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Quebec
K1A 0S5
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**LETTER OF INTEREST
LETTRE D'INTÉRÊT**

Comments - Commentaires

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Issuing Office - Bureau de distribution
Rotary Wing Search and Rescue/Recherche et Sauvetage à
Voilure Tournante
455 De la Carrière Blvd - 7SC39
Gatineau
Quebec
K1A 0S5

Title - Sujet CH149 CORMORANT ISSC	
Solicitation No. - N° de l'invitation W8485-226481/A	Date 2021-05-18
Client Reference No. - N° de référence du client W8485-226481	GETS Ref. No. - N° de réf. de SEAG PW-\$RWS-002-28229
File No. - N° de dossier 002rws.W8485-226481	CCC No./N° CCC - FMS No./N° VME
Solicitation Closes - L'invitation prend fin at - à 02:00 PM Eastern Daylight Saving Time EDT on - le 2021-06-21 Heure Avancée de l'Est HAE	
F.O.B. - F.A.B. Plant-Usine: <input type="checkbox"/> Destination: <input type="checkbox"/> Other-Autre: <input type="checkbox"/>	
Address Enquiries to: - Adresser toutes questions à: Rodricks, Derrick	Buyer Id - Id de l'acheteur 002rws
Telephone No. - N° de téléphone (873) 354-9097 ()	FAX No. - N° de FAX () -
Destination - of Goods, Services, and Construction: Destination - des biens, services et construction: Specified Herein Précisé dans les présentes	

Instructions: See Herein

Instructions: Voir aux présentes

Delivery Required - Livraison exigée See Herein – Voir ci-inclus	Delivery Offered - Livraison proposée
Vendor/Firm Name and Address Raison sociale et adresse du fournisseur/de l'entrepreneur Telephone No. - N° de téléphone Facsimile No. - N° de télécopieur	
Name and title of person authorized to sign on behalf of Vendor/Firm (type or print) Nom et titre de la personne autorisée à signer au nom du fournisseur/ de l'entrepreneur (taper ou écrire en caractères d'imprimerie) Signature Date	

CH149 Cormorant Helicopter Fleet
Letter of Interest (LOI) for In-Service Support (ISS)
LOI W8485-226481/A

Buy & Sell Description:

Public Services and Procurement Canada (PSPC) is requesting, through this initial engagement, relevant Industry feedback to assist with the development of an effective and economical optimized Sustainment Enterprise to provide In-Service Support for the CH149 Cormorant helicopter fleet on behalf of the Government of Canada Department of National Defence.

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1. Purpose

1.1. Public Services and Procurement Canada (PSPC) is requesting relevant and timely Industry feedback to assist the Government of Canada (hereinafter “Canada”) with the development of an effective and economically optimized Sustainment Enterprise (SE) to provide the In-Service Support (ISS) requirements for the Department of National Defence (DND) / Royal Canadian Air Force (RCAF) CH149 Cormorant helicopter fleet.

1.2. In its effort to develop and implement a new optimized sustainment solution for the CH149 fleet in the best possible timeframe, a Sustainment Business Case Analysis (SBCA) has been initiated as per Canada’s Sustainment Initiative (SI) policy. Further details concerning the Sustainment Initiative are available on <https://buyandsell.gc.ca/policy-and-guidelines/policy-notifications/PN-118>.

1.3. Canada has recently decided to review its current CH149 sustainment arrangement in order to establish a new CH149 Sustainment Enterprise solution which will be optimized in terms of the four Sustainment Initiative (SI) principles, namely: Performance, Value for Money, Flexibility and Economic Benefits.

1.4. Canada is informing Industry of the potential procurement opportunities concerning this program and is seeking input and contribution from companies who preferably:

- i. are involved in aircraft and aircraft engine Repair and Overhaul;
- ii. have experience in logistics;
- iii. have experience in program management;
- iv. have, or are able to obtain, the necessary agreements with the Original Equipment Manufacturers (OEMs) or who are OEMs; or
- v. have manufactured, repaired or modified aircraft components

1.5. To ensure successful procurement for this program, Canada will engage Industry in a consultative process at key points throughout the SBCA process in order to gather or exchange information while developing the new CH149 SE solution. The consultation process may include engagements such as: Letter of Interest (LOI), Request for Information (RFI), Plenary Engagement sessions, One-on-One meetings, Site Visit(s), or review of the draft Request for Proposal(s).

1.6. Canada has yet to decide what scope of work will be contracted and how this contracted scope of work will be grouped to support the CH149 fleet. Canada will consider information gathered during the Industry Engagement to design the optimized SE’s construct.

2. Background

Search and Rescue (SAR) Operations in Canada

2.1 DND has a mandate to provide aeronautical SAR services, provide support to maritime incidents, and to co-ordinate the aeronautical and maritime SAR system. With the Canadian

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Coast Guard, the Canadian Armed Forces (CAF) coordinates and allocates resources on behalf of the wider SAR community.

2.2 SAR is a vital service which requires access to the right capabilities at the right time. These capabilities rely on the timely access to the right equipment and skilled personnel, which must be appropriately distributed across the country.

2.3 The Canadian area to be covered is one of the world's largest SAR areas – it extends up to 1 000 nautical miles off the East Coast, 800 nautical miles off the West Coast and all the way to the North Pole. For DND to meet its mandate, the CAF and the Canadian Coast Guard have divided Canada's SAR area of responsibility into three SAR regions. Each region has a Joint Rescue Coordination Centre (located in Halifax, Nova Scotia; Trenton, Ontario; and Victoria, British Columbia) staffed by officials from the CAF and the Canadian Coast Guard, who coordinate a joint response to aeronautical and maritime SAR incidents. The CAF also provides assistance outside of its formal mandate by responding to requests from other federal, provincial, territorial, and municipal authorities to assist their ground SAR efforts and other distress incidents, such as missing person searches, medical evacuation, and assistance during floods and forest fires.

2.4 Within its area of responsibility, DND, through the RCAF, has a responsibility to maintain a SAR response capable of reaching those in distress anywhere in Canada on a 24/7 basis. RCAF SAR capability therefore relies on effective Sustainment Enterprises to provide the required assets in a timely manner.

2.5 The current RCAF SAR fleet is a mix of fixed wing and rotary wing aircraft. Each performs distinct yet complementary roles. The CH149 Cormorant helicopters are the primary rotary wing aircraft used to respond to SAR. They offer swift response times, powerful hover and hoist capabilities, and dedicated SAR personnel. Due to the all-weather hover and vertical takeoff and landing capabilities of the CH149, it is distinct from fixed wing aircraft, as it primarily provides the "rescue" portion of the SAR capability.

2.6 Rotary wing SAR activities are conducted from four RCAF main operating bases (MOBs), located at Comox, British Columbia; Trenton, Ontario; Greenwood, Nova Scotia; and Gander, Newfoundland and Labrador. On average, the rotary wing SAR fleet responds to approximately 600 calls for assistance each year.

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2.7 To support the rotary wing SAR requirements, fifteen (15) AW101-511 helicopters (commercial nomenclature for the CH149 Cormorant) were placed into service between 2001 and 2003 at the four main operating bases. The CH149 fleet was reduced to 14 aircraft after a crash in 2006.

2.8 In 2005, as the CH149 SAR capability could not support sustained SAR operations from all four main operating bases, a decision was made to remove the CH149s from Trenton and to redistribute assets to the remaining three main operating bases. Since the removal of the CH149s from Trenton, the primary rotary wing SAR role for the Trenton SAR Region has been fulfilled by a SAR variant of the CH146 Griffon.

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2.9 The Estimated Life Expectancy (ELE) for the fleet was for 25 years. A project is currently underway to address operational deficiencies, obsolescence, regulatory and training requirements to increase ELE until at least 2040. This project is referred to as CH149 Cormorant Mid-Life Upgrade (CMLU).

2.10 The actual CH149 Sustainment Enterprise is currently structured with a Government of Canada (GoC) Equipment Management Team (EMT) and one (1) In-Service Support Contract (ISSC) where the Prime Contractor is responsible for the majority of the ISS activities. The Original equipment manufacturer for both the helicopter and engines are Major partners and provide engineering and airworthiness support, repair and overhaul and provision of parts under contract to the Canadian Prime in-service support contractor. The Prime Contractor acts as the Program Manager and Integrator for all First, Second and Third Level maintenance activities, Supply Chain Management including Repair & Overhaul, and the procurement & distribution of the airframe / engine parts. The RCAF provides the aircrews, which includes pilots, flight engineers and SAR technicians. Other than the limited First Level maintenance activities performed by the flight engineers on specific deployments, there are no RCAF technicians currently performing maintenance activities on this fleet. Canada provides Government Furnished Equipment (GFE) and MOB's infrastructure and services. The EMT has retained some "Decisions of Significance" mainly related to financial and airworthiness aspects. It is important to note that the future CH149 Sustainment Enterprise's construct might be totally different once the SBCA analysis will be completed. Hence the importance of seeking Industry feedback at this stage.

2.11 The current CH149 ISS Provider is responsible, in conjunction with the Original Equipment Manufacturers (OEMs), for maintaining and executing the current CH149 Maintenance Program. This maintenance program is currently comprised of a series of orders / requirements for Corrective and Preventive maintenance. The main CH149 airframe's preventive maintenance periodic inspections are performed at every 300 Flight Hours using four (4) different inspection card decks (i.e. 300, 600, 1200, and 2400). These inspections, of different complexities, are performed at each MOB and in the Prime Contractor's plant.

3. SBCA Process

3.1 The development of a follow-on optimized solution under the Sustainment Initiative requires that the following four (4) Principles be treated with an equal priority and form the basis of all decisions throughout the SBCA options analysis:

- Performance – Defence equipment that is operationally ready and mission capable;
- Value for Money – SE's Outcomes are delivered at a price commensurate with the market price for comparable goods and services;
- Flexibility – Adaptable and scalable support system that can readily be adjusted to changes in operational requirements and/or operating budgets; and
- Economic Benefits – Leverage industrial benefits from Defence procurements to create jobs and economic growth for companies in Canada.

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3.2 The initial SBCA analysis was completed by Canada. As part of this work, the CH149 Cormorant operational community has identified and defined the “Operational Requirements Relevant to Sustainment” to be delivered by the CH149 SE. Based upon these required operational requirements, a series of “Sustainment Requirements” were developed to form the basis for the CH149 SE’s series of outcomes. These requirements will need to be satisfied by the different stakeholders of the Sustainment Enterprise, whether they will be contracted or organic to DND. The “Operational Requirements Relevant to Sustainment” are provided at Annex A, and the “Sustainment Requirements (Performance)” at Annex B. These requirements are subject to change, and/or will be further detailed, throughout the SBCA process.

3.3 Canada is also seeking information on economic leveraging opportunities relating to this procurement. The Industrial and Technological Benefits (ITB) Policy is Canada’s primary tool for leveraging economic benefit from defence procurement projects. Under the Policy, companies awarded with defence procurements are required to undertake activities in Canada equal to the value of the contract.

3.4 The Canadian Aerospace and Defence sectors generate significant value for the Canadian economy. A core element of the ITB Policy is a weighted and rated Value Proposition. The Value Proposition supports the following core objectives:

- Direct Defence Sector Work: Supports long-term sustainability and growth of Canada’s aerospace and defence sectors
- Canadian Supplier Development: Supports the growth of prime contractors and suppliers in Canada, including Small and Medium Businesses (SMBs) in all regions of Canada.
- Research and Development: Enhances innovation through R&D in Canada
- Exports: Increases the export potential and international competitiveness of Canadian-based firms
- Skills and Development Training: Fills skills and training gaps within the Canadian economy to support a more innovative Canada

3.5 An additional area of consideration are the Key Industrial Capabilities (KICs) that are applicable under this contract. KICs represent areas of emerging technology with the potential for rapid growth and significant opportunities, established capabilities where Canada is globally competitive, and areas where domestic capacity is essential to national security. The preliminary list of KICs that have been identified within the scope of this work include In-Service Support, Training and Simulation, Aerospace Systems and Components, and Defence Systems Integration. Inclusion of additional KICs will be informed by industry engagement and the SBCA process.

3.6 This first LOI is structured to first provide Industry with valuable information on operational, sustainment and economic benefit requirements and also to seek specific timely feedback to help Canada perform the first of many option analysis. The first option analysis

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will determine the scope of work which will be retained by Canada and which scope of work will be contracted to Industry. The second important option analysis will be to determine how many contract(s) the earmarked contracted scope will be grouped into. Hence the importance to receive Industry's perspective in relation to both of these analysis.

4. Requested Information

4.1 The Industry feedback is to be provided by answering the questions listed at Annex C - Feedback Framework. The interested parties are encourage to respond using the template even if they are not able to answer all questions or perform all of the scope of work. It would therefore be appreciated if the responses be provided in writing to the PSPC contact herein, on or before June 21, 2021.

4.2 Respondents may be contacted by PSPC as a result of this LOI. The Contracting Authority, identified herein, may communicate with Industry to seek more information, or clarify information, from submitted responses. Any future industry engagement activity or procurement will be publicly posted.

4.3 LOI closing date is not the deadline for comments or input. Comments and input will be accepted any time up to the time when/if a follow-on solicitation is published.

5. Format of Responses Requested

5.1 Respondents are reminded that this is an LOI and not a Request for Proposals (RFP). As such, respondents are requested to provide their comments, concerns and, where applicable, alternative recommendations regarding how the requirements or objectives described in this LOI could be satisfied. Respondents should list and explain any assumptions that they make in their responses.

5.2 All submitted information, comments and/or questions must be based solely on the documentation herein and Industry should not reference any other past procurement process. Participants are advised that any information submitted to Canada in response to this LOI may, or may not, be used by Canada in the development of the potential subsequent RFP.

5.3 Responses will not be used for competitive or comparative evaluation purposes, and thus the response format is not as rigorously defined as would normally be for an RFP. However, for ease of use and in order for the greatest value to be gained from responses, Canada requests that respondents follow the structure outlined herein.

5.3.1 **Cover Page:** If the response includes multiple volumes, respondents are requested to indicate on the front cover page of each volume the title of the response, the solicitation number, the volume number and the full legal name of the respondent.

5.3.2 **Title Page:** The first page after the cover page should be the title page, which should contain the following information:

- i. title of the respondent's response and the volume number;
- ii. name and address of the respondent;

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- iii. name, address and telephone number of the respondent's contact;
- iv. date; and,
- v. LOI number.

5.3.3 Number of Copies: Canada requests that respondents submit their response in unprotected (i.e. no password) PDF format by email, if the size of the document(s) is less than 8MB, directly to the Contracting Authority. Canada will also accept multiple emails where no one email may exceed 8MB.

5.4 Responses may be submitted in either of Canada's official languages, English or French, at the preference of the respondent.

6 Security

6.1 There is no security requirement associated with this LOI.

7 Legislation, Trade Agreements, Government Policies

7.1 The following is indicative of some of the legislation, trade agreements and government policies that could impact any follow-on solicitation(s):

- Agreement on Internal Trade (AIT)
- Defence Production Act
- Defence Procurement Strategy (DPS)
- Controlled Goods Program (CGP)
- Federal Contractor Program for Employment Equity (FCP-EE)
- National Security Exception (NSE)
- Government Contracting Regulations

8 Enquiries

8.1 All enquiries and other communications related to this LOI shall be directed exclusively to the PSPC Contracting Authority. Since this is not a bid solicitation, Canada will not necessarily respond to enquiries in writing or by circulating answers to all Respondents. However, Respondents with questions regarding this LOI may direct their enquiries in writing, in either official language of Canada.

8.2 Contracting Authority:

Derrick Rodricks
Public Services and Procurement Canada (PSPC)
11 Laurier Street,
Place du Portage III, 8C1
Gatineau, Quebec K1A 0S5
E-mail: Derrick.Rodricks@tpsgc-pwgsc.gc.ca
Telephone: (873) 354-9097

8.3 The use of email to communicate is preferred. Suppliers must not email any enquiries which contain classified information.

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9 Important Notes

9.1 This LOI is neither a call for tender nor a Request for Proposal (RFP), and no agreement or contract for the procurement of the requirement described herein will be entered into solely as a result of this LOI. The issuance of this LOI is not to be considered in any way as a commitment by Canada or as authority to potential Respondents to undertake any work that could be charged to Canada.

9.2 This LOI is not to be considered as a commitment to issue a subsequent solicitation or award contract(s) for the work described herein.

9.3 Canada does not intend to award a contract on the basis of the notice or otherwise pay for the information solicited. Any and all expenses incurred by the Respondent in pursuing this opportunity, including the provision of information are at the Respondent's sole risk and expense.

9.4 Any discussions on this subject with project staff representing DND, PSPC, ISEDC or any other Canada representative, or other personnel involved in project activities, must not be construed as an offer to purchase or as a commitment by DND, PSPC, ISEDC or the Canada as a whole.

9.5 Respondents may provide documents / information / data collected as commercial-in-confidence (and if identified as such, will be treated accordingly by Canada). However, Canada reserves the right to use the information to assist them in drafting sustainment analysis, performance specifications, or for budgetary purposes. Requirements are subject to change, which may be as a result of information provided in response to this LOI. Participants are advised that any information submitted to Canada in response to this LOI may, or may not, be used by Canada in the development of the potential subsequent RFP. The issuance of this LOI does not create an obligation for Canada to issue a subsequent RFP and does not bind Canada legally or otherwise, to enter into any agreement or to accept or reject any suggestions.

9.6 Respondents are encouraged to clearly identify, in writing, in the information they share with Canada, any information they feel is commercial-in-confidence, proprietary, third party or personal. Please note that Canada may be obligated by law (e.g. in response to a request under the Access to Information and Privacy Act) to disclose proprietary or commercially-sensitive information concerning a Respondent (for more information: <http://laws-lois.justice.gc.ca/eng/acts/a-1/>).

9.7 Respondents are asked to identify, in writing, if their response, or any part of their response, is subject to the Controlled Goods Regulations.

9.8 For the purposes of carrying out potential Fairness Monitor duties, access will be granted for all industry responses and related correspondence received by Canada, if required, as a result of this LOI/RFI in order to observe engagement activities.

9.9 Participation in this LOI is encouraged, but is not mandatory. There will be no short-listing of potential suppliers for the purposes of undertaking any future work as a result

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of this LOI. Similarly, participation in this LOI is not a condition or prerequisite for the participation in any potential subsequent solicitation.

9.10 Respondents will not be reimbursed for any cost incurred by participating in this LOI.

9.11 Changes to this LOI may occur and will be advertised on the Government Electronic Tendering System, buyandsell.gc.ca - [Buyandsell.gc.ca](https://buyandsell.gc.ca). Canada asks Respondents to visit <https://buyandsell.gc.ca/> regularly to check for changes, if any.

10 Attached Documents

Annex A – Operational Requirements Relevant to Sustainment

Annex B – Sustainment Enterprise Performance Requirements

Annex C – Feedback Framework & Response Template

11 Closing date

11.1 This LOI closing date is currently planned for June 21, 2021.

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ANNEX A – Operational Requirements relevant to Sustainment

ANNEX A

OPERATIONAL REQUIREMENTS RELEVANT TO SUSTAINMENT

The following requirements are the RCAF CH149 Cormorant Operational Requirements that are relevant to sustainment:

Capability / Availability

Identifying the projected CH149 SAR operational capability required to meet its Force Employment mandate and associated Force Generation training.

Requirement	Metric	Target
Ops 1.1 - CH149 operational capability must maintain a Yearly Flying Rate (YFR) to meet both Force Employment (FE) and Force Generation (FG) requirements. FE = performance of an actual SAR mission FG = performance of training missions	<ul style="list-style-type: none"> Total number of Flying Hours (FH) to be flown by the CH149 fleet 	<ul style="list-style-type: none"> 5,600 FH
	<ul style="list-style-type: none"> Total number of FH to be flown at each RCAF unit 	<ul style="list-style-type: none"> 19 Wing Comox 442 Sqn: 1,300 FH Operational Training Flight (OTF): 1,080 FH
		<ul style="list-style-type: none"> 9 Wing Gander 103 Sqn: 1,610 FH
		<ul style="list-style-type: none"> 14 Wing Greenwood 413 Sqn: 1,610 FH
		<ul style="list-style-type: none"> 8 Wing Trenton 424 Sqn: 0 FH
Ops 1.2 – The CH149 operational capability must be agile enough to support the unpredictable SAR FE missions from	<ul style="list-style-type: none"> Percentage of total YFR estimated to be required to support SAR FE missions. 	<ul style="list-style-type: none"> 30% (1,680 FHs)

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ANNEX A – Operational Requirements relevant to Sustainment

Requirement	Metric	Target
<p>Main Operating Bases (MOBs) and deployed locations.</p> <p><i>Note: The CH149 usage has historically been 30% for Force Employment (FE) activities and 70% for Force Generation (FG) activities. YFR Figures in the table are based on FY18/19 YFR annual plan.</i></p> <p>Ops 1.3 – The CH149 operational capability must execute FE missions and FG training missions and deployments based on the historical CH149 fleet usage throughout the year.</p> <p>Ops 1.4 – The CH149 operational capability must be capable to continuously hold a SAR stand-by (STBY) posture.</p> <p>Line of Tasking (LoT) is a term used to depict a grouping by mission type.</p> <p>Ops 1.5 – The CH149 operational capability must have the required mission-ready helicopter(s) to support any unscheduled SAR FE missions within the SAR STBY mandated response postures (RP).</p>	<ul style="list-style-type: none"> Number of “estimated” flying days per year based on historical data Monthly Flying Rate (MFR) Distribution Continuous Line of Tasking (LoT) SAR FE Ops coverage Locations Percentage of unscheduled SAR FE missions requiring a mission-ready helicopter Maximum time intervals permitted between receipt of launch orders and the SAR aircraft becoming airborne – During RP30 Maximum time intervals permitted between receipt of launch orders and the SAR aircraft becoming airborne – During RP 2 Maximum RP30 coverage per week RP30Hours’ distribution over a 7 day week 	<ul style="list-style-type: none"> 235 days for planned FG for SAR Squadrons (Sqns) 215 days for OTF Ops Previous 5-year average reflecting an increase between the months of May and Sep inclusively. One 24/7 At all operational units (i.e. 103, 413, 442 Sqns) 100% 30 minutes – RP 30 2 hours - RP 2 hours 40 hrs 08:00 to 16:00 hrs Monday to Friday inclusively <i>Note: SRR Comd has the authority to temporarily modify RP 30 hours in order to adapt to periods of known and/or predictable high SAR demands within the maximum 40 hrs RP30.</i>

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ANNEX A – Operational Requirements relevant to Sustainment

Requirement	Metric	Target
	<ul style="list-style-type: none"> Missions related to the deployed SAR FE Ops 	<ul style="list-style-type: none"> See Ops 5.3 for details
Ops 1.6 – The CH149 operational capability must have an additional mission-ready helicopter to become the back-up asset to an ongoing SAR FE mission and/or to be used for consecutive SAR tasking.	Maximum time interval for SAR operations at 413 Sqn and 442 Sqn	<ul style="list-style-type: none"> As soon as possible but no more than 12 hours after activation of a SAR FE mission
	Maximum time interval for SAR operations at 103 Sqn <i>Note: Shorter regeneration time at 9 Wing Gander to provide an organic rescue capability in support of an ongoing SAR FE mission.</i>	<ul style="list-style-type: none"> Due to the lack of organic FW SAR assets as soon as possible but not more than 2 hours after activation of a SAR FE mission
	LoTs Categories which includes FG missions	<ul style="list-style-type: none"> LoT SAR Stby (FG missions only) LoT T-Crew (Training missions within the Operational Squadrons) LoT OTF (Operational Training Flight – School) LoT Deployment (FG deployment only) LoT Misc
Ops 1.7 – The CH149 operational capability must have the required mission-ready helicopter(s) to support scheduled FG missions within the following LoTs	Overall Scheduled FG mission accomplishment percentage	<ul style="list-style-type: none"> 95%
	Number of scheduled SAR STBY Crew FG missions per day	<ul style="list-style-type: none"> 2 x Day missions 1 x Night mission
	Number of days / week for Day missions	<ul style="list-style-type: none"> Normally 5 days
	Number of days / week for Night missions	<ul style="list-style-type: none"> Normally 3 days (Tuesday, Wednesday, Thursday)
	Duration of each mission	<ul style="list-style-type: none"> 2.5 FHs
Ops 1.8 – The CH149 operational capability must have the required mission-ready helicopter(s) to support the LoT SAR scheduled FG missions.	Mission-ready SAR STBY helicopter configuration	<ul style="list-style-type: none"> As per Ops 3.1 details
	Max Number of scheduled T-Crew FG missions per day	<ul style="list-style-type: none"> Normally 1 Day mission
	Number of days / week for Day or Night mission.	<ul style="list-style-type: none"> 2 x per week Consider delaying morning T-Crew flights on days following FG Night flights if maintenance requires
	Duration of each mission	<ul style="list-style-type: none"> 1.5 FHs
	Number of scheduled OTF FG missions per calendar day	<ul style="list-style-type: none"> 4 x Day or Night missions
Ops 1.9 – The CH149 operational capability must have the required mission-ready helicopter(s) to support the LoT T-Crew scheduled FG missions.		
Ops 1.10 – The CH149 operational capability must have the required mission-		

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Requirement	Metric	Target
ready helicopter(s) to support the LoT OTF scheduled FG missions.	<ul style="list-style-type: none"> Number of days / week for Day missions Duration of each mission 	<ul style="list-style-type: none"> 5 days 1.5 FHs
Ops 1.11 – The CH149 operational capability must have the required mission-ready helicopter(s) to support the LoT Deployment scheduled FG missions.	<ul style="list-style-type: none"> Scheduled missions related to deployed FG Ops 	<ul style="list-style-type: none"> See Ops 5.1 and Ops 5.2 for details
Ops 1.12 – The CH149 operational capability must have the required mission-ready helicopter(s) to support the LoT Misc scheduled FG missions.	<ul style="list-style-type: none"> Scheduled misc missions 	<ul style="list-style-type: none"> As required

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ANNEX A – Operational Requirements relevant to Sustainment

Reliability

The CAF requires that the CH149 be able to complete planned and required missions in support of the Force Generation (FG) and Force Employment (FE) requirements.

Requirement	Metric	Target
Ops 2.1 – The CH149 operational capability needs the CH149 systems' reliability to ensure an acceptable overall Mission Accomplishment.	<ul style="list-style-type: none">Metric of Mission Abort events due to technical reasons <i>Note: The Sustainment Requirements will need to identify the need to limit "repeat snags" and measure them as this could be attributed to the ability of the maintenance personnel to troubleshoot system functionality.</i>	<ul style="list-style-type: none">95% accomplishment (SOI based)
Ops 2.2 – The CH149 operational capability needs a Departure Reliability to support the required SAR FE	<ul style="list-style-type: none">Percentage of departures (i.e. flight attempts to conduct SAR FE missions) that do not incur a delay, due to technical reasons, beyond the required RP.	<ul style="list-style-type: none">100%
Ops 2.3 – The CH149 operational capability needs a Departure Reliability to support the required SAR FG mission success.	<ul style="list-style-type: none">Percentage of departures (i.e. flight attempts to conduct SAR FG missions) that do not incur a delay, due to technical reasons, greater than 15 minutes	<ul style="list-style-type: none">98%

Suitability

The CAF requires that the CH149 helicopters be mission capable by having functioning aircraft systems for the intended mission.

Requirement	Metric	Target
Ops 3.1 – The CH149 operational capability must have mission-ready helicopters	<ul style="list-style-type: none">Percentage of FE and FG missions requiring a mission-ready helicopter configured as detailed in the Weekly/Daily flight schedule. <i>Note: A term such as SAR Fully Mission Capable (FMC) could be pre-defined and used to facilitate communication between operators and maintenance personnel. However, aircraft requirements and configuration will need to be tailored for some specific missions such as for deployed operations.</i>	<ul style="list-style-type: none">100%

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Requirement	Metric	Target
properly configured to execute the planned FE and FG missions.	<p>SAR FMC = Serviceable aircraft with a minimum of 14 bank hours prior the next scheduled inspection, all MMEL systems installed and serviceable + all following critical CH149 SAR mission systems installed and functioning:</p> <ul style="list-style-type: none">- Rescue Hoist (Primary and Back-up)- Night Sun- Steerable searchlights- Tail lights- SATCOM- GARMIN GPS500 (2 each)- Serviceable Ice Protection System	

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Safety

The CAF requires the ability to safely execute FG and FE missions.

Requirement	Metric	Target
Ops 4.1 – The CH149 operational capability needs aircraft operating in a safe to operate status.	<ul style="list-style-type: none"> Level of Safety 	<ul style="list-style-type: none"> Acceptable Level of Safety (ALOS) as prescribed in the DND Airworthiness Program

Deployability

The CAF requires the ability to operate away from MOBs in operations defined as aircrew self-support mission, deployments and detachments.

Requirement	Metric	Target
Ops 5.1 – The CH149 operational capability must have the assets required for an FG - “ Planned MOB Unsupported Deployments ” <i>Note: Commonly referred to as RONs</i>	<ul style="list-style-type: none"> Normal duration in calendar days 	<ul style="list-style-type: none"> 3 days (longer duration requires longer lead time for contractor to prepare WRT hours available, aircraft stagger, etc.)
	<ul style="list-style-type: none"> Periodicity 	<ul style="list-style-type: none"> Monthly*
	<ul style="list-style-type: none"> Number of Aircraft 	<ul style="list-style-type: none"> One
	<ul style="list-style-type: none"> Maximum number of missions per day per aircraft 	<ul style="list-style-type: none"> As required
	<ul style="list-style-type: none"> Mission duration 	<ul style="list-style-type: none"> Maximum of 14 FHs (including transit flights)
	<ul style="list-style-type: none"> MOB Support 	<ul style="list-style-type: none"> Pre-Deployment: <ul style="list-style-type: none"> Generating a Mission-Ready helicopter configured as per deployment instructions (Weekly/Daily Schedule) If aircraft is to hold SAR posture during Deployment, helicopter must be FMC as per Ops 3.1, with a minimum of 28 bank hours to ensure that aircraft

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Requirement	Metric	Target
		<p>returns with a remaining 14 bank hours at the end of the deployment</p> <ul style="list-style-type: none"> - Prepare self-support Pack-Up Kit • During Deployment: <ul style="list-style-type: none"> - None (Aircrew Self-Support) - Should an aircraft become unserviceable away from MOB the contractor must be able to load parts / tools and required personnel within 8 hrs of notification?
Ops 5.2 - The CH149 operational capability must have the assets and required support for an FG - “ Planned MOB Supported Deployments ”	• Maximum duration in calendar days	• 7 days
	• Periodicity	• Two (2) per year
	• Number of Aircraft	• Up to two
	• Maximum number of missions per day <u>per aircraft</u>	• Normally 3 missions (2 Days + 1 Night) however a 4 th flight could be scheduled depending on the deployment (example 103 Sqn boat camp)
	• Maximum Mission duration	• Maximum of 50 FHs for one aircraft deployment (including transit flights)
	• MOB Support	<p>• Maximum of 80 FHs for a two aircraft deployment (including transit flights)</p> <p>• Pre-deployment:</p> <ul style="list-style-type: none"> - Generating the required Mission-Ready helicopter(s) configured as per deployment instructions (Weekly/Daily Schedule) - Prepare and deploy Pack-Up Kit - Preposition support personnel at deployed location <p>• During Deployment:</p> <ul style="list-style-type: none"> - Support <u>planned</u> FG missions
Ops 5.3 - The CH149 operational capability must have the assets and required	• Time to react to a SAR diverted mission turning into an aircrew self-supported deployment	• Not applicable.

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Requirement	Metric	Target
support for any type of unscheduled FE “ SAR Ops Deployments ”	<ul style="list-style-type: none"> Time to react to a SAR diverted mission resulting into a MOB Supported Major Search deployment 	<ul style="list-style-type: none"> As soon as possible but no more than 12 hours for an additional SAR configured helicopter. 8 hours from notice to deploy to ready to load parts and maintenance personnel
	<ul style="list-style-type: none"> Number of missions per helicopter for a MOB Major Search deployment 	<ul style="list-style-type: none"> As per Ops 5.2 + surge capability as required
	<ul style="list-style-type: none"> Deployment and mission duration for a MOB Major Search deployment 	<ul style="list-style-type: none"> As per Ops 5.2 + surge capability as required

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ANNEX B – Sustainment Enterprise Performance Requirements

ANNEX B

CH149 Sustainment Enterprise Performance Requirements

The Sustainment Enterprise (SE) must perform all sustainment functions/activities that are required to meet the CAF requirements and therefore deliver the defined operational outcomes.

P1 - Availability *Providing operations with goods and services as and where required*

Requirement	Metric	Target
P1.1 - The CH149 SE must perform maintenance activities within the Airworthiness Program requirements including the ability to be accredited or recognized as an Acceptable Maintenance Organization (AMO)	• Initial accreditation	• Provisional TBD as per transition plan
	• Maintenance of accreditation	• Full TBD as per transition plan • On-going with no interruptions
P1.2 – The CH149 SE must perform <u>scheduled</u> maintenance activities in an effective manner to allow for an aircraft <u>availability</u> sufficient to support the required Force Employment (FE) and Force Generation (FG) missions <i>Definition of “scheduled maintenance” - defined as the generation of the required banking hours to support the planned YFR (i.e. PIMs), major repairs, and major modifications.</i>	• Max number of aircraft undergoing scheduled maintenance	• No more than TBD aircraft undergoing scheduled maintenance at any time.
	• Fleet Availability	• No less than TBD aircraft available to RCAF at any time.
	• Aircraft Availability at each active RCAF unit (i.e. MOB)	• As determined by maintenance provider if under a performance-based arrangement
	• Banking hours production throughput	• To meet aircraft availability definition and target of no less than TBD aircraft available to RCAF at any time; and

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Requirement	Metric	Target
<p>P1.3 – The CH149 SE must perform corrective maintenance activities in an effective manner to allow for sufficient Mission-Ready aircraft to support the projected maximum daily capability in terms of Force Employment (FE) and Force Generation (FG) missions at MOB and Deployed.</p> <p><i>Definition of the maximum daily projected capability is defined in the RCAF Operational Requirements.</i></p> <p>P1.3a – The CH149 SE must assign Mission-Ready aircraft to continuously hold a SAR stand-by (STBY) posture.</p> <p>P1.3b – The CH149 SE must be capable of generating the required mission-ready helicopter(s) to support any unscheduled SAR FE missions within the SAR STBY mandated response postures (RP).</p>	<ul style="list-style-type: none"> Effectiveness 	<ul style="list-style-type: none"> To meet the MR aircraft definition and targets for each MOB Minimized resources and maximize production throughput
	<ul style="list-style-type: none"> Number of Mission-Ready (MR) aircraft at each active MOB at the beginning of each flying day (<i>exact time TBD</i>) 	<ul style="list-style-type: none"> 442 Sqn: TBD MR aircraft 103 Sqn: TBD MR aircraft 413 Sqn: TBD MR aircraft 424 Sqn: Not active
	<ul style="list-style-type: none"> Effectiveness 	<ul style="list-style-type: none"> Minimized resources and maximize production throughput
	<ul style="list-style-type: none"> Number of MR aircraft continuously assigned as SAR STBY aircraft in its proper SAR STBY configuration 	<ul style="list-style-type: none"> No less than one (1) at any time Note: “at any time” is defined in P1.3b
	<ul style="list-style-type: none"> Ops coverage Locations 	<ul style="list-style-type: none"> 24/7 At all operational units (i.e. 103, 413, 442 Sqns)
	<ul style="list-style-type: none"> Percentage of unscheduled SAR FE missions requiring a mission-ready helicopter in its proper SAR STBY configuration 	<ul style="list-style-type: none"> 100%
	<ul style="list-style-type: none"> Maximum time intervals permitted between receipt of launch orders and the SAR aircraft becoming airborne – During Core Hours 	<ul style="list-style-type: none"> 30 minutes – RP 30
	<ul style="list-style-type: none"> Maximum time intervals permitted between receipt of launch orders and the SAR aircraft becoming airborne – During Non-Core Hours 	<ul style="list-style-type: none"> 2 hours - RP 2 hours

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Requirement	Metric	Target
	<ul style="list-style-type: none"> Maximum time interval should the initial SAR STBY asset become unavailable for SAR response. 	<ul style="list-style-type: none"> For the RP 30 response posture - Within 15 minutes For the RP 2 Hour response posture – Within 40 minutes <p><i>Note: failure to do so would affect the ability to meet the SAR FE mission accomplishment of 100%</i></p>
	<ul style="list-style-type: none"> Maximum Core hours per week 	<ul style="list-style-type: none"> 40 hrs
	<ul style="list-style-type: none"> Core Hours' distribution over a 7 day week 	<ul style="list-style-type: none"> 08:00 to 16:00 hrs Monday to Friday inclusively, excluding statutory holidays.
	<ul style="list-style-type: none"> Missions related to the deployed SAR FE Ops 	<ul style="list-style-type: none"> See P5.5 for details
	<ul style="list-style-type: none"> Maximum time period to position and prepare the helicopter(s) on the ramp (or in the hangar during inclement weather), in the standard SAR configuration, with all Aircraft Maintenance Manual pre-flight checks completed, available for the flight crew, and ready to be started. 	<ul style="list-style-type: none"> For the RP 30 response posture - Within 15 minutes of the SAR launch requirement For the RP 2 Hour response posture – 40 minutes from the SAR launch requirement
	<ul style="list-style-type: none"> Maximum time period to position and prepare the helicopter(s) on the ramp (or in the hangar during inclement weather), in a non-standard SAR configuration, with all Aircraft Maintenance Manual pre-flight checks completed, available for the flight crew, and ready to be started 	<ul style="list-style-type: none"> For the RP 30 response posture – As soon as possible taking no longer than 2 hours of the SAR launch requirement
		<ul style="list-style-type: none"> For the RP 2 Hour response posture – As soon as possible taking no longer than 2 hours of the SAR launch requirement
<p>P1.3c – SAR Standby helicopters must be positioned and prepared in a timely manner to meet SAR Standby readiness timings</p>	<ul style="list-style-type: none"> Maximum time interval for SAR operations at 413 Sqn and 442 Sqn 	<ul style="list-style-type: none"> As soon as possible but no more than 12 hours after activation of a SAR FE mission
<p>P1.3d – The CH149 SE must be capable of generating an <u>additional</u> mission-ready helicopter to become the back-up asset to an ongoing SAR FE</p>		

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Requirement	Metric	Target
mission and/or to be used for consecutive SAR tasking.	<ul style="list-style-type: none"> Maximum time interval for SAR operations at 103 Sqn <i>Note: Shorter regeneration time at 9 Wing Gander to provide an organic rescue capability in support of an ongoing SAR FE mission.</i>	<ul style="list-style-type: none"> As soon as possible but not more than 2 hours after activation of a SAR FE mission
	<ul style="list-style-type: none"> Ops coverage 	<ul style="list-style-type: none"> Full duration of SAR operations by SAR Duty helicopter
	<ul style="list-style-type: none"> Readiness Posture 	<ul style="list-style-type: none"> As directed by CJOC
	<p>P1.4 – The CH149 SE must be capable of generating the required mission-ready helicopter(s) to support scheduled FG missions within the following Line of Tasking (LoTs)</p> <p>Line of Tasking (LoT) is a term used to depict a grouping by mission type.</p>	<ul style="list-style-type: none"> LoT SAR Stby (FG missions only) LoT T-Crew (Training missions within the Operational Squadrons) LoT OTF (Operational Training Flight – School) LoT Deployment (FG deployment only) LoT Misc 95%
P1.4a – The CH149 SE must be capable of generating the required mission-ready helicopter(s) to support the LoT SAR scheduled FG missions.	<ul style="list-style-type: none"> Overall Scheduled FG mission accomplishment percentage 	<ul style="list-style-type: none"> 2 x Day missions 1 x Night mission 5 days
	<ul style="list-style-type: none"> Number of scheduled SAR STBY Crew FG missions per day 	
	<ul style="list-style-type: none"> Number of days / week for Day missions 	
	<ul style="list-style-type: none"> Number of days / week for Night missions 	<ul style="list-style-type: none"> 3 days (Tuesday, Wednesday, Thursday)
	<ul style="list-style-type: none"> Duration of each mission Mission-ready SAR STBY helicopter configuration 	<ul style="list-style-type: none"> 2.5 FHs As per P3.1 details
P1.4b – The CH149 SE must be capable of generating the required mission-ready helicopter(s) to support the LoT T-Crew scheduled FG missions.	<ul style="list-style-type: none"> Number of scheduled T-Crew FG missions per day 	<ul style="list-style-type: none"> 1 Day mission
	<ul style="list-style-type: none"> Number of days / week for Day or Night missions 	<ul style="list-style-type: none"> 2 x days

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Requirement	Metric	Target
		<ul style="list-style-type: none"> No T-Crew flights before noon on days following FG Night missions) 1.5 FHs 4 x Day missions
P1.4c – The CH149 SE must be capable of generating the required mission-ready helicopter(s) to support the LoT OTF scheduled FG missions.	Duration of each mission	
	Number of scheduled OTF FG missions per day	
	Number of days / week for Day missions	<ul style="list-style-type: none"> 5 days
	Duration of each mission	<ul style="list-style-type: none"> 1.5 FHs
P1.4d – The CH149 SE must be capable of generating the required mission-ready helicopter(s) to support the LoT Deployment scheduled FG missions. P1.4e – The CH149 SE must be capable of generating the required mission-ready helicopter(s) to support the LoT Misc scheduled FG missions. P1.4f – Non SAR Standby helicopters must be positioned and prepared in a timely manner to meet planned flying schedule timing	Scheduled missions related to deployed FG Ops	<ul style="list-style-type: none"> See Ops 5.1 and Ops 5.2 for details
	Scheduled misc missions	<ul style="list-style-type: none"> As required
	Maximum time allowed to tow/position, configure and perform maintenance pre-flight checks completed, available for the flight crew, and ready to be started.	<ul style="list-style-type: none"> 30 minutes prior to scheduled start
	Ability	<ul style="list-style-type: none"> On-type (CH149) qualified On-type experienced On-type authorized Technically proficient
P1.5 - The CH149 SE must have Acceptable Technical Organizations (ATO's) in support of CH149 Ops/Maint	Quantity	<ul style="list-style-type: none"> Optimal number
	Production throughput	<ul style="list-style-type: none"> Optimal productivity
	Ability	<ul style="list-style-type: none"> On-type (CH149) / and/ or system-qualified On-type experienced On-type authorized Technically proficient
	Quantity	<ul style="list-style-type: none"> Optimal number
P1.6 - The CH149 SE must have Acceptable Design Organizations (ADO) in support of CH149 Ops/Maint		

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Requirement	Metric	Target
P1.7 - The CH149 SE must have Acceptable Manufacturing Organization (AMfgO) in support of CH149 Ops/Maint	• Production throughput	• Optimal productivity
	• Ability	• On-type (CH149) / and/ or system qualified
		• On-type experienced
		• On-type authorized
P1.8 - The CH149 SE must have Acceptable Material Support Organization (AMSO) in support of CH149 Ops/Maint	• Quantity	• Technically proficient
	• Production throughput	• Optimal number
	• Ability	• Optimal productivity
		• On-type (CH149) / and/ or system-qualified
P1.9 - The CH149 SE must perform maintenance in accordance with an appropriate CH149 maintenance program		• On-type experienced
		• On-type authorized
		• Technically proficient
	• Quantity	• Optimal number
P1.10 – The CH149 SE must have access to all appropriate Technical Publications to support CH149 Maint/Ops	• Production throughput	• Optimal productivity
	• Adequacy	• Airworthiness Regulatory Authority
	• Effectiveness	• Approved
		• Rationalized
P1.11 - The CH149 SE must have access to technical data and an engineering capability to develop Non Standard Repairs (NSRs) and Design Changes	• Adequacy	• Accurate
		• Reliable
		• Readily available
	• Relevant technical data	• Accurate
P1.12 - The CH149 SE must have an appropriate Supply Chain / Material Management capability to perform: forecasting, procurement, warehousing, distribution, accounting	• Engineering Capability – Level of Accreditation	• Reliable
		• As defined by Airworthiness Regulatory Authority
	• Adequacy	• Experienced
		• Responsive
		• Effective information data management
		• System
	• Availability of Spares	• Clear hand-over points
		• Parts visibility

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Requirement	Metric	Target
		<ul style="list-style-type: none"> • Sufficient to deliver Ops required Outcomes (to be quantified later during the development of the SE)
P1.13 - The CH149 SE must identify, plan and react to CH149 systems and sub-systems obsolescence issues	<ul style="list-style-type: none"> • Ability • Effectiveness 	<ul style="list-style-type: none"> • Experienced technical and logistics personnel • Timely manner before it impacts availability of CH149 aircraft
P1.14 - The CH149 SE must have access to required Aircraft Maintenance Support Equipment and tooling	<ul style="list-style-type: none"> • Quantity • Adequacy • Availability 	<ul style="list-style-type: none"> • Optimal number • Serviceable / Reliable / calibrated • 98%
P1.15 - The CH149 SE must have access to appropriate facilities and infrastructure at each MOB in support of CH149 Ops/Maint	<ul style="list-style-type: none"> • Adequacy 	<ul style="list-style-type: none"> • Accessibility • Optimal / Effective Layout
P1.16 – The CH149 SE must be capable to sustain heavy maintenance activities	<ul style="list-style-type: none"> • Unscheduled maintenance activities such as Corrosion Repair, Tail Rotor, etc. 	<ul style="list-style-type: none"> • As required
	<ul style="list-style-type: none"> • Location 	<ul style="list-style-type: none"> • TBD
P1.17 – The CH149 SE must have a contract framework that allows for a surge in the YFR resulting from unforeseen events such as a major national disaster or accident	<ul style="list-style-type: none"> • Yearly Flying Rate 	<ul style="list-style-type: none"> • Incentivize above YFR

P2 - Reliability

Maximize the maintenance free period of in-service time

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Requirement	Metric	Target
P2.1 - The CH149 SE must track and analyze relevant data related to CH149 usage and maintenance activities	<ul style="list-style-type: none"> Type 	<ul style="list-style-type: none"> Relevant data to be identified / defined specifically for the CH149 systems and mission reliability. For example: <ul style="list-style-type: none"> Total Flying Hours Mission Aborts Cause of Abort/Failure (including “repeat snags” Mean Time Between Maintenance Events Scheduled Maintenance Events Unscheduled Maintenance Events Mean Time Between Failure Repair Costs by Component No Faults Found
P2.2 - The CH149 SE must have access to technical and engineering data	<ul style="list-style-type: none"> Type 	<ul style="list-style-type: none"> Appropriate data required to assess reliability issues/causes and perform associated Design Changes
P2.3 - The CH149 SE must have the ability to develop and implement technical and engineering solutions to address trends and deficiencies in equipment reliability	<ul style="list-style-type: none"> Parts / sub-systems' reliability rate CH149 Mission reliability rate 	<ul style="list-style-type: none"> Maintain (or improve if need be) parts / sub-systems' reliability. Maintain (or improve if need be) CH149 Mission reliability
P2.4 – The CH149 SE must maintain the CH149 systems' reliability to ensure an acceptable overall Mission Accomplishment.	<ul style="list-style-type: none"> Number of overall Mission Abort events due to technical reasons Number of Inflight Mission Abort events due to failures caused by maintenance inefficiencies such as “repeat snags” Percentage of departures (i.e. flight attempts to conduct SAR FE and FG missions) that do 	<ul style="list-style-type: none"> 95% 98% TBC 98%

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Requirement	Metric	Target
required SAR FE and FG mission success.	not incur a delay, due to technical reasons, greater than 15 minutes	

P3 - Suitability

Fit, Form and Function with a defined state of configuration

Requirement	Metric	Target
P3.1 – The CH149 SE must be capable of generating mission-ready helicopters properly configured to execute the planned FE and FG missions. <i>Note: A term such as SAR Fully Mission Capable (FMC) could be pre-defined and used to facilitate communication between operators and maintenance personnel. However, aircraft requirements and configuration will need to be tailored for some specific missions such as for deployed operations.</i>	<ul style="list-style-type: none"> Percentage of FE and FG missions requiring a mission-ready helicopter configured as detailed in the Weekly/Daily flight schedule. 	<ul style="list-style-type: none"> 100%
	<ul style="list-style-type: none"> SAR Fully Mission Capable (SAR FMC) 	<ul style="list-style-type: none"> Serviceable aircraft with a minimum of 14 bank hours prior the next scheduled inspection, all Master Minimum Equipment List (MMEL) systems installed and serviceable + all following critical CH149 SAR mission systems installed and functioning: <ul style="list-style-type: none"> - Rescue Hoist (Primary and Back-up) - Night Sun - Steerable searchlights - Tail lights - SATCOM - GARMIN GPS500 (2 each) - Serviceable Ice Protection System

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ANNEX B – Sustainability Enterprise Performance Requirements

Requirement	Metric	Target
P3.2 - The CH149 SE must identify, plan and react to CH149 mission related systems' obsolescence issues	<ul style="list-style-type: none"> Ability Effectiveness 	<ul style="list-style-type: none"> Experienced operator, SAR specialist, technical and logistics personnel Timely manner before it impacts CH149 ability to perform SAR missions
P3.3 - The CH149 SE must have appropriate SAR critical mission equipment sparring level	<ul style="list-style-type: none"> Availability 	<ul style="list-style-type: none"> To sustain CAF Operational requirement
P3.4 - The CH149 SE must have the required qualified personnel to configure the CH149 for its planned mission	<ul style="list-style-type: none"> Number Effectiveness Spare parts positioning 	<ul style="list-style-type: none"> Optimal to ensure Readiness Posture commitments are met Timely manner before it impacts CH149 ability to perform SAR missions Readily available to meet Readiness Posture commitments

P4 - Safety

Compliance with Airworthiness, Assurance and safety regulations

Requirement	Metric	Target
P4.1 - The CH149 SE must have an appropriate means to identify the level of safety/risk of the CH149 system and operations	<ul style="list-style-type: none"> Reference / Baseline 	<ul style="list-style-type: none"> Comply with DND Airworthiness Program requirements Maintain a valid CH149 Type Certificate Operate within the DND Airworthiness Authority (AA) approved Master Minimum Equipment List (MMEL)
	<ul style="list-style-type: none"> CH149 Airworthiness Program adequacy 	<ul style="list-style-type: none"> Have the applicable technical, maintenance, engineering and material support components of the SE accredited/recognized by an Airworthiness Regulatory authority (i.e. ATO, AMO, ADO, and AMSO)
	<ul style="list-style-type: none"> Effectiveness 	<ul style="list-style-type: none"> Timely as defined in the Airworthiness Program

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Requirement	Metric	Target
P4.2 - The CH149 SE must have the appropriate capability to address the issues	<ul style="list-style-type: none"> Established process to manage identified issues Adequate Technical and Operational capability 	<ul style="list-style-type: none"> Report and manage issues as per an AA approved Airworthiness Risk Management Process (i.e. Record of Airworthiness Risk Management (RARM)) Access to technical, engineering and operational data Access to On-Type (CH149) experienced, qualified and authorized personnel Project Management structure in place to manage and track issues.
P4.3 – The SE must have appropriate mean to meet RCAF Flight Safety (FS) Requirements	<ul style="list-style-type: none"> CH149 FS Program adequacy Method of validation 	<ul style="list-style-type: none"> Comply with FS Program requirements
P4.4 – The CH149 SE must comply with the Flight Safety Program (FSP) requirements and monitor, capture, report and address flight safety related issues	<ul style="list-style-type: none"> Established process/program 	<ul style="list-style-type: none"> As prescribed in the RCAF Flight Safety Program and associated RCAF Units' procedures

P5 - Deployability *Required maintenance and logistics support. Includes ability to project and reach-back.*

Requirement	Metric	Target
P5.1 – The SE must be able to train, qualify and authorize CH149 Flight Engineers to support “MOB Unsupported Deployments” (Aircrew Self-Support deployments)	<ul style="list-style-type: none"> Level of qualification Number of qualified FE 	<ul style="list-style-type: none"> Qualified to perform selected maintenance activities as required to support deployed CH149 Operations Min of 3 Authorized Flight Engineers per MOB or provide the qualified technicians to deploy with the aircraft if insufficient trained FEs are available.

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	<ul style="list-style-type: none"> Method for initial qualifications and re-certification 	<ul style="list-style-type: none"> Theory and practical training performed by the MOB on-site maintenance organization as stipulated in the SE Maintenance Process Manual (MPM)
P5.2 – The CH149 SE must be capable of generating the assets required for a FG - “Planned MOB Unsupported Deployments” <i>Note: Commonly referred to as RONS</i>	Maximum duration in calendar days	<ul style="list-style-type: none"> 3 days
	Periodicity	<ul style="list-style-type: none"> Monthly*
	Number of Aircraft	<ul style="list-style-type: none"> One
	Maximum number of missions per day per aircraft	<ul style="list-style-type: none"> As required
	Mission duration	<ul style="list-style-type: none"> Maximum of 14 FHs (including transit flights)
	MOB Support	<ul style="list-style-type: none"> Pre-deployment: <ul style="list-style-type: none"> Generating a Mission-Ready helicopter configured as per deployment instructions (Weekly/Daily Schedule) If aircraft is to hold SAR posture during Deployment, helicopter must be FMC as per Ops 3.1, with a minimum of 28 bank hours to ensure that aircraft returns with a remaining 14 bank hours at the end of the deployment Prepare self-support Pack-Up Kit During Deployment: <ul style="list-style-type: none"> None (Aircrew Self-Support)
	Maximum duration in calendar days	<ul style="list-style-type: none"> 7 days
P5.3 - The CH149 SE must be capable of generating the assets and provide the required support for a FG - “Planned MOB Supported Deployments”	Periodicity	<ul style="list-style-type: none"> Two (2) per year
	Number of Aircraft	<ul style="list-style-type: none"> Up to two
	Maximum number of missions per day per aircraft	<ul style="list-style-type: none"> 3 missions (2 Days + 1 Night)
	Maximum Mission duration	<ul style="list-style-type: none"> Maximum of 50 FHs for one aircraft deployment (including transit flights) Maximum of 80 FHs for a two aircraft deployment (including transit flights)
	MOB Support	<ul style="list-style-type: none"> Pre-deployment: <ul style="list-style-type: none"> Generating the required Mission-Ready helicopter(s) configured as per deployment instructions (Weekly/Daily Schedule) Prepare and deploy Pack-Up Kit

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<p>P5.4 – The CH149 SE must have an appropriate deployable technical and logistics capability to support “MOB Supported Deployments”</p>	<ul style="list-style-type: none"> Personnel resources 	<ul style="list-style-type: none"> - Preposition support personnel at deployed location • During Deployment: <ul style="list-style-type: none"> - Support planned FG missions
<p>P5.5 - The CH149 SE must be capable of generating the assets and provide the required support for any type of unscheduled FE “SAR Ops Deployments”</p>	<ul style="list-style-type: none"> Optimal number of personnel to: <ul style="list-style-type: none"> - perform the maintenance and logistics tasks - support concurrent deployed and MOB operations provide consistent minimum support during the period following the deployed operations or upon personnel rotation (ship-to-shore ratio). 	<ul style="list-style-type: none"> • Pre-identified optimal means (i.e pack-up kit, pipeline, etc) to support CH149 deployment and detachment operations (i.e. Ops tempo and duration) with spare parts and support equipment
	<ul style="list-style-type: none"> Spare parts and support equipment 	<ul style="list-style-type: none"> • Spare parts and support equipment must be pre-positioned to meet the deployment and detachment reaction time requirements
	<ul style="list-style-type: none"> Spare parts and support equipment location 	<ul style="list-style-type: none"> • Not applicable.
	<ul style="list-style-type: none"> Time to react to a SAR diverted mission turning into an aircrew self-supported deployment 	<ul style="list-style-type: none"> • As soon as possible but no more than 12 hours for an additional SAR configured helicopter
	<ul style="list-style-type: none"> Time to react to a SAR diverted mission resulting into a MOB Supported Major Search deployment 	<ul style="list-style-type: none"> • 8 hours from notice to deploy to ready to load parts and maintenance personnel
<p>P5.6 – The CH149 SE must plan for a surge capability to support unplanned deployed operations</p>	<ul style="list-style-type: none"> Number of mission per helicopter for a MOB Major Search deployment 	<ul style="list-style-type: none"> • As per Ops 5.2 + surge capability as required
	<ul style="list-style-type: none"> Deployment and mission duration for a MOB Major Search deployment 	<ul style="list-style-type: none"> • As per Ops 5.2 + surge capability as required
	<p><i>Note: see metric and target under “Flexibility”</i></p>	<ul style="list-style-type: none"> •

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Maximize Operations' readiness and ability to project, deliver and sustain capability.

P6 - Effectiveness

Requirement	Metric	Target
P6.1 - The CH149 SE must have an appropriate Program Management Structure that will ensure overall Program efficiency by minimizing resources and maximizing production throughput	<ul style="list-style-type: none"> Adequacy 	<ul style="list-style-type: none"> Incentivized Experienced Responsive
	<ul style="list-style-type: none"> Accountability, Responsibility and Authority 	<ul style="list-style-type: none"> Clearly defined and assigned
P6.2 – The CH149 SE must have a rigorous Information Data Management System to capture and analyze technical and logistics data	<ul style="list-style-type: none"> Adequacy 	<ul style="list-style-type: none"> Clearly define data map for technical and logistics information
	<ul style="list-style-type: none"> Accountability, Responsibility and Authority 	<ul style="list-style-type: none"> Clearly defined and assigned
P6.3 – The CH149 SE must have strong Project Management capability to execute CH149 Projects	<ul style="list-style-type: none"> Adequacy 	<ul style="list-style-type: none"> Earned Value Management Acceptable PM Plan which utilizes modern PM practices.
	<ul style="list-style-type: none"> Accountability, Responsibility and Authority 	<ul style="list-style-type: none"> Defined PM structure similar to Project Management Body of Knowledge (PMBOK), Project Management Institute (PMI) or other equivalent
P6.4 – The CH149 SE must be managed by an acceptable and qualified Equipment Management Team (EMT) referred to as the CH149 WSM	<ul style="list-style-type: none"> Adequacy 	<ul style="list-style-type: none"> Tailored to the specific CH149 ISS solution Experienced
	<ul style="list-style-type: none"> Accountability, Responsibility and Authority 	<ul style="list-style-type: none"> Clearly defined and assigned
	<ul style="list-style-type: none"> Performance measures 	<ul style="list-style-type: none"> Outcome based measures identified, captured and analyzed. Note: targets will be specific to the tailored SE design and features
P6.5 – The CH149 SE must have ability to interface with DRMIS	<ul style="list-style-type: none"> Adequacy 	<ul style="list-style-type: none"> Clearly define data map for technical and logistics information
	<ul style="list-style-type: none"> Accountability, Responsibility and Authority 	<ul style="list-style-type: none"> Clearly defined and assigned

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P7 - National Security Interests *Identify, maintain and/or improve elements related to the sustainment of this specific equipment to ensure applicable National Security Interests are considered.*

Requirement	Metric	Target
P7.1 - The contracted elements of the CH149 SE must meet the security requirements detailed in the Security Requirements Check List (SRCL)	<ul style="list-style-type: none"> SRCL Part A Information SRCL Part B Personnel SRCL Part C Safeguards SRCL Part D Authorization 	<ul style="list-style-type: none"> CH149 Specific details
P7.2 - Special Security requirement	<ul style="list-style-type: none"> Security Qualification 	<ul style="list-style-type: none"> Qualified prior to exchange of technical data ahead of Industry Engagement / Draft RFP release
P7.3 – The CH149 SE must be able to deliver required operational Outcomes at all times including during times of conflict including during extreme natural or other disasters and or major accidents	<ul style="list-style-type: none"> Adequate SAR reaction time (Readiness Postures) Spare parts / support equipment inventory level Qualified operators and support personnel 	<ul style="list-style-type: none"> Maintain RP 30 minutes and RP 2 hours postures

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Economic Benefits

The Industrial and Technological Benefits (ITB) Policy including a Value Proposition, will apply to this procurement. The project will likely seek commitments in multiple VP pillars, to be confirmed through industry engagement. These VP pillars may include: Defence Sector, supplier development, Research and Development, Skills Development and Training and Exports.

ISED is seeking information that may inform the selected VP pillars and relevant Key Industrial capabilities (KICs). The preliminary list of relevant KICs for use on a long-term ISS procurement may include: In-Service Support, Training and Simulation, Aerospace Systems and Components, and Defence Systems Integration. Additional KICs may also apply.

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ANNEX C – Feedback Framework & Response Template

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Feedback Framework & Response Template

Company Details
Company Name and Address:
Point of Contact Name, Email Address and Telephone Number:
What is your current Aerospace Sector Capabilities? Is your Company currently involved in Aerospace Sector activities such as Aircraft Flight Line Operations, Maintenance, Repair & Overhaul (MRO) of Aerospace Systems and Components, Aerospace Engineering, Supply Chain Management, Program Management?
What is the System / Equipment / Component Nomenclature(s) being supported by your Company?
Where are your Aerospace Sector activities / operations performed (i.e. location(s))?
Sustainment Feedback & Insight
1. The first step in designing the CH149 Sustainment Enterprise's construct, is to identify which scope of work will be retained by Canada and which scope of work will be contracted. What are the factors Canada should consider when identifying the viable options for contracting specific scope of work versus maintaining this same scope of work organic to Canada?
2. The second step in designing the CH149 Sustainment Enterprise's construct, is to determine how to regroup the earmarked scope of work to be contracted. What are the factors (i.e. benefits and drawbacks) Canada should consider when regrouping the "contracted" scope of work into one or a multitude of contracts?
3. Which In-Service Support areas / activities your Company would be capable and interested in performing within the future CH149 Sustainment Enterprise?
4. What is your Company's level of experience associated with each of the areas of interest identified at question 3?

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5. What commercial “Best Practices” should be considered by Canada when designing and integrating the different In-Service Support areas / activities into the CH149 Sustainment Enterprise?
6. What potential performance “benchmarking” Canada could expect and/or should consider for each of the In-Service Support areas / activities of the CH149 Sustainment Enterprise?
7. Which pre-requisite qualifications, technical data set, IP access, and licensing your Company deems necessary for the performance of the In-Service Support areas / activities identified at question 3?
8. Any other factors, considerations and insight Canada should be aware of before designing the CH149 Sustainment Enterprise’s construct?
Industrial and Technological Benefits
9. Direct Canadian Content Describe your current Canadian presence and your proposed direct Canadian content for your solution.
10. Defence Sector Describe what activities your company could undertake related to this ISS contract that would support the growth and development of Canada’s defence sector.
11. Supplier Development Describe opportunities for Canadian suppliers: <ul style="list-style-type: none">• What types of opportunities for Canadian suppliers exist under your ISS solution?• Are Small and Medium Sized Businesses (250 employees and under) able to participate in your solution?• Are there any existing relationships that could be leveraged?
12. Research and Development Do you see your company making investments in innovative research and development projects within the above areas of ISS activity sector? <ul style="list-style-type: none">• Please provide information regarding engineering expertise, designing, building, testing, manufacturing, assembly, and other capabilities that you would be able to improve through R&D throughout this ISS solution.

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13. Exports:

How would work in the areas outlined above support exports sales for Canada?

- What factors hinder or facilitate opportunities for export with your solution?
- What are key opportunities that could be leveraged to support this pillar of your proposed solution?

14. Skills Development and Training:

What strategic opportunities could be leveraged to support skills development and training?

- What current initiatives are in place to support Skills Development and Training opportunities in Canada?
- What specific skills can be concentrated on throughout this ISS work?