

APPENDIX F.1 TO ANNEX F TO PART 4 OF THE BID SOLICITATION

TECHNICAL COMPLIANCE MATRIX

It is highly recommended that the bidder include a copy of this compliance matrix with their bid to ensure that each criteria required is addressed in their submission. For each mandatory technical criterion, the proponent should indicate whether or not the deliverables offered “meets or will meet” or “does not meet” the requested criterion by checking the appropriate box. The bidder should also include how the proposed deliverables meet each criterion by providing specification or experience documentation. When referring to documentation, the proponent should indicate where information can be referenced by specifying the title of the documents, as well as the page number and paragraph, if applicable.

Pilot Submission:

Item	Mandatory technical criteria			
1.1	Pilot submission documents: The Bidder must provide four (4) <i>primary pilots</i> and must include the following with their proposal: <ul style="list-style-type: none"> The respective pilot information sheets which clearly outlines minimum qualifications (to be used to confirm qualifications for mandatory criterion 1.2) and The pilot record of training, including training dates and locations, that clearly indicates that the pilots meet the Helicopter Association of Canada, <i>Pilot Competencies for Helicopter Wildfire Operations</i>: (to be used to confirm qualifications for mandatory criterion 1.3). 			
Item	Mandatory technical criteria	Meets or Will Meet	Does Not Meet	Comments /Reference Page #
A	Pilot #1 (name):			
a.	Pilot's information sheet which clearly outlines minimum qualifications (to be used to confirm qualifications for mandatory criterion 1.2) is included.			
b.	Pilot's record of training, including training dates and locations, that clearly indicates that the pilots meet the Helicopter Association of Canada, Pilot Competencies for Helicopter Wildfire Operations (to be used to confirm qualifications for mandatory criterion 1.3) is included.			
B	Pilot #2 (name):			
a.	Pilot's information sheet which clearly outlines minimum qualifications (to be used to confirm qualifications for mandatory criterion 1.2) is included.			
b.	Pilot's record of training, including training dates and locations, that clearly indicates that the pilots meet the Helicopter Association of Canada, Pilot Competencies for Helicopter Wildfire Operations (to be used to confirm qualifications for mandatory criterion 1.3) is included.			
C	Pilot #3 (name):			
a.	Pilot's information sheet which clearly outlines minimum qualifications (to be used to confirm qualifications for mandatory criterion 1.2) is included.			
b.	Pilot's record of training, including training dates and locations, that clearly indicates that the pilots meet the Helicopter Association of Canada, Pilot Competencies for Helicopter Wildfire Operations (to be used to confirm qualifications for mandatory criterion 1.3) is included.			

Item	Mandatory technical criteria			
1.1	<p>(cont.) Pilot submission documents: The Bidder must provide four (4) primary pilots and must include the following with their proposal:</p> <ul style="list-style-type: none"> - The respective pilot information sheets which clearly outlines minimum qualifications (to be used to confirm qualifications for mandatory criterion 1.2) and - The pilot record of training, including training dates and locations, that clearly indicates that the pilots meet the Helicopter Association of Canada, <i>Pilot Competencies for Helicopter Wildfire Operations</i>: (to be used to confirm qualifications for mandatory criterion 1.3). 			
Item	Mandatory technical criteria	Meets or Will Meet	Does Not Meet	Comments /Reference Page #
D	Pilot #4 (name):			
a.	Pilot's information sheet which clearly outlines minimum qualifications (to be used to confirm qualifications for mandatory criterion 1.2) is included.			
b.	Pilot's record of training, including training dates and locations, that clearly indicates that the pilots meet the Helicopter Association of Canada, Pilot Competencies for Helicopter Wildfire Operations (to be used to confirm qualifications for mandatory criterion 1.3) is included.			
Item	Mandatory technical criteria			
1.2	Pilot Experience – The Bidder confirms at least four (4) primary pilots which meet the mandatory experience criteria outlined in 5.2(a) to 5.2(g) of the Statement of Work (listed below) will be provided annually:			
Item	Mandatory technical criteria	Meets or Will Meet	Does Not Meet	Comments /Reference Page #
A	Pilot #1 (name):			
a.	Have appropriate license and endorsements for the proposed helicopter they are assigned to			
b.	Minimum 2000 hours as Pilot-in-Command (PIC) rotary wing aircraft			
c.	Minimum 500 hours (PIC) flight time on class			
d.	Minimum 50 hours (PIC) on type in the last twelve (12) months prior to the reporting date at the base of operations			
e.	Minimum total of 200 hours (PIC) fire-fighting experience			
f.	Minimum of 250 hours (PIC) vertical reference operations (i.e. bucketing/longlining)			
g.	Have a minimum of 250 hours flight time in mountainous terrain i.e. within designated mountainous area 1 as per Transport Canada AIM definition of mountainous regions.			

Item	Mandatory technical criteria			
1.2	(continued) Pilot Experience – The Bidder confirms at least four (4) primary pilots which meet the mandatory experience criteria outlined in 5.2(a) to 5.2(g) of the Statement of Work (listed below) will be provided annually:			
Item	Mandatory technical criteria	Meets or Will Meet	Does Not Meet	Comments /Reference Page #
B	Pilot #2 (name):			
a.	Have appropriate license and endorsements for the proposed helicopter they are assigned to			
b.	Minimum 2000 hours as Pilot-in-Command (PIC) rotary wing aircraft			
c.	Minimum 500 hours (PIC) flight time on class			
d.	Minimum 50 hours (PIC) on type in the last twelve (12) months prior to the reporting date at the base of operations			
e.	Minimum total of 200 hours (PIC) fire-fighting experience			
f.	Minimum of 250 hours (PIC) vertical reference operations (i.e. bucketing/longlining)			
g.	Have a minimum of 250 hours flight time in mountainous terrain i.e. within designated mountainous area 1 as per Transport Canada AIM definition of mountainous regions.			
C	Pilot #3 (name):			
a.	Have appropriate license and endorsements for the proposed helicopter they are assigned to			
b.	Minimum 2000 hours as Pilot-in-Command (PIC) rotary wing aircraft			
c.	Minimum 500 hours (PIC) flight time on class			
d.	Minimum 50 hours (PIC) on type in the last twelve (12) months prior to the reporting date at the base of operations			
e.	Minimum total of 200 hours (PIC) fire-fighting experience			
f.	Minimum of 250 hours (PIC) vertical reference operations (i.e. bucketing/longlining)			
g.	Have a minimum of 250 hours flight time in mountainous terrain i.e. within designated mountainous area 1 as per Transport Canada AIM definition of mountainous regions.			

Item	Mandatory technical criteria			
1.2	(continued) Pilot Experience – The Bidder confirms at least four (4) primary pilots which meet the mandatory experience criteria outlined in 5.2(a) to 5.2(g) of the Statement of Work (listed below) will be provided annually:			
Item	Mandatory technical criteria	Meets or Will Meet	Does Not Meet	Comments /Reference Page #
D	Pilot #4 (name):			
a.	Have appropriate license and endorsements for the proposed helicopter they are assigned to			
b.	Minimum 2000 hours as Pilot-in-Command (PIC) rotary wing aircraft			
c.	Minimum 500 hours (PIC) flight time on class			
d.	Minimum 50 hours (PIC) on type in the last twelve (12) months prior to the reporting date at the base of operations			
e.	Minimum total of 200 hours (PIC) fire-fighting experience			
f.	Minimum of 250 hours (PIC) vertical reference operations (i.e. bucketing/longlining)			
g.	Have a minimum of 250 hours flight time in mountainous terrain i.e. within designated mountainous area 1 as per Transport Canada AIM definition of mountainous regions.			
Item	Mandatory technical criteria			
1.3	Pilot Competence: The Bidder confirms at least four (4) primary pilots which meet the mandatory experience criteria outlined in 5.3(a) to 5.3(g) of the Statement of Work (listed below) will be provided annually: All pilots assigned to this contract must meet the following competence criteria as described in the Helicopter Association of Canada, <i>Pilot Competencies for Helicopter Wildfire Operations</i> (link https://www.h-a-c.ca/Pilot_Competencies.pdf):			
Item	Mandatory technical criteria	Meets or Will Meet	Does Not Meet	Comments /Reference Page #
A	Pilot #1 (name):			
a.	General Wildfire Operations Knowledge			
b.	Mountain Flying			
c.	External Load			
d.	Aerial Ignition Device and Drip Torching			
e.	Hover Exit			
f.	Confined Area Operations			
g.	Low Visibility Operations			

Item	Mandatory technical criteria			
1.3	<p>(continued) Pilot Competence: The Bidder confirms at least four (4) primary pilots which meet the mandatory experience criteria outlined in 5.3(a) to 5.3(g) of the Statement of Work (listed below) will be provided annually:</p> <p>All pilots assigned to this contract must meet the following competence criteria as described in the Helicopter Association of Canada, <i>Pilot Competencies for Helicopter Wildfire Operations</i> (link https://www.h-a-c.ca/Pilot_Competencies.pdf):</p>			
Item	Mandatory technical criteria	Meets or Will Meet	Does Not Meet	Comments /Reference Page #
B	Pilot #2 (name):			
a.	General Wildfire Operations Knowledge			
b.	Mountain Flying			
c.	External Load			
d.	Aerial Ignition Device and Drip Torching			
e.	Hover Exit			
f.	Confined Area Operations			
g.	Low Visibility Operations			
C	Pilot #3 (name):			
a.	General Wildfire Operations Knowledge			
b.	Mountain Flying			
c.	External Load			
d.	Aerial Ignition Device and Drip Torching			
e.	Hover Exit			
f.	Confined Area Operations			
g.	Low Visibility Operations			

Item	Mandatory technical criteria			
1.3	<p>(continued) Pilot Competence: The Bidder confirms at least four (4) primary pilots which meet the mandatory experience criteria outlined in 5.3(a) to 5.3(g) of the Statement of Work (listed below) will be provided annually:</p> <p>All pilots assigned to this contract must meet the following competence criteria as described in the Helicopter Association of Canada, <i>Pilot Competencies for Helicopter Wildfire Operations</i> (link https://www.h-a-c.ca/Pilot_Competencies.pdf):</p>			
Item	Mandatory technical criteria	Meets or Will Meet	Does Not Meet	Comments /Reference Page #
D	Pilot #4 (name):			
a.	General Wildfire Operations Knowledge			
b.	Mountain Flying			
c.	External Load			
d.	Aerial Ignition Device and Drip Torching			
e.	Hover Exit			
f.	Confined Area Operations			
g.	Low Visibility Operations			

Helicopter Submission:

Item	Mandatory technical criteria			
1.4.1	<p>Helicopters: The Bidder must identify the proposed helicopter types and call signs and clearly indicate they will meet the mandatory criteria listed in sections 6. Aircraft Requirement of the Statement of Work.</p> <p>a. Make & Model of each proposed helicopter b. Registration Numbers c. Certifications and Documentation Attached</p>			
Item	Mandatory technical criteria	Meets or Will Meet	Does Not Meet	Comments /Reference Page #
A	Helicopter #1			
a.	Make and Model of the proposed helicopter			
b.	Registration Numbers			
c.	Certifications and Documentation Attached			
B	Helicopter #2			
a.	Make and Model of the proposed helicopter			
b.	Registration Numbers			
c.	Certifications and Documentation Attached			

Item	Mandatory technical criteria			
1.4.2	General: Bidder has listed how each proposed helicopter meets criteria from 6.1(a) to 6.1(h).			
Item	Mandatory technical criteria	Meets or Will Meet	Does Not Meet	Comments /Reference Page #
A	Helicopter #1			
a.	Class: Intermediate			
b.	Seating Capacity: 1 pilot + 5 passengers			
c.	Closed Baggage Compartment Volume: 1.39 m ³ (49.08 ft ³) or more (tail boom cargo compartment and Squirrel Cheeks or equivalent)			
d.	Fuel Range: 575 km (310 nautical miles) or more			
e.	External Load (Cargo Hook Limit): 1,115kg (2500 lbs) or more			
f.	Internal Useful Load: 860 kg (1,896 lbs) or more			
g.	Service Ceiling: 14,000 ft (4,267 m) or more			
B	Helicopter #2			
a.	Class: Intermediate			
b.	Seating Capacity: 1 pilot + 5 passengers			
c.	Closed Baggage Compartment Volume: 1.39 m ³ (49.08 ft ³) or more (tail boom cargo compartment and Squirrel Cheeks or equivalent)			
d.	Fuel Range: 575 km (310 nautical miles) or more			
e.	External Load (Cargo Hook Limit): 1,115kg (2500 lbs) or more			
f.	Internal Useful Load: 860 kg (1,896 lbs) or more			
g.	Service Ceiling: 14,000 ft (4,267 m) or more			

Item	Mandatory technical criteria			
1.4.3	Aircraft Supplemental Equipment for each Helicopter: Bidder has confirmed each proposed helicopter meets, or will meet, criteria 6.2 (a) to 6.2 (n):			
Item	Mandatory technical criteria	Meets or Will Meet	Does Not Meet	Comments /Reference Page #
A	Helicopter #1			
a.	Seating for 5 or more passengers. All seats to have high back support capability with shoulder restraint harnesses			
b.	Two (2) fire-bombing buckets; i.e. Bambi collapsible type, with instant deployment. (180USG / 680l and 240USG / 910l)			
c.	An hour meter activated by the collective			
d.	Equipped for pilot to conduct vertical reference work			
e.	One (1) 15 meter longline			
f.	One (1) 30 meter longline with remote electric release load hooks			
g.	One operational, 24-volt heli-torch capable of using AVGAS, Jet A and/or B fuel mixed with a gelling agent (only having 1 torch between the 2 aircraft is acceptable)			
h.	Two (2) cargo nets with lanyards and swivels			
i.	Pilot removable, cargo basket for external transport of hazardous good such as fuels, chainsaws, bear sprays etc.			
j.	Dart extended high (or equivalent for machine) skid gear with bear paws and passenger steps on both left and right side of the aircraft			
k.	24-volt DC internal electrical system suitable for <i>Red Dragon</i> and <i>Primo</i> Plastic Sphere Dispenser (PSD) ignitions devices			
l.	Highly visible marking scheme on the main rotor and on the tail rotor			
m.	Medivac stretcher kit for each aircraft.			
n.	Portable refueling pump which operates from aircraft electrical system and spill response kit appropriate for the helicopter.			

Item	Mandatory technical criteria			
1.4.3	(continued) Aircraft Supplemental Equipment for each Helicopter: Bidder has confirmed each proposed helicopter meets, or will meet, criteria 6.2 (a) to 6.2 (n):			
Item	Mandatory technical criteria	Meets or Will Meet	Does Not Meet	Comments /Reference Page #
B	Helicopter #2			
a.	Seating for 5 or more passengers. All seats to have high back support capability with shoulder restraint harnesses			
b.	Two (2) fire-bombing buckets; i.e. Bambi collapsible type, with instant deployment. (180USG / 680l and 240USG / 910l)			
c.	An hour meter activated by the collective			
d.	Equipped for pilot to conduct vertical reference work			
e.	One (1) 15 meter longline			
f.	One (1) 30 meter longline with remote electric release load hooks			
g.	One operational, 24-volt heli-torch capable of using AVGAS, Jet A and/or B fuel mixed with a gelling agent (only having 1 torch between the 2 aircraft is acceptable)			
h.	Two (2) cargo nets with lanyards and swivels			
i.	Pilot removable, cargo basket for external transport of hazardous good such as fuels, chainsaws, bear sprays etc.			
j.	Dart extended high (or equivalent for machine) skid gear with bear paws and passenger steps on both left and right side of the aircraft			
k.	24-volt DC internal electrical system suitable for <i>Red Dragon</i> and <i>Primo</i> Plastic Sphere Dispenser (PSD) ignitions devices			
l.	Highly visible marking scheme on the main rotor and on the tail rotor			
m.	Medivac stretcher kit for each aircraft.			
n.	Portable refueling pump which operates from aircraft electrical system and spill response kit appropriate for the helicopter.			

Item	Mandatory technical criteria			
1.4.4	Communication Equipment: Bidder has confirmed each proposed helicopter meets, or will meet, criteria 6.3 (a) to 6.3 (h)			
Item	Mandatory technical criteria	Meets or Will Meet	Does Not Meet	Comments /Reference Page #
A	Helicopter #1			
a.	Two (2) VHF/AM radio transmitter-receivers with frequencies of 118 MHz to 135.97 MHz inclusive with 50 KHz spacing with guard feature. The control arrangement will have dual switches, which can be operated independently in both the pilot and co-pilot positions. The co-pilot shall have an operational foot switch for radio transmission or a dash or panel mount ICS/TSX transmit switch.			
b.	Two (2) FM transceivers 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. Also must be capable of both wideband (25kHz) and narrowband (12.5 kHz) operations as required			
c.	Provision for operational capabilities of both radio and hot-mic intercom, through headset/boom microphones, by both pilot, copilot/front seat passenger			
d.	One (1) intercom, front and four (4) rear seats, with headsets and boom microphones, Davis Clark, Bose or equivalent.			
e.	One (1) Transport Canada approved power supply for cockpit electronics.			
f.	One (1) hard-wired, or portable, satellite phone for phone communications in remote areas			
g.	Minimum one (1) programmable portable FM transceiver radio with capability of frequency range and CTCSS tones (as noted above);			
h.	Each aircrew member is to be equipped with a smartphone to facilitate digital communication with Parks Canada personnel.			

Item	Mandatory technical criteria			
1.4.4	Cont. Communication Equipment: Bidder has confirmed each proposed helicopter meets, or will meet, criteria 6.3 (a) to 6.3 (h)			
Item	Mandatory technical criteria	Meets or Will Meet	Does Not Meet	Comments /Reference Page #
B	Helicopter #2			
a.	Two (2) VHF/AM radio transmitter-receivers with frequencies of 118 MHz to 135.97 MHz inclusive with 50 KHz spacing with guard feature. The control arrangement will have dual switches, which can be operated independently in both the pilot and co-pilot positions. The co-pilot shall have an operational foot switch for radio transmission or a dash or panel mount ICS/TSX transmit switch.			
b.	Two (2) FM transceivers 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. Also must be capable of both wideband (25kHz) and narrowband (12.5 kHz) operations as required			
c.	Provision for operational capabilities of both radio and hot-mic intercom, through headset/boom microphones, by both pilot, copilot/front seat passenger			
d.	One (1) intercom, front and four (4) rear seats, with headsets and boom microphones, Davis Clark, Bose or equivalent.			
e.	One (1) Transport Canada approved power supply for cockpit electronics.			
f.	One (1) hard-wired, or portable, satellite phone for phone communications in remote areas			
g.	Minimum one (1) programmable portable FM transceiver radio with capability of frequency range and CTCSS tones (as noted above);			
h.	Each aircrew member is to be equipped with a smartphone to facilitate digital communication with Parks Canada personnel.			

Item	Mandatory technical criteria			
1.4.5	Directional, Safety and Emergency Equipment: Bidder has confirmed each proposed helicopter meets, or will meet, criteria 6.4 (a) to 6.4 (e)			
Item	Mandatory technical criteria	Meets or Will Meet	Does Not Meet	Comments /Reference Page #
A	Helicopter #1			
a.	One (1) Emergency Locator Transmitter (ELT)			
b.	One (1) Global Positioning System (GPS) accessible by co-pilot position			
c.	One tablet equipped with the Avenza maps application and a QR code reader application, mounted in the cockpit and within reach of the pilot and able to be charged in this position			
d.	Equipped with all safety, communication, navigation and other equipment as required by Transport Canada for operations of the nature of the services			
e.	Automated Flight Following system (AFF), compatible with Latitude Technologies or similar (please specify), providing 2-minute ping locations during the annual operational period.			
B	Helicopter #2			
a.	One (1) Emergency Locator Transmitter (ELT)			
b.	One (1) Global Positioning System (GPS) accessible by co-pilot position			
c.	One tablet equipped with the Avenza maps application and a QR code reader application, mounted in the cockpit and within reach of the pilot and able to be charged in this position			
d.	Equipped with all safety, communication, navigation and other equipment as required by Transport Canada for operations of the nature of the services			
e.	Automated Flight Following system (AFF), compatible with Latitude Technologies or similar (please specify), providing 2-minute ping locations during the annual operational period.			

Pilot Schedule Submission:

Item	Mandatory technical criteria			
1.5	<p>Schedule: The Bidder must submit a pilot rotation schedule that conforms to the following requirements:</p> <ul style="list-style-type: none"> i. Applicable Canadian Aviation Regulations requirements; ii. Air Operator Certificate Specification; iii. Insurance of pilot consistency so as to provide the same complement of pilots throughout each individual operational season. iv. Principal pilots identified in the bid package must fly a minimum of 75% of contracted time during the first contract year. <p>Principal pilots identified in subsequent contract years (if different than those identified in the bid package) must fly a minimum of 75% of contract time during subsequent contract years and must possess comparable experience and competencies as those identified in the original bid package.</p>			
Item	Mandatory technical criteria	Meets or Will Meet	Does Not Meet	Comments /Reference Page #
a.	Applicable Canadian Aviation Regulations requirements			
b.	Air Operator Certificate Specification			
c.	Insurance of pilot consistency so as to provide the same complement of pilots throughout each individual operational season			
d.	Principal pilots identified in the bid package must fly a minimum of 75% of contracted time during the first contract year.			
e.	Principal pilots identified in subsequent contract years (if different than those identified in the bid package) must fly a minimum of 75% of contract time during subsequent contract years and must possess comparable experience and competencies as those identified in the original bid package.			

Safety Record Submission:

Item	Mandatory technical criteria			
1.6	<p>Safety Record: The Bidder must submit a record including reportable incidents and accidents defined by the Canadian Aviation Daily Occurrence Reporting System (CADORS) requirement encompassing the past five (5) years (April 1, 2017 to March 31, 2022).</p> <p>To be evaluated further under Point Rated Technical Criteria A.</p> <p>Note: Where a bidder is submitting as a joint venture, the safety record is to list the incidents of the main flight operator.</p>			
Item	Mandatory technical criteria	Meets or Will Meet	Does Not Meet	Comments /Reference Page #
1.6.1	The Bidder submitted a safety record for the past five (5) years (April 1, 2017 to March 31, 2022).			