (b) the timely preparation of accurate invoices related to special flights which were approved on cost reimbursement; and (c) the reconciliation of the flights against the invoices generated.	Important	O	Receipt of evidence of: (a) the timely preparation, attestation, and approval of the cost acceptance form for special flights; (b) the timely preparation of accurate invoices related to special flights approved on cost reimbursement; and (c) the reconciliation of the flights conducted against the invoices generated for completeness and accuracy.	30 June 2023
4	MONUSCO should: (a) review and assess the possibility of recovering long-outstanding receivables and, where necessary, follow the established process to write off receivables deemed unrecoverable; and (b) intensify efforts to recover outstanding receivables in respect of special flights from the respective beneficiaries.	Important	O	Receipt of evidence showing the review and assessment of the possibility of recovering long-outstanding receivables, action taken to recover long-outstanding receivables and writing off those deemed irrecoverable.	30 June 2023

<sup>1</sup> Critical recommendations address those risk issues that require immediate management attention. Failure to take action could have a critical or significant adverse impact on the Organization.

<sup>2</sup> Important recommendations address those risk issues that require timely management attention. Failure to take action could have a high or moderate adverse impact on the Organization.

<sup>3</sup> Please note the value C denotes closed recommendations whereas O refers to open recommendations.

<sup>4</sup> Date provided by MONUSCO in response to recommendations.

## STATUS OF AUDIT RECOMMENDATIONS

### Audit of air operations in the United Nations Organization Stabilization Mission in the Democratic Republic of the Congo

Rec. no.	Recommendation	Critical <sup>1</sup> / Important <sup>2</sup>	C/ O <sup>3</sup>	Actions needed to close recommendation	Implementation date <sup>4</sup>
5	MONUSCO should shorten the procurement lead time of essential items and regularly monitor the infrastructure maintenance plans and equipment to identify the need for, and initiate, timely corrective actions.	Important	O	Receipt of an action plan to reduce the procurement lead time and an infrastructure monitoring report highlighting gaps identified and corrective actions suggested and implemented.	30 December 2023
6	MONUSCO should conduct regular training, drills and exercises on its emergency search and rescue plan and assimilate all persons involved in the aviation emergency search and rescue programme.	Important	O	Receipt of evidence of regular conduct of exercises and drills on the emergency response plan and the involvement of the different process owners in the search and rescue programme.	30 June 2023
7	MONUSCO should: (a) develop a mechanism to monitor the performance evaluation of air operations vendors; and (b) expedite the review and update of the aviation standard operating procedures to address the operational gaps.	Important	O	Receipt of the timely prepared second-quarter performance and technical evaluation reports of air operations vendors and an approved copy of the aviation standard operating procedures.	30 June 2023

## **APPENDIX I**

### **Management Response**

## Management Response

### Audit of air operations in the United Nations Organization Stabilization Mission in the Democratic Republic of the Congo

Rec. no.	Recommendation	Critical <sup>5</sup> / Important <sup>6</sup>	Accepted? (Yes/No)	Title of responsible individual	Implementation date	Client comments
1	MONUSCO should coordinate with all components of the Mission and the host government when developing the aviation concept of operations to ensure efficient air transport services are provided to all Mission components.	Important	Yes	Chief Aviation Officer	21 December 2022	MONUSCO agrees with the recommendation to coordinate with other stakeholders when developing the aviation support concept documents. To implement this recommendation, the Aviation Section Concept of Operations was updated incorporating inputs from the Mission's draft Concept of Operations, as well as the Force's concept of operations. A copy of the revised Concept of Operations, along with the supporting documents from the Mission Support, Military and Police components that were referred to in the revision, are attached. This recommendation is therefore implemented and may be considered for closure.
2	MONUSCO should: (a) enforce the requirement that special flight requests are submitted to the Aviation Section at least 72 hours before the planned departure date, including the need for each request to be properly justified, especially for flights conducted on days and routes with regular flights; and (b) ensure adequate record-keeping of special flights requested.	Important	(a) Yes (b) No	CAVO, through ODMS	30 June 2023	(a) MONUSCO accepts the recommendation to enforce the requirement that special flight requests be submitted to the Aviation Section at least 72 hours before the planned departure date with proper justifications. However, it should be noted that this requirement cannot be applied to CASEVAC and MEDEVAC flights due to the unpredictable nature of

<sup>5</sup> Critical recommendations address those risk issues that require immediate management attention. Failure to take action could have a critical or significant adverse impact on the Organization.

<sup>6</sup> Important recommendations address those risk issues that require timely management attention. Failure to take action could have a high or moderate adverse impact on the Organization.

<b>Rec. no.</b>	<b>Recommendation</b>	<b>Critical<sup>5</sup>/ Important<sup>6</sup></b>	<b>Accepted? (Yes/No)</b>	<b>Title of responsible individual</b>	<b>Implementation date</b>	<b>Client comments</b>
						<p>emergencies. In addition, the Mission would like to clarify that there is a difference in task approval vs flight approval. The eSFR system records flight approvals which comes after the task was approved. The task approval reference is recorded in each SFR. Before recording the flight approvals in the electronic system, flights are approved verbally, and by the daily signing of the Daily Flight Schedule. To address recommendation 2(a), the Mission will review its special flight (JTR) request procedure and consider adjustments. Proposed actions include:</p> <ul style="list-style-type: none"> <li>i) Through the office of the Director of Mission Support (DMS), notify special flight requestors to adhere to the submission timelines; and</li> <li>ii) In coordination with MOVCON, review the JTR approval process to ensure efficiency. Target date for the notification to JTR requestors is 28 February 2023, while the target date for the revision of the JTR process is 30 June 2023.</li> </ul> <p>MONUSCO disagrees with the statement on poor record keeping by Aviation Section but accepts the recommendation to ensure adequate record-keeping of special flights requested. Records of all special flights are kept with JMCC, who owns the JTR process. Justifications for special flights are recorded in the JTRs which are</p>

<b>Rec. no.</b>	<b>Recommendation</b>	<b>Critical<sup>5</sup>/ Important<sup>6</sup></b>	<b>Accepted? (Yes/No)</b>	<b>Title of responsible individual</b>	<b>Implementation date</b>	<b>Client comments</b>
						<p>maintained in the Mission by JMCC. As the Audit Team was given access to the SFR system, which captures the approved JTRs, the records were not sought from JMCC during the audit even though they were available. Thus, the Mission disagrees with the statement that <i>there was no documentation to ascertain justification of JTRs and approval due to poor record keeping by the Aviation Section</i>. All JTRs contain justifications for special flight requests and the records are properly maintained by the Mission's JMCC. Due to the competing priorities currently faced by the Mission and the Aviation Section, the records will be made available by 30 June 2023. Alternatively, the records could be accessed from the SFR system. Therefore, OIOS may consider rephrasing the statement on "poor record keeping by Aviation Section".</p>
3	MONUSCO should strengthen oversight and follow up mechanisms to ensure: (a) the timely preparation, attestation, and approval of the cost acceptance form for special flights; (b) the timely preparation of accurate invoices related to special flights which were approved on cost reimbursement; and (c) reconciliation of the flights conducted against the invoices generated for completeness and accuracy.	Important	(a)Yes (b)Yes (c) Yes	Chief Aviation Officer	30 June 2023	<p>The Mission accepts recommendation 3. The following actions will be taken to address the recommendations:</p> <p>(a) Through the office of the Director of Mission Support (DMS), notify special flight requestors to adhere to the submission timelines. The timely request and approval of flights on a cost reimbursement basis, will directly impact/improve the timely preparation and submission of cost acceptance forms.</p> <p>(b) Once the timelines for submission of special flight requests are adhered to, the timely preparation of</p>

<b>Rec. no.</b>	<b>Recommendation</b>	<b>Critical<sup>5</sup>/ Important<sup>6</sup></b>	<b>Accepted? (Yes/No)</b>	<b>Title of responsible individual</b>	<b>Implementation date</b>	<b>Client comments</b>
						<p>accurate invoices related to special flights approved on cost reimbursement will be improved. The aviation Budget office initiates the cost recovery process as soon as the supporting invoices are received.</p> <p>(c) To reconcile flights conducted against invoices generated, a monthly tracking sheet was created to allow Aviation to monitor cost recovery progression. Copies of the tracking sheets will be shared with the Audit Team for verification. Aviation Section will henceforth share the tracking sheets with Budget and Finance Section for their awareness and final comments on the status of receivables.</p> <p>Target date for implementation is 31 March 2023.</p>
4	MONUSCO should: (a) review and assess the chances of recovering long outstanding receivables, and where necessary, follow the established process to write off receivables deemed unrecoverable; and (b) intensify efforts to recover outstanding receivables in respect of special flights from the respective beneficiaries.	Important	(a)Yes (b) Yes	Chief Aviation Officer	30 June 2023	MONUSCO accepts the recommendation to review long outstanding receivables and will follow the established procedures to write off receivables deemed unrecoverable. The target date for implementation is 30 June 2023.
5	MONUSCO should shorten the lead time of procuring needed items and regularly monitor the infrastructure maintenance plans and equipment to identify the need and initiate timely corrective actions.	Important	Partial	Chief Aviation Officer	30 December 2023	The Mission agrees that steps need to be taken to improve the timely completion of infra-structure maintenance projects. However, the Mission disagrees with OIOS conclusion that inadequate monitoring of aviation project implementation process by Aviation, Engineering and other relevant mission sections was the cause of this finding. The finding did not take into

<b>Rec. no.</b>	<b>Recommendation</b>	<b>Critical<sup>5</sup>/ Important<sup>6</sup></b>	<b>Accepted? (Yes/No)</b>	<b>Title of responsible individual</b>	<b>Implementation date</b>	<b>Client comments</b>
						<p>consideration the impact of COVID-19 on the global supply chain and the subsequent delays caused in the delivery of equipment and materials. Although it is agreed that the procurement timelines and engineering projects were delayed, the reasons for these delays were beyond the Mission's control. I.e., despite the slower than expected delivery schedules, additional delays were incurred due to DRC custom clearance issues.</p> <p>To address this recommendation, efforts will be made within the stated constraints, to improve the timely initiation of corrective action regarding infra-structure maintenance. Target date of implementation is 30 December 2023.</p> <p>The following points may however be noted:</p> <ul style="list-style-type: none"> <li>- Regarding the lack of proper lighting to facilitate emergency night flights in Bunia, Bukavu and Beni, it should be noted that none of the airfields in the DRC are fenced off due to vandalism and theft. Nonetheless, an AFLS was installed in Beni and is operated in coordination with RVA.</li> <li>- Regarding the installation of Airfield Lighting System and Precision Approach Path Indicator (PAPI), this was approved for Beni and completed. MONUSCO remains responsible for maintenance and repairs.</li> </ul>

<b>Rec. no.</b>	<b>Recommendation</b>	<b>Critical<sup>5</sup>/ Important<sup>6</sup></b>	<b>Accepted? (Yes/No)</b>	<b>Title of responsible individual</b>	<b>Implementation date</b>	<b>Client comments</b>
						<ul style="list-style-type: none"> <li>- Regarding the completion of the Bunia runway renovation project and the Automated Weather Observation System (AWOS), the delay was caused by the impact of Covid 19 on the global supply chain, delays in material and equipment deliveries as well as delays caused by external agencies like the DRC customs office.</li> <li>- It should also be noted that the Mission is in the process of renewing the ground handling contract in which the issue of the closed locations is addressed. More information is provided in the DAR (attached for review by the Audit Team). No services have been provided by the contractor at the closed locations after closure.</li> </ul>
6	MONUSCO should conduct regular training, drills and exercises on its emergency response plan and assimilate all persons involved in the aviation emergency search and rescue programme.	Important	Yes	Chief Aviation Officer	30 June 2023	<p>MONUSCO accepts the recommendation to expedite the updating of the aviation search and rescue (SAR) plan.</p> <p>The updated SAR plan was published on 01 October 2022. A copy of the reviewed SAR plan is attached for verification. According to the approved SAR, full scale SAR exercises will be conducted once a year and the desktop exercise will be conducted every 6 months. It should be noted that Aviation Section carried out an actual SAR operation in support of the DRC authorities for a civilian Let-410 on 08-09 Nov 2022. This live event is recorded against the training requirement for the period 2022. In view of the above, recommendation 6 may be considered</p>

<b>Rec. no.</b>	<b>Recommendation</b>	<b>Critical<sup>5</sup>/ Important<sup>6</sup></b>	<b>Accepted? (Yes/No)</b>	<b>Title of responsible individual</b>	<b>Implementation date</b>	<b>Client comments</b>
						implemented. In addition, a training exercise will be conducted in the first quarter of 2023 and evidence will be submitted to the Audit Team for verification.
7	MONUSCO should: (a) develop a mechanism to monitor the performance and technical evaluations of air operations vendors; and (b) expedite the review and update of the aviation standard operating procedures to address the operational gaps.	Important	(a)Yes (b)Yes	Chief Aviation Officer	30 June 2023	<p>(a) MONUSCO agrees with the recommendation to develop a mechanism to monitor the performance and technical evaluations of air operations vendors. The quarterly vendor performance monitoring is managed through the Contract Performance and Reporting Tool (CPRT) module. Efforts will be made to improve the timely submission of CPRT reports. Since each contract has its own timeline, the administrator of the CPRT system will be requested to implement a software solution to avoid late submissions. Target date of implementation is 30 June 2023.</p> <p>(b) MONUSCO agrees with the recommendation to expedite the review and update of the aviation standard operating procedures. In this regard, the review and update of the Aviation SOP is in progress. Comments from stakeholders have been obtained. The draft SOP will be circulated by 31 March 2023, and it is expected to be approved by 30 June 2023.</p>