



RETURN BIDS TO:
RETOURNER LES SOUMISSIONS À:

**Bid Receiving - PWGSC / Réception des
soumissions → TPSGC**
10th Floor, 4900 Yonge Street /
10e étage, 4900 rue Yonge
Toronto
Ontario
M2N 6A6

REQUEST FOR PROPOSAL
DEMANDE DE PROPOSITION

**Proposal To: Public Works and Government
Services Canada**

We hereby offer to sell to Her Majesty the Queen in right of Canada, in accordance with the terms and conditions set out herein, referred to herein or attached hereto, the goods, services, and construction listed herein and on any attached sheets at the price(s) set out therefor.

**Proposition aux: Travaux Publics et Services
Gouvernementaux Canada**

Nous offrons par la présente de vendre à Sa Majesté la Reine du chef du Canada, aux conditions énoncées ou incluses par référence dans la présente et aux annexes ci-jointes, les biens, services et construction énumérés ici sur toute feuille ci-annexée, au(x) prix indiqué(s).

Comments - Commentaires

Vendor/Firm Name and Address

**Raison sociale et adresse du
fournisseur/de l'entrepreneur**

Issuing Office - Bureau de distribution

Public Works and Government Services Canada
Ontario Region
10th Floor, 4900 Yonge Street
Toronto
Ontario
M2N 6A6

Title - Sujet Binocular Night Vision Goggles	
Solicitation No. - N° de l'invitation W7719-205489/B	Date 2020-01-20
Client Reference No. - N° de référence du client W7719-205489	
GETS Reference No. - N° de référence de SEAG PW-\$TOR-031-7885	
File No. - N° de dossier TOR-9-42064 (031)	CCC No./N° CCC - FMS No./N° VME
Solicitation Closes - L'invitation prend fin at - à 02:00 PM on - le 2020-02-10	Time Zone Fuseau horaire Eastern Standard Time EST
F.O.B. - F.A.B. Plant-Usine: <input type="checkbox"/> Destination: <input checked="" type="checkbox"/> Other-Autre: <input type="checkbox"/>	
Address Enquiries to: - Adresser toutes questions à: Schmidt, Jeff	Buyer Id - Id de l'acheteur tor031
Telephone No. - N° de téléphone (647) 281-7423 ()	FAX No. - N° de FAX () -
Destination - of Goods, Services, and Construction: Destination - des biens, services et construction: DEPARTMENT OF NATIONAL DEFENCE Defence R&D Canada - Toronto 1133 SHEPPARD AVE W. TORONTO Ontario M3K2C9 Canada	

Instructions: See Herein

Instructions: Voir aux présentes

Delivery Required - Livraison exigée See Herein	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

This bid solicitation cancels and supersedes previous bid solicitation number W7719-205489/A dated November 7, 2019 with a closing of January 6, 2020 at 02:00 PM. A debriefing or feedback session will be provided upon request to bidders/offerors/suppliers who bid on the previous solicitation.

TABLE OF CONTENTS

PART 1 - GENERAL INFORMATION.....	3
1.1 REQUIREMENT.....	3
1.2 DEBRIEFINGS.....	3
1.3 TRADE AGREEMENTS.....	3
1.4 EPOST CONNECT SERVICE	3
PART 2 - BIDDER INSTRUCTIONS	4
2.1 STANDARD INSTRUCTIONS, CLAUSES AND CONDITIONS.....	4
2.2 SUBMISSION OF BIDS	4
2.3 ENQUIRIES - BID SOLICITATION.....	4
2.4 APPLICABLE LAWS.....	5
PART 3 - BID PREPARATION INSTRUCTIONS	6
3.1 BID PREPARATION INSTRUCTIONS	6
PART 4 - EVALUATION PROCEDURES AND BASIS OF SELECTION.....	8
4.1 EVALUATION PROCEDURES	8
4.2 BASIS OF SELECTION	8
PART 5 – CERTIFICATIONS AND ADDITIONAL INFORMATION	9
5.1 CERTIFICATIONS REQUIRED WITH THE BID.....	9
5.2 CERTIFICATIONS PRECEDENT TO CONTRACT AWARD AND ADDITIONAL INFORMATION	9
PART 6 - RESULTING CONTRACT CLAUSES.....	10
6.1 SECURITY REQUIREMENTS	10
6.2 REQUIREMENT.....	10
6.3 STANDARD CLAUSES AND CONDITIONS.....	10
6.4 TERM OF CONTRACT	10
6.5 AUTHORITIES	11
6.6 PAYMENT	12
6.7 INVOICING INSTRUCTIONS	12
6.8 CERTIFICATIONS AND ADDITIONAL INFORMATION	12
6.9 APPLICABLE LAWS.....	13
6.10 PRIORITY OF DOCUMENTS	13
6.11 DEFENCE CONTRACT	13
6.12 SACC MANUAL CLAUSES.....	13
6.13 INSURANCE – NO SPECIFIC REQUIREMENT.....	13
ANNEX "A"	14
REQUIREMENT	14
ANNEX "B"	19
BASIS OF PAYMENT.....	19

ANNEX “1” TO PART 3 OF THE BID SOLICITATION

21

ELECTRONIC PAYMENT INSTRUMENTS.....

21

ANNEX “C”

22

ADDITIONAL CERTIFICATIONS

22

ANNEX “D”

23

TECHNICAL EVALUATION

23

PART 1 - GENERAL INFORMATION

1.1 Requirement

The requirement is detailed under Article 6.2 of the resulting contract clauses.

1.2 Debriefings

Bidders may request a debriefing on the results of the bid solicitation process. Bidders should make the request to the Contracting Authority within 15 working days from receipt of the results of the bid solicitation process. The debriefing may be in writing, by telephone or in person.

1.3 Trade Agreements

The requirement is subject to the provisions of the Canadian Free Trade Agreement (CFTA).

1.4 epost Connect service

This bid solicitation allows bidders to use the epost Connect service provided by Canada Post Corporation to transmit their bid electronically. Bidders must refer to Part 2 entitled Bidder Instructions, and Part 3 entitled Bid Preparation Instructions, of the bid solicitation, for further information.

PART 2 - BIDDER INSTRUCTIONS

2.1 Standard Instructions, Clauses and Conditions

All instructions, clauses and conditions identified in the bid solicitation by number, date and title are set out in the [Standard Acquisition Clauses and Conditions Manual](https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual) (<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual>) issued by Public Works and Government Services Canada.

Bidders who submit a bid agree to be bound by the instructions, clauses and conditions of the bid solicitation and accept the clauses and conditions of the resulting contract.

The [2003](#) (2018-06-21) Standard Instructions - Goods or Services - Competitive Requirements, are incorporated by reference into and form part of the bid solicitation.

Subsection 5.4 of [2003](#), Standard Instructions - Goods or Services - Competitive Requirements, is amended as follows:

Delete: 60 days
Insert: 90 days

2.2 Submission of Bids

Bids must be submitted only to the Public Works and Government Services Canada (PWGSC) Bid Receiving Unit specified below by the date and time indicated on page 1 of the bid solicitation:

*Bid Receiving – PWGSC
4900 Yonge Street, 10th Floor
Toronto, Ontario*

TPSGC.oreceptiondessoumissions-orbidreceiving.PWGSC@tpsgc-pwgsc.gc.ca

Note: Bids will not be accepted if emailed directly to this email address. This email address is to be used to open an epost Connect conversation, as detailed in Standard Instructions [2003](#), or to send bids through an epost Connect message if the bidder is using its own licensing agreement for epost Connect.

Facsimile number: 416-952-1256

2.3 Enquiries - Bid Solicitation

All enquiries must be submitted in writing to the Contracting Authority no later than ten (10) calendar days before the bid closing date. Enquiries received after that time may not be answered.

Bidders should reference as accurately as possible the numbered item of the bid solicitation to which the enquiry relates. Care should be taken by Bidders to explain each question in sufficient detail in order to enable Canada to provide an accurate answer. Technical enquiries that are of a proprietary nature must be clearly marked "proprietary" at each relevant item. Items identified as "proprietary" will be treated as such except where Canada determines that the enquiry is not of a proprietary nature. Canada may edit the question(s) or may request that the Bidder do so, so that the proprietary nature of the question(s) is eliminated, and the enquiry can be answered to all Bidders. Enquiries not submitted in a form that can be distributed to all Bidders may not be answered by Canada.

2.4 Applicable Laws

Any resulting contract must be interpreted and governed, and the relations between the parties determined, by the laws in force in Ontario.

Bidders may, at their discretion, substitute the applicable laws of a Canadian province or territory of their choice without affecting the validity of their bid, by deleting the name of the Canadian province or territory specified and inserting the name of the Canadian province or territory of their choice. If no change is made, it acknowledges that the applicable laws specified are acceptable to the Bidders.

PART 3 - BID PREPARATION INSTRUCTIONS

3.1 Bid Preparation Instructions

- If the Bidder chooses to submit its bid electronically, Canada requests that the Bidder submits its bid in accordance with section 08 of the 2003 standard instructions. The epost Connect system has a limit of 1GB per single message posted and a limit of 20GB per conversation.

The bid must be gathered per section and separated as follows:

Section I: Technical Bid
Section II: Financial Bid
Section III: Certifications
Section IV: Additional Information

- If the Bidder chooses to submit its bid in hard copies, Canada requests that the Bidder submits its bid in separately bound sections as follows:

Section I: Technical Bid (2 hard copies)
Section II: Financial Bid (1 hard copy)
Section III: Certifications (1 hard copy)

If there is a discrepancy between the wording of the soft copy on electronic media and the hard copy, the wording of the hard copy will have priority over the wording of the soft copy.

- If the Bidder is simultaneously providing copies of its bid using multiple acceptable delivery methods, and if there is a discrepancy between the wording of any of these copies and the electronic copy provided through epost Connect service, the wording of the electronic copy provided through epost Connect service will have priority over the wording of the other copies.

Prices must appear in the financial bid only. No prices must be indicated in any other section of the bid.

Canada requests that bidders follow the format instructions described below in the preparation of hard copy of their bid:

- (a) use 8.5 x 11 inch (216 mm x 279 mm) paper;
- (b) use a numbering system that corresponds to the bid solicitation.

In April 2006, Canada issued a policy directing federal departments and agencies to take the necessary steps to incorporate environmental considerations into the procurement process [Policy on Green Procurement](https://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=32573) (<https://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=32573>). To assist Canada in reaching its objectives, bidders should:

- 1) use 8.5 x 11 inch (216 mm x 279 mm) paper containing fibre certified as originating from a sustainably-managed forest and containing minimum 30% recycled content; and
- 2) use an environmentally-preferable format including black and white printing instead of colour printing, printing double sided/duplex, using staples or clips instead of cerlox, duotangs or binders.

Section I: Technical Bid

In their technical bid, Bidders should explain and demonstrate how they propose to meet the requirements and how they will carry out the Work.

Section II: Financial Bid

Bidders must submit their financial bid in accordance with the Basis of Payment.

3.1.1 Electronic Payment of Invoices – Bid

If you are willing to accept payment of invoices by Electronic Payment Instruments, complete Annex “X” Electronic Payment Instruments, to identify which ones are accepted.

If Annex “1” Electronic Payment Instruments is not completed, it will be considered as if Electronic Payment Instruments are not being accepted for payment of invoices.

Acceptance of Electronic Payment Instruments will not be considered as an evaluation criterion.

3.1.2 Exchange Rate Fluctuation

C3011T (2013-11-06), Exchange Rate Fluctuation

3.1.3 SACC Manual Clauses

Section III: Certifications

Bidders must submit the certifications and additional information required under Part 5.

PART 4 - EVALUATION PROCEDURES AND BASIS OF SELECTION

4.1 Evaluation Procedures

- (a) Bids will be assessed in accordance with the entire requirement of the bid solicitation including the technical and financial evaluation criteria.
- (b) An evaluation team composed of representatives of Canada will evaluate the bids.

4.1.1 Technical Evaluation

See Annex "D" Technical Evaluation

4.1.2 Financial Evaluation

- i. Bidders must submit pricing in accordance with Annex B, Basis of Payment, with their bid at bid closing;
- ii. The Evaluated Price will be the Extended Price of Section 1, Firm Requirement which is calculated by multiplying the Firm Unit Price by the Quantity listed in Annex B, Basis of Payment. Bidders are requested to provide pricing for Section 2, Optional Requirements;
- iii. *SACC Manual* Clause [A0220T](#) (2014-06-26), Evaluation of Price.

4.2 Basis of Selection

- 4.2.1** *SACC Manual* Clause A0031T (2010-08-16) Basis of Selection - Mandatory Technical Criteria

PART 5 – CERTIFICATIONS AND ADDITIONAL INFORMATION

Bidders must provide the required certifications and additional information to be awarded a contract.

The certifications provided by Bidders to Canada are subject to verification by Canada at all times. Unless specified otherwise, Canada will declare a bid non-responsive, or will declare a contractor in default if any certification made by the Bidder is found to be untrue whether made knowingly or unknowingly, during the bid evaluation period or during the contract period.

The Contracting Authority will have the right to ask for additional information to verify the Bidder's certifications. Failure to comply and to cooperate with any request or requirement imposed by the Contracting Authority will render the bid non-responsive or constitute a default under the Contract.

5.1 Certifications Required with the Bid

Bidders must submit the following duly completed certifications as part of their bid.

5.1.1 Integrity Provisions - Declaration of Convicted Offences

In accordance with the Integrity Provisions of the Standard Instructions, all bidders must provide with their bid, **if applicable**, the declaration form available on the [Forms for the Integrity Regime](http://www.tpsgc-pwgsc.gc.ca/ci-if/declaration-eng.html) website (<http://www.tpsgc-pwgsc.gc.ca/ci-if/declaration-eng.html>), to be given further consideration in the procurement process.

5.2 Certifications Precedent to Contract Award and Additional Information

The certifications and additional information listed below should be submitted with the bid, but may be submitted afterwards. If any of these required certifications or additional information is not completed and submitted as requested, the Contracting Authority will inform the Bidder of a time frame within which to provide the information. Failure to provide the certifications or the additional information listed below within the time frame provided will render the bid non-responsive.

5.2.1 Integrity Provisions – Required Documentation

In accordance with the section titled Information to be provided when bidding, contracting or entering into a real property agreement of the [Ineligibility and Suspension Policy](http://www.tpsgc-pwgsc.gc.ca/ci-if/politique-policy-eng.html) (<http://www.tpsgc-pwgsc.gc.ca/ci-if/politique-policy-eng.html>), the Bidder must provide the required documentation, as applicable, to be given further consideration in the procurement process.

PART 6 - RESULTING CONTRACT CLAUSES

The following clauses and conditions apply to and form part of any contract resulting from the bid solicitation.

6.1 Security Requirements

6.1.1 There is no security requirement applicable to the Contract.

6.2 Requirement

The Contractor must provide the items detailed under the "Requirement" at Annex "A".

6.3 Standard Clauses and Conditions

All clauses and conditions identified in the Contract by number, date and title are set out in the [Standard Acquisition Clauses and Conditions Manual](https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual) (<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual>) issued by Public Works and Government Services Canada.

6.3.1 General Conditions

[2010A](#) (2018-06-21), General Conditions - Goods (Medium Complexity), apply to and form part of the Contract.

6.3.2 Supplemental General Conditions

[4001](#) (2015-04-01) Hardware Purchase, Lease and Maintenance, apply to and form part of the Contract.

6.4 Term of Contract

6.4.1 Period of the Contract

The period of the Contract is one year of date of Contract inclusive.

6.4.2 Optional Goods

The Contractor grants to Canada the irrevocable option to acquire the goods, services or both described at Annex A of the Contract under the same conditions and at the prices and/or rates stated in the Contract. The option may only be exercised by the Contracting Authority and will be evidenced, for administrative purposes only, through a contract amendment.

The Contracting Authority may exercise the option at any time before the expiry of the Contract by sending a written notice to the Contractor.

6.4.3 Delivery Date

All the deliverables must be received no later than 6-months after contract award

6.4.4 Delivery Points

Delivery of the requirement will be made to delivery point specified at Annex "A" of the Contract.

6.5 Authorities

6.5.1 Contracting Authority

The Contracting Authority for the Contract is:

Name: Jeff Schmidt
Title: Supply Specialist
Public Works and Government Services Canada
Acquisitions Branch
Directorate: Acquisitions
Address: 4900 Yonge St, 10th Floor
Toronto, ON M2N 6A8

Telephone: 647-281-7423
E-mail address: jeff.schmidt@pwgsc-tpsgc.gc.ca

The Contracting Authority is responsible for the management of the Contract and any changes to the Contract must be authorized in writing by the Contracting Authority. The Contractor must not perform work in excess of or outside the scope of the Contract based on verbal or written requests or instructions from anybody other than the Contracting Authority.

6.5.2 Project Authority (*DRDC Project Authority, completed at contract award*)

The Project Authority for the Contract is:

Name: _____
Title: _____
Organization: _____
Address: _____

Telephone: _____
Facsimile: _____
E-mail address: _____

The Project Authority is the representative of the department or agency for whom the Work is being carried out under the Contract and is responsible for all matters concerning the technical content of the Work under the Contract. Technical matters may be discussed with the Project Authority, however the Project Authority has no authority to authorize changes to the scope of the Work. Changes to the scope of the Work can only be made through a contract amendment issued by the Contracting Authority.

6.5.3 Contractor's Representative (*Bidder to complete*)

Name: _____
Title: _____
Organization: _____
Address: _____

Telephone: _____
Facsimile: _____
E-mail address: _____

6.6 Payment

6.6.1 Basis of Payment Basis of Payment - Firm Price, Firm Unit Price(s) or Firm Lot Price(s)

In consideration of the Contractor satisfactorily completing all of its obligations under the Contract, the Contractor will be paid firm unit prices, as specified in Annex B, Basis of Payment for a cost of \$ _____ (amount inserted at contract award). Customs duties are included and Applicable Taxes are extra.

Canada will not pay the Contractor for any design changes, modifications or interpretations of the Work, unless they have been approved, in writing, by the Contracting Authority before their incorporation into the Work.

6.6.2 Limitation of Price

SACC Manual clause C6000C (2011-05-16) Limitation of Price

6.6.3 Single Payment

SACC Manual clause H1000C (2008-05-12) Single Payment

6.6.4 Electronic Payment of Invoices – Contract

The Contractor accepts to be paid using any of the following Electronic Payment Instrument(s):

- a. Visa Acquisition Card;
- b. MasterCard Acquisition Card;
- c. Direct Deposit (Domestic and International);
- d. Electronic Data Interchange (EDI);
- e. Wire Transfer (International Only);
- f. Large Value Transfer System (LVTS) (Over \$25M)

6.7 Invoicing Instructions

2. The Contractor must submit invoices in accordance with the section entitled "Invoice Submission" of the general conditions. Invoices cannot be submitted until all work identified in the invoice is completed.

Invoices must be distributed as follows:

- a. The original and one (1) copy must be forwarded to the address shown on page 1 of the Contract for certification and payment.
- b. One (1) copy must be forwarded to the Contracting Authority identified under the section entitled "Authorities" of the Contract.

6.8 Certifications and Additional Information

6.8.1 Compliance

Unless specified otherwise, the continuous compliance with the certifications provided by the Contractor in its bid or precedent to contract award, and the ongoing cooperation in providing additional information

are conditions of the Contract and failure to comply will constitute the Contractor in default. Certifications are subject to verification by Canada during the entire period of the Contract.

6.8.2 SACC Manual Clauses

SACC Manual clause [B1501C](#) (2018-06-21) Electrical Equipment

6.9 Applicable Laws

The Contract must be interpreted and governed, and the relations between the parties determined, by the laws in force in _____.

6.10 Priority of Documents

If there is a discrepancy between the wording of any documents that appear on the list, the wording of the document that first appears on the list has priority over the wording of any document that subsequently appears on the list.

- (a) the Articles of Agreement;
- (b) the general conditions [2010A](#) (2018-06-21), General Conditions - Goods (Medium Complexity);
- (c) Annex A, Requirement;
- (d) Annex B, Basis of Payment;
- (e) the Contractor's bid dated _____.

6.11 Defence Contract

SACC Manual clause [A9006C](#) (2012-07-16) Defence Contract

6.12 SACC Manual Clauses

SACC Manual Clause [A9131C](#) (2014-11-27) Controlled Goods Program – Contract

6.13 Insurance – No Specific Requirement

SACC Manual clause [G1005C](#) (2016-01-28), Insurance – No Specific Requirement

ANNEX "A"

REQUIREMENT

BINOCULAR NIGHT VISION GOGGLES FOR DISMOUNTED SOLDIERS

1. BACKGROUND

Defence Research and Development Canada (DRDC) is supporting a Directorate of Land Requirements (DLR) acquisition project on night vision modernization. As part of this project, DRDC will evaluate different night vision goggle (NVG) configurations (monocular, binocular, wide field of view binocular, binocular with clip-on thermal imager). In order to carry out these evaluations, regular (40 degree) and wide (47+ degree) field of view (FOV) binocular NVGs must be acquired that are as close as possible to each other, other than the changes that enable and optimize the wider field of view. As such, regular and wide FOV binocular NVGs are being sought that are manufactured by the same manufacturer. The systems should differ in as few ways as possible (other than differences related to optimizing the wider FOV) so that any performance differences can be attributed to the FOV differences between systems.

2. ACRONYMS

DLR	Directorate of Land Requirements
DRDC	Defence Research and Development Canada
SOR	Statement of Requirement
TA	Technical Authority
fov	Field of View
NVS	Night Vision Goggles
FOM	Figure of Merit
SNR	Signal to Noise Ratio
BNVG	Binocular Night Vision Goggles
NVD	Night Vision Device

3. REQUIREMENTS

3.1 Regular (40 degree) FOV Binocular NVGs

Required quantity: 10

The Contractor must provide the regular (40 degree) FOV Binocular NVGs with the following specifications:

Item	Specifications	Requirement
3.1.1	Architecture	Binocular central bridge with two side arms each consisting of an i ² tube and two optical channels
3.1.2	Weight (incl. 2x objective caps, battery, tubes, eyecups and lanyard)	Less than 562 g
3.1.3	Minimum achievable height	88.9 mm or less
3.1.4	Minimum achievable width	114.3 mm or less
3.1.5	Minimum achievable length	116.84 mm or less
3.1.6	Magnification	1x
3.1.7	Field of view	40°

3.1.8	Objective lenses aperture	A minimum of F/1.2 or better
3.1.9	Objective lenses focus range	25 cm or lower to infinity (continuous)
3.1.10	Diopter adjustment	-6 dp or lower to +2 dp or higher
3.1.11	Eye relief	Some part of the eye relief range must fall between 20 - 25 mm inclusive
3.1.12	Magnification difference between left and right optical channels	A maximum of 3% or less
3.1.13	Convergence at 0 dp	A maximum of 1° or less
3.1.14	Divergence at 0 dp	A maximum of 1° or less
3.1.15	Dipvergence at 0 dp	A maximum of 0.7° or less
3.1.16	Distortion	A maximum of 4% or less
3.1.17	Battery	One (1) 1.5V lithium AA battery
3.1.18	Battery life at ambient room temperature (20-23°) with 1.5V lithium with IR illuminator off	Minimum 23 hours
3.1.19	Protection against inverted polarity	Yes. No battery discharge when batteries are inverted.
3.1.20	IR illuminator	Yes
3.1.21	Image intensifying tube length	18 mm
3.1.22	I ² tube phosphor type	white
3.1.23	I ² tube figure of merit (FOM)	No less than 2200
3.1.24	I ² tube resolution	No less than 72 lp/mm
3.1.25	I ² tube signal to noise ratio at 108 µlux	No less than 31
3.1.26	I ² tube haloing effect	No more than 0.95 mm
3.1.27	I ² tube maximum Equivalent Background Input (EBI) at ambient room temperature (20-23°C)	No more than 0.25 µlux
3.1.28	I ² tube automated bright source protection	Yes
3.1.29	I ² tube minimum lifetime	A minimum of 10,000 hrs
3.1.30	Autogating	Yes
3.1.31	Manual gain control	Yes
3.1.32	Automatic cut-off in stowed position	Must be achieved independent of head position with a compatible mount.
3.1.33	Inter-pupillary adjustment	58 mm or less to 72 mm or higher
3.1.34	Side arm rotation	Yes, independent. Left and right side arms must rotated out of the way independently (one up one down, both down, both up configurations)
3.1.35	Clip-on thermal imager compatible	Yes. Must include functionality for a clip-on thermal imager
3.1.36	Mount compatibility	The NVG mount must be compatible with a standard/universal helmet shroud such as that found on an advance combat helmet or modular integrated communications helmet
3.1.37	Manufacturer	Binocular Night Vision goggles (NVGs) must be manufactured by the same manufacturer as those in Section 3.3

3.2 Accessories for Regular FOV NVG

3.2.1 Mandatory Accessories

The Contractor must provide the following accessories for requirement 3.1:

Item	Description	Required quantity
3.2.1.1	Eyecups (2 per unit)	10
3.2.1.2	Lanyard	10
3.2.1.3	A light-weight, low-profile, force-to-overcome or push-button mount	10
3.2.1.4	Head Harness	10
3.2.1.5	Counterweight	10
3.2.1.6	Sacrificial lenses (2 per unit)	10
3.2.1.7	Soft pouch	10
3.2.1.8	User Manual	10

3.2.2 Optional Accessories

Item	Description	Required quantity
3.2.2.1	Magnifier (3x or higher)	3
3.2.2.2	NVD Compass	3

3.3 Wide (47+ degree) FOV Binocular NVGs

Required quantity: 4

The Contractor must provide the requirement with the following specifications:

Item	Specifications	Requirement
3.3.1	Architecture	Binocular central bridge with two side arms each consisting of an i ² tube and two optical channels
3.3.2	Weight (incl. 2x objective caps, battery, tubes, eyecups and lanyard)	Less than 562 g
3.3.3	Minimum achievable height	91.4 mm or less
3.3.4	Minimum achievable width	114.3 mm or less
3.3.5	Minimum achievable length	121.9 mm or less
3.3.6	Magnification	1x
3.3.7	Field of view	A minimum of 47° or higher
3.3.8	Objective lenses aperture	A minimum of F/1.2 or better
3.3.9	Objective lenses focus range	25 cm or lower to infinity
3.3.10	Diopter adjustment	- 0.5 dp to + 0.1 dp or higher
3.3.11	Eye relief	Some part of the eye relief range must fall between 20 - 25 mm inclusive
3.3.12	Magnification difference between left and right optical channels	A maximum of 3% or less
3.3.13	Convergence at 0 dp	A maximum of 1° or less
3.3.14	Divergence at 0 dp	A maximum of 1° or less
3.3.15	Dipvergence at 0 dp	A maximum of 1° or less
3.3.16	Distortion	A maximum of 4% or less
3.3.17	Battery	One (1) 1.5V lithium AA battery
3.3.18	Battery life at ambient room temperature (20-23°C) with 1.5V lithium with IR illuminator off	Minimum 16 hours
3.3.19	Protection against inverted polarity	Yes. No battery discharge when batteries are inverted.

3.3.20	IR illuminator	Yes
3.3.21	Image intensifying tube length	18 mm
3.3.22	I ² tube phosphor type	white
3.3.23	I ² tube figure of merit (FOM)	No less than 2200
3.3.24	I ² tube resolution	No less than 72 lp/mm
3.3.25	I ² tube signal to noise ratio at 108 µlux	No less than 31
3.3.26	I ² tube haloing effect	No more than 0.95 mm
3.3.27	I ² tube maximum Equivalent Background Input (EBI) at ambient room temperature (20-23°C)	No more than 0.25 µlux
3.3.28	I ² tube automated bright source protection	Yes
3.3.29	I ² tube minimum lifetime	A minimum of 10,000 hrs
3.3.30	Autogating	Yes
3.3.31	Manual gain control	Yes
3.3.32	Automatic cut-off in stowed position	Yes. Must be achieved independent of head position with a compatible mount.
3.3.33	Inter-pupillary adjustment	58 mm or less to 72 mm or higher
3.3.34	Side arm rotation	Yes, independent. Left and right side arms must rotated out of the way independently (one up one down, both down, both up configurations)
3.3.35	Clip-on thermal imager compatible	Yes. Must include functionality for a clip-on thermal imager
3.3.36	Mount compatibility	the NVG mount must be compatible with a standard/universal helmet shroud such as that found on an advance combat helmet or modular integrated communications helmet
3.3.37	Manufacturer	BNVGs must be manufactured by the same manufacturer as those in Section 3.1

3.4 Accessories for wide FOV NVG

3.4.1 Mandatory Accessories

The Contractor must provide the following accessories for requirement 3.3:

Item	Description	Required quantity
3.4.1.1	Eyecups (2 per unit)	4
3.4.1.2	Battery pack	4
3.4.1.3	Lanyard	4
3.4.1.4	A light-weight, low-profile, force-to-overcome or push-button mount	4
3.4.1.5	Head Harness	4
3.4.1.6	Counterweight	4
3.4.1.7	Sacrificial lenses (2 per unit)	4
3.4.1.8	Soft pouch	4
3.4.1.9	User Manual	4

3.4.2 Optional Accessories

Item	Description	Required quantity
3.4.2.1	Magnifier (3x or higher)	1

3.4.2.2 NVD Compass	1
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4. OPTIONAL ITEMS

The Contractor should provide an option to upgrade the i² tube quality to a FOM equal to or greater than 2300 for item 3.1, Regular (40 degree) FOV Binocular NVGs and Item 3.3, Wide (47+ degree) FOV Binocular NVGs. The optional upgrades may be exercised before or during the Period of the Contract should they be available.

5. DELIVERY LOCATION

Defence Research and Development Canada – Toronto Research Centre
1133 Sheppard Ave W
Toronto, ON, M3K 2C9
Canada

ANNEX "B"

BASIS OF PAYMENT

Firm, all-inclusive pricing in Canadian funds. Canadian customs duties, excise taxes, F.O.B. destination and any delivery charges. Applicable Taxes are extra, if applicable.

1.	Firm Requirement	Firm Unit Price	Quantity	Extended Price
1.1	For the supply and delivery of ten (10) Regular (40 degree) FOV Binocular NVGs and Mandatory Accessories in accordance with Annex A, Requirement, Section 3.1 and Section 3.2.1 Make: _____ Model: _____	\$ _____	10	\$ _____
1.2	For the supply and delivery of four (4) Wide (47+ degree) FOV Binocular NVGs and Mandatory Accessories in accordance with Annex A, Requirement Section 3.3 and 3.4.1 Make: _____ Model: _____	\$ _____	4	\$ _____
2.	Optional Requirements	Firm Unit Price	Quantity	Extended Price
2.1	The optional upgrade for item 3.1, Reg (40+ degree) FOV Binocular NVGs to the i ² tube quality up to a FOM equal to or greater than 2300 in accordance with Section 4, Optional Items of Annex A, Requirement.	\$ _____	10	\$ _____
2.2	The optional upgrade for item 3.3, Wide (47+ degree) FOV Binocular NVGs to the i ² tube quality up to a FOM equal to or greater than 2300 in accordance with Section 4, Optional Items of Annex A, Requirement.	\$ _____	4	\$ _____
2.3	For the supply and delivery of Optional Accessories in accordance with Annex A, Section 3.2.2 for the (40+ degree) FOV Binocular NVGs	\$ _____ Firm Lot Price		

2.4 For the supply and delivery of Optional
Accessories in accordance with Annex A,
Section 3.4.2 for the Wide (47+ degree)
FOV Binocular NVGs

\$_____ Firm Lot Price

Subtotal \$_____

Appl. Taxes \$_____

Total \$_____

Note: *HST or Applicable Taxes will be inserted at contract award.*

ANNEX “1” to PART 3 OF THE BID SOLICITATION

ELECTRONIC PAYMENT INSTRUMENTS

The Bidder accepts any of the following Electronic Payment Instrument(s):

- () VISA Acquisition Card;
- () MasterCard Acquisition Card;
- () Direct Deposit (Domestic and International);
- () Electronic Data Interchange (EDI);
- () Wire Transfer (International Only);
- () Large Value Transfer System (LVTS) (Over \$25M)

ANNEX "C"

ADDITIONAL CERTIFICATIONS

1. Board of Directors

In accordance with Section 01, Integrity Provisions – Bid of the 2003 (2019-03-04) Standard Instructions - Goods or Services - Competitive Requirements, Bidders are required to provide a complete list of names of all individuals who are currently directors of the Bidder before contract award. Bidders are requested to provide this information in their bid.

Director Name - _____	Position - _____
Director Name - _____	Position - _____
Director Name - _____	Position - _____
Director Name - _____	Position - _____
Director Name - _____	Position - _____
Director Name - _____	Position - _____
Director Name - _____	Position - _____
Director Name - _____	Position - _____

2. Procurement Business Number (PBN)

In accordance with Section 02, Procurement Business Number of the 2003 (2019-03-04) Standard Instructions - Goods or Services - Competitive Requirements, Suppliers are required to have a Procurement Business Number (PBN) before contract award.

Procurement Business Number - _____

Suppliers may register for a PBN online at [Supplier Registration Information](#). For non-Internet registration, suppliers may contact the InfoLine at 1-800-811-1148 to obtain the telephone number of the nearest Supplier Registration Agent.

ANNEX "D"

TECHNICAL EVALUATION

Each bid will be reviewed for compliance with the mandatory requirements of the bid solicitation. Bids that do not meet each and every Mandatory Technical Criteria in the table below will be considered non-compliant and will receive no further consideration. Simply stating 'yes' or 'no' does not meet the technical evaluation and will not be considered compliant. The bidder must provide specific information in order to meet each criteria in the technical evaluation.

The bidder should provide make and model of the proposed Binocular Night Vision Goggles and must clearly address each specification with a specification sheet or literature to demonstrate compliance with the Mandatory Technical Criteria.

1. Regular (40 degree) FOV Binocular NVGs

Make: _____
Model: _____

The bidder must provide information in their bid to meet or exceed each of the following specifications:

Item	Specifications	Requirement	Bidders should indicate where in their bid they address each criteria.
1.1	Architecture	Binocular central bridge with two side arms each consisting of an i ² tube and two optical channels	Page/section no. _____
1.2	Weight (incl. 2x objective caps, battery, tubes, eyecups and lanyard)	Less than 562 g	Page/section no. _____
1.3	Minimum achievable height	88.9 mm or less	Page/section no. _____
1.4	Minimum achievable width	114.3mm or less	Page/section no. _____
1.5	Minimum achievable length	116.84 mm or less	Page/section no. _____
1.6	Magnification	1x	Page/section no. _____
1.7	Field of view	40°	Page/section no. _____
1.8	Objective lenses aperture	A minimum of F/1.2 or better	Page/section no. _____
1.9	Objective lenses focus range	25 cm or lower to infinity (continuous)	Page/section no. _____
1.10	Diopter adjustment	-6 dp or lower to +2 dp or higher	Page/section no. _____
1.11	Eye relief	Some part of the eye relief range must fall between 20 - 25 mm inclusive	Page/section no. _____
1.12	Magnification difference between left and right optical channels	A maximum of 3% or less	Page/section no. _____
1.13	Convergence at 0 dp	A maximum of 1° or less	Page/section no. _____

1.14	Divergence at 0 dp	A maximum of 1° or less	Page/section no.
1.15	Dipvergence at 0 dp	A maximum of 0.7° or less	Page/section no.
1.16	Distortion	A maximum of 4% or less	Page/section no.
1.17	Battery	One (1) 1.5V lithium AA battery	Page/section no.
1.18	Battery life @ ambient room temperature (20-23°C) with 1.5V lithium with IR illuminator off	Minimum 23 hours	Page/section no. _____
1.19	Protection against inverted polarity	No battery discharge when batteries are inverted.	Page/section no.
1.20	IR illuminator	Must include IR illuminator	Page/section no.
1.21	Image intensifying tube length	18 mm	Page/section no.
1.22	I ² tube phosphor type	white	Page/section no.
1.23	I ² tube figure of merit (FOM)	No less than 2200	Page/section no.
1.24	I ² tube resolution	No less than 72 lp/mm	Page/section no.
1.25	I ² tube signal to noise ratio at 108 µlux	No less than 31	Page/section no.
1.26	I ² tube haloing effect	No more than 0.95 mm	Page/section no.
1.27	I ² tube maximum Equivalent Background Input (EBI) at ambient room temperature (20-23°C)	No more than 0.25 µlux	Page/section no. _____
1.28	I ² tube automated bright source protection	Must include I ² tube automated bright source protection	Page/section no.
1.29	I ² tube minimum lifetime	A minimum of 10,000 hrs	Page/section no.
1.30	Autogating	Must include autogating	Page/section no.
1.31	Manual gain control	Must include manual gain control	Page/section no.
1.32	Automatic cut-off in stowed position	Must be achieved independent of head position with a compatible mount.	Page/section no.
1.33	Inter-pupillary adjustment	58 mm or less to 72 mm or higher	Page/section no.
1.34	Side arm rotation	Independent. Left and right side arms must rotated out of the way independently (one up one down, both down, both up configurations)	Page/section no.
1.35	Clip-on thermal imager compatible	Must include functionality for a clip-on thermal imager	Page/section no.
1.36	Mount compatibility	The NVD must be compatible with universal mount NSN 8465-01-551-	Page/section no.

	8656 or equivalent.	
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2. Wide (47+ degree) FOV Binocular NVGs

Make: _____

Model: _____

The bidder must provide information in their bid to meet or exceed each of the following specifications:

Item	Specifications	Requirement	Bidders should indicate where in their bid they address each criteria.
2.1	Architecture	Binocular central bridge with two side arms each consisting of an i ² tube and two optical channels	Page/section no. _____
2.2	Weight (incl. 2x objective caps, battery, tubes, eyecups and lanyard)	Less than 562 g	Page/section no. _____
2.3	Minimum achievable height	91.4 mm or less	Page/section no. _____
2.4	Minimum achievable width	114.3 mm or less	Page/section no. _____
2.5	Minimum achievable length	121.9 mm or less	Page/section no. _____
2.6	Magnification	1x	Page/section no. _____
2.7	Field of view	A minimum of 47° or higher	Page/section no. _____
2.8	Objective lenses aperture	A minimum of F/1.2 or better	Page/section no. _____
2.9	Objective lenses focus range	25 cm or lower to infinity (continuous)	Page/section no. _____
2.10	Diopter adjustment	- 0.5 dp to + 0.1 dp or higher	Page/section no. _____
2.11	Eye relief	Some part of the eye relief range must fall between 20 - 25 mm inclusive	Page/section no. _____
2.12	Magnification difference between left and right optical channels	A maximum of 3% or less	Page/section no. _____
2.13	Convergence at 0 dp	A maximum of 1° or less	Page/section no. _____
2.14	Divergence at 0 dp	A maximum of 1° or less	Page/section no. _____
2.15	Dipvergence at 0 dp	A maximum of 1° or less	Page/section no. _____
2.16	Distortion	A maximum of 4% or less	Page/section no. _____
2.17	Battery	One (1) 1.5V lithium AA battery	Page/section no. _____
2.18	Battery life @ ambient room temperature (20-23°C) with 1.5V lithium with IR illuminator off	Minimum 16 hours	Page/section no. _____

2.19	Protection against inverted polarity	No battery discharge when batteries are inverted.	Page/section no. _____
2.20	IR illuminator	Must include IR illuminator	Page/section no. _____
2.21	Image intensifying tube length	18 mm	Page/section no. _____
2.22	I ² tube phosphor type	white	Page/section no. _____
2.23	I ² tube figure of merit (FOM)	No less than 2200	Page/section no. _____
2.24	I ² tube resolution	No less than 72 lp/mm	Page/section no. _____
2.25	I ² tube signal to noise ratio at 108 μ lux	No less than 31	Page/section no. _____
2.26	I ² tube haloing effect	No more than 0.95 mm	Page/section no. _____
2.27	I ² tube maximum Equivalent Background Input (EBI) at ambient room temperature (20-23°C)	No more than 0.25 μ lux	Page/section no. _____
2.28	I ² tube automated bright source protection	Must include I ² tube automated bright source protection	Page/section no. _____
2.29	I ² tube minimum lifetime	A minimum of 10,000 hrs	Page/section no. _____
2.30	Autogating	Must include autogating	Page/section no. _____
2.31	Manual gain control	Must include manual gain control	Page/section no. _____
2.32	Automatic cut-off in stowed position	Must be achieved independent of head position with a compatible mount.	Page/section no. _____
2.33	Inter-pupillary adjustment	58 mm or less to 72 mm or higher.	Page/section no. _____
2.34	Side arm rotation	Independent. Left and right side arms must rotated out of the way independently (one up one down, both down, both up configurations)	Page/section no. _____
2.35	Clip-on thermal imager compatible	Must include functionality for a clip-on thermal imager	Page/section no. _____
2.36	Mount compatibility	The NVD must be compatible with universal mount NSN 8465-01-551-8656 or equivalent.	Page/section no. _____