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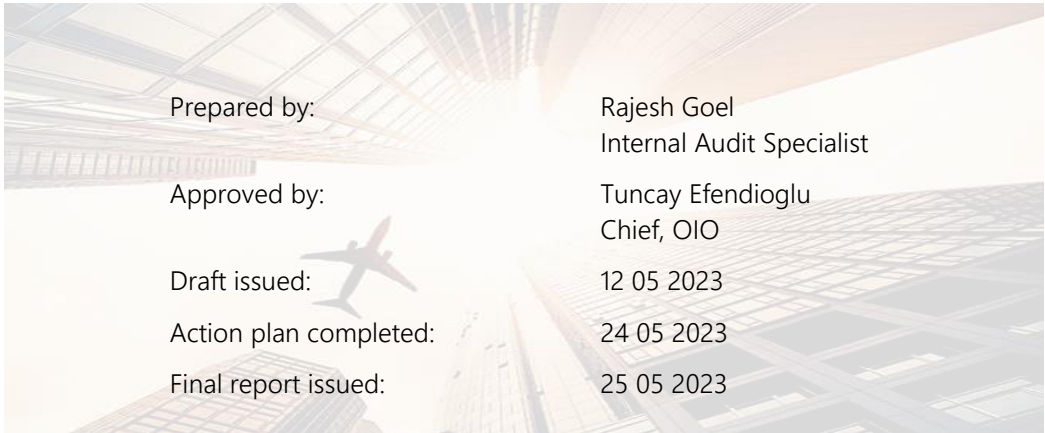
**ORGANISATION DE L'AVIATION  
CIVILE INTERNATIONALE**

**INTERNATIONAL CIVIL  
AVIATION ORGANIZATION**

**Internal Audit Report  
on  
Payroll Management**

**IA/2023/2**

**Office of Internal Oversight**



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Draft issued:	12 05 2023
Action plan completed:	24 05 2023
Final report issued:	25 05 2023

## ACRONYMS

ADB	Bureau of Administration and Services
AI	Administrative Instruction
ERP	Enterprise resource planning
ERM	Enterprise Risk Management
FIN	Finance Branch
GS	General Services
ICAO	International Civil Aviation Organization
ICSC	International Civil Services Commission
IE	International Experts
IP	International Professional
OIO	Office of Internal Oversight
OPAS	Operational Assistance Personnel
OSG	Office of the Secretary General
P&D register	Payment and Deductions register
SEA	Staff Employment and Administration Section
SRR	Staff Regulations and Rules
TCB	Technical Cooperation Bureau
UNJSPF	United Nations Joint Staff Pension Fund

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## EXECUTIVE SUMMARY

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1. In accordance with its annual work plan for 2023 (C-WP/15452), the Office of Internal Oversight (OIO) carried out an audit of payroll management. The objectives of the audit were to assess (a) the design and effectiveness of internal controls in mitigating all associated risks relating to payroll process and (b) adequacy of system support for ensuring accuracy and completeness of payroll calculations in compliance with ICAO rules and procedures. The audit was conducted in conformance with the International Standards for the Professional Practice of Internal Auditing<sup>1</sup>.
2. The Audit noted the following positive developments in the management of payroll:
  - a) An analytical review of the General Ledger data of 2022 showed no miscalculations or errors in payroll.
  - b) The 2022 year-end balances of the UNJSPF (United Nations Joint Staff Pension Fund) were fully reconciled.
  - c) ICAO was the first participating organization of UNJSPF to successfully integrate with the IPAS (Integrated Pension Administration System) Phase 2 of UNJSPF in 2020; enabling staff members to generate reports on pension contributions through member self service module.
3. Based on the sample of payments tested, controls on payroll calculations and payments are found to be generally satisfactory, compliant with ICAO rules and regulations, and supported by appropriate documentation. Segregation of duties are reasonably maintained to deter fraud risks, however there are practical constraints whenever a key staff member is absent during payroll batch processing.
4. ICAO has already planned to implement a new ERP system as part of the transformational objectives, which will replace the current payroll module of Unit4 ERP. This new initiative is expected to bring more efficiencies, however, there would be increased demand on resources of payroll unit for testing the new system and to undertake a parallel run before achieving "Go Live" status of the new system. There are associated risks which need to be identified and effectively managed.
5. Overall, OIO assessed internal controls over payroll processes and systems, to be generally adequate and "effective". This report made one recommendation of medium priority related to documentation of controls on segregation of duties in the new ERP system and user acceptance testing results of the payroll module of the new ERP system. Management comments and proposed actions are in the Management Action Plan at Annex 2.
6. OIO wishes to thank management and staff for their assistance and cooperation during the audit.

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<sup>1</sup> IIA Standard 1321

## RESULTS OF THE AUDIT

### Introduction

7. The ICAO salaries, allowances and benefits are governed by the principles of United Nations common system of salaries, allowances, and benefits as also promulgated in ICAO's Staff Rules and Regulations.
8. Payroll is processed using the payroll module of Unit4 ERP. All the information necessary for the payment of an employee's salary is recorded in the HR / Payroll module of Agresso. The active staff members in the years 2020, 2021 and 2022 and the payroll expenditure processed using CC (Canadian Dollar client) of Unit4 in last three years were as follows:

	2020	2021	2022
No. of Professional staff members <sup>2</sup>	389	386	395
No. of General Services Staff members <sup>2</sup>	374	353	345
Total staff members	763	739	740
Total Payroll Expense from Regular Budget (in million CAD)	78.33	78.84	83.99
Budgeted Staff Costs (in million CAD)	82.12	85.66	88.97
Total regular budget (in million CAD)	103.31	106.94	112.45
Percentage of RB payroll expense compared with total RB budget	75.82%	73.72%	74.69%

9. While the payments of consultants (on SSAs) are processed using Accounts Payable (AP) module of Unit4 ERP, salaries of language interpreters, revisors and temporary staff are processed through payroll module of Unit4 ERP.
10. Apart from the payroll payments of regular CC Client, payroll payments in respect of International Experts and OPAS personnel hired by TCB are processed using UC client of Unit4 ERP:

	2020	2021	2022
No. of International Experts	16	15	16
No. of OPAS (Operational Assistance) staff <sup>3</sup>	32	29	31
Payroll expense (in million USD)	5.88	5.96	6.68

### Audit Objectives and Scope

11. The objectives of this audit were to assess:
  - a) the design and effectiveness of internal controls in mitigating all associated risks relating to payroll process, and

<sup>2</sup> include those staff members who separated during the year and given salaries and wages for less than 12 months depending on their separation dates

<sup>3</sup> OPAS personnel are recruited through ICAO, however, they work directly for the government of Member State in an executive capacity.

- b) the adequacy of system support for ensuring accuracy and completeness of payroll calculations in compliance with ICAO rules and procedures.
12. The audit scope included review of the relevant documentation and assessment of key controls with a view to assessing operational effectiveness and efficiency of the payroll process, segregation of duties, exception reporting, and reconciliations. Audit tests were performed to provide reasonable assurance on payroll data accuracy, and compliance of the payroll process. The audit primarily covered payroll data for January 2021 through December 2022.
  13. A walk-through test of procedures and systems related to payroll process and review of relevant procedures, files, and other documents was carried out. Audit examined a sample of payroll payments of staff in Professional and General services categories to reverify the calculations.
  14. This audit was conducted using data analytics tools for analyzing relevant information in Unit4 ERP system on payroll. Sample testing was carried out to assess compliance with relevant ICAO rules and procedures and accuracy and completeness of documentation. Interviews with key staff were held to clarify and gain better understanding of the risk management and control environment around the processing of payrolls.
  15. Since the staff benefits and entitlements were covered by OIO in 2021<sup>4</sup> and 2022<sup>5</sup>, the calculations of staff benefits and entitlements were not included in the scope of this audit.

## Findings

### Timeliness of payroll processing

16. OIO reviewed the payroll transactions for 2022 in terms of timeliness and accuracy. The ICAO payroll unit conducts payroll simulations in a timely manner to identify exceptional cases such as nil pay and large payments, which enables their timely resolution before processing the final pay. Reviewed payroll transactions were processed on time and staff were paid as per established timelines.
17. The payslips are electronically made available to staff members through self service module of Unit4 ERP. OIO assessed internal controls as adequate in this regard and operating as intended.

### Unit4 Payroll module

18. There are three clients in Unit4 ERP in ICAO named "CC", "UC" and "EC"<sup>6</sup>. While CC client is used to make payroll payments in Canadian Dollars, US Dollars, and other local currencies to regular staff in Headquarters and Regional Offices; UC client is used to make payroll payments to International Experts and OPAS (Operational Assistance) staff hired by TCB as project personnel. The salaries of TCB project personnel are not budgeted under Regular Budget and paid from contributions and project service costs.
19. The information needed for the payment of an employee's salary is recorded in the personnel registration form of payroll module. All mutations<sup>7</sup> of the master data are authorised by HR and recorded in the personnel registration form. Payroll unit staff also validates this information. The form acts as a communication tool and a workflow mechanism between HR and payroll unit and used for all payroll adjustments. However, information related to overtime is not part of the form and these calculations are governed by a separate workflow. Depending on a cost benefit analysis, the integration of overtime processing within payroll module should be considered in the new transformation signature project on ERP.

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<sup>4</sup> IA/2021/7 – Audit of Education Grant Entitlement

<sup>5</sup> IA/2022/6 – Audit of Staff Benefits and Entitlements

<sup>6</sup> Euro client is not used for payroll payments

<sup>7</sup> changes in personal or salary information of the employee

20. OIO noticed that the pay status field<sup>8</sup> was 'Active' in respect of separated employees instead of being "Closed" or "Parked". OIO was informed that the value of this field was kept as "Active" to facilitate consultancy payments (through Accounts Payable module) in cases where former staff members are engaged as consultants. As a compensatory control, no former staff member is picked up in payroll runs if end dates of employment are prior to the current payroll period. Audit testing confirmed that no separated staff member was paid from the payroll module after separation.

#### Payroll processing in UC Client

21. The payroll module of UC client is similar to the module of CC client. The HR data in case of UC client is fed into the system by Field Personnel Section. The onboarding and separation processes and associated internal controls are also similar for international experts and OPAS personal. In the year 2022, 31 OPAS personnel and 16 International Experts were paid salaries from UC client. Their salary scales were also governed by the UN staff salary scales and paid the same salary as payable to a regular UN staff member in the duty station.
22. OIO extracted the General Ledger data of 2022 from UC client to verify the timeliness, and accuracy of salary payments, and verified that the payroll payments were in accordance with the salary scales and steps of TCB project personnel recorded in Unit4 ERP.

#### Controls around Pay and Deduction (P&D) register

23. The pay and deduction register in payroll module captures the data related to pay elements and deductions which are used to build up weekly/monthly pay. The P&D values can be valid for a particular resource, a position, or a category/group e.g., salary scales of professional and general services staff.
24. The salary scales, allowances, and entitlements, as well as the pensionable remuneration scales are published by International Civil Services Commission (ICSC). HR authorises the payroll unit to upload the new salary scales into the payroll module. OIO verified that the salary scales for all categories of staff posted in different duty stations were correct and matched with those published on the ICSC website from time to time. OIO also verified that the post adjustment multiplier (PAM) rates and UN exchange rates are the same as established periodically by ICSC and UN Treasury Office respectively.

#### Controls around employee master file

25. Each ICAO employee must be registered in the HR module of Unit4. Each staff member is linked to a position, and it is not possible to have two employees against a particular position. HR also issues a monthly report on the number of staff in the Organization.
26. For new employees, HR fills in the Personnel Registration form in the Unit4 HR module to generate a unique staff number, the RESID. To record a mutation in the HR master data (e.g., new employee, data mutation or separation), updates are first recorded by an HR staff followed by approval of another HR Officer who will approve based on supporting documentation. The name and approval dates of both the HR staff are indicated in the personnel registration form of payroll module.
27. Subsequently, system alerts are generated to the payroll unit for action and validation. The supporting documentation received by them is saved by the payroll unit in the OSG shared drive. Payroll staff verifies that there are no errors and reviews the Pay variance report arrived at after mutation for ensuring correctness of calculations.
28. When the update is done, two different payroll staff members approve the action. The names and the approval dates of both the payroll staff as well as payroll officer are recorded in ERP.

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<sup>8</sup> in payroll details of personnel registration form

29. The departure of an employee follows the same process as any other mutation in the HR master data. HR completes the separation form and enters the information in personnel registration form.
30. Each mutation in the payroll master data triggered by HR requires the involvement of two HR employees and two Payroll employees. OIO observed that the four-eyes principle and segregations of duties rules are strictly followed and logged in the system.
31. The payroll unit also generates a variance report to show changes in salaries and entitlements between the current month's payroll and previous month's actual payroll. This also acts as a control mechanism to avoid any possibilities of over payments. Pay variance reports of different categories of employees are stored month-wise since 2009 in the OSG shared drive. Exception can arise due to recoveries, missing entitlements, erroneous entitlements, and retrospective payments. Any exceptions are escalated to HR officers for correction. OIO analysis of 2022 payroll simulations indicated that required documentation about differences is captured when there are payroll variations compared with the previous month.

#### Calculations of net salary, post adjustments and pension contributions

32. OIO simulated the payroll payments for 2022 towards net salary and post adjustment amounts for all internationally recruited staff based at Headquarters and Regional Offices. To undertake the simulation, the month-wise grade and steps of all internationally recruited staff members were extracted from HR module and calculations were performed based on salary scale, post adjustment multiplier and applicable exchange rates. The calculations matched with the transactions recorded in the General Ledger in all cases. Few cases involving differences were explained satisfactorily<sup>9</sup>.
33. Similar exercise was performed for 2022 monthly net salaries of GS staff from Headquarters and APAC Regional Office as an example. No post adjustment is payable to GS staff members. OIO verified that payroll calculations were correct, and all differences were explained satisfactorily.
34. The UNJSPF contributions<sup>10</sup> are automatically deducted from salary each month. OIO also verified the pension contribution deductions of all headquarters staff and found these deductions as accurate and according to rules. ICAO has fully reconciled its 2022 year-end balances with UNJSPF with no differences. ICAO was also the first participating organization to successfully integrate with the IPAS (Integrated Pension Administration System) Phase 2 of UNJSPF in 2020; enabling staff members to generate reports on pension contributions through member self service module.

#### Dependency Allowances

35. Staff members in the Professional and higher categories are entitled to dependency allowances. An eligible staff member in the Professional and higher categories with a recognized dependent spouse, is paid a dependent spouse allowance amounting to six per cent of the net base salary, plus post adjustment.
36. The dependency allowance payments made during 2022 were test checked by OIO with reference to salary scales, steps, applicable post adjustment multiplier (PAM) and exchange rates for different months. The checking showed that there were no miscalculations or errors in the payments of dependency allowances.

#### Deductions from salaries

37. The employee information about their subscriptions to different schemes of medical insurance (CIGNA), and life insurance (AETNA) and information about membership of ICAO staff association, etc. are all recorded in the personnel registration form. OIO carried out a sample check of monthly

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<sup>9</sup> differences can happen because of reasons such as special post allowance, cash awards or any retrospective payment of dependency allowance.

<sup>10</sup> The staff portion is 7.9% of pensionable remuneration rate while ICAO portion is 15.8% of pensionable remuneration rate.

deductions from 2022 payrolls of Headquarters and EUR/NAT staff as an example and verified that the deducted amounts were correct.

### Segregation of duties

38. There are five staff members<sup>11</sup> in payroll unit. OIO analyzed the Unit4 roles of all staff members to find out if there are possible Segregation of Duties (SoD) conflicts and noted that the roles and responsibilities in the payroll section are clearly defined and documented.
39. There are 45 Unit4 roles assigned to the payroll team of five members. Most of the roles are to validate the mutations recorded by HR staff. Some of the important roles are payroll proposal (PR-01), payroll confirmation (PR-02), GL posting step (SU-07), payroll remittance confirmation (SU-08), and bank file processing (SU-11).
40. Due to limited number of staff, payroll unit finds it difficult at times to strictly segregate duties amongst staff. The payroll unit runs multiple payroll batches<sup>12</sup> each month and in case of absence of a key staff, it becomes imperative that an alternative staff member performs the duties in absence of regular staff e.g., executing pay proposal step (PR-01) or validating the HR mutation data of the personnel registration form.
41. As a compensatory control, the payroll team ensures that a single staff member never takes the role as clerk as well as verifier for checking the documentation and validating the mutations. No exceptions were found in audit.
42. The ERP system does not prevent the execution and confirmation of the transaction by the same person. It is possible that the same staff member executes the PR-01 (payroll proposal) step and PR-02 (payroll confirmation) step while running batches. OIO was informed that even if the same person executes the PR-01 and PR-02 transactions in Unit4, another staff member does the verification.
43. OIO noted that documented compensatory controls are in practice to resolve the problems that may occur in absence of key staff members.

### Bank Reconciliation of payroll expenses

44. OIO assessed whether monthly bank reconciliation statements are prepared to reconcile the bank accounts with the General Ledger balances. Analysis of various bank account statements of December 2022 showed nil differences compared with GL balances in respect of 22 bank accounts, while there were some differences for the remaining 13 bank accounts which were not related to payroll payments.

### System security

#### ERP enhancements

45. Unit4 ERP, as it is configured now; has become an inefficient legacy system implemented 14 years ago. The last major upgrade to Unit4 payroll module was done in 2019, and it took significant efforts to test the upgraded software and stabilise the operations. The documentation of these changes and test results, however, are not available with payroll unit. As a best practice, the acceptance testing documentation should always be retained by the business unit (payroll unit in this case) especially for critical systems as acceptance testing documentation can be very helpful in understanding the system behaviour while planning future upgrades.

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<sup>11</sup> One professional staff member (Head of payroll unit) and four GS staff members.

<sup>12</sup> Weekly/Monthly payments of GS staff in several duty stations, one batch for IP staff every month, 2 batches for IE/OPAS experts and one or two batches for Interpreters, translators, revisors, etc.

### Audit logging enabled on payroll payment folder

46. OIO noted that the audit logging on the payroll payment folder was enabled in the ERP system in February 2022, as recommended by the External Auditor. This is a positive step to enhance the security features.

### Risk Management

47. The process of risk management requires identifying and prioritizing risks and implementing appropriate risk treatments relevant to their specific context. Payroll unit identified and documented the key risks related to the payroll process. The risk owners were also identified who are responsible for monitoring the key risks. None of identified risks were considered critical enough to be included in the corporate risk register of ICAO. This exercise was initiated in 2022 as part of the implementation of enterprise risk management in ICAO.
48. ICAO has initiated a Digital Transformation program and defined eight signature projects, of which the "Enterprise Resource Planning" is one of the most important signature projects, with the objective to replace the current Unit4 solution. The scope of the ERP initiative is to modernize the legacy application landscape with a modern cloud-based platform, including payroll function. During design and implementation phase of the new ERP system, payroll unit will experience considerable change and increased resource requirements. Planned changes and enhancements would also impact the current risk landscape of the payroll process and therefore the need to continually update the risks related to the payroll process.

Recommendation	Documentation of controls on segregation of duties and user acceptance testing results in the new ERP system
Priority	Medium
While implementing the new enterprise resource planning system, FIN should ensure that (a) segregation of duties are effectively designed and documented, and (b) user acceptance testing results of new payroll module are documented and maintained by the payroll unit.	
Closing criteria:	
Documentation of controls around segregation of duties in the new payroll module, and documentation of acceptance testing results of payroll module in new ERP system.	

## ANNEX 1: DEFINITION OF AUDIT TERMS

### Audit Ratings

In providing an overall assessment of the results of the audit, OIO uses the following standardized audit rating definitions:

Audit Assessment	Definition
Effective	Controls evaluated are adequate, appropriate, and effective to provide reasonable assurance that risks are being managed and objectives should be met.
Some Improvement Needed	A few specific control weaknesses or areas for improvement were noted; generally however, controls evaluated are adequate, appropriate, and effective to provide reasonable assurance that risks are being managed and objectives should be met.
Major Improvement Needed	Several key control weaknesses were noted and/or several areas of strategic/high importance were identified where significant improvements can be made to increase efficiency and effectiveness.
Unsatisfactory	Controls evaluated are not adequate, appropriate, or effective to provide reasonable assurance that risks are being managed and objectives should be met.

Internal control is defined as a process effected by senior management and staff, designed to provide reasonable assurance regarding the achievement of objectives relating to operations, reporting and compliance objectives. Whilst internal control provides reasonable (but not absolute) assurance of achieving organizational objectives, limitations may result from:

- suitability of objectives established as a precondition to internal control;
- reality that human judgment in decision making can be faulty and subject to bias;
- breakdowns can occur because of human failures such as simple errors;
- ability of management to override internal control;
- ability of management, other staff, and/or third parties to circumvent controls through collusion;
- external events beyond the organization's control.

### Priority of Audit Recommendations

The audit recommendations in this report are categorized according to priority as a guide to management in addressing the issues raised. The following categories are used:

High: recommendations, which address significant and/or pervasive deficiencies or control weaknesses, or areas where significant improvements can be made.

Medium: recommendations, which address important deficiencies or control weaknesses, or areas where some improvements can be made.

Low: suggestions, which represent best practice, or general opportunities for improvement.

## ANNEX 2: MANAGEMENT ACTION PLAN

Ref	Recommendation	Priority Rating	Accepted (Y/N)	Management Comments	Agreed Actions	Office/ Section Responsible	Target Date
1.	While implementing the new enterprise resource planning system, FIN should ensure that (a) segregation of duties are effectively designed and documented, and (b) user acceptance testing results of new payroll module are documented and maintained by the payroll unit.	Medium	Y	This recommendation will be considered during the implementation of the new ERP, for all processes and modules, including payroll.	Segregation of duties review and acceptance testing results will be documented	FIN	1 January 2025