



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

**Bid Receiving - PWGSC / Réception des  
soumissions - TPSGC**  
11 Laurier St. / 11, rue Laurier  
Place du Portage, Phase III  
Core 0B2 / Noyau 0B2  
Gatineau, Québec K1A 0S5  
Bid Fax: (819) 997-9776

**REQUEST FOR PROPOSAL  
DEMANDE DE PROPOSITION**

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

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

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

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

**Comments - Commentaires**

<b>Title - Sujet</b> COBHAM Automated Radio Test sets	
<b>Solicitation No. - N° de l'invitation</b> W6399-170370/A	<b>Date</b> 2017-09-21
<b>Client Reference No. - N° de référence du client</b> W6399-170370	
<b>GETS Reference No. - N° de référence de SEAG</b> PW-\$\$QD-028-26448	
<b>File No. - N° de dossier</b> 028qd.W6399-170370	<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 2017-11-03</b>	
<b>Time Zone</b> <b>Fuseau horaire</b> Eastern Daylight Saving Time EDT	
<b>F.O.B. - F.A.B.</b> <b>Plant-Usine:</b> <input type="checkbox"/> <b>Destination:</b> <input type="checkbox"/> <b>Other-Autre:</b> <input type="checkbox"/>	
<b>Address Enquiries to: - Adresser toutes questions à:</b> Garate, Oscar	<b>Buyer Id - Id de l'acheteur</b> 028qd
<b>Telephone No. - N° de téléphone</b> (819) 420-1768 ( )	<b>FAX No. - N° de FAX</b> (819) 956-0636
<b>Destination - of Goods, Services, and Construction:</b> <b>Destination - des biens, services et construction:</b>  Specified Herein Précisé dans les présentes	

**Instructions: See Herein**

**Instructions: Voir aux présentes**

**Vendor/Firm Name and Address**

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

**Issuing Office - Bureau de distribution**

Defence Communications Division. (QD)  
11 Laurier St./11, rue Laurier  
Place du Portage, Phase III, 8C2  
Gatineau, Québec K1A 0S5

<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</b> <b>(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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**ANNEX A - STATEMENT OF REQUIREMENT**

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CERTIFICATION**

## **PART 1 - GENERAL INFORMATION**

### **1 Introduction**

The bid solicitation is divided into seven parts plus attachments and annexes, as follows:

- Part 1 General Information: provides a general description of the requirement;
- Part 2 Bidder Instructions: provides the instructions, clauses and conditions applicable to the bid solicitation;
- Part 3 Bid Preparation Instructions: provides Bidders with instructions on how to prepare their bid;
- Part 4 Evaluation Procedures and Basis of Selection: indicates how the evaluation will be conducted, the evaluation criteria that must be addressed in the bid, and the basis of selection;
- Part 5 Certifications and Additional Information: includes the certifications and additional information to be provided;
- Part 6 Security, Financial and Other Requirements: includes specific requirements that must be addressed by Bidders; and
- Part 7 Resulting Contract Clauses: includes the clauses and conditions that will apply to any resulting contract.

### **2 Summary**

- 2.1 This solicitation is being issued to satisfy the requirement of the Department of National Defence for the acquisition initially of five (5) Configurable Automatic Test Set, COBHAM, part number 7200B and accessories as listed in the ANNEX D Operational Performance and Technical Specifications and Annex B- Bases of Payment.
- 2.2 The requirement is subject to the provisions of the the Canadian Free Trade Agreements (CFTA).

### **3 Debriefings**

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

## **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 (2017-04-27) Standard Instructions - Goods or Services - Competitive Requirements, are incorporated by reference into and form part of the bid solicitation.

Subsection 5.4 of 2003, Standard Instructions - Goods or Services - Competitive Requirements, is amended as follows:

Delete: 60 days  
Insert: 120 days

### **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.

Due to the nature of the bid solicitation, bids transmitted by facsimile to PWGSC will not be accepted.

### **3 Enquiries - Bid Solicitation**

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

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

### **4 Applicable Laws**

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

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

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

### **1 Bid Preparation Instructions**

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

Section I: Technical Bid (2 hard copies and 1 soft copy on USB key)

Section II: Financial Bid (1 hard copy and 1 soft copy on USB key)

Section III: Certifications and Additional Information (1 hard copy)

If there is a discrepancy between the wording of the soft copy and the hard copy, the wording of the hard copy will have priority over the wording of the soft 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>). 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 demonstrate their understanding of the requirements contained in the bid solicitation and explain how they will meet these requirements. Bidders should demonstrate their capability and describe their approach in a thorough, concise and clear manner for carrying out the work.

For Mandatory Technical Requirements, bidders must use Annex C– Technical Evaluation Matrix and Bid Compliance to provide their responses.

The technical bid should address clearly and in sufficient depth the points that are subject to the evaluation criteria against which the bid will be evaluated. Simply repeating the statement contained in the bid solicitation is not sufficient. In order to facilitate the evaluation of the bid, Canada requests that Bidders address and present topics in the order of the evaluation criteria under the same headings. To avoid duplication, Bidders may refer to different sections of their bids by identifying the specific paragraph and page number where the subject topic has already been addressed.

Bidders should provide the page number and exact location of the brochures, document, and evidence of compliance, proof or any other material submitted with the Technical Bid to demonstrate compliance.

Bidder should provide their responses in its technical proposal as per the following:

- 1) A compliance statement ("Compliant" or "Non-compliant"). "Compliant" statement will be interpreted as meaning full agreement with the requirement, whereas a "Non-complaint" statement will be interpreted as meaning not in full agreement with the requirement and the proposal will be deemed non-responsive and not given any further consideration.
- 2) For mandatory requirements, statements such as "Read", "Comply with Intent", "Partial Compliance", "Noted" or the like will be considered as non-responsive; Paragraphs, elements and subparagraphs that convey information rather than a requirement must be marked with "Noted and Understood".

## **Section II: Financial Bid**

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

The requirement does not offer exchange rate fluctuation risk mitigation. Requests for exchange rate fluctuation risk mitigation will not be considered. All bids including such provision will render the bid non-responsive.

For Firm Quantities listed in Annex B - Basis of Payment, the Bidder must submit Firm Fixed Unit Prices.

For Optional Quantities listed in Annex B - Basis of Payment, the Bidder must submit Firm Fixed Unit Prices.

Note: Extended Price is the product of Unit Price multiplied by the total quantity.

## **Section III: Certifications**

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

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

### **Evaluation Procedures**

- (a) Bids will be evaluated to determine if they comply with the entire requirement of the RFP including the technical and financial evaluation criteria.
- (b) Bids that do not meet all of the RFP requirements will be declared non-responsive and the Bid will receive no further consideration.
- (c) The quality and completeness of the Bids will form the basis of the evaluation.
- (d) **MANDATORY REQUIREMENTS:** All MANDATORY requirements are identified specifically with the word "shall", "must", "will", or "mandatory".
- (e) An evaluation team composed of representatives of Canada will evaluate the Bids.

### **4.1 Technical Evaluation**

Bidders must provide all information as requested in the Request for Proposal to enable complete evaluation.

Bidders must meet or exceed the mandatory requirements listed in Annex A – Statement of Requirement and Annex D – Operational Performance and Technical Specifications.

The evaluation will be conducted in two stage process as defined below:

- 1- Bids will be evaluated for their compliance with all the mandatory requirements as detailed in Annex A – Statement of Requirement in accordance with Compliance Matrix.
- 2- Bids meeting the mandatory requirements, will proceed to the Financial evaluation. Bids not meeting the mandatory criteria will be deemed non-responsive and will not receive any further consideration.

### **4.2 Financial Bid Evaluation**

The Financial Bid will be evaluated as follows:

- (a) Bidders must submit firm unit prices DDP Incoterms 2000, FOB destination, and firm parts mark-up rate in percentage, Canadian customs duties and excise taxes included, and the applicable taxes excluded.
- (b). Financial bids will be evaluated in Canadian currency. Prices submitted in foreign currency will be converted into Canadian dollars based on the exchange rate provided by the Bank of Canada on the RFP solicitation period closing date and the resulting conversion values will be used for the evaluation.
- (c) Financial bids will be evaluated based on prices received from Bidders set out in Annex B – Basis of Payment. No other pricing or financial information, if provided, will be evaluated.

### **4.3 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, including year options, will be recommended for award of a contract.

## **PART 5 – CERTIFICATIONS AND ADDITIONAL INFORMATION**

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

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

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

### **1 Certifications Required with the Bid**

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

#### **1.1 Integrity Provisions - Declaration of Convicted Offences**

As applicable, pursuant to subsection Declaration of Convicted Offences of section 01 of the Standard Instructions, the Bidder must provide with its bid, 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

### **2 Certifications Precedent to Contract Award and Additional Information**

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

#### **2.1 Integrity Provisions – Required Documentation**

In accordance with the Ineligibility and Suspension Policy (<http://www.tpsgc-pwgsc.gc.ca/ci-if/politique-policy-eng.html>), the Bidder must provide the required documentation, as applicable, to be given further consideration in the procurement process.

#### **2.2 Federal Contractors Program for Employment Equity - Bid Certification**

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

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

The Bidder must provide the Contracting Authority with a completed **Appendix 1 to Part 5** titled Federal Contractors Program for Employment Equity – Certification, before contract award. If the Bidder is a Joint Venture, the Bidder must provide the Contracting Authority with a completed annex Federal Contractors Program for Employment Equity - Certification, for each member of the Joint Venture.

**PART 6 - SECURITY, FINANCIAL AND OTHER REQUIREMENTS**

**1 Security Requirements**

No Security Requirements.

## **PART 7 - RESULTING CONTRACT CLAUSES**

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

### **1 Statement of Requirement**

The Contractor must perform the Work in accordance with the Statement of Requirement at Annex A and the Contractor's technical bid entitled \_\_\_\_\_, dated \_\_\_\_\_.

#### **1.1 Optional Goods and/or Services**

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

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

### **2 Task Authorization**

The Work or a portion of the Work to be performed under the Contract will be on an "as and when requested basis" using a Task Authorization (TA). The Work described in the TA must be in accordance with the scope of the Contract.

#### **2.1 Task Authorization Process**

The Technical Authority will provide the Contractor with a description of the task using the DND 626, Task Authorization Form specified in Annex E.

The Task Authorization (TA) will contain the details of the activities to be performed, a description of the deliverables, and a schedule indicating completion dates for the major activities or submission dates for the deliverables. The TA will also include the applicable basis (bases) and methods of payment as specified in the Contract.

The Contractor must provide the Procurement/Contracting Authority (depending on dollar value), within ten (10) calendar days of its receipt, the proposed total estimated cost for performing the task and a breakdown of that cost, established in accordance with the Basis of Payment specified in the Contract.

The Contractor must not commence work until a TA authorized by the Procurement/Contracting Authority has been received by the Contractor. The Contractor acknowledges that any work performed before a TA has been received will be done at the Contractor's own risk.

#### **2.2 Task Authorization Limit**

The Procurement Authority may authorize individual task authorizations up to a limit of \$40,000.00, Applicable Taxes included, inclusive of any revisions.

Any task authorization to be issued in excess of that limit must be authorized by Contracting Authority before issuance.

### **2.3 Canada's Obligation - Portion of the Work - Task Authorizations**

Canada's obligation with respect to the portion of the Work under the Contract that is performed through task authorizations is limited to the total amount of the actual tasks performed by the Contractor.

### **2.4 Periodic Usage Reports - Contracts with Task Authorizations**

The Contractor must compile and maintain records on its provision of services to the federal government under authorized Task Authorizations issued under the Contract.

The Contractor must provide this data in accordance with the reporting requirements detailed below. If some data is not available, the reason must be indicated. If services are not provided during a given period, the Contractor must still provide a "nil" report.

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

The quarterly periods are defined as follows:

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

The data must be submitted to the Contracting Authority no later than thirty (30) calendar days after the end of the reporting period.

### **2.5 Reporting Requirement - Details**

A detailed and current record of all authorized tasks must be kept for each contract with a task authorization process. This record must contain:

#### **(a) For each authorized task**

- i. the authorized task number or task revision number(s);
- ii. a title or a brief description of each authorized task;
- iii. the total estimated cost specified in the authorized Task Authorization (TA) of each task, exclusive of Applicable Taxes;
- iv. the total amount, exclusive of Applicable Taxes, expended to date against each authorized task;
- v. the start and completion date for each authorized task; and
- vi. the active status of each authorized task, as applicable.

#### **(b) For all authorized tasks:**

- i. the amount (exclusive of Applicable Taxes) specified in the contract (as last amended, as applicable) as Canada's total liability to the contractor for all authorized TAs; and
- ii. the total amount, exclusive of Applicable Taxes, expended to date against all authorized TAs.

### **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**

4011 (2012-07-16), General Conditions - Medium Complexity – Goods.

**4 Security Requirements**

No Security Requirements.

**5 Term of Contract****5.1 Period of the Contract**

The contract period is one (1) year from the date of contract award.

**5.2 Delivery Date**

All deliverables must be received no later than 90 days after contract is awarded.

**5.3 Option to Extend the Contract**

The Contractor grants to Canada the irrevocable option to extend the term of the Contract up to four (4) additional one (1) year period under the same conditions. The Contractor agrees that, during the extended period of the Contract, it will be paid in accordance with the applicable provisions as set out in the Annex B - Basis of Payment.

Canada may exercise this option at any time by sending a written notice to the Contractor at any time before the expiry date of the Contract. The option may only be exercised by the Contracting Authority, and will be evidenced for administrative purposes only, through a contract amendment.

**5.4 Delivery Points**

Delivery of the requirement will be made to delivery point(s) specified at Annex A and Annex B of the Contract.

**6 Authorities****6.1 Contracting Authority**

The Contracting Authority for the Contract is:

Oscar Garate  
Public Services and Procurement Canada  
Acquisitions Branch  
Land and Aerospace Equipment Procurement and Support Sector (LAEPSS)  
Place du Portage, Phase III, 11Laurier Street, Gatineau, QC K1A 0S5  
Government of Canada  
Telephone: (819) 420-1768  
Facsimile: (819) 953-4510  
E-mail address: [oscar.garate@tpsgc-pwgsc.gc.ca](mailto:oscar.garate@tpsgc-pwgsc.gc.ca)

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

## **6.2 Technical Authority**

The Technical Authority for the Contract is:

*To be inserted at contract award.*

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

## **6.3 Procurement Authority**

The Procurement Authority for the Contract is:

*To be inserted at contract award.*

The Procurement Authority is the representative of the department or agency for whom the Work is being carried out under the Contract. The Procurement Authority is responsible for the implementation of tools and processes required for the administration of the Contract. The Contractor may discuss administrative matters identified in the Contract with the Procurement Authority however the Procurement Authority has no authority to authorize changes to the scope of the Work. Changes to the scope of Work can only be made through a contract amendment issued by the Contracting Authority.

## **6.4 Contractor's Representative**

*To be inserted at contract award.*

## **7 Payment**

### **7.1 Basis of Payment**

In consideration of the Contractor satisfactorily completing all of its obligations under the Contract, the Contractor will be paid in accordance with Annex B – Basis of Payment. Customs duties are included and Applicable Taxes are extra.

For the firm price portion of the Work only, 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.

Canada's obligation with respect to the portion of the Work under the Contract that is performed through task authorizations is limited to the total amount of the actual tasks performed by the Contractor.

### **7.2 Method of Payment**

H1001C (2008-05-12) Multiple Payments

## **8 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.

Each invoice must be supported by:

- b. a copy of the release document and any other documents as specified in the Contract;
  - c. a copy of the invoices, receipts, vouchers for all direct expenses;
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.

## **9 SACC Manual Clauses**

B1006T (2011-05-16) Condition of Material – Department of National Defence  
D2000C (2007-11-30) Marking  
D2001C (2007-11-30) Labelling  
D3018C (2014-09-25) Packaging Requirement using Specification D-LM-008-036/SF-000  
D6012C (2008-05-12) Shipping Instructions  
D5545C (2010-08-16) Quality Assurance Code “C”  
A9062C (2011-05-16) Canadian Forces Site Regulations  
C2604C (2013-04-25) Customs Duties, Excise Taxes and Applicable Taxes – Non Resident  
D5620C (2012-07-16) Release Documents  
B7500C (2006-06-26) Excess Goods  
D9002C (2007-11-30) Incomplete Assembly

## **10 Certifications and Additional Information**

### **10.1 Compliance**

Unless specified otherwise, the continuous compliance with the certifications provided by the Contractor in its bid or precedent to contract award, and the ongoing cooperation in providing additional information are conditions of the Contract and failure to comply will constitute the Contractor in default. Certifications are subject to verification by Canada during the entire period of the Contract.

## **11 Applicable Laws**

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

## **12 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) General Conditions – Goods (Medium Complexity), 2010A (2016-04-04);
- (c) General Conditions – Services (Medium Complexity), 2010C (2016-04-04);
- (d) Annex A, Statement of Requirement;
- (e) Annex B, Basis of Payment;

- (f) the signed Task Authorizations (including all of its annexes, if any);
- (h) the Contractor's bid dated \_\_\_\_\_, *(to be inserted at Contract award)*

### **13 Insurance Requirements**

The Contractor is responsible for deciding if insurance coverage is necessary to fulfill its obligation under the Contract and to ensure compliance with any applicable law. Any insurance acquired or maintained by the Contractor is at its own expense and for its own benefit and protection. It does not release the Contractor from or reduce its liability under the Contract.

### **14 Export License**

It shall be the Contractor's responsibility to ensure that any and all export licenses and any other releases are obtained prior to shipment of all deliverables, goods and data as required. Failure to obtain the same shall not excuse the Contractor from its responsibility to deliver on schedule.

### **15 Contractual Disputes**

The following procedures for the settlement of any disputes which may arise throughout the life of this Contract shall prevail:

(1) Disputes arising from this Contract will in the first instance be resolved by the Contracting Authority and the Contractor's Contract Administrator within fifteen (15) working days or such additional time as may be agreed to by both parties.

(2) Failing resolution under (1) above, the Manager, Defence Communications Division, Electronics, Munitions and Tactical Systems Procurement Directorate (EMTSPD), Defence and Major Projects Sector (DMPS) and the Contractor's Representative Supervisor will attempt to resolve the dispute within an additional fifteen (15) working days.

Failing resolution under (1) or (2), the Senior Director of EMTSPD, DMPS and the Contractor's equivalent Senior Management will attempt to resolve the dispute within an additional thirty (30) working days.

## STATEMENT OF REQUIREMENT

### 1.0 SCOPE

#### 1.1 Purpose

The purpose of this statement of work is to define the scope and requirements that apply to the provision of commercial-off-the-shelf (COTS) Automated Radio Test Equipment to the Department of National Defence (DND).

#### 1.2 Background

DND has a requirement for automated radio test equipment to verify operational performance of radios prior to deployment. The system must provide an automated "script" testing capability to reduce the work load on the technicians performing the verifications. This equipment will be referred to as the Automated Radio Test Equipment.

#### 1.3 Applicable Documents

The following documents form part of this statement of work to the extent specified and are supportive of this statement of work when referenced; any other documents are to be considered supplemental information only. In the event of a conflict between the documents and the contents of this statement of work, then the contents of this statement of work must take precedence.

- MIL-HDBK-61A (SE) Configuration Management Guidance (everyspec.com)

#### 1.4 Definitions

OEM Level Repair	Any tasks required to bring an item to full serviceable condition. OEM repair will typically involve identification and correction of those specific effects, which degrade the performance of an item, causing it to function below the specifications.
Turn Around Time	The time from when a non-serviceable item arrives at the Contractor repair facility to when the repaired item departs the repair facility, en route to its destination

#### 1.5 Acronyms

AWR	Additional Work Request
CFB	Canadian Forces Base
COTS	Commercial-Off-The-Shelf
DND	Department of National Defence
ISO	International Standards Organization
MRSPL	Manufacturer's Recommended Spare Parts List
NATO	North Atlantic Treaty Organization
OEM	Original Equipment Manufacturer
PA	Procurement Authority
TA	Technical Authority

### 2.0 DELIVERABLES

The Contractor must deliver Automated Radio Test Equipment as follows:

- (a) Configurable Automated Test Set, COBHAM, model 7200B, in accordance with the Operational Performance and Technical Specifications at Annex D, as follows:

- i. **Delivery Point 1 (DP 1)** - Quantity two (2);  
Department of National Defence  
CANSOFCOM  
8355 Franktown Road  
Richmond ON, K0A 2Z0  
Canada
- ii. **Delivery Point 2 (DP 2)** - Quantity one (1); and  
Department of National Defence  
Canadian Special Operation Regiment unit z-106  
46 Centurion Road  
Petawawa ON, K8H 2X3  
Canada
- iii. **Delivery Point 3 (DP 3)** - Quantity two (2) to be requested within 12 months after contract award.  
Department of National Defence  
TBD Ontario  
Canada

- (b) Additional accessories as follows:

Item	Description	DP 1	DP 2	DP 3
1	Auto Test Development Environment, COBHAM p/n 139264	2	1	2
2	Rack Mount Kit, COBHAM part number 88574	2	1	2
3	Transit Case, COBHAM part number 86170	1	1	1
4	Programmable Power Supply (750 W) COBHAM p/n 88863	2	1	2
5	External Power Supply Transit Case, COBHAM part number 88770	2	1	2
6	ZIFF Mating Connector, COBHAM part number 86474	2	1	2
7	External Power Supply Cable Assembly, COBHAM p/n 88991	2	1	2
8	Calibration- as per the OEM's "Recommended Calibration Cycle"	5	2	5

- (c) A Technical Data Package (TDP) in accordance with Section 2.1;
- (d) Training in accordance with Section 2.2;
- (e) Extended Warranty, In-Service Support (ISS) in accordance with Section 3.1; and
- (f) A Manufacturer's Recommended Spare Parts List (MRSPL) to include the following information for each item (MS Word or PDF format):
  - i. Item Name and Description;
  - ii. NCAGE;
  - iii. Manufacturer Part Number (MPN);
  - iv. NATO Stock Number (if available);
  - v. Price;
  - vi. Size/Weight; and
  - vii. Shelf life (if applicable).

## 2.1 Technical Data Package

The Contractor must provide an initial TDP, in English, to DND as follows:

- (a) One (1) hard copy and one (1) electronic copy (MS Word or PDF format) of the Operators Manual with each device that includes illustrated set-up, operating, preventive and user maintenance, troubleshooting and safety instructions; and
- (b) One (1) hard copy of the Maintenance/Repair Manual with each device that includes all first and second line repairs of the device and an illustrated parts list in a top-down breakdown format with the following information for each item:
  - i. Parts descriptions;
  - ii. Manufacturer's part numbers;
  - iii. Source of supply; and
  - iv. NATO Stock Number (NSN) if available;

Note: The operator and maintenance manuals may be delivered as one manual.

## 2.2 Training

The Contractor must provide "Train-the-Trainer" training as follows:

- (a) An outline for the Training Course (MS Word, MS PowerPoint or PDF format) for approval within thirty (30) days of Contract Award;
- (b) Up to three (3) days, eight (8) hours per day, Operator/Maintenance course as follows:
  - i. Training at the Contractor's facility;
  - ii. Training for up to six (6) DND candidates;
  - iii. For each course, each candidate is to be provided with a copy of the respective system training courses and manuals (as required) in both hard copy and in electronic format (MS Word, MS PowerPoint or PDF);
  - iv. The following instruction (as a minimum):
    - a. Complete description of theory of operation and performance capability of the system;
    - b. Hands-on familiarization to include:
      1. Battery/power requirements;
      2. Function knobs;
      3. Modes of operation;
      4. Data input configurations and functionality;
      5. User trouble shooting;
      6. Repair and testing techniques for the system; and
      7. Calibration methods of the system;
    - c. Care and cleaning requirements of the system inclusive of approved cleaning products and methods; and
    - d. Inspection requirements of the system; Fault finding of the system inclusive of a fault finding flow chart.

## 3.0 **REQUIREMENTS**

### 3.1 Extended Warranty - ISS

The in-service support requirements for the Automated Radio Test Equipment include the following:

- (a) Technical support in accordance with Section 3.1.2.

#### 3.1.1.1 Repair to Product Baseline

Following repair, the Contractor must ensure all Automated Radio Test Equipment components are in accordance with the current (at time of repair) approved Product Baseline for the Automated Radio Test Equipment system prior to being returned to DND. Following repair or maintenance, the Contractor must conduct performance testing to ensure proper operation of the Automated Radio Test Equipment component, and then ship the component(s) to the delivery point specified in the delivery order, unless otherwise requested by the PA.

#### 3.1.1.2 Contractor Supplied Parts

The Contractor must be responsible to provide the repair parts required for warranty, including the location of sources for the required parts. The Contractor is not required to maintain a spares inventory specifically for DND; however, they must maintain a spares supply chain that is compatible with the targeted turn-around time (TAT). The targeted TAT is thirty (30) calendar days after receipt of the delivery order (warranty repair) or PA approval (AWR repair). Where this target cannot be met, the Contractor must immediately notify the PA of the delay and of any extenuating circumstances that would cause significant impediment to timely completion of the repair. In the event that an original part is no longer available and the Contractor determines that a replacement part will serve with respect to fit, form, function and reasonable cost, then the use of that part must be approved by the PA in advance of the repair. As a minimum, substituted parts must:

- (a) Remain fully interchangeable (fit, form and function) with articles catalogued under the same reference number, part number and of the same modification status; and
- (b) Include similar internal characteristics such as waveforms and components layout in order to ensure full compatibility with automatic test equipment, software and automatic probing.

#### 3.1.2 Technical Support

The Contractor must provide technical support by phone/email, Monday-Friday (holidays excluded) during the hours 0800-1600 EST, to the TA during the warranty period.

### **OPTIONS**

DND is under no obligation to purchase additional Automated Radio Test Equipment. Should DND decide to exercise options, the Contractor must provide the following (multiple options may be exercised):

- (a) Year 1 (within twelve (12) months of Contract Award):
  - i. Additional training in accordance with Section 2.2; and
  - ii. Spare parts from the MRSPL at Section 2.0(f);
- (b) Year 2 (within twenty-four (24) months of Contract Award):
  - i. Additional training in accordance with Section 2.2;
  - ii. Additional spare parts from the MRSPL at Section 2.0(f); and
  - iii. Up to the following quantities of Configurable Automated Test Set.  
Delivery Point: TBD – Ontario.

<b>Item</b>	<b>Description</b>	<b>Quantity</b>
1	Configurable Automated Test Set, COBHAM p/n 7200B	6
1	Auto Test III Development Environment, COBHAM p/n 139264	6
2	Rack Mount Kit, COBHAM p/n 88574	4
3	Transit Case, COBHAM p/n 86170	3
4	Programmable Power Supply (750 W), COBHAM p/n 88863	6
5	External Power Supply Transit Case, COBHAM p/n 88770	3
6	ZIFF Mating Connector, COBHAM p/n 86474	6
7	External Power Supply Cable Assembly, COBHAM p/n 88991	6

- (c) Year 3 (within thirty-six (36) months of Contract Award):
- i. Additional training in accordance with Section 2.2;
  - ii. Additional spare parts from the MRSPL at Section 2.0(f); and
  - iii. One (1) additional year of full warranty and In-Service Support in accordance with Section 3.1;
- (d) Year 4 (within forty-eight (48) months of Contract Award):
- i. Additional training in accordance with Section 2.2;
  - ii. Additional spare parts from the MRSPL at Section 2.0(f); and
  - iii. One (1) additional year of full warranty and In-Service Support in accordance with Section 3.1.

## Annex B

## BASIS OF PAYMENT

#	Item description	COBHAM part number	Quantity	Unit of issue	Unit Price	Extended price	Delivery location
1	Configurable Automated Test Set	7200B	2	ea			Richmond, ON
2	Configurable Automated Test Set	7200B	1	ea			Petawawa, ON
3	Auto Test III Development Environment	139264	2	ea			Richmond, ON
4	Auto Test III Development Environment	139264	1	ea			Petawawa, ON
5	TPS ZIFF Mating Connector	86474	2	ea			Richmond, ON
6	TPS ZIFF Mating Connector	86474	1	ea			Petawawa, ON
7	Rack Mount Kit	88574	2	ea			Richmond, ON
8	Rack Mount Kit	88574	1	ea			Petawawa, ON
9	External Power Supply Cable Assembly	88991	2	ea			Richmond, ON
10	External Power Supply Cable Assembly	88991	1	ea			Petawawa, ON
11	Transit Case	86170	1	ea			Richmond, ON
12	Transit Case	86170	1	ea			Petawawa, ON
13	Programmable Power Supply 750W	88863	2	ea			Richmond, ON
14	Programmable Power Supply 750W	88863	1	ea			Petawawa, ON
15	External Power Supply Transit Case	88770	2	ea			Richmond, ON
16	External Power Supply Transit Case	88770	1	ea			Petawawa, ON
17	Training		2	sessions			tbd: Ontario
18	Calibration		12	ea			tbd: Ontario
19	Extended warranty			ea			
20	Spare parts		\$10,000.00				tbd: Ontario
	Spare parts: Mark-up			%			

**OPTION YEAR 1**

#	Item description	COBHAM part number	Quantity	Unit of issue	Unit Price	Extended price	Delivery location
1	Configurable Automated Test Set	7200B	2	ea			tbd: Ontario
2	Auto Test III Development Environment	139264	2	ea			tbd: Ontario
3	TPS ZIFF Mating Connector	86474	2	ea			tbd: Ontario
4	Rack Mount Kit	88574	2	ea			tbd: Ontario
5	External Power Supply Cable Assembly	88991	2	ea			tbd: Ontario
6	Transit Case	86170	1	ea			tbd: Ontario
7	Programmable Power Supply 750W	88863	2	ea			tbd: Ontario
8	External Power Supply Transit Case	88770	2	ea			tbd: Ontario
9	Training		2	sessions			tbd: Ontario
10	Spare parts		\$10,000.00				tbd: Ontario
	Spare parts: Mark-up			%			

**OPTION YEAR 2**

#	Item description	COBHAM part number	Quantity	Unit of issue	Unit Price	Extended price	Delivery location
1	Configurable Automated Test Set		6	ea			tbd: Ontario
2	Auto Test III Development Environment		6	ea			tbd: Ontario
3	TPS ZIFF Mating Connector		6	ea			tbd: Ontario
4	Rack Mount Kit		4	ea			tbd: Ontario
5	External Power Supply Cable Assembly		6	ea			tbd: Ontario
6	Transit Case		3	ea			tbd: Ontario
7	Programmable Power Supply 750W		6	ea			tbd: Ontario
8	External Power Supply Transit Case		3	ea			tbd: Ontario
9	Training		1	session			tbd: Ontario
10	Spare parts		\$10,000.00				tbd: Ontario
	Spare parts: Mark-up						

**OPTION YEAR 3**

#	Item description	COBHAM part number	Quantity	Unit of issue	Unit Price	Extended price	Delivery location
1	Training		1	session			tbd: Ontario
2	Full extended warranty (One additional year)		ea				tbd: Ontario
3	Spare parts		\$10,000.00				tbd: Ontario
	Spare parts: Mark-up			%			

**OPTION YEAR 4**

#	Item description	COBHAM part number	Quantity	Unit of issue	Unit Price	Extended price	Delivery location
1	Training		1	session			tbd: Ontario
2	Full extended warranty (One additional year)		ea				tbd: Ontario
3	Spare parts		\$10,000.00				tbd: Ontario
	Spare parts: Mark-up			%			

## TECHNICAL EVALUATION MATRIX and BID COMPLIANCE

### 1.0 GENERAL

#### 1.1 Purpose

This document outlines the bid evaluation process for the Automated Radio Test Equipment.

#### 1.2 Instructions

Bidders will be assessed in accordance with the criteria detailed in this document. Mandatory requirements are identified by the word "must". All mandatory requirements must be met.

### 2.0 BID DOCUMENTATION

The Bidder must provide the following documentation:

- (a) Documentation provided with the bid as proof of compliance should include the following:
- i. A system brochure that details the components and operating characteristics of the system;
  - ii. The system Operator's Manual;
  - iii. The system Maintenance Manual;
  - iv. Drawing or schematic which clearly depicts the product's dimensions and scale; and
  - v. Any additional documentation that provides product information;

### 3.0 EVALUATION APPROACH

#### 3.1 Evaluation Process

To determine the most suitable contending system within the competitive bidding process, the Contracting Authority (CA) will base the selection on the lowest cost compliant. The evaluation process will be conducted in phases:

- (a) Pre-Screening of bids at PSPC;
- (b) Phase I: Technical Evaluation at DND; and
- (c) Phase II: Financial Evaluation at PSPC

3.2 Phase I - Technical Evaluation

DND will assemble a Technical Evaluation Team who will evaluate the proposals in accordance with the Mandatory Requirements in Table 1. The evaluation will be conducted on the supplied information only. All mandatory criteria must be met or the bid submission will be deemed non-compliant. Failure to provide sufficient detail in the bid submission to evaluate the proposal against the mandatory criteria will also deem the bid non-compliant. Even if a bid fails to meet as few as one mandatory criterion that bid will be non-compliant and will be given no further consideration.

3.3 Phase II - Financial Evaluation at PSPC

The Contract Authority will assess the financial submissions. The bid proposal that will be recommended for contract award will be the one that:

- (a) Is compliant with the Mandatory Requirements at Table 1; and
- (b) Is the lowest cost.

**4.0 MANDATORY REQUIREMENTS**

Table 1: Compliance Matrix

Item #	Ref. (Annex B)	Requirement	Proof of Compliance	Bid Reference
1	N/A	<u>Proven Design</u> The Automated Radio Test Equipment, must be a commercial off-the-shelf or military off-the-shelf system of a design that is currently in use by an American, British, Canadian or Australian (ABCA) military force, or a North American Civilian Police Force.	If the Cobham components are being offered as specified in Annex B, the Bidder must provide written confirmation that they will provide Cobham components in accordance with the requirements of the RFP.	
<b>Operational Performance Requirements</b>				
2	2.1(a)	The Automated Radio Test Equipment must be a complete radio test system with built-in signal switching capabilities and control functions for fully automated testing of military radios through programmable scripts including (but not limited to): i. Thales AN/PRC-148 MBITR and JEM radios;		

Item #	Ref. (Annex B)	Requirement	Proof of Compliance	Bid Reference
3	2.1(b)	<p>Harris Falcon II and Falcon III radio families; Harris TPS for PRC-117F, PRC-117G, PRC-152 and PRC-152A radios; and EVM measurement for the Harris PRC-117G wideband data waveform;</p> <p>The Automated Radio Test Equipment must perform the following functions:</p> <ol style="list-style-type: none"> <li>i. RF waveform recording and playback function, including complex or hopping digital waveforms;</li> <li>ii. Log all test actions and operations performed for review and audit;</li> <li>iii. Store configuration settings;</li> <li>iv. Control, via Ethernet, an external power supply to power radios and other external devices; and</li> <li>v. Recovery functionality to resume testing subsequent to a power outage;</li> </ol>		
4	2.1(c)	<p>The Automated Radio Test Equipment must operate under the following conditions in accordance with MIL-PRF-28800F Class 3:</p> <ol style="list-style-type: none"> <li>i. Operating Temperature: 0°C to +50°C;</li> <li>ii. Storage Temperature: -40°C to +71°C;</li> <li>iii. Relative Humidity: 80% at 31°C and 50% at 40°C;</li> <li>iv. Altitude: Up to 4600 m (15090 ft);</li> <li>v. Shock: 30 G; and</li> <li>vi. Vibration: 5-500 Hz Random;</li> </ol>		
5	2.1(d)	<p>The Automated Radio Test Equipment must be compatible with power sources as follows:</p> <ol style="list-style-type: none"> <li>i. Voltage: 100 - 250 VAC (<math>\leq</math> 10% fluctuations);</li> <li>ii. Frequency: 47 - 63 Hz; and</li> <li>iii. Amperage: 10 Amps (maximum);</li> </ol>		
6	2.1(e)	<p>The Automated Radio Test Equipment must be compliant for Electromagnetic Compatibility to the following:</p>		

Item #	Ref. (Annex B)	Requirement	Proof of Compliance	Bid Reference
<b>Technical Requirements</b>				
7	2.2(a)	<p>The Radio Test Set must be a bench or a rack mounted test set designed to be used for radio communications including audio performance, data functions and port operations for Ethernet, USB and serial communications;</p>		
8	2.2(b)	<p>The Radio Test Set must include a front panel assembly as follows:</p> <ul style="list-style-type: none"> <li>i. Colour touchscreen user interface for custom configuration, monitoring and control of equipment under test;</li> <li>ii. Access to the Oscilloscope and Digital Multimeter connectors;</li> <li>iii. Switch matrix assembly for asynchronous serial baseband communications, Ethernet and USB communications; and</li> <li>iv. Visual indication of power and operational status;</li> </ul>		
9	2.2(c)	<p>The Radio Test Set must include start-up and continuous internal test functionality to detect malfunction conditions and to notify the operator;</p>		
10	2.2(d)	<p>Must include an interface cable assembly to create a hardware and software interface between the test set ZIF connector, Oscilloscope and Digital Multimeter connectors, including radio-specific adapters for the following:</p> <ul style="list-style-type: none"> <li>v. Thales AN/PRC-148 MBITR and JEM radios;</li> <li>vi. Harris Falcon II and Falcon III radio families; and</li> <li>vii. Harris TPS for PRC-117F, PRC-117G, PRC-152 and PRC-152A radios;</li> </ul>		
11	2.2(e)	<p>The Radio Test Set must include integral component capabilities as detailed in Annex B, Section 2.2(e).</p>		

Item #	Ref. (Annex B)	Requirement	Proof of Compliance	Bid Reference
12	2.2(f)	The Radio Test Set must include input/output connections as detailed in Annex B, Section 2.2(f).		
13	2.2(g)	<p>The Radio Test Set must have a size, weight and height (maximum) as follows:</p> <ul style="list-style-type: none"> <li>i. Height: 25 cm (10 in);</li> <li>ii. Width: 48.26 cm (19 in);</li> <li>iii. Depth: 75 cm (30 in); and</li> <li>iv. Weight: 25 kg (55 lbs);</li> </ul>		
14	2.2(h)	<p>The Radio Test Set must include the following accessories:</p> <ul style="list-style-type: none"> <li>i. Quantity two (2) BNC to T-Connector Adapter (COBHAM Part # 20339);</li> <li>ii. Quantity two (2) TNC to BNC Adapter (COBHAM Part # 23758);</li> <li>iii. Quantity one (1) BNC F/DBL Banana Plug Adapter/Connector (COBHAM Part # 23764);</li> <li>iv. Quantity two (2) 10A Fast Blo 3AG Fuse (COBHAM Part # 56067);</li> <li>v. Quantity one (1) AC Power Cord (COBHAM Part # 62302);</li> <li>vi. Quantity four (4) S M BNC/S M BNC Coaxial Cable (COBHAM Part # 63339);</li> <li>vii. Quantity two (2) Scope Probe Kit (COBHAM Part # 23758);</li> <li>viii. Quantity one (1) Operation Manual (CD) (COBHAM Part # 86985 or 112801);</li> <li>ix. Quantity one (1) Getting Started Manual (Paper) (COBHAM Part # 86987); and</li> <li>x. Quantity one (1) DMM Probe Set (COBHAM Part # 88923).</li> </ul>		

## OPERATIONAL PERFORMANCE AND TECHNICAL SPECIFICATIONS

### 1.0 SCOPE

#### 1.1 General

This specification outlines the requirements for the Configurable Automated Radio Test Equipment. All requirements are Mandatory.

#### 1.2 Applicable Documents

The following documents form part of this specification to the extent specified and are supportive of this specification when referenced; any other documents are to be considered supplemental information only. In the event of a conflict between the documents and the contents of this specification, then the contents of this specification must take precedence.

- MIL-PRF-28800F, Test Equipment for use with Electrical and Electronic equipment, General Specification for, US Department of Defense
- IEC 61326-1, Electrical Equipment for Measurement, Control and Laboratory Use – EMC Requirements Part 1: General Requirements
- IEC 61000-3-2, Electromagnetic Compatibility Part 3-2: Limits - Limits for harmonic current emissions (equipment input current  $\leq 16$  A per phase)
- IEC 61000-3-3, Electromagnetic Compatibility Part 3-3: Limits – Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems, for equipment with rated current  $\leq 16$  A per phase and not subject to conditional connection

#### 1.3 Acronyms

A	Ampere
A2D	Analog to Digital
AF	Audio Frequency
AGC	Automatic Gain Control
AM	Amplitude Modulation
ANT	Antenna
BER	Bit Error Rate
BPF	Band Pass Filter
bps	bits per second
BW	Band Width
CATS	Configurable Automated Test Set
CH	Channel
CP	Common Platform
CW	Continuous Wave
D2A	Digital to Analog
DANL	Displayed Averaged Noise Level
dB	Decibel
dBc	Decibel referenced to Carrier
dBm	Decibel/minute
DC	Direct Current
DCS	Data Collection System
DMM	Digital Multimeter
E&M	recEive & transMit (Ear & Mouth)
EMC	Electromagnetic Compatibility

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EVM	Error Vector Magnitude
Ext	External
FFT	Fast Fourier Transform
FM	Frequency Modulation
FSK	Frequency Shift Key
FXS	Foreign exchange Service
G	Gravitational Force
GEN	Generator
GHz	Giga Hertz
GUI	Graphical User Interface
HTTPS	Hypertext Transfer Protocol Secure
Hz	Hertz
I/O	Input/output
I/Q	In Phase/Quadrature
IEC	International Electro technical Commission
kbps	kilo bits per second
kHz	Kilo Hertz
LAN	Local Area Network
LPF	Low Pass Filter
LSB	Lower Side Band
mA	milli Amp
MB	Megabyte
MHz	Mega Hertz
Mod	Modulation
mW	milli Watt
NRZ	Non-Return to Zero
NTP	Network Time Protocol
PM	Phase Modulation
PoE	Power Over Ethernet
PSK	Phase Shift Keying
QAM	Quadrature Amplitude Modulation
RBW	Resolution Bandwidth
RF	Radio Frequency
RMS	Root Mean Square
RX	Receive
SINAD	Signal to Noise and Distortion Ratio
SNMP	Simple Network Management Protocol
SSB	Single Side Band
SSH	Secure Shell
T/R	Transmit/Receive
THD	Total Harmonic Distortion
TPS	Test Program Set
TTL	Transistor Logic
TX	Transmit
USB	Universal Serial Bus
USB	Upper Side Band (Modulation) OR Universal Serial Bus (Port)
UUT	Unit Under Test
V	Volt
VAC	Volts Alternating Current
VGA	Video Graphics Display
VLAN	Virtual Local Area Network

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VOIP	Voice Over Internet Protocol
Vrms	Voltage Root Mean Square
VSWR	Voltage Standing Wave Ratio
W	Watt

## 2.0 REQUIREMENTS

### 2.1 Operational Performance Requirements

The Automated Radio Test Equipment must:

- (a) Be a complete radio test system with built in signal switching capabilities and control functions for fully automated testing of military radios through programmable scripts including (but not limited to):
  - i. Thales AN/PRC-148 MBITR and JEM radios;
  - ii. Harris Falcon II and Falcon III radio families;
  - iii. Harris TPS for PRC-117F, PRC-117G, PRC-152 and PRC-152A radios; and
  - iv. DDg measurement for the Harris PRC-117G wideband data waveform;
- (b) Perform the following functions:
  - i. Capture (record) RF Signals from the Receiver and playback RF signals from the Generator at 20 MHz minimum receive and generate bandwidths, including complex or hopping digital waveforms;
  - ii. Log all test actions and operations performed for review and audit;
  - iii. Store configuration settings;
  - iv. Control, via Ethernet, an external power supply to power radios and other external devices; and
  - v. Recovery functionality to resume testing subsequent to a power outage;
- (c) Operate under the following conditions in accordance with MIL-PRF-28800F Class 3:
  - i. Operating Temperature: 0°C to +50°C;
  - ii. Storage Temperature: -40°C to +71°C;
  - iii. Relative Humidity: 80% at 31°C and 50% at 40°C;
  - iv. Altitude: Up to 4600 m (15090 ft);
  - v. Shock: 30 G; and
  - vi. Vibration: 5-500 Hz Random;
- (d) Be compatible with power sources as follows:
  - i. Voltage: 100 - 250 VAC ( $\leq$  10% fluctuations);
  - ii. Frequency: 47 - 63 Hz; and
  - iii. Amperage: 10 Amps (maximum);
- (e) Be compliant for Electromagnetic Compatibility to the following:
  - i. MIL-PRF-28800F for Class 3;
  - ii. IEC 61000-3-2 Class A; and
  - iii. IEC 61000-3-3.

### 2.2 Technical Requirements

The Radio Test Set must be the COBHAM 7200B Configurable Automated Test Set, with the following features and capabilities:

- 
- (a) Bench or a rack mounted test set designed to be used for radio communications including audio performance, data functions and port operations for Ethernet, USB and serial communications;
  - (b) Include a front panel assembly as follows:
    - i. Colour touchscreen user interface for custom configuration, monitoring and control of equipment under test;
    - ii. Access to the Oscilloscope and Digital Multimeter connectors;
    - iii. Switch matrix assembly for asynchronous serial baseband communications, Ethernet and USB communications; and
    - iv. Visual indication of power and operational status;
  - (c) Include start-up and continuous internal test functionality to detect malfunction conditions and to notify the operator;
  - (d) Include an interface cable assembly to create a hardware and software interface between the test set ZIF connector, Oscilloscope and Digital Multimeter connectors, including radio-specific adapters for the following:
    - i. Thales AN/PRC-148 MBITR and JEM radios;
    - ii. Harris Falcon II and Falcon III radio families; and
    - iii. Harris TPS for PRC-117F, PRC-117G, PRC-152 and PRC-152A radios;
  - (e) Include integral component capabilities as follows:
    - i. RF Signal Generator the provides AF, RF and modulated output signals as follows:
      - a. Frequency range: 1.0 MHz to 2.6 GHz with a resolution of 1 Hz;  
RF output level T/R port: -30 dBm to -130 dBm with an accuracy as follows:
        - 1.  $\pm 1.0$  dB ( $> -120$  dBm); and
        - 2.  $\pm 2.5$  dB ( $\leq -120$  dBm,  $> -130$  dBm)
      - RF output level GEN port: +10 dBm to -110 dBm with an accuracy as follows:
        - 3.  $\pm 1.0$  dB ( $> -120$  dBm); and
        - 4.  $\pm 2.5$  dB ( $\leq -120$  dBm,  $> -130$  dBm);
      - b. VSWR (50 Ohm) as follows:
        - 1. T/R Port as follows:
          - a.  $< 1.2:1$ ,  $< 1.05$  GHz; and
          - b.  $< 1.3:1$ ,  $> 1.05$  to 2.6 GHz;
        - 2. GEN Port as follows:
          - a.  $< 1.5:1$ , 1.0 MHz to 1.0 GHz; and
          - b.  $< 1.9:1$ , 1.0 to 2.6 GHz;
      - c. RF Phase Noise:  $< -96$  dBc/Hz @ 20 kHz offset over tuning range (up to 2.6 GHz);
      - d. Phase Modulations: CW, FM, AM, PM, SSB USB, SSB LSB;
      - e. I/Q Files; Permits browsing, loading and running arbitrary waveforms as modulation source;
      - f. Spurious as follows:
        - 1. Harmonics:  $< -30$  dBc; and
        - 2. Non-Harmonics:  $< -55$  dBc;
      - g. AM Residual:  $< 0.1\%$  RMS in 300 Hz to 3 kHz BW;
      - h. FM Deviation as follows:
        - 1. Range:  $\pm 1.0$  Hz to  $\pm 150$  kHz;
        - 2. Accuracy:  $\pm 3\%$  of setting ( $\pm 1$  to  $\pm 100$  kHz deviation, 20 Hz to 15 kHz rate);

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3. Rate: 0 Hz to 40 kHz;
  4. Resolution: 0.1 Hz;
  5. Waveform: Sine, Square, Triangle and Ramp; and
  6. THD: <1% (1 kHz rate, 6 kHz deviation, 300 Hz to 3 KHz, Sine);
  - i. Amplitude Modulation as follows:
    1. Range: 0.1% to 100%;
    2. Accuracy:  $\pm 1\%$  modulation from 10% to 90%;
    3. Rate: 0 Hz to 40 kHz;
    4. Resolution: 0.1%;
    5. Waveform: Sine, square, triangle and ramp; and
    6. THD: <1% (1 kHz rate, 30 to 70% AM, 300 Hz to 3 kHz, Sine);
  - j. Phase Modulation as follows:
    1. Range: 0.1 to 10 radians;
    2. Accuracy:  $\pm 5\%$  of setting;
    3. Rate: 10 to 40 kHz;
    4. Resolution: <0.1 radians;
    5. Waveform: Sine, Square, Triangle and Ramp; and
    6. THD: <1%;
  - k. Internal Single Side Band as follows:
    1. Range: 0% to 100%;
    2. Rate: 300 Hz to 3 kHz;
    3. Resolution: 0.1%;
    4. Selection: Upper-Sideband (USB) and Lower-Sideband (LSB); and
    5. Waveform: Sine, Square, Triangle and Ramp;
  - l. External RF modulation as follows:
    1. Types: AM, FM and PM;
    2. Through Audio 1 input (20 Hz to 15 kHz (300 Hz to 3 kHz SSB), unbalanced) with accuracy at 1 Vrms, the AM/FM/PM modulation with the same characteristics as internal sources,  $\pm 10\%$  of indicated setting;
  - ii. RF Receiver for processing RF Signals received from the RF Combiner as follows:
    - a. Range: 1.0 MHz to 2.6 GHz;
    - b. Resolution: 1 Hz;
    - c. Maximum input level as follows:
      1. Antenna port: +10 dBm; and
      2. T/R port: 15 seconds at 200W;
    - d. VSWR (50 Ohm) as follows:
      1. T/R Port as follows:
        - a. <1.2:1, <1.05 GHz; and
        - b. <1.3:1, >1.05 to <2.6 GHz;
      2. Antenna Port as follows:
        - a. <1.5:1, <1.05 GHz; and
        - b. <1.9:1, >1.05 GHz to <2.6 GHz;
    - e. Audio Input Characteristics for the following meters: AF Counter, AF Level Meter, SINAD Meter, Distortion Meter and BER;
    - f. Audio Input Range frequency: 0.0 to 40 kHz; and
    - g. Input Audio Filters: low pass, band pass and high pass;
  - iii. Meters as follows:
    - a. AF Counter as follows:
      1. Frequency: 0.0 to  $\pm 100.0$  kHz;
      2. Resolution: 0.1 Hz; and
      3. Accuracy:  $\pm 1.0$  Hz;

- 
- b. AF Level Meter (Audio Input) as follows:
    - 1. Frequency: 20.0 Hz to 40.0 kHz;
    - 2. Level Range: 0 to 30 Vrms;
    - 3. Resolution: 1 mV; and
    - 4. Accuracy: 5% (Unbalanced, Hi-Z, 300.0 Hz to 3.0 kHz, 0.1 to 30 Vrms);
  - c. AF Level Meter (Demod Input) as follows:
    - 1. Amplitude Modulation as follows:
      - a. Depth: 0% to 100%;
      - b. Modulation Rate Range: 20.0 Hz to 40.0 kHz;
      - c. Resolution: 1%;
      - d. Accuracy:  $\pm 3\%$  from 30-90%; and
      - e. Sensitivity: Antenna port, SNR > 15 dB
    - 2. FM Deviation as follows:
      - a. Frequency: 0.0 Hz to 150.0 kHz;
      - b. Modulation Rate Range: 20.0 Hz to 40.0 kHz;
      - c. Resolution: 1.0 Hz;
      - d. Accuracy:  $\pm 5\%$  plus source residual; and
      - e. Sensitivity: Antenna and T/R Ports, SNR > 15dB
    - 3. Phase Modulation as follows:
      - a. Frequency: 0.1 to 10 Radians;
      - b. Rate: 100.0 Hz to 1.0 kHz;
      - c. Resolution: 0.01 Radians;
      - d. Accuracy:  $\pm 5\%$  plus source residual; and
      - e. Sensitivity: Antenna and T/R Ports: SNR > 15dB
  - d. RF Power Meter (Measured in Receiver IF BW) as follows:
    - 1. T/R and Antenna Ports;
    - 2. Frequency: 1.0 MHz to 2.6 GHz;
    - 3. Input Range as follows:
      - a. T/R Port: -60.0 to +53.0 dBm; and
      - b. Antenna Port: -100.0 to +10.0 dBm;
    - 4. Resolution: 0.01 dB; and
    - 5. Accuracy as follows:
      - a. T/R, >0.02 mW levels,  $\pm 10\%$  power,  $\pm 1$  count; and
      - b. Antenna Port, >-100dBm,  $\pm 1.0$  dB,  $\pm 1$  count;
  - e. Bit Error Rate (BER) FSK Meter as follows:
    - 1. Range: 0 to 100%;
    - 2. Sequence PN11
    - 3. Resolution: 0.0001% =  $10e-6$ ; and
    - 4. Level as follows:
      - a. T/R Port: >-15 dBm; and
      - b. Antenna Port: >-55 dBm;
  - f. Bit Error Rate (BER) NRZ Meter as follows:
    - 1. Range: 0.1 to 0.00001;
    - 2. Rates: Up to 16 kbps;
    - 3. Data Pattern Size: 100 to 100000 bits;
    - 4. Data Pattern Type: Random, Fixed and User Defined; and Accuracy: 0.000001;
  - g. Burst Power Dropout
    - 1. Measurement Port;
      - a. T/R Port and Ant Port
    - 2. Frequency Range 1.0 MHz to 2.6 GHz;

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- 3. Range 0-100%;
  - 4. Resolution .0001%;
  - 5. Accuracy  $\pm 0.2\%$ ; and
  - 6. Power Envelope 10-90% duty cycle;
    - a. 1 Hz to – 10 kKz
    - b. <20% dropout
  - h. Distortion Meter as follows:
    - 1. Range: 0.0% to 100%;
    - 2. Resolution: 0.1%;
    - 3. Accuracy as follows:
      - a.  $<\pm 0.5\%$  (Distortion 1% to 10%, 5.0 kHz LP AF Filter); and
      - b.  $<\pm 1.0\%$  (Distortion 10% to 20%, 5.0 kHz LP AF Filter);
    - 4. Notch Frequency Range: 10.0 Hz to 10.0 kHz;
  - i. RF Error Meter as follows:
    - 1. Range: 1.0 MHz to 2.6 GHz;
    - 2. Meter Range: 0.0 to  $\pm 5.0$  MHz from displayed receiver frequency;
    - 3. Resolution: 1.0 Hz;
    - 4. Accuracy: Reference Timebase  $\pm 1$  count;
    - 5. Sensitivity: S/N > 15.0 dB;
  - j. SINAD Meter as follows:
    - 1. Range: 0.0 to 60.0 dB;
    - 2. Resolution: 0.01 dB;
    - 3. Accuracy:  $\pm 1.0$  dB,  $\pm 1$  count; and
    - 4. Notch Frequency Range: 10.0 Hz to 10 kHz;
  - k. EVM Meters ( 8PSK and 16 QAM)
    - 1. Measurement Port: TR and Antenna;
    - 2. Frequency range: 1.0MHz to 2.6 GHz;
    - 3. Range 0 to 100%;
    - 4. Resolution 0.0001%;
    - 5. Accuracy
      - a.  $\pm .4\%$  EVM 8PSK (2% to 20%); and
      - b.  $\pm .3\%$  EVM 16QAM (2% to 20%)
    - 6. Floor
      - a.  $> -55$  dBm Ant Port,  $> -15$  dBm T/R port, 8PSK,  $< 1.5\%$ ;
      - b.  $> -45$  dBm Ant Port,  $> -5$  dBm T/R port, 16QAM,  $< 1.3\%$
  - iv. Audio Output as follows:
    - a. Audio Frequency Generator as follows:
      - 1. Range: 0.0 Hz to 40.0 kHz (Sine only);
      - 2. Resolution: 0.1 Hz;
      - 3. Frequency Accuracy: Same as Timebase;
      - 4. Level Accuracy: 1% of setting (10 k-Ohm load);
      - 5. Output Level: 1 mV to 7 Vrms into a 10 k-Ohm load;
      - 6. Total Harmonic Distortion as follows:
        - a.  $< 0.5\%$  (1 kHz, 5 Vrms, 80 kHz BW, 10 k-Ohm load, Sine); and
        - b.  $< 1.0\%$  (Typical, 20.0 Hz to 20.0 kHz, 100 mV to 5 Vrms, 80.0 kHz BW, 10 k-Ohm load, Sine);
      - 7. Waveform: Sine, Square, Triangle and Ramp;
    - b. Digital Data Generator as follows:

1. Generates Non Return to Zero (NRZ) style data;
  2. Data Rates: up to 16 kbps;
  3. Data Production Rates: 100 to 100000 bits;
  4. Data Pattern Type: Random, Fixed, User Defined;
  5. Source: Modulation Output, Audio output;
  6. Accuracy:  $1 \times 10^{-8}$ ;
  7. Level Accuracy Range: 0.1 to 5.0 V (Digital);
  8. Level Accuracy Resolution: 0.1 V; and
  9. Level Accuracy: +3%;
- v. Spectrum Analyzer as follows:
- a. Range : 1.0 MHz to 2.6 GHz;
  - b. Resolution : 1.0 Hz;
  - c. Accuracy: Same as Timebase;
  - d. Accuracy (Display/Marker): Span Accuracy + Frequency Accuracy + Resolution BW;
  - e. Span as follows:
    1. Mode: Center/Span and Zero Span;
    2. Range : 5.0 kHz to Full plus Zero Span; and
    3. Accuracy :  $\pm 1\%$  of span width;
  - f. Horizontal Resolution: Span/(sweep points-1);
  - g. Resolution Bandwidth Selections: 1 Hz to 500.0 kHz in a 1, 2, 5 sequence based on Analyzer Span;
  - h. FFT Window Selections: Rectangle, Blackman, Hanning, Hamming, Triangle, Kaiser and Flattop; and
  - i. Level as follows:
    1. Input Range: Reference RF Receiver Input Level;
    2. Resolution: 1.0 dB;
    3. Accuracy :  $\pm 1.0$  dB;
    4. Residual Response:  $< 110.0$  dBm input terminated with 50 Ohm load;
    5. Harmonic Spurious: -55.0 dBc (Input Level of -30.0 dBm, Ref Level at -20.0 dBm);
    6. Non-Harmonic Spurious: -60.0 dBc (Input Level of -30.0 dBm, Ref Level at -20.0 dBm);
    7. 3rd Order Intermodulation: -60.0 dBc (Input Level of -30.0 dBm, Ref Level at -20.0 dBm);
    8. Displayed Average Noise Level (DANL): dBm/Hz, 1.0 Hz RBW, averaging on, 50 Ohm termination from 100.0 MHz to 2.6 GHz: -147.0 dBm, (-150.0 dBm typical);
    9. Vertical Scales : Logarithmic 1 to 50 dB/division;
    10. Digitizer Dynamic Range: 85.0 dB (maximum analysis BW 90.0 MHz, digitizer AGC resolution 14 bits); and
    11. Display Range: 200.0 dB;
- vi. Oscilloscope as follows:
- a. Channels: Two;
  - b. Input Impedance: 50 Ohm and 1 mega-Ohm 26 pico-Farads;
  - c. Accuracy as follows (Vertical Bandwidth DC -20 MHz):
    1. DC: (0.0 V Offset) as follows:
      - a. DC:  $\pm(1.5\%$  of input +0.3% of Full Scale + 200  $\mu$ V); and
      - b. AC:  $\pm 2.5\%$  Full Scale (1MHz to 20MHz);
    2. AC: Cut-off Frequency (-3 dB) 12 Hz, mega-Ohm;

- d. Internal Sample Clock Frequency: 250 MS/s sampling rate with decimation by n,  $1 < n < 65,535$ ;
- e. Internal Timebase Accuracy:  $\pm 25$  ppm ( $\pm 0.0025\%$ );
- f. Input Coupling: AC, DC, GND;
- g. Memory/Channel: 64 MB;
- h. Trigger Modes: Auto, Normal, Single Shot; and
- i. Trigger Sources: CH1, CH2, External;
- vii. Digital Multimeter for performing AC, DC and Resistance measurements as follows:
  - a. DC Functions as follows:
    - 1. Voltage Accuracy:  $\pm 0.1\%$  of full scale;
    - 2. Voltage Ranges: 100 mV, 1 V, 10 V, 100 V, 300 V;
    - 3. Current Accuracy:  $\pm 0.35\%$  of full scale;
    - 4. Current Ranges: 20 mA, 200 mA, 1 A, (10 A with external shunt);
    - 5. Resistance Accuracy as follows:
      - a. 100 Ohm thru 1 mega-Ohm:  $\pm 0.05\%$  of full scale;
      - b. 10 mega-Ohm:  $\pm 0.2\%$  of full scale; and
      - c. 100 mega-Ohm:  $< 30$  mega-Ohm,  $\pm 1.0\%$ ,  $> 30$  mega-Ohm,  $\pm 1.5\%$  of full scale;
    - 6. Resistance Ranges (Ohms): 100, 1000, 10000, 100000, 1000000, 10000000, 100000000; and
    - 7. Resolution: 6 1/2 digits;
  - b. AC Functions as follows:
    - 1. Voltage Accuracy as follows:
      - a. 50 mV, 500 mV scales:  $\pm 0.2\%$  of full scale;
      - b. 5 V, 50 V, 300 V scales:  $\pm 0.8\%$  of full scale; and
      - c. 10.0 Hz to 20.0 kHz, usable to 300 kHz;
    - 2. Voltage Ranges: 50 mV, 500 mV, 5 V, 50 V, 300 V;
    - 3. Current Accuracy as follows:
      - a. 10 mA/100 mA scales:  $\pm 0.7\%$  of full scale, 10.0 Hz to 30.0 kHz; and
      - b. 1A scale:  $\pm 0.7\%$  of full scale, 10.0 Hz to 10.0 kHz;
    - 4. Current Ranges: 10 mA, 100 mA, 1 A (10 A with external shunt); and
    - 5. Resolution: 6 1/2 digits;
- viii. Timebase:
  - a. Temperature range: 0 to 50C;
  - b. Temperature stability: Typically better than  $\pm 0.01$ ppm;
  - c. Aging: 0.001ppm per day, 0.01ppm per year; and
  - d. Warm up time: 10 minutes.

(f) Include input/output connections as follows:

Connection	Type	Purpose
Front Panel		
Audio 1	BNC	Audio I/O
Audio 2	BNC	Audio I/O
Antenna	TNC	RF Input
Generator (GEN)	TNC	RF Output
Scope Channel 1	BNC	Input
Scope Channel 2	BNC	Input
Scope Trigger Connector	BNC	Input

Scope Timing Input	SMB	Input
Digital Multimeter	Banana (4)	Volts/Ohms/Amps
USB (2)	USB 2.0	500 milli-amp
ZIF	ZIF (168 pin)	Input/Output
Rear Panel		
DC Power Source	Anderson Power Pole (4)	External Power Supply
Ethernet	RJ-45	10/100/1000 Base-T
Ethernet Video	DB15	VGA (External Monitor)
Peripheral Expansion	iPass	PCIe 4 lane (Digital I/O)
Reference I/O	BNC	10 MHz Reference I/O
High Speed Data Communication	iPass	sRIO 4 lane
System Sync	BNC	5 V TTL System Trigger I/O
USB (4)	USB 2.0	500 milli-amp

- (g) Size and weight (maximum) as follows:
- i. Height: 25 cm (10 in);
  - ii. Width: 48.3 cm (19 in);
  - iii. Depth: 75 cm (30 in); and
  - iv. Weight: 25 kg (55 lbs);
- (h) Include the following accessories:
- i. Quantity two (2) BNC to T-Connector Adapter (COBHAM Part # 20339);
  - ii. Quantity two (2) TNC to BNC Adapter (COBHAM Part # 23758);
  - iii. Quantity one (1) BNC F/DBL Banana Plug Adapter/Connector (COBHAM Part # 23764);
  - iv. Quantity two (2) 10A Fast Blow 3AG Fuse (COBHAM Part # 56067);
  - v. Quantity one (1) AC Power Cord (COBHAM Part # 62302);
  - vi. Quantity four (4) S M BNC/S M BNC Coaxial Cable (COBHAM Part # 63339);
  - vii. Quantity two (2) Scope Probe Kit (COBHAM Part # 23758);
  - viii. Quantity one (1) Operation Manual (CD) (COBHAM Part # 86985 or 112801);
  - ix. Quantity one (1) Getting Started Manual (Paper) (COBHAM Part # 86987); and
  - x. Quantity one (1) DMM Probe Set (COBHAM Part # 88923).

### 2.3 Additional Accessories

The following additional accessories must be provided (quantities in accordance with Annex A):

- (a) Rack Mount Kit (COBHAM Part # 88574);
- (b) Transit Case (Radio Test Set) (COBHAM Part # 86170);
- (c) Programmable Power Supply (760 W) (COBHAM Part # 88863);
- (d) Transit Case (External Power Supply) (COBHAM Part # 88770);
- (e) Zero Insertion Force (ZIF) Mating Connector (COBHAM Part # 86474); and
- (f) External Power Supply Cable Assembly (COBHAM Part # 88991).

## TASK AUTHORIZATION AUTORISATION DES TÂCHES

<p>All invoices/progress claims must show the reference Contract and Task numbers. Toutes les factures doivent indiquer les numéros du contrat et de la tâche.</p>		Contract no. – N° du contrat
		Task no. – N° de la tâche
Amendment no. – N° de la modification	Increase/Decrease – Augmentation/Réduction	Previous value – Valeur précédente
To – À	<p><b>TO THE CONTRACTOR</b></p> <p>You are requested to supply the following services in accordance with the terms of the above reference contract. Only services included in the contract shall be supplied against this task.</p> <p>Please advise the undersigned if the completion date cannot be met. Invoices/progress claims shall be prepared in accordance with the instructions set out in the contract.</p> <p><b>À L'ENTREPRENEUR</b></p> <p>Vous êtes prié de fournir les services suivants en conformité des termes du contrat mentionné ci-dessus. Seuls les services mentionnés dans le contrat doivent être fournis à l'appui de cette demande.</p> <p>Prière d'aviser le signataire si la livraison ne peut se faire dans les délais prescrits. Les factures doivent être établies selon les instructions énoncées dans le contrat.</p>	
Delivery location – Expédié à		
Delivery/Completion date – Date de livraison/d'achèvement	<p>_____</p> <p>Date <span style="margin-left: 150px;">for the Department of National Defence</span> pour le ministère de la Défense nationale</p>	
Contract item no. N° d'article du contrat	Services	Cost Prix
	GST/HST TPS/TVH	
	Total	
<p><b>APPLICABLE ONLY TO PWGSC CONTRACTS:</b> The Contract Authority signature is required when the total value of the DND 626 exceeds the threshold specified in the contract.</p> <p><b>NE S'APPLIQUE QU'ÀUX CONTRATS DE TPSGC :</b> La signature de l'autorité contractante est requise lorsque la valeur totale du formulaire DND 626 est supérieure au seuil précisé dans le contrat.</p>		
<p>_____</p> <p>for the Department of Public Works and Government Services pour le ministère des Travaux publics et services gouvernementaux</p>		

## Instructions for completing DND 626 - Task Authorization

### Contract no.

Enter the PWGSC contract number in full.

### Task no.

Enter the sequential Task number.

### Amendment no.

Enter the amendment number when the original Task is amended to change the scope or the value.

### Increase/Decrease

Enter the increase or decrease total dollar amount including taxes.

### Previous value

Enter the previous total dollar amount including taxes.

### To

Name of the contractor.

### Delivery location

Location where the work will be completed, if other than the contractor's location.

### Delivery/Completion date

Completion date for the task.

### for the Department of National Defence

Signature of the DND person who has delegated **Authority** for signing DND 626 (level of authority based on the dollar value of the task and the equivalent signing authority in the PAM 1.4). **Note:** the person signing in this block ensures that the work is within the scope of the contract, that sufficient funds remain in the contract to cover this task and that the task is affordable within the Project/Unit budget.

### Services

Define the requirement briefly (attach the SOW) and identify the cost of the task using the contractor's quote on the level of effort. The Task must use the basis of payment stipulated in the contract. If there are several basis of payment then list here the one(s) that will apply to the task quote (e.g. milestone payments; per diem rates/labour category hourly rates; travel and living rates; firm price/ceiling price, etc.). All the terms and conditions of the contract apply to this Task Authorization and cannot be ignored or amended for this task. Therefore it is not necessary to restate these general contract terms and conditions on the DND 626 Task form.

### Cost

The cost of the Task broken out into the individual costed items in **Services**.

### GST/HST

The GST/HST cost as appropriate.

### Total

The total cost of the task. The contractor may not exceed this amount without the approval of DND indicated on an amended DND 626. The amendment value may not exceed 50% (or the percentage for amendments established in the contract) of the original value of the task authorization. The total cost of a DND 626, including all amendments, may not exceed the funding limit identified in the contract.

### Applicable only to PWGSC contracts

This block only applies to those Task Authorization contracts awarded by PWGSC. The contract will include a specified threshold for DND sole approval of the DND 626 and a percentage for DND to approve amendments to the original DND 626. Tasks that will exceed these thresholds must be passed to the PWGSC Contracting Authority for review and signature prior to authorizing the contractor to begin work.

### Note:

Work on the task may not commence prior to the date this form is signed by the DA Authority - for tasks within the DND threshold; and by both DND and PWGSC for those tasks over the DND threshold.

## Instructions pour compléter le formulaire DND 626 - Autorisation des tâches

### N° du contrat

Inscrivez le numéro du contrat de TPSGC en entier.

### N° de la tâche

Inscrivez le numéro de tâche séquentiel.

### N° de la modification

Inscrivez le numéro de modification lorsque la tâche originale est modifiée pour en changer la portée.

### Augmentation/Réduction

Inscrivez le montant total de l'augmentation ou de la diminution, y compris les taxes.

### Valeur précédente

Inscrivez le montant total précédent, y compris les taxes.

### À

Nom de l'entrepreneur.

### Expédié à

Endroit où le travail sera effectué, si celui-ci diffère du lieu d'affaires de l'entrepreneur.

### Date de livraison/d'achèvement

Date d'achèvement de la tâche.

### pour le ministère de la Défense nationale

Signature du représentant du MDN auquel on a délégué le **pouvoir d'approbation** en ce qui a trait à la signature du formulaire DND 626 (niveau d'autorité basé sur la valeur de la tâche et le signataire autorisé équivalent mentionné dans le MAA 1.4). **Nota :** la personne qui signe cette attache de signature confirme que les travaux respectent la portée du contrat, que suffisamment de fonds sont prévus au contrat pour couvrir cette tâche et que le budget alloué à l'unité ou pour le projet le permet.

### Services

Définissez brièvement le besoin (joignez l'ET) et établissez le coût de la tâche à l'aide de la soumission de l'entrepreneur selon le niveau de difficulté de celle-ci. Les modalités de paiement stipulées dans le contrat s'appliquent à la tâche. Si plusieurs d'entre elles sont prévues, énumérez ici celle/celles qui s'appliquera/ront à la soumission pour la tâche à accomplir (p.ex. acompte fondé sur les étapes franchies; taux quotidien ou taux horaire établi selon la catégorie de main-d'œuvre; frais de déplacement et de séjour; prix fixe ou prix plafond; etc.). Toutes les modalités du contrat s'appliquent à cette autorisation de tâche et ne peuvent être négligées ou modifiées quant à la tâche en question. Il n'est donc pas nécessaire de répéter ces modalités générales afférentes au contrat sur le formulaire DND 626.

### Prix

Mentionnez le coût de la tâche en le répartissant selon les frais afférents à chaque item mentionné dans la rubrique **Services**.

### TPS/TVH

Mentionnez le montant de la TPS/TVH, s'il y a lieu.

### Total

Mentionnez le coût total de la tâche. L'entrepreneur ne peut dépasser ce montant sans l'approbation du MDN, formulaire DND 626 modifié à l'appui. Le coût de la modification ne peut pas être supérieur à 50 p. 100 du montant initial prévu dans l'autorisation de tâche (ou au pourcentage prévu dans le contrat pour les modifications). Le coût total spécifié dans le formulaire DND 626, y compris toutes les modifications, ne peut dépasser le plafond de financement mentionné dans le contrat.

### Ne s'applique qu'aux contrats de TPSGC

Le présent paragraphe s'applique uniquement aux autorisations de tâche accordées par TPSGC. On inscrira dans le formulaire DND 626 un plafond précis qui ne pourra être approuvé que par le MDN et un pourcentage selon lequel le MDN pourra approuver des modifications au formulaire DND 626 original. Les tâches dont le coût dépasse ces plafonds doivent être soumises à l'autorité contractante de TPSGC pour examen et signature avant qu'on autorise l'entrepreneur à débiter les travaux.

### Nota :

Les travaux ne peuvent commencer avant la date de signature de ce formulaire par le responsable du MDN, pour les tâches dont le coût est inférieur au plafond établi par le MDN, et par le MDN et TPSGC pour les tâches dont le coût dépasse le plafond établi par le MDN.

**APPENDIX 1 to PART 5****FEDERAL CONTRACTORS PROGRAM FOR EMPLOYMENT EQUITY - CERTIFICATION**

I, the Bidder, by submitting the present information to the Contracting Authority, certify that the information provided is true as of the date indicated below. The certifications provided to Canada are subject to verification at all times. I understand that Canada will declare a bid non-responsive, or will declare a contractor in default, if a certification is found to be untrue, whether during the bid evaluation period or during the contract period. Canada will have the right to ask for additional information to verify the Bidder's certifications. Failure to comply with any request or requirement imposed by Canada may render the bid non-responsive or constitute a default under the Contract.

For further information on the Federal Contractors Program for Employment Equity visit [Employment and Social Development Canada \(ESDC\)-Labour's website](#).

Date: \_\_\_\_\_(YYYY/MM/DD) (If left blank, the date will be deemed to be the bid solicitation closing date.)

Complete both A and B.

A. Check only one of the following:

- A1. The Bidder certifies having no work force in Canada.
- A2. The Bidder certifies being a public sector employer.
- A3. The Bidder certifies being a federally regulated employer being subject to the Employment Equity Act.
- A4. The Bidder certifies having a combined work force in Canada of less than 100 permanent full-time and/or permanent part-time employees.
- A5. The Bidder has a combined workforce in Canada of 100 or more employees; and
  - A5.1. The Bidder certifies already having a valid and current Agreement to Implement Employment Equity (AIEE) in place with ESDC-Labour.

**OR**

- A5.2. The Bidder certifies having submitted the Agreement to Implement Employment Equity (LAB1168) to ESDC-Labour. As this is a condition to contract award, proceed to completing the form Agreement to Implement Employment Equity (LAB1168), duly signing it, and transmit it to ESDC-Labour.

B. Check only one of the following:

- B1. The Bidder is not a Joint Venture.

**OR**

- B2. The Bidder is a Joint Venture and each member of the Joint Venture must provide the Contracting Authority with a completed annex Federal Contractors Program for Employment Equity - Certification. (Refer to the Joint Venture section of the Standard Instructions)