



## **INTERNAL AUDIT DIVISION**

### **REPORT 2019/098**

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#### **Audit of aviation operations and safety in the United Nations Mission in the Republic of South Sudan**

**The Mission needed to effectively and  
efficiently utilize its air assets, strengthen  
controls over approval of special flights, and  
adequately implement its aviation safety  
programmes**

**1 November 2019  
Assignment No. AP2019/633/07**

# **Audit of aviation operations and safety in the United Nations Mission in the Republic of South Sudan**

## **EXECUTIVE SUMMARY**

The Office of Internal Oversight Services (OIOS) conducted an audit of aviation operations and safety in the United Nations Mission in the Republic of South Sudan (UNMISS). The objective of the audit was to assess the adequacy and effectiveness of management of aviation operations and implementation of aviation safety activities. The audit covered the period from 1 July 2017 to 31 July 2019 and included a review of: aviation resource planning and utilization; air operations procedures; management of aviation contracts and letters of assist; and implementation of the aviation safety programmes.

UNMISS needed to effectively and efficiently utilize its air assets, strengthen controls over approval of special flights, and adequately implement its aviation safety programmes.

OIOS made eight recommendations. To address issues identified in the audit, UNMISS needed to:

- Review the cost-effectiveness of an under-utilized aircraft and explore the feasibility of meeting the current requirements by using regular flights, commercial airlines, or special flights using other smaller air assets in the Mission;
- Ensure that special flight requests are submitted for review and approval in a timely manner and that exceptions are properly justified;
- Recover the outstanding costs for air transport services provided to third parties; and implement a mechanism for timely follow-up on receivables and track cost recovery efforts for air transport services provided to third parties;
- Ensure that the required air operations procedures are adhered to and supporting documents are securely archived;
- Reassess the staffing requirements of the Aviation Safety Unit and make appropriate budgetary provisions to meet the prescribed minimum staffing requirements to ensure effective implementation of the Mission aviation safety programmes;
- Request the Department of Operational Support to initiate another Aviation Risk Management course session and implement a monitoring mechanism to ensure that all staff involved in aviation operations complete the course;
- Reassess the outstanding aviation safety related projects and, subject to availability of funds, allocate resources to implement those projects that are identified by senior management as priority; and
- Develop and regularly test the aerodrome aviation emergency response plans for all locations and ensure that lessons learned from previous emergency response exercises are addressed.

UNMISS accepted the recommendations, took action to implement one recommendation, and initiated action to implement the remaining seven recommendations.

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# **Audit of aviation operations and safety in the United Nations Mission in the Republic of South Sudan**

## **I. BACKGROUND**

1. The Office of Internal Oversight Services (OIOS) conducted an audit of aviation operations and safety in the United Nations Mission in the Republic of South Sudan (UNMISS).
2. The Aviation Section in UNMISS is responsible for providing safe, effective and efficient air transport in support of the Mission's mandate implementation. As of April 2019, UNMISS had 8 fixed and 20 rotary wing aircraft at 10 operating bases across the Mission. Between July 2017 and April 2019, the Aviation Section transported 261,613 passengers and 25,945 tons of air cargo. The erstwhile Departments of Peacekeeping Operations and Field Support Aviation Manual, Aviation Risk Management (ARM) Policy and Aviation Safety Manual govern the aviation operations and the aviation safety programmes in UNMISS.
3. The Aviation Section is headed by the Chief Aviation Officer (CAVO) at the P-5 level who reports to the Director of Mission Support through the Chief of Supply Chain Management Service. CAVO is supported by a team of 140 staff members comprising 34 international staff, 46 United Nations Volunteers, and 60 national staff. The Aviation Section's budget for air transport for the financial years 2017/18 and 2018/19 was \$140 million and \$130 million respectively.
4. The Aviation Safety Unit (ASU) in the Office of the Director of Mission Support is responsible for the implementation of the Mission Aviation Safety Programmes (MASPs). ASU is headed by the Chief Aviation Safety Officer (CASO) at the P-4 level and is supported by three international staff and one military staff officer.
5. Comments provided by UNMISS are incorporated in italics.

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

6. The objective of the audit was to assess the adequacy and effectiveness of management of aviation operations and implementation of aviation safety activities in UNMISS.
7. This audit was included in the 2019 risk-based work plan of OIOS due to the high reputational, financial and operational risks associated with aviation operations and safety in UNMISS.
8. OIOS conducted this audit in May and June 2019. The audit covered the period from July 2017 to April 2019. Based on an activity-level risk assessment, the audit covered higher and medium risk areas in the management of aviation operations and safety, which included: aviation resource planning and utilization; air operations procedures; management of aviation contracts and letters of assist; and implementation of the aviation safety programmes.
9. The audit methodology included: (a) interviews with key aviation operations and aviation safety personnel; (b) review of relevant documentation; (c) analysis of aviation operational data; (d) detailed testing of statistical and judgementally selected samples of aviation activities, such as flights, aircraft assets utilization, and cost recovery; and (e) visits to 4 of the 10 UNMISS operational bases.

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

### **III. AUDIT RESULTS**

#### **A. Aviation resource planning and utilization**

##### Flight hours and air operations budgets were overestimated but corrective action was taken

11. In order to ensure effective and efficient aviation operations, the Aviation Manual requires UNMISS to prepare and periodically review an aviation support plan and aviation operations results-based budget aligned to its mandate.

12. A review of UNMISS aviation support plan, aviation operations results-based budget and budget performance reports for 2017/18 and 2018/19 fiscal years indicated that the flight hours and air operations budget were overestimated as follows:

- In 2017/18, the Mission budgeted 23,098 flight hours with a cost of \$140 million but only utilized 18,359 flight hours (representing 20 per cent under-utilization) and expended \$116 million (representing 17 per cent under-utilization); and
- In 2018/19, the Mission budgeted 22,932 flight hours with a cost of \$130 million but only utilized 17,436 flight hours (representing 24 per cent under-utilization) and expended \$108 million (representing 17 per cent under-utilization).

13. The under-utilization was caused by non-deployment of three rotary aircraft by a Troop Contributing Country due to host government restrictions on the deployment of the aircraft. In addition, UNMISS decreased flights to some locations as a cost minimization strategy. UNMISS indicated that to ensure effective fund utilization, it had re-allocated the budgeted funds for air operations to other operational requirements and thus reduced its air operations budgets to \$128 million and \$115 million for 2017/18 and 2018/19 respectively. Moreover, to address the recurring budget under-utilization, UNMISS had proposed in the 2019/20 budget to reduce its fleet by three rotary aircraft representing \$11 million budget reduction compared to the 2018/19 budget. Based on the actions taken by the Mission, OIOS did not make a recommendation.

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

14. To project future air assets requirements and support payments to air carriers, the Aviation Manual requires UNMISS to prepare monthly aviation reports and generate aircraft utilization statistics based on accurate aircraft utilization reports submitted by air carriers. These are to be used to assess the effective and efficient utilization of air assets.

15. All the monthly aviation reports submitted to the Air Transport Section at United Nations Headquarters during the audit period were accurate and based on the information contained in the UNMISS Aircraft Utilization Database. A review of a sample of 93 of the 18,704 aircraft utilization reports prepared in the audit period indicated that: (a) the Aviation Section obtained all the aircraft utilization reports from air carriers in a timely manner; (b) aviation staff endorsed that the flights were undertaken by signing the aircraft utilization reports; (c) details of the aircraft utilization reports, i.e. flight times, liters of fuel uplifted, and number of passengers and quantities of cargo transported, were correctly recorded in the database; and (d) flight times in the aircraft utilization reports, which were the basis for air carrier payments, were

reconciled to the flight times that were independently recorded by the UNMISS Flight Following Unit in flight backlog reports.

16. However, analysis of aircraft utilization statistics for the period audited showed that UNMISS was not effectively and economically using aircraft HS-125. Only 26 per cent of contracted flight hours for the aircraft (including hours used by other peacekeeping missions on a cost recovery basis) were utilized to execute 49 special flights (23 medical evacuations, 24 VIP flights, and two other tasks) and 9 regular flights. Monthly aircraft utilization reports did not show seat utilization statistics as the aircraft was dedicated for special flights. The aircraft was mainly used for flights from Juba to either Addis Ababa or Entebbe, with the contractual cost of operating the aircraft during the period amounting to \$4.3 million (\$3.8 million fixed costs, \$200,400 parking fees and \$311,994 variable costs). Therefore, the effective return flight cost to these locations was approximately \$74,400 (excluding ground handling and crew costs) compared to the average of \$1,800 for a business class ticket on a commercial airline. Moreover, UNMISS had a small aircraft that could have been economically used to undertake the above tasks in addition to regular flight use.

17. The above resulted because UNMISS Aviation Section did not analyze the cost-effectiveness of aircraft HS-125 against other potentially viable options for transport requirements, including other aircraft in the Mission or commercial airlines.

**(1) UNMISS should review the cost-effectiveness of the under-utilized aircraft and explore the feasibility of meeting the current requirements by utilizing the Mission's regular flights, commercial airlines or special flights using other smaller air assets in the Mission.**

*UNMISS accepted recommendation 1 and stated that it would terminate the contract for the HS-125 aircraft on 31 December 2019. Recommendation 1 remains open pending receipt of evidence that the contract for the aircraft has been terminated.*

Need to ensure special flight requests are submitted for review and approval in a timely manner

18. UNMISS Aviation Standard Operating Procedures (SOP) require Special Flight Requests (SFRs) to be submitted at least 72 hours prior to the planned departure date to enable Mission Management to properly assess the request for cost-effectiveness of the use of air assets, undertake the necessary risk assessments, and obtain flight security assurance clearances.

19. A review of 113 (93 statistically selected and 20 high cost) SFRs costing \$14 million out of 2,875 SFRs costing \$38 million showed that UNMISS utilized SFRs to support mandate implementation through activities such as cargo flights, dynamic air patrol and reconnaissance, civil affairs activities, human rights monitoring and assistance, medical evacuations, and transportation of VIPs. However, 34 SFRs, including 15 for cargo flights, costing \$9 million were submitted less than 72 hours before the planned departure of the flights without explanation of exceptional circumstances to justify deviation from the standard procedure, and 8 SFRs were approved only after the flights took place. For example, SFR number MLK2018-0720 costing \$278,535 for flights from 1 to 30 November 2018 was processed and approved on 20 November 2018, while SFR number JUB2017-7496 costing \$73,595 for flights from 3 May to 3 June 2017 was approved ex-post facto on 9 June 2017.

20. The above resulted because UNMISS lacked effective monitoring controls on timely submission and approval of SFRs. Consequently, the required risk assessments and cost-effective analyses of the use of air assets may not have been thoroughly done.

**(2) UNMISS should implement monitoring controls to ensure special flight requests are submitted for review and approval in a timely manner and that exceptions are properly justified.**

*UNMISS accepted recommendation 2 and stated that the Movement Control Section had a monitoring and tracking system that captured all SFRs, including late requests. However, to enhance the monitoring and tracking system, the Movement Control Section would henceforth include more details on late SFRs, the reason for late submission, and confirmation of Director of Mission Support approval. Recommendation 2 remains open pending receipt of evidence that late SFRs are systematically justified and approved by the Director of Mission Support.*

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

21. UNMISS provides air transport services to United Nations agencies, funds and programmes, contractors, and other peacekeeping missions in the region, and air carriers use its fuel for non-mission flights on a cost recovery basis. The Mission needs to timely recover the costs for services provided to all third parties.

22. As at 30 April 2019, UNMISS had not recovered \$316,139 out of \$2.2 million worth of air transport services and aviation fuel provided to third parties. The amount had been outstanding for an average of 179 days from the date the services were provided.

23. The delays in cost recovery occurred because the Aviation Section did not actively follow up with air carriers to obtain supporting documents for all costs attributable to services rendered and with other peacekeeping missions to certify service orders and invoices for payment. Also, UNMISS did not bill air carriers for fuel uplifted in a timely manner for non-mission flights because the Aviation Section and the Fuel Unit were not working collaboratively to obtain prevailing fuel prices for all locations from the fuel contractor. As a result, air carriers whose contracts had already ended owed UNMISS \$7,475 for fuel at the time of the audit. Hence, there was an increased risk of financial loss through non-cost recovery for the services provided.

**(3) UNMISS should: (a) recover the outstanding costs for air transport services provided to third parties; and (b) implement a mechanism for timely follow-up on receivables and track cost recovery efforts for air transport services provided to third parties.**

*UNMISS accepted recommendation 3 and stated that cost recoveries were being actioned as per Aviation SOPs and the outstanding balance identified during the audit had been recovered. Furthermore, a tracking tool would be established by 30 November 2019. Recommendation 3 remains open pending receipt of evidence of recovery of the outstanding costs for air transport services provided to third parties and implementation of a cost recovery tracking tool.*

## **B. Air operations procedures**

Need to comply with all flight operations procedures to ensure safe air operations

24. To ensure safe air operations, UNMISS Aviation SOP requires UNMISS to: review and approve daily flight schedules; conduct a flight risk assessment; obtain flight safety assurances; and ensure the pilots-in-command systematically complete the ARM checklists and after-mission reports. UNMISS also needs to securely store the air operations documents for management monitoring and audit purposes.

25. A review of a statistical sample of 93 of the 30,706 flights undertaken during the audit period showed that there were lapses in enforcing flight operations procedures and archiving supporting documents. For example: (a) 16 flights were not on the approved daily flight schedule because the SFRs were submitted late. The 16 flights were reflected on an amended daily flight schedule that was not vetted and approved by the designated officials; and (b) 24 ARM checklists prepared by the pilot-in-command, 20 after mission reports, and 13 flight safety assurances from the South Sudanese Army or the South Sudanese Army in opposition were not availed to OIOS for review because they were either not prepared or not stored safely.

26. The above occurred because the Aviation Section did not adequately monitor and enforce compliance with air operations procedures and implement an effective document archiving system. As a result, aviation risks may not have been adequately assessed and mitigated to ensure safe air operations.

**(4) UNMISS should implement measures to ensure that all the required air operations procedures are adhered to and supporting documents are securely archived.**

*UNMISS accepted recommendation 4 and stated that the documents requested by OIOS were available and a file structure for storing documents and emails for each aviation unit would be developed by 30 November 2019. In addition, the Aviation Section would introduce a new procedure whereby CAVO or the Officer-in-Charge would sign the final and actual flight schedules. Recommendation 4 remains open pending confirmation that a filing system for all air operations documents has been implemented, and evidence that final and actual flight schedules are systematically signed by CAVO or a designate.*

Tracking of airborne aircraft was adequate

27. UNMISS Aviation SOP requires the Aviation Section to have a functioning system for tracking airborne aircraft at all times. In this regard, UNMISS installed satellite tracking devices in all aircraft to enable visual tracking during flights. UNMISS also 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.

28. Review of satellite tracking reports for a statistical sample of 90 of 2,657 flights for the period from November 2018 to April 2019 indicated that the aircraft sent normal position reports every three minutes as required. However, a review of the flight following radio log sheets for the same period showed that 1,541 of the 2,657 flights (58 per cent) did not have a complete tracking log. The flight radio log sheets only had take-off and landing times, but otherwise they were left blank or indicated “mobile communication” or “no radio communication”.

29. UNMISS stated that the recording of flight radio log was enforced when the satellite tracking system was unavailable. From the sampled flights, OIOS noted that satellite tracking system was functioning well, and flights were systematically tracked. OIOS, therefore, did not raise a recommendation.

### **C. Management of aviation contracts and letters of assist**

Inspections and performance evaluations related to contracted services were systematically conducted

30. To ensure contracted air operators are delivering contracted services, the Aviation Manual requires UNMISS to prepare: aircraft arrival inspection reports; performance evaluation reports of air operators quarterly for commercial air carriers and every six months for aircraft under letters of assist; and carriers’



assessment reports for short-term aircraft charters. Completed inspection and evaluation reports are required to be submitted to the Air Transport Section in New York electronically for monitoring purposes. UNMISS also needs to prepare and submit confidential end-of-contract evaluation reports to the Procurement Division at United Nations Headquarters.

31. OIOS review showed that UNMISS verified the qualifications and experience of aircrew and maintained a database of copies of valid air operator certificates, insurance policies and aircraft certifications such as registration, airworthiness, and noise and radio licenses, as required by the Aviation Manual and the contracts with air operators. UNMISS also prepared and submitted the confidential end-of-contract evaluation reports systematically to the Procurement Division.

32. OIOS did not note any significant deviations from contracted services in the services provided by air carriers. However, a review and analysis of inspection and performance evaluation reports in the Aviation Inspections and Recommendations Database and the Aviation Contracts Database showed that ASU and the Technical Compliance Unit were unable to sign off on all reports because of technical challenges with the database, which included access restrictions. A new Aviation Safety Programme Integrated Data System was in the process of being launched to replace the Aviation Inspections and Recommendations Database. In view of this, OIOS did not make a recommendation.

## **D. Implementation of the Mission aviation safety programmes**

### Need to reassess the staffing requirements of the Aviation Safety Unit

33. To provide adequate oversight over aviation operations, the Aviation Safety Manual requires ASU to be independent of the Aviation Section and have direct access to the executive decision-making levels. Based on the 28 aircraft and 10 operating bases in UNMISS, and in line with the Aviation Safety Manual, the Unit is required to have a minimum of six staff comprising five professional staff and one field service or national staff.

34. CASO reported to the Director of Mission Support and had a direct line of communication with the Office of the Chief of Supply Chain Management at United Nations Headquarters. OIOS therefore concluded that ASU met the independence requirements. However, the Unit was understaffed as it only had three of the required five professional staff with aviation safety expertise. The understaffing was compounded when staff members of the Unit took extended leave in 2018 and 2019 for various reasons. To alleviate the staff shortage, a military staff officer was assigned to the Unit, but the incumbent rotated every six months which did not give the Unit the required consistency and continuity.

35. The above occurred because UNMISS had not made adequate budgetary provisions to meet the minimum staffing requirements for the Unit. As a result, the Unit had reduced capacity to implement the required aviation safety measures, thereby compromising the safety of aviation operations. The Unit was also constrained given the wide geographical coverage of aviation operations. As such, OIOS noted that ASU did not implement all the planned activities in the annual aviation safety programme. For instance, ASU did not:

- Process and complete 22 of 367 reported occurrences and 6 of 34 hazards in a timely manner. The cases had been open for an average of 212 days and 233 days respectively at the time of the audit;
- Conduct 46 of the planned 67 airfield risk assessments/surveys (representing 69 per cent shortfall);

- Ensure full implementation of two of the six recommendations raised in an aviation safety assessment report by the Aviation Safety Section at United Nations Headquarters dated 30 June 2017. These recommendations called for UNMISS to review and update its Aviation SOP and for staff involved in ARM processes to complete the online training on ARM; and
- Prepare and submit comprehensive quarterly aviation risk assessment indicators to the Aviation Safety Section that would capture all aviation risks UNMISS was exposed to. Only six risks, mostly covering physical risks, were reported, and they did not include technical and other risks attributed to the reported aviation occurrences and hazards and risks that had been identified from airfield inspections.

**(5) UNMISS should reassess the staffing requirements of the Aviation Safety Unit and make appropriate budgetary provisions to meet the prescribed minimum staffing requirements to ensure effective implementation of the Mission aviation safety programmes.**

*UNMISS accepted recommendation 5 and stated that a business case for two international P-2 Associate Aviation Safety Officers would be submitted for consideration by Member States in the 2020/21 budget submission. Recommendation 5 remains open pending receipt of evidence that UNMISS has submitted proposals for additional two posts in its budget submission.*

Need to ensure staff complete the aviation safety training requirements

36. For effective aviation safety management, UNMISS needs to provide funds to enable 50 per cent of aviation staff and all staff involved in the ARM process to attend (internal and external) training courses annually. In particular, following an accident that resulted in staff injury at Juba airport on 5 September 2018, ASU had recommended initial and recurring aviation risk training for all staff involved in aviation related duties.

37. Of the four ASU staff, three staff had completed an online Aviation Safety Reporting System course, three staff had attended the 2018 Global Aviation Safety workshop in Brindisi, one staff had attended an Airport Security Management course, one staff had attended an Aircraft Dispatch course, and CASO had attended induction training in New York. OIOS concluded that ASU staff met the training requirements.

38. However, a review of the training records for the 104 staff directly involved in aviation operations showed that only 65 (63 per cent) had completed the mandatory ARM course developed by DFS that was available to peacekeeping missions on request. This was due to inadequate monitoring of the completion of training courses by the UNMISS Aviation Section. This exposed the Mission to the risk of ineffective aviation safety management if staff are not sufficiently aware of the ARM principles and procedures, an area already raised by the Aviation Safety Section in 2017.

**(6) UNMISS should request the Department of Operational Support to deliver another Aviation Risk Management course session and implement a monitoring mechanism to ensure that all staff involved in aviation operations complete the course.**

*UNMISS accepted recommendation 6 and stated that staff from the Aviation and Movement Control Sections had undertaken the Aviation Risk Management course between 17 July to 3 September 2019. Another course had been requested at the end of September 2019. Based on the action taken by UNMISS, recommendation 6 has been closed.*

### Need to address issues identified by the Mission Aviation Safety Council

39. In accordance with the Aviation Safety Manual, a Mission Aviation Safety Council (MASC) is required to be established and convene at least quarterly to discuss risk mitigation strategies related to aviation operations and make safety recommendations to keep identified and potential occurrences and hazards at acceptable levels in UNMISS.

40. UNMISS had established a MASC with appropriate terms of reference. A review of its meeting agendas and minutes showed that the MASC convened eight times during the audit period and discussed risk mitigation strategies for reported aviation safety occurrences and hazards and other topical aviation safety matters. The Director of Mission Support chaired all MASC meetings and the permanent MASC members also attended the meetings. However, most of the action plans raised by MASC to address issues it had identified in relation to the Air Terminal Unit had not been implemented and had been open for more than two years at the time of the audit. There were also no set timelines for issues to be addressed. The actions to be taken included the need for: construction of shelter for firefighting trucks; repair of damaged runways and ramp; replacement of an unserviceable aviation fire truck; securing of parking space for aircraft; installation of water reservoirs for firetrucks near the airports; and repair of damaged airport fences to stop runway incursion at airports.

41. The above occurred because the Mission had not reassessed outstanding aviation safety related projects to identify priority ones among those proposed by the MASC and had not allocated resources to implement them. Consequently, the risk of aviation accidents and incidences was not adequately managed. For instance, the lack of water reservoirs near the airports, especially in Malakal, could result in failure to effectively respond to an aviation fire accident.

**(7) UNMISS should reassess the outstanding aviation safety related projects and, subject to availability of funds, allocate resources to implement those projects that are identified by senior management as priority.**

*UNMISS accepted recommendation 7 and stated that the Mission priority projects for 2020/21 had been approved by senior management. For non-priority projects related to aviation and aviation safety engineering tasks, the Air Terminal Unit would produce a table of ongoing works along with target completion dates as an annex to MASC minutes. Recommendation 7 remains open pending receipt of evidence that MASC systematically monitors the implementation of the aviation safety related projects.*

### Need to strengthen aviation emergency response preparedness

42. The Aviation Safety Manual required UNMISS to develop aerodrome aviation emergency response plans and conduct regular exercises to test the validity of the plans, identify areas of concern related to emergency responses, and ensure adequate preparation of all concerned personnel to promptly respond to emergencies. In cases where live emergency response exercises are not possible, desk-top exercises should be conducted.

43. UNMISS had developed a Mission aviation emergency response plan and an aerodrome aviation emergency response plan for the Juba aircraft base. However, such plans did not exist for the other nine aircraft bases. The Mission also conducted only two emergency response exercises, in addition to a communication system test, at the Juba airport in 2018. No emergency response exercises were undertaken at the other aircraft bases. ASU stated that there were no emergency response live exercises in 2017 because the local authorities did not grant permission to UNMISS to use the airfields for exercises. UNMISS had nonetheless also not conducted any desk-top emergency response exercises as a substitute. OIOS review of

the after-action reports of the emergency response exercises in Juba also showed that weaknesses highlighted in the first drill, such as not involving all relevant sections/units in the exercise, were not addressed during the second drill.

44. The above occurred because the Aviation Section had not prioritized the preparation and regular testing of aviation emergency plans for all its aircraft bases and had not addressed weaknesses identified during past exercises. As a result, there was an unmitigated risk that the Mission might not be prepared to adequately respond to aviation emergencies. UNMISS had a major aircraft accident in March 2019, but the accident investigation report had not been finalised at the time of the audit to assess if there were matters that could have been better managed to improve emergency response preparedness.

**(8) UNMISS should develop and regularly test the aerodrome aviation emergency response plans for all locations and ensure that lessons learnt from previous emergency response exercises are addressed.**

*UNMISS accepted recommendation 8 and stated that the Air Terminal Unit would collate all aerodrome response plans into a central repository and Field Administrative Officers would be briefed on the need to conduct an annual test of their respective plans in conjunction with the Air Terminal Unit and ASU. Recommendation 8 remains open pending receipt of evidence that aerodrome aviation emergency response plans have been developed for all field locations and tested through regular exercises.*

## V. ACKNOWLEDGEMENT

45. OIOS wishes to express its appreciation to the management and staff of UNMISS for the assistance and cooperation extended to the auditors during this assignment.

(Signed) Eleanor T. Burns  
Director, Internal Audit Division  
Office of Internal Oversight Services

## STATUS OF AUDIT RECOMMENDATIONS

## Audit of aviation operations and safety in the United Nations Mission in the Republic of South Sudan

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	UNMISS should review the cost-effectiveness of the under-utilized aircraft and explore the feasibility of meeting the current requirements by utilizing the Mission's regular flights, commercial airlines or special flights using other smaller air assets in the Mission.	Important	O	Receipt of evidence that the contract for the HS-125 aircraft has been terminated.	31 December 2019
2	UNMISS should implement monitoring controls to ensure special flight requests are submitted for review and approval in a timely manner and that exceptions are properly justified.	Important	O	Receipt of evidence that late SFRs are systematically justified and approved by the Director of Mission Support.	30 November 2019
3	Type recommendation text here. UNMISS should: (a) recover the outstanding costs for air transport services provided to third parties; and (b) implement a mechanism for timely follow-up on receivables and track cost recovery efforts for air transport services provided to third parties.	Important	O	Receipt of evidence of recovery of the outstanding costs for air transport services provided to third parties and implementation of a cost recovery tracking tool.	30 November 2019
4	UNMISS should implement measures to ensure that all the required air operations procedures are adhered to and supporting documents are securely archived.	Important	O	Receipt of confirmation that a filing system for all air operations documents has been implemented, and evidence that final and actual flight schedules are systematically signed by CAVO or a designate.	30 November 2019
5	UNMISS should reassess the staffing requirements of the Aviation Safety Unit and make appropriate budgetary provisions to meet the prescribed minimum staffing requirements to ensure effective implementation of the Mission aviation safety programmes.	Important	O	Receipt of evidence that UNMISS has submitted proposals for additional two posts in its budget submission.	30 June 2020

<sup>1</sup> Critical recommendations address critical and/or pervasive deficiencies in governance, risk management or control processes, such that reasonable assurance cannot be provided with regard to the achievement of control and/or business objectives under review.

<sup>2</sup> Important recommendations address important (but not critical or pervasive) deficiencies in governance, risk management or control processes, such that reasonable assurance may be at risk regarding the achievement of control and/or business objectives under review.

<sup>3</sup> C = closed, O = open

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

## STATUS OF AUDIT RECOMMENDATIONS

## Audit of aviation operations and safety in the United Nations Mission in the Republic of South Sudan

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>
6	UNMISS should request the Department of Operational Support to deliver another Aviation Risk Management course session and implement a monitoring mechanism to ensure that all staff involved in aviation operations complete the course.	Important	C	Not applicable	Implemented
7	UNMISS should reassess the outstanding aviation safety related projects and, subject to availability of funds, allocate resources to implement those projects that are identified by senior management as priority.	Important	O	Receipt of evidence that MASC systematically monitors the implementation of the aviation safety related projects.	30 November 2019
8	UNMISS should develop and regularly test the aerodrome aviation emergency response plans for all locations and ensure that lessons learnt from previous emergency response exercises are addressed.	Important	O	Receipt of evidence that aerodrome aviation emergency response plans have been developed for all field locations and tested through regular exercises.	31 January 2020

# **APPENDIX I**

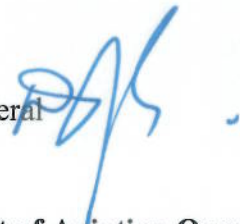
## **Management Response**

To: Mr. Daeyoung Park  
Chief, Peacekeeping Audit Service  
Internal Audit Division, OIOS

DATE: 16 October 19

REF: OIOS-2019-AP633/20

FROM: David Shearer  
Special Representative of the Secretary-General



SUBJECT: **Response to the Draft Report on the Audit of Aviation Operations and Safety in  
in the United Nations Mission in the Republic of South (Assignment  
AP2019/633/07)**

1. UNMISS acknowledges receipt of the draft report on the audit results reference OIOS-2019-AP633/20, dated 26 September 2019 on Aviation Operations and Safety in the United Nations Mission in the Republic of South Sudan (Assignment No. AP2019/633/07).
2. Please find attached UNMISS comments on the recommendations of the detail audit report provided in the attached at Appendix 1.
3. Thank you for your consideration and support.

cc: Ms. Victoria Browning, Director of Mission Support  
Mr. Matthew Carlton, Chief, Supply Chain Management Service  
Mr. Samuel Abrokwa, Chief Aviation Officer  
Mr. Keith Hughes, Chief Aviation Safety  
Mr. Joel Beasca, Audit Focal Point  
Mr. James Suglo, Chief Resident Auditor, Internal Audit Division/OIOS  
Ms. Cynthia Avena-Castillo, Professional Practices Section, IAD/OIOS



## Management Response

## Audit of aviation operations and safety in the United Nations Mission in the Republic of South Sudan

	Recommendation	Critical <sup>1</sup> / Important <sup>2</sup>	Accepted? (Yes/No)	Title of responsible individual	Implementation date	Client comments
1	UNMISS should review the cost-effectiveness of the under-utilized aircraft and explore the feasibility of meeting the current requirements by utilizing the Mission's regular flights, commercial airlines or special flights using other smaller air assets in the Mission.	Important	Yes	CAVO	31 Dec 19	The recommendation refers to the HS125 based in Entebbe. The mission has already agreed that the contract for this aircraft will be terminated on 31 Dec 19.
2	UNMISS should implement monitoring controls to ensure special flight requests are submitted for review and approval in a timely manner and that exceptions are properly justified.	Important	Yes	CMovCon	30 Nov19	The responsibility for processing of special flight requests lies with Movement Control Section, not Aviation Section. Movement Control Section already have a monitoring and tracking system that captures all special flight requests, including late special flight requests. However, to enhance the monitoring and tracking system, Movement Control Section will include more detail on late special flight requests, the reason for the late submission, and confirmation of Director of Mission Support approval.
3	UNMISS should: (a) recover the outstanding costs for air transport services provided to third parties; and (b) implement a mechanism for timely follow-up on receivables and track cost recovery efforts for air transport services provided to third parties.	Important	Yes	CAVO	30 Nov 19	(a) Outstanding cost recoveries are being actioned as per Aviation Section standard operating procedures. Of the \$316,139 identified in the audit, all has been recovered. (b) A tracking system will be established

<sup>1</sup> Critical recommendations address critical and/or pervasive deficiencies in governance, risk management or control processes, such that reasonable assurance cannot be provided with regard to the achievement of control and/or business objectives under review.

<sup>2</sup> Important recommendations address important (but not critical or pervasive) deficiencies in governance, risk management or control processes, such that reasonable assurance may be at risk regarding the achievement of control and/or business objectives under review.

## Management Response

## Audit of aviation operations and safety in the United Nations Mission in the Republic of South Sudan

	Recommendation	Critical <sup>1</sup> / Important <sup>2</sup>	Accepted? (Yes/No)	Title of responsible individual	Implementation date	Client comments
						by 30 Nov 19.
4	UNMISS should implement measures to ensure that all the required air operations procedures are adhered to and supporting documents are securely archived.	Important	Yes	CAVO	30 Nov 19	At the time of the Exit Conference, all documents requested by the auditors were presented. However, by 30 Nov 19, evidence shall be presented of a file structure, within the shared drive, for each aviation unit, where documents and emails will be stored. The recommendation regarding air operations procedures highlighted the auditors misunderstanding of the procedures. This was raised before and during the Exit Conference. However, to satisfy the requirements of the audit recommendation, Aviation Section will introduce a new procedure whereby the Chief Aviation Officer or Officer-in-Charge will sign the Final and Actual Flight Schedules. Once signed, the execution of the flight schedule, and any amendments therein, remains the responsibility of the Current Operations Officer.
5	UNMISS should reassess the staffing requirements of the Aviation Safety Unit and make appropriate budgetary provisions to meet the prescribed minimum staffing requirements to ensure effective implementation of the Mission aviation safety programmes.	Important	Yes	CASO	June 2020	A business case for two (2) International P2 Associate Aviation Safety Officers will be submitted for consideration by member states in the 2020/21 Budget Submission.
6	UNMISS should request the Department of Operational Support to deliver another Aviation Risk Management course session	Important	Yes	CASO	Ongoing requirement. Latest course	The recommendation was implemented. A Department of Operational Support Aviation Risk Management course was

## Management Response

## Audit of aviation operations and safety in the United Nations Mission in the Republic of South Sudan

	Recommendation	Critical <sup>1</sup> / Important <sup>2</sup>	Accepted? (Yes/No)	Title of responsible individual	Implementation date	Client comments
	and implement a monitoring mechanism to ensure that all staff involved in aviation operations complete the course.				implemented 17 Jul – 3 Sep 19	requested from United Nations Global Service Centre- Regional Aviation Safety Office-Training on 17 July 2019. Staff from Aviation and Movement Control Sections undertook the course over the period 17 July - 3 September 2019. Enrollment on this course is an ongoing task for existing and new staff members across Aviation, Aviation Safety and Movement Control Sections.  As evidence of the on-going training requirement, another course will be requested in October 2019. The trawl for candidates was sent out on Fri 27 Sep 19.
7	UNMISS should reassess the outstanding aviation safety related projects and, subject to availability of funds, allocate resources to implement those projects that are identified by senior management as priority.	Important	Yes	CAVO	30 Nov 19	The Mission Priority Projects for 20/21 have been approved by senior management. For non-Mission Priority Project related aviation/aviation safety engineering tasks, Air Terminal Unit will produce a table of ongoing works with target completion dates. These will form an Annex to the Aviation Safety Council minutes.
8	UNMISS should develop and regularly test the aerodrome aviation emergency response plans for all locations and ensure that lessons learnt from previous emergency response exercises are addressed.	Important	Yes	CAVO	31 Jan 20 for collation and review of ARPs.  Ongoing requirement for exercising of ARPs	Air Terminal Unit will collate all aerodrome response plans into a central repository. Field Administrative Officers will be briefed on the need to conduct an annual test of their respective aerodrome response plans in conjunction with Aviation Air Terminal Unit and Aviation Safety.