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INTEROFFICE MEMORANDUM MEMORANDUM INTERIEUR

INTERNAL AUDIT DIVISION I
OFFICE OF INTERNAL OVERSIGHT SERVICES

TO: Mr. Juan Gabriel Valdes,
Special Representative of the Secretary General
MINUSTAH

DATE: 13 December 2005

REFERENCE: AUD-7-5:10(0029805)

FROM: Patricia Azarias, Director
DE: Internal Audit Division-I, OIOS

P. Azarias

SUBJECT: **OIOS Audit No. AP2004/683/03: Air safety in MINUSTAH**
OBJET:

1. I am pleased to present herewith the final report on the above-mentioned audit, which was conducted during May 2005. The audit was conducted in accordance with the standards for the professional practice of internal auditing in United Nations organizations.
2. We note from your response to the draft report that MINUSTAH has accepted all the recommendations. Based on the response, we are pleased to inform you that we have closed recommendations 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11 and 12 in OIOS' recommendations database. In order for us to close out recommendation 13, we request that you provide us with the additional information as discussed in the text of the report and a time schedule for its implementation. Please note that OIOS will report on the progress made to implement its recommendations, particularly those designated as critical (i.e. recommendations 1, 3, 5, 7, 9 and 12) in its annual report to the General Assembly and semi-annual report to the Secretary-General.
3. IAD is assessing the overall quality of its audit process and kindly requests that you consult with your managers who dealt directly with the auditors and complete the attached client satisfaction survey form.

I. INTRODUCTION

4. MINUSTAH was established on 1 June 2004 to provide a secure and stable environment for the constitutional and political process in Haiti to take place. The approved budget for the period from July 2004 to June 2005 is \$379 million, and covers the deployment of 6,700 military contingents from 15 Troop Contributing Countries (TCCs), 1,622 Civilian Police, 482 international civilian staff, 549 national staff and 153 UN Volunteers.
5. The Mission's air assets consisted of 11 helicopters and 1 fixed wing aircraft supporting about 110 locations in the Mission area. Eight helicopters were provided by TCCs through letters of assist and the rest were commercially chartered. The TCCs and commercial contractors provided actual flight operations including aircraft, crew and maintenance upon requests of the Mission's Aviation Section. The 2004-2005 budget for air operations is \$20.1 million.

6. In order to provide a safe environment for air operations, the Mission has to ensure that its air operations meet the standards of the International Civil Aviation Organization (ICAO) and the Air Operations Manual of the Department of Peacekeeping Operations (DPKO). MINUSTAH's Aviation Section and Air Safety Unit are the key entities responsible for air operations in the Mission. The Aviation Section, which is in charge of day-to-day air operations and is responsible for establishing and enforcing the required policies and procedures, comprised three sub-units: the Air Operations Center, Air Terminal Unit and Technical Compliance Unit. The Section's staffing consisted of nine international posts (four Professionals and five Field Service staff), five UN Volunteers (UNVs), and eight local posts. The Aviation Safety Unit operated independently from the Aviation Section, and was not involved in day-to-day aviation management. The Unit was responsible for promoting air safety awareness; implementing accident prevention programmes including risk assessment and hazard survey; suggesting corrective actions to the Aviation Section and the fleet operators (commercial contractors and TCC aviation units) when needed; monitoring and reporting the occurrences to DPKO; and providing advisory services to the Mission management on aviation safety matters. The Aviation Safety Unit had one Professional and two Field Service (FS) posts.

7. The comments made by the Management of MINUSTAH on the draft audit report have been included in the report as appropriate and are shown in italics.

II. AUDIT OBJECTIVES

8. The major objectives of the audit were to assess whether:
- a) The Mission's air operations met the UN and ICAO aviation safety requirements;
 - b) Adequate aviation safety programmes were in place and monitored;
 - c) Duties were clearly segregated and accountabilities and reporting lines clearly defined; and
 - d) Aviation personnel were qualified to conduct the highly technical aviation activities.

III. AUDIT SCOPE AND METHODOLOGY

9. The policies, procedures and activities of the Mission related to the provision of safe air operations were reviewed. Background documentation and data was analyzed. In addition, responsible officials in MINUSTAH and DPKO were interviewed. Selected landing sites within the Mission area were also visited.

IV. OVERALL ASSESSMENT

10. No air accidents have occurred in MINUSTAH. However, some serious air safety incidents took place and a closer look at the incidents indicated that certain policies and procedures need to be improved. One helicopter needed an urgent technical inspection due to repeated mechanical failures. Also, the Mission needed to reduce the unacceptably high number of special flights and to ensure compliance with the related procedures. Only authorized helipads should be used, and some of these need to be upgraded. MINUSTAH needs to ensure that only technically qualified staff are

recruited for air operations. As the Mission approaches its first anniversary, a review by DPKO of the Mission's air operations is warranted.

V. AUDIT FINDINGS AND RECOMMENDATIONS

A. Qualifications of aviation personnel

11. It is of paramount importance for the safety of human lives and safeguarding of assets that the personnel conducting air operations are technically qualified. DPKO procedures require that all Mission aviation personnel are recruited only after it has accorded technical clearance. However, this requirement was not adhered to in regard to a staff member who was appointed as Official-in-Charge of the Aviation Safety Unit from August to October 2004. OIOS immediately reported this matter to the Mission on 5 November 2004 (copy attached for ease of reference) and made the following recommendations.

Recommendation 1

MINUSTAH Management should ensure that the qualifications of staff in the Aviation Section and Aviation Safety Unit are reviewed by DPKO and approved for the functions currently occupied (AP2004/683/03/01).

12. *MINUSTAH accepted recommendation 1 and stated that the Aviation Safety Unit (ASU) at UNHQ is involved in the selection of Aviation Safety Staff. The ASU and the Air Transport Section (ATS) at UNHQ have copies of MINUSTAH staff members' background, qualifications and training records. ASU and ATS must technically clear any candidate before PMSS can assign staff to the Mission's Safety and Aviation Section. Based on the Mission's response, OIOS has closed recommendation 1.*

Recommendation 2

MINUSTAH Management should document the review and acceptance (clearance) of air operations personnel (AP2004/683/03/02).

13. *MINUSTAH accepted recommendation 2 and stated that the candidate lists for Aviation Section staff are sent to the Mission by PMSS only after each candidate has been technically cleared by ATS. Based on the Mission's response, OIOS has closed recommendation 2.*

Recommendation 3

MINUSTAH Management should strictly conform to existing practice to appoint air operations personnel and seek DPKO's advice before appointing officers-in-charge for the units responsible for air operations (AP2004/683/03/03).

14. MINUSTAH accepted recommendation 3 and indicated that at present, all Aviation Section Unit Chiefs have been cleared by ATS. Any new Unit Chief will be technically cleared by ATS in the future before assuming his/her functions in the Mission area. This guarantees that officers-in-charge are automatically qualified to be appointed to that function. As such, the situation identified in the audit report is one of the past and will not be repeated. Based on the Mission's response, OIOS has closed recommendation 3.

Recommendation 4

MINUSTAH Management should liaise with DPKO's Personnel Management and Support Service to speed up the recruitment of vacant aviation posts, with priority given to the Chief Aviation Section position (AP2004/683/03/04).

15. MINUSTAH accepted recommendation 4 and stated that the Chief Aviation Officer (CAVO) post has been filled since 26 February 2005. Technically cleared candidates were selected for the two remaining Sector aviation Officer posts on 6 July 2005. Based on the Mission's response, OIOS has closed recommendation 4.

B. Mission aviation safety occurrences

16. MINUSTAH has been conducting a sizable air operation. In April 2005, the Mission carried out 672 "sorties" (one sortie is a combination of one take-off and the subsequent landing). About 84 per cent of the sorties (or 565) were for logistical support involving the transportation of 4,728 passengers and 49 tons of cargo. Of the 4,728 passengers, 2,126 were military personnel being deployed at various locations; 2,326 were UN civilian personnel and 376 were non-UN passengers such as host government employees, members of the media, members of NGOs and Mission contractors. Similar monthly volume of activities was recorded since January 2005.

17. The Mission experienced no major accidents¹ but reported 11 incidents since its inception (see Table 1). Other DPKO missions reported a combined total of 4 accidents (25 fatalities) and 99 incidents for the same time period collectively. In MINUSTAH, 19 cases of safety hazards, which were events or observations that might cause accidents or incidents in the future, were reported.

Table 1: Air safety incidents in MINUSTAH

Mission cancelled	Frequency	Operators	Call Sign
Near miss – mid air collision	1	Third party	UNO-132
Hostile shootings	1	Unidentified	UNO-131
Cargo dropped out of aircraft in mid-air	1	Canadian contingents	UNO-128
Mechanical	8		
Pre-flights	1	Vostock Airlines	UNO-122
	1	Chilean contingents	UNO-132
	1	Chilean contingents	UNO-134

¹ In aviation, safety occurrences are classified into accidents (major) and incidents (minor).

After take-off	2	Vostock Airlines	UNO-122
	1	Chilean contingents	UNO-133
	1	Argentinean Air Force	UNO-137
	1	Chilean contingents	UNO-129
TOTALS	11		

18. With regard to the 'near miss' incident caused by a local aviation company, the Mission officials had approached the Civil Aviation Authority (CAA) of the host country to take corrective actions in an informal manner. The Aviation Safety Unit informed OIOS that this was the second such violation by the company. OIOS is therefore of the view that the Mission needs to officially report this matter to the CAA for their corrective action.

Recommendation 5

MINUSTAH Management should officially report the 'near miss' incident to the Civil Aviation Authority of the host country for corrective measures (AP2004/683/03/05).

19. *MINUSTAH accepted recommendation 5 and stated that the "near miss" incident was informally reported to the Host Country's Civil Aviation Authority. Air Traffic Control (ATC) at Port au Prince Airport assisted during the initial phase of the investigation. However, information provided by crews and ATC was conflicting and it could not be clearly established whether the incident actually took place. To avoid any recurrence, mitigating action was taken, including an amendment to the Air Operations' SOP. Management agrees that "near miss" incident must be officially reported to the proper authorities in order to implement any corrective measures on their part. Based on the explanations provided by the Mission, OIOS has closed recommendation 5.*

Reporting of incidents

20. One helicopter (UNO122, MI-8MTV-1) had three incidents relating to faulty rotary blades whereby the scheduled flights had to be cancelled. The first incident occurred in July 2004, the second in October 2004 and the third in 11 May 2005 but the contractor did not report any of these until 13 May 2005, although according to the Aviation Safety Manual, incidents are required to be reported within 48 hours from the time of occurrence. This failure needs to be reflected in the performance evaluation of the contractor. Also, the Mission needs to conduct a special inspection on helicopter UNO 122 to address the cause of repeated mechanical problems.

21. With regard to the requirement of timely reporting of incidents by pilots, OIOS found delays of three to five days in three other incidents. The Chief Aviation Safety stated that the responsible pilots had been reminded of the reporting requirement. OIOS is of the opinion that the Mission should remind the representatives and commanders of operators as well, and cases of non-compliance should be included in their performance evaluation.

Recommendation 6

MINUSTAH Management should conduct a special inspection on helicopter UNO 122 which had to cancel missions

three times due to the same mechanical problem (AP2004/683/03/06).

22. *MINUSTAH accepted recommendation 6 and stated that the helicopter MI-8MTV, registration mark UNO-122, did experience mechanical problems three times, involving the same component. According to an ASU assessment, two problems emerged within a period of ten months and both were attributable to adverse weather conditions (moisture and rain) prevailing in Haiti. The third incident was rather an isolated one. Although ASU does not believe that there is a trend emerging, it is monitoring the situation and performance of the helicopters, which are regularly inspected. ASU, nevertheless, is ready to call for earlier or special inspections to prevent incidents, if required.* Based on the Mission's response, OIOS has closed recommendation 6.

Recommendation 7

MINUSTAH Management should formally remind all commercial and military air operators in the Mission about their responsibility to promptly report all safety occurrences (AP2004/683/03/07).

23. *MINUSTAH accepted recommendation 7 and stated that ASU briefed commercial and military units regarding their responsibilities to promptly report safety occurrences and hazards. ASU will stress this reporting procedure on periodical basis.* Based on the Mission's response, OIOS has closed recommendation 7.

Recommendation 8

MINUSTAH Management should ensure that the performance evaluation of air operators includes safety occurrences, adequacy of corrective actions and compliance with reporting responsibility (AP2004/683/03/08).

24. *MINUSTAH accepted recommendation 8 and stated that the Mission submits all aviation safety reports to ASU/UNHQ for a separate analysis and evaluation. Carriers' compliance with reporting responsibilities and corrective action are considered during Air Operators Performance Evaluations.* Based on the Mission's response, OIOS has closed recommendation 8.

C. MINUSTAH aviation risk assessment

Accident prevention programme needs to be completed

25. The Aviation Safety Unit published quarterly risk assessments (see Table 2, which shows the risk assessment as at 31 March 2005). The Chief Aviation Safety determined that none of the 15 risk categories were rated as "high". Table 2 also shows that implementation of accident prevention programme was in progress and scheduled to be completed by July 2005.

Table 2: Aviation risk assessment as of 31 March 2005

Risk category	Risk	Safety programme	Target implementation
Senior Management Awareness	Low	In place	NA
Accident Prevention Programme	Medium	In-progress	July 2005
Safety Council	Low	In place	NA
Emergency Response	Medium	In place	NA
Flight Following & Planning	Medium	In place	NA
Compliance of Contractors/Military	Low	In place	NA
Search & Rescue	Medium	In place	NA
Airport Ramp Operations	Low	In place	NA
Cargo & Passenger Management	Low	In place	NA
Meteorology & Weather	Medium	In place	NA
Rescue & Fire Fighting	Medium	In place	NA
Apron & Runaway Facilities	Low	In place	NA
Helipad/Helicopter Sites	Medium	In place	Year around
Fuel Services	Low	In place	NA
Air Traffic Services	Medium	In place	NA

- High risk** Serious problems exist, which require immediate major modifications the possibility of stopping the operations should be considered until the major modifications required to reduce the risk level have been implemented.
- Medium risk** Indicates that problems exist that require moderate modification to procedures and operations, but a modification period (30-60 days) is available.
- Low risk** Minor or negligible changes are required; they can be done when possible or convenient.

Recommendation 9

MINUSTAH Management should ensure that the aviation safety programme is finalized expeditiously (AP2004/683/03/09).

26. MINUSTAH accepted recommendation 9 and stated that the Aviation Safety Programme has been finalized, included in the Mission Aviation Safety SOP, and distributed accordingly. Based on the Mission's response, OIOS has closed recommendation 9.

Urgent need to discourage special flights

27. Special flights were usually operated to accommodate VIP movements, urgent requests, and requests for infrequently used routes that normal scheduled flights could not support. Special flights should be an exception to the regular schedule, and have to be requested at least 72 hours before the intended take off to avoid unplanned surge of workload and the risks associated with hasty and impromptu preparation, which are a serious safety concern particularly in the less-than-desirable aviation environment in the Mission area and sub-standard helipads.

28. Almost half of the missions undertaken during March and April 2005 were special flights (432 regular and 405 special flights), which was unacceptably high. OIOS took a random sample of 50 special flights during March and April 2005 and found that 41 were requested within 72 hours. The Mission needs to review the causes of the high number of special flights and limit them to the exceptional needs only. Also, the procedures in special flights requests needed to be complied with.

Recommendation 10

MINUSTAH Management should review the reasons for the high number of special flights and limit special flights only to exceptional requirements (AP2004/683/03/10).

29. *MINUSTAH accepted recommendation 10 and stated that the Mission will only approve special flight request if it has determined that there is an aircraft available, that the flight will not interfere with its operations, that the object of the flight supports its mandate or that approving the request is otherwise in its interest. MINUSTAH has set out its policy on special flight request in a new note verbale to the Government, diplomatic representations, and other potential users of MINUSTAH aircraft. Management is ensuring that special flights are utilized only to meet requirements for air support that cannot be met with regular scheduled services. The seemingly high number of special flight request is due to the diverse nature of Mission's operations. For example, all flights in support of military operations, including aerial reconnaissance missions and patrols, can only be conducted by special flights. Management will continue to review the overall cost-effective utilization of aircraft, including the regularly scheduled services, which are updated frequently based on a demonstrated requirement for recurring support to individual locations. Based on the Mission's response, OIOS has closed recommendation 10.*

Recommendation 11

MINUSTAH Management should ensure that procedures pertaining to special flight requests are complied with (AP2004/683/03/11).

30. *MINUSTAH accepted recommendation 10 and stated that every effort is made to ensure compliance with existing Special Flight Request (SFR) procedures, with exceptions granted only to meet urgent operational requirements. The requirement to submit a SFR 72 hours prior the task is also being emphasized. Based on the Mission's response, OIOS has closed recommendation 11.*

Helipad sites – unauthorized helipad used

31. According to the Mission Standard Operating Procedure Part 2 (SOP) observing the ICAO requirements, all helicopter landing sites (HLS) needed to be approved for use for two reasons: first, to ensure that the task can be accomplished; and second, to ensure that each HLS is safe for helicopter operations. Hence in the interests of safety, only approved HLS are used. On 20 January 2005, OIOS found that the approval documents for five HLS did not have the signatures of the

Chiefs of Aviation Section and Air Safety. OIOS requested that immediate action be taken by the Mission. As of 31 May 2005, no other exceptions were noted.

32. During field visits, OIOS found that HLSs in Mirabalais, Hinche, St.Marc, Gonaive (School), Terre Rouge and Le Cayes did require engineering upgrades to meet the Mission standards. Some of the visited HLS had uneven landing sites, lacked safety areas, markings, signs and fencing.

33. On 1 January 2005 the Special Representative of the Secretary-General with seven staff members on UNO 120/C-FCAP/B212 landed in Gonaive in the Argentinan Camp site despite the fact that this HLS was at that time not authorized. Engineering actions were still pending such as cutting of trees, removing of antennae, wooden posts, and several tents that were too close to the landing zone.

Recommendation 12

MINUSTAH Management should complete the engineering upgrades of identified helipads without further delay to ensure that safety standards are met (AP2004/683/03/12).

34. *MINUSTAH accepted recommendation 12 and stated that all Mission helicopter landing sites (HLS) currently in use meet the relevant specification per each individual HLS certification (i.e. Category A, B, or C) Some of the HLS identified in the audit report do not require improvements (Hinche, St Marc, Gonaives, and Les Cayes). Mirebalais has already been upgraded and will be developed further to allow its use in the regular scheduled service. There is no certified HLS at Terre Rouge, yet it is planned to construct one. Although the St Marc HLS meet certification requirements, a new HLS will be sought due to road access difficulties and a change of the troop camp location. All planned HLS improvements are subject to the availability of engineering support.* Based on the Mission's response, OIOS has closed recommendation 12.

Passenger management

35. Passengers are required to check in one hour prior to the departure time. Movement Control officials stated that compliance by Mission staff was generally satisfactory. OIOS reviewed a sample of the documents that passengers were required to bear, such as Movement of Personnel (MOP) forms and liability waiver for non-UN passengers to ascertain whether they were duly prepared and authorized. These documentations were found to be satisfactory.

Readiness of air CASEVAC and MEDVAC

36. The SOP requires that a flight is ready within one hour from the time when the Mission medical doctor requests air casualty evacuation (CASEVAC) and medical evacuation (MEDVAC). The medical doctors informed OIOS that all 19 CASEVAC and MEDVAC flights requested for the months of March and April 2005 were ready within one hour.

Safety assessment by DPKO

37. MINUSTAH commenced operations nearly a year ago. In OIOS' opinion, now is an appropriate time for a safety assessment by DPKO of the Mission's air operations. Such an assessment could further improve the Mission's safety record and prevent any accidents or serious incidents in the future.

Recommendation 13

MINUSTAH Management should request DPKO Headquarters to send a team of air safety officials to conduct a safety assessment of the Mission's air operations (AP2004/683/03/13).

38. *MINUSTAH accepted recommendation 13 and stated that an Aviation Safety Assistance visit from UNHQ was scheduled for June 2004 but was later cancelled. No new date has been proposed.* Recommendation 13 remains open pending receipt of confirmation from MINUSTAH that a safety assessment has been conducted by DPKO.

VI. ACKNOWLEDGEMENT

39. 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.

Copy to: Mr. Jean-Marie Guéhenno, Under-Secretary-General for Peacekeeping Operations
Mr. Philip Cooper, OIC, ASD/DPKO
Mr. W. Scholl, Chief Administrative Officer, MINUSTAH
UN Board of Auditors
Programme Officer, OIOS
Mr. Roland Bill, Chief Resident Auditor, MINUSTAH