



LAO PEOPLE'S DEMOCRATIC REPUBLIC
PEACE INDEPENDENCE DEMOCRACY UNITY PROSPERITY

Ministry of Public Works and Transport
Lao Airlines

Ref. No.: 464 / LA
Date: 17 Oct 2024

REQUEST FOR EXPRESS OF INTEREST
International Airworthiness Advisor
(Reference No. ICS-LASD-003)

The Government of Lao Peoples Democratic Republic (GoL) has applied for grants in the amount of US\$ 1.75 million equivalent from the World Bank toward the cost of the Lao Airlines Sustainable Development Project (LASD), and it intends to apply part of the proceeds to payments for goods, and consulting services to be procured under this project. The LASD project will include the following components: Component 1: Lao Airline Restructuring Strategy and Reform Pathway; Component 2: Lao Airlines Business Optimization and Management Improvements; and Component 3: Passenger Service System module upgrade.

Lao Airlines Engineering and Maintenance Department (Lao Airlines EMD) intends to establish a mechanism for departmental improvements by contracting an International Airworthiness Advisor, with a vast and proven successful track record experience in an Airline or Approved Maintenance Organization. The qualified IAA's expertise in the area of Aircraft Maintenance and Airline Management will support the development of Lao Airlines EMD. His / Her extensive experience and specialized knowledge in aviation industry, which is crucial for the successful execution of EMD's maintenance program, will greatly improve EMD's action plan and pro-active goals toward improvement. This objective viewpoint is invaluable for identifying inefficiencies, uncovering opportunities for improvement and ensuring that our approach aligns with the industry standards. and to provide professional advice to Lao Airlines management team regarding the short and long-term maintenance action plan. The airline's fleet consists of 11 aircraft (including four A320 and seven ATR72).

The LASD Project now invites eligible individual consultants to indicate their interest in providing the Services. Interested Consultant should provide information (CV, Expression of Interest, other supporting information, if any) demonstrating that s/he has the required qualifications and relevant experience to perform the Services. In order to qualify for this position, the candidates shall meet the following experience and competence requirements:

- Engineering Degree provides a competitive edge; Master's Degree or superior level of technical related education is considered an advantage; Additional aviation maintenance-related certifications and ratings is an advantage.
- At least 15 years of airline or maintenance organization technical capacity experience with a successful track record in senior management position.
- At least one similar assignment successfully completed within the past 5 years.
- Proficiency in maintenance procurement processes, including strategic sourcing and supplier management.
- Background on EASA (Part 145) and/or FAA (14 CFR Part 145) approval and compliance.
- Project management knowledge and abilities, including project plans, dependencies, budgets, and deliverables within the scope and on time.
- Knowledge on regulations and standards relating to aircraft operations.
- Proficiency in English; and good presentation skills; proven training and capacity building skills.

The attention of interested consultants is drawn to Section III, paragraphs, 3.14, 3.16, and 3.17 of the World Bank's "Procurement Regulations for IPF Borrowers" 4th edition of November 2020 ("Procurement Regulations"), setting forth the World Bank's policy on conflict of interest. A Consultant will be selected in accordance with the Competitive Selection of Individual Consultants method set out in the Procurement Regulations.

Further information can be obtained at the address below during office hours from 8:00 to 16:00 Hours, Monday to Friday. Expressions of interest must be delivered in a written form to the address below (in person, or by mail, or by fax, or by e-mail) by **04 Nov 2024**, 16:00 o'clock Lao time (submissions via email are also acceptable). **Only shortlisted candidates will be contacted.**

Lao Airlines, Wattay International Airport, Sikhottabong District, Vientiane Capital, Lao PDR. P.O. Box 6441

Attention: Mr. Sisavanh Thammavong - Director of Engineering and Maintenance Department
Email: sisavanh@laoairlines.com with CC: sonnyraymundo@laoairlines.com;
soudasack@laoairlines.com; proc.dpf.mpwt@gmail.com; phouthasinh.k@laoairlines.com



Yours sincerely,

Mr. Sitthideth DOUANGSITHTHY

Deputy Managing Director of Lao Airlines

TERMS OF REFERENCE

Position	: International Airworthiness Advisor
Project Title	: Lao Airlines Sustainable Development Project
Duty Station	: The Lao Airlines State Enterprise (Lao Airlines), Vientiane Capital, Lao PDR
Type of Contract	: Lump-Sum
Procurement No.	: ICS-LASD-003

1. Background

The Lao Airlines State Enterprise (Lao Airlines) was established by the Government of Lao PDR in 1989. It was separated from Lao Department of Civil Aviation and made financially independent in operating its business activities, although Ministry of Public Works and Transport (MPWT) remains its supervising agency. Lao Airlines ranks as the tenth largest SOE by revenue in 2017. As the national carrier, it is the pride of the nation and remains strategically significant to the Lao transport and tourism sectors due to its forward and backward linkages to job creation and overall economic activities in these sectors.

Lao Airlines' (QV) business model has evolved over the years, and it has harnessed partnerships with several vendors to help develop market share. Some of its partnerships include, the establishment of Sabre Lao Company, which is a joint venture between Lao Airlines and Sabre International Inc., which provides business activities in air ticket reservation in Lao markets; creation of Champa Holidays Travel Company, which is a Joint Venture Travel Company between the Lao Airlines and GTMC Travel Singapore which provides travel services; and development of Muang Thong Hotel in Luang Prabang which is a hotel business with 34 rooms. In December 2023, the airline entered a strategic partnership, including interline and technical services with Vietjet Air.

Furthermore, since 2011, Lao Airlines has upgraded its standards and interconnection by making investments in the airline. It has also strengthened its corporate governance arrangements by revamping its management board and establishing an aviation operations management system to fulfill its safety goals. The management system is accredited and awarded by international organizations such as International Standards Organization (ISO). In 2016, Lao Airlines became a full member of the International Air Transport Association (IATA), establishing sales channel and payment systems with IATA systems and increasing air ticket agents and connections with 33 foreign airlines globally. QV has received its IATA Operational Safety Audit (IOSA) certification indicating the company's increased reputation with respect to flight safety.

These improvements have helped to sustain the company's operations. QV staffing comprises a total of 981 employees, of which the Engineering and Maintenance Department (EMD) staff comprises of 126 personnel. The airline's fleet consists of 11 aircraft (including four A320 and seven ATR72). In 2014, Lao Airlines entered a joint venture with Lao Airlines Engineering Company (LAECO) to enhance maintenance productivity in a cost-efficient manner. This joint venture obliged the airline company to reincorporate all the maintenance activities under LAECO's own certification. This joint venture doesn't end well and lasted only four years. In 2018, an early termination was initiated. To date, Lao Airlines is still having a lengthy dispute regarding the recovery of the airline's spare parts, as well as the other material and financial benefits. Though Lao Airlines currently lacks FAA or EASA Maintenance Organization approval, the company seeks to maximize MRO opportunities around the ASEAN region.

2. Objective

Lao Airlines EMD intends to establish a mechanism for departmental improvements by contracting an International Airworthiness Advisor, with a vast and proven successful track record experience in an Airline or Approved Maintenance Organization. The qualified IAA's expertise in the area of Aircraft Maintenance and Airline Management will support the development of Lao Airlines EMD. His / Her extensive experience and specialized knowledge in aviation industry, which is crucial for the successful execution of EMD's maintenance program, will greatly improve EMD's action plan and pro-active goals toward improvement. This objective viewpoint is invaluable for identifying inefficiencies, uncovering opportunities for improvement and ensuring that our approach aligns with the industry standards. and to provide professional advice to Lao Airlines management team regarding the short and long-term maintenance action plan.

The overall objective of the International Airworthiness Advisor is to provide short and long term advise to QV Management on how best to attain an efficient Maintenance Cost Management, Procurement and Inventory Management, Maintenance Reliability Program, Maintenance Planning and Fleet Management, EASA Part 145 and/or FAA (14 CFR Part 145) Standard Development and Training Management.

3. Scope of work

A. Maintenance Cost Management

- i. Review all maintenance contracts, assess accumulated debts or unserved contractual obligations.
- ii. Identify all areas of costs, and benchmark to market values, to ensure a reduction of the current maintenance cost to industry average of 10-12 percent of total operating costs.
- iii. Elaborate a detailed organizational structure analysis to determine any redundancies in the structure and where manpower could be reduced, considering staff retraining and reallocation strategies.
- iv. Analyze and provide budgeted short and long-term plan for efficient and cost-effective aircraft maintenance execution for Lao Airlines Fleet
- v. Develop a detailed maintenance strategy to address the identified challenges and leverage opportunities.
- vi. To define and strategize key performance indicators (KPIs) for measuring cost efficiency and effectiveness such as; Cost per Flight Hour (CPFH), Mean Time Between Failures (MTBF), Maintenance Turn-around Time (TAT) and Downtime to enable Lao Airlines Management to assess overall maintenance activity and cost management.

B. Procurement and Inventory Management

- i. Review existing practices and systems. Provide recommendations on the best course of action regarding to procurement and logistic team.
- ii. Prepare guidelines on inventory management practices to ensure availability of necessary components without overstocking.
- iii. Support the establishment of a system for procuring and managing spare parts, materials and component repair.
- iv. Support EMD to elaborate a detailed cost benefit analysis to assess the value of power by the hour (PBH) contracts.
- v. Support EMD in the elaboration of enhanced maintenance procurement procedures with OEMs, ATR, Airbus and other supplier/vendor.
- vi. Provide guidance on material inventory such as aircraft parts, tooling, procurement, and logistic team for more pro-active response.

- vii. Evaluate Lao Airline agreements contracted with the third party relating to outsourced component repair and aircraft maintenance.

C. Maintenance Reliability Program

- i. Analyze the effectiveness of the QV's established Maintenance Reliability Program.
- ii. Provide a method to improve continued monitoring of the performance and efficiency of the maintenance reliability program.
- iii. Offer an effective trend analysis to ensure advance planning and proactive actions before any aircraft system malfunction occurs.
- iv. Provide a statistical data (in-service experience) from other Operators with a larger fleet in the region, that could be used for adapting and improving QV's Maintenance Reliability Program.
- v. Provide comprehensive strategies on optimizing the Maintenance Reliability Program for better operational performance and increase flight safety.

D. Maintenance Planning and Fleet Management

- i. Support the airline to seek ATR/Airbus and OEM's assistance in the implementation of repair agreements to diminish costs.
- ii. Assist the airline to increase cooperation with the aircraft manufacturers and OEMs to enhance its position in the engineering and maintenance area.
- iii. Develop a plan to maximizes aircraft availability.
- iv. Define a strategy that reduces aircraft downtime, maximizes aircraft availability, and complies with relevant regulations.
- v. Provide an insight on future maintenance costs based on aircraft usage, life cycles and hours stage and fleet expansion or reduction plans.
- vi. Provide an action plan regarding A320 Fleet engine overhaul project

E. EASA and/or FAA Standard Development

- i. Elaborate an EASA and/or FAA certification strategy including regulatory and planning approach.
- ii. Requirement preparation on management structure, facility, certifying staff, tools, equipment, standard procedures, spare stock, maintenance agreement, and any other regulatory requirements to improve in-house capability

F. Training Management

- i. Assist in the development of a human resource development strategy to ensure that younger engineers are retained in the company and have a transparent growth path.
- ii. Identify training needs for maintenance personnel and advise QV management on necessary licensing requirements, skills development and any identified training gaps.
- iii. Identify the key skills, knowledge and competencies that are lacking in EMD
- iv. Propose a training program that aligns with QV's long-term objectives to address both immediate and future needs.
- v. To developed an enhanced training structure for in-house maintenance personnel to reduce reliance on third party Organization.
- vi. To provide insight on how to achieve an effective maintenance training program and how should it be implemented aligning with QV's goals for future development.
- vii. Review the existing policy and approval process for the flight crew to perform transit checks (for quick turn arounds) in the same manner as all carriers do and analyze the outsourcing of other relevant maintenance services at each destination, as a mean to eliminate to the extent possible the use of mechanics on board.

4. Methodology

The International Airworthiness Advisor shall perform the work in Lao Airlines main office/hangar or remotely. Data will be collected from Lao Airlines and relevant market analysis prepared by the World Bank and shared with approval from Lao Airlines. The IAA will draw on experiences from Lao Airline's regional peers and international best practices. Regional peers represent countries in the East Asia Pacific region that are at similar stages of development, with broadly similar economic structure and have a state carrier. Structural and regional peers will be identified based on standard selection. He/She will work closely with Lao Airlines Management team for the completeness and fulfilment of the ToR requirements.

The International Airworthiness Advisor shall conduct a comprehensive assessment on Lao Airlines Engineering and Maintenance Department to identify key challenges and opportunities. Review relevant aviation regulations and standards (e.g., ICAO standards and recommended practices for maintenance organizations, Lao PDR Civil Aviation Rules, FAA, EASA,) that affect maintenance practices. Gather and review relevant data through available documents, observation, interviews, meetings, surveys, calendars and schedules, to assess the current status of Lao Airline EMD.

5. Expected outputs

The main outcome of this assignment is to enable Lao Airlines to attain an efficient maintenance cost, ensure proper maintenance planning and budgeting, fulfilling necessary steps to obtain EASA Certification, enhance value and organization of its human and material resources and overall improvement of Lao Airlines EMD.

Reporting and Documentation – Prepare a set of comprehensive reports and guidelines that detail the findings, analysis and recommendations. Engage with Lao Airlines Board of Directors and management team to gather input and ensure their perspectives are considered accordingly.

- i. **Inception Report** - A detailed report outlining the methodology and work plan timeline and key deliverables to ensure a clear understanding of project goal and approach as well as how risks and resources will be managed.
- ii. **Maintenance Cost Management Report** – A report that focuses specifically on managing and tracking maintenance related expenses. This report structure shall provide a comprehensive view of the factors that contribute to aircraft maintenance costs while identifying strategies for cost management and operational improvements.
- iii. **Procurement and Inventory Management Report** – A summary of key findings related to the management of aircraft parts procurement and inventory. It shall focus on how aircraft spare parts, expendable materials and consumables are sourced, stored and managed to ensure availability while minimizing cost and optimizing efficiency.
- iv. **Maintenance Reliability Program (MRP) Report** – A report structure that provides a clear and comprehensive way to track and report effectiveness of QV's Maintenance Reliability Program, ensuring that the fleet remains operationally efficient and safe while minimizing downtime and costs.
- v. **EASA (Part 145) and/or FAA (14 CFR Part 145) Development Report** – A detailed outline of steps in developing, implementing and maintaining compliance with EASA (Part 145) and/or FAA (14 CFR Part 145), which governs the approval of Lao Airlines EMD. The report shall provide a structured plan to meet EASA and/or FAA requirements.
- vi. **Training Management Report** – An in-depth report of planning and implementation of training programs with-in EMD to facilitate maintenance personnel and flight crew (for transit check) development, training effectiveness, regulatory compliance, and future training requirements.

- vii. **Final Report** – An executive summary report that provides a concise overview of EMD’s key activities, achievements, challenges and future plans. This report shall highlight operational performance, regulation compliance, safety measures, future direction of EMD and overall contributions to Lao Airlines’ efficiency.

Reports shall include these key items:

- Identify and correct the weak areas.
- Develop and present a short and long-term plan for efficient and cost-effective aircraft maintenance execution for Lao Airlines Fleet and customer airlines.
- Recommend the best course of action regarding procurement and logistic team.
- Provide an action plan regarding A320 Fleet engine overhaul project.
- Recommendation to ensure proper maintenance planning and budgeting.
- Propose new ideas in order to improve Lao Airlines EMD towards EASA and FAA approval.
- Present and demonstrate ways of improvement to utilize Lao Airlines resources effectively.

6. Expected Deliverables and Tentative Timeframe

DATE	MONTH	DELIVERABLES	PAYMENT SCHEDULE
Nov-24	1	Inception Report	10%
Dec-24	3	Maintenance Cost Management Report	15%
Mar-25	6	Procurement and Inventory Management	15%
Jun-25	9	Maintenance Reliability Program	25%
Jul-25	10	EASA and/or FAA (14 CFR Part 145) Development Report	10%
Aug-25	11	Training Management Report	10%
Sep-25	12	Final Report	15%

This is only a tentative work plan and the final duration and schedule of deliverables can be revised by consultant and are subject to negotiation.

7. Profile and Qualifications

The successful International Airworthiness Advisor should meet the selection criteria set out below:

- i. Engineering Degree provides a competitive edge; Master’s Degree or superior level of technical related education is considered an advantage; Additional aviation maintenance-related certifications and ratings is an advantage.
- ii. At least 15 years of airline or maintenance organization technical capacity experience with a successful track record in senior management position.
- iii. At least one similar assignment successfully completed within the past 5 years.
- iv. Proficiency in maintenance procurement processes, including strategic sourcing and supplier management.
- v. Background on EASA (Part 145) and/or FAA (14 CFR Part 145) approval and compliance.
- vi. Project management knowledge and abilities, including project plans, dependencies, budgets, and deliverables within the scope and on time.
- vii. Knowledge on regulations and standards relating to aircraft operations.
- viii. Proficiency in English; and good presentation skills; proven training and capacity building skills.

8. Administrative Arrangements

Duration of Contract for Technical Consultant

The Contract will be for a period of up to 1 Year. This shall be a part-time contract with around a half of inputs worked in the Client's country. The Consultant shall be required to propose his own work plan including the planned number and duration of visits. The anticipated date for commencement of the assignment is November 2024.

Working Arrangements

The IAA will maintain a significant participation throughout the mandate with supervision by Engineering and Maintenance Director. He / She will report to the Lao Airlines top management.

Indicative Payment Terms

The IAA will work as an independent consultant to the Ministry of Public Works and Transport (MPWT). He / She will be responsible for ensuring the completion of work before any financial compensation can be claimed. Proposed compensation schedule follows the completion and acceptance of the deliverables detailed in this TOR.

Confidentiality Statement

All data and information received from Lao Airlines for the purpose of this assignment are to be treated confidentially and are only to be used in connection with the execution of these Terms of Reference. All intellectual property rights arising from the execution of these Terms of Reference are assigned to Lao Airlines. The contents of written materials obtained and used in this assignment may not be disclosed to any third parties without the expressed advance written authorization of the Laos Airlines management.

Ownership of materials

Any deliverables under this assignment in any forms will be the property of Laos Airlines, including any intellectual property developed under this assignment.
