

**RETURN BIDS TO:**  
**RETOURNER LES SOUMISSIONS À:**  
**Public Works and Government Services Canada**  
**Telus Plaza North/Plaza Telus Nord**  
**10025 Jasper Ave./10025 ave. Jaspe**  
**5th floor/5e étage**  
**Edmonton**  
**Alberta**  
**T5J 1S6**  
**Bid Fax: (780) 497-3510**

**INVITATION TO TENDER**  
**APPEL D'OFFRES**

**Tender 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.

**Soumission 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 et 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**  
**Telus Plaza North/Plaza Telus Nord**  
**10025 Jasper Ave./10025 ave. Jasper**  
**5th floor/5e étage**  
**Edmonton**  
**Alberta**  
**T5J 1S6**

<b>Title - Sujet</b> Telemetry Receivers	
<b>Solicitation No. - N° de l'invitation</b> W2671-13BR93/A	<b>Date</b> 2013-12-12
<b>Client Reference No. - N° de référence du client</b> DND	<b>GETS Ref. No. - N° de réf. de SEAG</b> PW-\$EDM-183-10056
<b>File No. - N° de dossier</b> EDM-3-36206 (183)	<b>CCC No./N° CCC - FMS No./N° VME</b>
<b>Solicitation Closes - L'invitation prend fin</b> <b>at - à 02:00 PM</b> <b>on - le 2014-01-22</b>	
<b>Time Zone</b> <b>Fuseau horaire</b> Mountain Standard Time MST	
<b>F.O.B. - F.A.B.</b> <b>Plant-Usine:</b> <input type="checkbox"/> <b>Destination:</b> <input checked="" type="checkbox"/> <b>Other-Autre:</b> <input type="checkbox"/>	
<b>Address Enquiries to: - Adresser toutes questions à:</b> Tikhonovitch, Alex	<b>Buyer Id - Id de l'acheteur</b> edm183
<b>Telephone No. - N° de téléphone</b> (780) 497-3541 ( )	<b>FAX No. - N° de FAX</b> (780) 497-3510
<b>Destination - of Goods, Services, and Construction:</b> <b>Destination - des biens, services et construction:</b> DEPARTMENT OF NATIONAL DEFENCE Bldg 171 Timberline Drive 4 Wing Cold Lake Cold Lake Alberta T9M 2C4 Canada	

**Instructions: See Herein**

**Instructions: Voir aux présentes**

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

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## **PART 1 - GENERAL INFORMATION**

### **1. Security Requirement**

There is no security requirement associated with this bid solicitation.

### **2. Requirement**

The requirement is detailed under Annex A - Requirement.

### **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 of receipt of the results of the bid solicitation process. The debriefing may be in writing, by telephone or in person.

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## PART 2 - BIDDER INSTRUCTIONS

### 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>) 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 (2013-06-01) Standard Instructions - Goods or Services - Competitive Requirements, are incorporated by reference into and form part of the bid solicitation.

### 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 on page 1 of the bid solicitation.

### 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 questions or may request that the Bidder do so, so that the proprietary nature of the question is eliminated, and the enquiry can be answered with copies to all bidders. Enquiries not submitted in a form that can be distributed to all bidders may not be answered by Canada.

### 4. Applicable Laws

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

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.

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## **PART 3 - BID PREPARATION INSTRUCTIONS**

### **1. Bid Preparation Instructions**

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

Section I: Technical Bid ( 1 hard copy)

Section II: Financial Bid ( 1 hard copy)

Section III: Certifications ( 1 hard copy)

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 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](http://www.tpsgc-pwgsc.gc.ca/ecologisation-greening/achats-procurement/politique-policy-eng.html)

(<http://www.tpsgc-pwgsc.gc.ca/ecologisation-greening/achats-procurement/politique-policy-eng.html>).

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.

#### **1.1 Exchange Rate Fluctuation**

C3011T (2010-01-11), Exchange Rate Fluctuation

#### **Section III: Certifications**

Bidders must submit the certifications required under Part 5.

## **PART 4 - EVALUATION PROCEDURES AND BASIS OF SELECTION**

### **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.

### **1.1 Technical Evaluation**

#### **1.1.1 Mandatory Technical Criteria**

Compliant with Annex A, Requirement

### **1.2 Financial Evaluation**

SACC Manual Clause A0220T (2013-04-25) Evaluation of Price

### **2. Basis of Selection**

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

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## **PART 5 - CERTIFICATIONS**

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

The certifications provided by bidders to Canada are subject to verification by Canada at all times. 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 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 with this request will also render the bid non-responsive or will constitute a default under the Contract.

### **1. Mandatory Certifications Required Precedent to Contract Award**

#### **1.1 Code of Conduct and Certifications - Related documentation**

By submitting a bid, the Bidder certifies that the Bidder and its affiliates are in compliance with the provisions as stated in Section 01 Code of Conduct and Certifications - Bid of Standard Instructions 2003. The related documentation therein required will assist Canada in confirming that the certifications are true.

#### **1.2 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 ([http://www.labour.gc.ca/eng/standards\\_equity/eq/emp/fcp/list/inelig.shtml](http://www.labour.gc.ca/eng/standards_equity/eq/emp/fcp/list/inelig.shtml)) available from Human Resources and Skills Development Canada (HRSDC) - Labour's website.

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 " Limited Eligibility to Bid " list at the time of contract award.

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## PART 6 - RESULTING CONTRACT CLAUSES

### 1. Security Requirement

There is no security requirement applicable to this Contract.

### 2. Requirement

The Contractor must provide items including installation, demonstration, and training in accordance with the Requirement at Annex "A".

### 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>) issued by Public Works and Government Services Canada.

#### 3.1 General Conditions

2010A (2013-04-25), General Conditions - Goods (Medium Complexity), apply to and form part of the contract.

### 4. Term of Contract

#### 4.1 Delivery Date

All the deliverables must be received on or before March 31, 2014.

### 5. Authorities

#### 5.1 Contracting Authority

The Contracting Authority for the Contract is:

Alex Tikhonovitch  
Public Works and Government Services Canada  
Acquisitions Branch  
Western Region  
5th Floor Telus Plaza North  
10025 Jasper Avenue  
Edmonton, Alberta T5J 1S6

Telephone: (780) 497-3541  
Facsimile: (780) 497-3510  
E-mail address: alex.tikhonovitch@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.



## 5.2 Project Authority

The Project Authority for the Contract is: **To be determined**

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.

## 5.3 Contractor's Representative:

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Organization: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone : \_\_\_\_\_

Facsimile: \_\_\_\_\_

E-mail address: \_\_\_\_\_

## 6. Payment

### 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 lot prices as specified in Annex "B"- Basis of Payment. 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.

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

### 6.3 SACC Manual Clauses

SACC Manual clause C2000C (2007-11-30), Taxes - Foreign-based Contractor

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## 7. Invoicing Instructions

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.

## 8. Certifications

### 8.1 Compliance

Compliance with the certifications and related documentation provided by the Contractor in its bid is a condition of the Contract and subject to verification by Canada during the term of the Contract. If the Contractor does not comply with any certification, provide the related documentation or if it is determined that any certification made by the Contractor in its bid is untrue, whether made knowingly or unknowingly, Canada has the right, pursuant to the default provision of the Contract, to terminate the Contract for default.

## 9. Applicable Laws

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

## 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 (2013-04-25), General Conditions - Goods (medium complexity);
- (c) Annex A, Requirement;
- (d) Annex B, Basis of Payment;
- (e) the Contractor's bid dated \_\_\_\_\_

## 11. SACC Manual Clauses

SACC Manual clause B1501C (2006-06-16), Electrical Equipment

SACC Manual clause B7500C (2006-06-16), Excess Goods

SACC Manual clause G1005C (2008-05-12), Insurance

**ANNEX "A"****REQUIREMENT**

Department of National Defence (DND), Cold Lake, Alberta, has a requirement for the supply, delivery and offloading of two (2) Complete Integrated Receiver Systems meeting the Minimum Performance Specifications herein.

Delivery is mandatory to be completed no later than March 31, 2014.

Please indicate below:

**Meet Delivery Requirement** \_\_\_\_\_

or

**Unable to Meet Delivery Requirement** \_\_\_\_\_

**Minimum Performance Specifications (Mandatory Criteria)**

Bidders **must** address each performance specification, in the worksheet provided, whether the product offered is in compliance with the specification (Yes) or is not in compliance (No) and provide supporting documentation for each item. Bidders are requested to identify on their supporting documentation where the information can be found and, if applicable, N/A if documentation is not available.

To ensure compliance is clear, the bidder is requested to utilize a numbering system that corresponds to the numbering system below. An example of an acceptable system would be to indicate the specification reference number on a tab stuck to the appropriate page of the technical documentation. The appropriate article of the technical documentation that demonstrates compliance should then be highlighted or underlined.

Failure to comply with any of the mandatory technical requirements will disqualify the bid from further consideration. If upon delivery and acceptance, the product is found to not meet the Mandatory Performance Specifications, the product will be returned at the supplier's expense and the contract will be terminated for default.

Item	Description	Meets	Doesn't Meet	Pg #
	<b>The Complete Integrated Receiver System must:</b>			
1	must meet the following standards: IRIG 106-11 (Part 1), Chapter 4, June 2011; IRIG 106-11 (Part 1), Appendix D, June 2011; IRIG 119-06, Telemetry Applications Handbook, May 2006.			
2	The system shall be comprised of minimum four (4) independent RF Receivers, and associated Diversity Combiners, Bit Synchronisers and Best Source Selectors.			

3	The system shall be able to be configured and operated via the front panel interface and manually configurable controls and parameter settings performed via the front panel interface can also be performed remotely using software provided by the contractor operating on an MS WINDOWS 7 compatible computer. The integrated receiver system shall be a proven product from an establish production line.			
5	<u>Interface.</u> The integrated receiver system shall have an integral front panel display and user interface to allow the user to manually enter and observe all operating parameters.			
6	<u>Configuration.</u> The integrated receiver system shall allow the user to store all operating parameters and allow the user to configure the system for operation from stored parameters.			
7	<u>Operating Preparation.</u> The integrated receiver system shall allow the user to automatically configure the system for optimal operating conditions based on user selection of data rate, RF reception frequency, diversity combiner mode and demodulation format selection.			
8	<u>Remote Operation.</u> The integrated receiver system shall allow the user to enter all parameters via the front panel user interface and remotely via the Ethernet using software provided by the vendor.			
9	<u>Signal Processing Technology.</u> The integrated receiver system shall employ advanced digital signal processing technology, such that future upgrades to demodulation schemes and other system functions and features can be achieved through the download of improved software and algorithms.			
10	<u>Auto-Track Compatibility.</u> The integrated receiver system shall be compatible with amplitude modulation (AM) auto-track antenna control systems. The integrated receiver system shall provide the AM and AGC signals of the best source to the auto-tracking system.			
11	<u>Reference Oscillator.</u> The integrated receiver system shall employ one internal reference oscillator.			
12	<u>Reference Stability.</u> The integrated receiver system shall have a reference oscillator stability of plus or minus 1.5 parts per million.			
	<b>Tuner</b>			
13	<u>Description.</u> The integrated receiver system shall have four (4) independent RF Receivers tuner sections and each tuner shall have an internal IF section			
14	<u>RF Section.</u> Each tuner shall employ super-heterodyne technology.			

15	<u>Frequency Band.</u> Each tuner shall allow the user to select RF signals from 2300 MHz through 2400 MHz inclusive, as a minimum.			
16	<u>Resolution.</u> Each tuner shall allow the user to select RF frequencies with a resolution of 100 KHz.			
17	<u>RF Signal Acquisition and Tracking.</u> Each tuner shall be able to acquire and track an RF signal within a range of plus or minus 250 KHz of the tuned frequency.			
18	<u>AGC.</u> Each tuner shall employ an AM envelope Automatic Gain Control (AGC) with a minimum of five (5) user selectable time constants that include 0.1, 1, 10, 100 and 1000 milliseconds.			
19	<u>Manual AGC Control and Freeze.</u> Each tuner shall allow the user to manually set the AGC and freeze the AGC at user-selected levels within the full range of the AGC operation.			
20	<u>AGC Zeroing.</u> Each tuner shall allow the user to perform automatic zeroing of the AGC level.			
21	<u>AGC Output.</u> Each tuner shall provide an output for AGC. These output signals shall have BNC connectors and provide a scalable output of +/-20 dB/volt into a 1 K ohm load.			
22	<u>AM Output.</u> Each tuner shall provide an AM output, utilizing BNC type connectors. They shall provide 2 volts peak to peak for 50% AM and be 50 ohm or 75 ohm (vendor choice) unbalanced outputs.			
23	<u>Noise Figure.</u> Each tuner shall have a typical noise figure of 9 dB or better and a maximum noise figure of 12 dB			
24	<u>Image Rejection.</u> Each tuner shall have an image rejection ratio of at least 60 dB.			
25	<u>Operating Range.</u> Each tuner shall have a dynamic range of operation from the system threshold to -10 dBm and must be able to tolerate a maximum input of +10 dBm.			
26	<u>VSWR.</u> Each tuner shall have a worst case VSWR of 2.0.			
27	<u>RF Input.</u> The system shall provide one N-type input for each RF channel.			
28	<u>Input Impedance.</u> Each tuner shall have an RF input impedance of 50 ohms, unbalanced.			
	<b>Intermediate Frequency (IF) Section</b>			
29	<u>Description.</u> Each tuner shall have an integral IF section,			

	centred at 70 MHz, with the following characteristics.			
30	<u>IF Rejection.</u> The IF section shall have an IF rejection figure of 60 dB or better.			
31	<u>Spurious Rejection.</u> The IF section shall have a spurious rejection figure of 60 dB or better.			
32	<u>IF Outputs.</u> Each tuner shall provide an IF output. They shall be centred at 70 MHz, at a nominal power of -10 dBm or 0 dBm (vendor choice) and be 50 ohm unbalanced output.			
	<b>Diversity Combiner/Best Source Selector Selection</b>			
33	<u>Description.</u> The diversity combiners shall combine the IF and or Baseband/video output signals from pairs of the four (4) integral receivers. The integrated receiver system shall provide a best source output, automatically selected from any of the four (4) integrated receivers or diversity combiners, based on the received signal quality.			
34	<u>Detection and Best Source Selection.</u> The diversity combiner sections shall employ pre-detection combining, post detection combining and best source selection.			
35	<u>Signal Weighting.</u> The diversity combiner shall employ AGC and AM envelope weighting for signal combining.			
36	<u>Bypass.</u> The diversity combiner shall allow the user to bypass the combining circuitry and select any RF channel individually.			
37	<u>Combiner Center Frequency.</u> The diversity combiner shall combine IF signals centred at 70 MHz.			
38	<u>Fade Response.</u> The diversity combiner shall be capable of responding to, and compensating for, multi-path fading of up to 50 KHz.			
39	<u>Best source AGC Output.</u> The integrated receiver system shall provide a combined AGC or best source AGC output, utilizing a BNC type connector. It shall provide a scalable output of +/- 20 dB/volt into a 1 K ohm load.			
40	<u>Best source AM Output.</u> The integrated receiver system shall provide a combined AM or best source AM output, utilizing a BNC type connector. It shall provide 2 volts peak to peak for 50% AM and be 50 ohm or 75 ohm (vendor choice) unbalanced outputs.			
41	<u>Combined IF Output.</u> The system shall provide a combined IF output or best source IF output, utilizing a BNC type connector. It shall be centered at 70 MHz, with a nominal			

	power of –10 dBm or 0 dBm (vendor choice) and a 50 ohm unbalanced output.			
	<b>Demodulator</b>			
42	<u>Description.</u> The demodulators shall be a multi-symbol trellis demodulator.			
43	<u>Demodulation Modes.</u> The demodulator shall allow the user to select the following modes, as a minimum:  FM;  PM;  AM;  PCM/FM;  BPSK;  QPSK;  OQPSK;  SOQPSK/FQPSK.			
44	<u>FIR Video Filters.</u> The demodulator shall provide FIR, or equivalent performance, low-pass filters.			
45	<u>Video Output Level.</u> The demodulator shall allow the user to select the video output level from 0 volts up to 4 volts peak to peak.			
46	<u>Video Output Coupling.</u> The demodulator shall allow the user to select either AC or DC as the coupling used for the video output.			
47	<u>Video Output Polarity.</u> The demodulator shall allow the user to select the polarity of the video output signal, either positive or negative.			
48	<u>Video Output Impedance.</u> The demodulator shall have a video output impedance of 50 ohms or 75 ohms (vendor choice), unbalanced.			
	<b>Bit Synchronizer</b>			
49	<u>Description.</u> The bit synchronizer(s) shall generate clock and data signals (I & Q merged on quadrature de-modulation schemes) from the demodulator's output.			
50	<u>Data Rates.</u> The bit synchronizer shall allow the user to select any data rate from 50 KBPS through 20 MBPS,			

	inclusive, as a minimum. The data rate selection resolution shall be three decimal places.			
	<u>Output.</u>			
51	The bit synchronizer shall provide LVTTTL or TTL Clock and Data output on BNC connectors.			
52	RS422 Clock and Data Output shall be available on the back panel.			
53	The bit synchronizer shall provide LVTTTL or TTL Frame Sync status output on the back panel.			
54	<u>Clock and Data Polarity.</u> The bit synchronizer shall allow user to independently select the polarity of the clock and data output signals.			
55	<u>De-randomizer.</u> The bit synchronizer shall allow the user to select or deselect a 15-bit de-randomizer.			
	<b>Environmental Operating Characteristics</b>			
56	<u>Operating Temperature Range.</u> The integrated receiver system shall be able to operate over the range of 0 degrees C up to +40 degrees C, inclusive.			
57	<u>Non-operating Temperature Range.</u> The integrated receiver system shall be able to withstand exposure to temperature ranges from -20 degrees C to +65 degrees C, inclusive; while in a non-operating and powered down state.			
58	<u>Humidity.</u> The integrated receiver system shall be able to operate while exposed to non-condensing humidity conditions of up to 90%.			
	<b>Rear Panel Connection Specifications</b>			
59	<u>Power.</u> The integrated receiver system shall have a 115 VAC, 60 Hz, power input utilizing an IEC-320 appliance AC connector with strain relief (or equivalent).			
60	<u>RF Input.</u> The integrated receiver system shall provide one RF input per receiver.			
61	<u>Video Output.</u> The integrated receiver system shall provide one Video output per receiver.			
62	<u>AGC Output.</u> The integrated receiver system shall provide one AGC output per receiver.			
63	<u>Best Source AGC Output.</u> The integrated receiver system shall provide one best source AGC output.			
64	<u>AM Output.</u> The integrated receiver system shall provide one AM output per receiver.			



65	<u>Best Source AM Output.</u> The integrated receiver system shall provide one best source AM output.			
66	<u>IF Outputs.</u> The integrated receiver system shall provide one IF output per receiver.			
67	<u>Best Source IF Output.</u> The integrated receiver system shall provide one best source IF output.			
68	<u>Bit Synchronizer Output.</u> The integrated receiver system shall provide Clock and Data Output.			
69	<u>Ethernet.</u> The integrated receiver system shall provide one (1) Ethernet interface for command, control and status.			
	<b>Documentation</b>			
70	Documentation shall consist of a set of operator manuals and application interface manuals for each system. They may be printed material with multi-media documentation, or just multi-media documentation, vendor choice.			

**Make and Model Number of Product(s) Offered:** \_\_\_\_\_

If upon delivery and acceptance, the product is found not to meet the Minimum Performance Specifications, the product will be returned at the Suppliers expense and the Contract terminated for default.

Solicitation No. - N° de l'invitation

W2671-13BR93/A

Client Ref. No. - N° de réf. du client

DND

Amd. No. - N° de la modif.

File No. - N° du dossier

EDM-3-36206

Buyer ID - Id de l'acheteur

edm183

CCC No./N° CCC - FMS No/ N° VME

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## ANNEX B

### BASIS OF PAYMENT

- The Firm Unit Prices must be FOB Destination and include all delivery and off-loading charges to the Department of National Defence (DND), Cold Lake, Alberta.
- Firm Unit Prices do not include GST, however GST will be added as a separate line item to any invoice issued as a result of a Contract.
- All prices must be in Canadian dollars.

Item	Description	Qty.	Firm Unit Price	Extended Price
1	Supply and delivery of the Complete Integrated Receiver System in compliance with the Requirement and the Minimum Performance Specifications outlined in Annex "A"	2 lots	\$_____/lot	\$_____
<b>Total Assessed Bid Price:</b>				\$_____