

# **Technical Specifications for the supply of two transport aircraft to be incorporated into the national aeronautical search and rescue plan service for the Peruvian Air Force (PAF)**

**Project Number** PER24821  
**PR Number** 21102007

## **1 Introduction**

The International Civil Aviation Organization (ICAO) is a specialized Agency of the United Nations, created in 1944 to promote the safe and orderly development of civil aviation around the world. As a specialized Agency of the United Nations, it sets international standards and regulations necessary for the safety, security, efficiency and regularity of air transport and services, and acts as the medium for cooperation in all fields of civil aviation among 193 contracting (member) States.

The Capacity Development and Implementation Bureau (CDI) of ICAO is responsible for the execution of ICAO's Technical Cooperation and Technical Assistance Programme, providing technical support to ICAO Member States, through Technical Cooperation or Technical Assistance projects, funded by the Member State, multi-lateral, bilateral or other donor-funded mechanisms, in all matters relating to the development of safe, secure and environmentally friendly civil aviation.

ICAO expects its suppliers to have an effective environmental policy. Suppliers should, whenever possible, support a precautionary approach to environmental matters, undertake initiatives to promote greater environmental responsibility and encourage the diffusion of environmentally friendly technologies implementing sound life-cycle practices.

**More detailed information on ICAO's structure, mandate and strategic objectives can be found on the website ([www.icao.int](http://www.icao.int)).**

## 2 Scope

This document specifies the minimum requirements to be met in the procurement, supply, and commissioning of **TWO (2) BOEING 737-700/-800 and the Supply and Installation of Auxiliary fuel tanks on any or both Aircraft in Peru for the Peruvian Air Force** that ICAO intends to bid **as equipment and services, on a turn-key basis**, on behalf of project **PER24821 PR 21102007**.

The main purpose is the acquisition of multipurpose aircraft with specific characteristics that enhance the ability to meet the various demands of the State through the execution of diverse missions within the five (05) strategic roles of the Peruvian Air Force (PAF); conducting air operations to address social needs, contribute to economic development, and support the National Risk and Disaster Management System (SINAGERD) as well as the National Search and Rescue System (SAR), thereby optimising the aerial resources required for fulfilling the PAF's mission.

Both transport aircraft will be incorporated into the National Aeronautical Search and Rescue Plan, serving at Air Group No. 8 in the locality of Callao, Callao Department.

## 3 General

3.1 This bid is designed for the acquisition of two distinct items:

- Item #1: Two (2) Boeing B737-700/-800 aircraft, with specifications and configuration detailed below in this document. The aircraft presented in Item #1 must be eligible for the direct application of an existing STC for the implementation of an auxiliary fuel system as proposed in Item #2, as well as the applicable Boeing Service Bulletin(s) for operation at aerodromes up to 14,000 feet in elevation.
- Item #2: The supply and installation of an auxiliary fuel tanks system on any or both Item #1 aircraft to achieve the extended ranges specified in this document (See Point 5.5 below). To be accomplished under an already existing EASA or FAA STC (supplemental type certificate).

3.1.1 Bidders may submit proposals for either or both Items. For Item #1, they may propose as many aircraft as they deem appropriate, provided those aircraft meet the ownership criteria outlined in the requirements below.

3.1.2 Regarding Item #2, ICAO/PAF expect bids from an STC Holder or an MRO facility with the required capabilities or from the aircraft bidders themselves. In this case, the availability of an appropriate STC, as well as engineering support, verification of integration and installation work, and quality control and assurance, must be clearly outlined and fully justified.

3.1.3 For the Item #1 evaluation process, selection will not be based solely on the "lowest priced compliant bid wins" approach. Instead, after an initial selection, the aircraft will be assessed in pairs, considering their logistical commonality. The target is 100% logistical commonality – any lower percentage will require a dedicated report to determine which aircraft pair will ultimately be shortlisted.

3.2 The aircraft, Item #1, and their equipment shall comply with the Certifying Authority Type Certificate and be FAA or EASA certified. The Airworthiness Certificate<sup>1</sup> and the complete aircraft documentation provided by the Bidder shall allow the Peruvian Air Force to start operating the aircraft immediately after procurement without restrictions other than those potentially defined by the Peruvian Military Airworthiness Authority.

3.3 Non FAA or EASA certificates will be considered and may be accepted if, after the Peruvian Military Airworthiness Authority and ICAO assessment, the certificates and documentation provided allow a registration process in Perú, under military registration, with no additional restrictions or burden to that of an FAA or EASA certified aircraft<sup>2</sup>. Given the auxiliary fuel tanks modification requires interfacing with the aircraft main fuel system, non EASA or non FAA STCs for Item #2 are unlikely to be accepted.

3.4 All designs, materials, manufacturing techniques and workmanship related to all two items shall be in accordance with the highest accepted international standards for this type of equipment, and in compliance with FAA / EASA regulations.

3.5 The Bidder shall certify the proposed aircraft maintenance has been subject to a computerized maintenance management system, e.g. CAMP (Continuous Airworthiness Maintenance Program). All necessary information to establish and maintain the aircraft Continuous Airworthiness and to include it in an Airworthiness Management Organisation (CAMO) shall be provided (physical and digital formats).

3.6 All Items shall fully comply with or exceed the requirements of the applicable ICAO Annexes, their specifications and Attachments, specially:

3.6.1 ICAO Annex 6: Operation of Aircraft,

3.6.2 ICAO Annex 8: Airworthiness of Aircraft

3.6.3 ICAO Annex 10: Aeronautical Telecommunications – Radio Navigation Aids.

3.6.4 ICAO Annex 16 Chapter 3 for noise standards

3.6.5 ICAO Doc 9760: Airworthiness Manual

3.6.6 ICAO PBN manual (Doc 9613)

3.7 The Bidder shall also state, where applicable, the National Standard(s) to which the whole or any specific part of the equipment complies.

3.8 Alternatives for Item #2

3.8.1 The Bidder is invited to offer an auxiliary fuel systems or like solution to comply with extended range proposed, which in his opinion is equal to, or superior to the requirements of this specification. Any such alternatives or variations must be fully and clearly defined and supported so that equivalence or superiority can be readily determined. Only currently certified solutions (STC available at the presentation of proposals) shall be considered.

3.8.2 If a Bidder presents an Item #1 with auxiliary tanks already installed, such approach may be acceptable as long as the rest of requirements for Item #2 are achieved and the remaining operational potential to next major inspection or Overhaul is three (3) years or longer.

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<sup>1</sup> The proposed aircraft must have valid airworthiness certificates that shall remain valid throughout the complete tender evaluation process by ICAO.

<sup>2</sup> In any case, the aircraft presented shall be in a condition to obtain a standard airworthiness certificate from the Aviation Authority of the receiving (Buyer) State. In this case, the Peruvian Military Airworthiness Authority.

3.8.3 The Bidder shall also clearly indicate the extent to which the requirements of this specification are not met by the alternative design and shall state the performance he is prepared to guarantee where this differs from that which is defined herein.

3.9 Each Bidder may submit proposals covering one or more of the items included in this bid (a single proposal per Bidder, incorporating the number of items the Bidder wishes to offer), bearing in mind that logistics commonality is a key factor in this procurement process. It is acceptable for a Bidder to propose more than one aircraft for Item #1, provided they meet all other requirements outlined in these Technical Specifications – for example, those detailed in sections 6.3 and beyond. For Item #2, PAF/ICAO expect a single, consolidated solution. However, any operationally and technically viable, properly documented solution will be considered.

3.10 PPI costs will be borne by the Seller. Therefore, the Seller shall propose two independent MROs for this purpose that will be assessed by PAF/ICAO. It is crucial to ensure that the selected PPI Facility is neither the aircraft's current maintenance provider nor too closely affiliated with the Seller, to maintain independence and impartiality in the inspection process. See Point 7.2.1 below for completeness.

### 3.11 Offer

3.11.1 Compliance Statement: All offers shall be accompanied by a correctly completed Evaluation Criteria Matrix (including comments on the compliance with the evaluation criteria). If compliance is indicated, any further references, statements, comments or notes, will not waive the liability of the bidder on the stated compliance. The bidder shall reference the compliance statement to the appropriate sections of the supporting documentation. Lack of such definitive indication for any requirement may invalidate the offer.

3.11.2 Supporting Documentation: Each offer shall be supported by adequate technical documentation including system and data sheets, performance sheets, drawings, illustrations, photographs, etc., to facilitate a complete and detailed evaluation of the offer.

## 4 Technical requirements (Generic). Item #1

4.1 The Aircraft shall be delivered free and clear of all liens and encumbrances and with:

- All airframe, engine, accessory, cabin equipment, maintenance logs, records and manuals;
- Flight records and manuals (other than Seller's confidential flight records);
- Weight and balance manuals;
- Wiring diagrams;
- Any other records and manuals related to the operation and maintenance of the Aircraft in possession of Seller at delivery, e.g. applied STCs.

4.2 All maintenance, applicable AD's, and mandatory Service Bulletins shall be complied with up to, and including, the date of delivery.

4.3 The Aircraft shall have no damage history other than that described in its records and no corrosion beyond limits acceptable by the maintenance manual.

4.4 Inspection for damage and material corrosion will be performed during the pre-purchase inspection (PPI).

4.5 The Aircraft shall be compliant with all mandatory AD's (Airworthiness Directives) issued by the applicable Certifying Authority and Manufacturer's SB's (Service Bulletins) and have all systems functioning in accordance with the manufacturer's specification.

4.6 Inspections 1: C-checks are expected to have been completed within three (3) months before the delivery date. If not, a C-check shall be accomplished prior to aircraft final reception at Seller's expense. The C-Check(s) may be fully accomplished at SEMAN SAC<sup>3</sup>, Lima, Perú, after the Aircraft Partial Acceptance, at Contractor's expenses, before the installation of Item #2.

4.7 Inspections 2: D-checks shall not be required at least before two years from contract signature. Same criteria shall apply to hard time components – or the maximum time if TBMA is lower than two years.

4.8 Each aircraft shall seat at least 120 passengers (usually in a two-class layout). The interior layout proposed shall not entail any delays or even further problems with the Item #1 aircraft certification.

4.9 The aircraft shall be delivered without any deferred items, be them MEL items or not. The rectification of all deferred items shall be accomplished NLT the end of the PPI, fully documented and under the Seller's responsibility.

4.10 It is expected that Item, #1 aircraft are identical in terms of engines, systems and subsystems, and avionics equipment. Full logistics commonality between aircraft will be a main deciding factor for this procurement.

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<sup>3</sup> See Point 9.2.17 for further information regarding SEMAN SAC.

## 5 Technical requirements (Specific). Item #1

### 5.1 Aircraft Type and Class: BOEING B737-700/-800

5.1.1 Year of Manufacture (YOM): 2005 or later.

5.1.2 Condition: Pre-owned, with no accident reports.

5.1.3 Time Since New (TSN) / Cycles Since New: equal or less than 45,000 flight hrs. / Equal or less than 22,500 cycles.

5.1.4 Two engines set at a thrust of at least 26,000 pounds.

5.1.5 Winglets: Blended or Split Scimitar.

5.1.6 Service ceiling: 40,000 feet or above.

5.1.7 APU: capable to be operated at least at 37,000 feet.

5.1.8 Max. Altitude for Take-off and Landing: 14,000 feet (High Altitude). Both aircraft shall be certified for such High Altitude operations. Any modifications or SB implementations required to comply with this requirement shall be implemented during the PPI, NLT the Aircraft Partial Acceptance.

### 5.2 Maintenance Status:

#	SYSTEM/COMPONENT	STATUS REQUIRED
1	ENGINES AND ENGINES ROTABLE PARTS	At least 3,500 cycles to next OH.
2	APU POTENTIAL AND/OR REMAINING LIFE OF ROTABLE PARTS	At least 2,000 cycles to next OH.
3	LANDING GEAR	At least 5 years (50% TBO) to next OH.
4	ENGINES MAX. FLIGHT HOURS	45,000 FH or less.
5	LANDING GEAR MAX. CYCLES	22,500 Cycles or less.
6	HEPA FILTERS	New, installed on the aircraft (according to each aircraft's technical capability).
7	BRAKING SYSTEM	Carbon brakes. Detailed Brake Wear Checks to be performed during C-check (report if C-check fresh). See Point 4.6 above.
8	EMERGENCY OXYGEN CAPACITY from Passenger Service Unit (PSU)	Minimum 12 minutes or more and equipped to supply oxygen to all passengers, consistent with the offered cabin configuration.
9	EMERGENCY OXYGEN TEST	Completed at the time of aircraft delivery.
10	EMERGENCY EQUIPMENT (SLIDES, LIFE RAFTS, LIFE VESTS, OXYGEN MASKS, PORTABLE OXYGEN BOTTLES, AND FIRE EXTINGUISHER BOTTLES).	Must have a remaining operational potential of no less than 5 years or maximum time to next inspection is less than 5 years.
11	ENGINES AND APU FIRE EXTINGUISHER BOTTLES.	Must have a remaining operational potential of no less than 5 years.

#	SYSTEM/COMPONENT	STATUS REQUIRED
12	CARGO COMPARTMENT FIRE DETECTION AND EXTINGUISHING SYSTEM.	Operational and with their corresponding inspections up to date.

### 5.3 Navigation and Avionics Equipment

5.3.1 The requested navigation and avionics equipment will be as follows (See Table below) – the avionics set offered shall guarantee the aircraft airworthiness iaw EASA or FAA standards.

<b>Table 1: Navigation and Avionics Equipment</b>			
Qty. (Min.)	Description	M	Remarks
1	Future Air Navigation System FANS-1.	X	
3	Very High Frequency Communication (VHF COM) (8.33 KHz Spacing VDL Mode A and Mode 2).	X	Min. 2 radio tuning panels.
2	High Frequency Communication (HF COM) with Selective Calling System (SELCAL).	X	
1	Aircraft Communications Addressing and Reporting System (ACARS).	X	Optional.
1	Cockpit Voice Recorder (CVR).	X	
1	Digital Flight Data Recorder (DFDR 88 Par. – Part 135).	X	
2	Distance Measuring Equipment (DME) Receiver.	X	
2	Automatic Direction Finder (ADF) Receiver.	X	
2	Flight Management Computer System (FMC and CDU)	X	SW Upgrade 14 Worldwide DB or better (14 or 14.1 as applicable)
2	Inertial Navigation System (INS).	X	
2	Global Positioning System (GPS) Receivers.	X	
2	Transponders (XPNDR) Mode S (DO-260B, EHS & ADS-B Out).	X	
2	Auto Flight Control System (AFCS).	X	
1	Traffic Collision Avoidance System II (TCAS 7.1).	X	Enhanced processor.
1	Multi-Scan Colour Weather Radar.	X	Including wind shear prediction
1	Enhanced Ground Proximity Warning System (EGPWS).	X	TAWS or better. Indicate Class
1	Emergency Locator Transmitter (ELT) (406 MHz).	X	

**Table 1: Navigation and Avionics Equipment**

Qty. (Min.)	Description	M	Remarks
1	Satellite Communications Systems (SATCOM) to provide inflight connectivity: Internet and voice comms.	X	Bidder to specify systems and capabilities: Band, Wireless LAN System and/or voice over IP or over SATCOM. And encryption if applicable.
2	Air Data Computers (ADC).	X	
2	Radio Altimeter System.	X	
2	Navigation Receivers (NAV).	X	
2	Electronic Flight Instrument System (EFIS).	X	Control panels
1	CPDLC (Controller Pilot Data Link Communication)	X	
2	VOR-ILS	X	
1	STANDBY FLIGHT INSTRUMENTS	X	Specify: <ul style="list-style-type: none"> <li>- Integrated Standby Flight Display (ISFD).</li> <li>- Standby Magnetic Compass.</li> <li>- Standby Altimeter and Airspeed Indicator.</li> </ul>

M: Mandatory

5.3.2 The Master Minimum Equipment List (MMEL) approved by the State of Design (plus the related MMEL Supplement if applicable), and associated MEL shall be included. Even if not produced in a State under FAA or EASA regulations, the MMEL shall be compliant with EASA or FAA.

5.4 Navigation / Operation Certifications (Compliance shall be proven In Accordance With (IAW) the latest manuals edition): The aircraft shall have the following navigation / operation certifications, as per Table below.

**Table 2: Navigation / Operation Certifications**

Item no.	Description	M	O	Remarks
1	EASA/FAA CAT Operations.	X		
2	ETOPS 120. <sup>4</sup>	X		Or better. See footnote 3.
3	RVSM	X		
4	NAT MNPS	X		
5	B-RNAV (RNAV5)	X		
6	RNAV1	X		

<sup>4</sup> The aircraft is requested to perform two-engine ETOPS operations. Therefore, the previous ETOPS operation of the aircraft, which entails the development and compliance with an ETOPS continuous airworthiness maintenance program, will be accounted and valued when specifically certified by the Bidder.



Table 2: Navigation / Operation Certifications				
Item no.	Description	M	O	Remarks
7	RNP 0.3	X		
8	RNP 1	X		
9	RNP 4		X	
10	RNP 5	X		
11	RNP 10		X	
12	FANS-1	X		
13	CPDLC DATA LINK	X		
14	LVTO / LVO / CAT III		X	
15	ILS CAT II	X		Minimum
16	VHF Com Immunity from FM Radio broadcast	X		
17	8.33 kHz Spacing Channels	X		
18	Mode S EHS	X		
19	TCAS II 7.1	X		
20	406 MHz ELT	X		
21	ADS-B Out or In/Out	X		
22	EGPWS (TAWS)	X		
23	RNP APCH LNAV / VNAV.	X		

M: Mandatory / O: Optional

5.5 The following features are also required:

- Internet: high speed Wi-Fi in the passenger cabin (operated worldwide).
- Low Cabin Altitude (8,000ft to 6,500ft) modification completed (Optional)
- Minimum Range with MTOW (operating at ISA at Sea Level, T=+15°C, Pressure: 1013.25 HPA):
  - Item #1 as presented (without Auxiliary Fuel Tanks): 2,900 NM (5,370 KM) or longer, with fuel reserves, including 5% for contingency and min. payload of 120 pax + baggage.

5.6 Painting and Livery

5.6.1 In case the colour or livery does not have the design requested for the PAF aircraft fleet:

- The aircraft shall be painted as per the design presented at Appendix 1 to these Specifications after Aircraft Partial Acceptance following the PPI. See further information at Point 9.2.17.

5.7 Additional Deliverables

Deliverables List

- 01 tow bar per aircraft (Aircraft No. 1 and Aircraft No. 2).
- 01 main landing gear wheel (rim and tire) and 02 nose landing gear wheels (rim and tire) per aircraft (Aircraft No. 1 and Aircraft No. 2).
- 01 wheel wrench for main and nose landing gear per aircraft (Aircraft No. 1 and Aircraft No. 2).
- 01 torque wrench for wheel replacement per aircraft (Aircraft No. 1 and Aircraft No. 2).
- 01 axle jack for main landing gear and 01 axle jack for nose landing gear per aircraft (Aircraft No. 1 and Aircraft No. 2).
- Aircraft/engine maintenance manuals (latest revision, digital format).

- Illustrated Parts Catalogue (IPC) (latest revision, digital format).
- Aircraft Wiring Manual (AWM) / Aircraft Wiring List (AWL) (latest revision, both physical and digital format).
- Flight manuals, checklists, performance tables, and other aircraft-specific documentation (latest revision, digital format).
- Runway analysis for the following high-altitude and high-temperature airports/aerodromes: Jauja, Juliaca, Cusco, Ayacucho, Arequipa, and Cajamarca.
- Corrosion Prevention and Control Program (CPCP) (updated and completed, digital format).
- Aircraft, engine, and APU history log or records (updated).
- Standard Structural Repair Manual (SRM) (digital format).
- Aging aircraft program (digital format).
- Traceability of accessories and components (digital format).
- Aircraft inventory (digital format).
- List of Hard Time, On Condition, and Condition Monitoring components (digital format).
- Updated borescope inspection report at the time of aircraft delivery, covering the compressor and hot section of the engines and APU (all internal components must not be at their upper operational limit). To be performed during the PPI if not fresh.
- Certificate of Airworthiness and/or Export Certificate of Airworthiness (for Aircraft No. 1 and Aircraft No. 2).

## 6 Technical Requirements (Generic). Item #2

6.1 The auxiliary fuel tank system must be certified under an existing Supplemental Type Certificate (STC) for installation on the B737-700/-800. A bid containing a single installation on a single aircraft would be presented for evaluation purposes.

6.2 The Item #2 system shall provide an extended range of at least 4,500 NM (8,334 km). ICAO/PAF expect a configuration of three or four auxiliary tanks located in the lower aft cargo compartment, with preference given to the option that provides a greater range – always exceeding the required 4,500 NM. The lower forward cargo compartment shall remain unobstructed, and any configurations that restrict its capacity will not be accepted.

6.3 The bidder must demonstrate the aircraft's actual range with the proposed auxiliary fuel system configuration installed.

6.4 PAF/ICAO assume that the installation of auxiliary fuel tanks requires modifying the cargo compartment to a Cargo Class "C", completely separated from the area where the tanks are installed. It is understood that new forward and aft bulkheads are introduced to seal off these areas, along with structural elements that must be added as part of the final auxiliary fuel tank configuration. The Bidder shall confirm this point and provide documentation on the remaining usable cargo volume in the lower compartments.

6.5 The system must be fully integrated with the aircraft's fuel management system, ensuring normal operation without requiring significant crew intervention beyond standard fuel handling procedures.

- 6.6 The installation must comply with ICAO, FAA, and EASA airworthiness regulations, including safety requirements for fire suppression, structural integrity, and operational reliability.
- 6.7 The auxiliary fuel tanks must not compromise passenger cabin configuration, emergency evacuation procedures, or aircraft structural limitations.
- 6.8 The system must allow for normal refuelling operations through the primary aircraft refuelling ports, without requiring additional ground equipment beyond standard refuelling procedures.
- 6.9 All materials, components, and subsystems used in the installation must be Factory New (FN), with no other material condition being acceptable.

## 7 Technical Requirements (Specific). Item #2

- 7.1 The auxiliary fuel tank system must be modular and removable for those maintenance actions requiring tanks removal.
- 7.2 The fuel transfer system must be automated and integrated with the aircraft's primary fuel quantity indication system, with minimal modifications to the cockpit fuel management panel.
- 7.3 The total weight of the auxiliary fuel tank system, including all associated structural reinforcements, must remain within Maximum Zero Fuel Weight (MZFW) and Centre of Gravity (CG) limits.
- 7.4 The system must not interfere with the aircraft's fire suppression, ventilation, and pressurization systems.
- 7.5 The bidder must provide a detailed weight and balance analysis, including operational centre of gravity shifts due to auxiliary fuel consumption.
- 7.6 Continuous Airworthiness Monitoring
- 7.6.1 The bidder must provide complete maintenance documentation, including:
- Airworthiness Limitations Section (ALS).
  - Instructions for Continued Airworthiness (ICA).
  - Maintenance and Inspection Program updates.
  - Structural reinforcements (if any) and associated inspections.
- 7.6.2 The system must be fully compatible with an airline's Continuing Airworthiness Management Organisation (CAMO) program.
- 7.6.3 The installation must define specific periodic inspections and maintenance procedures, including checks on the fuel tanks, pumps (if any), valves, sensors, and structural attachment points.
- 7.6.4 The bidder must specify the mean time between inspections (MTBI), mean time between removals (MTBR), and operational reliability metrics.
- 7.6.5 Any modifications to fuel quantity indication, transfer sequencing, or fuel jettison capability (if applicable) must be documented and certified accordingly.
- 7.7 The installation of the auxiliary fuel tank system shall be carried out at an MRO adequate facility fully qualified MRO facility that shall comply with the following regulatory, technical, and operational requirements:

#### 7.7.1 Regulatory Compliance.

- Part 145 Certification: The MRO must be certified under EASA Part 145, FAA 14 CFR Part 145, or an equivalent national aviation authority (NAA) approval.
- Supplemental Type Certificate (STC) Approval: The facility must be authorised by the STC holder to install the system.
- If the MRO is the STC applicant, it must have DOA (EASA Part 21J) or FAA equivalent to cover the engineering approval of the modifications.
- OEM & STC Documentation Compliance:
  - Compliance with the original equipment manufacturer (OEM) and STC holder's installation manual, service bulletins, and airworthiness limitations.
  - Proper record-keeping and documentation for the installation and post-modification airworthiness release.
- Safety & Quality Standards:
  - Compliance with ICAO Annex 8 and continuous airworthiness requirements.
  - Adherence to AS9100/9110 aerospace quality standards.

#### 7.7.2 Structural Modification Capabilities:

Since the installation may involve structural reinforcements, the MRO shall:

- Have OEM-approved structural repair capabilities for Boeing 737NG aircraft.
- Be certified for major repairs and alterations (e.g., FAA Form 8110-3 or EASA-approved engineering orders).
- Possess the necessary tooling and airframe-specific jigs, fixtures, and alignment tools to perform the modifications.
- Have approved non-destructive testing (NDT) capabilities (e.g., ultrasonic, X-ray, eddy current) to inspect structural modifications.

#### 7.7.3 Personnel Qualifications

- B1 & B2 Licensed Engineers: Type-rated for Boeing 737NG (EASA Part 66 / FAA A&P).
- Structures and Composite Technicians: Certified for structural modifications, drilling, and installation of reinforcements.
- Electrical & Avionics Technicians: Qualified to install wiring harnesses, transfer pumps, and fuel quantity indication systems.
- NDT Certified Inspectors: Level II or III certification in applicable inspection methods.
- Quality & Airworthiness Inspectors: Competent in release-to-service under Part 145 regulations.

#### 7.7.4 Facility & Tooling Requirements

- Aircraft hangar capable of accommodating the B737-800.
- Fuel system testing and leak detection equipment.
- Hydraulic and electrical test benches.

- Custom fabrication capabilities for structural reinforcements.
- Dedicated hazardous material handling for fuel-related modifications.
- Calibration and measurement tools in compliance with ISO/IEC 17025.

#### 7.7.5 Certification & Return-to-Service

- The MRO must be authorised to issue a Certificate of Release to Service (CRS) under EASA, FAA, or the applicable NAA. In this last case, with the support of the Peruvian Airworthiness Authority if required.
- Compliance with Airworthiness Directives (ADs) and STC-related Instructions for Continued Airworthiness (ICA).
- Conduct full post-installation functional tests, including fuel system pressurisation and transfer testing.
- Documentation in aircraft technical records, weight & balance updates, and logbook entries.

## 8 Logistic support: spares, test equipment, documentation, and language

### 8.1 Documents Set (“Carried On-board”)

8.1.1 The Aircraft shall be delivered by Seller with full title guarantee and Seller shall pass good title to the Aircraft to Buyer free and clear of all liens, charges, mortgages and encumbrances. The Aircraft shall be delivered with a valid Certificate of Airworthiness. Seller represents that the Aircraft has no history of or existing material damage or corrosion.

8.1.2 The following documentation shall be provided on board the aircraft:

- Airworthiness Certificate.
- Registration Certificate
- Radio Station License
- Operating Limitations
- Weight and Balance

8.2 Aircraft Records: The following documentation shall be provided with the bid documents for perusal:

- Airworthiness Certificate (Copy)
- Engine and airframe logbooks
- Aircraft equipment list
- Weight and balance data, placards
- Airworthiness Authority-approved Airplane Flight Manual (AFM) and/or Pilot’s Operating Handbook (POH).

### 8.3 Aircraft Ownership

8.3.1 The Bidder shall clearly show the ownership and that there are no liens on the aircraft offered. Any proposal not presented by the actual owner of the aircraft but by a representative or a broker shall include an exclusivity agreement between the Bidder and the aircraft owner. Not accomplishing such requirement may invalidate that proposal.

8.3.2 The chain of ownership shall be clearly shown by the Bidder.

8.3.3 Records of aircraft bills of sale, security agreements, mortgages, and other liens shall be checked by the Bidder and a “Clear Title” evidence presented to ICAO/PAF together with the proposal.

8.3.4 Proposals presented with missing documents, pages, or entries from aircraft logbooks may cause significant problems for ICAO/PAF and therefore, may be rejected.

8.4 Current Maintenance Records: The Bidder shall deliver all the aircraft’s maintenance records, e.g. CAMP (Continuous Airworthiness Maintenance Program) records containing at least the following information:

- The total time in service of the airframe and each engine.
- The current status of life-limited parts of each airframe, engine, and appliance.
- The time since last overhaul of all items installed on the aircraft that are required to be overhauled on a specified time basis.
- The identification of the current inspection status of the aircraft, including the time since the last inspection required by the inspection program under which the aircraft and its appliances are maintained.
- The current status of applicable ADs, including for each the method of compliance, the AD number, and revision date, and if the AD involves recurring action, the time and date when the next action is required.
- A copy of current major alterations to each airframe, engine, equipment and appliance.

8.5 Manuals: Aircraft OEM-produced owner’s manuals, maintenance manuals, service letters and bulletins, and other technical data pertaining to their aircraft (at the then current revision) shall be made available to ICAO.

8.6 Minimum Consumables: Those shall be provided as per the factory recommendations, and shall include, as a minimum (see the list of deliverables above (point 5.7) for completeness):

- Consumables for wheel exchange
- 2 brake kits
- External lighting kit
- Filter kit for engines and APU.
- Cockpit panel block/Airplane commands block device (Traba de comandos)
- Cover pitot tubes, engine & APU cover or any other cover necessary on a parked aircraft

#### 8.7 Miscellaneous

8.7.1 Warranties: In case any of the Items #1 or #2 are still subject to a warranty that may be transferred to the new owner, the Bidder shall provide documents to support that fact.

8.7.2 Maintenance programs<sup>5</sup> already contracted and running, if any, for airframe, engine, avionics, etc.

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<sup>5</sup> As an example, additional coverage is usually available from companies like Honeywell, Collins and GE on their products. Honeywell offers additional APU coverage up to 8,000 hours at 20,000 cycles; Collins offers its CASP program for avionics component protection; and GE offers its Maintenance Cost Per Hour (MCPH) program. The Bidder is invited to present its aircraft-associated coverages if any.

8.7.3 Landing Gear History (Overhaul<sup>6</sup> if applicable): The Bidder shall include the landing gear full records, including whether the aircraft is included in a Landing Gear Overhaul and Exchange Program.

8.7.4 Any additional tests sets, spares or “loose equipment” provided by the Bidder, although not compulsory, will be valued to establish a baseline for prices comparison.

## 9 Tests, training, and acceptance

***NOTE: Please, be aware the following Section shall not apply to all the Bidders but the shortlisted candidates only. Nevertheless, for initial proposal evaluation purposes, the Compliance or Non-Compliance (the ability to provide/concur with the services) shall be acknowledged.***

The following Services are to be included in the Bidder’s proposal:

### 9.1 Aircraft Initial Assessment Visit:

9.1.1 ICAO/PAF representatives shall be allowed to access the aircraft and all its books and records at a facility previously agreed.

9.1.2 At least a highly experienced in the aircraft type Team of two people, an aeronautical engineer and a technician (with valid EASA or FAA licenses including the aircraft type) will be proposed to ICAO/PAF to support that visit.

9.1.3 A comprehensive report shall be provided by the Team to ICAO/PAF within five (5) working days after the visit.

### 9.2 Pre-Purchase Inspection (PPI)

9.2.1 The Bidder shall recommend TWO (2) independent (neutral) facilities<sup>7</sup> – henceforth known as the Inspection Company (IC) – to accomplish the PPI.

9.2.2 The proposed IC shall be able to demonstrate experience in the aircraft type being inspected. In that respect, the licenses and experience of its personnel involved in the PPI and previous customer references shall be provided to ICAO/PAF to confirm the experience, and offer insight on the quality of the work previously undertaken. Such Inspection Company could be accepted or rejected by ICAO/PAF.

9.2.3 In case of rejection ICAO/PAF will communicate the selected IC.

9.2.4 Once the IC is appointed and the PPI request submitted by ICAO, the aircraft records will be delivered to the facility, together with all the data required to ascertain the current condition of the aircraft and, therefore, the level of comprehensiveness of PPI required.

9.2.5 Those records shall allow determining the following<sup>8</sup>:

- Aircraft age.

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<sup>6</sup> The requirement to remove and overhaul the landing gear is about every 10 years (depending on aircraft use and model).

<sup>7</sup> As an overall requirement, ICAO/PAF look for a well reputed aviation company whose maintenance facilities are premium service centres approved not only by the Aircraft OEM but also by other major manufacturers and rated as aircraft repair stations by FAA and/or EASA aviation authorities. Ideally, such company will be able to perform routine inspections, unscheduled or heavy maintenance and overhaul and structural repair and with a workforce able to return the aircraft with minimal downtime.

<sup>8</sup> Usually, the aircraft OEMs require only that the customer follow OEM’s written instructions and acceptable industry practices and that repairs be made by a certified maintenance provider. **Evidence of repairs performed by non-certified maintenance providers and the lack of traceability of the maintenance records of the aircraft or its subsystems may invalidate a proposal.**

- Aircraft exposure to adverse climates (salt air or dusty environment).
- Aircraft damage history.
- Aircraft operational environment, e.g. the aircraft has been operated in a part of the world whose infrastructure does not support a standard of maintenance acceptable to ICAO/PAF.
- Compliance with all the aircraft Airworthiness Directives (ADs).
- Complete list of Service Bulletins, Letters and STCs implemented on the aircraft.
- Warranty Claims and pending warranty work, if any.

9.2.6 ICAO/PAF will receive a proposal from the facility with the PPI options/levels available with each level being clearly defined.

9.2.7 ICAO/PAF aim to a high level PPI and will take into account the recommendations of the IC in that respect.

9.2.8 The scope of the PPI will be included in the Aircraft Pre-Purchase Agreement (APA) stage of the transaction. The APA will specify not only the scope of the PPI but also the conditions under which ICAO/PAF may cancel the transaction if discrepancies are revealed as a result of the PPI.

9.2.9 ICAO/PAF, the Bidder and the IC will execute a three-party agreement (not to be confused with the APA) governing individual responsibilities, and establishing the lines of communication for the duration of the PPI.

9.2.10 The IC shall quote ICAO/PAF and Bidder the cost of the standard PPI at the agreed Level. Bidder will undertake the responsibility for this cost.

9.2.11 ICAO/PAF and the Bidder will appoint representatives on site throughout the inspection process.

9.2.12 The aircraft will be then ferried to the IC. The Bidder shall undertake the costs associated to this Ferry flight.

9.2.13 The IC shall communicate ICAO/PAF and the Bidder, all discrepancies found for them to agree and approve before any action is taken.

9.2.14 No action to rectify a discrepancy will be taken without the final ICAO/PAF approval.

9.2.15 A final report will be generated by the IC, providing a summary of the aircraft condition and status of airworthiness related items and provided to ICAO/PAF.

9.2.16 The PPI will identify two categories of discrepancy (findings): airworthiness limiting and non-airworthiness limiting.

9.2.16.1 The Bidder shall always pay for the correction of the airworthiness-limiting items as per the obligation to deliver a fully airworthy aircraft to ICAO/PAF, at no additional cost to ICAO/PAF.

9.2.16.2 Other, non-airworthiness limiting items shall be presented to ICAO/PAF and the Bidder to agree regarding which one of them would undertake the cost of the corrective actions.

9.2.16.3 Non-airworthiness findings produced by normal wear and tear will be afforded on a 50/50 basis by ICAO/PAF and the Bidder. The Bidder will undertake the costs for correction of other non-airworthiness-limiting findings.



9.2.16.4 ICAO/PAF and/or the Bidder (as applicable) shall approve the individual items before the IC proceeds with rectification.

9.2.16.5 In the case of non-airworthiness items, if neither party agrees to take responsibility for an item (non-airworthiness items), that item will remain “open”.

9.2.16.6 “Open” items will not be a reason to stop the PPI. Therefore, both Parties shall make their best efforts to get to an agreement, as the aircraft will not be accepted with open or deferred items.

9.2.17 ICAO/PAF introduce the bidders to Servicio de Mantenimiento del Perú S.A.C. (hereinafter SEMAN SAC), an MRO provider with capabilities for the aircraft types under consideration, including the execution of C-Checks and aircraft painting services. The Peruvian Air Force holds a certain preference for slot allocation, which would ensure, should the Bidder opt for this option, the timely execution of e.g. the Pre-Purchase Inspection (PPI), the C-Check (if applicable), and aircraft painting without undesirable delays.

9.2.18 ICAO/PAF do not express any preference for SEMAN SAC for PPI purposes, which has been included in the specification in order to facilitate and expedite the project as much as possible.

9.2.19 In case of non-availability of time slots to carry out the inspection, or other justified reason, the PPI will be performed in a workshop agreed to amongst PAF/ICAO and the supplier.

9.3 Ferry Flight to a Facility in a TBD Country for Re-registration purposes: If the IC facility selected is not located in a Country considered suitable for Re-registration purposes, then the aircraft will be flown to a facility in a TBD country, for de- and re-registration. The aircraft will be ferried by the contractor to a location to be agreed between ICAO/PAF and the contractor), with all necessary documentation to process the registration in Perú-Military Reg. (7 to 10 working days).

9.4 Ferry Flight to the Delivery Place: TBC

9.5 The delivery of the goods for ITEM #1 shall be carried out under INCOTERMS 2020 – EXW (Ex Works) at the facilities of an MRO workshop. The services related to ITEM #2 shall be performed at an MRO workshop designated by both parties. For the execution of the service, the applicable INCOTERMS for the aircraft transfer shall be as follows:

- Outbound – FCA (Free Carrier) designated MRO workshop
- Return – EXW (Ex Works) designated MRO workshop

***Note: The installation/integration of Item #2 on the designated aircraft will be completed following the final pre-delivery tasks for the aircraft (Item #1), primarily the C-Check and painting. Consequently, the aircraft will already be registered with a PAF registration, and any required ferry flights will therefore fall under PAF's responsibility.***

## 10 Responsibilities and Implementation

10.1 Project Implementation: The Bidder shall submit with the bid a proposed schedule setting out the anticipated program of major activities and including at least the following data, whose the then Contractor will be responsible for:

10.1.1 Deadline, if any, for aircraft availability: be aware that once the proposal has been submitted, the analysis and assessment of the proposal by ICAO/PAF could take between 15 days and one month.

10.1.2 Aircraft location and availability for an initial in-place assessment by ICAO/PAF.

10.1.3 Pre-purchase inspection (PPI), including a recommended independent (neutral) facility – henceforth known as the Inspection Company (IC) – to accomplish such inspection (See Section 9 for additional PPI information).

10.1.4 Integration of the additional elements or subsystems – if applicable – to complete the aircraft configuration as per this specifications document.

**10.2 Ferry Flights:** The following Ferry Flights shall be, in principle, considered (All costs and arrangements related to the following ferry flights will be the responsibility of the contractor). Those ferry flights may or may not occur depending on the selected facilities and the PPI outcome:

- Ferry to the PPI Facility.
- Ferry from the PPI Facility to a Maintenance Facility, if necessary.
- Ferry from the PPI or Maintenance Facility (as applicable) to an appropriate airport in the [Required Country for Re-registration purposes] to complete the registration process. Such Facility may be used as the IC and integrator of additional elements.
- Ferry to the [Delivery Place] Airport for Customer Acceptance ceremony. Normally, Lima, Peru, unless the final acceptance had previously occurred.

## 11 Evaluation criteria

Bidders are advised that they will need to adhere to these technical specifications. Additionally, the specific evaluation criteria, against which offers will be evaluated, are included in the separate document entitled **Technical Evaluation Criteria**. As part of their offer, bidders need to complete the Excel file and indicate if and how their offer complies with each of the evaluation criteria. No change on the evaluation criteria table is allowed.