



INTERNAL AUDIT DIVISION

REPORT 2016/132

Audit of repair and maintenance of vehicles in the United Nations Organization Stabilization Mission in the Democratic Republic of the Congo

The Mission adequately planned and assessed the economic viability of its vehicles repair and maintenance activities, but did not enforce maintenance schedules, control cannibalized spare parts and provide a safe working environment for workshop personnel

10 November 2016
Assignment No. AP2016/620/07

Audit of repair and maintenance of vehicles in the United Nations Organization Stabilization Mission in the Democratic Republic of the Congo

EXECUTIVE SUMMARY

The objective of the audit was to assess the adequacy and effectiveness of governance, risk management and control processes over the repair and maintenance of vehicles in the United Nations Organization Stabilization Mission in the Democratic Republic of the Congo (MONUSCO). The audit covered the period from 1 January 2015 to 31 May 2016 and included a review of: (a) the economic viability of repairs and maintenance; (b) routine maintenance; (c) control of spare parts from cannibalized vehicles; and (d) workshops' safety practices.

MONUSCO adequately planned the maintenance of its vehicles in line with the manufacturers' requirements and assessed the economic viability of its repair and maintenance activities. However, controls needed to be improved over: maintenance of vehicles and specialized equipment; the safeguarding of cannibalized spare parts; and the working environment of workshop personnel.

The Office of Internal Oversight Services made three recommendations. To address issues identified in the audit, MONUSCO needed to:

- Enforce the requirement for operators to promptly deliver vehicles and specialized equipment to workshops to ensure compliance with established routine maintenance schedules;
- Implement adequate controls over spare parts from cannibalized vehicles; and
- Take actions to cover all vehicle workshops and construct designated facilities for use in spraying vehicles to ensure that its workshop personnel have a safe working environment.

MONUSCO accepted the recommendations and have initiated action to implement them.

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Audit of repair and maintenance of vehicles 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 repair and maintenance of vehicles in the United Nations Organization Stabilization Mission in the Democratic Republic of the Congo (MONUSCO).
2. The MONUSCO Transport Section is responsible for managing the repair and maintenance of United Nations-owned vehicles in the Mission. The Section is headed by the Chief Transport Officer (CTO) at the P-5 level who reports to the Chief Service Delivery. The CTO is supported by 11 international staff, 20 United Nations volunteers and 138 national staff.
3. MONUSCO's vehicle fleet comprises 1,877 light passenger and heavy commercial vehicles, 149 specialized equipment and 20 motorcycles with a combined cost of \$106.5 million. These vehicles were deployed in 23 locations throughout the Mission. The Mission operates 10 transport workshops throughout the Democratic Republic of the Congo and 1 in Entebbe. The Mission requires a functional vehicle fleet and the capacity to efficiently and effectively maintain the fleet to support the delivery of its mandate and reduce the need to procure new vehicles. The 2014/15 and 2015/16 budgets for the procurement of new vehicles were \$0.5 million and \$1.8 million, respectively.
4. The budgets for repair and maintenance of vehicles for 2014/15 and 2015/16 were \$2.3 million and \$1.4 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 adequacy and effectiveness of governance, risk management and control processes over the repair and maintenance of vehicles in MONUSCO.
7. This audit was included in the 2016 risk-based work plan of OIOS due to the operational and financial risks related to the repair and maintenance of vehicles in MONUSCO.
8. OIOS conducted this audit from May to July 2016. The audit covered the period from 1 January 2015 to 31 May 2016. Based on an activity-level risk assessment, the audit covered higher and medium risk areas in the repair and maintenance of vehicles and included a review of: (a) the economic viability of repairs and maintenance; (b) routine maintenance; (c) control of spare parts from cannibalized vehicles; and (d) workshops' safety practices.
9. The audit methodology included: (a) interviews of relevant personnel; (b) review of relevant documentation; (c) analytical reviews of data; (d) sample testing of controls over the repair and maintenance of in 4 of the 10 transport workshops, which OIOS visited, with particular focus on vehicles deployed to team sites that were farther away from established workshops; and (e) physical observation.

III. OVERALL CONCLUSION

10. MONUSCO had adequately planned the maintenance of its vehicles in line with the manufacturers' requirements and assessed the economic viability of their repair and maintenance. However, MONUSCO needed to: (a) enforce the requirement for operators to promptly deliver vehicles and specialized equipment to workshops to ensure compliance with established routine maintenance schedules; (b) implement adequate controls over spare parts from cannibalized vehicles; and (c) provide safe working environment to its workshop personnel.

IV. AUDIT RESULTS

A. Economic viability of repairs and maintenance

Economic viability of vehicle repairs was assessed

11. The Department of Peacekeeping Operations/Department of Field Support (DPKO/DFS) Surface Transport Manual requires MONUSCO to ensure cost-effective repairs and roadworthiness of its vehicles and to replace or write off a vehicle with repair costs exceeding 30 per cent of its net book value.

12. Interviews with staff of the Transport Section and review and analysis of repairs and maintenance activities in Galileo showed that the Mission had identified 66 vehicles for write-off based on cost/benefit review to establish the economic viability of repair. OIOS review of the records of 20 of the 66 vehicles showed that the Mission: inspected vehicles requiring major repairs and prepared technical report findings; and decided not to proceed with the repair works when estimated repair costs exceeded 30 per cent of the vehicle's net book value.

13. OIOS concluded that MONUSCO had implemented adequate controls to assess the economic viability of the repair of vehicles.

B. Routine maintenance

There was a need to service vehicles and specialized equipment in a timely manner

14. The DPKO/DFS Surface Transport Manual requires MONUSCO to: (a) adhere to the servicing requirements stipulated in the relevant handbook and workshop manual for each vehicle model in its fleet; and (b) implement a plan for the routine maintenance of vehicles in accordance with the manufacturers' schedule and current policies and direction from DPKO/DFS. The MONUSCO transport standard operating procedures (SOPs) require the Transport Section to conduct maintenance service after: 5,000 kilometres for vehicles; and 250 hours for specialized equipment, including engineering and airfield equipment.

15. A review of maintenance records for 88 vehicles (59 of 1,877 light and heavy vehicles and 29 of 169 specialized equipment) and field visits to workshops in Goma and Kinshasa indicated that MONUSCO had established a vehicle maintenance plan that was in line with the manufacturers' requirements. Upon completion of each maintenance procedure, the Transport workshops reprogrammed the Carlog to notify operators when the next maintenance was due. However, the Mission did not service 18 (11 light and heavy vehicles and 7 specialized equipment) of the sampled vehicles as per the maintenance plan. These vehicles and equipment had been driven without servicing for more than 12,000 kilometres each against the requirement for servicing after every 5,000 kilometres, and operated for over 1,650 hours each against the requirement for servicing after every 250 hours respectively. This was

because MONUSCO did not enforce the requirement for operators to promptly deliver vehicles and specialized equipment to workshops to ensure compliance with established routine maintenance schedules.

16. Due to delays in conducting routine maintenance works: there was an increased risk of costly repair and maintenance of vehicles and specialized equipment; and 5 of 20 buses for dispatch services acquired between August 2013 and March 2015 were not operational and had been parked at the transport workshops in Goma and Kinshasa for up to four months. This reduced the Mission's ability to deliver effective dispatch services in Kinshasa.

(1) MONUSCO should enforce the requirement for operators to promptly deliver vehicles and specialized equipment to workshops to ensure compliance with established routine maintenance schedules.

MONUSCO accepted recommendation 1 and stated that it was updating its SOPs for scheduling vehicle maintenance and would issue instructions to ensure compliance with established schedules. The Mission also stated that it would put in place enforcement mechanisms such as withdrawing the vehicle from the section and suspending the driving permit of the operator that fails to submit the vehicle to the workshop within established timeframes. Recommendation 1 remains open pending receipt of evidence that MONUSCO has enforced the requirements for routine maintenance and expedited the repair of vehicles and specialized equipment.

C. Control of spare parts from cannibalized vehicles

Controls to safeguard cannibalized spare parts needed to be enhanced

17. The DPKO/DFS Surface Transport Manual requires MONUSCO to safeguard spare parts from cannibalized vehicles for reuse.

18. A review of the records of cannibalized vehicles in the Galileo system and visit to Bunia, Bukavu and Goma indicated that: MONUSCO properly recorded spare parts from cannibalized vehicles in Galileo; and the Mission was properly securing spare parts from cannibalized vehicles. However, in Kinshasa, the Mission had not stored and safeguarded spare parts from cannibalized vehicles as these were maintained on the workshop floor.

19. This above resulted because the Mission had not taken appropriate actions to implement adequate controls over spare parts from cannibalized vehicles. As a result, there was an increased risk of misappropriation of parts and financial loss that could result from MONUSCO purchasing new spare parts. For example, the transport workshop staff in Kinshasa were unable to account for 7 of the 12 spare parts that were cannibalized from a vehicle at the time of the audit visit.

(2) MONUSCO should implement adequate controls over spare parts from cannibalized vehicles.

MONUSCO accepted recommendation 2 and stated that it would adopt a separate accounting system for spare parts from cannibalized vehicles and separate, group, mark and store parts in a systematic manner in secure areas. Recommendation 2 remains open pending receipt of evidence that MONUSCO has separated, grouped, marked and stored spare parts from cannibalized vehicles in a systematic manner in secure areas.

D. Workshop safety practices

Workshop facilities needed to be enhanced

20. The DPKO/DFS Surface Transport Manual requires MONUSCO to have a safe and environmentally friendly workplace. The DPKO/DFS Automotive Workshop Safety Guidelines requires MONUSCO to: (a) ensure the use of ground pits while working under vehicles; (b) provide all workshop personnel with personal protective equipment; and (c) ensure that jobs involving chemicals are carried out away from sources of ignition and in areas with sufficient ventilation.

21. Visits to 4 of the 10 transport workshops indicated that: (a) the workshop in Bunia had adequate space and facilities; (b) in Bukavu, the Mission had allocated adequate space for the heavy vehicle workshop and construction works for additional facilities for the light vehicles workshop was ongoing; and (c) staff were issued with appropriate protective clothes and equipment. However, the workshops in Goma and Kinshasa did not have adequate facilities as follows:

- The workshop for the repair of heavy vehicles and specialized equipment in Kinshasa was not covered, resulting in most of the repair and maintenance works being performed in open and uncovered spaces. This was due to the fact that the Mission had not prioritized the construction of a roof over the space used for the repair of heavy vehicles after it had relocated the transport workshop to its current location. This exposed staff to poor working conditions during the rainy and hot seasons, thereby increasing health risks. This also impacted the effectiveness of operations of the workshop because repair works had to be stopped during rainfall. In addition, ground pits were not available to enable mechanics' access to the bottom part of the vehicles for inspection and repair works.
- The Goma workshop did not have a designated facility for the spraying of vehicles and spraying was carried out from the same workshop floor where other repairs and maintenance works were conducted. MONUSCO demolished the facility previously used for spraying of vehicles so as to create space for the fuel contractor to construct fuel storage tanks, but did not provide an alternative facility. This exposed personnel in the workshop to health risks arising from inhaling residues from paints and chemicals used in spraying vehicles.

(3) MONUSCO should take actions to cover all vehicle workshops and construct designated facilities for use in spraying vehicles to ensure that its workshop personnel have a safe working environment.

MONUSCO accepted recommendation 3 and stated that it would identify separate areas for vehicle body repairs and painting jobs, pending relocation of the transport workshop to the new site currently under construction in Goma; and construct a medium-sized rub hall in Kinshasa for the repair of heavy vehicles. Recommendation 3 remains open pending receipt of evidence that MONUSCO has provided the necessary facilities for vehicle body and painting jobs and repair of vehicles.

V. ACKNOWLEDGEMENT

22. 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.

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

STATUS OF AUDIT RECOMMENDATIONS

Audit of repair and maintenance of vehicles in the United Nations Organization Stabilization Mission in the Democratic Republic of the Congo

Rec. no.	Recommendation	Critical ¹ / Important ²	C/ O ³	Actions needed to close recommendation	Implementation date ⁴
1	MONUSCO should enforce the requirement for operators to promptly deliver vehicles and specialized equipment to workshops to ensure compliance with established routine maintenance schedules.	Important	O	Receipt of evidence that MONUSCO has enforced the requirements for routine maintenance and expedited the repair of vehicles and specialized equipment.	1 April 2017
2	MONUSCO should implement adequate controls over spare parts from cannibalized vehicles.	Important	O	Receipt of evidence that MONUSCO has separated, grouped, marked and stored spare parts from cannibalized vehicles in a systematic manner in secure areas.	31 December 2016
3	MONUSCO should take actions to cover all vehicle workshops and construct designated facilities for use in spraying vehicles to ensure that its workshop personnel have a safe working environment.	Important	O	Receipt of evidence that MONUSCO has provided the necessary facilities for vehicle body and painting jobs and repair of vehicles.	1 March 2017

¹ 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.

² 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.

³ C = closed, O = open

⁴ Date provided by MONUSCO in response to recommendations.

APPENDIX I

Management Response



MONUSCO

Mission de l'Organisation des Nations Unies
pour la Stabilisation en République
démocratique du Congo

United Nations Organisation Stabilization
Mission in the Democratic Republic of Congo

12, Avenue des Aviateurs - Gombe
Kinshasa, RD Congo - BP 8811

Tél. +243 81 890 5000
+243 81 890 6000

PROTECT

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CONSOLIDATE PEACE

INTEROFFICE MEMORANDUM

21 October 2016
Ref. ODMS/16/OM/03866

To: Mr. Bolton Tarleh Nyema, Chief
Peacekeeping Audit Service
Internal Audit Division

From: Guy Siri
Director of Mission Support
MONUSCO

Subject: **Management Response to Draft Audit Report – Audit of repair and maintenance of vehicles in MONUSCO (Assignment No. AP2016/620/07)**

1. Thank you for your interoffice memorandum reference IAD-16-25 dated 18 October 2016, requesting the Mission to provide comments on the recommendations in the draft audit report on repair and maintenance of vehicles in MONUSCO.
2. Attached please find Appendix I - Management Response, for your consideration. Supporting documents will be provided to the Resident Audit Team.

Best regards.

Cc Mr. Maman S. Sidikou, Special Representative of the Secretary-General
Mr. Rajesh Chadha, Officer-in-Charge, Service Delivery, MONUSCO
Mr. Bandula Seneviratne, Chief Transport Officer, MONUSCO
Ms. Kerry Zillner, Audit Focal Point, MONUSCO
Ms. Eleanor T. Burns, Director, Internal Audit Division, OIOS
Mr. James Okwakol, Chief Resident Auditor, Internal Audit Division, OIOS
Ms. Cynthia Avena-Castillo, Professional Practices Section, Internal Audit Division, OIOS

Attachment: Appendix I - Management Response

Peace it!

Management Response

**Audit of repair and maintenance of vehicles in the
United Nations Organization Stabilization Mission in the Democratic Republic of the Congo**

Rec. no.	Recommendation	Critical ¹ / Important ²	Accepted? (Yes/No)	Title of responsible individual	Implementation date	Client comments
1	MONUSCO should enforce the requirement for operators to promptly deliver vehicles to workshops to ensure compliance with established routine maintenance schedules.	Important	Yes	Transport Section	01 April 2017	The Mission is currently updating its standard operating procedures (SOP) for Planning Scheduled Maintenance for MONUSCO's Vehicle Fleet, after which an Information Circular will be broadcast to all staff with instructions to comply with the scheduled maintenance intervals. Failure to submit the vehicle on time to Transport Workshops will lead to the withdrawal of the vehicle from the Section / Unit and temporary suspension of the Driving Permit of the assigned user. The vehicles identified by the auditors which are awaiting repairs have been surveyed and a list of required spares identified. These are to be purchased under a Blanket Purchase Order (BPO) to expedite repairs. Once the spares parts are received, the subject vehicles will be given full priority. The Mission will ensure that repairs of vehicles are expedited in a timely manner.
2	MONUSCO should implement adequate controls over spare parts from cannibalized vehicles.	Important	Yes	Transport Section	31 December 2016	Transport Section will adopt a separate accounting system (a Ledger) for the cannibalized spare

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² 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 repair and maintenance of vehicles in the
United Nations Organization Stabilization Mission in the Democratic Republic of the Congo**

Rec. no.	Recommendation	Critical ¹ / Important ²	Accepted? (Yes/No)	Title of responsible individual	Implementation date	Client comments
						parts. The parts will be separated, grouped and marked in a systematic manner in their own secure area. They will be entered into Galileo as used or second hand items and accounted for as such. Shelved, lockable storage for the cannibalized parts will be made available i.e. a separate room or sea container. Access to this area will be restricted to the workshop Supervisor or his designated replacement who will also control the recording Ledger.
3	MONUSCO should provide safe working environment to its workshop personnel.	Important	Yes	Transport Section	01 March 2017	A medium sized Rub hall is under construction in Kinshasa to accommodate the repair of Heavy vehicles. In Goma, there is a separate body repair and painting booth already under construction at RVA land in preparation for our relocation. In the interim, Transport will try to identify a separate area which can be used for body repairs and painting.