



Office of Internal Oversight Services

## **INTERNAL AUDIT DIVISION**

### **REPORT 2019/146**

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#### **Audit of aviation operations in the United Nations Interim Force in Lebanon**

**The Mission needed to rationalize the use of  
special flights to reduce overall aviation  
costs and address aviation safety risks**

**27 December 2019**

**Assignment No. AP2019/672/07**

# **Audit of aviation operations in the United Nations Interim Force in Lebanon**

## **EXECUTIVE SUMMARY**

The Office of Internal Oversight Services (OIOS) conducted an audit of aviation operations in the United Nations Interim Force in Lebanon (UNIFIL). The main objective was to assess the adequacy and effectiveness of aviation operations and safety in UNIFIL. The audit covered the period from 1 July 2018 to 30 June 2019. Based on an activity-level risk assessment, the audit covered higher and medium risk areas in aviation operations and safety which included: (a) planning and control; (b) tasking and utilization; (c) flight operations; (d) asset management; and (e) safety and risk management.

While UNIFIL was effective in preparing and submitting accurate and timely aircraft use reports, it needed to rationalize the use of special flights to reduce overall aviation costs and address aviation safety risks to mitigate risk of serious injury or death to passengers.

OIOS made four recommendations. To address the issues identified in the audit, UNIFIL needed to:

- Improve controls over its special flights by ensuring that: each flight is properly justified and approved by the authorized official only after thorough consideration of comparative costs and travel times for air and ground transportation;
- Enable its maritime air assets to become fully operational by actively liaising with the Department of Operational Support (DOS) to renew the letter of assist with the respective troop contributing country and ensuring that the air asset it deploys meets the Mission's operational requirements;
- Develop and implement procedures that clearly define the exceptional, compelling and emergent requirements that would lead to embarking/disembarking helicopters with the rotors on (HERO) and limit this practice to the lowest possible extent to reduce the risk of serious injury or death to passengers; and
- Timely address high and medium aviation safety risks under its purview.

UNIFIL accepted three recommendations and has initiated action to implement them. UNIFIL did not accept the recommendation related to HERO stating that the Under-Secretary-General for DOS had already granted a waiver for HERO to be utilized in operational exigencies, when time was of the essence. However, UNIFIL's frequent use of HERO based on generic justifications did not meet this requirement and increased the risk of serious injury or death to passengers. This unaccepted recommendation has been closed based on the Mission's acceptance of the residual risk and may be reported to the General Assembly in the next OIOS annual report.

# CONTENTS

|  | <i>Page</i> |
|--|-------------|
| I. BACKGROUND                                    | 1           |
| II. AUDIT OBJECTIVE, SCOPE AND METHODOLOGY       | 1           |
| III. AUDIT RESULTS                               | 2-5         |
| A. Aviation operations                           | 2-4         |
| B. Aviation risk management and safety           | 4-5         |
| IV. ACKNOWLEDGEMENT                              | 6           |
| <br>ANNEX I      Status of audit recommendations |             |
| <br>APPENDIX I   Management response             |             |

# **Audit of aviation operations in the United Nations Interim Force in Lebanon**

## **I. BACKGROUND**

1. The Office of Internal Oversight Services (OIOS) conducted an audit of aviation operations in the United Nations Interim Force in Lebanon (UNIFIL).
2. UNIFIL's air fleet comprises one commercially contracted medium utility and six military light utility helicopters operating out of its Headquarters in Naqoura. Air assets were used for patrols, transportation, medical evacuation and search and rescue operations. In addition, UNIFIL utilized two helicopters on board its Maritime Task Force (MTF) vessels mainly for maritime interdiction operations.
3. UNIFIL's Aviation Section is responsible for managing air assets. It comprised a Technical Compliance and Quality Management Unit (TCQM), a Mission Air Operations Centre and an Airfield Management Unit. The Section was headed by the Chief Aviation Officer at the P-4 level and had 11 civilian and 8 military personnel.
4. The approved budget for aviation operations for the fiscal year 2018/19 was \$6.7 million and covered the cost of commercial leases, reimbursements to troop contributing countries (TCCs), fuel, crew subsistence and airport charges, and insurance. This budget did not include military personnel costs which were covered under memoranda of understanding with TCCs.
5. Comments provided by UNIFIL are incorporated in italics.

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

6. The objective of the audit was to assess the adequacy and effectiveness of aviation operations and safety in UNIFIL.
7. The audit was included in the 2019 risk-based work plan of OIOS due to the operational, safety and financial risks and the importance of effective air operations for implementing the UNIFIL mandate.
8. OIOS conducted this audit from August to October 2019. The audit covered the period from 1 July 2018 to 30 June 2019. For comparison purposes, data related to the fiscal year 2017/18 was reviewed and analyzed. Based on an activity-level risk assessment, the audit covered higher and medium risk areas in aviation operations and safety which included: (a) planning and control; (b) tasking and utilization; (c) flight operations; (d) asset management; and (e) safety and risk management.
9. The audit methodology included: (a) interviews with key personnel in the Mission; (b) review of reports on aviation operations; (c) analytical reviews and test of selected transactions and records; and (d) field visits of selected aviation facilities.
10. The audit was conducted in accordance with the International Standards for the Professional Practice of Internal Auditing.

### III. AUDIT RESULTS

#### A. Aviation operations

##### The frequency of special flights needed to be reviewed

11. UNIFIL's aviation support plans and concept of operations were aligned with the Mission's mandate. For example, the plan for fiscal year 2018/19 considered the need for air assets required for the additional patrol and reconnaissance flights along the Blue Line as detailed in the concept of operations. The Mission also scheduled regular flights servicing Beirut airport and two United Nations positions in the sectors to meet its operational requirements. During the audit period, UNFIL conducted 1,353 flight hours at a cost of \$6.7 million (excluding cost for ground time), of which 745 flight hours (55 per cent) were recorded as military flights, including patrol and reconnaissance flights, 530 (39 per cent) were recorded as passenger flights mainly utilized for the transport of senior management and senior military staff, and 78 flight hours (6 per cent) were categorized as training, familiarization and repositioning. OIOS reviewed a sample of 220 flight hours (or 16 per cent) involving 197 flights which indicated that 89 were for military operations and 56 were for transporting passengers using regular or special flights. While as of May 2019, UNIFIL had streamlined multiple regular passenger shuttle flights during the week to only one regular flight scheduled on Fridays, OIOS noted the following:

- Forty-five special flights (80 per cent of passenger flights) were conducted to transport senior management and military staff, of which 22 flights involved transporting the Head of Mission/Force Commander (HoM/FC) to and from Beirut. The justifications for the flights were not clearly documented and, in many instances, the air mission request forms were submitted late and did not always specify the exceptional circumstances necessitating the request. Moreover, they were signed by the duty officer instead of the Director of Mission Support.
- In 10 cases, the Mission tasked the more expensive helicopter to transport the HoM/FC to Beirut, costing an additional \$19,500 (based on unit costs indicated in the letters of assist (LOAs)).
- The Mission did not systematically consider alternative modes of transport prior to approving special flights. OIOS calculated that some savings could be made, with minimal extra travel time, if the travel is done by road rather than air. For instance, the 45 special flights mentioned costed about \$64,000 higher than ground transportation.

12. The above occurred because UNIFIL had not implemented adequate controls over the processing of air mission requests. For example, 10 of the 45 air mission requests involving the transport of senior management were not processed two days before the flight, as required. Moreover, all requests involving senior management only indicated that the flights were required for operational reasons and did not include specific justification on the necessity of the travel to be performed. These requests also indicated that ground transportation could not be used due to security reasons even though there were no security advisories preventing UNIFIL personnel including senior management from traveling by road. As a result, there was an increased risk of inefficiencies and ineffective use of Mission aircraft. Due to the current financial situation of the Organization, it is particularly necessary for the Mission to rationalize and reduce the use of special flights in order to reduce overall aviation costs and avoid the carbon emissions of these flights to minimize the environmental impact of the Mission.

|   |
|---|
| <p><b>(1) UNIFIL should improve controls over its special flights by ensuring that: each flight is properly justified and approved by the authorized official only after thorough</b></p> |
|---|

**consideration of comparative costs and travel times for air and ground transportation; and air mission requests include adequate reasons for not using ground transportation.**

*UNIFIL accepted recommendation 1 and stated that it will continue to ensure that consideration of comparative costs and travel times for air and ground transportation are carried out for special flights and the required approval/authorization process is always followed. The current cost and travel time calculations within the air mission request forms will be updated as required. Recommendation 1 remains open pending receipt of evidence of implementation of improved internal controls over special flights, including revision of the air mission request form.*

Aircraft use reports were effectively prepared and submitted as required

13. As required by the Department of Peace Operations/Department of Operational Support (DPO/DOS) Aviation Manual, UNIFIL prepared aircraft use reports incorporating flight times and monthly flight summary reports. OIOS' review of 14 out of the 84 reports prepared in the audit period indicated that they were properly completed, signed and submitted to TCQM by the respective commanding officers after each flight. The Head of TCQM reviewed and approved the reports after checking them against the daily flight schedule to verify the number of flights and hours reported. Other information such as time used for crew rest days, number of hours flown, and non-availability days due to proficiency flights were also recorded and monitored by aviation personnel. The monthly flight summary reports were sent to DOS to facilitate payment for aviation services rendered, and the details generally agreed with the information recorded in the aircraft use reports and the daily flight schedule. OIOS concluded that UNIFIL was effective in preparing and submitting accurate and timely aircraft use reports.

MTF air asset was unavailable for use as required

14. The UNIFIL concept of operations requires that two helicopters be available in the Mission for maritime interdiction, surveillance and reconnaissance, maritime search and rescue and medical evacuations. Two TCCs provided a vessel each, which included a helicopter, under LOAs. However, OIOS' review of recorded flight hours for the audit period indicated that only 34 per cent of budgeted flight hours for the two MTF helicopters were utilized (i.e., 101 of the 300 budgeted flight hours). This was because the LOA for the maritime asset (ship and helicopter) expired in May 2018 and had not been renewed. Therefore, the helicopter was declared non-operational. In addition, the helicopter was not suitable for passenger transport to conduct rescue operations or medical evacuation.

15. The HoM/FC sent a formal notification to United Nations Headquarters in September 2018, more than three months after the expiration of the LOA, requesting that the then Under-Secretary-General for the Department of Field Support liaise with the permanent mission of the concerned TCC to allow UNIFIL to task their deployed helicopter pending finalization of the LOA. The permanent mission, in its note verbale dated 5 April 2019, allowed UNIFIL to task the provided asset under the same terms and conditions as the previous signed LOA. However, although the helicopter was rotated in September 2019, a UNIFIL inspection indicated that the newly deployed helicopter had the same limitations regarding passenger transport and medical evacuation. As a result, the helicopter was only used to conduct maritime interdiction, surveillance and reconnaissance. UNIFIL was yet to address these issues by actively engaging DOS to finalize negotiations on a new LOA and ensure that the air asset deployed by the TCC meets its operational requirements. For example, UNIFIL had not reported any serious impediment to the Mission's maritime operations in its periodic performance reports sent to DOS or in the Secretary-General's report to the Security Council on the implementation of the Mission's mandate.

- [REDACTED]
- [REDACTED]
- (2) UNIFIL should take action to enable its maritime air assets to become fully operational by:**
- (i) actively liaising with DOS to renew the letter of assist with the respective troop contributing country (TCC) and ensuring that the air asset deployed by the TCC meets its operational requirements; and**
  - (ii) [REDACTED]**

*UNIFIL accepted recommendation 2 and stated that it will continue to actively follow up with DOS to renew the LOA with the respective TCC and [REDACTED]*

[REDACTED] Recommendation 2 remains open pending receipt of evidence of active engagement with DOS to renew the maritime LOA.

## **B. Aviation risk management and safety**

### Need for strict procedures over embarking/disembarking helicopters with the rotors on in the Mission

17. The DPO/DOS Aviation Manual allows the embarking/disembarking of helicopters with the rotors on (HERO) mainly during emergencies, under exceptional security and safety constraints and other life-threatening situations. In February 2019, the Under-Secretary-General for DOS granted a waiver to the HoM/FC at the latter's request to use HERO in operational exigencies when time is of the essence. Upon receipt of the waiver, the Office of the HoM/FC issued a notification in March 2019 to all concerned UNIFIL personnel stating that going forward, all air mission requests from the Office will indicate "rotors on" unless otherwise specified, suggesting that HERO will be used systematically each time the HoM/FC is travelling. This was further confirmed during OIOS' review of flights during the sampled month of May 2019, which showed that 12 out of 14 passenger flights from the Mission's headquarters in Naqoura to Beirut involving the HoM/FC were conducted with rotors on during embarking/disembarking. The HoM/FC usually travelled with military assistants and a Close Protection Team. On two occasions, a non-United Nations staff member also joined the flight. The sole reason for embarking/disembarking with rotors on was for gaining time, which was considered as a valuable commodity by the HoM/FC. However, the time savings were minimal, about 10 minutes on each flight. Although the UNIFIL Aviation Section implemented mitigating measures including providing practical training and safety briefing to passengers for embarking/disembarking with rotors on, the Mission's aviation risk registers continued to reflect this practice as a permanent risk, rated as high. Moreover, 9 of the 12 flights were conducted using the light utility helicopter even though the risk mitigation measures indicated that the commercial medium utility helicopter should be favoured when using HERO because of the elevated height of the rotors.

18. Although the waiver indicated that this practice should be limited to the lowest possible extent and only when sufficient reasons dictate its use, UNIFIL had not developed and implemented procedures to clearly define the exceptional, compelling and emergent requirements that would lead to the use of HERO. Therefore, the HoM/FC was accepting the increased risk of serious injury or death to passengers on a regular basis.

- (3) UNIFIL should develop and implement procedures which clearly define the exceptional, compelling and emergent requirements that would lead to embarking/disembarking helicopters with the rotors on and limit this practice to the lowest possible extent to reduce the risk of serious injury or death to passengers.**

*UNIFIL did not accept recommendation 3 stating that its Aviation Section strictly follows the procedures and regulations outlined in the DPO/DOS Aviation Manual. The Under-Secretary-General for DOS has already provided confirmation to the HoM/FC that in operational exigencies when time is of the essence, HERO may be utilized. No flight is conducted without an assessment by the HoM, Director of Mission Support and Aviation Section of the flight circumstances including consideration of risk factors. The assessment is carried out on a case by case basis. Furthermore, the Aviation Section takes all appropriate mitigation measures to reduce any associated risks to the lowest practical levels. However, UNIFIL could not provide adequate justification or evidence of operational exigencies or time criticality for sampled flights in May 2019 conducted using HERO. Moreover, the justifications provided in the air mission requests were generic for all flights, which indicates that an assessment was not done on a case by case basis as required. In the absence of compelling requirements on the use of HERO, the Mission may not be complying with the conditions of the waiver granted by the Under-Secretary-General for DOS, thus increasing the risk of serious injury or death to passengers. OIOS therefore maintains that UNIFIL should address this issue. This unaccepted recommendation has been closed and may be reported to the General Assembly indicating management's acceptance of residual risks.*

Need to address other aviation safety risks assessed as high and medium

19. As required by the DPO/DOS Aviation Safety Manual, UNIFIL established an aviation safety council to discuss aviation safety related issues and provide recommendations and/or direct actions to mitigate risks and identify aviation safety hazards. The council met four times during the audit period. The minutes of its meetings showed that responsibilities for implementing action points were established and the agenda provided for follow-up on the implementation of the Council's decisions. UNIFIL also conducted its aviation risk assessments which were reflected in the Mission's risk assessment indicators and submitted to the Aviation Safety Section in DOS quarterly.

20. However, OIOS' review of the risk registers indicated that UNIFIL had not implemented mitigating measures related to identified higher and medium risks during succeeding quarters. These risks included: (i) HERO as discussed in paragraphs 17 and 18 above; (ii) 12 hazard reports filed by air crews stating the presence of unmanned aerial vehicles flying at approximately the same altitude as UNIFIL air assets; and (iii) the need to review and finalize a number of standard operating procedures on air operations including MTF aviation activities. Although UNIFIL had scheduled to conduct a full aviation safety drill in 2019, it only conducted a desktop exercise in May 2019. Moreover, the crash and immediate response action plan had not been tested for over two years because of inadequate coordination between Mission components, which led to the Military component not including the exercise in its 2019 calendar. Mission management advised that a live exercise will take place in February 2020.

21. The above occurred because the aviation safety council did not give due attention to the aviation risk management process, thereby having an adverse impact on the time taken to address the identified aviation risks. The council also did not sufficiently follow up the high and medium risks on air safety issues highlighted in the aviation risk assessment. This could impact the safety of air operations in the Mission.

**(4) UNIFIL should take adequate measures to timely address high and medium risks in the aviation risk registers that are under its purview.**

*UNIFIL accepted recommendation 4 and stated that it will take adequate and timely measures to address high and medium risks in the aviation risk register that are under its purview. Recommendation 4 remains open pending receipt of evidence of actions taken by the Mission to address these risks.*



#### **IV. ACKNOWLEDGEMENT**

22. OIOS wishes to express its appreciation to the management and staff of UNIFIL 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 in the United Nations Interim Force in Lebanon

| Rec. no. | Recommendation  | Critical <sup>1</sup> /<br>Important <sup>2</sup> | C/<br>O <sup>3</sup> | Actions needed to close recommendation   | Implementation date <sup>4</sup> |
|----------|---|---|----------------------|--|----------------------------------|
| 1        | UNIFIL should improve controls over its special flights by ensuring that: each flight is properly justified and approved by the authorized official only after thorough consideration of comparative costs and travel times for air and ground transportation; and air mission requests include adequate reasons for not using ground transportation. | Important   | O                    | Submission of evidence of implementation of improved internal controls over special flights, including revision of the air mission request form. | 1 July 2020                      |
| 2        | UNIFIL should take action to enable its maritime air assets to become fully operational by: (i) actively liaising with DOS to renew the letter of assist with the respective troop contributing country (TCC) and ensuring that the air asset deployed by the TCC meets its operational requirements; and (ii) [REDACTED]                             | Important   | O                    | Submission of evidence of active engagement with DOS to renew the maritime LOA.  | 1 October 2020                   |
| 3        | UNIFIL should develop and implement procedures which clearly define the exceptional, compelling and emergent requirements that would lead to embarking/disembarking helicopters with the rotors on and limit this practice to the lowest possible extent to reduce the risk of serious injury or death to passengers.                                 | Important   | C                    | None. UNIFIL accepted the risk of not implementing this recommendation.  |                                  |
| 4        | UNIFIL should take adequate measures to timely address high and medium risks in the aviation risk registers that are under its purview.   | Important   | O                    | Submission of evidence of actions taken by the Mission to address high and medium aviation risks within its purview.                             | 1 August 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 UNIFIL in response to recommendations.

# **APPENDIX I**

## **Management Response**



19 December 2019

To: Ms. Muriette Lawrence-Hume, Chief, New York Audit Service  
Internal Audit Division, OIOS

From: Major-General Stefano Del Col, Head of Mission and Force Commander  
UNIFIL

Subject: **Draft report on an audit of Aviation Operations in UNIFIL (Assignment No. AP2019/672/07)**



1. We refer to your memorandum on the above subject, reference No. OIOS-2019-MO1202 dated 12 December 2019. Please find attached, UNIFIL's response to the recommendations contained in the subject Draft Report.

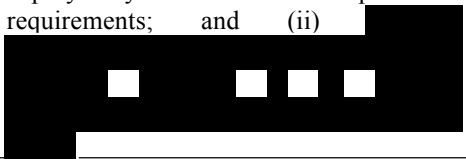
2. In following the usual procedure, copies of any supporting documents will only be provided to MERAO based at UNIFIL HQ and will not be transmitted to you with this Mission's response.

Best regards.

Cc: Mr. Effendi Syukur, Audit Focal Point, UNIFIL  
Mr. Ibrahim Bah, Chief, MERAO, Internal Audit Division, OIOS  
Ms. Cynthia Avena-Castillo, Professional Practices Section, Internal Audit Division, OIOS

## Management Response

## Audit of aviation operations in the United Nations Interim Force in Lebanon

| Rec. no. | Recommendation  | Critical <sup>1</sup> /<br>Important <sup>2</sup> | Accepted?<br>(Yes/No) | Title of<br>responsible<br>individual | Implementation<br>date | Client comments   |
|----------|---|---|-----------------------|---------------------------------------|------------------------|---|
| 1        | UNIFIL should improve controls over its special flights by ensuring that: each flight is properly justified and approved by the authorized official only after thorough consideration of comparative costs and travel times for air and ground transportation; and air mission requests include adequate reasons for not using ground transportation.   | Important   | Yes                   | CAVO with<br>DMS                      | 1 July 2020            | Mission will continue to ensure that consideration of comparative costs and travel times for air and ground transportation are carried out for special flights and the required approval/ authorization process is always followed.<br>The current cost and travel time calculations within the request forms (AMR) will be updated as required.  |
| 2        | UNIFIL should take action to enable its maritime air assets to become fully operational by: (i) actively liaising with DOS to renew the letter of assist with the respective troop contributing country (TCC) and ensuring that the air asset deployed by the TCC meets its operational requirements; and (ii)  | Important   | Yes                   | MSC with<br>MTF                       | 1 Oct 2020             | UNIFIL will continue to actively follow up with DOS to renew the letters of assist with the respective Troop Contributing Countries (TCCs) to ensure that any air asset deployed by the TCCs meet operational requirements - noting that the mission has no control over issuance of LOA's and related timelines.<br>The mission will further report any impediments to the use of its air assets to DOS for remedial action. |
| 3        | UNIFIL should develop and implement procedures which clearly define the exceptional, compelling and emergent requirements that would lead to embarking/disembarking helicopters with  | Important   | No                    | N/A                                   | N/A                    | UNIFIL Aviation Section strictly follows the procedures and regulations outlined in the DOS Aviation Manual. The USG of DOS has already provided confirmation to the  |

<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 in the United Nations Interim Force in Lebanon

| Rec. no. | Recommendation  | Critical <sup>1</sup> /<br>Important <sup>2</sup> | Accepted?<br>(Yes/No) | Title of<br>responsible<br>individual | Implementation<br>date | Client comments  |
|----------|---|---|-----------------------|---------------------------------------|------------------------|--|
|          | the rotors on and limit this practice to the lowest possible extent to reduce the risk of serious injury or death to passengers.        |   |                       |                                       |                        | HOM/FC that in operational exigencies when time is of essence, HERO (embarking and disembarking with rotors on) may be utilized. No flight is conducted without an assessment by the HOM, DMS, and Aviation Section of the flight circumstances including consideration of risk factors and alternate transport methods against operational exigencies such as confidential matters of critical operational importance. The assessment is carried out on a case by case basis. Furthermore, it should be noted that Aviation Section takes all appropriate mitigation measures in order to reduce any associated risks to the lowest practical levels. |
| 4        | UNIFIL should take adequate measures to timely address high and medium risks in the aviation risk registers that are under its purview. | Important   | Yes                   | MASC and<br>CAVO                      | 1 August 2020          | Mission will take adequate and timely measures to address high and medium risks in the aviation risk register that are under its purview.  |