



**REQUEST FOR PROPOSAL /
DEMANDE DE PROPOSITION**

**RETURN BIDS TO /
RETOURNER LES SOUMISSIONS À:**

**Bid Receiving – PWGSC / Réception des
soumissions - TPSGC**
11 Laurier St. / 11 rue Laurier
Place du Portage, Phase III
Core 0B2 / Noyau 0B2
Gatineau
Québec
K1A 0S5

Epost: Please forward an e-mail to
[TPSGC.DGAreceptiondessoumissions-
ABBidReceiving.PWGSC@tpsgc-pwgsc.gc.ca](mailto:TPSGC.DGAreceptiondessoumissions-
ABBidReceiving.PWGSC@tpsgc-pwgsc.gc.ca) in
order to inform the Bid Receiving Unit of your
interest in bidding via Epost.

Connexion postel: Veuillez envoyer un courriel à
l'adresse courriel suivante :

[TPSGC.DGAreceptiondessoumissions-
ABBidReceiving.PWGSC@tpsgc-pwgsc.gc.ca](mailto:TPSGC.DGAreceptiondessoumissions-
ABBidReceiving.PWGSC@tpsgc-pwgsc.gc.ca) pour
informer l'Unité de réception des soumissions de
votre intérêt à soumissionner via Connexion
postel

Or By/Ou par Fax To/A: (819) 997-9776

Proposal To: National Defence 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 and
services listed herein and on any attached
sheets at the price(s) set out therefore.

Proposition à : Défense nationale 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 et services énumérés ici et sur toute
feuille ci-annexée, au(x) prix indique(s).

**Solicitation Closes /
L'invitation prend fin:**

At / à : 14:00:00
(EST / heure normale de l'Est)

On / le : 17/01/2022

Title / Titre: Generator Control Unit 2nd line test equipment upgrade/Modernisation de l'équipement d'essai de la 2e ligne du Régulateur d'alternateur	Solicitation No / No de l'invitation: W8485-226566/A
Date of Solicitation / Date de l'invitation: 16/12/2021	
Address Enquiries to – Adresser toutes questions à: National Defence Headquarters 101 Colonel By Drive Ottawa, ON K1A 0K2 Attn: Lacey Rose, A/DAP 2-2-3 Lacey .Rose@forces.gc.ca	
Telephone No. / N° de téléphone: 819-939-8900	FAX No / No de fax: N/A
Destination: Specified herein / Précisé dans les présentes	

Instructions:

Municipal taxes are not applicable. Unless otherwise specified herein all prices quoted must include all applicable
Canadian customs duties, GST/HST, excise taxes and are to be delivered Delivery Duty Paid including all delivery charges
to destination(s) as indicated. The amount of the Goods and Services Tax/Harmonized Sales Tax is to be shown as a
separate item.

Instructions:

Les taxes municipales ne s'appliquent pas. Sauf indication contraire, les prix indiqués doivent comprendre les droits de
douane canadiens, la TPS/TVH et la taxe d'accise. Les biens doivent être livrés «rendu droits acquittés», tous frais de
livraison compris, à la ou aux destinations indiquées. Le montant de la taxe sur les produits et services/taxe de vente

Delivery required / Livraison exigée:	Delivery offered / Livraison proposée:
Vendor Name and Address / Raison sociale et adresse du fournisseur:	
Name and title of person authorized to sign on behalf of vendor (type or print) / Nom et titre de la personne autorisée à signer au nom du fournisseur (caractère d'imprimerie):	
Name / Nom: _____	Title / Titre: _____
Signature: _____	Date: _____

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PART 1 - GENERAL INFORMATION

1.1 Security Requirements

There is no security requirement associated with this bid solicitation.

1.2 Statement of Work

The Work to be performed is detailed under **Annex A** of the resulting contract clauses.

1.3 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.

1.4 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](#) (2020-05-28) Standard Instructions - Goods or Services - Competitive Requirements, are incorporated by reference into and form part of the bid solicitation, with the following modifications:

- a) Section 02, Procurement Business Number is deleted in its entirety.
- b) Section 05, Submission of Bids – Subsection 4 is amended as follows:

Delete: 60 days
Insert: 90 days
- c) Section 20, Further information – Subsection 2 is deleted in its entirety.

2.1.1 SACC Manual Clauses

[A9130T](#) (2019-11-28) Controlled Goods Program - Bid
[B1000T](#) (2014-06-26) Condition of Material-Bid
[B3000T](#) (2006-06-16) Equivalent Products/ Substitutes (Form, Fit and Function)

2.2 Submission of Bids

Bids must be submitted only to Public Works and Government Services Canada (PWGSC) Bid Receiving Unit by the date, time and place indicated in the bid solicitation.

Note: For bidders choosing to submit using epost Connect for bids closing at the Bid Receiving Unit in the National Capital Region (NCR) the email address is:

tpsgc.dgareceptiondessoumissions-abbidreceiving.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.

2.3 Enquiries - Bid Solicitation

All enquiries must be submitted in writing to the Contracting Authority no later than seven (7) 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.

2.5 Bid Challenge and Recourse Mechanisms

- (a) Several mechanisms are available to potential suppliers to challenge aspects of the procurement process up to and including contract award.
- (b) Canada encourages suppliers to first bring their concerns to the attention of the Contracting Authority. Canada's [Buy and Sell](#) website, under the heading "[Bid Challenge and Recourse Mechanisms](#)" contains information on potential complaint bodies such as:
 - Office of the Procurement Ombudsman (OPO)
 - Canadian International Trade Tribunal (CITT)
- (c) Suppliers should note that there are **strict deadlines** for filing complaints, and the time periods vary depending on the complaint body in question. Suppliers should therefore act quickly when they want to challenge any aspect of the procurement process.

2.6 Military aviation replacement parts: Condition and certification of deliverables end items

The following categories do not apply to standard and commercial parts. Standard parts consist of common hardware parts and raw materials, not necessarily designed for aviation use, produced to recognized industry or government specifications, which are available without proprietary limitations (such as Society of Automotive Engineers (SAE), National Aerospace Standard (NAS), Army-Navy Aeronautical Standard (AN), and Military Standard (MS) hardware items). Commercial parts consist of common non-aeronautical parts produced to recognized industry specifications and available on the commercial market. Deliverable standard and commercial parts must be in a new condition.

1. Category #1 - New Materiel
Deliverable end items to be manufactured or which have been manufactured but not used, which are supplied by:
 - a. the owner of the design or manufacturing rights to the items; or,
 - b. the authorized manufacturer or agent/distributor of the owner of the design or manufacturing rights to the items; or
 - c. distributors approved by Transport Canada (TC) or accredited by the Aviation Suppliers Association, for parts that have an application to a civilian type certified aircraft; or
 - d. maintenance organizations approved/accredited by TC, the Department of National Defence (DND)/Canadian Forces Technical Airworthiness Authority or repair stations certified by the Federal Aviation Administration (FAA).
2. Category #2 - New Surplus Materiel
Deliverable end items, unused and supplied by an entity other than Category #1 sources. Full

traceability documentation back to the owner of the design or manufacturing rights to the items or their authorized manufacturer or agent/distributor is required.

3. **Category #3 - Other Condition**

Any deliverable end item condition other than Category # 1 or Category #2. Should the Bidder be offering deliverable end items in Category #3, a complete description of the item's condition and all available traceability documentation is required with the bid. Bids containing parts identified in this category are subject to evaluation by Canada.

Deliverable End Item Grid

Bidders must indicate the NATO Supply Code for Manufacturers or Commercial and Government Entity (NSCM/CAGE) code of the manufacturing entity under the appropriate category of the grid. For example, if a Bidder is offering a Category #1 item(s), it must indicate the NSCM number under that category as per the example below. Bidders may use additional pages to provide the complete description called up under Category #3 if necessary.

Item	Category 1 New Materiel	Category 2 New Surplus Materiel	Category 3 Other Condition
For example	NSCM: ABC12 Name: PWGSC	_____	_____
1	_____	_____	_____
2	_____	_____	_____
3	_____	_____	_____

Requirements for Airworthiness Certification

The requirements for airworthiness certification do not apply to the provision of standard and commercial parts. Standard and commercial parts must be accompanied by a packing slip that identifies the name and address of the supplier, the NATO stock number, identification of the manufacturing standard (e.g. SAE, NAS, AN, MS) and manufacturer's part number and model number as applicable; quantity, identification of the lot or batch number if applicable; and the cure date/shelf life if applicable.

Bidders are advised that the Contractor must provide the following airworthiness documentation, for each unit of issue, within the interior packaging or attached to the good(s) supplied under the resulting contract. Note that this requirement is in addition to documentation required in support of invoice payment or other documentation requirements identified within the Contract:

1. Category #1 and #2 military unique aviation replacement parts must have an Original Equipment Manufacturer (OEM) or an OEM's approved manufacturer's Certificate of Conformance, which includes all the following information:
 - a. positive identification of the item by type, class, style, grade, model, part number, description, nomenclature and/or serial number, as applicable;
 - b. either the following certification, or a similarly worded statement, signed by an authorized inspector, that satisfies the intent of the following:
I certify that the aeronautical product described here conforms to the applicable design data and is in a condition for safe operations.
 - c. identification of both the authorized signatory and the organization.
2. Category #1 and #2 items, which have an application to a civilian type certified aircraft, must be supplied with a Certificate of Conformance, namely:
 - a. form TCCA Form One, Authorized Release Certificate, signed by a TC authorized inspector, within the two (2) years before contract award;

- b. FAA Form 8130-3, Airworthiness Approval Tag, or a FAA Form 8130-4, Export Certificate of Airworthiness, signed by a FAA authorized inspector, within the two (2) years before contract award;
 - c. European Aviation Safety Agency (EASA) Form One, Authorized Release Certificate, signed by an EASA authorized inspector, within the two (2) years before contract award;
or
 - d. OEM's or OEM's approved manufacturer's Certificate of Conformance; which includes:
 - i. positive identification of the item by type, class style, grade, model, part number, description, nomenclature, and/or serial number, as applicable;
 - ii. either the following certification, or a similarly worded statement, signed by an authorized inspector, that satisfies the intent of the following:
I certify that the aeronautical product described here conforms to the applicable design data and is in a condition for safe operations.
 - iii. identification of both the authorized signatory and organization.
3. Bidders must specify which one of the documents identified above will be provided for each item required to be supplied in response to the bid solicitation.

2.6.1 Military aviation replacement parts – Substitutes and Traceability

The Part Number and NATO Supply Code for Manufacturers (NSCM(s), or the Commercial And Government Entity (CAGE) code indicated in the bid solicitation are the only ones known to the Department of National Defence that meet the form, fit and function requirements of the Original Equipment Manufacturer (OEM) approved type design of the aircraft in which they will be installed. If the Bidder proposes to supply any part with an alternative Part Number or NSCM/CAGE code, the Bidder must provide, with its bid, all the technical information (e.g. drawings, specifications, engineering reports, and/or test reports) necessary to clearly demonstrate that the part proposed has the form, fit and function characteristics equivalent to the Part Number(s) and NSCM/CAGE code(s) specified in the bid solicitation.

Failure to provide the required technical information will result in the bid being declared non-responsive with respect to any part for which such information was requested.

If a part is not manufactured by the OEM of the aircraft, then it must be manufactured by an authorized supplier to the OEM or by the original manufacturer of the part chosen for use by the OEM of the aircraft (or the successor of or licensed by that original manufacturer). Canada reserves the right to verify with the OEM of the aircraft that the manufacturer of a part proposed is in fact authorized by the OEM to produce that part or supplies that part to the OEM.

If the Bidder proposes to supply any part with an alternative Part Number or NSCM/CAGE code, the Bidder must provide the following substitution notice fully completed.

Substitution Notice

- 1. Item Number: _____
- 2. Original Technical Data (as referenced below):
 - a. Part Number: _____
 - b. NSCM/CAGE code: _____
 - c. Other: _____

3. Proposed Change(s)

- a. Part Number: _____
- b. NSCM/CAGE code: _____
- c. Other: _____

4. Reason for Change/Supporting Data:

The Bidder is advised that availability and retention of records of the manufacturer sufficient to constitute proof of origin will be a condition of the resulting Contract.

2.7 Substitute Products – Samples (Department of National Defence)

If the Bidder offers a substitute product, Canada reserves the right to request a sample from the Bidder in order to determine its equivalency in form, fit, function, quality and performance to the item specified in the bid solicitation.

The Bidder must, upon request from the Contracting Authority, provide a sample to the Technical Authority, transportation charges prepaid, and without charge to Canada, within **“7 Calendar Days”** from the date of request. The sample submitted by the Bidder will remain the property of Canada and will not be considered as part of the deliverables in any resulting contract. If the sample does not meet the requirements of the bid solicitation or the Bidder fails to comply with the request of the Contracting Authority, the bid will be declared non-responsive

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.

Canada requests that bidders provide their bid in separately bound sections as follows:

Section I: Technical Bid
Section II: Financial Bid
Section III: Certifications

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

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>). 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. The total amount of Applicable Taxes must be shown separately.

Bidders should include the following information in their financial bid:

- 1. Their legal name;
- 2. The name of the contact person (including this person's mailing address, phone and facsimile numbers and email address) authorized by the Bidder to enter into communications with Canada with regards to:
 - o their bid; and any contract that may result from their bid.

PLEASE NOTE: IF APPLICABLE, IT IS MANDATORY FOR THE BIDDER TO BID ON IDENTICAL LINE ITEMS (I.E. IDENTICAL NATO STOCK NUMBER), AS ONLY THE DELIVERY LOCATION DIFFERS

Section III: Certifications

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

3.1.1 Electronic Payment of Invoices – Bid

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

If Annex “C” 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

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

1.0 EVALUATION METHODOLOGY

1.1 Bid submissions will be evaluated against the criteria in this table. Bid responsiveness will be evaluated based on the classification of the infraction as per the non-compliance criteria. When documentation is requested to verify compliance, documents must be provided with bid submission. Bids will be accepted for one or all of the four items required. In the event of a tie the contract will be awarded to the expeditious delivery date.

1.1.1 Data Acquisition Oscilloscope

Item	Category	Description	Bidders Compliance		DND Remarks
			Met	Not Met	
1.Data Acquisition Oscilloscope	General	The system shall include a bench top oscilloscope with data acquisition capabilities, external 27" display and all required accessories. An example of the system: Oscilloscope with five high speed analog units U8976, three 10:1 probes 9665, three terminal adaptors, seven connection cords L9790, fourteen adapters banana plug to 0.08" pin tip plug, jumper for ground leads, 27" monitor.			
	Number of input channels	10 or more			
	Sample Rate	100 MS/s or better			
	Memory	1 Gpoints or better			

	Internal storage capacity	320 GB or larger			
	Zoom function	Required			
	Real time waveform processing	Required			
	Isolated inputs up to 1000 V	Required			
	Bandwidth	20 MHz or better			
	Accuracy	±0.5% or better			
	Video signal output	Required			
	USB Port	Required			
	Simultaneous waveforms capturing and recording	Required			
	Software	Windows-based PC software for waveforms viewing, analyzing and data conversion to CSV format			

1.2 Digital Power Analyzer

Item	Category	Description	Bidders Compliance		DND Remarks
			Met	Not Met	
2.Digital Power Analyzer	General	The system shall include a bench top AC power analyzer with trend recording capabilities, all required accessories and 32 ft - long extension wires with a junction box to connect a power analyzer to a measuring point. An example of the system: Power analyzer with three AC Current sensors CT6875-01, one set of voltage cords L1000, 32 ft. extension wires and a junction box.			
	Number of input channels	4 (3-phase 4-wire)			
	Sample Rate	200 KHz or better			
	Voltage range	300V			
	Current range	500A			
	Frequency range	DC, 0.5 Hz – 2.6 kHz or better			
	Data Update Interval	50 MS or better			
	Measuring and calculation of voltages, currents (RMS and Peak), DC component, power, power factor and harmonics	Required			
	Measuring frequency individually in each channel	Required			

	Video signal output	Optional			
	USB Port	Required			
	Trends recording and display	8 Parameters simultaneously or more			
	Voltage measurement basic accuracy at 400 Hz	±0.2% of reading or better			
	Current measurement basic accuracy at 400 Hz	±0.2% of reading or better			
	Current transformers basic accuracy at 400 Hz	±0.5% of reading or better (amplitude)			
	Software	Windows-based PC software for viewing and analysis of measured data			

1.1.3 Programmable AC Electronic Load Bank

Item	Category	Description	Bidders Compliance		DND Remarks
			Met	Not Met	
3. Programmable AC Electronic Load Bank	General	The system shall include an AC resistive/capacitive generator load bank with non-linear electronic load simulation capability and all required accessories. The system should be able to work in parallel with an existing resistive/inductive test load bank. An example of the system: AC 3-phase load bank based on three single phase.			
	Rated Frequency	400 Hz			

Rated Voltage (3-phase)	115/200 V			
Rated capacity, apparent power, total (3-phase)	9kVA			
Rated capacity, true power, total (3-phase)	9kW			
Rated capacity, reactive power, total (3-phase)	4.5 kVAR capacitive			
Adjustable (programmable) simulation of non-linear loads	Required. Programmable current Crest Factor 1.4 to 1.8.			
User-defined waveforms simulation	Required. Simulation of current waveforms with THD 0 to 35 %			
Protection	Overcurrent, Overvoltage, Overload, Overheating			
Cooling	Forced-air			
User Interface	Control Panel or PC with graphic user interface			
Software	Windows-based PC software for configuration of user-defined waveforms and for viewing and analysis of measured data			

1.1.4 Vibration Monitoring Set

Item	Category	Description	Bidders Compliance		DND Remarks
			Met	Not Met	
4. Vibration Monitoring Set	General	<p>The system shall include a bench top vibration monitor, accelerometer and interconnect cables. The system is intended to measure and display a case vibration of a generator. An example of the system:</p> <p>Vibration Monitoring System consisting of:</p> <ul style="list-style-type: none"> - Accelerometer: Wilcoxon Sensing Technologies, P/N 726T (NSN 6680-01-536-8125) with mounting stud P/N SF3 and cable R1-2-J1-32; - Vibration Monitor: Wilcoxon Sensing Technologies Vibration Transmitter P/N iT300, Precision Digital Corporation Panel Meter P/N PD765-6X2-10 and Precision Digital Corporation Power Supply P/N PDA1024-01 assembled in the Precision Digital Corporation Enclosure P/N PDA2301 with mounting panel P/N PDP2303, mounting rail P/N PDA1002 and light P/N MOD-LHRB1; - Miscellaneous parts: BNC Connector (Canare P/N BCJ-RU or equal), Filtered Power Entry Module (Shaffner P/N FN 283-10-06 or equal), 10 ft. Power Cord (Tripp Lite P/N P006-010-15D or equal), DIN terminals, 16 AWG wires. 			
	Number of measuring channels	1			
	Accelerometer sensitivity	100 ± 5% mV/g			
	Accelerometer range	Not less than 20G peak			
	Accelerometer amplitude linearity	1%			

Accelerometer frequency response, \pm 5%	2.0 - 10,000 Hz			
Accelerometer shock limit	5,000 g or better			
Accelerometer power voltage	18 - 30 V DC			
Accelerometer transverse sensitivity, max	5% of axial			
Accelerometer electrical connector location	top			
Accelerometer electrical connector type	Coaxial or MIL-C-5015 style			
Accelerometer mechanical connector type	1/4-28 threaded mounting stud. Shall be compatible with Boeing accelerometer bracket P/N 74D421043-2001			
Accelerometer interconnect cable length, min	32 ft			
Vibration Transmitter and Monitor compatibility with the Accelerometer	Required			
Vibration Transmitter sensitivity	Compatible with Accelerometer			
Vibration Transmitter frequency response	Compatible with Accelerometer			
Vibration Transmitter bandpass filter	Adjustable (programmable)			
Vibration Transmitter and Monitor measured/displayed parameters and units	Acceleration g peak			

Vibration Transmitter and Monitor measuring range	0 - 20 g peak			
Vibration monitor display type	4-digit Digital display			
Vibration Monitor alarm indication capability	Required, adjustable (programmable) set point			
Vibration Transmitter and Monitor enclosure	Bench top or wall mount			
Vibration Monitoring Set input power	20 V AC, 60 Hz			

4.1.1.1 Mandatory Technical Criteria

Bidders must explain and demonstrate how they propose to meet the mandatory technical requirements as outlined at **Annex A – Statement of Work**.

4.1.2 Financial Evaluation

[A0222T](#) (2014-06-26), Evaluation of Price-Canadian/Foreign Bidders.

4.2 Basis of Selection

[A0031T](#) (2010-08-16), Basis of Selection – Mandatory Technical Criteria

A bid must comply with all the requirements of the bid solicitation and meet all technical Evaluation criteria to be declared responsive. The responsive bid with the lowest aggregate evaluated Price will be recommended for award of a contract.

4.2.1 Identical Low Bids – Best Value

If identical low bids are received, the Treasury Board Contracting Policy ([subsection 10.8.17](#)) provides that the contract should be awarded on the basis of best value. Our evaluation method, of identical low bids, will be conducted by evaluating the following terms provided by the bidder, in the order provided below, to identify the most favorable option for Canada:

- a. Delivery date offered by the bidder
- b. Time the bid was received by the bidder
- c. Track record of the bidder (after-sales service)

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.

5.2.2 Federal Contractors Program for Employment Equity - Bid Certification

By submitting a bid, the Bidder certifies that the Bidder, and any of the Bidder's members if the Bidder is a Joint Venture, is not named on the Federal Contractors Program (FCP) for employment equity "FCP Limited Eligibility to Bid" list available at the bottom of the page of the [Employment and Social Development Canada \(ESDC\) - Labour's](https://www.canada.ca/en/employment-social-development/programs/employment-equity/federal-contractor-program.html#) website (<https://www.canada.ca/en/employment-social-development/programs/employment-equity/federal-contractor-program.html#>).

Canada will have the right to declare a bid non-responsive if the Bidder, or any member of the Bidder if the Bidder is a Joint Venture, appears on the "FCP Limited Eligibility to Bid" list at the time of contract award.

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 Statement of Work

The Contractor must perform the Work in accordance with the Statement of Work at Annex "A".

6.2.1 Condition of Material – Contract

Option 1

The Contractor must provide material that is new production of current manufacture supplied by the principal manufacturer or its accredited agent. The material must conform to the latest issue of the applicable drawing, specification and part number, as applicable, that was in effect on the bid closing date.

OR

Option 2

If the material is not new production of current manufacture, or is from a source other than the principal manufacturer or its accredited agent, it must be unused and in new condition, provided by an approved contractor with the latest approved modifications incorporated as applicable, and include the release notes.

Name of manufacturer: _____

Date of manufacture: _____

Cure date if the item contains elastomeric material: _____

(NOTE TO BIDDER: To be inserted at contract award).

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 (2020-05-28), General Conditions - Goods (Medium Complexity), apply to and form part of the Contract.

6.4 Term of Contract

6.4.1 Contract Period

The contract period is from award to _____. (**NOTE TO BIDDER: To be inserted at contract award**).

6.4.2 Delivery Date

All the deliverables must be received on or before _____. (**NOTE TO BIDDER: To be inserted at contract award**).

6.5 Authorities

6.5.1 Contracting Authority

The Contracting Authority for the Contract is:

Name: Lacey Rose
Title: Materiel Acquisition and Support Officer
DGAEPM/DAP/A/DAP 2-2-3
Department of National Defence
Directorate: Directorate Aerospace Procurement
Address: 101 Colonel By Drive
Ottawa, ONK1A 0K2
A/DAP 2-2-3
lacey.rose@forces.gc.ca

E-mail address: _____

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 Technical Authority

The Technical Authority for the Contract is *to be determined*. (**NOTE TO BIDDER: To be provided at contract award**).

The Technical Authority named above 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 Technical Authority, however the Technical 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

6.5.3 Contractor's Representative (**NOTE TO BIDDER: must be filled out and submitted by the Vendor with their bids**)

The person responsible for:

General enquiries:

Name: _____
Telephone No.: _____
Facsimile No.: _____
E-mail address: _____

Delivery follow-up:

Name: _____
Telephone No.: _____
Facsimile No.: _____
E-mail address: _____

6.6 Payment

6.6.1 Basis of Payment

In consideration of the Contractor satisfactorily completing all of its obligations under the Contract, the Contractor will be paid a **firm unit price**, as specified in **Annex B**, for a cost of **\$ _____ for Line Item no. ____**. Customs duties are excluded and Applicable Taxes are extra. (**NOTE TO BIDDER: To be inserted at contract award**).

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 Electronic Payment of Invoices – Contract

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

- a. Direct Deposit (Domestic and International);
- b. Electronic Data Interchange (EDI);
- c. Wire Transfer (International Only);

6.6.3 Multiple Payments

H1001C (2008-05-12) Multiple Payments

6.7 Invoicing Instructions

1. 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.

2. Invoices must be distributed as follows:

- a. The original and one (1) copy must be forwarded to the applicable address for certification and payment.

W2481
Department of National Defence
7 CFSD Edmonton
P.O. Box 10500 Stn Forces
Edmonton, Alberta T5J 4J5
Canada
ATTN: Accounts payable

Or

Department of National Defence
3 Wing Bagotville
P.O. 5000
Stn Bureau-Chef Allouette QC, G0V 1A0
Canada
ATTN: Accounts payable

- b. One (1) copy must be forwarded to the Contracting Authority identified under the section entitled "Authorities" of the Contract.
- c. One (1) copy must be forwarded to the consignee.

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.

6.9 Applicable Laws

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

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 2003 (2020-05-28) Standard Instructions – Goods and Services – Competitive Requirements;
(c) The general conditions 2010A (2020-05-28), General Conditions - Goods (Medium Complexity);
(d) Annex A, Statement of Work;
(e) Annex B, Basis of Payment
(f) The Contractor's bid dated _____ (*insert date of bid*).

6.11 Defence Contract

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

6.12 SACC Manual Clauses

[A0301C](#) (2007-05-25) Military Aviation Replacement Parts- Maintenance of Records
[A9131C](#) (2014-11-27) Controlled Goods Program – Contract
[B1202C](#) (2007-05-25) Age Control of Elastomeric Materials
[B4060C](#) (2011-05-16) Controlled Goods
[B7500C](#) (2006-06-16) Excess Goods
[C2000C](#) (2007-11-30) Taxes - Foreign-based Contractor Foreign-based Contractor
[C2605C](#) (2008-05-12) Canadian Customs Duties and Sales Tax - Foreign-based Contractor
[C2608C](#) (2020-07-01) Canadian Customs Documentation - Foreign-based Contractor
[C2610C](#) (2007-11-30) Customs Duties - DND– Importer
[C2800C](#) (2013-01-28) Priority Rating
[C2801C](#) (2017-08-17) Priority Rating: Canadian-based contractors
[D0050C](#) (2007-05-25) End User Certificate
[D6010C](#) (2007-11-30) Palletization
[D9002C](#) (2007-11-30) Incomplete Assemblies
[G1005C](#) (2016-01-28) Insurance – No Specific Requirement

6.13 Dispute Resolution

- (a) The parties agree to maintain open and honest communication about the Work throughout and after the performance of the contract.
- (b) The parties agree to consult and co-operate with each other in the furtherance of the contract and promptly notify the other party or parties and attempt to resolve problems or differences that may arise.
- (c) If the parties cannot resolve a dispute through consultation and cooperation, the parties agree to consult a neutral third party offering alternative dispute resolution services to attempt to address the dispute.
- (d) Options of alternative dispute resolution services can be found on Canada's Buy and Sell website under the heading "[Dispute Resolution](#)".

6.14 Packaging Requirement

The Contractor must prepare all item numbers for delivery in accordance with the latest issue of the Canadian Forces Packaging Specification *D-LM-008-036/SF-000*, DND Minimum Requirements for Manufacturer's Standard Pack.

The Contractor must package item numbers in quantities of one (1) per package, and **must package** all item numbers, as located under description on **Annex A**.

[D2000C](#) (2007-11-30), Markings
[D2001C](#) (2007-11-30), Labelling
[D2025C](#) (2017-08-17), Wood Packing Materials

6.15 Quality Assurance

D5510C (2017-08-17) Quality Assurance Authority (Department of National Defence) - Canadian based Contractor (**Quality Assurance Code Q**)

OR

D5515C (2010-01-11) Quality Assurance Authority (Department of National Defence) - Foreign-based and United States Contractor (**Quality Assurance Code Q**)

D5540C (2019-05-30), ISO 9001:2015 – Quality Management Systems - Requirements (**Quality Assurance Code Q**)

D5545C (2019-05-30), ISO 9001:2015 – Quality Management Systems - Requirement (**Quality Assurance Code C**)

6.16 Additional Package Markings - Identical

1. The Contractor must ensure that in addition to the required interior and exterior package markings, the following information is provided:
 - a. Serial number; and/or
 - b. Expiration date of shelf life.
2. These markings must be applied and positioned in accordance with Canadian Forces Packaging Specification D-LM-008-002/SF-001.

6.18 Military Aviation Replacement Parts- Airworthiness Documentation

The Contractor must provide Airworthiness Documentation, for each item, within the interior packaging or attached to the good(s) supplied:

- a. Certificate of compliance.

6.19 Shipping Instructions – Department of National Defence

6.19.1 Shipping Instructions (Department of National Defence) - Canadian-based Contractor

1. Delivery will be FCA Free Carrier at the Contractor's facility _____
(Please provide the name of the location, i.e. contractor's location), Incoterms 2000. The Contractor must load the goods onto the carrier designated by the Department of National Defence (DND). Onward shipment from the delivery point to the consignee will be Canada's responsibility.
2. Before shipping the goods, the Contractor must contact the following DND Inbound Logistics Coordination Center by facsimile or e-mail, to arrange for shipment, and provide the information detailed at paragraph 3.
Inbound Logistics Co-ordination Center (ILCC)
Telephone: 1-877-877-7423 (toll free)
Facsimile: 1-877-877-7409 (toll free)
E-mail: ILHQOttawa@forces.gc.ca

3. The Contractor must provide the following information to the DND Inbound Logistics Coordination Center when arranging for shipment:
 - a. the Contract number;
 - b. consignee address (for multiple addresses, items must be packaged and labelled separately with each consignee address);
 - c. description of each item;
 - d. the number of pieces and type of packaging (i.e., carton, crate, drum, skid);
 - e. actual weight and dimensions of each piece type, including gross weight;
 - f. full details of dangerous goods/hazardous products, as required for the applicable mode of transportation, signed certificates for dangerous goods/hazardous products as required for shipment by the International Maritime Dangerous Goods Code, the International Air Transport Association regulations or the applicable Canadian [Transportation of Dangerous Goods Regulations](#), and a copy of the safety data sheet in English and French.
4. Following receipt of this information by Canada, Canada will provide the appropriate shipping instructions, which may include the requirement for specific consignee address labelling, and the marking of each piece with a Transportation Control Number.
5. The Contractor must not ship the goods before receiving shipping instructions from the DND Inbound Logistics contact.
6. If the Contractor delivers the goods at a place and time which are not in accordance with the given delivery instructions or fail to fulfill reasonable delivery instructions given by Canada, the Contractor must reimburse Canada any additional expenses and costs incurred.
7. If Canada is responsible for delays in delivering the goods, ownership and risk will be transferred to Canada upon expiry of either 30 days following the date on which a duly completed shipping application is received by Canada or by its appointed forwarding agent, or 30 days following the delivery date specified in the Contract, whichever is later.

OR

6.19.1 Shipping Instructions (Department of National Defence) - Foreign-based Contractors

1. Delivery will be FCA Free Carrier at the _____ *(Please provide the name of the location, i.e. contractor's location)*, Incoterms 2000. The Contractor must load the goods onto the carrier designated by the Department of National Defence (DND). Onward shipment from the delivery point to the consignee will be Canada's responsibility
2. Before shipping the goods, the Contractor must contact the following DND Inbound Logistics Coordination Center by facsimile or e-mail, to arrange for shipment, and provide the information detailed at paragraph 3.

Instruction to contracting officers: Before contract award, choose either shipping option (a), (b), (c), and delete the unused options and this instruction.

- a. *Insert the following when the Contractor is located in the United States (U.S.):*

Inbound Logistics Coordination Center (ILCC):
Telephone: 1-877-447-7701 (toll free)
Facsimile: 1-877-877-7409 (toll free)
E-mail: ILHQOttawa@forces.gc.ca

OR

- b. *Insert the following when the Contractor is located in United Kingdom (UK) and Ireland:*

Inbound Logistics United Kingdom (ILUK):
Telephone: 011-44-1895-613023, or 011-44-1895-613024, or
Facsimile: 011-44-1895-613047
E-mail: CFSUEDetUKMovements@forces.gc.ca

In addition, the Contractor must send to ILUK the completed form "Shipping Advice and Export Certificate" by e-mail to: CFSUEDetUKMovements@forces.gc.ca. The shipment of any items above the value of 600 GBP (pound sterling) being exported from the United Kingdom and Ireland will be cleared by DND using Her Majesty's Customs & Excise (HMCE) New Export Systems (NES). The Contractor must comply with HMCE requirements by registering with HMCE or by having a freight forwarder complete the entry. A printed copy of the NES entry Export Declaration clearly displaying the Declaration Unique Consignment Reference Number must be provided by the Contractor and attached to the consignment. The Contractor must ensure that this procedure is carried out for all stores whether they be initial purchase or repair and overhaul export items. HMCE will authorize Canadian Forces Support Unit (Europe) to ship the goods only if the procedure has been adhered to completely and properly by the Contractor.

OR

- c. *Insert the following when the Contractor is located in a country other than Canada, the U.S., the UK and Ireland:*

Inbound Logistics Europe Area (ILEA):
Telephone: +49-(0)-2451-717199 or 717200
Facsimile: +49-(0)-2451-717189
Email: ILEA@forces.gc.ca

3. The Contractor must provide the following information to the DND Inbound Logistics contact when arranging for shipment:
- the Contract number;
 - consignee address (if multiple addresses, items must be packaged and labeled separately with each consignee address);
 - description of each item;
 - the number of pieces and type of packaging (e.g. carton, crate, drum, skid);
 - actual weight and dimensions of each piece type, including gross weight;
 - copy of the commercial invoice (in accordance with clause [C2608C](#), section 4, of the [Standard Acquisition Clauses and Conditions Manual](#)) or a copy of the Canada Border Services Agency form CI1 [Canada Customs Invoice](#) (PDF 429KB) - ([Help on File Formats](#));
 - [Schedule B](#) codes (for exports) and the Harmonized Tariff Schedule codes (for imports);
 - North American Free Trade Agreement Certificate of Origin (in accordance with clause [C2608C](#), section 2) for the U.S. and Mexico only;
 - full details of dangerous material, as required for the applicable mode of transportation, signed certificates for dangerous material as required for shipment by the International Maritime Dangerous Goods Code, or International Air Transport Association regulations or the applicable Canadian [Dangerous Goods Shipping Regulations](#) and a copy of the material safety data sheet.
4. Following receipt of this information by Canada, Canada will provide the appropriate shipping instructions, which may include the requirement for specific consignee address labelling, the marking of each piece with a Transportation Control Number and customs documentation.

5. The Contractor must not ship goods before receiving shipping instructions from the DND Inbound Logistics contact.
6. If the Contractor delivers the goods at a place and time that are not in accordance with the given delivery instructions or fail to fulfill reasonable delivery instructions given by Canada, the Contractor must reimburse Canada any additional expenses and costs incurred.
7. If Canada is responsible for delays in delivering the goods, ownership and risk will be transferred to Canada upon expiry of either thirty (30) days following the date on which a duly completed shipping application is received by Canada or by its appointed forwarding agent, or thirty (30) days following the delivery date specified in the Contract, whichever is later.

6.20 Release Documents, Quality Assurance Code Q

D5604C (2008-12-12) Release Documents (Department of National Defence) - Foreign-based Contractor

OR

D5605C (2010-01-11) Release Documents (Department of National Defence) - United States-based Contractor

OR

D5606C (2017-11-28) Release Documents (Department of National Defence) - Canadian-based Contractor

AND

D5620C (2012-07-16) Release Documents - Distribution – (For QAC: Q)

The Contractor must prepare the release documents in a current electronic format and distribute them as follows:

- a. One (1) copy mailed to consignee marked: "Attention: Receipts Officer";
- b. Two (2) copies with shipment (in a waterproof envelope) to the consignee;
- c. One (1) copy to the Contracting Authority:

National Defence Headquarters
Mgen George R. Pearkes Building
101 Colonel By Drive
Ottawa, ON K1A 0K2
Attention: Lacey Rose, A/DAP 2-2-3

- d. One (1) copy to the Quality Assurance Representative;
- e. One (1) copy to the Contractor; and
- f. For all non-Canadian contractors, one (1) copy to:

DQA/Contract Administration
National Defence Headquarters
Mgen George R. Pearkes Building
101 Colonel By Drive
Ottawa, ON K1A 0K2
E-mail: ContractAdmin.DQA@forces.gc.ca

ANNEX "A"

STATEMENT OF WORK

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1.0 SCOPE

1.1 Purpose

1.1.1 The purpose of this Statement of Work (SOW) is to describe the requirements and work effort required from the Contractor by the Department of National Defence (DND) for the supply of items and services to meet the requirements for the acquisition and support of equipment upgrades to the CF188 Hornet Generator Control Unit Test Benches located at CFB Cold Lake Alberta and BFC Bagotville Quebec.

1.2 Background

1.2.1 The Royal Canadian Air Force (RCAF) has a requirement for a permanent capability that provides the ability to analyze and diagnose Generator Control Units that may or may not be in a serviceable condition.

1.2.2 Currently the Generator Control Unit (GCU) is the number one driver of mission fallout in the RCAF's CF188 Hornet Fleet. In 2018-19 AETE carried out an airborne survey to narrow down the cause factors of GCU faults. In the final report; AETE 2018-17, one of the recommendations was to carry out an update of the 2nd Line Test Benches utilized to verify the serviceability/unserviceability of the GCU. The existing equipment set does not allow the simulation of on aircraft electrical loading or anomalies that may happen during various aircraft mission profiles.

1.2.3 This SOW establishes the mandatory and desirable requirements for the equipment required for improving the testing, analysis and repair of CF188 Generator Control Units.

1.3 Intended Use

1.3.1 The equipment requested in this SOW will enable the RCAF to upgrade our current test and repair facilities to have the capability to better simulate electrical loads that are encountered on-aircraft during the various mission profiles of the CF188 Hornet Fighter Aircraft and to analyze the data provided to diagnose and incorporate effective repairs to improve the Time-On-Wing (TOW) for the GCU's.

1.4 List of Acronyms

Abbreviation	Description
ADM(Mat)	Assistant Deputy Minister (Material)
AETE	Aerospace Engineering Test Establishment
BFC	Base des Forces Canadiennes
CA	Contracting Authority
CAF	Canadian Armed Forces
CAGE	Commercial and Government Entity
CDS	Chief of Defence Staff
CFB	Canadian Forces Base
COTS	Commercial Off-The-Shelf
DND	Department of National Defence

Abbreviation	Description
DTAES	Director Technical Airworthiness and Engineering Support
EOL	End of Life
GBA+	Gender Based Analysis Plus
GC	Government of Canada
GCU	Generator Control Unit
GSM	Government Supplied Materiel
ILS	Integrated Logistical Support
IOC	Initial Operational Capability
ISS	In-Service Support
MND	Minister of National Defence
MOB	Main Operating Base
MOTS	Military Off-The-Shelf
NATO	North Atlantic Treaty Organization
NDQAR	National Defence Quality Assurance Representative
OEM	Original Equipment Manufacturer
OGDs	Other Government Departments
PSPC	Public Services and Procurement Canada
RCAF	Royal Canadian Air Force
SOP	Standard Operating Procedure
SOR	Statement of Operational Requirements
SOW	Statement of Work
TA	Technical Authority
TOW	Time-On-Wing

Figure A-1 List of Acronyms

1.5 Terminology

Glossary Term	Glossary Description
COTS	Commercial Off-The-Shelf include Military Off-The-Shelf. Proven, readily available products that are currently in-use and in production which does not require further development.
CF188 Hornet	Current primary front line fighter aircraft of the RCAF.
EOL	End of Life is a term used to indicate that a product has reached the end of its useful life from the vendor's or user's perspective.
FOC	Defined as the full attainment of the ability to effectively employ a new or improved capability, and for which fully achieved infrastructure, training, staffing, and support are in place, both for the new capability and for the organization employing it.
IOC	Defined as the first attainment of the minimum ability to effectively employ a new or improved capability, and for which adequate infrastructure, training, staffing, and support are in place, both for the new capability and for the organization employing it.
Mission	One or more aircraft ordered to accomplish one particular task. May include one or more sorties.
TOW	Time-On-Wing refers to the accumulated time that a component is installed on an aircraft.

Figure A-2 List of Glossary Terms

2.0 APPLICABLE DOCUMENTS

2.1 References

2.1.1 The following references are provided with the Request for Proposal. Where mentioned, the following Standards must be used for the preparation of deliverables to the extent specified in this SOW:

2.1.2 DND Specifications, Standards, and Publications:

REFERENCE	PROMULGATION	REFERENCE TITLE
A-AD-100-100/AG-000	1991-10-15	NATIONAL DEFENCE PUBLISHING POLICY AND ADMINISTRATION PROCEDURES
A-LM-007-100/AG-001	2019-12-18	SUPPLY ADMINISTRATION MANUAL
A-LM-184-001/JS-001	2016-01-30	SPECIAL INSTRUCTIONS FOR REPAIR AND OVERHAUL CONTRACTORS

REFERENCE	PROMULGATION	REFERENCE TITLE
A-PP-005-000/AG-002	2005-02-14	PROCUREMENT ADMINISTRATION MANUAL
C-01-100-100/AG-005	1996-02-29	SPECIFICATION - ACCEPTANCE OF COMMERCIAL AND FOREIGN GOVERNMENT PUBLICATIONS AS ADOPTED PUBLICATIONS
D-01-400-002/SF-000	2011	SPECIFICATION FOR LEVELS OF ENGINEERING DRAWINGS AND ASSOCIATED LISTS
DAOD 3003-1	2011-08-23	MANAGEMENT, SECURITY AND ACCESS REQUIREMENTS RELATING TO CONTROLLED GOODS

Figure A-3 DND Specifications, Standards, and Publications

2.2 Order of Precedence

2.2.1 In the event of a conflict between the content in this SOW and the referenced documents, the content of this SOW takes precedence.

3.0 GENERAL REQUIREMENTS

3.1 Scope of Work

3.1.1 The Contractor must supply equipment that meets all the requirements identified within this SOW.

3.1.2

Mandatory Technical Criteria

Item	Category	Description	Proof of Compliance
Data Acquisition Oscilloscope	General	The system shall include a bench top oscilloscope with data acquisition capabilities, external 27" display and all required accessories. An example of the system: Oscilloscope with five high speed analog units U8976, three 10:1 probes 9665, three terminal adaptors, seven connection cords L9790, fourteen adapters banana plug to 0.08" pin tip plug, jumper for ground leads, 27" monitor.	Technical Specifications and datasheet

Number of input channels	10 or more	Technical Specifications and datasheet
Sample Rate	100 MS/s or better	Technical Specifications and datasheet
Memory	1 Gpoints or better	Technical Specifications and datasheet
Internal storage capacity	320 GB or larger	Technical Specifications and datasheet
Zoom function	Required	Technical Specifications and datasheet
Real time waveform processing	Required	Technical Specifications and datasheet
Isolated inputs up to 1000 V	Required	Technical Specifications and datasheet
Bandwidth	20 MHz or better	Technical Specifications and datasheet
Accuracy	±0.5% or better	Technical Specifications and datasheet
Video signal output	Required	Technical Specifications and datasheet
USB Port	Required	
Simultaneous waveforms capturing and recording	Required	Technical Specifications and datasheet
Software	Windows-based PC software for waveforms viewing, analyzing and data conversion to CSV format	Technical Specifications and datasheet

Digital Power Analyzer	General	The system shall include a bench top AC power analyzer with trend recording capabilities, all required accessories and 32 ft - long extension wires with a junction box to connect a power analyzer to a measuring point. An example of the system: Power analyzer with three AC Current sensors CT6875-01, one set of voltage cords L1000, 32 ft. extension wires and a junction box.	Technical Specifications and datasheet
	Number of input channels	4 (3-phase 4-wire)	Technical Specifications and datasheet
	Sampling Rate	200 KHz or better	Technical Specifications and datasheet
	Voltage range	300 V	Technical Specifications and datasheet
	Current range	500 A	Technical Specifications and datasheet
	Frequency range	DC, 0.5 Hz – 2.6 kHz or better	Technical Specifications and datasheet
	Data Update Interval	50 ms or better	Technical Specifications and datasheet
	Measuring and calculation of voltages, currents (RMS and Peak), DC component, power, power factor and harmonics	Required	Technical Specifications and datasheet
	Measuring frequency individually in each channel	Required	Technical Specifications and datasheet
	Video signal output	Optional	Technical Specifications and datasheet
	USB Port	Required	Technical Specifications and datasheet

	Trends recording and display	8 parameters simultaneously or more	Technical Specifications and datasheet
	Voltage measurement basic accuracy at 400 Hz	±0.2% of reading or better	Technical Specifications and datasheet
	Current measurement basic accuracy at 400 Hz	±0.2% of reading or better	Technical Specifications and datasheet
	Current transformers basic accuracy at 400 Hz	±0.5% of reading or better (amplitude)	Technical Specifications and datasheet
	Software	Windows-based PC software for viewing and analysis of measured data	Technical Specifications and datasheet
Programmable AC Electronic Load bank	General	The system shall include an AC resistive/capacitive generator load bank with non-linear electronic load simulation capability and all required accessories. The system should be able to work in parallel with an existing resistive/inductive test load bank. An example of the system: AC 3-phase load bank based on three single phase.	Technical Specifications and datasheet
	Rated Frequency	400 Hz	Technical Specifications and datasheet
	Rated Voltage (3-phase)	115/200 V	Technical Specifications and datasheet
	Rated capacity, apparent power, total (3-phase)	9 kVA	Technical Specifications and datasheet
	Rated capacity, true power, total (3-phase)	9 kW	Technical Specifications and datasheet
	Rated capacity, reactive power, total (3-phase)	4.5 kVAR capacitive	Technical Specifications and datasheet
	Adjustable (programmable) simulation of non-linear loads	Required. Programmable current Crest Factor 1.4 to 1.8.	Technical Specifications and datasheet

	User-defined waveforms simulation	Required. Simulation of current waveforms with THD 0 to 35 %	Technical Specifications and datasheet
	Protection	Overcurrent, Overvoltage, Overload, Overheating	Technical Specifications and datasheet
	Cooling	Forced-air	Technical Specifications and datasheet
	User interface	Control Panel or PC with graphic user interface	Technical Specifications and datasheet
	Software	Windows-based PC software for configuration of user-defined waveforms and for viewing and analysis of measured data	Technical Specifications and datasheet
Vibration Monitoring Set	General	<p>The system shall include a bench top vibration monitor, accelerometer and interconnect cables. The system is intended to measure and display a case vibration of a generator. An example of the system:</p> <p>Vibration Monitoring System consisting of:</p> <ul style="list-style-type: none"> - Accelerometer: Wilcoxon Sensing Technologies, P/N 726T (NSN 6680-01-536-8125) with mounting stud P/N SF3 and cable R1-2-J1-32; - Vibration Monitor: Wilcoxon Sensing Technologies Vibration Transmitter P/N iT300, Precision Digital Corporation Panel Meter P/N PD765-6X2-10 and Precision Digital Corporation Power Supply P/N PDA1024-01 assembled in the Precision Digital Corporation Enclosure P/N PDA2301 with mounting panel P/N PDP2303, mounting rail P/N PDA1002 and light P/N MOD-LHRB1; - Miscellaneous parts: BNC Connector (Canare P/N BCJ-RU or equal), Filtered Power Entry Module (Shaffner P/N FN 283-10-06 or equal), 10 ft. Power Cord (Tripp Lite P/N P006-010-15D or equal), DIN terminals, 16 AWG wires. 	Technical Specifications and datasheet
	Number of measuring channels	1	Technical Specifications and datasheet

Accelerometer sensitivity	100 ± 5% mV/g	Technical Specifications and datasheet
Accelerometer range	not less than 20 g peak	Technical Specifications and datasheet
Accelerometer amplitude linearity	1%	Technical Specifications and datasheet
Accelerometer frequency response, ± 5%	2.0 - 10,000 Hz	Technical Specifications and datasheet
Accelerometer shock limit	5,000 g or better	Technical Specifications and datasheet
Accelerometer Power voltage	18 - 30 V DC	Technical Specifications and datasheet
Accelerometer transverse sensitivity, max	5% of axial	Technical Specifications and datasheet
Accelerometer electrical connector location	top	Technical Specifications and datasheet
Accelerometer electrical connector type	Coaxial or MIL-C-5015 style	Technical Specifications and datasheet
Accelerometer mechanical connector type	1/4-28 threaded mounting stud. Shall be compatible with Boeing accelerometer bracket P/N 74D421043-2001	Technical Specifications and datasheet
Accelerometer interconnect cable length, min	32 ft.	Technical Specifications and datasheet
Vibration Transmitter and Monitor compatibility with the Accelerometer	Required	Technical Specifications and datasheet
Vibration Transmitter sensitivity	Compatible with the Accelerometer	Technical Specifications and datasheet
Vibration Transmitter frequency response	Compatible with the Accelerometer	Technical Specifications and datasheet

Vibration Transmitter bandpass filter	Adjustable (programmable)	Technical Specifications and datasheet
Vibration Transmitter and Monitor measured/displayed parameters and units	Acceleration, g peak	Technical Specifications and datasheet
Vibration Transmitter and Monitor measuring range	0 - 20 g peak	Technical Specifications and datasheet
Vibration Monitor display type	4-digit Digital display	Technical Specifications and datasheet
Vibration Monitor alarm indication capability	Required, adjustable (programmable) set point	Technical Specifications and datasheet
Vibration Transmitter and Monitor enclosure	Bench top or wall mount	Technical Specifications and datasheet
Vibration Monitoring Set input power	120 V AC, 60 Hz	Technical Specifications and datasheet

Figure A-4 Mandatory Technical Criteria

3.1.3 Environmental Sustainability

3.1.3.1 Mandatory

3.1.3.1.1 Materials that are considered toxic, carcinogenic or otherwise injurious must not be used without necessary safeguards;

3.1.3.1.2 Materials that are considered toxic, carcinogenic or otherwise injurious must be defined and be accompanied with appropriate Workplace Hazardous Materials Data System (WHMIS) information, that includes the provision of (Material) Safety Data Sheets ((M)SDSs) and worker education and training programs as applicable; and

3.1.3.1.3 High usage parts must be ecologically inert and pose no threat to the environment.

3.2 Gender-Based Analysis Plus

3.2.1 Mandatory

3.2.1.1 The GCU Test Bench Upgrade Components should comply with the GC Gender-Based Analysis Plus (GBA+) policy with respect to operators, and maintainers; and

3.2.1.2 When making changes to the OEM's basic design and installation instructions, the GC's GBA+ principles must be considered.

3.3 Delivery Requirements

3.3.1 Mandatory

3.3.1.1 The GCU Test Bench Upgrade Components must be delivered to the MOBs indicated in Para 4.4 within 6 months after contract award;

3.3.1.2 As a minimum, the GCU Test Bench Upgrade documentation must include:

3.3.1.2.1 The Contractor must provide the Operator Manual for each component and sub-component supplied with the GCU Test Bench Upgrade;

3.3.1.2.2 Preservation, Storage and Handling Instructions. The Contractor must provide Preservation, Storage and Handling Instructions for the GCU Test Bench Upgrade components and sub-components, including instructions for cleaning and routine maintenance; and

3.3.1.2.3 On delivery, the GCU Test Bench Upgrade Components must be operational.

3.3.2 Desirable

3.3.2.1 The GCU Test Bench Upgrade Components should be delivered to the MOB within 3 months after contract award.

3.4 Constraints

3.4.1 The small procurement nature of the GCU Test Bench Upgrade Components with its associated urgency dictates that all mandatory requirements must be fulfilled with COTS equipment that is readily available and in production;

3.4.2 There may be a requirement for the Contractor to access information available exclusively at Canada's facilities located at 3 Wing, Bagotville Quebec, Canada and 4 Wing, Cold Lake Alberta, Canada;

3.4.3 The TA for this requirement will be the primary point of contact for Contractor personnel and the TA will be identified within the Contract award document;

3.4.4 Any communication with a Contractor regarding the quality of Work performed pursuant to this Contract must be undertaken by official correspondence through the Contracting Authority;

3.4.5 All reports, documents, processes, and deliverables developed and updated by the Contractor personnel must be for the review, approval, and signature of the TA;

3.4.6 Decisions concerning revision or definition of policy, budgets, and contractual obligations and requirements, are excluded from the Contractor services. Contractor personnel must limit themselves to providing comments and recommendations only to the TA on these issues;

3.4.7 The personnel of the Contractor providing the services must be independent of direct control by servants of Canada and are not in any respect employees or servants of Canada;

3.4.8 During the performance of the Contract, the Contractor and his personnel must not direct any departmental organizations, or any personnel of any third parties with whom Canada has or intends to contract, to perform any action;

- 3.4.9 At all times during the provision of the required services, the Contractor personnel are not to have access to any proprietary information including but not limited to financial information (including unit prices or rates) or technical information concerning any third parties with whom Canada has contracted or intends to contract, other than information that is in the public domain, (e.g. total value of contract(s) awarded). Proprietary technical information may be provided to Contractor personnel in the performance of the services if the Non-Disclosure Agreement contained in the Contract is duly executed by the Contractor personnel;
- 3.4.10 All drawings, software codes, reports, data, documents, or materials, provided to the Contractor by Canada or produced by the Contractor personnel in providing services under the Contract remains the property of Canada;
- 3.4.11 All drawings, software codes, reports, data, documents, or materials, provided to the Contractor by Canada or produced by the Contractor personnel in providing services under the Contract must be used solely in support of this requirement;
- 3.4.12 The Contractor must safeguard the preceding information and materials from unauthorized use and must not release them to any third party, person, or agency external to DND without the express written permission of the TA;
- 3.4.13 Such information and material must be returned to the TA upon completion of the services or when requested by the TA;
- 3.4.14 All correspondence initiated by the Contractor personnel must be submitted to the TA. Correspondence is defined as records of conversation or decisions as well as and written correspondence in any format; and
- 3.4.15 The Contractor must ensure that their personnel do not use either Government of Canada or DND designations, logos, or insignia on any business cards, cubicle/office signs, or written/electronic correspondence that in any manner lead others to perceive Contractor personnel as being an employee of Canada.

3.5 **Support provided by Canada**

- 3.5.1 Canada will provide storage for the equipment at the intended MOB's;
- 3.5.2 Canada will provide a list of equipment (see Appendix 1) that will be required for the update of the GCU Test Bench;
- 3.5.3 This equipment will be utilized by Contracted Technicians (Magellan Aerospace) augmented with RCAF Technicians as requirements dictate;
- 3.5.4 This equipment will be maintained by contracted personnel as outlined by OEM maintenance manuals.

4.0 **ACCEPTANCE PROCESS AND CRITERIA**

4.1 **General**

- 4.1.1 Acceptance ensures that the GCU Test Bench Upgrade Components have been produced and/or procured and verified in accordance with all the requirements of the Contract.

4.1.2 In the event that two bids meet all criteria at the same price, the bidder that would be able to provide the equipment prior to the mandatory date of delivery, and has a demonstrated knowledge and experience with the equipment shall be awarded the contract.

4.2 Acceptance Inspection

4.2.1 The Contractor must make available for inspection and acceptance by Canada at the Contractor's facility the GCU Test Bench Upgrade Components;

4.2.2 The Contractor must provide Canada with all documentation as outlined in this SOW;

4.2.3 The Contractor must provide Canada with not less than 90 calendar days' notification of the date upon which the GCU Test Bench Upgrade Components will be available for inspection and acceptance;

4.2.4 The Contractor must prepare the release document in accordance with article [Insert article number] of the Contract for the GCU Test Bench Upgrade Components, stating that the Work is in accordance with Annex A and all its appendices;

4.2.5 On completion of Canada's inspection, Canada will either:

4.2.5.1 Accept the GCU Test Bench Upgrade Components by completing and signing the release document in accordance with Article [Insert article number] of the Contract; or

4.2.5.2 Refuse to accept the GCU Test Bench Upgrade Components by providing the Contractor with a notice of refusal, which will specify the grounds for refusal.

4.2.6 If Canada gives the Contractor a notice of refusal, the Contractor must take corrective action as soon as possible, at no cost to Canada, to remove the grounds for the refusal. Canada will conduct re-inspection as is necessary to ensure that the grounds for refusal are removed; and

4.3 The Contractor must perform the work at the Contractors facilities.

4.4 The Contractor must deliver all goods to:

3 Wing Bagotville
P.O. 5000 Stn Bureau-Chef
Allouette QC G0V 1A0
Canada

and;

4 Wing Cold Lake
P.O. Box 6550 Stn Forces
Cold Lake, AB T9M 2C6
Canada

5.0 DELIVERABLES

- Parts and equipment;
- Equipment installation;
- Software (as applicable);
- Training;
- User and maintenance manuals;
- Calibration requirements.

5.1.1

Item	Description	Unit of Issue	Quantity	Destination Address
1	Data Acquisition Oscilloscope	Ea	2	4 Wing Cold Lake, P.O. Box 6550 Stn Forces Cold Lake AB, T9M 2C6, Canada
2	Data Acquisition Oscilloscope	Ea	1	3 Wing Bagotville, P.O. 5000 Stn Bureau-Chef Allouette QC, G0V 1A0, Canada
3	Programmable AC Electronic Load Bank	Ea	1* + Possible additional Spare after evaluation	4 Wing Cold Lake, P.O. Box 6550 Stn Forces Cold Lake AB, T9M 2C6, Canada
4	Programmable AC Electronic Load Bank	Ea	1- Possible after evaluation of initial Load Bank	3 Wing Bagotville, P.O. 5000 Stn Bureau-Chef Allouette QC, G0V 1A0, Canada
5	Digital Power Analyzer	Ea	2	4 Wing Cold Lake, P.O. Box 6550 Stn Forces Cold Lake AB, T9M 2C6, Canada
6	Digital Power Analyzer	Ea	1	3 Wing Bagotville, P.O. 5000 Stn Bureau-Chef Allouette QC, G0V 1A0, Canada
7	Vibration Monitoring Set	Kit	3	4 Wing Cold Lake, P.O. Box 6550 Stn Forces Cold Lake AB, T9M 2C6, Canada
8	Vibration Monitoring Set	Kit	2	3 Wing Bagotville, P.O. 5000 Stn Bureau-Chef Allouette QC, G0V 1A0, Canada

Appendix 1 Delivery Table

*After delivery and performance evaluation of the Load Bank, the order may be extended to include 2 more sets.

5.2 **TRAINING**

5.2.1

Number of trainees: 7

Format: On-site at Bagotville QC and Cold Lake AB, hands-on

Coverage:

1- Operation

- Setting and operation
- Extracting test results for analysis

2- Maintenance

- Calibrating
- Scheduled maintenance

5.3 **LANGUAGE OF WORK**

English

5.4 **DELIVERY LOCATION**

3 Wing Bagotville, P.O. 5000 Stn Bureau-Chef Allouette QC, G0V 1A0, Canada
and

4 Wing Cold Lake, P.O. Box 6550 Stn Forces Cold Lake AB, T9M 2C6, Canada

ANNEX "B"

BASIS OF PAYMENT

Item	Item Description	Qty	Firm Unit Price	Applicable Taxes	Delivery Date	Extended Price
1	Oscilloscope/Recorder	3				
2	Programmable AC Electronic Load bank	2				
3	Power Analyzer	3				
4	Vibration Monitor	5				
SUB TOTAL						\$
APPLICABLE TAXES		INSERT AMOUNT AS			GST	\$
					HST	\$
					PST	\$
TOTAL						\$

**ANNEX “C” to PART 3 OF THE BID SOLICITATION
ELECTRONIC PAYMENT INSTRUMENTS**

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

- Direct Deposit (Domestic and International);
- Electronic Data Interchange (EDI);
- Wire Transfer (International Only);