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INTEROFFICE MEMORANDUM

MEMORANDUM INTERIEUR

OFFICE OF INTERNAL OVERSIGHT SERVICES · BUREAU DES SERVICES DE CONTRÔLE INTERNE
INTERNAL AUDIT DIVISION · DIVISION DE L'AUDIT INTERNE

TO: Mr. Mariano Fernandez
A: Special Representative of the Secretary-General
United Nations Stabilization Mission in Haiti

DATE: 25 August 2011

REFERENCE: IAD: 11- 00532

FROM: Fatoumata Ndiaye, Director
DE: Internal Audit Division, OIOS

Fatoumata

SUBJECT: **Assignment No. AP2011/683/09 – Follow-up audit of aviation safety in MINUSTAH**

OBJET:

Overall results relating to effective implementation and management of aviation safety programme in MINUSTAH were partially satisfactory

1. Attached please find the report on the above-mentioned audit.
2. In order for us to close the recommendations, we request that you provide the additional information as discussed in the text of the report and summarized in Annex 1.
3. We wish to express our appreciation to the Management and staff of MINUSTAH for the assistance and cooperation extended to the auditors during this assignment.

cc: Mr. Kevin Kennedy, Principal Deputy Special Representative, MINUSTAH
Mr. Sunny Makoge, Officer-in-Charge of Mission Support, MINUSTAH
Mr. Francisco Rouillon, Chief of Integrated Support Services, MINUSTAH
Mr. Hiran Ferrera, Chief Aviation Officer, MINUSTAH
Mr. Marco Lopez Mazariegos, Chief Aviation Safety Officer, MINUSTAH
Mr. Swatantra Goolsarran, Executive Secretary, UN Board of Auditors
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Mr. Seth Adza, Chief, Audit Response Team, DFS
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FINAL AUDIT REPORT

Follow-up audit of aviation safety in MINUSTAH

BACKGROUND

Management of aviation safety programmes in field missions involves the identification of aviation hazards, evaluation of associated risks and implementation of appropriate risk mitigation measures. The Aviation Safety Unit (ASU) in the United Nations Stabilization Mission in Haiti (MINUSTAH) is responsible for the development and implementation of the aviation safety programme in line with policies established by the Departments of Peacekeeping Operations (DPKO) and Field Support (DFS). The ASU is part of the Office of the Chief of Mission Support and the Head of Unit also has a reporting line to the Aviation Safety Section of the Logistics Support Division of DFS on technical matters. The Aviation Safety Section is responsible to provide technical support and regular oversight of the aviation safety programme in the Mission.

As at 30 April 2011, MINUSTAH maintained and operated two fixed-wing and nine rotary-wing aircraft. The ASU had two authorized posts.

OBJECTIVE AND SCOPE

The audit was conducted to follow up on the implementation of the Office of Internal Oversight Services' (OIOS) previous recommendations and to assess the adequacy and effectiveness of MINUSTAH's risk management, control and governance processes in providing reasonable assurance regarding the effective implementation and management of its aviation safety programme. The key control tested for the audit included that related to risk management and strategic planning. The audit covered MINUSTAH's activities related to this key control for the period 1 January 2010 to 30 April 2011.

AUDIT RESULTS

In OIOS' opinion, MINUSTAH's risk management, control and governance processes examined were **partially satisfactory** to provide reasonable assurance regarding the effective implementation and management of its air safety programme. MINUSTAH had not fully implemented the DPKO/DFS Operational Risk Management policy. Its revised Aviation Emergency Response Plan was pending finalization and exercises/drills of the Plan had not been conducted to test its validity and adequacy.

Mission Aviation Safety Council

MINUSTAH had a functioning Mission Aviation Safety Council (MASC) to discuss aviation safety related issues and ensure agreement for timely action on aviation safety issues. The MASC held six meetings between 1 January 2010 and 30 April 2011, and minutes of the meetings reflected discussions on aviation safety issues and included action points for implementation of the MASC's decisions on aviation safety. The MASC followed up on the implementation status of action points from previous meetings and all minutes were approved by the Chief of Mission Support.

DFS' Aviation Safety Assistance Visits

DFS conducted one Aviation Safety Assistant Visit to the Mission in March 2009. Out of 13 recommendations made, six had been fully implemented and seven were partially implemented. A further

Aviation Safety Assistant Visit was conducted in July 2011 and the report is pending from DFS. MINUSTAH informed OIOS that they would take the requisite steps to ensure recommendations made by DFS are implemented.

Aviation Operational Risk Management framework

The aviation Operational Risk Management policy had not been fully implemented in MINUSTAH mainly because senior management and field managers had not dedicated the required time and resources to ensure implementation in accordance with the Aviation Safety Manual. With a new Chief Aviation Officer in place since January 2011, a road map with milestones has since been developed for the implementation of its Operational Risk Management by October 2011.

(1) MINUSTAH should formally establish the Operational Risk Management Implementation Task Group and ensure the implementation of Operational Risk Management in the Mission.

MINUSTAH accepted recommendation 1 and stated that the Mission has formally established an Operational Risk Management Implementation Task Group and it is expected that the Task Group will finalize its work by 31 October 2011. Recommendation 1 remains open pending the receipt of documentation evidencing the implementation of Operational Risk Management in the Mission.

Aviation Emergency Response Plan

The Mission is required to conduct a full drill once a year to test the validity of its Aviation Emergency Response Plan and identify areas for improvement. However, a full emergency response drill had not been conducted in the Mission since May 2008. MINUSTAH had a draft Plan in place since October 2010 which was pending finalization after completion of an assessment of the Mission's Emergency Crash and Rescue services by a consultant from the International Civil Aviation Organization, which was being conducted at the time of the audit.

(2) MINUSTAH should ensure that the Aviation Emergency Response Plan (AERP) is finalized and organize full AERP drills annually to test the effectiveness of the Mission's Emergency Response Plan.

MINUSTAH accepted recommendation 2 and stated that an Aviation Emergency Response Plan exercise will be conducted after the establishment of an Emergency Crash and Rescue Unit in the Mission. Recommendation 2 remains open pending receipt of the updated Plan and an after-action report confirming that a full drill was conducted.

ACKNOWLEDGEMENT

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

CONTENTS

	<i>Pages</i>
I. INTRODUCTION	1
II. AUDIT OBJECTIVE	1
III. AUDIT SCOPE AND METHODOLOGY	1
IV. OVERALL ASSESSMENT	1
V. AUDIT RESULTS	
A. Risk management and strategic planning	2-4
ANNEX I	Status of recommendations
ANNEX II	Management response

I. INTRODUCTION

1. The Office of Internal Oversight Services (OIOS) conducted an audit of aviation safety in the United Nations Stabilization Mission in Haiti (MINUSTAH).

II. AUDIT OBJECTIVE

2. The audit was conducted to assess the adequacy and effectiveness of MINUSTAH's risk management, control and governance processes in providing reasonable assurance regarding the effective implementation and management of its aviation safety programme. The key controls tested for the audit included those related to risk management and strategic planning. For the purpose of this audit, OIOS defined risk management and strategic planning as the control designed to provide reasonable assurance that risks relating to UNAMA aviation safety programme are identified and assessed, and that action is taken to mitigate identified risks.

III. AUDIT SCOPE AND METHODOLOGY

3. OIOS conducted this audit in May 2011 in accordance with the International Standards for the Professional Practice of Internal Auditing promulgated by The Institute of Internal Auditors. The audit covered MINUSTAH's aviation safety activities related to the key control for the period from 1 January 2010 until 30 April 2011. The audit did not cover planning and organization of aviation operations and aviation safety briefings and trainings. In addition, field visits were not conducted to verify/observe maintenance and rehabilitation of airports and airfields. Also, as the audit of aviation safety (audit of aviation safety operations in MINUSTAH) was previously conducted by OIOS in 2009 (AP2009/683/02), the audit was limited to a follow-up on the implementation of previous recommendations and the conduct of additional audit tests as appropriate.

4. To gain a general understanding of the processes of MINUSTAH's risk management and strategic planning over its aviation safety programme, OIOS interviewed the Chief Aviation Safety Officer, the Chief Aviation Officer and the Aviation Safety Assistant. OIOS reviewed the draft Departments of Peacekeeping Operations (DPKO) and Field Support (DFS) Aviation Safety Manual (ASM), and the policy directive on aviation Operational Risk Management (ORM) and other documentation including aviation safety risk assessment indicators, minutes of the Mission Aviation Safety Council (MASC) meetings, the Mission's Aviation Emergency Response Plan (AERP) and reports of Aviation Safety Assistance Visits (ASAV) made by DFS. The audit team conducted an activity-level risk assessment to identify and evaluate specific risk exposures, and to determine whether controls existed to mitigate such risks.

5. Through interviews, analytical reviews and tests of controls, OIOS assessed the existence and adequacy of written policies and procedures, and whether they were implemented consistently.

IV. OVERALL ASSESSMENT

6. In OIOS' opinion, MINUSTAH's risk management, control and governance processes examined were **partially satisfactory** to provide reasonable assurance regarding the effective implementation and management of its air safety programme. MINUSTAH had not fully implemented the DPKO/DFS ORM policy. Its revised AERP was pending finalization and exercises/drills of the AERP had not been conducted to test its validity and adequacy.

V. AUDIT RESULTS

A. Risk management and strategic planning

The Mission Aviation Safety Council was functioning as intended

7. The MASC is a forum for discussing aviation safety related issues, and is a vital part of the Mission's aviation safety programme.

8. As required by the ASM, the Mission had a functioning MASC to discuss aviation safety related issues and ensure agreement for timely action on aviation safety issues. The MASC held six meetings between 1 January 2010 and 30 April 2011, and minutes of the meetings reflected discussions on aviation safety issues and included action points for implementation of the MASC's decisions on aviation safety. The MASC followed up on the implementation status of action points from previous meetings and all minutes were approved by the Chief of Mission Support.

An Aviation Safety Assistance Visit was required to assess current aviation safety management

9. The ASAV is an oversight mechanism used by DFS over aviation safety programmes in field missions. It provides a detailed assessment of factors influencing aviation safety management in missions and forms the basis for recommendations and risk mitigation measures aimed at enhancing the level of safety in air operations.

10. During the audit period, DFS conducted one ASAV to the Mission in March 2009. Out of 13 recommendations made, six had been fully implemented and seven were partially implemented as of the date of the audit. **OIOS suggested that another ASAV is needed in MINUSTAH to provide an up-to-date assessment of factors influencing aviation safety in the Mission.** *MINUSTAH stated that DFS conducted an ASAV to the Mission from 4 to 8 July 2011. Once the Mission receives the findings/recommendations of the visit, the necessary steps will be taken to ensure that all requisite standards are met.*

Quarterly aviation risk assessments were conducted in a timely manner

11. According to the ASM, the Mission should conduct quarterly risk assessments of aviation hazards and related risks and identify measures for mitigating these risks. The results of these assessments should be reflected in the Mission Risk Assessment Indicators and submitted to the Aviation Safety Section of DFS.

12. MINUSTAH had established a risk management framework in accordance with the ASM. Quarterly aviation risk assessments were conducted and risk assessment reports including safety indicators were prepared and submitted to the Aviation Safety Section. At the time of the audit, some risk mitigation measures resulting from the risk assessments were being implemented. For instance, procurement action was on-going to identify a suitable vendor to provide meteorological services to the Mission. On the other hand, OIOS' review of MINUSTAH safety indicators showed that passengers and baggage were not subjected to security screening prior to boarding United Nations aircraft in nine out of the ten regions mainly due to lack of human resources and to malfunctioning X-ray machines and metal detectors. As a result, there was an unmitigated risk that dangerous goods may be allowed into United Nations aircraft. The Aviation Safety Unit (ASU) informed OIOS that although X-ray machines are

available in Cap Haitien, there is a need for enhancement of security installations for the machines to operate optimally. This issue was discussed at the MASC meeting held on 3 May 2011. The Chief of Supply Section has been tasked to study the possibility of acquiring additional X-ray machines for the regions.

13. **Pending the acquisition of X-ray machines, regional security officers could provide security screening at regional air terminals. Additional training to these security officers will be necessary.** *MINUSTAH stated that the Mission is procuring X-ray equipment and will, in due course, train Security Section personnel to operate the equipment and screen all passengers and luggage prior to boarding United Nations flights from the regions.*

Aviation Operational Risk Management needs to be fully implemented

14. The draft ASM provides the risk management framework for aviation safety operations and includes accident prevention methodology, assessment of the types of hazards, related risks and risk mitigating measures. The implementation of the aviation ORM policy is an integral part of the aviation risk management framework and entails a decision-making process to address risks associated with aviation operations.

15. The ORM had not been fully implemented in MINUSTAH mainly because Senior Management and field managers had not dedicated the required time and resources to ensure implementation in accordance with the ASM. With a new Chief Aviation Officer in place since January 2011, a road map with milestones has since been developed for the implementation of ORM by October 2011.

16. The ORM policy requires the establishment of an ORM Implementation Task Group (ORM ITG) consisting of personnel from Aviation, Movement Control, Aviation Safety, Security, Police and Military components. The ORM ITG is to facilitate the implementation of ORM in the Mission to ensure that the ORM is a fully integrated and a continuous process. However, the ORM ITG had not been formally established in the Mission. As a result, key decision-makers were not always informed of their roles and responsibilities in the implementation of ORM. The Chief Aviation Officer who is responsible for supervising the aviation ORM process convened an ORM working session during the audit period. Only four participants were present out of 33 invitees. The session was subsequently canceled and rescheduled.

17. Senior Management involvement is necessary to successfully implement the ORM policy in the Mission. According to the ORM policy, the Head of Mission is responsible and accountable to the Under-Secretary-General, DPKO for the implementation of ORM in the Mission.

Recommendation 1

(1) MINUSTAH should formally establish the Operational Risk Management (ORM) Implementation Task Group and ensure the implementation of ORM in the Mission.

18. *MINUSTAH accepted recommendation 1 and stated that the Mission has formally established an ORM Implementation Task Group and it is expected that the Task Group will finalize its work by 31 October 2011.* Recommendation 1 remains open pending the receipt of documentation evidencing the implementation of ORM in the Mission.

Need to finalize the Mission's Aviation Emergency Response Plan and conduct required tests and drills

19. According to the ASM, an AERP provides the basis for a systemic approach to manage the Mission's affairs in the aftermath of events such as an aircraft accident. In addition, AERP exercises should be conducted on a regular basis to test the validity of the plan, identify areas of concern, and to ensure that all personnel are prepared for prompt actions in case of an aviation emergency.

20. MINUSTAH had a draft AERP in place since October 2010 which was pending finalization after completion of an assessment of the Mission's Emergency Crash and Rescue (ECR) services by a consultant from the International Civil Aviation Organization (ICAO), which was being conducted at the time of the audit.

21. The Chief of ASU explained that in the AERP, reliance was placed on the Fire Unit to initiate fire suppression and rescue operation since MINUSTAH did not have a dedicated Certified Aviation Emergency Crash and Rescue Unit. However, this was contrary to the Aviation Manual which states that the Aviation Section should be responsible to ensure that adequate ECR services are provided for the airport/airfield. In addition, based on observations made by the ASU during an ECR exercise conducted on 2 March 2011, it was unclear whether the Fire Unit possessed the required skills and equipment to provide ECR services. Some of the shortcomings noted during the exercise included the inability of the ECR team to extract passengers and crew from the aircraft and unavailability of the rescue equipment within the staging area. Based on the recommendations made by the ICAO consultant regarding the Mission's ECR services, MINUSTAH will finalize its AERP. **OIOS highlighted the need for the Mission to ensure that adequate ECR services are provided for the airports and airfields.** *MINUSTAH stated that procurement action has been taken to outsource ECR services at the Regional Headquarters and Port-au-Prince.*

22. The Mission is required to conduct a full drill once a year to test the validity of its AERP and identify areas for improvement. However, a full emergency response drill had not been conducted in the Mission since May 2008 and a desk-top exercise was last conducted in March 2009. Both exercises were conducted based on an old AERP which has since been revised based on the changes to the Mission's operating environment. Due to the lack of a finalized AERP, the Mission had not been able to conduct the desk-top and full scale exercises which had been scheduled in April 2011. In addition, the regions were not adequately equipped with firefighting equipment, personal protective equipment and trained qualified personnel required to conduct the AERP drills. There is a need to finalize the Mission's AERP and organize a full scale live exercise to test the effectiveness of the plan.

Recommendation 2

(2) MINUSTAH should ensure that the Aviation Emergency Response Plan (AERP) is finalized and organize full AERP drills annually to test the effectiveness of the Mission's Emergency Response Plan.

23. *MINUSTAH accepted recommendation 2 and stated that an AERP exercise will be conducted after the establishment of an ECR Unit in the Mission.* Recommendation 2 remains open pending receipt of the updated AERP and an after-action report confirming that a full AERP drill was held.

AUDIT RESULTS

ANNEX I
STATUS OF RECOMMENDATIONS
Follow-up audit of aviation safety in MINUSTAH

Recom. no.	Recommendation	Risk category	Risk rating	C/O¹	Actions needed to close recommendation	Implementation date²
1	MINUSTAH should formally establish the Operational Risk Management (ORM) Implementation Task Group and ensure the implementation of ORM in the Mission.	Governance	Important (Medium)	O	Receipt of documentation evidencing the implementation of ORM in the Mission.	October 2011
2	MINUSTAH should ensure that the Aviation Emergency Response Plan (AERP) is finalized and organize full AERP drills annually to test the effectiveness of the Mission's Emergency Response Plan.	Operational	Important (Medium)	O	Receipt of the updated AERP and an after-action report confirming that a full AERP drill was held.	December 2011