

**5P423-181072
ATTACHMENT 1 TO PART 3
TECHNICAL BID**

Mandatory Technical Criteria

Mandatory Technical Criteria MT1 - Crew

MT1.1 – Captains – Pilot in Command (PIC)

The Bidder must identify a minimum of two (2) pilots which meet the following criteria: as per SOW par 5.1

5.1 Pilot Requirements

The pilots supplied by the Contractor must:

- a) have a valid helicopter license and the related endorsements for the proposed helicopter;
- b) have a minimum of 2000 hours as Pilot-In-Command (PIC) helicopter flight time;
- c) have a minimum of 500 hours (PIC) flight time on the aircraft class and 50 hours (PIC) on the aircraft type.
- d) have a minimum of two seasons with a minimum of 250 hours (PIC) firefighting experience and vertical reference work i.e. bucketing/longlining;
- e) have a minimum of 250 hours flight time in mountainous terrain i.e within designated mountainous areas 1 or 2 as defined in the Designated Airspace handbook TP 1820;
- f) have Class D , Boost certification. Boost experience in mountainous terrain must be clearly presented in pilot qualifications.
- g) capacity to obtain Parks Canada Mountain Rescue helisling rescue endorsement. Please state in submission if proposed pilots already possess this endorsement.

The Bidder must provide the following information in the bid for each pilot.

- 1. Pilot's Name
- 2. Hours of Experience as per above item b)
- 3. Hours of Specific Experience as per above item c)
- 4. Hours of Specific Experience as per above item d)
- 5. Hours of Specific Experience as per above item e)
- 6. Pilot helicopter license a)
- 7. Class D , Boost certification f)
- 8. Rescue helisling endorsement g)
- 9. Pilot's Resumé

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MT1.2 – Air Craft Maintenance Engineers (AME's)

The Bidder must identify a minimum of two (2) Aircraft Maintenance Engineers which meet the following criteria: as per SOW par 5.2

The Aircraft Maintenance Engineers supplied by the Contractor must:

- a) Must have the appropriate M license with helicopter type training for the proposed helicopter.
- b) provide AMO certification print out of assigned ACA.

The Bidder must provide the following information in the bid for each engineer.

- 1. Engineer's Name
- 2. M Licence a)
- 3. Aircraft Maintenance Organisation (AMO) Certificate b)
- 4. Engieer's Resumé

Mandatory Technical Criteria MT2 – Helicopter

The Bidder must have a one (1) intermediate class helicopter or equivalent available for the duration of the contract operational period with the following specifications, as specified in in Annex A – Statement of Work, article 4 - High altitude operations capabilities and article 7 - Helicopter Requirements.

4. High altitude operations capabilities

The aircraft must be able to perform under extreme fire danger conditions associated with 95th percentile weather events from the past 15 years in Jasper National park (10-15 days of the contract period). Warm temperatures associated with extreme fire conditions pose density altitude challenges for aircraft in mountainous terrain. The mission profile for aircraft performance using the calculated average of the 95th percentile mean temperature during the fire season (April 01 to September 30th of 2001 to 2015) is +26 degrees Celcius. Treeline elevation is at 2300m Above Sea Level on solar facing slopes in Jasper National Park. The aircraft therefore must be capable of lifting and operating at 2000m at 25 degrees environmental temperature with an 1825 pound working load. This includes pilot plus 4 fire fighters with personal gear (assumed 1050 lbs total for personnel and personal gear), 500 lbs fuel or 1.5 hours flight time, remote fueling gear (25 lbs) and 250 lbs of firefighting equipment (helicopter bucket and basic initial attack gear).

7. Helicopter Requirements

7.1 The contractor must supply:

- a) One intermediate class helicopter (B2, B3, 407 or similar, with the following general specifications:

- | | |
|-------------------------------------|-----------------------------|
| 1) Seating | 1 pilot + 5 or 6 passenger |
| 2) Usable Fuel Capacity | 110 gal (869lbs) |
| 3) Range (1800kgGW/ISA, SL) | 575 km (310 nautical miles) |
| 4) External Load (Cargo Hook Limit) | 907 kg (2000 lbs) minimum |

Note:

If the aircraft proposed is different from that which is specified, the Bidder must provide sufficient technical

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information and specifications to allow the Project Authority to complete the evaluation at his sole discretion as to the acceptability of the aircraft proposed.

7.2 The Contractor must supply a helicopter equipped with:

- a) Seating for a minimum of five (5) passengers;
- b) All seats to have high back support with shoulder restraint harnesses;
- c) Two (2) firebombing buckets (681 L/180 gal. minimum); i.e. Bambi collapsible type, with instant deployment;
- d) An hour meter activated by the collective;
- e) Two (2) cargo nets (minimum size) 4.27m (14 ft) x 4.27m (14 ft) with lanyards and swivels;
- f) Two (2) sets of barrel slings;
- g) One (1) 15 metre longline and one 30 metre longline with electronic release head;
- h) High skid gear with bear paws;
- i) Highly visible contrasting main and tail rotor markings painted on upper and lower surfaces;
- j) White/red strobe lights highly visible from all directions;
- k) Highly visible markings (paint or decal) on helicopter for fire fighting operations;
- l) Skid mounted ski basket on starboard side (with quick release system);
- m) Medivac stretcher kit;
- n) Siren/Public Address system that can be activated through the cyclic;
- o) One operational 24 volt heli-torches with standard 3-prong plug and capable of being transported internally and capable of using Jet A and/or B fuel mixed with a gelling agent;
- p) 24 volt DC electrical system for bucket/torch; and
- q) A portable refueling pump.

7.3 The Contractor must supply a helicopter equipped at a minimum with the following Communication equipment:

- a) One VHF/AM radio transmitter-receivers with frequencies of 118 MHz to 135.97 MHz inclusive with 50 KHz spacing with guard feature;
- b) One FM transceiver with a frequency range of 150 to 174 MHz capable of generating CTCSS tones of 103.5HZ, 114.8HZ, 127.3HZ and 141.3HZ. with control head provision for 30 pilot-programmable, pre-set simplex and semi-duplex channels hosting a main and guard feature;
- c) The provision for operational capabilities of both radio and hot-mic intercom, through headset/boom microphones, by both pilot and front seat passenger;
- d) One intercom, front and all rear seats, with headsets and boom microphones, David Clark, Bose or equivalent;
- e) One satellite phone with mounted antenna for phone communications in remote areas;

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- f) An internet based tracking system for the helicopter and made available to the Charterer; and
- g) One programmable portable FM transceiver radio with capability of frequency range and CTCSS tones (as noted above) for communications separate from helicopter;

Note: Unserviceable radio equipment and accessories may be considered as rendering the aircraft unserviceable for operational use.

7.4 From a Directional, Safety and Emergency equipment standpoint, the Contractor must supply a helicopter equipped at a minimum with the following navigation, Safety and emergency equipment:

- a) One Radio Navigation System, e.g. Non-Directional Beacons (NDB), VHF Omnidirectional Range (VOR), VHF Omnidirectional Range and Tactical Air Navigation (VORTAC), Distance Measuring Equipment (DME) or equivalent;
- b) One Emergency Locator Transmitter (ELT);
- c) One Global Positioning System (GPS), i.e. Trimble Trans Pack or equivalent;
- d) Other Standard safety, survival gear and emergency equipment as required by Transport Canada Regulations and the Canadian Aircraft Regulations (CARS); i.e. CAR 602.61; and
- e) Automated Flight Following system (AFF) compatible with Webtracker.

Note : Bidders must submit the above requested certifications as part of their bid. The Bidder must address every requirement in their proposal and provide enough information to allow Canada to confirm the proposed helicopter meets all the requirement.

Following information must be provided in the bid.

- 1. Make & Model Proposed
- 2. Registration Number
- 3. Certifications and Documentation Attached
- 4. Provide Performance Chart demonstrating compliance to Article 4.0 of SOW.

Mandatory Technical Criteria MT3 - Certification Operator

The Bidder must provide the following Transport Canada Certificates in the bid.

- 1. Transport Canada Air Operator Certificate (AOC) number;
- 2. Valid Canadian Transportation Agency Air Operator Domestic license number
- 3. Aircraft Maintenance Organisation (AMO) Certificate