



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

**Bid Receiving
PWGSC
33 City Centre Drive
Suite 480C
Mississauga
Ontario
L5B 2N5
Bid Fax: (905) 615-2095**

**Request For a Standing Offer
Demande d'offre à commandes**

National Individual Standing Offer (NISO)
Offre à commandes individuelle nationale (OCIN)

Canada, as represented by the Minister of Public Works and Government Services Canada, hereby requests a Standing Offer on behalf of the Identified Users herein.

Le Canada, représenté par le ministre des Travaux Publics et Services Gouvernementaux Canada, autorise par la présente, une offre à commandes au nom des utilisateurs identifiés énumérés ci-après.

Comments - Commentaires

**Vendor/Firm Name and Address
Raison sociale et adresse du
fournisseur/de l'entrepreneur**

Issuing Office - Bureau de distribution
Public Works and Government Services Canada
Ontario Region
33 City Centre Drive
Suite 480
Mississauga
Ontario
L5B 2N5

Title - Sujet EDAS Dataloggers	
Solicitation No. - N° de l'invitation K3D35-160849/A	Date 2016-02-04
Client Reference No. - N° de référence du client K3D35-160849	GETS Ref. No. - N° de réf. de SEAG PW-\$TOR-033-7062
File No. - N° de dossier TOR-5-38162 (033)	CCC No./N° CCC - FMS No./N° VME
Solicitation Closes - L'invitation prend fin at - à 02:00 PM on - le 2016-03-16	
Time Zone Fuseau horaire Eastern Standard Time EST	
Delivery Required - Livraison exigée See Herein	
Address Enquiries to: - Adresser toutes questions à: Amador, Ketty	Buyer Id - Id de l'acheteur tor005
Telephone No. - N° de téléphone (905)615-2466 ()	FAX No. - N° de FAX (905)615-2060
Destination - of Goods, Services, and Construction: Destination - des biens, services et construction: DEPARTMENT OF THE ENVIRONMENT per individual callups Ottawa Ontario K1A0H3 Canada	
Security - Sécurité This request for a Standing Offer does not include provisions for security. Cette Demande d'offre à commandes ne comprend pas des dispositions en matière de sécurité.	

Instructions: See Herein

Instructions: Voir aux présentes

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

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Solicitation No. - N° de l'invitation
K3D35-160849
Client Ref. No. - N° de réf. du client
K3D35-160849

Amd. No. - N° de la modif.
File No. - N° du dossier
TOR-5-38162

Buyer ID - Id de l'acheteur
TOR033
CCC No./N° CCC - FMS No./N° VME

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PART 1 - GENERAL INFORMATION

1.1 Introduction

The Request for Standing Offers (RFSO) is divided into six parts plus attachments and annexes, as follows:

- Part 1 General Information: provides a general description of the requirement;
- Part 2 Offeror Instructions: provides the instructions applicable to the clauses and conditions of the RFSO;
- Part 3 Offer Preparation Instructions: provides Offerors with instructions on how to prepare their offer to address the evaluation criteria specified;
- Part 4 Evaluation Procedures and Basis of Selection: indicates how the evaluation will be conducted, the evaluation criteria which must be addressed in the offer, and the basis of selection;
- Part 5 Certifications: includes the certifications to be provided;
- Part 6 6A, Standing Offer, and 6B Resulting Contract Clauses:
 - 6A, includes the Standing Offer containing the offer from the Offeror and the applicable clauses and conditions;
 - 6B, includes the clauses and conditions which will apply to any contract resulting from a call-up made pursuant to the Standing Offer.

The Annexes include the Requirement, the Basis of Payment, Standing Offer Reporting Data and any other annexes.

1.2 Summary

1.2.1 Description

- i. Environment and Climate Change Canada, Water Survey of Canada (National Hydrological Services), requires Environmental Data Acquisition Systems (EDAS) for installation at environmental monitoring sites across Canada. EDAS loggers are an integral part of the Water Survey of Canada's hydrometric network which extends through all latitudes in Canada. The acquisition of environmental data, consisting of hydrometric, water quality and sediment data provide the information used in making decisions related to various types of water and environmental programs. Water Survey of Canada requires the following three categories of EDAS: Level 1 EDAS with optional modem, Level 1 EDAS with optional GOES and Level 2 EDAS with optional modem, GOES or both. The resulting Standing Offer(s) will be for a period of 4 years with 3 optional 1 year extensions. More than one Standing Offer may be awarded.
- ii. Please see the RFSO for detailed information on the Requirement, Evaluation Criteria, Basis of Payment and Basis of Selection, etc.

1.2.2 Trade Agreements

The requirement is subject to the provisions of the World Trade Organization Agreement on Government Procurement (WTO-AGP), the North American Free Trade Agreement (NAFTA), and the Agreement on Internal Trade (AIT).

1.3 Debriefings

Offerors may request a debriefing on the results of the request for standing offers process. Offerors should make the request to the Standing Offer Authority within 15 working days of receipt of the results of the request for standing offers process. The debriefing may be in writing, by telephone or in person.

PART 2 - OFFEROR INSTRUCTIONS

2.1 Standard Instructions, Clauses and Conditions

All instructions, clauses and conditions identified in the Request for Standing Offers (RFSO) 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.

Offerors who submit an offer agree to be bound by the instructions, clauses and conditions of the RFSO and accept the clauses and conditions of the Standing Offer and resulting contract(s).

The 2006 (2015-07-03) Standard Instructions - Request for Standing Offers - Goods or Services - Competitive Requirements, are incorporated by reference into and form part of the RFSO.

Subsection 5.4 of 2006, Standard Instructions - Request for Standing Offers - Goods or Services - Competitive Requirements, is amended as follows:

Delete: 60 days
Insert: 180 days

2.2 Submission of Offers

Offers 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 Request for Standing Offers.

Due to the nature of the Request for Standing Offers, transmission of offers by facsimile to PWGSC will not be accepted.

2.3 Enquiries - Request for Standing Offers

All enquiries must be submitted in writing to the Standing Offer Authority no later than 8 calendar days before the Request for Standing Offers (RFSO) closing date. Enquiries received after that time may not be answered.

Offerors should reference as accurately as possible the numbered item of the RFSO to which the enquiry relates. Care should be taken by Offerors 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 Offerors do so, so that the proprietary nature of the question(s) is eliminated, and the enquiry can be answered to all Offerors. Enquiries not submitted in a form that can be distributed to all Offerors may not be answered by Canada.

2.4 Applicable Laws

The Standing Offer and any contract resulting from the Standing Offer must be interpreted and governed, and the relations between the parties determined, by the laws in force in Ontario.

Offerors may, at their discretion, substitute the applicable laws of a Canadian province or territory of their choice without affecting the validity of their offer, 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 Offerors.

PART 3 - OFFER PREPARATION INSTRUCTIONS

3.1 Offer Preparation Instructions

Canada requests that offerors provide their offer in separately bound sections as follows:

Section I: Technical Offer (4 hard copies)

Section II: Financial Offer (1 hard copy)

Section III: Certifications (1 hard copy)

Section IV: Additional Information (1 hard copy)

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

Canada requests that Offerors follow the format instructions described below in the preparation of their offer.

- (a) use 8.5 x 11 inch (216 mm x 279 mm) paper;
- (b) use a numbering system that corresponds to that of the Request for Standing Offers.

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, Offerors 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 Offer

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

Section II: Financial Offer

Offerors must submit their financial offer in accordance with the Annex B, Basis of Payment. The total amount of Applicable Taxes must be shown separately.

Section III: Certifications

Offerors must submit the certifications required under Part 5.

3.1.1 Exchange Rate Fluctuation

SCC Manual Clause [C3011T](#) (2013-11-06), Exchange Rate Fluctuation

PART 4 - EVALUATION PROCEDURES AND BASIS OF SELECTION

4.1 Evaluation Procedures

- (a) Offers will be assessed in accordance with the entire requirement of the Request for Standing Offers including the technical and financial evaluation criteria.
- (b) An evaluation team composed of representatives of Canada will evaluate the offers.

4.1.1 Technical Evaluation

4.1.1.1 Mandatory Technical Criteria

Please see Annex D, Evaluation Criteria for the Mandatory Technical Criteria

4.1.1.2 Point Rated Technical Criteria

Please see Annex D, Evaluation Criteria for the Rated Technical Criteria

4.1.2 Financial Evaluation

4.1.2.1 Evaluation of Price

The Offeror must complete and submit with its offer, Annex B – Basis of Payment in Canadian funds.

In each category, pricing must be provided for all items and for each of the 7 years in order to be considered for that specific category.

The prices detailed in Annex B – Basis of Payment will be input into Annex D – Financial Evaluation for price evaluation purposes.

The price used in the evaluation for each category will be the Total Evaluated Cost which is calculated as follows:

Total Evaluated Cost is the sum of Firm Extended Price
Firm Extended price is the Estimated Quantity multiplied by the Firm Unit Price for each year

If an Offeror provides prices for both 'options' within the category the Total Evaluated Cost will be calculated for both and the lower value will be used for evaluation purposes

More than one Standing Offer may be awarded.

SACC Manual Clause M0220T (2013-04-25), Evaluation of Price

4.2 Basis of Selection

4.2.1 Highest Combined Rating of Technical Merit and Price

1. To be declared responsive, an offer must:
 - a. comply with all the requirements of the Request for Standing Offers;
 - b. meet all mandatory criteria; and
 - c. obtain the required minimum points specified for criteria numbers 2.2 and 2.3 for the technical evaluation, and
 - d. obtain the required minimum of 55 points overall for the technical evaluation criteria which are subject to point rating.

2. Offers not meeting (a) or (b) or (c) or (d) will be declared non-responsive
3. The selection will be based on the highest responsive combined rating of technical merit and price. The rating will be 60% for the technical merit and 40% for the price.
4. To establish the technical merit score, the overall technical score for each responsive offer will be determined as follows: total number of points obtained / maximum number of points available multiplied by the ratio of 60%
5. To establish the pricing score, each responsive offer will be prorated against the lowest evaluated price and the ratio of 40%
6. For each responsive offer, the technical merit score and the pricing score will be added to determine its combined rating
7. Neither the responsive offer obtaining the highest technical score nor the one with the lowest evaluated price will necessarily be accepted. The responsive offer with the highest combined rating of technical merit and price will be recommended for award of a standing offer.

The table below illustrates an example where all three offers are responsive and the selection of the standing offer holder is determined by a 60/40 ratio of technical merit and price, respectively. The total available points equals 135 and the lowest evaluated price is \$45,000.

Basis of Selection - Highest Combined Rating Technical Merit (60%) and Price (40%)

	Bidder 1	Bidder 2	Bidder 3
Overall Technical Score	115/135	89/135	92/135
Bid Evaluated Price	\$55,000.00	\$50,000.00	\$45,000.00
Calculations			
Technical Merit Score	115/135 x 60 = 51.11	89/135 x 60 = 39.56	92/135 x 60 = 40.89
Pricing Score	45/55 x 40 = 32.73	45/50 x 40 = 36.00	45/45 x 40 = 40.00
Combined Rating	83.84	75.56	80.89
Overall Rating	1st	3rd	2nd

PART 5 – CERTIFICATIONS AND ADDITIONAL INFORMATION

Offerors must provide the required certifications and additional information to be issued a standing offer.

The certifications provided by Offerors to Canada are subject to verification by Canada at all times. Canada will declare an offer non-responsive, will have the right to set-aside a standing offer, or will declare a contractor in default if any certification made by the Offeror is found to be untrue whether made knowingly or unknowingly during the offer evaluation period, during the Standing Offer period, or during the contract period.

The Standing Offer Authority will have the right to ask for additional information to verify the Offeror's certifications. Failure to comply and to cooperate with any request or requirement imposed by the Standing Offer Authority will render the offer non-responsive, result in the setting aside of the Standing Offer or constitute a default under the Contract.

5.1 Certifications Required with the Offer

Offerors must submit the following duly completed certifications as part of their offer.

5.1.1 Declaration of Convicted Offences

As applicable, pursuant to subsection Declaration of Convicted Offences of section 01 of the Standard Instructions, the Offeror must provide with its offer, a completed Declaration Form (<http://www.tpsgc-pwgsc.gc.ca/ci-if/formulaire-form-eng.html>), to be given further consideration in the procurement process.

5.2 Certifications Precedent to the Issuance of a Standing Offer and Additional Information

The certifications and additional information listed below should be submitted with the offer, but may be submitted afterwards. If any of these required certifications or additional information is not completed and submitted as requested, the Standing Offer Authority will inform the Offeror 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 offer non-responsive.

5.2.1 Integrity Provisions – List of Names

Offerors who are incorporated, including those submitting offers as a joint venture, must provide a complete list of names of all individuals who are currently directors of the Offeror.

Offerors submitting offers as sole proprietorship, as well as those submitting offers as a joint venture, must provide the name of the owner(s).

Offerors submitting offers as societies, firms or partnerships do not need to provide lists of names.

5.2.2 Federal Contractors Program for Employment Equity - Standing Offer Certification

By submitting an offer, the Offeror certifies that the Offeror, and any of the Offeror's members if the Offeror 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) available from Employment and Social Development Canada-Labour's website.

Canada will have the right to declare an offer non-responsive, or to set-aside a Standing Offer, if the Offeror, or any member of the Offeror if the Offeror is a Joint Venture, appears on the "FCP Limited Eligibility to Bid" list at the time of issuing of a Standing Offer or during the period of the Standing Offer.

PART 6 - STANDING OFFER AND RESULTING CONTRACT CLAUSES

A. STANDING OFFER

6.1 Offer

6.1.1 The Offeror offers to fulfill the requirement in accordance with the Requirement at Annex A

6.2 Security Requirements

6.2.1 There is no security requirement applicable to this Standing Offer.

6.3 Standard Clauses and Conditions

All clauses and conditions identified in the Standing Offer and resulting contract(s) 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.

6.3.1 General Conditions

2005 (2015-09-03) General Conditions - Standing Offers - Goods or Services, apply to and form part of the Standing Offer.

6.3.2 Supplemental General Conditions

4001 (2015-04-01) Supplemental General Conditions, Hardware Purchase, Lease and Maintenance, apply to and form part of the Standing Offer.

Subsection 14 of 4001 (2015-04-01) 2006, Supplemental General Conditions, Hardware Purchase, Lease and Maintenance, is amended as follows:

Delete: 1.

Insert: Even if Canada has accepted the Work, the Contractor guarantees that, for twenty four (24) months after the Hardware is accepted (the "Hardware Warranty Period"), it will be free from all defects in materials or workmanship, be free from all design defects, and conform in all ways with the requirements of the Contract, including the Specifications and any Minimum Availability Level requirements. Because items of Hardware may be accepted on different days, the Hardware Warranty Period for different items of Hardware delivered under the Contract may begin and end on different days. If the Contract provides that the System consists of the Hardware together with Licensed Software and/or Custom Software, the Hardware Warranty Period will also apply to the Licensed Software and/or Custom Software components of the System and this longer period will apply to all the warranty, maintenance and support obligations described in *Supplemental General Conditions* 4002 and 4003.

6.3.3 Standing Offers Reporting

The Offeror must compile and maintain records on its provision of goods, services or both to the federal government under contracts resulting from the Standing Offer. This data must include all purchases, including those paid for by a Government of Canada Acquisition Card.

The Offeror must provide this data in accordance with the reporting requirements detailed in Annex C. If some data is not available, the reason must be indicated. If no goods or services are provided during a given period, the Offeror must still provide a "nil" report.

The data must be submitted on a quarterly basis to the Standing Offer Authority.

The quarterly reporting periods are defined as follows:

- 1st quarter: April 1 to June 30;
- 2nd quarter: July 1 to September 30;
- 3rd quarter: October 1 to December 31;
- 4th quarter: January 1 to March 31.

The data must be submitted to the Standing Offer Authority no later than 15 calendar days after the end of the reporting period.

6.4 Term of Standing Offer

6.4.1 Period of the Standing Offer

The period for making call-ups and providing services against the Standing Offer is from 01 April 2016 to 31 March 2020 inclusive.

6.4.2 Extension of Standing Offer

If the Standing Offer is authorized for use beyond the initial period, the Offeror offers to extend its offer for an additional three (3) one (1) year periods, from 01 April 2020 to 31 March 2021, 01 April 2021 to March 31 2022 and 01 April 2022 to March 31 2023 under the same conditions and at the rates or prices specified in the Standing Offer, or at the rates or prices calculated in accordance with the formula specified in the Standing Offer.

The Offeror will be advised of the decision to authorize the use of the Standing Offer for an extended period by the Standing Offer Authority before the expiry date of the Standing Offer. A revision to the Standing Offer will be issued by the Standing Offer Authority.

6.5 Authorities

6.5.1 Standing Offer Authority

The Standing Offer Authority is:

Name: Lesley Martin
Title: Supply Team Leader
Public Works and Government Services Canada
Acquisitions Branch
Directorate: Ontario Region
Address: 33 City Center Drive Suite 480C, Mississauga, ON, L5B 2N5

Telephone: 905-615-2069
Facsimile: 905-615-2060
E-mail address: Lesley.Martin2@pwgsc.gc.ca

The Standing Offer Authority is responsible for the establishment of the Standing Offer, its administration and its revision, if applicable. Upon the making of a call-up, as Contracting Authority, he is responsible for any contractual issues relating to individual call-ups made against the Standing Offer by any Identified User.

6.5.2 Project Authority

The Project Authority for the Standing Offer is identified in the call-up against the Standing Offer.

The Project Authority is the representative of the department or agency for whom the Work will be carried out pursuant to a call-up against the Standing Offer and is responsible for all the technical content of the Work under the resulting Contract.

6.5.3 Offeror's Representative

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

6.6 Proactive Disclosure of Contracts with Former Public Servants

By providing information on its status, with respect to being a former public servant in receipt of a *Public Service Superannuation Act* (PSSA) pension, the Contractor has agreed that this information will be reported on departmental websites as part of the published proactive disclosure reports, in accordance with Contracting Policy Notice: 2012-2 of the Treasury Board Secretariat of Canada.

6.7 Identified Users

The Identified Users authorized to make call-ups against the Standing Offer is: Environment and Climate Change Canada.

6.8 Call-up Instrument

The Work will be authorized or confirmed by the Identified User(s) using form PWGSC-TPSGC 942.

6.9 Limitation of Call-ups

Individual call-ups against the Standing Offer must not exceed \$200,000.00 (Applicable Taxes included).

6.10 Financial Limitation

The total cost to Canada resulting from call ups against the Standing Offer must not exceed the sum of \$_____ (*Applicable Taxes excluded*) unless otherwise authorized in writing by the Standing Offer Authority. The Offeror must not perform any work or services or supply any articles in response to call ups which would cause the total cost to Canada to exceed the said sum, unless an increase is so authorized.

The Offeror must notify the Standing Offer Authority as to the adequacy of this sum when 75 percent of this amount has been committed, or 3 months before the expiry date of the Standing Offer, whichever comes first. However, if at any time, the Offeror considers that the said sum may be exceeded, the Offeror must promptly notify the Standing Offer Authority.

6.11 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 call up against the Standing Offer, including any annexes;
- b) The articles of the Standing Offer;
- c) The supplemental general conditions 4001 (2015-04-01) Hardware Purchase, Lease and Maintenance
- d) The general conditions 2005 (2015-09-03), General Conditions - Standing Offers - Goods or Services
- e) Annex A, Statement of Work;
- f) Annex B. Basis of Payment;
- g) Annex C, Standing Offer Reporting Data
- h) The Offeror's offer dated _____ (*insert date of offer*)

6.12 Certifications

6.12.1 Compliance

The continuous compliance with the certifications provided by the Offeror with its offer and the ongoing cooperation in providing additional information are conditions of issuance of the Standing Offer (SO). Certifications are subject to verification by Canada during the entire period of the SO and of any resulting contract that would continue beyond the period of the SO. If the Offeror does not comply with any certification, fails to provide the additional information, or if it

is determined that any certification made by the Offeror in its offer is untrue, whether made knowingly or unknowingly, Canada has the right to terminate any resulting contract for default and set aside the Standing Offer.

6.13 Applicable Laws

The Standing Offer and any contract resulting from the Standing Offer must be interpreted and governed, and the relations between the parties determined, by the laws in force in Ontario.

B. RESULTING CONTRACT CLAUSES

The following clauses and conditions apply to and form part of any contract resulting from a call-up against the Standing Offer.

6.1 Requirement

The Contractor must provide the items detailed in the call-up against the Standing Offer.

6.2 Standard Clauses and Conditions

6.2.1 General Conditions

2030 (2015-09-03), General Conditions - Higher Complexity - Goods, apply to and form part of the Contract.

6.2.1 Supplemental General Conditions

4001 (2015-04-01) Supplemental General Conditions, Hardware Purchase, Lease and Maintenance, apply to and form part of the Contract.

6.3 Term of Contract

6.3.1 Delivery Date

Delivery must be completed in accordance with the call-up against the Standing Offer.

6.4 Proactive Disclosure of Contracts with Former Public Servants

By providing information on its status, with respect to being a former public servant in receipt of a Public Service Superannuation Act (PSSA) pension, the Contractor has agreed that this information will be reported on departmental websites as part of the published proactive disclosure reports, in accordance with Contracting Policy Notice: 2012-2 of the Treasury Board Secretariat of Canada.

6.5 Payment

6.5.1 Basis of Payment

In consideration of the Contractor satisfactorily completing all of its obligations under the Contract, the Contractor will be paid firm unit price(s), as specified in Annex B for a cost of \$ _____ (*insert amount at call-up award*). Customs duties are included and Applicable Taxes are extra.

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

6.5.2 Limitation of Price

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

6.5.3 Single Payment

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

6.5.4 SACC Manual Clauses

SACC Manual clause A9068C (2010-01-11) Government Site Regulations

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

6.7 Insurance Requirements

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

6.8 Electrical Equipment

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

ANNEX A
REQUIREMENT

SECTION 1

Environmental Monitoring System
Operational Specifications for Environmental
Data Acquisition System (EDAS)

Water Survey of Canada
Ottawa, Canada, 2015

OPERATIONAL SPECIFICATIONS FOR ENVIRONMENTAL DATA ACQUISITION SYSTEM (EDAS)

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Operational Specifications for Environmental Data Acquisition System (EDAS)

Background

The acquisition of environmental data, consisting of hydrometric, water quality and sediment data at selected locations is a service that has been provided by staff of the Federal Government of Canada, including Environment and Climate Change Canada, since 1908. These environmental data provide the information used in making decisions related to various types of water and environmental programs. Among these are: water management requirements such as reservoir operations and control, water allocation, flood forecasting and control; civil engineering applications such as design of reservoirs, bridges, culverts, dams, municipal water works and environmental management issues including those related to water quality, sediment transport, aquatic wildlife habitat, agricultural priorities and climate change research.

The wide spectrum of data use requires that the data are acquired to specific, stated accuracy and that continuity be maintained over the entire period of station record. Also Canadian climatic extremes and high transportation costs to remote regions of Canada, where a large percentage of data acquisition stations are located, demand that monitoring instrumentation be designed and constructed to achieve a high level of reliability.

Reliability

All instrumentation and/or equipment installed at environmental monitoring sites are to be reliable and able to endure environmental stresses over an extended period of time. EDAS loggers are an integral part of the Water Survey of Canada's hydrometric network which extends through all latitudes in Canada. EDAS are mounted in ventilated but un-insulated, frequently unheated, steel walk-in and look-in shelters and are exposed to temperature extremes. Summer temperatures within the shelter may significantly exceed external air temperatures. Equipment may experience high variations in temperatures during transport and are exposed to thermal shocks when moving the unit from a cold to warm environment and vice versa. Over a typical season, EDAS may be subjected to rapidly varying temperatures that occur in certain climatic zones. Shelters are located next to bodies of water and although the EDAS will not typically be directly exposed to precipitation, high humidity levels (95% to 100% relative humidity) frequently occur within the shelter. Conducted and radiated emissions from nearby lightning strikes are a common occurrence. The EDAS will be expected to operate unattended for several months at a time between visits by the technologist. The assured reliability of instrumentation installed at environmental monitoring sites is a prime concern, since time and travel costs to visit the stations may be extremely high.

Transportation options to and from these sites may include trucks, snowmobiles, small aircraft or boats. Environmental stresses associated with this are a concern and as such are considered in this specification.

OPERATIONAL SPECIFICATION FOR ENVIRONMENTAL DATA ACQUISITION SYSTEM (EDAS)

1.0 ENVIRONMENTAL SPECIFICATIONS - EDAS

Section 1 describes expected environmental conditions the EDAS may be exposed to during operation, storage or transportation. The Government of Canada reserves the right to engage an independent laboratory to test to specified levels prior to accepting the equipment as a qualified product.

- | | |
|-------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.1. Operating Temperatures | <ol style="list-style-type: none">1. Equipment must operate through an ambient temperature range of -40°C to +50°C. (IEC 60068-2-1 tests Ab, cold 72hr exposure while operating; test Be dry heat 16hr exposure while operating).2. Cables must remain flexible at -40°C (must maintain insulation properties and not become brittle). |
| 1.2. Thermal Shock | <ol style="list-style-type: none">1. Equipment must operate under thermal shock of 15°C/min. for 2 minutes (-20°C to +10°C). (IEC 60068-2-14; test Na; 3 cycles).2. Equipment must withstand instantaneous induced thermal shock during transport of 60°C (-40°C to +20°C) (IEC 60068-2-14; test Na, 3 cycles). |
| 1.3. Relative Humidity, Moisture and Dust | <ol style="list-style-type: none">1. IEC 60068-2-30 test Db damp heat cyclic; 55°C, 2 cycles, variant 2.2. Enclosure must protect EDAS and contents from dust, splashing water (IP66 or equivalent). |
| 1.4. Corrosion Protection | <ol style="list-style-type: none">1. Corrosion resistant materials must be used for the enclosure and external connectors. |
| 1.5. Mechanical Shock/Vibration | <ol style="list-style-type: none">1. Equipment must operate after experiencing a series of mechanical shocks and vibrations similar to what could occur during transportation, (MIL-STD 810F 514.5C-3; restrained; 30 minutes times 3 directions). |

2.0 TECHNICAL SPECIFICATIONS - EDAS

WSC reserves the right to engage an independent laboratory to test equipment to standards specified in 2.2 and 2.3 prior to accepting equipment as a qualified product

There are three categories of EDAS:

Level 1 EDAS with optional modem

Level 1 EDAS with optional GOES

Level 2 EDAS with optional modem, GOES or both

Level 1 EDAS is to meet the primary needs of the Water Program in Canada and Level 2 EDAS is to meet enhanced monitoring needs.

- 2.1. Power Requirements
1. Normal operating voltage must include the range from 11 VDC to 15 VDC.
 2. Must withstand voltage levels up to 20 VDC.
 3. Must be protected against reverse voltages.
 4. For EDAS with GOES transmitter, power consumption including sensors and telemetry hardware must not exceed 1.5 amp-hour/day given the following scenario; one sensor 1mA quiescent, 10mA active taking 10 second samples every 5 minutes, hourly transmission, 10 second window
 5. During power interruptions, the EDAS must maintain correct time and date references and resume archiving when power returns to normal operational levels.
 6. If backup batteries are used to achieve 2.1.5, they must either
 - 1) support easy field replacement - not soldered in place easily accessible.
 - Or
 - 2) have a lifespan of at least 8 years.
- 2.2 Electromagnetic Interference
1. The EDAS must not exhibit any malfunction or degradation of performance when subjected to the radiated electric fields typical of nearby lightning strikes and electrical equipment. (Applicable standard IEC 61000-4-3 Radiated Immunity, IEC 61000-4-6 Conducted Immunity).
- 2.3. Surge Protection, Transient Voltage and Current
1. The EDAS must be protected to withstand surges induced by nearby lightning strikes and fast transient bursts (IEC 61000-4-4; IEC 61000-4-5).
- 2.4. Input / Output Ports
1. EDAS must allow communication to a PC¹ for programming and uploading/downloading configuration settings and archived data through either a USB or RS-232 port.
 2. If the GOES option is ordered, connection and operation of external transmitters must not interfere with communication to PC as defined in 2.4.1.
 3. SDI-12: 1 port (3 wire), minimum full SDI-12 capability using the latest (downward compatible) published version.
- Level 2 EDAS must have as above plus the following:
4. Event: 1 port, minimum 16 bit counter, rollover or reset software selectable.
 5. Analog: 2 differential configurable to 4 single ended; resolution 0.025% full scale; accuracy 0.1% full scale, temperature compensated over 0C to 40C. Excitation: 2 ports, 0 - 5V, switched under software control programmable to 1% resolution.
 6. Switched: Two 12 VDC power output ports enabled and disabled by software and must have a total output current of at least 250 mA with a minimum of 150mA at any one port.
- 2.5. Connectors
1. All connectors used for operation, maintenance, communication and sensor connection must be clearly labeled.
 2. With the exception of USB connectors, all connectors must be equipped with a positive locking mechanism that will prevent inadvertent separation of the plug and socket.
 3. Power cable connector must be configured to eliminate potential for operator error when connecting power to EDAS.

¹ PC is a notebook or tablet computer running Windows 7 Operating System

2.6. Telecommunications

For Level 1 EDAS with optional modem specifications 2.6.1, 2.6.5 do not apply.
For Level 1 EDAS with GOES transmitter 2.6.1, 2.6.2, 2.6.3, 2.6.4 do not apply.

1. For Level 2 EDAS: Firmware must support simultaneous modem and HDR GOES satellite telecommunications.
2. Modem communications is either currently natively supported by Aquatic Informatics (AI) EnviroScada or, at a minimum, the EDAS must meet AI requirements for modem communications. In the case of the latter, AI will assess the EDAS and submit written confirmation that modem communications could be supported within 2 months after award, subject to availability of AI resources.
3. EDAS must support at least one model of commonly available industrial GSM HSPA cellular modem with TCP/IP functionality.
 1. Cellular modem operating temperatures must include range from -40C to 50C.
 2. Must allow archive download independent of an EDAS-supplier subscription service or server hosted on behalf of EDAS-supplier.
4. EDAS must support at least one model of a Hayes compatible landline telephone modem.
 1. Hayes compatible landline modem operating temperatures must include range from -40C to 50C.
5. EDAS with HDR GOES satellite communications:
 1. EDAS transmitter and antenna (High Data Rate) must be certified and must meet all criteria for DCPRS Standard v2.0 (NOAA/NESDIS 2009. See Appendix A.3.1).
 2. EDAS must operate in random as well as self-timed transmission modes.

2.7. Dimensions

1. The EDAS must not exceed volume defined by a 40cm X 40cm X 40 cm box. This includes the GOES transmitter, if applicable, but does not include the GOES antenna, GPS antenna.

2.8. Clock Accuracy and Configuration

1. EDAS clock accuracy must be ± 50 ppm.
2. Ability to run the EDAS in standard time for all Canadian provinces and territories, with an option to offset for Coordinated Universal Time (UTC).
3. Ability to manually set date and time.

2.9. Sensor Management and Output Management

The EDAS must be programmable with respect to how data from a sensor is acquired and processed. The EDAS must have the following features as a minimum:

Level 1 EDAS with modem and Level 1 EDAS with GOES transmitter

1. Management of individual sensors must be independently programmable for the following:
 1. Capability to create, edit and delete specific sensor set-ups and to easily copy a sensor set-up to other EDAS.
 2. Data Acquisition
 1. Acquisition frequency programmable from one per minute to one per day.
 2. Ability to switch activation or archiving of a sensor on and off.
 3. Data Archiving:
 1. Archive data with date and time stamp.
 2. Archiving frequency programmable from 1 per minute to 1 per day.
 4. Alphanumeric sensor labeling (must allow labels of 2 and 3 characters).
 5. Data download from user selectable date.
 6. Provide viewing of continuous live readings for user selectable sensors.
 7. Direct access (transparent mode) to SDI-12 bus.
 8. Capability of archiving a minimum of 10 distinct parameters.
 9. Mathematical functions: average; slope and offset.
 10. Position of decimal point variable by sensor (see Appendix A for examples).
2. Telemetry data archived prior to the transmission interval can be sent as redundant data (i.e. on hourly transmission, send the latest two hours of data).

Level 2 EDAS as above plus must have the following features as minimum.

3. Telemetry data output for transmission must be selectable by interval (i.e. with data collected at 15 minute intervals, only hourly values can be transmitted).
4. The following math instructions: sqrt; ln(X); e^X ; x^y ; moving average; minimum 5th order polynomials.
5. A minimum of 5 user defined equations of up to 120 characters per equation.
6. Maximum, minimum sensed values archived with time of occurrence of max or min.
7. Programmable alarm function (gradient and level). Must also have the capability of triggering a function (e.g. reading another sensor).

Level 1 EDAS with cell or landline modem and Level 2 EDAS when equipped with cell or landline modem

8. Live readings of user selected sensors available through remote modem communications.
9. Management of individual sensors and access to diagnostic reporting features must be available through remote modem communications.

2.10. Data Acquisition Integrity Routines

1. EDAS must have diagnostic reporting features including the following:
 1. Means of assessing time of next data acquisition for each sensor.
 2. Time of next HDR transmission or time to next HDR transmission (for Level 1 EDAS with GOES and Level 2 EDAS only).
2. EDAS acquisition and archiving routines must not be interrupted when a user is viewing or downloading data. This applies to communication via direct connect PC or modem.
3. Battery voltage must be archived in accordance with specification 2.9.1.3.
4. Internal temperature must be archived in accordance with specification 2.9.1.3 or transmission of internal temperatures must be possible at regular intervals.
5. When equipment is exposed to temperatures beyond the operating range specified in 1.1.1, equipment must automatically recommence normal operation when operating temperatures are achieved².

² After EDAS has stopped operations at -40C or lower, operation is to restart on rising (internal) temperatures of -30C or lower.

- 2.11. Memory/Data Storage
1. The EDAS must have internal memory capacity to handle the following:
For Level 1 EDAS: 365 days for one environmental parameter archived every 5 minutes plus three environmental parameters archived every 3 hours.
For Level 2 EDAS: 365 days for one environmental parameter archived every 5 minutes plus nine environmental parameters archived every 15 minutes.
 2. There must be a warning about potential memory erasure/data loss if user actions could result in such an occurrence.
 3. Must provide first in first out memory overwrite.
 4. Memory related to the operating program and data archive must be protected to maintain programmed parameters and data, for a period of not less than 1 year without primary power.
 5. Must have option to restrict access to programming and set-up parameters by password protection. Must have option to allow user access to data without password.
- 2.12. Data Handling,
Programming Interface,
Firmware and Software
1. The firmware that is resident in the EDAS must be software upgradeable using a method that does not require replacement of EDAS components.
 2. All interaction with EDAS programs including upgrades to EDAS firmware, data downloads and sensor configurations must be possible using a PC operating Microsoft Windows 7 or using a built-in user interface.
 3. Upload and download of parameter set-up sensor management, data acquisition, retrieval and transmission must be accomplished through menus or graphical forms.
 4. The EDAS must revert to previously stored configuration if abnormal exit from configuration routine occurs.
 5. EDAS must accept, store and output data that may have up to 7 significant digits not including decimal and sign.
 6. Data download:
 1. The data that is resident in the EDAS must be downloadable by direct connection to a PC or USB flash drive.
 2. For data archived as per Data Storage item 2.11.1 the elapsed time of download must not exceed five minutes from start of download to resultant ASCII file stored on PC or USB flash drive.
 3. The resultant output must be compatible with WSC data acquisition software. Appendix A.1 gives examples of ASCII in WSC formats (tabular or sequential). A .csv output is acceptable.
 4. Archive download operations must allow users to cancel downloads without negatively impacting operation of EDAS.
 7. EDAS must have a display that allows viewing of selected sensor output and calibration of sensors.
 1. Display must operate through an ambient temperature range of -20°C to +50°C.
- 2.13. Cables and accessories
1. Power cable and SDI-12 cables are to be supplied if a connector other than a terminal block is used. Power cable and SDI-12 cables provided must be minimum 2.0 m long.
 2. If an external modem is supplied,
 1. the communication cable between the modem and EDAS must be minimum 1.5 m long.
 2. the power/ power adaptor cable for the modem must be minimum 2 m long.
 3. If a cell modem is supplied the antenna cable for cell modem must be minimum 5.0m long.
- For Level 1 EDAS with GOES and Level 2 EDAS with GOES:
3. Cable for satellite antenna must be minimum 6.0 m long.
 4. Cable for GPS antenna must be minimum 6.0 m long.
- 2.14. Other
1. Manufacturer must be ISO certified.

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K3D35-160849

Amd. No. - N° de la modif.
File No. - N° du dossier
TOR-5-38162

Buyer ID - Id de l'acheteur
TOR033
CCC No./N° CCC - FMS No./N° VME

A.1 Data Format: Telephone or Direct Connect

FORMAT A (tabular)

Header section:

Station identification : Free format

Date column headers: Date, Time, Sensor code as defined by the data label, up to 8 characters, Sensor code ,
Refer to column width and spacing as defined below.

Text: Dash (-) optional.

Data String section: Each column has the related values/format: Date: 2
formats acceptable: yyyy/mm/dd or mm/dd/yyyy. (use of slash (/)
or dash (-) as separators are permitted) Column width: 10.

Space: 1.

Time: Format: hh:mm:ss, Column width: 8.

Space: 4.

Sensor value: 1) Value, ranging up to 7 digits as a minimum, excluding sign and decimal point
(variable position) (i.e. +or-#.###, +or-####.###, +or-
#####.##, etc.) in time ascending order.

2) Use of -999.99 or -9999.9 or -99999 to indicate missing data.

3) Blank to complete column width of 10.

4) 1 space between each sensor value column

EXAMPLE FORMAT A

The following is an example of Level 2 EDAS tabular format example with min/max occurrences logged (shown in italics). A format for Level 1 EDAS would be identical but without min/max data logged.

In this example, the EDAS interrogates the sensor every 5 minutes, logs the value every 60 minutes and logs the maximum and minimum value (based on the 5 minute readings) every 180 minutes. Min/max time stamps match first occurrence within min/max interval and may be written to output file at any location within the min/max interval.

02AB001 DATE: 10/01/2006 to 10/02/2006
DATE TIME VB HG

```
-----  
10/01/2006 00:00:00 13.40 5.822  
01:00:00 13.41 5.828  
02:00:00 13.40 5.835  
02:55:00 -99999 5.837  
03:00:00 13.29 5.837  
04:00:00 13.40 5.841  
05:00:00 13.40 5.844  
05:55:00 -99999 5.847  
06:00:00 13.38 5.847  
07:00:00 13.41 5.851  
08:00:00 13.41 5.855  
08:55:00 -99999 5.860  
09:00:00 13.41 5.858  
09:05:00 -99999 5.856  
10:00:00 13.48 -99999  
11:00:00 13.39 5.874  
11:35:00 -99999 5.880  
12:00:00 13.48 5.877  
13:00:00 13.37 5.885  
13:55:00 -99999 5.917  
14:00:00 13.29 5.885  
15:00:00 13.32 5.832
```

FORMAT (comma delimited, tabular)

Header section

Station identification : Free format

Headers: Date, Time, Sensor code(s) as defined by the data label, up to 8 characters, comma
delimited

Data String section: comma delimited

Date: 2 formats: yyyy/mm/dd or mm/dd/yyyy.

Time: Format: hh:mm:ss

Sensor value: 1) Value, variable position i.e. +or-#.###, +or-##.###, +or- #####.###, etc.. in time ascending order.

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CCC No./N° CCC - FMS No./N° VME

2) Use of -999.99 or -9999.9 or -99999 to indicate missing/bad data.

Scenario 2 with min and max shown in italics. (Min/max is a requirement for Level 2 EDAS only):
sample HG every 5 minutes, log every hour, show 5 minute max and min over 24 hour period. Sample and log VB
once per day.

DATA FROM: RID OTT DATE: 11/16/2000 to 11/17/2000

DATE, TIME, VB, HG

11/16/2000,00:00:00,14.01,2.800
11/16/2000,01:00:00,-99999,2.801
11/16/2000,02:00:00,-99999,2.801
11/16/2000,03:00:00,-99999,2.801
11/16/2000,04:00:00,-99999,2.801
11/16/2000,05:00:00,-99999,2.801
11/16/2000,06:00:00,-99999,2.801
11/16/2000,07:00:00,-99999,2.801
11/16/2000,08:00:00,-99999,2.802
11/16/2000,09:00:00,-99999,2.803
11/16/2000,09:30:00,-99999,2.955
11/16/2000,10:00:00,-99999,2.934
11/16/2000,11:00:00,-99999,2.892
11/16/2000,12:00:00,-99999,2.864
11/16/2000,13:00:00,-99999,2.847
11/16/2000,14:00:00,-99999,2.834
11/16/2000,15:00:00,-99999,2.825
11/16/2000,16:00:00,-99999,2.820
11/16/2000,17:00:00,-99999,2.817
11/16/2000,18:00:00,-99999,2.814
11/16/2000,19:00:00,-99999,2.816
11/16/2000,20:00:00,-99999,2.821
11/16/2000,21:00:00,-99999,2.830
11/16/2000,22:00:00,-99999,2.834
11/16/2000,23:00:00,-99999,2.837
11/17/2000,00:00:00,14.01,2.838
11/17/2000,01:00:00,-99999,2.838
11/17/2000,02:00:00,-99999,2.837
11/17/2000,03:00:00,-99999,2.834
11/17/2000,04:00:00,-99999,2.833
11/17/2000,05:00:00,-99999,2.831
11/17/2000,06:00:00,-99999,2.827
11/17/2000,07:00:00,-99999,2.825
11/17/2000,08:00:00,-99999,2.822
11/17/2000,09:00:00,-99999,2.820
11/17/2000,10:00:00,-99999,2.818
11/17/2000,11:00:00,-99999,2.816
11/17/2000,12:00:00,-99999,2.814

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FORMAT B (sequential)

Header section:

Station identification: Free format

Data String section:

Date identification at the beginning of each day.

Space: 2.

Delimiter: Forward slash (/) or comma (,).

Date: 2 formats: yyyy/mm/dd or mm/dd/yyyy

(use of slash (/) or dash (-) as separators are permitted),

column width: 10.

Delimiter: Forward slash (/) or comma (,).

Text: 10 alphanumeric characters, optional.

Each row to have the complete information on sensor code, value and time.

Sensor code: As defined by the data label, up to 8 characters,

blank to complete column width of 10.

Delimiter: Forward slash (/) or comma (,).

Sensor value: 1) Value, up to 7 digits as a minimum, excluding sign and decimal point

(variable position) (i.e. +or-##.###, +or-####.##, +or-#####.#, etc.) in time ascending order, right justified to the delimiter, blank to complete column width of 12.

2) -999.99 or -9999.9 or -99999 indicates missing data.

3) For Level 2 EDAS, max. and min. can be written anywhere within the day.

Delimiter: Forward slash (/) or comma (,).

Time: Format: hh:mm:ss, column width: 8

Example sequential format

Data from: 08JC001 DATE: 1996-11-21 to 1996-11-27

/1996-11-21/08JC001/

HG / 5.777/15:00:00

VB / 12.210/15:00:00

HG / 5.779/18:00:00

VB / 12.250/18:00:00

HG / 5.771/17:00:00

VB / 12.200/17:00:00

HG / 5.788/18:00:00

VB / 12.250/18:00:00

HG / 5.887/17:10:00

HG / 5.669/17:55:00

HG / 5.797/19:00:00

VB / 12.280/19:00:00

HG / 5.718/20:00:00

VB / 12.280/20:00:00

HG / 5.705/21:00:00

VB / 12.260/21:00:00

HG / 5.705/20:55:00

A.2 Data Format: GOES

Sample GOES messages (DAMS message and other header information are not included in these examples as this information is added by NESDIS)

Example #1: Hourly data sent at 3 hour interval. No redundant data sent, no minimum or maximum data logged or sent. Local offset is -5 hours from UTC

1st line is most recent transmission @ UTC time: 09044171520 where format is YYDDHHMMSS

2nd line is previous transmission @ UTC time: 09044141520

3rd line is transmission at UTC time: 09044111520

" :HG 15 #60 5.685 5.718 5.797 :VB 15 #60 12.3 12.2 12.2
:HG 15 #60 5.788 5.771 5.858 :VB 15 #60 12.3 12.3 12.3
" :HG 15 #60 5.832 5.885 0.001 :VB 15 #60 12.3 12.2 12.2

Example #2: Same as example #1 but with hourly data and 5 minute min and max for the 3 hour interval. Minimum and maximum data logging capabilities are a requirement for Level 2 EDAS only.

" :HG 15 #60 5.685 5.718 5.797 :HG 45 #180 5.810 :HG 160 #180 5.657 :VB 15 #60 12.3 12.2 12.2
:HG 15 #60 5.788 5.771 5.858 :HG 65 #180 5.887 :HG 20 #180 5.669 :VB 15 #60 12.3 12.3 12.3
" :HG 15 #60 5.832 5.885 0.001 :HG 80 #180 5.917 :HG 190 #180 0.001 :VB 15 #60 12.3 12.2 12.2

Example 3: GOES transmission with redundant data (i.e. data since the previous transmission plus the transmission prior.) No max/min.

1st line is most recent transmission @ UTC time: 09044171520

2nd line is previous transmission @ UTC time: 09044141520

" :HG 15 #60 5.685 5.718 5.797 5.788 5.771 5.858 :VB 15 #60 12.3 12.2 12.2 12.3 12.3 12.3
:HG 15 #60 5.788 5.771 5.858 5.832 5.885 0.001 :VB 15 #60 12.3 12.3 12.3 12.3 12.2 12.2

Example 4: GOES message with redundant data for previous transmission and min/max for both intervals

1st line is most recent transmission @ UTC time: 09044171520

2nd line is previous transmission @ UTC time: 09044141520

" :HG 15 #60 5.685 5.718 5.797 5.788 5.771 5.858 :HG 45 #180 5.810 :HG 160 #180 5.657 :HG 245 #180 5.887
:HG 200 #180 5.669 :VB 15 #60 12.3 12.2 12.2 12.3 12.3 12.3

:HG 15 #60 5.788 5.771 5.858 5.832 5.885 0.001 :HG 65 #180 5.887 :HG 20 #180 5.669 :HG 260 #180 5.917
:HG 365 #180 0.001 :VB 15 #60 12.3 12.3 12.3 12.3 12.2 12.2

A.3 References

3.1. GOES Data Collection Platform Radio Set (DCPRS) CERTIFICATION STANDARDS at 300 bps and 1200 bps V 2.0 available at http://noaasis.noaa.gov/DCS/docs/DCPR_CS2_final_June09.pdf.

3.2. For information about SDI-12, refer to the document entitled, "SDI-12 A Serial-Digital Interface Standard for Microprocessor-Based Sensors Version 1.3 January 12, 2009" available at www.sdi-12.org

ANNEX A – SECTION 2 OTHER MANDATORY REQUIREMENTS

- 1) Only Return to Depot Maintenance and Support, as required, must be provided in accordance with Supplemental General Conditions 4001, Hardware Purchase Lease or Maintenance, Part 5 section 25.**
 1. Reference to “or travel required” in section 4001 25 3 does not apply. Contractor will not be required to make site visits to repair or do maintenance.
 2. Section 4001 26 Classes of Hardware Maintenance Service, does not apply.
 3. The Principal Period of Maintenance is eight (8) hours each day sometime between 7 a.m. to 7 p.m., Eastern Time, Monday to Friday, not including statutory holidays observed by Canada. Offerors should state the selected eight hour block in their Technical Proposal.
 4. Section 4001 25 5 reference to “French” does not apply to this requirement.
 5. In section 4001 25 6 the reference to “French” does not apply to this requirement.

- 2) Firmware and software upgrades must be included in unit costs of equipment for the life of the equipment. Where proprietary software is submitted as part of a proposed solution, a perpetual license for the software to Water Survey of Canada is included in the unit price of the product. This license would also extend to 3rd parties, only where needed, for operating the WSC hydrometric network.**

- 3) The Standing Offer holder must guarantee a 45-calendar day repair turnaround time.**

- 4) Upon award and at the request of EC, supplier may be requested to provide 5 training sessions, each in a different Canadian city (accessible by an international airport or the largest city within a given province) with each session lasting no more than 2 days. The costs of training space, training supplies and trainer’s travel expenses are to be paid by the supplier. These would be for no more than 15 trainees at any given session.**

- 5) Revised manuals or pages covering revisions must accompany any revisions to firmware and software, including PC-resident software utilities. Operations and maintenance manuals and any updates to these, must be available in electronic form with a help access utility.**

- 6) Documentation on all identified deficiencies in hardware, firmware and software including those from third party suppliers that might affect the equipment supplied to Environment and Climate Change Canada (ECCC) must be provided to the ECCC designate stated herein.**

- 7) All new firmware releases and documentation explaining release changes, including bench test results, must be provided to the ECCC designate stated herein. Revised manuals or documents describing revisions shall accompany any revisions to firmware and software, including PC-resident software utilities.**

- 8) Supplier shall provide service at 1 or more sites in Canada for 10 years from date of last purchase.**

- 9) Any feature requiring the use of an EDAS-supplier hosted server or EDAS supplier subscription service must be included within the purchase price of the EDAS.**

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Amd. No. - N° de la modif.
 TOR033
 File No. - N° du dossier
 TOR-5-38162

Buyer ID - Id de l'acheteur
 TOR033
 CCC No./N° CCC - FMS No./N° VME

**ANNEX B
 BASIS OF PAYMENT**

Note: Text shown in italics will not be included in the resulting Standing Offer.

PRICING IS IN CANADIAN DOLLARS, FOB DESTINATION, ALL APPLICABLE CUSTOMS DUTIES AND EXCISE TAXES INCLUDED, GST/HST EXTRA AS APPLICABLE.

EDAS Level 1 (with modem)

1	Environmental Data Acquisition System Level 1 configured to support cellular modem communications	1 st yr of SO Firm Unit Prices	2nd yr of SO Firm Unit Prices	3rd yr of SO Firm Unit Prices	4th yr of SO Firm Unit Prices	Option yr 1 Firm Unit Prices	Option yr 2 Firm Unit Prices	Option yr 3 Firm Unit Prices	Specify Delivery in Days after Receipt of Order
<i>Specify prices for 1.1, 1.2, 1.3 and 1.4 below</i>									
1.1	Level 1 EDAS without modem	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	
1.2	Cellular Modem Hardware	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	
1.3	Landline Modem Hardware	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	
1.4	Communication cable EDAS-modem (if required)	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	
<i>Or prices for 1.5 and 1.6 below</i>									
1.5	Level 1 EDAS w/cellular modem	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	
1.6	Landline Modem Hardware	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	
<i>Then specify prices for accessories below</i>									
1.7	Cellular modem antenna and antenna cable	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	
1.8	Program terminal cable	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	

** If EDAS and cellular modem can be sold separately indicate prices in section 1.1, 1.2, 1.3 and 1.4.*

If the cellular modem is integrated into the EDAS and cannot be supplied separately, indicate price of combined EDAS and cellular modem transmitter in section 1.5.

Prices for EDAS include SDI-12 cables and power cables where specialized connectors are required

EDAS Level 1 (GOES)

2	Environmental Data Acquisition System Level 1 configured to support GOES communications*	1 st yr of SO Firm Unit Prices	2nd yr of SO Firm Unit Prices	3rd yr of SO Firm Unit Prices	4th yr of SO Firm Unit Prices	Option yr 1 Firm Unit Prices	Option yr 2 Firm Unit Prices	Option yr 3 Firm Unit Prices	Delivery in Days after Receipt of Order
<u>Specify prices for 2.1 and 2.2 below</u>									
2.1	Level 1 EDAS without GOES transmitter*	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	
2.2	GOES transmitter*	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	
<u>Or prices for 2.3 below</u>									
2.3	Level 1 EDAS with integrated GOES transmitter*	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	
<u>Then specify prices for accessories below</u>									
2.4	GOES antenna cable	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	
2.5	GOES antenna with mounting hardware	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	
2.6	GPS antenna with cable and	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	
2.7	Program terminal cable	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	

* If EDAS and GOES transmitters can be sold separately indicate prices in section 2.1 and 2.2 If the GOES transmitter is integrated into the EDAS and cannot be supplied separately, indicate price of combined EDAS and GOES transmitter in section 2.3.

Prices for EDAS include SDI-12 cables and power cables where specialized connectors are required

EDAS Level 2

3	Environmental Data Acquisition System Level 2 configured to support both modem and GOES communications*	1 st yr of SO Firm Unit Prices	2nd yr of SO Firm Unit Prices	3rd yr of SO Firm Unit Prices	4th yr of SO Firm Unit Prices	Option yr 1 Firm Unit Prices	Option yr 2 Firm Unit Prices	Option yr 3 Firm Unit Prices	Delivery in Days after Receipt of Order
<i>Specify prices for 3.1 and 3.2 below</i>									
3.1	Level 2 EDAS without modem or GOES transmitter	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	
3.2	GOES transmitter	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	
<i>Or prices for 3.3 below</i>									
3.3	Level 2 EDAS without modem but with integrated GOES transmitter	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	
<i>Then specify prices for accessories below</i>									
3.4	Cellular Modem Hardware	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	
3.5	Communication cable EDAS-cell modem (if required)	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	
3.6	Cellular modem antenna and antenna cable	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	
3.7	Landline Modem Hardware	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	
3.8	Communication cable EDAS-landline modem (if required)	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	
3.9	GOES antenna cable	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	
3.10	GOES antenna with mounting hardware	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	
3.11	GPS antenna with cable and mounting hardware	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	
3.12	Program terminal cable	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	\$ _____ ea	

* If EDAS and GOES transmitters can be sold separately, indicate prices in section 3.1 and 3.2. If the GOES transmitter is integrated into the EDAS and cannot be supplied separately, indicate price of combined EDAS and GOES transmitter in section 3.3. Prices for EDAS include SDI-12 cables and power cables where specialized connectors are required

DELIVERY

Firm Delivery Price is the delivery of 1 transmitter and required accessories for the 1 transmitter

Location	1 st yr of SO Firm Delivery Price	2nd yr of SO Firm Delivery Price	3rd yr of SO Firm Delivery Price	4th yr of SO Firm Delivery Price	Option yr 1 Firm Delivery Price	Option yr 2 Firm Delivery Price	Option yr 3 Firm Delivery Price
4.1 Burlington	\$	\$	\$	\$	\$	\$	\$
4.2 Ottawa	\$	\$	\$	\$	\$	\$	\$
4.3 North Bay	\$	\$	\$	\$	\$	\$	\$
4.4 Thunder Bay	\$	\$	\$	\$	\$	\$	\$
4.5 St. John's	\$	\$	\$	\$	\$	\$	\$
4.6 Fredericton	\$	\$	\$	\$	\$	\$	\$
4.7 Dartmouth	\$	\$	\$	\$	\$	\$	\$
4.8 Montreal	\$	\$	\$	\$	\$	\$	\$
4.9 Winnipeg	\$	\$	\$	\$	\$	\$	\$
4.10 Calgary	\$	\$	\$	\$	\$	\$	\$
4.11 Regina	\$	\$	\$	\$	\$	\$	\$
4.12 Nanaimo	\$	\$	\$	\$	\$	\$	\$
4.13 Vancouver	\$	\$	\$	\$	\$	\$	\$
4.14 Yellowknife	\$	\$	\$	\$	\$	\$	\$

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**ANNEX C
 STANDING OFFER REPORTING DATA**

The Offeror understands that it is their responsibility to implement a system for tracking call-ups against this standing offer in order to provide usage reports and ensure that the financial limitation is not exceeded. Failure to comply may result in the setting aside of the Standing offer.

Reports must be submitted to the Contracting Authority:

Report(s) is/are to be submitted every quarter, detailing the information below.

Offerors' Name: _____		Offeror's Contact Info: _____				
Title: _____						
Original Value of SO \$						
Standing Offer No.		Start Date of SO (DD/MM/YYYY)		End Date of SO (DD/MM/YYYY)		
Total Value to Date (\$)						
Location	Call-up No.	Product Description	Delivery Date	Call-up value (without tax)	HST/GST (as applicable)	Total

Included in the above report a separate spreadsheet must be provided for monthly Count as follows:

COUNT SUMMARY				
Code	May 2016	June 2016	July 2016	Etc.
1(a)				
1(b)				
1(c)				
1(d)				
1(e)				
1(f)				
Etc. (from Annex B)				

Refer to Part 6.A. Article 3.2

NIL Report: We have not done business with the federal government for this period ____

The FINAL REPORT is to provide a list showing items requisitioned that represent approximately the total value of all call-ups.

ANNEX D EVALUATION CRITERIA

1) MANDATORY REQUIREMENTS

Offerors must demonstrate compliance with all mandatory requirements of the RFSO to be considered responsive. Offerors who fail to meet all mandatory requirements at the time of bid closing will be considered non-responsive and will not be evaluated further. The following are the mandatory requirements of this RFSO:

1.1) Meeting the Mandatories in Annex A, Requirement:

The Offer must demonstrate that the Offeror meets all the mandatory requirements described in Annex A, for every category of equipment for which an Offer is being submitted. These mandatory requirements are designated by the use of the words "must" or "mandatory". If the mandatory criteria isn't demonstrated either by written documentation, the evaluator will determine if it can be proven by the sample provided. This is at the discretion of the evaluator and if determined it cannot be proven the offer will be deemed non-compliant.

1.2) Submission of Samples

Offerors must submit two production samples for evaluation purposes of the mandatory technical requirements. Any Offeror proposing a solution to any category detailed in Annex A, must submit two configured production models of their proposed solution for evaluation testing. All sample evaluation units must be delivered to the following address, at no cost to Canada.

Water Survey of Canada
Environment and Climate Change Canada
29 rue de Varennes, Gatineau J8T 8G7
ATTN: NISO evaluation
Phone contact 613-229-7709

The sample evaluation units should be delivered on or before the date and time of bid closing, but may be submitted afterwards. If the sample evaluation units are not submitted by date and time of bid closing, the Standing Offer Authority will so inform the Offeror and provide the Offeror with a time frame within which to meet the requirement. Failure to comply with the request of the Standing Offer Authority and meet the requirement within that time period will render the offer non-responsive.

All shipping boxes should be labelled with information that includes the same company name as appears on the technical and financial Offer, as well as a clear indication of which category/categories the shipped equipment applies to (categories are detailed in Annex "A"). It is not necessary to ship more than two units of the same EDAS if that EDAS is being proposed for more than one category.

Despite the written bid, if Canada determines as a result of examining and testing the sample that the Offeror's proposed product or solution does not meet the mandatory requirements of this solicitation, the Offer will be declared non-responsive and will not be evaluated further. Canada may, as a result of examining and testing the sample, reduce the score of the Offeror on any rated requirement, if the examination and testing of the sample indicates that the score provided to the Offeror on the basis of its written Offer is not validated by the examination.

1.3) Confirmation of Production model for EDAS:

The Offeror must prove that the proposed make and model of the EDAS is a production model and not a prototype. The Offeror must provide this proof by one of two ways:

1. Provide proof that the make and model of EDAS has been sold commercially for a period of at least one year.

Or

2. Provide a reference (may be one of the supplied references for the Rated Requirements, section 2) of an environmental monitoring organization that has purchased and deployed the proposed make and model of EDAS.

2) RATED REQUIREMENTS

Each Offer will be rated by assigning a score to the rated requirements, which are identified in the RFSO by the word "rated" or by reference to a score. Offerors who fail to submit complete Offers with all the information requested within this section will be rated accordingly. Offers not meeting the minimum points required for Rated Requirement 2.2, References and Rated Requirement 2.3, User Interface Rating Exercise, below will be considered non-responsive and will not be evaluated further.

The Offeror must provide each candidate with up to 6 hours of training either in person or by remote training methods, for each EDAS submitted. This is required for the candidates to evaluate the user interface as outlined in 2.3.

2.1) Rated Technical Requirements:

Offers should demonstrate how the Offeror will satisfy the rated requirements described below. The following is a breakdown of points available for each EDAS category.

Environmental Data Acquisition System (EDAS) Logger Configurations:
Level 1 EDAS with optional modem - 15 points
Level 1 EDAS with optional GOES - 45 points
Level 2 EDAS with optional modem, GOES or both - 45 points

RATED FEATURES FOR LEVEL 1 EDAS with modem option (landline or cellular):

Description of ratable feature	Point value
Option for local wireless communications between EDAS and PC. Operator must have option to disable wireless communications and must include automatic time out disable feature (power down) on wireless in order to be awarded points	5
Allows quick and simple graphical display of data time series for rapid assessment of sensor status. Graphical time series display interface with selectable time periods and individual sensors	2.5
Display functionality offering management of individual sensors, viewing continuous live readings Must operate down to -30C in order to be awarded points	2.5
Training material and user manual offered in French	5

Total number of points possible for Level 1 EDAS with modem: 15

RATED FEATURES FOR THE LEVEL 1 EDAS with GOES option:

Description of ratable feature	Criteria for points Where multiple criteria are listed, partial point values of the total may be awarded	Point value
Give points for additional GOES diagnostic/ troubleshooting features. Where the following information is easily accessed in main user interface	Voltage measurement under load at transmission	2
	Display current contents of transmission buffer or display sample transmission based on current configuration. User not required to wait for full transmission interval to view sample transmission	2
	Display remaining number of characters, data points or seconds for given GOES transmission window	2
	Status of GPS signal quality.	2
	Status history of transmissions including:	
	Tx Enabled/disabled	2
	# transmissions failed and code or description indicating reason of failure or time and date of last successful transmission	1
	Antenna aiming antenna guidance feature	2
	Ability to review forward/reflected power levels on site and program into transmission	2
Option for local wireless communications between EDAS and PC. Operator must have option to disable wireless communications and must include automatic time out disable feature (power down) on wireless in order to be awarded points		5
User programming interface that allows quick and simple graphical display of data time series for rapid assessment of sensor status. Graphical time series display interface with selectable time periods and individual sensors		5
Display functionality offering editing of DCP GOES programming parameters, management of individual sensors, viewing continuous live readings Must operate down to -30C in order to be awarded points		5
Programmable cut-off voltage for entire unit		5
Separate programmable cut-off voltage for GOES transmitter		5
Training material and user manual offered in French		5

Total number of points possible for Level 1 EDAS with GOES: 45

RATED FEATURES FOR THE LEVEL 2 EDAS:

Description of ratable feature	Criteria for points Where multiple criteria are listed, partial point values of the total may be awarded	Point value
Give points for additional GOES diagnostic/troubleshooting features. Where the following information is easily accessed in main user interface:	Voltage measurement under load at transmission	2
	Display current contents of transmission buffer or display sample transmission based on current configuration. User not required to wait for full transmission interval to view sample transmission	2
	Display remaining number of characters, data points or seconds for given GOES transmission window	2
	Status of GPS signal quality.	2
	Status history of transmissions including:	
	Tx Enabled/disabled	2
	# transmissions failed and code or description indicating reason of failure or time and date of last successful transmission	1
	Antenna aiming guidance feature	2
	Ability to review forward/reflected power levels on site and program into transmission	2
	User programming interface that allows quick and simple graphical display of data time series for rapid assessment of sensor status. Graphical time series display interface with selectable time periods and individual sensors	5
Display functionality offering editing of DCP GOES programming parameters, management of individual sensors, viewing continuous live readings. Must operate down to -30C in order to be awarded points	5	
Option for local wireless communications between EDAS and PC. Operator must have option to disable wireless communications and must include automatic time out disable feature (power down) on wireless in order to be awarded points.	5	
Programmable cut-off voltage for entire unit	5	
Separate programmable cut-off voltage for GOES transmitter	5	
Training material and user manual offered in French	5	

Total number of points possible for Level 2 EDAS: 45

2.2) References

Maximum points available - 30
Minimum points required - 15

For every category of equipment (stated in Annex A) for which an Offer is being submitted, Offerors are requested to submit four references from representatives of organizations or companies responsible for operating monitoring networks (the 4 references can be the same for each category). Canada will evaluate the first three which appear in the Offer. Canada will contact the fourth reference listed only if one of the first three references is not available to contact. At least one of the three references contacted must be for an environmental monitoring network of 25 stations or more operating in climatic conditions with winter operating temperatures below -25C. For each reference submitted, the referenced organization/company must have purchased the same brand (make) of product as the proposed product in the Offer but not necessarily the same model of product in order to receive points. If there is a conflict between the information provided by the customer reference and the Offer, the information provided by the customer reference will be evaluated instead of the information in the Offer. All references provided should contain the following information:

-
- Organization or company name
 - Contact name, title and telephone number
 - Alternate contact name, title and telephone number within same organization/company
 - Number of units sold, Brand and model of product

Each reference will be requested to comment on the following:

1. Is the product deployed as an environmental monitoring network of 25 stations or more operating in climatic conditions with winter operating temperatures below -25C
2. Level of satisfaction with the product (satisfactory or not satisfactory)
3. Overall reliability of product (satisfactory or not satisfactory)
4. Offerors' ability to resolve technical failures (satisfactory or not satisfactory)
5. Level of satisfaction with Offeror's overall performance (satisfactory or not satisfactory)

A reference is deemed invalid if the contact number(s) provided is (are) invalid or if the reference and alternate contact cannot be reached after 3 calls each.

Question 1 above must be answered yes for one of the three references contacted. If the answer is no for all 3 contacted references a score of zero will be assigned for all references.

Questions 2 to 5 above will be allotted 2.5 points for each answer of 'satisfactory' from a reference. 10 points are assigned to each of the 3 references for a maximum of 30 points. A minimum of 15 points is required.

2.3) User interface rating exercise

Maximum points available - 70
Minimum points required - 40

The 5 candidates' total points will be added up and divided by 5 to obtain the average.

For this rating exercise, 5 candidates will be selected from the Water Survey of Canada. Each candidate will be provided with up to 6 hours of training for each EDAS to be assessed, either in person or by remote training methods.

Each candidate will then complete the following tasks.

- Starting from initial configuration typical of a new EDAS (datalogger), the EDAS will be configured to read from two different SDI-12 sensors with specified SDI-12 addresses, one sensor will be for stage data. The data will be acquired and logged at specified time intervals and levels of precision and assigned typical SHEF codes. Basic diagnostic information including EDAS temperature and power levels will also be logged at a specified interval. A password will be set to prevent modification of the configuration by others. All necessary station identification will be entered
- For GOES equipped EDAS, the EDAS will be configured to a PDT address with a transmit interval, time slot and configuration of message. This message will be redundant, repeating the message from the previous interval.
- For level 2 EDAS units, one or two analog sensors will be connected and configured, this could be WSC commonly used linear or non-linear temperature sensors or pressure sensor for nitrogen cylinders.

- The previous configurations will be transferred to another datalogger and the necessary PDT information will be modified to use a different PDT.
- Candidate will complete a simulated field visit consisting of the following:
 - View latest archived sensor data.
 - Reset/calibrate SDI sensor to new reading.
 - Request and observe "live" acquisition for an SDI sensor.
 - Download archived data using a specific date range.

Once this work is complete, the following user interface rating questionnaire will be completed by each of the participants.

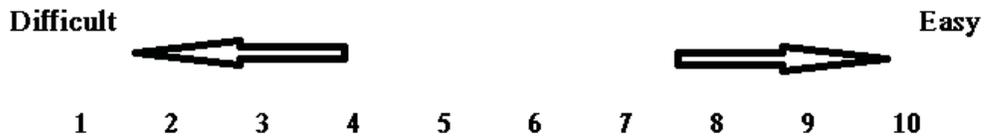
User Interface Rating Form³

This rating tool splits the user interface into 5 "dimensions", or aspects, of usability.

For each user interface dimension, rate the interface. Included in this rating form are descriptions of each user interface dimension. Add any comments that may help to explain the rating. If a specific dimension does not seem appropriate to the interface you are reviewing, do not circle any numbers on the scale for that dimension and add a brief comment to explain your response.

Weight x2 – total 20 points

1. Easy to Learn, likely to remember, error avoidance



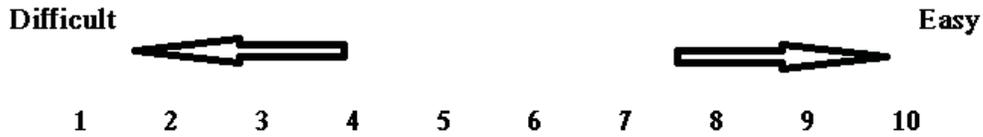
Is it easy or difficult to use? Was it easy to grasp the first time you used it?
Would you be likely to remember how to use it if you stopped for a couple of months?
Is it efficient, letting you get to the functions you want to access quickly?
Did you feel confident you did not make an error in configuring the datalogger?

Comments:

³ Adapted from Thomas C. Reeves, Ph.D. & Stephen W. Harmon, Ed.D., 1993

Weight x1 – total 10 points

2. Efficiency / Navigation of interface /Mapping where you are



Can you get to the features you want efficiently?

Is it difficult to navigate? An important aspect of navigation is orientation, i.e., do you feel that you know where you are in the program and how to go to another part of it? Or do you frequently complain of being lost in the interface?

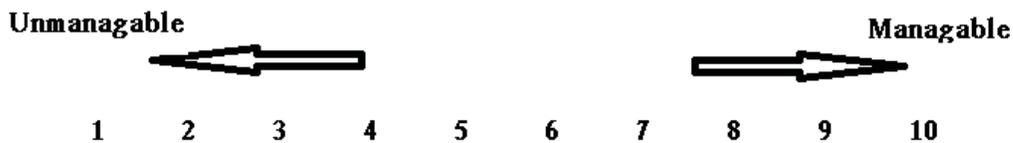
Does the interface graphically represent or let you track your path through the program? You are less likely to be disoriented if you can see what parts of the system you have already accessed and what parts you have not accessed. Do you have a sense of "the boundaries of the interface?"

Just as it is helpful to have a map at a suitable scale when taking a road trip, it's important for programs to provide enough, but not too much, detail in showing user paths. Too much detail is not much more useful than an interface with no map.

Comments:

Weight x0.5 – total 5 points

3. Cognitive Load



Working memory holds only five to nine chunks of information simultaneously. It can be difficult for users of complex programs when numerous pieces of information must be handled simultaneously. In terms of "cognitive load," the user interface can seem confusing at one end of the continuum and easily manageable (intuitive) at the other end.

Comments:

Weight x 0.5 – total 5 points

How are you coping with (a) the content of the program, (b) its structure, and (c) the response options available?

Do you feel overwhelmed by numerous options? There is a greater possibility of user disorientation with interfaces that feature a complex, flexible structure.

4. Information Presentation

Not clear



Clear



1 2 3 4 5 6 7 8 9 10

Is the information presented in a clear way? Is the terminology easy to understand?

Comments:

Weight x3 - total 30 points

5. Overall Functionality

Disfunctional



Functional



1 2 3 4 5 6 7 8 9 10

"Overall Functionality" combines ease of use with the ability to use the interface to do what you wish. Does it offer the features you expect?

Comments:

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Amd. No. - N° de la modif.
 1or005
 File No. - N° du dossier
 TOR-5-38162

Buyer ID - Id de l'acheteur
 1or005
 CCC No./N° CCC - FMS No./N° VME

**ANNEX E
 FINANCIAL EVALUATION**

For evaluation purposes, a price analysis will be performed using firm unit prices from Annex B – Basis of Payment and estimated quantities. The estimated quantities are used as a guideline for evaluation purposes and are not a guarantee of actual usage.

Offerors are not to complete this Annex.

Category 1: EDAS Level 1 with modem

Variation #1 (modem not integrated into EDAS):

	Estimated Quantity (Per Year)	1 st yr of SO Firm Unit Prices	2nd yr of SO Firm Unit Prices	3rd yr of SO Firm Unit Prices	4th yr of SO Firm Unit Prices	Option yr 1 Firm Unit Prices	Option yr 2 Firm Unit Prices	Option yr 3 Firm Unit Prices	Total Firm Extended Price
1.1	20								
1.2	20								
1.3	5								
1.4	20								
1.7	20								
1.8	20								

**CONTRACTING OFFICER TO
 COMPLETE AT TIME OF FINANCIAL
 EVALUATION**

Total Evaluated Cost \$ _____

Or Variation #2 (EDAS integrated cellular modem)

	Estimated Quantity (Per Year)	1 st yr of SO Firm Unit Prices	2nd yr of SO Firm Unit Prices	3rd yr of SO Firm Unit Prices	4th yr of SO Firm Unit Prices	Option yr 1 Firm Unit Prices	Option yr 2 Firm Unit Prices	Option yr 3 Firm Unit Prices	Total Firm Extended Price
1.5	Level 1 EDAS w/integrated cellular modem	20							
1.3	Landline Modem Hardware	5							
1.7	Cellular modem antenna and antenna cable	20							
1.8	Program terminal cable	20							
CONTRACTING OFFICER TO COMPLETE AT TIME OF FINANCIAL EVALUATION									

Total Evaluated Cost \$ _____

Category 2: EDAS Level 1 with GOES

Variation #1 with separate GOES transmitter

	Estimated Quantity (Per Year)	1 st yr of SO Firm Unit Prices	2nd yr of SO Firm Unit Prices	3rd yr of SO Firm Unit Prices	4th yr of SO Firm Unit Prices	Option yr 1 Firm Unit Prices	Option yr 2 Firm Unit Prices	Option yr 3 Firm Unit Prices	Total Firm Extended Price
2.1	50	Level 1 EDAS without GOES transmitter							
2.2	50	GOES transmitter							
2.4	20	GOES antenna cable							
2.5	20	GOES antenna with mounting hardware							
2.6	50	GPS antenna with cable and mounting hardware							
2.7	50	Program terminal cable							

CONTRACTING OFFICER TO COMPLETE AT TIME OF FINANCIAL EVALUATION

Total Evaluated Cost \$ _____

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Or Variation #2 EDAS with integrated GOES transmitter

	Estimated Quantity (Per Year)	1 st yr of SO Firm Unit Prices	2nd yr of SO Firm Unit Prices	3rd yr of SO Firm Unit Prices	4th yr of SO Firm Unit Prices	Option yr 1 Firm Unit Prices	Option yr 2 Firm Unit Prices	Option yr 3 Firm Unit Prices	Total Firm Extended Price
2.3	50	Level 1 EDAS with integrated GOES transmitter							
2.4	20	GOES antenna cable							
2.5	20	GOES antenna with mounting hardware							
2.6	50	GPS antenna with cable and mounting hardware							
2.7	50	Program terminal cable							
CONTRACTING OFFICER TO COMPLETE AT TIME OF FINANCIAL EVALUATION									

Total Evaluated Cost \$ _____

Category 3: EDAS Level 2 with GOES

Variation #1 with separate GOES transmitter

	Estimated Quantity (Per Year)	1st yr of SO Firm Unit Prices	2nd yr of SO Firm Unit Prices	3rd yr of SO Firm Unit Prices	4th yr of SO Firm Unit Prices	Option yr 1 Firm Unit Prices	Option yr 2 Firm Unit Prices	Option yr 3 Firm Unit Prices	Total Firm Extended Price
3.1	Level 2 EDAS without modem or GOES transmitter 100								
3.2	GOES transmitter 100								
3.4	Cellular Modem Hardware 25								
3.5	Communication cable EDAS-modem 25								
3.6	Cellular modem antenna and antenna cable 25								
3.7	Landline Modem Hardware 25								
3.9	GOES antenna cable 50								
3.10	GOES antenna with mounting hardware 50								

CONTRACTING OFFICER TO COMPLETE AT TIME OF FINANCIAL EVALUATION

Solicitation No. - N° de l'invitation
 K3D35-160849/A
 Client Ref. No. - N° de réf. du client
 K3D35-160849

Amd. No. - N° de la modif.
 File No. - N° du dossier
 TOR-5-38162

Buyer ID - Id de l'acheteur
 1or005
 CCC No./N° CCC - FMS No./N° VME

3.11	GPS antenna with cable and mounting hardware	100
3.12	Program terminal cable	100

Total Evaluated Cost \$ _____

Or Variation #2 EDAS with integrated GOES transmitter

	Estimated Quantity (Per Year)	1st yr of SO Firm Unit Prices	2nd yr of SO Firm Unit Prices	3rd yr of SO Firm Unit Prices	4th yr of SO Firm Unit Prices	Option yr 1 Firm Unit Prices	Option yr 2 Firm Unit Prices	Option yr 3 Firm Unit Prices	Total Firm Extended Price
3.3	Level 2 EDAS with integrated GOES transmitter	100							
3.4	Cellular Modem Hardware	25							
3.5	Communication cable EDAS-modem	25							
3.6	Cellular modem antenna and antenna cable	25							
3.7	Landline Modem Hardware	25							
3.9	GOES antenna cable	50							

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3.10	GOES antenna with mounting hardware	50
3.11	GPS antenna with cable and mounting hardware	100
3.12	Program terminal cable	100

Total Evaluated Cost \$ _____