

**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 0A1 / Noyau 0A1
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

Title - Sujet FERROUS ORDNANCE LOCATORS	
Solicitation No. - N° de l'invitation W8476-112853/B	Date 2012-08-29
Client Reference No. - N° de référence du client W8476-112853	
GETS Reference No. - N° de référence de SEAG PW-\$\$PV-938-61109	
File No. - N° de dossier pv938.W8476-112853	CCC No./N° CCC - FMS No./N° VME
Solicitation Closes - L'invitation prend fin at - à 02:00 PM on - le 2012-10-09	
Time Zone Fuseau horaire Eastern Daylight Saving Time EDT	
F.O.B. - F.A.B. Specified Herein - Précisé dans les présentes	
Plant-Usine: <input type="checkbox"/> Destination: <input type="checkbox"/> Other-Autre: <input checked="" type="checkbox"/>	
Address Enquiries to: - Adresser toutes questions à: Roy, Paul	Buyer Id - Id de l'acheteur pv938
Telephone No. - N° de téléphone (819) 956-6919 ()	FAX No. - N° de FAX (819) 956-3814
Destination - of Goods, Services, and Construction: Destination - des biens, services et construction: DEPARTMENT OF NATIONAL DEFENCE 7 CF SUPPLY DEPOT STN FORCES P.O.BOX 10500 EDMONTON Alberta T5J4J5 Canada	

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

Scientific, Medical and Photographic Division / Division de
l'équipement scientifique, des produits photographiques et
pharmaceutiques
11 Laurier St./ 11 rue, Laurier
6B1, Place du Portage
Gatineau, Québec K1A 0S5

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



Item Article	Description	Dest. Code Dest.	Inv. Code Fact.	Qty Qté	U. of I. U. de D.	Unit Price/Prix unitaire		Delivery Req. Livraison Req.	Del. Offered Liv. offerte
						Destination	FOB/FAM Plant/Usine		
1	Ferrous Ordnance Locator with accessories and battery pack, hard and soft carry case	W2481	W8476	42	Each	\$	\$	See Herein	
2	25 m probe extension cable with drum for land, borehole and underwater surveying	W2481	W8476	42	Each	\$	\$	See Herein	
13	OPERATORS MANUALS as per article 3.4.2.5	Total		42	Each	\$	\$		
14	REPAIR MANUALS as per article 3.4.2.6	Total		42	Each	\$	\$		
16	ILLUSTRATED PARTS LIST as per article 3.4.2.7	Total		1	Each	\$	\$		
17	INTERIM SPARES LIST as per article 3.4.2.8	Total		1	Each	\$	\$		
18	RECOMMENDED SPARE PARTS LIST as per article 3.4.2.8	Total		1	Each	\$	\$		
19	SPECIAL TOOLS AND TEST EQUIPMENT LIST as per article 3.4.2.8	Total		1	Each	\$	\$		

Item Article	Description	Dest. Code Dest.	Inv. Code Fact.	Qty Qté	U. of I. U. de D.	Unit Price/Prix unitaire FOB/FAM Destination Plant/Usine		Delivery Req. Livraison Req.	Del. Offered Liv. offerte
20	ADDITIONAL ATTACHMENT LIST as per article 3.4.2.9	Total		1	Each	\$	\$		

Solicitation No. - N° de l'invitation

W8476-112853/B

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

W8476-112853

Amd. No. - N° de la modif.

File No. - N° du dossier

pv938W8476-112853

Buyer ID - Id de l'acheteur

pv938

CCC No./N° CCC - FMS No/ N° VME

TABLE OF CONTENTS

PART 1 - GENERAL INFORMATION

1. Security Requirement
2. Requirement
3. Debriefings

PART 2 - BIDDER INSTRUCTIONS

1. Standard Instructions, Clauses and Conditions
2. Submission of Bids
3. Enquiries - Bid Solicitation
4. Applicable Laws

PART 3 - BID PREPARATION INSTRUCTIONS

1. Bid Preparation Instructions

PART 4 - EVALUATION PROCEDURES AND BASIS OF SELECTION

1. Evaluation Procedures
2. Mandatory Technical Criteria
3. Basis of Selection

PART 5 - CERTIFICATIONS

1. Certifications Precedent to Contract Award
2. Certifications Required with the Bid

PART 6 - RESULTING CONTRACT CLAUSES

1. Security Requirement
2. Requirement
3. General Conditions
4. Term of Contract
5. Shipping Instructions - Delivery at Destination
6. Authorities
7. Payment
8. Invoicing Instructions
9. Certifications
10. Applicable Laws
11. SACC Manual Clauses
12. Priority of Documents

List of Annexes:

- Appendix A Basis of Payment
Annex A: Statement of Work (SOW)
Appendix 1 to Annex A: DND Software List
Appendix 2 to Annex A: Data Item Description (DID)
Appendix 3 to Annex A: Contract Data Requirement List (CDRL)
Annex B: Specification
Annex C: Bid Evaluation
Annex D: System Drawings

Solicitation No. - N° de l'invitation

W8476-112853/B

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

W8476-112853

Amd. No. - N° de la modif.

File No. - N° du dossier

pv938W8476-112853

Buyer ID - Id de l'acheteur

pv938

CCC No./N° CCC - FMS No/ N° VME

PART 1 - GENERAL INFORMATION

1. Security Requirement

There is no security requirement associated with the requirement.

2. Requirement

The Department of National Defence (DND) has a requirement for Ferrous Ordnance Locators (FerOL) with data logging and analysis/evaluation software to detect and mark deeply buried Unexploded Ordnance (UXO). In accordance with the mandatory specifications detailed in the Statement of Work.

2.1 Optional Requirement

The Bidder grants to Canada the irrevocable option to purchase forty-two (42) additional FerOL under the same terms and conditions and prices stated in Appendix A - Basis of Payment. 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 within two (2) years after contract award by sending a written notice to the Contractor.

2.2 Optional Spare Parts and additional Work

The Bidder grants to Canada the irrevocable option to purchase additional Work and Spare Parts that are not described in the Statement of Work but that is required to support the Ferol and that would fall within the overall scope of the Work, under the same terms and conditions stated in the Contract and prices 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 or by the Requisitioning Authority with a DND 626 Work authorization Form.

3. Debriefings

After contract award, bidders may request a debriefing on the results of the bid solicitation. Bidders should make the request to the Contracting Authority within 15 working days of receipt of notification that their bid was unsuccessful. The debriefing may be provided in writing, by telephone.

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 (<http://sacc.pwgsc.gc.ca/sacc/index-e.jsp>) 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 (2012-07-11) 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:

Solicitation No. - N° de l'invitation

W8476-112853/B

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

W8476-112853

Amd. No. - N° de la modif.

File No. - N° du dossier

pv938W8476-112853

Buyer ID - Id de l'acheteur

pv938

CCC No./N° CCC - FMS No/ N° VME

Delete: sixty (60) days

Insert: one hundred and twenty (120) days

1.1 SACC Manual Clauses

B1000T Condition of Material (2007-11-30)

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.

2.1 Samples

Each Bidder must provide one (1) sample of the proposed FerOL for the purposes of verification testing and User Trial Drills, which will be conducted as part of the evaluation process. (See herein for further details.) Bidders who have already been tested by DND within the period of January 1, 2011 and January 1, 2012 are not obligated to re-submit a Sample. Bidders that submit a Sample must assume the cost for Samples that need to be re-sent by DND to the Bidder.

2.2 Submission of Samples

Bidders are to provide one (1) sample of the FerOL to the following address, by the close of business at the destination, within fifteen (15) working days of Bid closing.

DJIDC Suffield
BLDG 560
Ralston, Alberta
TOJ 2N0
A TfN: Kevin Russell
Ph: (403) 544-4746

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

4. Applicable Laws

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

Solicitation No. - N° de l'invitation

W8476-112853/B

Amd. No. - N° de la modif.

Buyer ID - Id de l'acheteur

pv938

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

W8476-112853

File No. - N° du dossier

pv938W8476-112853

CCC No./N° CCC - FMS No/ N° VME

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 (five (5) hard copies), consisting of technical brochures/literature to verify compliancy and test data, if applicable.

Section II: Financial Bid (one (1) hard copy)

Section III: Certifications (one (1) hard copy)

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

Canada requests that bidders follow the format instructions described below in the preparation of their bid.

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

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 are encouraged to:

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

Section I: Technical Bid

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

The following applies to the Requirement and bidders must provide the following information in the bid where applicable:

1.1 Point of Manufacture/Shipping

The Bidder must state the point of manufacture/shipping of goods:

Location: _____ Postal Code: _____

1.2 Delivery

Solicitation No. - N° de l'invitation

W8476-112853/B

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

W8476-112853

Amd. No. - N° de la modif.

File No. - N° du dossier

pv938W8476-112853

Buyer ID - Id de l'acheteur

pv938

CCC No./N° CCC - FMS No/ N° VME

Delivery is required according to the timeline detailed In Appendix 4 of the Annex A (SOW).

Although it is expected that the equipment be delivered within this timeframe, the earliest date that can be achieved is. State your best delivery possible : _____

1.3 Training

The Contractor must provide on-site training in English as per the Stament of Work

1.4 Manuals

The Bidder must include all manuals as the Stament of Work.

1.4.1 Technical Data package

Bidders who have requested the Request for Proposal (RFP) Package and wish to submit a Bid for this requirement should ask for the Technical Data Package in writing to the Contracting authority stated herin.

1.5 Product(s) Offered

The Bidder must indicate the make and model number of the products offered (identify specific components which make up the system):

Name of Manufacturer: _____

Model/Part Number: _____

1.6 Maintenance

Maintenance support as per the Stament of Work.

1.7 Contacts

Bidders are requested to provide the following: Information pertaining to Article 6.3 Contractor Representatives under Part 6, Resulting Contract Clauses

Section II: Financial Bid

The bidder must quote firm lot prices all inclusive of supply, installation, commissioning, training, manuals Delivery Duty Paid (DDP),Edmonton, Alberta, Incoterms 2000, the Goods and Services Tax (GST) and/or the Harmonized Sales Tax (HST) extra, as applicable. Freight charges to destination and all applicable Customs duties and Excise taxes must be included.

Bidders must submit their financial bid in accordance with the Basis of Payment.The total amount of Goods and Services Tax (GST) or Harmonized Sales Tax (HST) is to be shown separately, if applicable

2.1 SACC Manual Clauses

C3011T Exchange Rate Fluctuation (2010-01-11)

Solicitation No. - N° de l'invitation

W8476-112853/B

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

W8476-112853

Amd. No. - N° de la modif.

File No. - N° du dossier

pv938W8476-112853

Buyer ID - Id de l'acheteur

pv938

CCC No./N° CCC - FMS No/ N° VME

Section III: Certifications

Bidders must submit the certifications required under Part 5.

PART 4 - EVALUATION PROCEDURES AND BASIS OF SELECTION

1. Evaluation Procedures

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

1.1 Technical Evaluation

All proposals submitted shall be completed in full and provide all of the information requested in the Request for Proposal (RFP) detailed in **Statement of Work** to enable a full and complete evaluation. If the requirement is not addressed in the bidder's proposal, the proposal will be considered incomplete or non-responsive and will be rejected. The onus is on the bidder to provide all the information necessary to ensure a complete and accurate assessment.

Factors for Evaluation

- 1. PRICING BASIS (MANDATORY): Prices must be firm, DDP Delivered Duty Paid.
- 2. ABILITY TO MEET THE TECHNICAL REQUIREMENT (MANDATORY):
 - a) For Items Defined by Specifications:
 The bidder must cross reference the mandatory technical criteria contained herein to their supporting technical documentation.
 - b) Provision of Supporting Technical Documentation:
 Supporting technical documentation must be provided with the bid at time of bid closing. Technical brochures or technical data MUST be provided to verify compliancy to the technical mandatory specifications.
- 3. COMPLIANCE WITH THE TERMS AND CONDITIONS OF THIS REQUEST FOR PROPOSAL (MANDATORY)
- 4. FOR CANADIAN SUPPLIERS ONLY: Please note that the requirements of the Federal Contractors Program for Employment Equity may apply - see herein. (MANDATORY if applicable)

2. Mandatory Technical Criteria

See Statement of Work

2.1. Financial evaluation

A0220T	Evaluation of Price	2007-05-25
B1000T	Condition of Material	2007-11-30

Solicitation No. - N° de l'invitation

W8476-112853/B

Amd. No. - N° de la modif.

Buyer ID - Id de l'acheteur

pv938

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

File No. - N° du dossier

CCC No./N° CCC - FMS No/ N° VME

W8476-112853

pv938W8476-112853

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 the optional quantity will be recommended for award of a contract.

Solicitation No. - N° de l'invitation

W8476-112853/B

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

W8476-112853

Amd. No. - N° de la modif.

File No. - N° du dossier

pv938W8476-112853

Buyer ID - Id de l'acheteur

pv938

CCC No./N° CCC - FMS No/ N° VME

PART 5 - CERTIFICATIONS

Bidders must provide the required certifications, as part of their bid. Canada will declare a bid non-responsive if the required certifications are not completed and submitted as requested.

Compliance with the certifications bidders provide to Canada is subject to verification by Canada during the bid evaluation period (before award of a contract) and after award of a contract. The Contracting Authority will have the right to ask for additional information to verify the bidders' compliance with the certifications before award of a contract. The bid will be declared non-responsive if any certification made by the Bidder is untrue, whether made knowingly or unknowingly. Failure to comply with the certifications or to comply with the request of the Contracting Authority for additional information will also render the bid non-responsive

1. Code of Conduct Certifications - Consent to a Criminal Record Verification

1.1 Bidders must submit with their bid, by the bid solicitation closing date:

- (a) a complete list of names of all individuals who are currently directors of the Bidder;
- (b) a properly completed and signed form Consent to a Criminal Record Verification (PWGSC-TPSGC 229), for each individual named in the list.

You can fill out the attached form OR at the following link:

[Http://www.tpsgc-pwgsc.gc.ca/app-acq/forms/documents/229.pdf](http://www.tpsgc-pwgsc.gc.ca/app-acq/forms/documents/229.pdf)

2. Federal Contractors Program for Employment Equity \$200,000 or more (for Canadian Bidders only)

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

1. The Federal Contractors Program for Employment Equity (FCP-EE) requires that some suppliers bidding for federal government contracts, valued at \$200,000 or more (including all applicable taxes), make a formal commitment to implement employment equity. This is a condition precedent to contract award. If the Bidder is subject to the FCP-EE, evidence of its commitment must be provided before the award of the Contract.

Suppliers who have been declared ineligible contractors by Human Resources and Social Development Canada (HRSDC) are no longer eligible to receive government contracts over the threshold for solicitation of bids as set out in the Government Contract Regulations. Suppliers may be declared ineligible contractors either as a result of a finding of non-compliance by HRSDC, or following their voluntary withdrawal from the FCP-EE for a reason other than the reduction of their workforce to less than 100 employees. Any bid from ineligible contractors will be declared non-responsive.

2. the Bidder does not fall within the exceptions enumerated in 3.(a) or (b) below, or does not have a valid certificate number confirming its adherence to the FCP-EE, the Bidder must fax (819-953-8768) a copy of the signed form LAB 1168, Certificate of Commitment to Implement Employment Equity to the Labour Branch of HRSDC.

Solicitation No. - N° de l'invitation

W8476-112853/B

Amd. No. - N° de la modif.

Buyer ID - Id de l'acheteur

pv938

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

File No. - N° du dossier

CCC No./N° CCC - FMS No/ N° VME

W8476-112853

pv938W8476-112853

3. The Bidder certifies its status with the FCP-EE, as follows:

The Bidder

- (a) is not subject to the FCP-EE, having a workforce of less than 100 permanent full time, part-time or temporary employees in Canada,
- (b) is not subject to the FCP-EE, being a regulated employer under the Employment Equity Act, S.C. 1995, c.44;
- (c) is subject to the requirements of the FCP-EE, having a workforce of 100 or more permanent full time, part-time or temporary employees in Canada, but has not previously obtained a certificate number from HRSDC, (having not bid on requirements of \$200,000 or more), in which case a duly signed certificate of commitment is attached;
- (d) is subject to the FCP-EE, and has a valid certificate number as follows: _____ (e.g. has not been declared ineligible contractor by HRSDC).

Further information on the FCP-EE is available on the following HRSDC Web site:

PART 6 - RESULTING CONTRACT CLAUSES

1. Security Requirement

There is no security requirement associated with the requirement.

2. Requirement

The Department of National Defence (DND) has a requirement for forty-two (42) Ferrous Ordnance Locators (FerOL) with data logging and analysis/evaluation software to detect and mark deeply buried Unexploded Ordnance (UXO). In accordance with the mandatory specifications detailed in the Statement of Work

2.1 Optional Requirement

The Contractor grants to Canada the irrevocable option to purchase forty-two (42) additional FerOL under the same terms and conditions and prices 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 within two (2) years after contract award.

2.2 Optional Spare Parts and additional Work

The Contractor grants to Canada the irrevocable option to purchase additional Work and Spare Parts that are not described in the Statement of Work but that is required to support the Ferol and that would fall within the overall scope of the Work, under the same terms and conditions stated in the Contract and prices stated at Appendix A - Basis of Payment. The option may only be exercised by the Contracting Authority and will be evidenced, for administrative purposes only, through a contract amendment or by the Requisitioning Authority with a DND 626 Work authorization Form

3. General Conditions

2010A (2012-07-16), General Conditions - Goods (Medium Complexity), apply to and form part of the Contract.

All clauses and conditions identified in the Contract by number, date and title are set out in the Standard Acquisition Clauses and Conditions Manual issued by Public Works and Government Services Canada.

4. Term of Contract

The contract will be in force until all warranty or optional provisions of this agreement are expired.

4.1 Delivery and Installation

Delivery and Installation is required according to the timeline detailed In Appendix 4 of the SOW. Installation must be carried out by a qualified service technician. All costs associated with Delivery and installation, including travel and living expenses must be included in the price

Solicitation No. - N° de l'invitation

W8476-112853/B

Amd. No. - N° de la modif.

Buyer ID - Id de l'acheteur

pv938

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

W8476-112853

File No. - N° du dossier

pv938W8476-112853

CCC No./N° CCC - FMS No/ N° VME

4.2 Training

The Contractor must provide on-site training in English as per the Stament of Work

5. Shipping Instructions - Delivery at Destination

The a Ferrous Ordnance Locator (FerOL) with data logging and analysis/evaluation software must be delivered DDP Delivery Duty Paid (Edmonton, Alberta) Incoterms 2000 for shipments from a commercial contractor.

6. Authorities

6.1 Contracting Authority

The Contracting Authority for the Contract is:

Paul Roy
Public Works and Government Services Canada
Acquisitions Branch
Commercial Consumer Products Directorate
11 Laurier Street, 6A2, Phase III
Place du Portage, Hull, Quebec, K1A 0S5
Telephone: (819) 956-6919
Facsimile: (819) 956-3814
E-mail address: paul.roy@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 filled in only 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 Engineering Design Authority

The Engineering Design Authority for the Contract is: **(to be filled in only at contract award)**

The Engineering Design Authority named above is a 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

Solicitation No. - N° de l'invitation

Amd. No. - N° de la modif.

Buyer ID - Id de l'acheteur

W8476-112853/B

pv938

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

File No. - N° du dossier

CCC No./N° CCC - FMS No/ N° VME

W8476-112853

pv938W8476-112853

Engineering|Design Authority, however the Engineering|Design 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.

6.4 Requisitioning Authority

The Requisitioning Authority for the Contract is: *(to be filled in only at contract award)*

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

6.5 Contractor's Representative (to be filled in by the Bidder)

The telephone number of the person responsible for :

General enquiries

Delivery Follow-up

Name: _____

Name: _____

Telephone No. _____ Telephone No. _____

Facsimile No. _____ Facsimile No. _____

E-mail address: _____ E-mail address: _____

7. Payment

7.1 Basis of Payment - Firm Price

- 1. In consideration of the Contractor satisfactorily completing all of its obligations under the Contract, the Contractor shall be paid a firm price of \$ *to be filled in at contract award*, for the Ferrous Ordnance Locators (FerOL) in accordance with the Basis of Payment. Goods and Services Tax or Harmonize Sales Tax extra, if applicable.
- 2. No increase in the total liability of Canada or in the price of the Work resulting from any design changes, modifications or interpretations of the Specifications, will be authorized or paid to the Contractor unless such design changes, modifications or interpretations have been approved, in writing, by the Contracting Authority prior to their incorporation in the Work.

7.2. Milestone Payments

1.Canada will make milestone payments in accordance with the Milestones detailed in the Appendix 4 of annex A and the payment provisions of the Contract, up to percent of the amount claimed and approved by Canada if:

- (a) an accurate and complete claim for payment using the contractor's own form and any other document required by the Contract have been submitted in accordance with the invoicing instructions provided in the Contract;
- (b) all work associated with the milestone and as applicable any deliverable required have been completed and accepted by Canada.

Payments will be done according to the following schedule:

N°	Description	Draft due date	Milestone due date	Milestone payment
1	Environmental Health and Safety Impact Report (EHSIR)	Sixty (60) days following Contract Award	Thirty (30) days following draft submission	After delivery and acceptance of milestone as per conditions set out in the 2010A General Conditions
2	Engineering Drawings & Associated Lists	Sixty (60) days following Contract Award	Twenty-one (21) days following draft submission	After delivery and acceptance of milestone as per conditions set out in the 2010A General Conditions
3	Identification Plates ILS 201- Operator Manual ILS 202- Maintenance Manual ILS 203 - Illustrated Parts Manual ILS 204 - Training Package ILS 205 and ILS 210	Thirty-five (35) days after the Kick-off meeting	Twenty-one (21) days following draft submission	After delivery and acceptance of milestone as per conditions set out in the 2010A General Conditions
4	Provisioning Parts Breakdown/ Supplementary Provisioning Technical Documentation.	Forty-nine (49) days after the Kick-off meeting	Twenty-one (21) days following draft submission	After delivery and acceptance of milestone as per conditions set out in the 2010A General Conditions
5	Special tool & Test Equipment List / Packaging, Labels and Codes / Warranty Support Plan	Twenty-one (21) days after the Kick-off meeting	Fourteen (14) days following draft submission	After delivery and acceptance of milestone as per conditions set out in the 2010A General Conditions
6	Forty-two (42) Ferrous Ordnance Locator (FerOL) with data logging and analysis/evaluation software accordance with the specifications of the Statement of Work (SOW).	N/A	One hundred and twenty (120) days following Contract Award	After delivery and acceptance of milestone as per conditions set out in the 2010A General Conditions

8. Invoicing Instructions

The Contractor must submit invoices in accordance with the information required in section 10 of 2010A (2012-07-16) General Conditions - Goods (Medium Complexity).

Original copy to consignee with one copy to the **Contracting Authority**.

8.1 SACC Manual Clauses

H1001C Multiple Payments (2008-05-12)

9. Certifications

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

10. Applicable Laws

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

11. SACC Manual Clauses

B5001C Design Change/Deviations - unforeseen issues (2010-01-11)
 D5515C Quality Assurance Authority (DND) - Foreign-based and United States Contractor (2010-01-11)
 D5540C 2010 ISO 9001:2008 Quality Management Systems - Requirements (QAC Q) (2010-08-16)
 D3020C Preparation for Delivery - European Union (2008-05-12)
 D2025C Wood Packaging Materials (2008-12-12)
 D6010C Palletization (2007-11-30)
 B4042C Identification Markings (2008-05-12)
 D6009C Shipping Instructions - Delivery and Destination Schedules Unknown (2008-05-12)
 B1501C Electrical Equipment (2006-06-16)

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) 2010A (2012-07-16) General Conditions - Goods (Medium Complexity);
- (c) Statement of Work for The Ferrous Ordnance Locator;
- (d) Appendix "A" Basis of payment
- (e) Annex A: Statement of Work (SOW)
 Appendix 1 to Annex A: DND Software List
 Appendix 2 to Annex A: Data Item Description (DID)
 Appendix 3 to Annex A: Contract Data Requirement List (CDRL)
- (f) Annex B: Specification
- (g) Annex D: System Drawings
- (h) the Contractor's bid dated (insert date of bid) _____

Solicitation No. - N° de l'invitation

W8476-112853/B

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

W8476-112853

Amd. No. - N° de la modif.

File No. - N° du dossier

pv938W8476-112853

Buyer ID - Id de l'acheteur

pv938

CCC No./N° CCC - FMS No/ N° VME

Solicitation No. - N° de l'invitation

W8476-112853/B

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

W8476-112853

Amd. No. - N° de la modif.

File No. - N° du dossier

pv938W8476-112853

Buyer ID - Id de l'acheteur

pv938

CCC No./N° CCC - FMS No/ N° VME

Appendix "A" **BASIS OF PAYMENT**

Prices shall not include any GST/HST.

The Bidder shall complete the fill-ins and tables in Appendix "A" as follows:

1. Requirements

Forty-two (42) Ferrous Ordnance Locator (FerOL) with data logging and analysis/evaluation software in accordance with the Statement of Work (SOW)

\$ _____ Firm Price per Unit

2. Optional Requirement

The Contractor grants to Canada the irrevocable option to purchase Up to Forty-two (42) additional Ferrous Ordnance Locator (FerOL) with data logging and analysis/evaluation software in accordance with the Statement of Work (SOW) within two (2) years of contract award, under the same terms and conditions and at the prices 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 anytime after contract award by sending a written notice to the Contractor.

Insert Price for Additional FerOL

\$ _____ Lot Price per Unit

3. Optional Additonnal Work and Spare Parts

DND 626 Task Authorization for Optional Requirements

The Contractor grants to Canada the irrevocable option to purchase Additonnal Work and Spare Parts, within two (2) years of contract award, under the same terms and conditions and at the prices stated in the Contract. The option may only be exercised by the DND Requisitioning Authority and will be evidenced, for administrative purposes only, through a DND 626 Work Authorization.

The DND Requisitioning Authority may exercise the options at anytime after contract award.

Limitation of Expenditure for additional Work and Spare Parts

A limitation of expenditure is established for the optional requirements at \$200,000 (CDN) for the total of all Work authorizations under the contract. The Contractor shall not perform any work or services which would cause the total liability of Canada to exceed the authorized total amount unless an increase is authorized by Canada.

The Contractor will be reimbursed for the costs reasonably and properly incurred in the performance of the Work, and, if applicable, profit, as determined in accordance in the applicable DND 626 Work

Solicitation No. - N° de l'invitation

W8476-112853/B

Amd. No. - N° de la modif.

Buyer ID - Id de l'acheteur

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

W8476-112853

File No. - N° du dossier

pv938W8476-112853

CCC No./N° CCC - FMS No/ N° VME

Authorization and with the pricing stated in the illustrated Parts Manual (DID# ILS-204) , to a limitation of expenditure of up to \$25,000 (CND) per individual DND 626 Work Authorizations. Customs duties and Goods and Services Tax or Harmonized Sales Tax is extra, if applicable. Tasks over this limit will be passed to the Contracting Authority for review and signature in the PWGSC block on the DND 626 prior to release of the Task Authorization.

DND 626 Work Authorization Process for Addtional Work and Spare Parts

The Technical Authority (TA) will provide a Work or Spare parts description in sufficient detail to enable the Contractor to establish a price. The DND 626 Work Authorization 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 Contractor shall submit its proposal, in two (2) copies, including the price and supporting details, to the Technical Authority (TA) and the Requisitioning Authority (RA). The Contractor must provide the Technical Authority, within 2 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 shall be obliged to complete the work for the price agreed to, which will represent the total amount payable under the DND 626 Task Authorization.

No increase in the total liability of Canada or in the price of the Work resulting from any design changes, modifications or interpretations of the Work, will be authorized or paid to the Contractor unless these design changes, modifications or interpretations have been approved, in writing, by the Contracting Authority before their incorporation into the Work. The Contractor must not perform any work or provide any service that would result in Canada's total liability being exceeded before obtaining the written approval of the Contracting Authority.

A copy of each DND 626 shall be forwarded to the PWGSC Contracting Authority named herein

Canadian Forces Explosive Ordnance Disposal (EOD) Team Equipment

**STATEMENT OF WORK (SOW)
FOR
THE FERROUS ORDNANCE LOCATOR (FerOL)**

Revised 17 May, 2012

Prepared by:
DCSEM 9
National Defence Headquarters
Major General George R. Pearkes Building
Ottawa, Ontario
K1A 0K2

TABLE OF CONTENTS

1	SCOPE	3
1.1	PURPOSE.....	3
1.2	BACKGROUND	3
1.3	ACRONYMS.....	3
2	APPLICABLE DOCUMENTS	4
2.1	APPLICABILITY	4
2.2	ORDER OF PRECEDENCE	6
3	REQUIREMENTS.....	6
3.1	GENERAL.....	6
3.1.5	<i>Format of Document Deliverables.....</i>	<i>7</i>
3.2	ENVIRONMENTAL HEALTH AND SAFETY (EHS).....	7
3.3	PROJECT MANAGEMENT	8
3.3.1	<i>Project Manager.....</i>	<i>8</i>
3.3.2	<i>Project Meetings.....</i>	<i>9</i>
3.3.3	<i>Kick-Off Meeting</i>	<i>9</i>
3.3.4	<i>Meeting Documentation.....</i>	<i>9</i>
3.3.5	<i>Other Meetings</i>	<i>9</i>
3.4	INTEGRATED LOGISTICS SUPPORT (ILS).....	10
3.4.1	<i>Maintenance Concept.....</i>	<i>10</i>
3.4.2	<i>Supply Support.....</i>	<i>11</i>
3.4.3	<i>Publications.....</i>	<i>12</i>
3.4.7	<i>Technical Data Package (TDP).....</i>	<i>14</i>
4	DELIVERABLES	<u>1514</u>
4.1	EQUIPMENT.....	<u>1514</u>
4.2	DATA	15
4.3	SUMMARY OF DELIVERABLES	15
4.4	DELIVERY SCHEDULE.....	16
1	APPENDIX 1 - DND OFFICE SOFTWARE LIST	17

1 SCOPE

1.1 Purpose

1.1.1 The purpose of this Statement of Work (SOW) is to define the work requirements for the provision of a Ferrous Ordnance Locator (FerOL), commonly known as “Bomb Locator” or “Unexploded Ordnance Locator”. The proposed FerOL will replace the Canadian Forces (CF) in-service bomb locator.

1.2 **Background**

1.2.1 The CF has a mandate to detect, locate, neutralize and dispose of unexploded ordnance (UXO) that may be present within Canada, including underwater in inland rivers and lakes and in coastal waters. As well, out-of-country, deployed explosive ordnance disposal (EOD) specialists and engineers often have to deal with UXO present in many post-conflict areas that pose a threat to Canadian and Allied forces.

1.2.2 This requirement will provide the CF with a modern, portable and efficient ferrous ordnance locator capable of functioning in a variety of climatic conditions and harsh physical environments worldwide. It will be subjected to repeated periods of sustained and rugged use followed by extended inactivity, storage or transport. It will complement the electromagnetic induction type mine detectors in the CF inventory that do not have the inherent deep detection capability offered by magnetic anomalies detectors.

1.2.3 The FerOL role will be to detect and locate, on land or underwater, deeply buried unexploded ordnance having a large enough ferro-magnetic component creating anomalies in the earth geomagnetic field that can be measured at a distance away from their source. The locator will also be used to search for any other ferrous objects of interest to the CF, such as but not limited to underground weapons and ammunition caches, barrels or containers of hazardous substances, or other storage facilities. It will be deployed for dismounted (on foot) land surface surveys and through boreholes, and for in-water searches.

1.3 **Acronyms**

1.3.1 Following acronyms were used in this document:

AAL	Additional Attachments List
CA	Contracting Authority
CDRL	Contract Data Requirements List
CF	Canadian Forces
COTS	Commercial Off-the-Shelf
DCSEM	Director Combat Support Engineering Management

DID	Data Item Description
DND	Department of National Defence
DSCO	Director Supply Chain Operations
ECM	Electronic Countermeasures
EMI	Electro-Magnetic Induction
EMI	Electro-Magnetic Interference
EOD	Explosive Ordnance Disposal
FerOL	Ferrous Ordnance Locator
GPS	Global Positioning System
IAW	In Accordance With
ILS	Integrated Logistic Support
IPL	Interim Parts List
ISL	Interim Spares List
ISO	International Standardization Organization
LCD	Liquid Crystal Display
MOTS	Military-Off-The-Shelf
NATO	North American Treaty Organization
nT	NanoTesla
OEM	Original Equipment Manufacturer
PC	Personal Computer
PDA	Personal Data Assistant
PWGSC	Public Works and Government Services Canada
RA	Requisition Authority
RFI	Radio Frequency Interference
RFP	Request For Proposal
RSPL	Recommended Spare Parts List
SOR	Statement Of Requirements
SOW	Statement Of Work
SPTD	Supplementary Provisioning Technical Documentation
STTE	Special Tools and Test Equipment
STTEL	Special Tools and Test Equipment List
TA	Technical Authority
TDP	Technical Data Package
UXO	Unexploded Ordnance

2 APPLICABLE DOCUMENTS

2.1 Applicability

- 2.1.1 The following documents form part of this Annex A, FerOL SOW to the extent specified herein, and in Annexes B, C and D. Unless otherwise specified, the issue and amendment of documents effective for this contract shall be those in effect on the date of the RFP.

Annex B	System Requirements Specification for the Ferrous Ordnance Locator (FerOL)
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Annex C	Proposal Evaluation and Selection Process for the Ferrous Ordnance Locator (FerOL)
Annex D	Commercial Engineering Drawings and Associated Lists for the Ferrous Ordnance Locator (FerOL)
Appendix 1 to Annex A	DND OFFICE SOFTWARE LIST
Appendix 2 to Annex A	Data Item Description (DID) for the Ferrous Ordnance Locator (FerOL)
Appendix 3 to Annex A	Contract Data Requirement List (CDRL) for the Ferrous Ordnance Locator (FerOL)
Appendix 4 to Annex A	Deliverables Timeline for the Ferrous Ordnance Locator (FerOL)
A-EN-007-000/FP-001	DND Environmental Assessment Manual
ASME Y14.100	Engineering Drawing Practices
ASME Y14.24	Types and Applications of Engineering Drawings
ASME Y14.34M	Associated Lists
C-01-100-100/AG-005	Specification – Acceptance of Commercial & Foreign Government Publications as Adopted Publications
D-01-100-207/SF-002	Specification - Preparation of Interim Illustrated Parts Manuals for Land Equipments
D-01-100-214/SF-000	Specification for Preparation of Provisioning Documentation for Canadian Forces Equipment
D-01-400-001/SG-000	Standard Engineering Drawing Practices for Class 1 Drawings and Technical Data Lists
D-01-400-002/SF-000	Drawings, Engineering and Associated Lists dated 83-11-30
D-02-002-001/SG-001	Identification Marking of Canadian Military Property
D-LM-008-002/SF-001	Specification for Marking for Storage and Shipment
D-LM-008-001/SF-001	Methods of Packaging
D-LM-008-022/SG-000	Standard for Packaging of Documentation

ISO 9660	Information Processing – Volume and File Structure of CD ROM for Information Exchange
SOR/99-7	Ozone-Depleting Substances Regulations, 1998
R.S.C 1995 c. H-3	Hazardous Products Act
TIFF Revision 6	Adobe Systems Incorporated dated: 3 June 1992
Z234.1-00	Canadian Metric Practice Guide
FED-STD-595B	Colors Used in Government Procurement
DGLEPM EHSMS Divisional Instruction 600-04	Environmental Health and Safety Assessment

2.2 **Order of Precedence**

- 2.2.1 In the event of a conflict between the text of this document and the references cited herein, the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

3 **REQUIREMENTS**

3.1 **General**

- 3.1.1 This section describes the work tasks required by the Contractor to supply the FerOL and related accessories. It also describes the related Integrated Logistics Support (ILS) package and training requirements to be provided by the contractor.
- 3.1.2 The Contractor shall deliver the FerOL and associated accessories meeting all performance requirements detailed in Annex B – System Requirements Specification, complete with optional data logging and analysis software. A unit of FerOL shall consist of the following:
- i. Sensor Probe;
 - ii. Control Unit with an indication meter or, preferably, Liquid Crystal Display (LCD), Data Logging and GPS interface;
 - iii. Probe Mount;
 - iv. Headset/Earphone;
 - v. Battery Pack with Charger, Cables;
 - vi. 25m Probe Extension Cable with Drum and Sealing Plug;

- vii. 25m Tow Rope;
- viii. Carrying Belt/Strap;
- ix. Impact Resistant Carrying Case;
- x. Soft Case;
- xi. Data Transfer Cable;
- xii. Operator Manual; and
- xiii. Operator Tools (if any)

3.1.3 The Contractor shall prepare and deliver all publications and the contract data deliverables IAW Appendices 2 & 3 of this Annex A, FerOL SOW and as stated throughout this document.

3.1.4 The Contractor shall provide training, generate and deliver the training materials IAW section 3.4.4 of this SOW.

3.1.5 Format of Document Deliverables

3.1.5.1 All data delivered as part of this SOW, other than those with specific requirements, shall be prepared in the Contractor's own format. All documentation shall be submitted in hardcopy and in electronic format using software, which is authorized by the Department of National Defence (DND). Delivery media containing compressed files shall also contain the decompression software.

3.1.5.2 Unless otherwise specified as a specific requirement, the Contractor shall deliver all of the soft copies of data deliverables, in formats compatible with the office software currently in use by DND as listed in Appendix 1 – DND Office Software List to this Annex A, FerOL SOW.

3.1.5.3 Those compatible formats shall allow the files to be recognized, opened, and viewed or read in their intended form and format using DND office software, as well as allowing the user to modify, select, copy and paste information from the files to other DND office software files.

3.2 Environmental Health and Safety (EHS)

3.2.1 The Contractor shall maintain Environmental Health and Safety (EHS) documentation within the project file throughout the life of this Contract.

3.2.2 The Contractor shall provide for and allow DND inspection and monitoring of EHS documentation throughout the life of the contract.

- 3.2.3 Polychlorinated Biphenyls (PCBs), halocarbons (Ozone-Depleting Substances Regulations, 1998), and asbestos are not to be incorporated into the design, operation and maintenance of the equipment, or products used in equipment support activities.
- 3.2.4 The Contractor shall identify and report all sources of mercury contained or used within the design, operation and maintenance of the equipment, or products used in equipment support activities.
- 3.2.5 The Contractor shall comply with DND policies, orders, directives, instructions and best practices when accessing DND owned or controlled lands, buildings or equipment.
- 3.2.6 Canada Labour Code, Part II dictates that the least hazardous materials should be used at the workplace. Therefore, the Contractor is to strive to use the least hazardous product that meets the requisite performance requirements.
- 3.2.7 The Contractor shall include Material Safety Data Sheet (MSDS) with the bid submission, for each hazardous product/material which is used in the operation and maintenance of the system, that fall under the Hazardous Products Act, R.S.C. 1985, c. H-3 and regulation(s) there under in accordance with the said Act and regulation(s), at minimum.
- 3.2.8 New or amended support documentation such as the Canadian Forces Technical Orders (CFTO) shall incorporate appropriate EHS warnings and instructions in direct relation of the EHS risks presented in the contents.
- 3.2.9 It is the Contractor's responsibility to ensure that specifications, standards, support documents and test programs are reviewed for EHS compliance.
- 3.2.10 The Contractor shall prepare and deliver an Environmental Health and Safety Impact Report (EHSIR), in accordance with DID FerOL PM-001 in Appendix 2 and its associated CDRL FerOL PM-001 in Appendix 3 to this Annex A, FerOL SOW on the provided systems/materials/services.

3.3 **Project Management**

3.3.1 **Project Manager**

- 3.3.1.1 The Contractor shall designate a project manager with the responsibilities to coordinate, execute, and manage the Contractor's project management activities for the Contract. The Contractor's Project Manager shall have total responsibility for all work required under the Contract.
- 3.3.1.2 The Contractor's Project Manager shall be the primary point of contact between the Contractor and the DND Technical Authority (TA), Requisition

Authority (RA) and the PWGSC Contracting Authority (CA) for all issues related to the Contract.

3.3.2 Project Meetings

3.3.2.1 The Contractor shall ensure that data, personnel and facilities are available for each meeting.

3.3.2.2 As appropriate, meetings may be held at the Contractor or DND facilities at the discretion of the TA.

3.3.2.3 The Contractor's Project Manager shall be present at all meetings. If the Project Manager does not have final approval authority for decision making and changes, then the person that has that final approval authority shall also be present at all meetings.

3.3.2.4 Where possible, teleconferencing or video conferencing shall be used for conducting meetings as approved by the CA.

3.3.3 Kick-Off Meeting

3.3.3.1 The Contractor shall host a Kick-off Meeting no later than twenty-one (21) calendar days after contract award to review and secure a common understanding of the requirements expressed in all, but not limited to, the following areas:

- (a) The Contract;
- (b) SOW;
- (c) Project Management; and
- (d) Any contractual or programmatic issues associated with the project as agreed between the DND TA, PWGSC CA, and the Contractor.

3.3.4 Meeting Documentation

3.3.4.1 Contractor shall prepare and deliver meeting agenda for each meeting at least seven (7) calendar days before each meeting.

3.3.4.2 The Contractor shall record, prepare, and deliver the minutes of each meeting IAW DID FerOL PM-001 in Appendix 2 and its associated CDRL FerOL PM-001 in Appendix 3 to this Annex A, FerOL SOW.

3.3.4.3 No change in the interpretation of the Project, SOW, cost, or schedule, as defined in the Contract, may be authorized by the minutes of a meeting. Such action shall require formal Contract amendment by the CA.

3.3.5 Other Meetings

3.3.5.1 The Contractor and/or the TA may schedule informal reviews, such as teleconferences, video conferences, briefings and technical interchange meetings, as required to help achieve the requirements of the Contract.

3.3.5.2 The Contractor shall formally submit all items that could have a contractual impact as they arise.

3.4 **Integrated Logistics Support (ILS)**

The Contractor shall implement and maintain an Integrated Logistic Support (ILS) Program for the duration of the Contract period.

3.4.1 **Maintenance Concept**

The Maintenance Concept is the most important element of the support concept for equipment. It is imperative that the Contractor understand the maintenance concept, it will allow him to produce and deliver professional and accurate ILS deliverables.

The maintenance concept for the FerOL is based on two different levels of repairs. Based on the definition of levels or repairs below, the Contractor shall define the appropriate level of repairs for each maintenance task.

In absence of maintenance tasks analysis report, the Contractor shall use its experience and knowledge to properly define the appropriate level of repairs. In the case where the Contractor is not the OEM, he shall ensure he gets all information required to properly define level of repairs.

DND technicians will perform Level One and Level Two repairs.

Level of Repairs definitions:

Level One. Level one includes Operator and Technician maintenance which principally includes preventive maintenance, inspection, servicing, preliminary diagnosis of faults, and corrective maintenance. Level One Repairs are considered tasks of a minor nature. The term "minor nature" infers short duration (less than four hours) and relatively simple repairs.

Level Two. Level two includes principally corrective maintenance carried out by the replacement of major assemblies. The duration of tasks is usually limited to 24 hours.

3.4.2 **Supply Support**

3.4.2.1 **Initial Provisioning Guidance Conference (IPGC)**

The Initial Provisioning Guidance Conference provides an opportunity for all of the participants in the provisioning process to meet and coordinate their activities. It involves the Crown, the contractor and major subcontractors.

3.4.2.2 The Contractor shall host an IPGC no later than twenty one (21) calendar days after contract award.

3.4.2.3 **Provisioning Parts Breakdown**

The Contractor shall deliver a Provisioning Parts Breakdown (PPB) IAW DID FerOL - ILS-206 and its associated CDRL FerOL -ILS-206.

3.4.2.4 **Supplementary Provisioning Technical Documentation (SPTD)**

The Contractor shall deliver Supplementary Provisioning Technical Documentation (SPTD) for each item appearing in the provisioning documentation IAW DID FerOL - ILS-207 and its associated CDRL FerOL -ILS-207.

3.4.2.5 **Initial Provisioning Conference (IPC)**

Initial Provisioning Conferences are held to verify the configuration of equipment being provisioned and to examine provisioning data and select the necessary range and depth of spares.

The Contractor shall convene an IPC at its facilities no later than twenty one (21) calendar days after acceptance of the PPB and associated documentation.

For the Conference, the Contractor shall provide:

- A suitable conference room;
- A copy of the provisioning lists to be discussed;
- A copy of the supporting SPTD;
- The equipment for physical examination, if feasible;
- Any relevant Material Change Notices (MCNs);
- Any relevant technical data regarding modifications or variants; and
- Engineering and product support expertise from the original equipment manufacturer.

3.4.2.6 **Special Tools & Test Equipment (STTE)**

The Contractor shall deliver a Special Tools and Test Equipment (STTE) List IAW DID FerOL-ILS-208 at and its associated CDRL FerOL-ILS-208.

3.4.2.7 **Identification Plates**

The Contractor shall submit representative Level 2 engineering drawings, as defined in D-01-100-214/SF-000, of every Identification Plate designed IAW DID FerOL-ILS-201 and its associated CDRL FerOL -ILS-201.

Once the Identification Plate designs produced under 3.4.2.7 above are approved, the Contractor shall ensure that all FerOL associated components have those required Identification Plates or markings IAW Section 10.1 of DID FerOL-ILS-201, prior to being delivered to DND.

3.4.2.8 **Packaging, Labels and Codes**

All parts and equipment supplied by the Contractor to DND shall be packaged as per D-LM-008-001/SF-001. Preservation and Packaging Levels shall be selected based on criteria set out in Annex A of the referenced specification.

Packaging shall be labeled as per D-LM-008-002/SF-001, using D-LM-008-011/SF-001 to prepare the required packaging and preservation codes.

The Contractor shall provide copies of the labels IAW DID FerOL-ILS-209 and its associated CDRL FerOL-ILS-209 for review and approval prior to their production and use.

The Contractor shall provide a list of all Packaging Codes IAW DID FerOL-ILS-209 and its associated CDRL FerOL-ILS-209.

3.4.3 **Publications**

Publication Translation: The Contractor shall have all Technical Publications listed within 5.4 translated by certified translators, such as members of an authorized provincial association of translators to ensure the quality of translated text. The translator shall have technical knowledge and understand the use and functioning of the PRS. The Contractor shall ensure all translations are consistent with approved DND terminology. Approved terminology sources, in order of priority, are as follows:

Defense Terminology Management System (DTMS) terminology bank;
(<http://terminology.mil.ca/term-eng.asp>)

Concise Oxford Dictionary (for English);

Petit Robert (for Canadian French);

Termium, PWGSC Translation Bureau Linguistic Data Bank
(http://termiumplus.gc.ca/site/accueil_home_e.html); and

Any other available source approved by DND.

Copyright Release: The Department of National Defence reserves the right to reproduce, in part or in whole, all publications produced. Supply of the publications

shall include a royalty-free, irrevocable copyright release with rights of translation in English and/or French (refer to A-AD-100-100/AG-000) with the limitation that the data shall not be released outside the Canadian Government if the supplier so states.
Certificates: The Contractor shall prepare and deliver Certificates of (refer to C-01-100-100/AG-006)

- a. Validation (DND 590) for submission to CA;
- b. Translation Accuracy Check (TAC);
- c. Reproducible Copy (DND 642) and;
- d. Compliance (DND 591).

3.4.3.1 **Operator Manual**

The Contractor shall deliver the Operator Manual IAW DID FerOL-ILS-202 and CDRL FerOL-ILS-202

3.4.3.2 **Maintenance Manual**

The Contractor shall deliver the Maintenance Manual IAW DID FerOL-ILS-203 and CDRL FerOL-ILS-203

3.4.3.3 **Illustrated Parts Manual**

The Contractor shall deliver the Illustrated Parts Manual IAW DID FerOL-ILS-204 and CDRL FerOL-ILS-204.

3.4.4 **Training**

3.4.4.1 **Operator Training Package**

The Contractor shall deliver the Operator Training Package IAW DID FerOL-ILS-205 and CDRL FerOL-ILS-205.

3.4.4.2 **Technician Training Package**

The Contractor shall deliver the Technician Training Package IAW DID FerOL-ILS-210 and CDRL FerOL-ILS-210

3.4.4.3 **Training Sessions**

- 3.4.4.3.1 The Contractor shall provide operator and maintainer Training Sessions (Train-the-Trainer type) at Canadian Forces School of Military Engineering, Gagetown N.B, Canada.
- 3.4.4.3.2 This training shall consist of one (1) training session for Operators and one (1) training session for Technician (train-the-trainer types) given to up to ten (10) students per course.
- 3.4.4.3.3 The training shall be provided in English by a bilingual instructor in order for him to be able to understand and answer questions from the class in both official languages; English and Canadian French.
- 3.4.4.3.4 The course shall include all training relating to setup, operation, safety precautions, and first and second level maintenance.
- 3.4.4.3.5 All training materiel provided shall be available in English and Canadian French

3.4.5 **Warranty Support Plan**

The Contractor shall deliver a Warranty Support Plan IAW DID FerOL-ILS-211 and CDRL FerOL-ILS-211.

3.4.6 **Additional Attachments List (AAL)**

The Contractor shall provide an AAL that identifies equipment which purpose is to provide/enhance the locator with additional functions such as data logging, data analysis, targets geographical positioning, survey navigation and tracking, multi-sensor/channel surveying, etc.

AAL shall be provided with the proposal along with a detailed description of each item of this list and the cost.

3.4.7 **Technical Data Package (TDP)**

The Contractor shall deliver a Top Level Assembly drawing no later than fifteen (15) calendar days after the kick-off meeting.

The Contractor shall prepare and deliver for acceptance a Technical Data Package (TDP) containing level two (2) engineering drawings and associated lists for the FerOL to DND TA IAW DID FerOL-SE-101 at Appendix 2 and its associated CDRL FerOL-SE-101 at Appendix 3 to Annex A, FerOL SOW.

4 DELIVERABLES

4.1 Equipment

4.1.1 The Contractor shall deliver each unit of FerOL consisting of all items as stated in section 3.1.2 of this document, as a minimum.

4.2 Data

4.2.1 The Contractor shall ensure that all data deliverables are prepared and delivered IAW Appendices 2 and 3 to this Annex A, FerOL SOW.

4.3 Summary of Deliverables

4.3.1 Contract deliverables are summarized in the Table 1 below.

Item	Description	Immediate Purchase
1	Ferrous Ordnance Locator with accessories and battery pack, hard and soft carry case	42
2	25 m probe extension cable with drum for land, borehole and underwater surveying	42
3	Initial Provisioning Guidance Conference (as per article 3.4.2.1)	1
4	Provisioning Parts Breakdown (as per article 3.4.2.3)	LOT
5	Supplementary Provisioning Technical Documentation (as per article 3.4.2.4)	LOT
6	Initial Provisioning Conference (as per article 3.4.2.5)	1
7	Special Tools and Test Equipment List (as per article 3.4.2.6)	1
8	Identification Plates (as per article 3.4.2.7)	LOT
9	Packaging Labels and Codes (as per article 3.4.2.8)	LOT
10	Operator Manual (as per article 3.4.3.1)	LOT
11	Maintenance Manual (as per article 3.4.3.2)	LOT
12	Illustrated Parts Manual (as per article 3.4.3.3)	LOT

Item	Description	Immediate Purchase
13	Operator Training Package (as per article 3.4.4.1)	1
14	Technician Training Package (as per article 3.4.4.2)	1
15	Training Sessions (as per article 3.4.4.3)	4
16	Warranty Support Plan (as per article 3.4.5)	1
17	Top Level Assembly Drawing	1

Table 1 - Contract Deliverables List**4.4 Delivery Schedule**

- 4.4.1 The Contractor shall maintain the delivery schedule of the FerOL IAW the terms and conditions outlined in the contract by the PWGSC CA and the Appendix 4 to this Annex A, Deliverables Timeline for the Ferrous Ordnance Locator (FerOL).
- 4.4.2 All technical publications, data deliverables, training materials shall be delivered IAW the schedules outlined in Appendices 2 & 3 to this Annex A, FerOL SOW.

1 APPENDIX 1 - DND OFFICE SOFTWARE LIST

1. This appendix lists the office software and operating systems used by the DND TA:
 - a. Microsoft (MS) Windows XP Professional Operating System (OS), Multilingual Pack, associated Software Patches (SP);
 - b. MS Internet Explorer (IE) 7.0 with 128 Bit Encryption and associated SP;
 - c. MS Office 2003, Professional Edition, SP-2, Multilingual Pack (Word, Excel, Access, PowerPoint and Outlook);
 - d. MS Project 2003;
 - e. Quickview Plus 6.0;
 - f. Adobe Acrobat 6.0;
 - g. MS Visio 2000 (6.0);
 - h. WinZip 8.1 SR-1; and
 - i. Telelogic DOORS 8.1

**DATA ITEM DESCRIPTION (DID)
FOR
THE FERROUS ORDNANCE LOCATOR (FerOL)**

Last revised: Mar 20, 2012

Prepared by:
DCSEM 9
National Defence Headquarters
Major General George R. Pearkes Building
Ottawa, Ontario
K1A 0K2

1. DID Definitions

The following section defines the various blocks of information found on the Data Item Description (DID) forms:

BLOCK 1 – TITLE

The title of the data item for the DID.

BLOCK 2 - IDENTIFICATION NUMBER

The Data Item Description (DID) number, consisting of a sequential three-digit number and prefixed with an abbreviation code, to uniquely identify the DID. Note that the 001-099 series is reserved to Project Management (PM) DIDs, the 101-199 series is reserved to Systems Engineering (SE) DIDs and the 201-299 series is reserved to Integrated Logistics Support (ILS) DIDs. The abbreviation codes used for the prefix are:

“PM” for Project Management

“SE” for Systems Engineering

“ILS” for Integrated Logistics Support

BLOCK 3 - DESCRIPTION

Provides a general description of the data content requirements.

BLOCK 4 - APPROVAL DATE

Indicates the date of the originator's approval of the DID.

BLOCK 5 - OFFICE OF PRIMARY INTEREST (OPI)

The office of primary interest for the review, acceptance and/or approval of the data item.

BLOCK 6 - GIDEP APPLICABLE

An “X” indicates that the data is to be submitted by a Government organization or the Contractor to the Government/Industry Data Exchange Program (GIDEP). Otherwise the block is left blank.

BLOCK 7 - APPLICATION / INTERRELATIONSHIP

Provides the application details and interrelationship of the data item to other DIDs or documents.

BLOCK 8 - ORIGINATOR

Indicates the originator's office responsible for the DID.

BLOCK 9 - APPLICABLE FORMS

Indicates any form associated with the DID.

BLOCK 10 - PREPARATION INSTRUCTIONS

Provides the preparation instructions, including format and content requirements for the data.

2. List of DIDs

The following section lists the DIDs (Block 1 – Title) attached to this Appendix, including their DID number (Block 2 – Identification Number) as well as their associated calling Contract Data Requirements List (CDRL) number:

DID #	Title	CDRL #
FerOL-PM-001	Meeting Documentation	FerOL-PM-001
FerOL-PM-002	Environmental Health and Safety Impact Report	FerOL-PM-002
FerOL-SE-101	Technical Data Package (TDP)	FerOL-SE-101
FerOL-ILS-201	Identification Plates	FerOL-ILS-201
FerOL-ILS-202	Operator Manual	FerOL-ILS-202
FerOL-ILS-203	Repair Manual	FerOL-ILS-203
FerOL-ILS-204	Illustrated Parts Manual	FerOL-ILS-204
FerOL-ILS-205	Operator Training Package	FerOL-ILS-205
FerOL-ILS-206	Provisioning Parts Breakdown	FerOL-ILS-206
FerOL-ILS-207	Supplementary Provisioning Technical Data	FerOL-ILS-207
FerOL-ILS-208	Special Tool & Test Equipment	FerOL-ILS-208
FerOL-ILS-209	Packaging, Label and Codes	FerOL-ILS-209
FerOL-ILS-210	Technician Training Package	FerOL-ILS-210
FerOL-ILS-211	Warranty Support Plan	FerOL-ILS-211

Solicitation No. – N° de l’invitation W8476-112853	Amendment No. – N° de la modif. DID FerOL PM-001	File No. – N° de dossier
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DATA ITEM DESCRIPTION		
1. TITLE Meeting Documentation	2. IDENTIFICATION NUMBER DID FerOL-PM-001	
3. DESCRIPTION Meeting documentation shall provide the information to be presented at meetings.		
4. APPROVAL DATE 12 Nov 2010	5. OFFICE OF PRIMARY INTEREST DND / DGLEPM / DCSEM 9	6. GIDEP APPLICABLE N/A
7. APPLICATION / INTERRELATIONSHIP 7.1 This Data Item Description (DID) contains the format, content and preparation instructions for the data product generated by the specific and discrete task requirements as delineated in para 3.3.4. of Annex A – Statement of Work (SOW) of the contract.		
8. ORIGINATOR i. DND / DGLEPM / DCSEM 9-2-2	9. APPLICABLE FORMS N/A	
10. PREPARATION INSTRUCTIONS 10.1 SOURCE DOCUMENT 10.1.1 The applicable issue of the documents cited herein, including their approval dates, and dates of any applicable amendments and revisions shall be as specified in the Contract. 10.2 FORMAT 10.2.1 Meeting documentation shall be in the Contractor's format. 10.3 CONTENT 10.3.1 Meeting documentation shall contain all information intended to be presented by the contractor at a meeting. 10.3.2 The Contractor shall record, prepare, and deliver the minutes of each meeting containing following information, as a minimum: <ul style="list-style-type: none"> a. General – including meeting identification number, purpose, date, time, and location; b. Attendees; c. Opening remarks; d. Agenda review; e. Review of previous minutes; f. Discussion topics – including summary records of proceedings, discussions, non- contractual decisions, information addresses, action addresses and action completion date for each item; g. Closing remarks; and h. Signature of Contractor's PM, Signatures of CA and DND TA. 		

Solicitation No. – N° de l’invitation W8476-112853	Amendment No. – N° de la modif. DID FerOL PM-002	File No. – N° de dossier
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DATA ITEM DESCRIPTION		
10 TITLE Environmental, Health and Safety Impact Report (EHSIR)	10 IDENTIFICATION NUMBER DID FerOL PM-002	
10 DESCRIPTION 10.1 The EHSIR identifies and documents the environmental safety and health impact of the system/service provided by the Contractor throughout the various life cycle phases (design, engineering and manufacturing, test and evaluation, production and delivery, operation and maintenance, and demilitarization and disposal) and the mitigation measures required to reduce or eliminate significant environmental safety and health risks.		
10 APPROVAL DATE 12 Nov 2010	10 OFFICE OF PRIMARY INTEREST: DND/DGLEPM/DCSEM 9	10 GIDEP APPLICABLE N/A
10 APPLICATION/INTERRELATIONSHIP 10.1 This DID contains the format, content and preparation instructions for the Environmental, Health and Safety Impact Report (EHSIR) as required by Para 3.2 of the Annex A - the Statement of Work (SOW).		
10 ORIGINATOR DND / DGLEPM / DCSEM 9-2-2	10 APPLICABLE FORMS N/A	
10. PREPARATION INSTRUCTIONS 10.1. SOURCE DOCUMENT 10.1.1. The applicable issue of the documents cited herein, including their approval dates, and dates of any applicable amendment notices and revisions shall be as specified in the Contract. 10.2. FORMAT 10.2.1. The EHSIR shall be in the Contractor’s format and as further described herein. 10.3. CONTENT 10.3.1. The EHSIR shall follow the guidelines and requirements identified in this DID, DND Environmental Assessment Manual (A-EN-007-000/FP-001) and DGLEPM’s EHSMS Divisional Instruction 600-04 entitled “Environmental, Health and Safety Assessment”. The EHSIR shall identify and document the environmental, health and safety impact of the equipment and materiel provided by the Contractor throughout their life cycle, and the mitigation measures required to reduce or eliminate significant environmental, health and safety risks. The EHSIR shall address the above points in detail through the following parts and sections: 10.3.2. PART I – Registration Information 10.3.2.1. Title – This section shall identify the primary system being reported upon (i.e. – FerOL). 10.3.2.2. Registration – This section shall identify the applicable registration identifier of the EHSIR. 10.3.2.3. Project Description Summary – this section shall contain a brief description of the system under two sub paragraphs: General Description of the System, and Major Sub System. 10.3.2.4. Assessment Contact – this paragraph shall contain the name, title, company name,		

phone number, and email address of the author of the report.

10.3.3. PART II – Environmental, Health and Safety Impact Assessment

10.3.3.1. Major sub system Assessment – This section shall provide, in tabular format, the following information:

- a. A listing of the Environmental, Health and Safety hazards associated with each major sub system for each life cycle phase (engineering and manufacture, test and evaluation, production and delivery, operation and maintenance (including decontamination), demilitarization and disposal) as represented in [Table 1](#) as an example;
- b. Clear identification of whether each major component and its consumables are a source of any EHS hazards such as ionising radiation (location and exposure levels) (for each activity the radiation hazard shall be considered in **both normal and non-normal** situations), Electromagnetic radiation (location and frequencies), Noise (location and intensity), Vibration (location and frequency), Hazardous gases or liquids or solids (source, concentration or quantity); and any other hazard associated with the specific equipment (e.g., heavy metals, etc.).
- c. The associated potential environmental, health and safety impacts from the identified hazards and recommended mitigation measures; and
- d. Reference to the applicable MSDS for each identified hazardous substance.

10.3.3.2. This section shall contain a list of all products containing hazardous substances/materials previously identified in paragraph 10.3.3.1 b (v – viii). The list shall contain the product name, product part number, and the cross-reference to Material Safety Data Sheets (MSDS) identifier. MSDS of these products shall be appended to the EHSIR.

10.3.3.3. Documentation

- a. Regulations and Policies. This section shall list all applicable Canadian regulations and policies; and
- b. Other references. This section shall list the references and material used to produce the EHSIR.

10.3.3.4. Site Visits – This section shall comment on the reasons and results of visits conducted; otherwise it shall be titled and identified as “No site visits required”.

10.3.3.5. Environmental Effects – This section shall contain a completed matrix for each of the applicable system/sub-systems and activities involving the system throughout the life cycle phases (engineering and manufacturing, test and evaluation, production and delivery, operation and maintenance, demilitarization and disposal). [Table 2](#) represents a sample of such matrix.

Across the top of the matrix, list the environmental components and Valued Ecosystem Components (VEC) relevant to the study area. The VECs on the matrix are only a guide to typical environmental components. Adapt the matrix as needed in accordance with the site/system specific VECs.

Summary of Hazards and Impacts – The EHS aspects presented in Table 2 (at minimum) shall be addressed within this Section.

10.3.4. PART III – CONCLUSION

10.3.4.1. Conclusion – This section shall summarize the main findings of the EHSIR and identify the major mitigation measures taken or required to assure sustainable development, and identify the major follow-up measures necessary.

(b) Attachment A

This Attachment shall contain the Material Safety Data Sheets (MSDS) for all hazardous material products identified in para 10.3.3.2.

Table 1 – Major Sub-system EHS Impact Table

Environmental, Health and Safety Impact							
Major Sub-system¹	EHS Hazard	Justification	Significance²	Potential EHS impact	Mitigation (Describe measures required)	Mitigation Follow-up Plan	MSDS Reference
<i>Life Cycle Phase – Engineering and Manufacture</i>							
<i>Life Cycle Phase – Test and Evaluation</i>							
<i>Life Cycle Phase – Production and Delivery</i>							
<i>Life Cycle Phase – Operation and Maintenance</i>							
<i>Life Cycle Phase – Demilitarization and Disposal</i>							

1. Major Sub-system – Enter the appropriate sub-system that the identified hazard is associated with.

Significance – This column shall provide the measurement of the hazard for validation of significance (e.g., for noise, indicate decibel levels).

Table 2 – Environmental Effects Matrix

Article II. PROJECT Sub-system Article III. Enter each sub-system Article IV. e.g. device/com ponent, activity, condition (normal/ab normal), etc, as applicable	Valued Ecosystem Components (Add to/ delete from matrix below as necessary)																	
	Physical							Biological					Social					
	Atmosphere	Surface water	Ground water	Soils	Terrain	Vibration	Noise	Terrestrial animals	Terrestrial habitat	Aquatic animals	Aquatic habitat	Vegetation	Heritage/historical	Recreation/Aesthetic	People/health	Economy	Services	Land use

Solicitation No. – N° de l’invitation W8476-112853	Amendment No. – N° de la modif.	File No. – N° de dossier DID FerOL SE-101
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DATA ITEM DESCRIPTION		
1. TITLE Technical Data Package (TDP)	2. IDENTIFICATION NUMBER DID FerOL-SE-101	
3. DESCRIPTION The TDP comprises the engineering drawings, associated lists and supporting data. This information is used to define the Product Baseline for in-service configuration management and to provide a source of information to support maintenance and engineering analysis activities.		
4. APPROVAL DATE 12 Nov 2010	5. OFFICE OF PRIMARY INTEREST DND / DGLEPM / DCSEM 9	6. GIDEP APPLICABLE N/A
7. APPLICATION / INTERRELATIONSHIP 7.1 This Data Item Description (DID) contains the format, content and preparation instructions for the data product generated by the specific and discrete task requirements as delineated in the Contract (ref: Annex A – SOW, paragraph 3.4.3).		
8. ORIGINATOR DND / DGLEPM / DCSEM 9-2-2	9. APPLICABLE FORMS N/A	
10. PREPARATION INSTRUCTIONS 10.1 SOURCE DOCUMENT 10.1.1 The applicable issue of the documents cited herein, including their approval dates, and dates of any applicable amendments and revisions shall be as specified in the Contract. 10.2 FORMAT & CONTENT 10.2.1 The Engineerings and Associated Lists shall be supplied in the form of a Technical Data Package (TDP) prepared in accordance with the CF Specifications D-01-400-001/SG-000 and D-01-400-002/SF-000. 10.2.2 Submissions shall be accompanied by Engineering Data Lists to identify and index the entire contents of the TDP. 10.2.3 Drawings shall contain the Contractor’s name and CAGE code. 10.3 DETAILED REQUIREMENTS 10.3.1 The Engineering Drawings & Associated Lists shall be prepared and provided meeting all requirements as outlined in Annex D of this Contract. 10.3.2 Use DND standard nomenclature for equipment items in all drawings, specifications, lists and supporting documentation. 10.3.3 The data shall be submitted in the media stipulated in Annex D. 10.3.4 Supporting Data: Supporting data may be in hard copy in Contractor format and sufficiently clear to permit legible reproduction. Supporting data may include: 10.3.5 Material and Process Specifications: The material and process specifications called up on the engineering drawings excepting those which are Government, society and readily available industrial material or process specifications. 10.3.6 Company Standards: The Company standards required to interpret the engineering drawings and associated lists		

DATA ITEM DESCRIPTION

1. TITLE Solicitation No. – N° de l’invitation Identification Plates W8476-112853		2. IDENTIFICATION NUMBER Amendment No. – N° de la modif. FerOL-ILS-201 File No. – N° de dossier DID FerOL ILS-201	
3. DESCRIPTION/PURPOSE To uniquely identify equipment and components or spares based on the procedures governing the identification marking of Canadian military property.			
4. APPROVAL DATE 20 Mar 2012	5. OFFICE OF PRIMARY INTEREST FerOL ILS Manager	6. GIDEP APPLICABLE N/A	
7. APPLICATION/INTERRELATIONSHIP This DID contains the format, content and preparation instructions for the Identification Plates as required by Annex A of the SOW, Para 3.4.2.7 ; <ul style="list-style-type: none"> • D-02-002-001/SG-001- <i>Identification Marking of Canadian Military Property, 2003-04-01</i>; • D-01-400-002/SF-000 – <i>Levels of Engineering Drawings and Associated Lists, 2011-03-01</i> 			
8. ORIGINATOR FerOL ILS Manager		9. APPLICABLE FORMS N/A	
10 PREPARATION INSTRUCTIONS			
10.1 The following items shall have Identification Plates attached to them prior to being delivered to DND for tracking and accountability within the Canadian Forces Supply System: <ul style="list-style-type: none"> 10.1.1 Prime Equipment; 10.1.2 All Major Components; 10.1.3 Spares; 10.1.4 Training Equipment; 10.1.5 Transportation, Shipping, Storage Containers that are not single-use; 10.1.6 Support Equipment (excluding tools); and 10.1.7 Automatic Test Equipment 			
10.2 The Identification Plates affixed to each item listed in 10.1 shall have the following data, deemed necessary by Canada, in both official languages of English and French: <ul style="list-style-type: none"> 10.2.1 Item Name; 10.2.2 Reference (Manufacturer’s Part) Number; 10.2.3 NCAGE code; 10.2.4 Serial Number; 10.2.5 Contract Number; 10.2.6 Government Ownership Designation; and 			
10.3 Prior to the production and installation of the Identification Plates, representative Level 2 drawings (see D-01-400-002/SF-000) of each Identification Plate shall be submitted to DND for review and acceptance as follows: <ul style="list-style-type: none"> 10.3.1 In soft copy as described in 10.4 below; 10.3.2 In 1:1 scale hard copy, on white bond paper of standard North American size; and, 10.3.3 Including the mounting or installation method for each Identification Plate, with any fasteners described by size, and/or technical standard, and/or NSN, and quantity. 			
10.4 Electronic Format			
10.4.1 Viewing the PDF: pages, regardless of size, containing text or illustrations in landscape, shall be rotated for electronic viewing and reading in landscape.			
10.4.2 The Identification Plates drawings in PDF and its native file format shall be submitted on CD DVD to DND media , which shall be labelled as follows:			
<ul style="list-style-type: none"> 10.4.2.1 The project name: FerOL; 10.4.2.2 The contract number: W8476-112853 10.4.2.3 The Subject Matter: <i>Identification Plates</i>; 10.4.2.4 The DID number: (FerOL-ILS-201) 10.4.2.5 The Revision number; 			

Solicitation No. – N° de l'invitation

Amendment No. – N° de la modif.

File No. – N° de dossier

W8476-112853

DID FerOL ILS-201

DATA ITEM DESCRIPTION

1. TITLE Solicitation No. – N° de l’invitation Operator Manual W8476-112853		Amendment No. – N° de la modif.	2. IDENTIFICATION NUMBER File No. – N° de dossier FerOL-ILS-202 DID FerOL ILS-202	
3. DESCRIPTION The Operator Manual for the FerOL will allow the user to effectively operate the FerOL to its utmost capabilities.				
4. APPROVAL DATE 20 Mar 2012		5. OFFICE OF PRIMARY INTEREST FerOL ILS Manager		6. GIDEP APPLICABLE N/A
7. APPLICATION/INTERRELATIONSHIP This DID contains the format, content and preparation instructions for the Operator Manual as required by Annex A of the SOW, Para 3.4.3.1 ; and C-01-100-100/AG-005, <i>Acceptance of Commercial and Foreign Government Publications as Adopted Publications 1996-02-29</i>				
8. ORIGINATOR FerOL ILS Manager			9. APPLICABLE FORMS N/A	
10. PREPARATION INSTRUCTIONS				
10.1 FORMAT				
10.1.1 The Operator Manual shall be prepared in the Contractor’s format while being in full conformance with the above-stated issue of C-01-100-100/AG-005.				
10.1.2 The National Defence Identification Number (NDID) provided to the Contractor by DND, shall be placed on the right top corner of all the pages of the Manual.				
10.1.3 The accepted Operator Manual’s hard copies shall be:				
10.1.3.1 furnished with resistant flexible covers;				
10.1.3.2 printed on paper with these characteristics:				
10.1.3.2.1 Weight: at least 90g/m ² (24 lb.); and,				
10.1.3.2.2 Brightness: at least 96				
10.1.3.3 bound in a manner that will allow the manual to remain open on a flat surface at any page without pages flipping over inadvertently; and,				
10.1.3.4 Of dimensions that will allow the Operator Manual to be packed in the FerOL’s carrying case without needing to be folded or otherwise distorted from flat.				
10.2 CONTENT				
10.2.1 The Operator Manual shall cover the following topics, as well as any other judged pertinent by the Contractor:				
10.2.1.1 General Description/Equipment Overview;				
10.2.1.2 Pre-use testing/inspection;				
10.2.1.3 Preparation and set up for use;				
10.2.1.4 Use and operation;				
10.2.1.5 Operator Maintenance;				
10.2.1.6 Storage, preparation for travel, preservation, and handling procedures				
10.2.1.7 Safety/Hazardous material issues (if any);				
10.2.2 The material covered in 10.2.1 above shall be amplified by illustrations, line drawings, and high quality pictures as appropriate.				
10.3. ELECTRONIC FORMAT				
10.3.1 The Operator Manual shall be provided as a PDF file with searchable text, which matches the printed publication’s format and layout. Links, bookmarks and thumbnails are to be included in the PDF file. <u>Any references made to a specific paragraph, figure, appendix, etc., shall be appropriately linked.</u> Page 12 of 29				
10.3.2 Viewing the PDF: pages, regardless of size, containing text or illustrations in landscape, shall be rotated for electronic viewing and reading in landscape.				
10.3.3 The Operator Manual PDF and its native file shall be submitted on CD or DVD media, which shall be labelled as follows:				

Solicitation No. – N° de l'invitation

Amendment No. – N° de la modif.

File No. – N° de dossier

W8476-112853

DID FerOL ILS-202

DATA ITEM DESCRIPTION

1. TITLE Specification No. – N° de l’invitation Maintenance Manual		Amendment No. – N° de l’amendement 2. IDENTIFICATION NUMBER FerOL-ILS-203
3. DESCRIPTION/PURPOSE The Maintenance Manual for the FerOL will allow a trained technician to effectively maintain of the FerOL system in order for it to be operable to its utmost capabilities.		
4. APPROVAL DATE 20 Mar 2012	5. OFFICE OF PRIMARY INTEREST FerOL ILS Manager	6. GIDEP APPLICABLE N/A
7. APPLICATION/INTERRELATIONSHIP This DID contains the format, content and preparation instructions for the Maintenance as required by Annex A of the SOW, Para 3.4.3.2 ; and <ul style="list-style-type: none"> • D-01-100-205/SF-000 <i>Specification for Preparation of Corrective Maintenance Instruction 2000-10-31</i>; • D-01-100-204/SF-000 <i>Specification for Preparation of Preventive Maintenance Instructions 2000-10-31</i>; • C-01-100-100/AG-005 <i>Acceptance of Commercial and Foreign Government Publications as Adopted Publications 1996-02-29</i> • DID FerOL-ILS-202: <i>FerOL Operator Manual</i> 		
8. ORIGINATOR FerOL ILS Manager		9. APPLICABLE FORMS N/A
10. PREPARATION INSTRUCTIONS <p>10.1 FORMAT</p> <p>10.1.1 The Maintenance Manual shall be prepared in the Contractor’s format and shall be in full conformance with the above-stated issue of C-01-100-100/AG-005.</p> <p>10.1.2 The National Defence Identification Number (NDID) provided to the Contractor by DND, shall be placed on the right top corner of all the pages of the Manual.</p> <p>10.1.3 The accepted Maintenance Manual’s hard copies shall be:</p> <p>10.1.3.1 furnished with resistant flexible covers;</p> <p>10.1.3.2 printed on paper with these characteristics:</p> <p>10.1.3.2.1 Weight: at least 90g/m²; and,</p> <p>10.1.3.2.2 Brightness: at least 96</p> <p>10.1.3.3 Bound in a manner that will allow the manual to remain open while on a flat surface at any page without pages flipping over inadvertently.</p> <p>10.2 CONTENT</p> <p>10.2.1 Maintenance</p> <p>10.2.1.1 The scope of the Maintenance portion of the Maintenance Manual shall cover all FerOL maintenance and repair tasks not already covered in the Operator Manual. These tasks shall be grouped within the Manual based on the number of hours required to complete them:</p> <p>10.2.1.1.1 up to four (4) hours per task; and,</p> <p>10.2.1.1.2 Over four (4) hours, but less than twenty-four (24) hours per task.</p> <p>10.2.1.2 The Maintenance section shall cover the following topics, as well as any other judged pertinent by the Contractor:</p> <p>10.2.1.2.1 General Description/Equipment Overview;</p> <p>10.2.1.2.2 Pre-maintenance procedures to safety the FerOL, if any;</p> <p>10.2.1.2.3 Troubleshooting and testing;</p> <p>10.2.1.2.4 Basic diagnosis and fault finding;</p> <p>10.2.1.2.5 Adjustments, maintenance and repairs grouped IAW section 10.2.1 above and presented IAW D-01-100-205/SF-000 and D-01-100-204/SF-000;</p> <p>10.2.1.2.6 Safety/Hazardous material issues (if any);</p>		

Solicitation No. – N° de l'invitation

Amendment No. – N° de la modif.

File No. – N° de dossier

W8476-112853

DID FerOL ILS-203

DATA ITEM DESCRIPTION		
1. TITLE Illustrated Parts Manual	2. IDENTIFICATION NUMBER DID FerOL-ILS-204	
3. DESCRIPTION/PURPOSE The Illustrated Parts Manual for the FerOL shall contain all the necessary information to positively identify all parts of the FerOL.		
4. APPROVAL DATE 20 Mar 2012	5. OFFICE OF PRIMARY INTEREST FerOL ILS Manager	6. GIDEP APPLICABLE N/A
7. APPLICATION/INTERRELATIONSHIP This DID contains the format, content and preparation instructions for the Illustrated Parts Manual as required by Annex A SOW. Para 3.4.3.3 and <ul style="list-style-type: none"> • D-01-100-207/SF-002, <i>Preparation of Interim Illustrated Parts Manuals for Land Equipments</i> 		
8. ORIGINATOR FerOL ILS Manager	9. APPLICABLE FORMS N/A	
10 PREPARATION INSTRUCTIONS 10.1 FORMAT 10.1.1 The Illustrated Parts Manual shall be prepared in full conformance with the above-stated issue of D-01-100-207/SF-002. 10.1.2 The National Defence Identification Number (NDID) provided to the Contractor by DND, shall be placed on the right top corner of all the pages of the Manual. 10.1.3 The accepted Illustrated Parts Manual’s hard copies shall be: <ul style="list-style-type: none"> 10.2.1.4 furnished with resistant flexible covers; 10.2.1.5 printed on paper with these characteristics: <ul style="list-style-type: none"> 10.2.1.5.1 Weight: at least 90g/m²; and, 10.2.1.5.2 Brightness: at least 96 10.2.1.6 Bound in a manner that will allow the manual to remain open while on a flat surface at any page without pages flipping over inadvertently. 10.2 CONTENT 10.2.1 The Illustrated Parts Manual shall provide illustrations, exploded views, drawings and all associated lists necessary for the proper identification of all parts, assemblies and special equipment down to the Lowest Replaceable Unit (LRU) IAW the Maintenance Concept of the FerOL. The exploded views contained in the Illustrated Parts Manual shall amplify the relationship between all parts and assemblies to facilitate repair of the FerOL and the replacement of parts and assemblies down to the LRU.		
10.3. ELECTRONIC FORMAT 10.3.1 The illustrated Parts Manual shall be submitted in its native file format and as a PDF file with searchable text, which matches the printed publication’s format and layout. Links, bookmarks and thumbnails are to be included in the PDF file. Any references		

made to a specific paragraph, figure, appendix, etc., shall be appropriately linked.

10.3.2 Viewing the PDF version: pages, regardless of size, containing text or illustrations in landscape, shall be rotated for electronic viewing and reading in landscape.

10.3.3 The Illustrated Parts Manual shall be submitted on CD or DVD media, which shall be labelled as follows:

- 10.3.3.1. The project name: FerOL;
- 10.3.3.2. The contract number: W8476-112853
- 10.3.3.3. The Subject Matter: *Illustrated Parts Manual*;
- 10.3.3.4. The DID number: (FerOL-ILS-204)
- 10.3.3.5. The Revision number;
- 10.3.3.6. The date of delivery.

DATA ITEM DESCRIPTION		
1. TITLE Operator Training Package	2. IDENTIFICATION NUMBER FerOL-ILS-205	
3. DESCRIPTION/PURPOSE Training Package for Operators for the Ferrous Ordnance Locator (FerOL).		
4. APPROVAL DATE 20 Mar 2012	5. OFFICE OF PRIMARY INTEREST FerOL ILS Manager	6. GIDEP APPLICABLE N/A
7. APPLICATION/INTERRELATIONSHIP This DID contains the format, content and preparation instructions for the training package as required by Annex A SOW. Para 3.4.4.1		
8. ORIGINATOR FerOL ILS Manager	9. APPLICABLE FORMS N/A	
10. PREPARATION INSTRUCTIONS 10.4 FORMAT 10.3.1 The Training Package shall be delivered in MS PowerPoint Format. 10.3.1 The Training Package shall be delivered in English and Canadian French. 10.4 CONTENT 10.3.1 The Training Package shall include the training documentation as follow: 10.2..1 Lesson plan; 10.2..2 Timetable; and 10.2..3 Student handouts. 10.2..4 Computer Assisted Instructional modules, including learning objects; 10.2..5 Reference materials to include operator manuals; 10.2..6 Training aids; 10.2..7 Performance Checks; and 10.2..8 Lesson specifications. 10.3.1 The following topics shall be addressed in the content of the training package: 10.2..1 Equipment overview; 10.2..2 Pre-use testing/inspection; 10.2..3 Equipment set-up and deployment; 10.2..4 Use and operation; 10.2..5 Training Scenarios (Search Investigation and data understanding); 10.2..6 Operator maintenance and care; 10.2..7 Storage, and preparation to travel; 10.2..8 Safety, including personnel and equipment; and 10.2..9 Hazardous material issues.		

10.4 ELECTRONIC FORMAT

10.3.1 The Training Package in MS PowerPoint Format shall be submitted on CD or DVD media, which shall be labelled as follows:

10.3..1 The project name: FerOL;

10.3..2 The contract number: W8476-112853

10.3..3 The Subject Matter: Operator Training Package ;

10.3..4 The DID number: (FerOL-ILS-205)

10.3..5 The Revision number; and

10.3..6 The date of delivery.

DATA ITEM DESCRIPTION		
1. TITLE: Provisioning Parts Breakdown	2. IDENTIFICATION NUMBER: FerOL ILS-206	
3. DESCRIPTION/PURPOSE: The Provisioning Parts Breakdown provides a top down breakdown of the equipment in the configuration in which it is being procured. This breakdown is accomplished by listing all parts included in the end item in a lateral and descending family tree/generation breakdown. In this breakdown, all assemblies, subassemblies and parts are listed in relation to the next higher assembly.		
4. APPROVAL DATE: 20 Mar 2012	5. OFFICE OF PRIMARY INTEREST: FerOL ILS Manager	6. GIDEP APPLICABLE: N/A
7. APPLICATION/INTERRELATIONSHIP This DID contains the format, content and preparation instructions for the Provisioning Parts Breakdown as required by Annex A SOW. Para 3.4.2.3 and <ul style="list-style-type: none"> • D-01-100-214/SF-000. <i>Preparation of Provisioning Documentation.</i> 		
8. ORIGINATOR: FerOL ILS Manager	9. APPLICABLE FORMS: N/A	
10 PREPARATION INSTRUCTIONS		
10.1 FORMAT		
10.1.1 The Provisioning Parts Breakdown (PPB) shall be prepared a Microsoft Excel Spreadsheet in accordance with CF Specification D-01-100-214/SF-000. If any discrepancies are noted between this DID and publication, this DID will prevail; and		
10.2 CONTENT		
10.2.1 The Provisioning Parts Breakdown shall contain the data elements specified in all mandatory fields of Figure 5, column PPB, of D-01-100-214/SF-000 for each item considered for provisioning.		
10.3 ELECTRONIC FORMAT		
10.3.1 The Provisioning Parts Breakdown in a Microsoft Excel Spreadsheet shall be submitted on CD or DVD media, which shall be labelled as follows:		
10.3.1.1 The project name: FerOL;		
10.3.1.2 The contract number: W8476-112853		
10.3.1.3 The Subject Matter: Provisioning Parts Breakdown;		
10.3.1.4 The DID number: (FerOL-ILS-206)		
10.3.1.5 The Revision number;		
10.3.1.6 The date of delivery.		

Solicitation No. – N° de l’invitation W8476-112853	Amendment No. – N° de la modif.	File No. – N° de dossier DID FerOL ILS-207
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DATA ITEM DESCRIPTION		
1. TITLE Supplementary Provisioning Technical Documentation		2. IDENTIFICATION NUMBER FerOL-ILS-207
3. DESCRIPTION The Supplementary Provisioning Technical Documentation (SPTD) fully identifies and describes part(s) that may be catalogued.		
4. APPROVAL DATE 20 Mar 2012	5. OFFICE OF PRIMARY INTEREST FerOL ILS Manager	6. GIDEP APPLICABLE N/A
7. APPLICATION/INTERRELATIONSHIP This DID contains the format, content and preparation instructions for the Supplementary Provisioning Technical Documentation as required by Annex A SOW. Para 3.4.2.4. and <ul style="list-style-type: none"> D-01-100-214/SF-000 <i>Preparation of Provisioning Documentation.</i> 		
8. ORIGINATOR FerOL ILS Manager	9. APPLICABLE FORMS N/A	
10. PREPARATION INSTRUCTIONS 10.1 FORMAT 10.1.1 SPTD shall be supplied in PDF format and in black and white. 10.2 CONTENT 10.2.1 The SPTD shall be prepared IAW the applicable sections D-01-100-214/SF-000 for every part included in the PPB described in DID FerOL-ILS-206. 10.2.2 The SPTD supplied shall be sufficiently comprehensive to allow DND to classify and fully describe the item within the NATO codification system. 10.3 ELECTRONIC FORMAT 10.3.1 The SPTD in a PDF format shall be submitted on CD or DVD media, which shall be labelled as follows: <ul style="list-style-type: none"> 10.3.1.1 The project name: FerOL; 10.3.1.2 The contract number: W8476-112853 10.3.1.3 The Subject Matter: SPTD; 10.3.1.4 The DID number: (FerOL-ILS-207) 10.3.1.5 The Revision number; 10.3.1.6 The date of delivery. 		

DATA ITEM DESCRIPTION

<p>1. TITLE Special Tools and Test Equipment</p>	<p>2. IDENTIFICATION NUMBER FerOL-ILS-208</p>
<p>3. DESCRIPTION/PURPOSE To provide a list of all special tools and testing equipment required for the operation and maintenance of the FerOL.</p>	
<p>4. APPROVAL DATE 20 Mar 2012</p>	<p>5. OFFICE OF PRIMARY INTEREST FerOL ILS Manager</p>
<p>6. GIDEP APPLICABLE</p>	
<p>7. APPLICATION/INTERRELATIONSHIP This DID contains the format, content and preparation instructions for the Special Tools and Test Equipment as required by Annex A, Paragraph 3.4.2.6.</p>	
<p>8. ORIGINATOR FerOL ILS Manager</p>	<p>9. APPLICABLE FORMS n/a</p>
<p>10 PREPARATION INSTRUCTIONS</p> <p style="margin-left: 40px;">10.1 CONTENT</p> <p style="margin-left: 80px;">10.1.1 For each required item of STTE, include:</p> <ul style="list-style-type: none"> 10.1.1.1 STTE Item Name; 10.1.1.2 STTE Reference (Manufacturer’s Part) Number; 10.1.1.3 NSCM/CAGE Code; 10.1.1.4 NSN (if available); 10.1.1.5 Maintenance Level; 10.1.1.6 Recommended Buy Quantity; 10.1.1.7 Standard Unit Price; 10.1.1.8 Date of First Article Delivery; 10.1.1.9 Supplementary Provisioning Technical Documentation; 10.1.1.10 Picture(s) or Drawing(s) of item; and, 10.1.1.11 Description and Function of STTE <p style="margin-left: 80px;">10.1.2 The above list may be divided into sections as appropriate:</p> <ul style="list-style-type: none"> 10.1.2.1 Common Hand Tools; 10.1.2.2 Special Purpose Tools; 10.1.2.3 Operations Support Equipment; 10.1.2.4 Maintenance Support Equipment; 10.1.2.5 Calibration Equipment; 10.1.2.6 Test, Measurement and Diagnostic Equipment (TMDE): <ul style="list-style-type: none"> 10.1.2.6.1 General Purpose; and 10.1.2.6.2 Special Purpose; 10.1.2.7 Automatic Test Equipment (ATE) and its Test Program Set (TPS); and 10.1.2.8 Computer Resources Support Requirement. <p style="margin-left: 40px;">10.2 Canada will select the STTE items based on analysis and recommendations presented by the Contractor at a time agreed to during the Kick-Off Meeting. This viewing shall allow Canada to eliminate any STTE that, although being special to the equipment being purchased, may already be in the CF inventory.</p>	

10.3 ELECTRONIC FORMAT

10.3.1 The STTE data shall be submitted in both Excel spreadsheet and PDF file format.

10.3.2 The STTE data shall be submitted on CD or DVD media that shall be labelled as follows:

- 10.3.2.1 The project name: FerOL;
- 10.3.2.2 The contract number: W8476-112853;
- 10.3.2.3 The Subject Matter: *Special Tools and Test Equipment*;
- 10.3.2.4 The DID number: FerOL-ILS-208;
- 10.3.2.5 The revision number; and,
- 10.3.2.6 The date of delivery.

DATA ITEM DESCRIPTION

<p>1. TITLE Packaging, Labels and Codes</p>	<p>2. IDENTIFICATION NUMBER FerOL-ILS-209</p>	
<p>3. DESCRIPTION/PURPOSE To ensure that the labeling used to identify packages for items procured by DND and shipped to or stored at a Canadian facility comply with CF Specifications and to obtain a complete record of packaging codes for catalogued items of the FerOL.</p>		
<p>4. APPROVAL DATE 20 Mar 2011</p>	<p>5. OFFICE OF PRIMARY INTEREST FerOL ILS Manager</p>	<p>6. GIDEP APPLICABLE</p>
<p>7. APPLICATION/INTERRELATIONSHIP This DID contains the format, content and preparation instructions for the Packaging and Markings as required by Annex A, Paragraph 3.4.2.8;</p> <ul style="list-style-type: none"> • D-LM-008-011/SF-001: <i>Preparation and Use of Packaging Requirements Codes, 1988-11-10</i>; • D-LM-008-002/SF-001: <i>Specification for Marking for Storage and Shipment, 1991-08-01</i>; • D-01-400-002/SF-000: <i>Levels of Engineering Drawings and Associated Lists, 2011-03-01</i>. 		
<p>8. ORIGINATOR FerOL ILS Manager</p>	<p>9. APPLICABLE FORMS n/a</p>	
<p>10. PREPARATION INSTRUCTIONS</p> <p>10.1. The design, populated with the appropriate data, of each Packaging Label shall be provided as Level 1 engineering drawings (as defined in D-01-400-002/SF-000) dimensioned to show the critical measurements as defined by D-LM-008-002/SF-001 (example: text size, bar code dimensions, etc.).</p> <p>10.2. The Packaging Codes prepared from D-LM-008-011/SF-001 for the Packaging Labels for each item shall be compiled into a spreadsheet containing the following columns of data, titled as below:</p> <p style="margin-left: 20px;">10.2.1. <i>Item Name</i> – as given by the Contractor;</p> <p style="margin-left: 20px;">10.2.2. <i>Manufacturer’s Reference Number (MRN)</i> – Source manufacturer’s part number;</p> <p style="margin-left: 20px;">10.2.3. <i>NCAGE</i> – Source Manufacturer’s NCAGE;</p> <p style="margin-left: 20px;">10.2.4. <i>OEM part number</i> – Part number assigned by Contractor;</p> <p style="margin-left: 20px;">10.2.5. <i>NATO Nomenclature</i> – Item name as assigned by NATO;</p> <p style="margin-left: 20px;">10.2.6. <i>NATO Stock Number</i>;</p> <p style="margin-left: 20px;">10.2.7. <i>Packaging Code</i> – as resolved by the Contractor;</p> <p style="margin-left: 20px;">10.2.8. <i>Label Number</i> – cross-referenced with the label drawing number from 10.1 above.</p> <p>10.3. Delivery Formats</p> <p style="margin-left: 20px;">10.3.1. Hard Copy: shall be on letter, legal, or 11” x 17” white bond paper, as appropriate for good legibility.</p> <p style="margin-left: 20px;">10.3.2. Soft Copy:</p> <p style="margin-left: 40px;">10.3.2.1. Label Drawings: as text-searchable PDF files, rotated as appropriate to permit normal viewing on-screen.</p> <p style="margin-left: 40px;">10.3.2.2. Packaging Codes spreadsheet:</p> <p style="margin-left: 80px;">10.3.2.2.1. As a text-searchable PDF file, rotated as appropriate to permit normal viewing on-screen; and,</p> <p style="margin-left: 80px;">10.3.2.2.2. As a MS Excel format spreadsheet.</p>		

10.3.2.3. All files shall be submitted on CD or DVD media, which shall be labeled as follows:

- 10.3.2.3.1. The project name: FerOL;
- 10.3.2.3.2. The contract number: W8476-112853;
- 10.3.2.3.3. The Subject Matter: Packaging Labels and Codes;
- 10.3.2.3.4. The DID number: FerOL-ILS-209;
- 10.3.2.3.5. The Revision number; and,
- 10.3.2.3.6. The date of delivery.

DATA ITEM DESCRIPTION

1. TITLE Technician Training Package	2. IDENTIFICATION NUMBER FerOL-ILS-210	
3. DESCRIPTION/PURPOSE The Technician Training Package for the FerOL will be a comprehensive package that will allow the CF SME to train technician in the maintenance of the FerOL.		
4. APPROVAL DATE 22 Mar 2012	5. OFFICE OF PRIMARY INTEREST FerOL ILS Manager	6. GIDEP APPLICABLE N/A
7. APPLICATION/INTERRELATIONSHIP 7.1 This Data Item Description (DID) contains the format, content and preparation instructions for the data product generated by the specific and discrete task requirements as delineated in the Contract as required by Annex A SOW Paragraph 3.4.4.2.		
8. ORIGINATOR FerOL ILS Manager	9. APPLICABLE FORMS N/A	
10. PREPARATION INSTRUCTIONS 10.1 FORMAT 10.1.1 The Technician Training Package shall be delivered in MS PowerPoint Format. 10.1.2 The Technician Training Package shall be delivered in English and Canadian French. 10.2 CONTENT 10.2.1. The Technician Training Package shall include the courseware and training documentation required for instruction and learning as follow: 10.2.1.1. Lessons plans 10.2.1.2. Computer Assisted Instructional modules, including learning objects; 10.2.1.3. Reference materials to include operator and maintenance manuals; 10.2.1.4. Students handouts; 10.2.1.5. Training aids; 10.2.1.6 Timetable; 10.2.1.6. Performance Checks; and 10.2.1.7. Lesson specifications. 10.2.2. The following topics shall be addressed in the content of the Technician Training Package as a minimum: 10.2.2.1. System overview; 10.2.2.2. Equipment overview; 10.2.2.3. Pre-use testing/inspection; 10.2.2.4. Use and operation for maintenance purpose; 10.2.2.5. Troubleshooting and fault finding; 10.2.2.6. Preventive maintenance procedure; 10.2.2.7. Corrective maintenance; 10.2.2.8. Maintenance resources, tool and test equipment; 10.2.2.9. Personnel and equipment safety issues; 10.2.2.10. Hazardous material issues, including handling and disposal; and 10.2.2.11. Maintenance training (theory and practical). 10.3 ELECTRONIC FORMAT 10.3.1 The Training Package in MS PowerPoint Format shall be submitted on CD or DVD media, which		

shall be labelled as follows:

10.3.1.1 The project name: FerOL;

10.3.1.2 The contract number: W8476-112853

10.3.1.3 The Subject Matter: Technician Training Package ;

10.3.1.4 The DID number: (FerOL-ILS-210)

10.3.1.5 The Revision number; and

10.3.1.6 The date of delivery.

DATA ITEM DESCRIPTION

1. TITLE Warranty Support Plan		2. IDENTIFICATION NUMBER FerOL-ILS-211
3. DESCRIPTION To identify/document the elements that compose the Warranty Support for the FerOL, and to provide the framework and strategy whereby the Contractor shall meet its obligations to affect Warranty Support.		
4. APPROVAL DATE 22 Mar 2012	5. OFFICE OF PRIMARY INTEREST FerOL ILS Manager	6. GIDEP APPLICABLE N/A
7. APPLICATION/INTERRELATIONSHIP This DID contains the format, content and preparation instructions for the Warranty Support Plan as required by Annex A SOW. Para 3.4.5.		
8. ORIGINATOR FerOL ILS Manager		9. APPLICABLE FORMS N/A
10. PREPARATION INSTRUCTIONS		
10.1 Production of this plan using automated techniques is encouraged. Best commercial practices shall be used for charts, tables, matrices, page numbering and document control numbering.		
10.2 CONTENT		
10.2.1 The Warranty Support Plan shall be prepared in the Contractor's format and shall consist as a minimum of the following sections:		
10.2.1.1 Title Page;		
10.2.1.2 Table of Contents;		
10.2.1.3 Document Control Log;		
10.2.1.4 Revision Record;		
10.2.1.5 Plan Subject Matter;		
10.2.1.6 Notes; and		
10.2.1.7 Appendices.		
10.2.2. Title Page - The Title page shall contain the following information:		
10.2.2.1 Title: Warranty Support Plan;		
10.2.2.2 Contract No:		
10.2.2.3 CDRL No: FerOL-ILS-211;		
10.2.2.4 Prepared For: Canadian Department of National Defence, FerOL, EOD Project Office;		
10.2.2.5 Prepared By: Contractor's name address and validation signature;		
10.2.2.6 Approved by: DND EOD Tool FerOL Project Office date and approvals signature; and		
10.2.2.7 Authenticated By: Contractor and date.		
10.2.3. Table of Contents - The Table of Contents shall list the title and page number of each titled paragraph and subparagraph, figure, table and appendix.		
10.2.4. Document Control Log - The Document Control Log shall contain three columns: Revision, Date, and reason for the change.		
10.2.5. Revision Record - The Revision Record shall contain a listing of pages and their revision status.		
10.2.6. Plan Subject Matter - The Plan Subject Matter shall contain plain text that addresses the material that		

shall be included in the document.

- 10.2.7. **Notes** - This section shall contain any general information that aids in the understanding of the document (eg. background information, glossary). This section should include an alphabetical listing of all acronyms, abbreviations, and their meanings as used in the plan.
- 10.2.8. **Appendices** - Appendices may be used to provide information published separately for convenience in document maintenance (eg. charts, classified data). As applicable, each appendix should be referenced in the main body of the plan where the data would normally have been provided. Appendices may be bound as separate documents for ease of handling.
- 10.3. Plan Subject Matter - The plan subject matter shall include but not be limited to a detailed discussion on the following:
 - 10.3.1. An introduction with a stated purpose and scope.
 - 10.3.2. A description of the warranty section. A key point of contact for warranty support matters should be identified.
 - 10.3.3. Detailed summary of what is covered under the FerOL's standard warranty including applicable terms and conditions, such as parts and labour, time, usage, and maintenance servicing requirements.
 - 10.3.4. Complete warranty control procedures including but not necessarily limited to the following:
 - 10.3.4.1. Procedures to be used where warranty claims are not substantiated, but DND elects to have the item repaired and returned to service;
 - 10.3.4.2. Interfacing action between Contractor and Canada for initiating warranty action and shipping instructions, including identification of forms and other documentation requirements;
 - 10.3.4.3. Procedures to be followed for evaluation of defective warrantable items;
 - 10.3.4.4. Details relating to disposal of unserviceable warrantable components, necessary forms and financial control procedures. All costs that are associated with the program shall be identified including a method of compensating DND for effecting warranty repairs on the Contractors behalf; and
 - 10.3.4.5. Report summarising all closed warranty claims and ongoing status of open claims.
 - 10.3.5. Terms and conditions of the packaging warranty coverage;
 - 10.3.6. Details of the process (detailed steps) to be followed to action a warranty claim, for repairs performed by the contractor;
- 10.4. Each topic of discussion should be addressed in a manner that clearly identifies any documentation or information required from DND.
- 10.5. Any documentation used in Warranty Support activities shall be identified and included as part of the Warranty Support Plan.
- 10.6. The final plan shall be submitted in typewritten form on plain white bond paper and on CD or DVD media in Microsoft Office Suite currently being used by DND at that time.
- 10.7. CD or DVD media shall be labelled as follows:
 - 10.7.1. The project name: FerOL;
 - 10.7.2. The contract number: W8476-112853
 - 10.7.3. The Subject Matter: Warranty Support Plan;
 - 10.7.4. The DID number: (FerOL-ILS-211);
 - 10.7.5. The Revision number; and
 - 10.7.4. The date of delivery.

**CONTRACT DATA REQUIREMENT LIST (CDRL)
FOR
THE FERROUS ORDNANCE LOCATOR (FerOL)**

Last revised: 26 Mar, 2012

Prepared by:
DCSEM 9
National Defence Headquarters
Major General George R. Pearkes Building
Ottawa, Ontario
K1A 0K2

CONTRACT DATA REQUIREMENTS LIST (CDRL)

1. CDRL Definitions

The following section defines the various blocks of information found on the Contract Data Requirements List (CDRL) forms:

BLOCK A – SYSTEM / ITEM

Provides the name of the System or Item for which the CDRL applies.

BLOCK B – CONTRACT / RFP NUMBER

Identifies the Contract or RFP for which the CDRL applies.

BLOCK C – SOW IDENTIFIER

Identifies the SOW for which the CDRL applies.

BLOCK D – DATA CATEGORY

Identifies the general category of the data for which the CDRL is being prepared.

BLOCK E – CONTRACTOR

Identifies the Contractor responsible for the delivery of the CDRL.

BLOCK 1 - ITEM NUMBER

The Item Number is a sequential three-digit number to uniquely identify the individual data item (CDRL number). Note that the 001-099 series is reserved to Project Management (PM) CDRLs, the 101-199 series is reserved to Systems Engineering (SE) CDRLs and the 202-299 series is reserved to Integrated Logistics Support (ILS) CDRLs.

BLOCK 2 - TITLE OR DESCRIPTION OF DATA

The title of the data item being referred to in this CDRL.

BLOCK 3 - SUBTITLE

This block contains the subtitle of the data item for the CDRL if the title requires further identification.

BLOCK 4 - AUTHORITY (DATA ITEM NUMBER)

Indicates the Data Item Description (DID) number to which this CDRL refers.

BLOCK 5 - CONTRACT REFERENCE

The specific paragraph number of the Contract Demand, Statement of Work, Request for Proposal, Specification, or other applicable document to assist in identifying the work effort associated with the data item.

BLOCK 6 – REQUIRING OFFICE

Identifies the technical office of primary interest responsible for defining the data requirement, reviewing, acceptance and/or approval of the data item, and ensuring the adequacy of the delivered data.

BLOCK 7 - INSPECTION

This block indicates the requirement for INSPECTION and ACCEPTANCE of the data. The following codes are used:

<u>CODE</u>	<u>INSPECTION</u>	<u>ACCEPTANCE</u>
SS	Source	Source
DD	Destination	Destination
SD	Source	Destination
DS	Destination	Source

If no applicable code is available for the data item, this block is marked as "N/A".

BLOCK 8 - APPROVAL CODE (APP CODE)

Indicates items of critical data requiring specific advanced written approval, such as test plans, identified by placing an "A" in this field. These data may require submission of a preliminary draft prior to publication of a final document. When a preliminary draft is required, Block 16 shall show the length of time for Government approval/disapproval and when final is to be delivered. Block 16 also indicates the extent of the approval requirements, eg, approval of technical content and/or format. If advance approval is not required, this block is marked as "N/A".

BLOCK 9 - INPUT

Indicates if data are the integrated results of specific inputs from associated contractors by placing an "X" in this block. Otherwise the block is left blank.

BLOCK 10 - FREQUENCY

This block indicates the frequency of the delivered data. The following frequency codes are used:

ANNLY	Annually
ASGEN	As generated
ASREQ	As required
BI-MO	Every 2 months
BI-WK	Every 2 weeks
DAILY	Daily
MNTHY	Monthly
ONE/R	One time with revisions
OTIME	One time
QRTLY	Quarterly
R/ASR	Revisions as required

SEMIA	Semi-annually
WKLY	Weekly

BLOCK 11 - AS OF DATE

For data items that are submitted only once, the "as of" date or associated constraint is indicated. The following abbreviations are used for the constraints:

ASGEN	As generated
ASREQ	As required
DACA	Days after contract award
MACA	Months after contract award
EOM	End of month
EOQ	End of quarter

If the as-of date is not applicable, leave this block blank.

BLOCK 12 - DATE OF 1ST SUBMISSION

The initial submission date or associated constraint for the 1st submission of the data item is indicated in this block using typical abbreviations as listed above under Block 11.

BLOCK 13 - DATE OF SUBSEQUENT SUBMISSION / EVENT

The date(s) of subsequent submission(s) or associated constraint(s) of the data item is indicated in this block. The abbreviations used for the constraints are as listed above under Block 11. If no subsequent submission or associated are not involved, this block is marked as "N/A".

BLOCK 14 - DISTRIBUTION AND ADDRESSEES

Indicates the addressees and the respective number of copies (hard copies and soft copies separately), for both the initial or original submissions (Sub-Block "Initial Draft"), and for the final or subsequent submissions (Sub-Block "Final"), for which the data item is required.

Column A contains addresses. The number of initial hard copies for each addressee (as applicable) is indicated in "INITIAL DRAFT" column. The number of hard and soft copies for each addressee (as applicable) is indicated in sub-columns entitled as "Hard" and "Soft" under column titled as "FINAL".

BLOCK 15 - TOTAL

Indicates the total number of copies (hard copies and soft copies separately) required for both the original submission and for the final submission.

BLOCK 16 - REMARKS

Provides additional or clarifying information. Where other blocks refer to Block 16 – Remarks, then the associated block number is indicated with

the information, and a “See Block 16” note would be entered in the referring block.

BLOCKS 17 - 19

These blocks are for Contractor input as required as part of the RFP or Contract. These blocks are not used by TA.

BLOCK - PREPARED BY

This block identifies the CDRL originator’s name and designation.

BLOCK - DATE

This block indicates the date of the CDRL approval.

BLOCK - APPROVED BY

This block contains the identification information, such as name and designation, of the person approving the CDRL.

2. CDRL List

The following section lists the CDRLs (Block 2 – Title or Description of Data) attached to this Annex, including their CDRL number (Block 1 – Item Number) as well as their associated Data Item Description (DID) number (Block 4 – Authority: Data Item Number):

CDRL #	Title	Associated DID#
FerOL-PM- 001	Meeting Documentation	FerOL-PM-001
FerOL-PM- 002	Environmental, Health & Safety Impact report (EHSIR)	FerOL-PM-002
FerOL-SE- 101	Technical Data Package (TDP)	FerOL-SE-101
FerOL-ILS-201	Identification Plates	FerOL-ILS-201
FerOL-ILS-202	Operator Manual	FerOL-ILS-202
FerOL-ILS-203	Repair Manual	FerOL-ILS-203
FerOL-ILS-204	Illustrated Parts Manual	FerOL-ILS-204
FerOL-ILS-205	Operator Training Package	FerOL-ILS-205
FerOL-ILS-206	Provisioning Parts Breakdown	FerOL-ILS-206
FerOL-ILS-207	Supplementary Provisioning Technical Data	FerOL-ILS-207
FerOL-ILS-208	Special Tool & Test Equipment	FerOL-ILS-208
FerOL-ILS-209	Packaging, Label and Codes	FerOL-ILS-209
FerOL-ILS-210	Technician Training Package	FerOL-ILS-210
FerOL-ILS-211	Warranty Support Plan	FerOL-ILS-211

CONTRACT DATA REQUIREMENTS LIST							
A. SYSTEM / ITEM Ferrous Ordnance Locator (FerOL)			B. CONTRACT / RFP NUMBER W8476-				
C. SOW IDENTIFIER Annex A - FerOL SOW		D. DATA CATEGORY Management Data		E. CONTRACTOR TBD			
1. ITEM NUMBER CDRL FerOL-PM-001		2. TITLE OR DESCRIPTION OF DATA Meeting Documentation		3. SUBTITLE N/A			
4. AUTHORITY (Data Item Number) DID FerOL-PM-001		5. CONTRACT REFERENCE Annex A – SOW Para 3.3.4		6. REQUIRING OFFICE DND FerOL TA			
7. INSPECTION: SD	9. INPUT	10. FREQUENCY See Block 16	12. DATE OF 1st SUBMISSION N/A	14. DISTRIBUTION AND ADDRESSEES			
8. APP CODE: N/A		11. AS OF DATE N/A	13. DATE OF SUBSEQUENT SUBMISSION N/A	A - ADDRESS	COPIES		
					INITIAL DRAFT	FINAL	
16. REMARKS <u>Block 10:</u> The meeting documentation package shall be delivered at least seven (7) calendar days before a meeting being held.					Hard	Soft	
				PWGSC CA		1	1
				FerOL TA	1	1	1
PREPARED BY: DND FerOL TA	DATE: 12 Nov 2010	APPROVED BY DND FerOL PMO					
17. CONTRACT FILE / DOCUMENT NUMBER	18. ESTIMATED NO OF PAGES	19. ESTIMATED PRICE \$	15. TOTAL	1	2	2	

CONTRACT DATA REQUIREMENTS LIST							
A. SYSTEM / ITEM Ferrous Ordnance Locator (FerOL)			B. CONTRACT / RFP NUMBER W8476-				
C. SOW IDENTIFIER Annex A - FerOL SOW		D. DATA CATEGORY Project Management Data		E. CONTRACTOR			
1. ITEM NUMBER CDRL FerOL PM-002		2. TITLE OR DESCRIPTION OF DATA Environmental, Health, and Safety Impact Report		3. SUBTITLE			
4. AUTHORITY (Data Item Number) DID FerOL PM-002		5. CONTRACT REFERENCE Annex A – SOW, Para 3.2		6. REQUIRING OFFICE DND FerOL TA			
7. INSPECTION DD	9. INPUT	10.FREQUENCY ONE/R	12. DATE OF 1 st SUBMISSION See Block 16	14. DISTRIBUTION AND ADDRESSEES			
8. APP CODE A		11. AS OF DATE N/A	13. DATE OF SUBSEQUENT SUBMISSION See Block 16	A - ADDRESS	COPIES		
					INITIAL DRAFT	FINAL	
					Hard	Soft	
16. REMARKS Block 12: The EHSIR shall be submitted for review and acceptance within sixty (60) calendar days following Contract Award. <u>Response Time:</u> Comments on the EHSIR will be provided by Canada within thirty (30) calendar days of receipt. The revised EHSIR, addressing Canada comments shall be submitted for acceptance within thirty (30) calendar days of receipt of comments.				FerOL TA	1	1	1
				PWGSC CA		1	1
PREPARED BY DND FerOL TA		APPROVED BY DND FerOL PMO					
DATE 12 Nov 2010		DATE 12 Nov 2010					
17. CONTRACT FILE/DOC NUMBER	18. ESTIMATED NO OF PAGES	19. ESTIMATED PRICE	15. TOTAL	1	2	2	

CONTRACT DATA REQUIREMENTS LIST							
A. SYSTEM / ITEM Ferrous Ordnance Locator (FerOL)				B. CONTRACT / RFP NUMBER W8476-			
C. SOW IDENTIFIER Annex A - FerOL SOW		D. DATA CATEGORY System Engineering Data		E. CONTRACTOR TBD			
1. ITEM NUMBER CDRL FerOL-SE-101		2. TITLE OR DESCRIPTION OF DATA Technical Data Package (TDP)		3. SUBTITLE N/A			
4. AUTHORITY (Data Item Number) DID FerOL-SE-101		5. CONTRACT REFERENCE Annex A – SOW Section 3.4.3		6. REQUIRING OFFICE DND FerOL TA			
7. INSPECTION DD	9. INPUT	10. FREQUENCY ONE/R	12. DATE OF 1st SUBMISSION See Block 16	14. DISTRIBUTION AND ADDRESSEES			
8. APP CODE A		11. AS OF DATE N/A	13. DATE OF SUBSEQUENT SUBMISSION See Block 16	A - ADDRESS	COPIES		
16. REMARKS <u>Block 12:</u> Full-size, print copy sets of the TDP shall be submitted in hard copy (reduced size print copies may be acceptable provided that they are legible) for review and acceptance within sixty (60) calendar days following Contract Award. <u>Response Time:</u> Comments on TDP will be provided by the Crown within twenty one (21) calendar days of receipt. <u>Block 13:</u> Updated TDP, addressing the comments from the Crown, shall be submitted for acceptance within twenty one (21) calendar days of receipt.						INITIAL DRAFT	FINAL
						Hard	Soft
				PWGSC CA	1	1	1
				FerOL TA	1	1	1
PREPARED BY DND FerOL TA	DATE 12 Nov 2010	APPROVED BY DND FerOL PMO					
17. CONTRACT FILE / DOCUMENT NUMBER	18. ESTIMATED NO OF PAGES	19. ESTIMATED PRICE \$	15. TOTAL	2	3	3	

CONTRACT DATA REQUIREMENTS LIST							
A. SYSTEM / ITEM Ferrous Ordnance Locator (FerOL)			B. CONTRACT / RFP NUMBER W8476-112853				
C. SOW IDENTIFIER Annex A - FerOL SOW		D. DATA CATEGORY Integrated Logistics Support		E. CONTRACTOR			
1. ITEM NUMBER CDRL FerOL ILS-201		2. TITLE OR DESCRIPTION OF DATA Identification Plates		3. SUBTITLE			
4. AUTHORITY (Data Item Number) CDRL FerOL ILS-201		5. CONTRACT REFERENCE Annex A – SOW Section 3.4.2.7.		6. REQUIRING OFFICE FerOL ILS Manager			
7. INSPECTION DD	9. INPUT	10. FREQUENCY ONE/R	12. DATE OF 1 st SUBMISSION See Block 16	14. DISTRIBUTION AND ADDRESSEES			
8. APP CODE A		11. AS OF DATE N/A	13. DATE OF SUBSEQUENT SUBMISSION See Block 16	A - ADDRESS	COPIES		
16. REMARKS Block 12. The Identification Plate Design shall be submitted for approval no later than thirty-five (35) Calendar Days after the Kick-off Meeting. Response Time: Comments on the Identification Plate Design will be provided by Canada no later than fourteen (14) Calendar Days of receipt. Block 13: The updated Identification Plate addressing the comments from Canada shall be submitted for final acceptance no later than fourteen (14) Calendar Days of receipt of comments. As Spares are selected for purchase, it may be necessary for the Contractor to produce and submit for approval supplementary Identification Plate designs; Response times will be the same as above.							
				FerOL ILSM	1	1	1
				PWGSC CA	1	1	1
				DSCO	1	1	1
PREPARED BY FerOL ILS Manager		APPROVED BY FerOL ILS Manager					
DATE 23 Mar 2012		DATE 23 Mar 2012					
17. CONTRACT FILE/DOC NUMBER	18. ESTIMATED NO OF PAGES	19. ESTIMATED PRICE	15. TOTAL	3	3	3	

CONTRACT DATA REQUIREMENTS LIST							
A. SYSTEM / ITEM Ferrous Ordnance Locator (FerOL)				B. CONTRACT / RFP NUMBER W8476-112853			
C. SOW IDENTIFIER Annex A – FerOL SOW		D. DATA CATEGORY Integrated Logistics Support		E. CONTRACTOR			
1. ITEM NUMBER CDRL FerOL ILS-202		2. TITLE OR DESCRIPTION OF DATA Operator Manual		3. SUBTITLE			
4. AUTHORITY (Data Item Number) DID FerOL ILS-202		5. CONTRACT REFERENCE Annex A – SOW Section 3.4.3.1.		6. REQUIRING OFFICE FerOL ILS Manager			
7. INSPECTION DD	9. INPUT	10. FREQUENCY ONE/R	12. DATE OF 1 st SUBMISSION See Block 16	14. DISTRIBUTION AND ADDRESSEES			
8. APP CODE A		11. AS OF DATE N/A	13. DATE OF SUBSEQUENT SUBMISSION See Block 16	A - ADDRESS	COPIES		
					DRAFT	FINAL	
						Hard	Soft
16. REMARKS Block 12. The Contractor shall provide a draft Operation Manual for review no later than forty-nine (49) calendar days after the Kick - off Meeting. Response Time: Comments on the Operation Manual will be provided by Canada no later than twenty-eight (28) calendar days after receipt of draft submission. Block 13: The revised Operation Manual, addressing Canada comments shall be submitted for acceptance no later than twenty-one (21) calendar days of receipt of comments.				FerOL ILSM	1	1	1
				PWGSC CA	1	1	1
				DSCO	0	1	1
				With ea FerOL	0	1	0
PREPARED BY FerOL ILS Manager		APPROVED BY FerOL ILS Manager					
DATE 23 Mar 2012		DATE 23 Mar 2012					
17. CONTRACT FILE/DOC NUMBER		18. ESTIMATED NO OF PAGES	19. ESTIMATED PRICE	15. TOTAL	2	46	3

CONTRACT DATA REQUIREMENTS LIST							
A. SYSTEM / ITEM Ferrous Ordnance Locator (FerOL)				B. CONTRACT / RFP NUMBER W8476-112853			
C. SOW IDENTIFIER Annex A - FerOL SOW		D. DATA CATEGORY Integrated Logistics Support		E. CONTRACTOR			
1. ITEM NUMBER FerOL ILS-203		2. TITLE OR DESCRIPTION OF DATA Maintenance Manual		3. SUBTITLE			
4. AUTHORITY (Data Item Number) DID FerOL ILS-203		5. CONTRACT REFERENCE Annex A – SOW Section 3.4.3.2.		6. REQUIRING OFFICE FerOL ILS Manager			
7. INSPECTION DD	9. INPUT	10. FREQUENCY ONE/R	12. DATE OF 1 ST SUBMISSION See Block 16	14. DISTRIBUTION AND ADDRESSEES			
8. APP CODE A		11. AS OF DATE N/A	13. DATE OF SUBSEQUENT SUBMISSION See Block 16	A - ADDRESS	COPIES		
					DRAFT	FINAL	
						Hard	Soft
16. REMARKS Block 12. The Maintenance Manual shall be submitted for approval simultaneously with the Operation Manual (FerOL-ILS-202). Response Time: Comments on the Maintenance Manual will be provided by Canada with the comments for the Operation Manual. Block 13: The updated Maintenance Manual addressing the comments from Canada shall be submitted for final acceptance with the second submission of the Operation Manual.				FerOL ILSM	1	1	1
				PWGSC CA	1	1	1
				DSCO	1	1	1
				DLEPS	0	1	1
PREPARED BY FerOL ILS Manager		APPROVED BY FerOL ILS Manager					
DATE 23 Mar, 2012		DATE 23 Mar 2012					
17. CONTRACT FILE/DOC NUMBER		18. ESTIMATED NO OF PAGES	19. ESTIMATED PRICE	15. TOTAL	3	4	4

CONTRACT DATA REQUIREMENTS LIST							
A. SYSTEM / ITEM Ferrous Ordnance Locator (FerOL)				B. CONTRACT / RFP NUMBER W8476-112853			
C. SOW IDENTIFIER Annex A – FerOL SOW		D. DATA CATEGORY Integrated Logistics Support		E. CONTRACTOR			
1. ITEM NUMBER CDRL FerOL ILS-204		2. TITLE OR DESCRIPTION OF DATA Illustrated Parts Manual		3. SUBTITLE			
4. AUTHORITY (Data Item Number) DID FerOL ILS-204		5. CONTRACT REFERENCE Annex A – SOW Section 3.4.3.3.		6. REQUIRING OFFICE FerOL ILS Manager			
7. INSPECTION DD	9. INPUT	10. FREQUENCY ONE/R	12. DATE OF 1 st SUBMISSION See Block 16	14. DISTRIBUTION AND ADDRESSEES			
8. APP CODE A		11. AS OF DATE N/A	13. DATE OF SUBSEQUENT SUBMISSION See Block 16	A - ADDRESS	COPIES		
					DRAFT	FINAL	
					Hard	Soft	
16. REMARKS Block 12. The Contractor shall provide a draft Illustrated Parts Manual for review no later than forty-nine (49) calendar days after the Kick off Meeting date. Response Time: Comments on the Illustrated Parts Manual will be provided by Canada no later than fourteen (14) calendar days after receipt of draft submission. Block 13: The revised Illustrated Parts Manual, addressing Canada comments shall be submitted for acceptance no later than fourteen (14) calendar days after the receipt of comments.				FerOL ILSM	1	3	1
				PWGSC CA	1	1	1
PREPARED BY FerOL ILS Manager		APPROVED BY FerOL ILS Manager					
DATE 23 Mar 2012		DATE 23 Mar 2012					
17. CONTRACT FILE/DOC NUMBER	18. ESTIMATED NO OF PAGES	19. ESTIMATED PRICE	15. TOTAL	2	4	2	

CONTRACT DATA REQUIREMENTS LIST							
A. SYSTEM / ITEM Ferrous Ordnance Locator (FerOL)				B. CONTRACT / RFP NUMBER W8476-112853			
C. SOW IDENTIFIER Annex A – FerOL SOW		D. DATA CATEGORY Integrated Logistics Support		E. CONTRACTOR			
1. ITEM NUMBER CDRL FerOL ILS-205		2. TITLE OR DESCRIPTION OF DATA Operator Training Package		3. SUBTITLE			
4. AUTHORITY (Data Item Number) DID FerOL-ILS-205		5. CONTRACT REFERENCE Annex A – SOW Section 3.4.4.1.		6. REQUIRING OFFICE FerOL ILS Manager			
7. INSPECTION DD	9. INPUT	10. FREQUENCY ONE/R	12. DATE OF 1 st SUBMISSION See Block 16	14. DISTRIBUTION AND ADDRESSEES			
8. APP CODE A		9. AS OF DATE N/A	13. DATE OF SUBSEQUENT SUBMISSION See Block 16	A - ADDRESS	COPIES		
					DRAFT	FINAL	
						Hard	Soft
16. REMARKS Block 12. The Contractor shall provide a draft Operator Training Package for review no later than forty-nine (49) calendar days after the Kick off Meeting date. Response Time: Comments on the Operator Training Package will be provided by Canada no later than thirty (30) calendar days after receipt of draft submission. Block 13: The revised Training Package, addressing Canada comments shall be submitted for acceptance no later than fourteen (14) calendar days after the receipt of comments. The approved Training Package will be required for the Training session and its delivery will coincide with the first delivery of the FerOL.				FerOL ILSM	1	2	2
				PWGSC CA	1	1	1
PREPARED BY FerOL ILS Manager		APPROVED BY FerOL ILS Manager					
DATE 23 Mar 2012		DATE 23 Mar 2012					
17. CONTRACT FILE/DOC NUMBER	18. ESTIMATED NO OF PAGES	19. ESTIMATED PRICE	15. TOTAL	2	3	3	

CONTRACT DATA REQUIREMENTS LIST										
A. SYSTEM / ITEM Ferrous Ordnance Locator (FerOL)				B. CONTRACT / RFP NUMBER W8476-112853						
C. SOW IDENTIFIER Annex A – FerOL SOW		D. DATA CATEGORY Integrated Logistics Support		E. CONTRACTOR						
1. ITEM NUMBER CDRL FerOL ILS-206		2. TITLE OF DATA Provisioning Parts Breakdown		3. SUBTITLE						
4. AUTHORITY (Data Item Number) DID FerOL ILS-206		5. CONTRACT REFERENCE Annex A – SOW Para 3.4.2.3.		6. REQUIRING OFFICE FerOL ILS Manager						
7. INSPECTION DD	9. INPUT	10. FREQUENCY ONE/R	12. DATE OF 1 st SUBMISSION See Block 16	14. DISTRIBUTION AND ADDRESSEES						
8. APP CODE A		11. AS OF DATE N/A	13. DATE OF SUBSEQUENT SUBMISSION See Block 16							
16. REMARKS Block 12. The Contractor shall provide a draft Provisioning Parts Breakdown for review at the same time as the draft Illustrated Parts Manual. Response Time: Comments on the Provisioning Parts Breakdown will be provided by Canada no later than fourteen (14) calendar days after receipt of draft submission. Block 13: The revised Provisioning Parts Breakdown, addressing Canada comments shall be submitted for acceptance no later than twenty one (21) calendar days before the IPC.				A - ADDRESS	COPIES					
					DRAFT	FINAL				
						Har d	Soft			
PREPARED BY FerOL ILS Manager				APPROVED BY FerOL ILS Manager						
DATE : 23 Mar 2012				DATE : 23 Mar 2012						
17. CONTRACT FILE/DOC NUMBER		18. ESTIMATED NO OF PAGES		19. ESTIMATE D PRICE		15. TOTAL				
						<table border="1"> <tr> <td>2</td> <td>3</td> <td>3</td> </tr> </table>		2	3	3
2	3	3								

CONTRACT DATA REQUIREMENTS LIST							
A. SYSTEM / ITEM Ferrous Ordnance Locator (FerOL)				B. CONTRACT / RFP NUMBER W8476-112853			
C. SOW IDENTIFIER Annex A – FerOL SOW		D. DATA CATEGORY Integrated Logistics Support		E. CONTRACTOR			
7. ITEM NUMBER CDRL FerOL ILS-207		8. TITLE OF DATA Supplementary Provisioning Technical Documentation		9. SUBTITLE			
10. AUTHORITY (Data Item Number) DID FerOL ILS-207		11. CONTRACT REFERENCE Annex A – SOW Para 3.4.2.4.		12. REQUIRING OFFICE FerOL ILS Manager			
7. INSPECTION DD	9. INPUT	10. FREQUENCY ONE/R	12. DATE OF 1 st SUBMISSION See Block 16	14. DISTRIBUTION AND ADDRESSEES			
8. APP CODE A		11. AS OF DATE N/A	13. DATE OF SUBSEQUENT SUBMISSION See Block 16	A - ADDRESS	COPIES		
					DRAFT	FINAL	
						Har d	Soft
16. REMARKS Block 12. The Supplementary Provisioning Technical Documentation shall be available for the IPC. Block 13. The complete SPTD will be provided at the end of the IPC.				FerOL ILSM	0	0	1
				PWGSC CA	0	0	1
				DSCO			1
PREPARED BY FerOL ILS Manager		APPROVED BY FerOL ILS Manager					
DATE : 23 Mar 2012		DATE : 23 Mar 2012					
17. CONTRACT FILE/DOC NUMBER	18. ESTIMATED NO OF PAGES	19. ESTIMATE D PRICE	15. TOTAL	0	0	3	

CONTRACT DATA REQUIREMENTS LIST							
A. SYSTEM / ITEM Ferrous Ordnance Locator (FerOL)				B. CONTRACT / RFP NUMBER W8476-112853			
C. SOW IDENTIFIER Annex A – FerOL SOW		D. DATA CATEGORY Integrated Logistics Support		E. CONTRACTOR			
13. ITEM NUMBER CDRL FerOL ILS-208		14. TITLE OF DATA Special Tool & Test Equipment List		15. SUBTITLE			
16. AUTHORITY (Data Item Number) DID FerOL ILS-208		17. CONTRACT REFERENCE Annex A – SOW Para 3.4.2.6.		18. REQUIRING OFFICE FerOL ILS Manager			
7. INSPECTION DD	9. INPUT	10. FREQUENCY ONE/R	12. DATE OF 1 st SUBMISSION See Block 16	14. DISTRIBUTION AND ADDRESSEES			
8. APP CODE A		11. AS OF DATE N/A	13. DATE OF SUBSEQUENT SUBMISSION See Block 16				
16. REMARKS Block 12. The Contractor shall provide a draft Special Tool & Test Equipment List for review no later than twenty-one (21) calendar days after the Kick off Meeting date. Response Time: Comments on the Special Tool & Test Equipment List will be provided by Canada no later than fourteen (14) calendar days after receipt of draft submission. Block 13: The revised Special Tool & Test Equipment List, addressing Canada comments shall be submitted for acceptance no later than fourteen (14) calendar days after the receipt of comments.				A - ADDRESS	COPIES		
					DRAFT	FINAL	
						Har d	Soft
				FerOL ILSM	1	1	1
				PWGSC CA	1	1	1
PREPARED BY FerOL ILS Manager				APPROVED BY FerOL ILS Manager			
DATE : 23 Mar 2012				DATE : 23 Mar 2012			
17. CONTRACT FILE/DOC NUMBER	18. ESTIMATED NO OF PAGES		19. ESTIMATE D PRICE	15. TOTAL	2	2	2

CONTRACT DATA REQUIREMENTS LIST							
A. SYSTEM / ITEM Ferrous Ordnance Locator (FerOL)				B. CONTRACT / RFP NUMBER W8476-112853			
C. SOW IDENTIFIER Annex A – FerOL SOW		D. DATA CATEGORY Integrated Logistics Support		E. CONTRACTOR			
19. ITEM NUMBER CDRL FerOL ILS-209		20. TITLE OF DATA Packaging, Labels and Codes		21. SUBTITLE			
22. AUTHORITY (Data Item Number) DID FerOL ILS-209		23. CONTRACT REFERENCE Annex A – SOW Para 3.4.2.8.		24. REQUIRING OFFICE FerOL ILS Manager			
7. INSPECTION DD	9. INPUT	10. FREQUENCY ONE/R	12. DATE OF 1 st SUBMISSION See Block 16	14. DISTRIBUTION AND ADDRESSEES			
8. APP CODE A		11. AS OF DATE N/A	13. DATE OF SUBSEQUENT SUBMISSION See Block 16				
16. REMARKS <u>Block 12:</u> The Packaging, Labels and Codes shall be submitted for evaluation and review forty-two (42) calendar days after the Kick-off Meeting. <u>Response Time:</u> Comments on Packaging, Labels and Codes will be provided by the Crown within fourteen (14) calendar days of their respective receipts. <u>Block 13:</u> Revisions to the Packaging, Labels and Codes addressing the comments from the Crown, shall be submitted for acceptance within fourteen (14) calendar days of receipt of respective comments. Revisions/Additions to the Packaging, Labels and Codes shall also be provided once a range of spares are chosen from the IPC (FerOL SOW Annex A para 3.4.2.4.) by DND to support the equipment.				A - ADDRESS	COPIES		
					DRAFT	FINAL	
						Har d	Soft
				FerOL ILSM	1	1	1
				PWGSC CA	1	1	1
				DSCO	1	1	1
PREPARED BY FerOL ILS Manager		APPROVED BY FerOL ILS Manager					
DATE : 26 Mar 2012		DATE : 26 Mar 2012					
17. CONTRACT FILE/DOC NUMBER	18. ESTIMATED NO OF PAGES		19. ESTIMATE D PRICE	15. TOTAL	3	3	3

CONTRACT DATA REQUIREMENTS LIST							
A. SYSTEM / ITEM Ferrous Ordnance Locator (FerOL)			B. CONTRACT / RFP NUMBER W8476-112853				
C. SOW IDENTIFIER Annex A – FerOL SOW		D. DATA CATEGORY Integrated Logistics Support		E. CONTRACTOR			
9. ITEM NUMBER CDRL FerOL ILS-210		10. TITLE OR DESCRIPTION OF DATA Technician Training Package		11. SUBTITLE			
12. AUTHORITY (Data Item Number) DID FerOL-ILS-210		13. CONTRACT REFERENCE Annex A – SOW Section 3.4.4.2.		14. REQUIRING OFFICE FerOL ILS Manager			
15. INSPECTION DD	9. INPUT	10. FREQUENCY ONE/R	12. DATE OF 1 st SUBMISSION See Block 16	14. DISTRIBUTION AND ADDRESSEES			
16. APP CODE A		10. AS OF DATE N/A	13. DATE OF SUBSEQUENT SUBMISSION See Block 16	A - ADDRESS	COPIES		
					DRAFT	FINAL	
						Hard	Soft
16. REMARKS Block 12. The Contractor shall provide a draft Technician Training Package for review no later than forty-nine (49) calendar days after the Kick off Meeting date. Response Time: Comments on the Technician Training Package will be provided by Canada no later than thirty (30) calendar days after receipt of draft submission. Block 13: The revised Training Package, addressing Canada comments shall be submitted for acceptance no later than fourteen (14) calendar days after the receipt of comments. The approved Training Package will be required for the Training session and its delivery will coincide with the first delivery of the FerOL.				FerOL ILSM	1	2	2
				PWGSC CA	1	1	1
PREPARED BY FerOL ILS Manager		APPROVED BY FerOL ILS Manager					
DATE 26 Mar 2012		DATE 26 Mar 2012					
17. CONTRACT FILE/DOC NUMBER	18. ESTIMATED NO OF PAGES	19. ESTIMATED PRICE	15. TOTAL	2	3	3	

CONTRACT DATA REQUIREMENTS LIST						
A. SYSTEM / ITEM Ferrous Ordnance Locator (FerOL)			B. CONTRACT / RFP NUMBER W8476-112853			
C. SOW IDENTIFIER Annex A – FerOL SOW		D. DATA CATEGORY Integrated Logistics Support		E. CONTRACTOR		
17. ITEM NUMBER CDRL FerOL ILS-211		18. TITLE OR DESCRIPTION OF DATA Warranty Support Plan		19. SUBTITLE		
20. AUTHORITY (Data Item Number) DID FerOL-ILS-211		21. CONTRACT REFERENCE Annex A – SOW Section 3.4.5.		22. REQUIRING OFFICE FerOL ILS Manager		
23. INSPECTION DD	9. INPUT	10. FREQUENCY ONE/R	12. DATE OF 1 st SUBMISSION See Block 16	14. DISTRIBUTION AND ADDRESSEES		
24. APP CODE A		11. AS OF DATE N/A	13. DATE OF SUBSEQUENT SUBMISSION See Block 16	A - ADDRESS	COPIES	
					DRAFT	FINAL
						Hard Soft
16. REMARKS Block 12. The Contractor shall provide a draft Warranty Support Plan for review no later than forty-nine (49) calendar days after the Kick off Meeting date. Response Time: Comments on the Warranty Support Plan will be provided by Canada no later than fourteen (14) calendar days after receipt of draft submission. Block 13: The revised Warranty Support Plan, addressing Canada comments shall be submitted for acceptance no later than fourteen (14) calendar days after the receipt of comments.				FerOL ILSM	1	1
				PWGSC CA	1	1
PREPARED BY FerOL ILS Manager				APPROVED BY FerOL ILS Manager		
DATE 26 Mar 2012		DATE 26 Mar 2012				
17. CONTRACT FILE/DOC NUMBER	18. ESTIMATED NO OF PAGES	19. ESTIMATED PRICE	15. TOTAL	2	2	2

Appendix 4 to Annex A of W8476-112853 (FerOL SOW)
DELIVERABLES TIMELINE for the Ferrous Ordnance Locator (FerOL)

Note: days indicated are Calendar Days.

Deliverable	DID #	Wk 1	Wk 2	Wk 3	Wk 4	Wk 5	Wk 6	Wk 7	Wk 8	Wk 9	Wk 10	Wk 11	Wk 12	Wk 13	Wk 14	Wk 15	Wk 16	Wk 17	Wk 18	
FerOL	-																			42 units due 120 days ACA
Kick-off meeting	-				to occur by 21 days ACA															
Meeting	PM-001																			
Environmental Health and Safety Impact Report (EHSIR)	PM-002									draft due 60 days ACA				comments due 30 days later				finalized copy due 30 days later		
Engineering Drawings & Associated Lists	SE-101						TLA due 15 days after the Kick-off meeting			draft due 60 days ACA			comments due 21 days later			finalized copy due 21 days later				
Identification Plates	ILS-201								draft due 35 days after the Kick-off meeting		comments due 14 days later		finalized copy due 14 days later							
Operator Manual	ILS-202											draft due 49 days after the Kick-off				comments due 28 days later				finalized copy due 21 days later
Maintenance Manual	ILS-203											draft due 49 days after the Kick-off				comments due 28 days later				finalized copy due 21 days later
Illustrated Parts Manual	ILS-204											draft due 49 days after the Kick-off		comments due 14 days later			finalized copy due 14 days later			
Training Package	ILS-205, ILS-210											draft due 49 days after the Kick-off				comments due 30 days later				finalized copy due 14 days later
Provisioning Parts Breakdown	ILS-206											draft due 49 days after the Kick-off		comments due 14 days later						finalized copy due no later than 21 days before the IPC

Canadian Forces Explosive Ordnance Disposal (EOD) Team Equipment

**SYSTEM REQUIREMENTS SPECIFICATION
FOR
THE FERROUS ORDNANCE LOCATOR (FerOL)**

Revised 30 May, 2011

Prepared by:
DCSEM 9
National Defence Headquarters
Major General George R. Pearkes Building
Ottawa, Ontario
K1A 0K2

TABLE OF CONTENTS

1	SCOPE	3
1.1	PURPOSE.....	3
1.2	INTERPRETATION.....	3
1.3	ACRONYMS AND ABBREVIATIONS.....	3
2	APPLICABLE DOCUMENTS	4
3	REQUIREMENTS.....	4
3.1	GENERAL.....	4
3.2	PERFORMANCE CRITERIA	4
3.2.1	<i>Proven System:</i>	<i>4</i>
3.2.2	<i>Integration Capability :</i>	<i>5</i>
3.2.3	<i>Probe Extendibility:.....</i>	<i>5</i>
3.2.4	<i>Transportability.....</i>	<i>6</i>
3.2.5	<i>Robustness.....</i>	<i>6</i>
3.2.6	<i>Availability.....</i>	<i>6</i>
3.2.7	<i>Reliability.....</i>	<i>6</i>
3.2.8	<i>Expected In-Service Life.....</i>	<i>6</i>
3.2.9	<i>Detection Capability.....</i>	<i>6</i>
3.2.10	<i>Audio Alarm.....</i>	<i>7</i>
3.2.11	<i>Data Display.....</i>	<i>7</i>
3.2.12	<i>Pinpointing.....</i>	<i>7</i>
3.2.13	<i>Data Logging.....</i>	<i>8</i>
3.2.14	<i>Analysis Software.....</i>	<i>8</i>
3.2.15	<i>Compensation Function.....</i>	<i>9</i>
3.2.16	<i>Set-up Time.....</i>	<i>9</i>
3.2.17	<i>Sensitivity, Resolution, Discrimination.....</i>	<i>10</i>
3.2.18	<i>Calibration.....</i>	<i>10</i>
3.2.19	<i>Self-Diagnostics.....</i>	<i>10</i>
3.2.20	<i>Fault Indication.....</i>	<i>11</i>
3.2.21	<i>Probe Mount.....</i>	<i>11</i>
3.2.22	<i>Power Supply.....</i>	<i>11</i>
3.2.23	<i>Insensitivity to RF Interference.....</i>	<i>11</i>
3.2.24	<i>Radiated Self-Emissions.....</i>	<i>11</i>
3.2.25	<i>Colour.....</i>	<i>11</i>
3.2.26	<i>Modularity.....</i>	<i>12</i>
3.2.27	<i>Transport/Carry Cases.....</i>	<i>12</i>
3.3	ERGONOMIC CRITERIA	12
3.3.1	<i>Man/Machine Interface.....</i>	<i>12</i>
3.3.2	<i>Operational Weight.....</i>	<i>13</i>
3.3.3	<i>Operational Clothing Compatibility.....</i>	<i>13</i>
3.4	MAINTENANCE CHARACTERISTICS.....	13
3.4.1	<i>Special Tools.....</i>	<i>13</i>
3.4.2	<i>Preventive Maintenance.....</i>	<i>13</i>
3.4.3	<i>Corrosion Protection.....</i>	<i>13</i>
3.4.4	<i>Cleaning/Decontamination.....</i>	<i>13</i>

1 SCOPE

1.1 Purpose

- 1.1.1 This document describes the performance criteria for the Ferrous Ordnance Locator (FerOL) and associated accessories to be delivered to the Canadian Department of National Defence (DND) under this contract, not including spare parts.

1.2 Interpretation

- 1.2.1 In the event of any dispute concerning the interpretation of this document, the interpretation of the DND Technical Authority (TA) for this project shall represent the position of Canada.

1.3 Acronyms and Abbreviations

- 1.3.1 Following acronyms and abbreviation were used throughout this document:

ABCA	America, Britain, Canada, Australia and New Zealand
CF	Canadian Forces
DGPS	Differential Global Positioning System
ECM	Electronic Counter-measures
EMI	Electromagnetic Interference
DCSEM	Director Combat Support Equipment Management
DND	Department of National Defence
EOD	Explosive Ordnance Disposal
EMI	Electro Magnetic Interference
FerOL	Ferrous Ordnance Locator
GP	General Purpose
GPS	Global Positioning System
IAW	In Accordance With
IEC	International Electrotechnical Commission
IP	Ingress Protection
LRU	Lowest Replaceable Unit

LCD	Liquid Crystal Display
NATO	North American Treaty Organization
NBCW	Nuclear, Biological & Chemical Warfare
PC	Personal Computer
PDA	Personal Data Assistance
PLPS	Personal Landmine Protection System
SOW	Statement of Work
RF	Radio Frequency
RFI	Radio Frequency Interference
TA	Technical Authority
UXO	Unexploded Ordnance

2 APPLICABLE DOCUMENTS

- 2.1 All documents and statements form part of this specification to the extent specified in Section 2 of Annex A – Statement of Work (SOW) for the CF Ferrous Ordnance Locator.

3 REQUIREMENTS

3.1 General

- 3.1.1 The Department of National Defence (DND) requires a highly capable ferrous ordnance locator (also commonly known as “bomb locator”) with data logging and analysis/evaluation software to detect and mark deeply buried Unexploded Ordnance (UXO) in replacement for the current in-service instrument.
- 3.1.2 The locator shall be capable of detecting UXO on land, in water and boreholes throughout the world in a wide variety of climatic conditions ranging from extreme cold to humid and dry desert.

3.2 Performance Criteria

3.2.1 Proven System:

- 3.2.1.1 The FerOL shall be neither a developmental or prototype instrument nor a pre-production model.

3.2.1.2 The equipment shall be a proven ordnance locator that has been tested and introduced into an operational military unit with a North Atlantic Treaty Organization (NATO) or American, British, Canadian, Australian (ABCA) military partner.

3.2.2 Integration Capability :

3.2.2.1 The FerOL shall have features that are capable of integrating external accessories, future options/technologies and interfacing with following instruments/devices/systems, as a minimum, for greater detection range over the expected in-service life of the instrument:

- a. personal data assistant (PDA);
- b. computing devices (such as PC or Laptop);
- c. global positioning system (GPS);
- d. navigation system;
- e. multi-sensor application; and
- f. optional sensor probe(s).

3.2.2.2 The FerOL shall provide weather or waterproof means to quick connect and disconnect external accessories, as stated in the paragraph above, to the maximum extent possible IAW the standard established by International Electrotechnical Commission (IEC), Ingress Protection (IP) rating 57 (dust-protected & watertight).

3.2.3 Probe Extendibility:

3.2.3.1 The FerOL shall be capable of lowering its Sensor Probe for performing detection function at various depths of up to twenty-five (25) meter (m) through cable extensions added between the probe and control unit.

3.2.3.2 The cable extension shall be capable of being spooled on a dedicated hand operated wheel drum storing the cable and allowing the cable to be laid out to desired depths.

3.2.3.3 All connections between cable extensions and the probe shall be waterproof and be able to withstand a water pressure at a depth of at least twenty-five (25) meter (equivalent to approximately two decimal-five (2.5) atmospheric pressure) at a temperature of above 0°C.

3.2.3.4 A stress relieving rope and ballast, as applicable, shall be provided for underwater surveying, as the probe would be towed at depth from a small boat on the surface.

3.2.4 Transportability.

- 3.2.4.1 The FerOL shall be capable of being easily and safely transported by commercial or military land vehicles, aircrafts, and small boats or vessels.

3.2.5 Robustness.

- 3.2.5.1 The FerOL, accessories and carry cases shall be sturdy enough or ruggedized to survive the harsh environments and conditions of military combat operations.
- 3.2.5.2 The FerOL shall function and achieve all detection performances after at least two (2) drops from a height of one (1) meter onto a hard compacted gravel surface.

3.2.6 Availability.

- 3.2.6.1 The FerOL's availability shall be no less than 90% whereas availability is construed as a measure of the degree to which the locator is in an operational and committable state at the start of a mission when the mission is called for at an unknown or random time. It is measured, as the number of times the locator was available for operation over the number of times it was required multiplied by hundred (100).

3.2.7 Reliability.

- 3.2.7.1 The FerOL's reliability shall be no less than 90% over an eight-hour mission time whereas reliability is defined as the probability that the locator will complete a mission without an operational mission failure that would preclude successful completion of the mission. It is defined as the number of missions without an operational mission failure over the total number of missions multiplied by hundred (100).

3.2.7.2 Climatic Conditions.

- 3.2.7.2.1 The FerOL shall operate without any performance degradation over any terrain or waters worldwide in climatic conditions ranging from -20°C to + 55°C.

3.2.8 Expected In-Service Life

- 3.2.8.1 The FerOL expected in-service life shall not be less than ten (10) years with an overall expected use being approximately five hundred (500) hours a year.

3.2.9 Detection Capability

- 3.2.9.1 The FerOL shall be capable of performing detection operations in land, borehole and underwater environments.

3.2.9.2 Detection in Land Environment

3.2.9.2.1 The FerOL shall detect an inert or simulated one thousand (1,000) pounds ferro-magnetic general purpose (GP) bomb buried at a minimum depth of three (3) meter as measured from the sensor head bottom to the target's closest point in normal (non-magnetic) soil conditions.

3.2.9.2.2 The FerOL shall be capable of detecting an inert or simulated 155 mm shell buried at a minimum depth of two (2) meters measured from the sensor head bottom to the target's closest point in normal soil conditions.

3.2.9.3 Detection in Boreholes

3.2.9.3.1 The FerOL shall have the ability to detect sample ordnance as described in paragraphs 3.2.9.2.1 & 3.2.9.2.2 above through boreholes on land using a twenty five (25) meter sensor probe extension cable.

3.2.9.4 Detection in Water

3.2.9.4.1 The FerOL shall have the ability to detect sample ordnance as described in paragraphs 3.2.9.2.1 & 3.2.9.2.2 above in fresh or salt water at a maximum water depth of twenty-five (25) meter using probe extension cable of twenty five (25) m long connected between the probe and the control unit.

3.2.10 **Audio Alarm**

3.2.10.1 The FerOL shall be equipped with an in-built audio alarm system.

3.2.10.2 The audio alarm shall have its volume adjustable, and shall emit a clear, discriminatory tone when detection is made.

3.2.10.3 The audio alarm shall be able to be transmitted through a headset or earphone compatible with CF combat helmet. Either device shall not block external sounds.

3.2.10.4 The FerOL shall have the option to turn off the external speaker manually or automatically when the headset/earphone is hooked-up.

3.2.11 **Data Display**

3.2.11.1 The FerOL shall have an indication meter or, preferably, an LCD display to indicate/display detection results.

3.2.11.2 Any visual information shall be capable of being seen under bright sunny conditions and at nighttime.

3.2.12 **Pinpointing**

- 3.2.12.1 The FerOL operator shall be able to pinpoint the location of detected one-thousand (1,000) pounds GP bomb within fifty (50) cm and, for smaller objects in lesser depths, within twenty-five (25) cm, with the use of PDA / computer software.

3.2.13 Data Logging

- 3.2.13.1 The FerOL shall have the data logging capability to store measured geomagnetic anomalies from surveyed area, then enabling the transfer of data to a dedicated analysis software program.
- 3.2.13.2 Data input and output shall be performed using standard connectors (RJ-45, DB9, USB-mini, etc) and protocols (Ethernet, RS-232, USB 2.0, etc).
- 3.2.13.3 The data logger shall have a multi-channel capability in order to accept and record data from up to three (3) sensor probes that may be attached to the locator.
- 3.2.13.4 The data logging program shall allow using the FerOL as a conventional locator without the data logging function.
- 3.2.13.5 The data logger shall provide the option to interface with a global positioning system (GPS or DGPS) to be used to set and mark the field area to be scanned, establish the intended survey route or track(s) (thus allowing the surveyor to navigate in the field to be surveyed), and precisely mark the geographical position of the recorded magnetic anomalies.
- 3.2.13.6 The FerOL's data logger shall be compatible with the CF in-service GPS.
- 3.2.13.7 All logged geological information shall be able to be presented in ArcView format files.

3.2.14 Analysis Software

- 3.2.14.1 The FerOL shall be provided with a dedicated analysis software program to evaluate the recorded geomagnetic anomalies resulting from field surveys.
- 3.2.14.2 The analysis software shall, as a minimum:
- Be capable of being installed and run on any commercial-off-the-shelf sufficiently powerful PC or Laptop operating on Microsoft Windows XP Professional;
 - Have user administration and user identification functions – for instance, to manage authorized users and passwords;
 - Feature user-friendly menu guided functions;

- d. Compute the coordinates, position, size and depth of detected ferromagnetic objects;
- e. Document the recorded geomagnetic data;
- f. Provide true-to-scale screen display;
- g. Display color-coded maps of the surveyed field areas showing recorded geomagnetic anomalies from detected ferrous objects;
- h. Display survey object maps over CF local topographic map in background - in conjunction with the use of a GPS. Local topographic maps in use within the CF are in "rastor" format;
- i. Display the survey route or field tracks;
- j. Convert GPS coordinates into most common international formats;
- k. Allow to merge data records from different fields or from the enlargement of existing fields;
- l. Generate lists and maps of detected objects from recorded data of individual field surveys or merged field surveys;
- m. Have data import and export functions;
- n. Have printing functions;
- o. Have simulation capabilities of magnetic field anomalies from imaginary targets for user familiarization with the software and in support of training; and
- p. Have the ability to filter recorded field data to enhance the evaluation process.

3.2.15 Compensation Function

- 3.2.15.1 The FerOL and Analysis Software shall have a compensation function to compensate and minimize interference or possible effects of the terrestrial magnetic field from the magnetic soils.

3.2.16 Set-up Time

3.2.16.1 Land Surveying

- 3.2.16.1.1 The FerOL shall be capable of being easily assembled and operated in ten (10) minutes or less for land survey.

3.2.16.2 Underwater and Borehole Surveying

- 3.2.16.2.1 The FerOL shall be capable of being easily assembled and operated in fifteen (15) minutes or less for underwater and borehole survey.

3.2.16.3 Time to Turn-on and Operate

3.2.16.3.1 The FerOL shall be capable of being ready for operation within three (3) minutes of after the power is turned ON.

3.2.17 **Sensitivity, Resolution, Discrimination**

3.2.17.1 Sensitivity.

3.2.17.1.1 In order to obtain optimum equipment response to the wide range of field disturbances encountered in practice, the FerOL shall be provided with a sensitivity control option for selecting multiple linear measurement ranges or levels as demanded by the detection task.

3.2.17.1.2 Linear measurement ranges or levels of selection shall be in the spectrum range/scale of at least plus/minus ten-thousand (10,000) nanotesla (nT), +/- 10,000 nT, for a gradiometer type, or scale of zero (0) to hundred-thousand (100,000) nT, 0-100,000 nT, for a magnetometer type of the device.

3.2.17.2 Resolution.

3.2.17.2.1 The FerOL shall have a resolution and sensitivity equal to or less than 0.4 nT.

3.2.17.3 Detection Discrimination.

3.2.17.3.1 The FerOL shall have the capability to discriminate or allow to disregard ferrous objects that would be much smaller than the object of interest; i.e. enabling the operator to set sensitivity to disregard ferrous detritus or shrapnel of much smaller size than the target UXO.

3.2.18 **Calibration**

3.2.18.1 Time to Calibrate.

3.2.18.1.1 As applicable, the FerOL shall be simple to calibrate, if not done automatically. Whether manual or self-calibration, this shall be achieved in two minutes or less.

3.2.18.2 Probe Calibration

3.2.18.2.1 The sensor probe of the FerOL shall require no calibration or adjustments.

3.2.19 **Self-Diagnostics**

3.2.19.1 The FerOL shall have the capability for self-diagnosis upon start-up, either initiated manually by the operator or done automatically, in order to determine whether it is operating within designed parameters.

3.2.20 Fault Indication

- 3.2.20.1 The FerOL shall have the capability to warn the operator with audio or visual signals in the event of any error detection or malfunctioning of the equipment.

3.2.21 Probe Mount

- 3.2.21.1 The FerOL sensor probe should be mounted on a swivel or gimbals to help vertical positioning regardless of the position of the locator handle/carrying mount.

3.2.22 Power Supply

- 3.2.22.1 The FerOL shall have an integral power supply that is robust, reliable, and provide at least fifteen (15) hours of continuous operation at a temperature of 20°C and up to four (4) hours at a temperature of -20°C on a fully charged set of batteries (without battery replacement or recharge).
- 3.2.22.2 The FerOL shall incorporate the use of standard alkaline and rechargeable Ni-Cad or Ni-MH cell, and/or lithium-ion batteries.
- 3.2.22.3 The FerOL shall be provided with a stand-alone battery charger and the battery re-charging shall be accomplished using a garrison source of 110VAC and a vehicle power source of 12VDC or 24VDC.
- 3.2.22.4 The FerOL shall feature a low power warning system to warn the operator when the battery power is low and needs replacement.

3.2.23 Insensitivity to RF Interference

- 3.2.23.1 The FerOL should maintain operational effectiveness at a maximum distance of 2m from another source of low power EMI/RFI (CF man-portable radio transmissions, other bomb locators, etc).
- 3.2.23.2 The FerOL should maintain operational effectiveness when within an operationally acceptable maximum distance of five (5) meters of man portable ECM sources.

3.2.24 Radiated Self-Emissions

- 3.2.24.1 The FerOL shall not accidentally initiate explosive devices such as M6 and #12 detonators when operated in their immediate vicinity.

3.2.25 Colour

- 3.2.25.1 The FerOL, accessories and carry cases color must be compatible with soldiers' camouflage; therefore, it should be a flat green, khaki or flat earth tone. If painted, the acceptable colors are 34094 or 34082 green in accordance with Fed-Std-595B.

3.2.25.2 The color scheme shall be non-light reflecting and the instrument and carry case without shiny surfaces.

3.2.26 Modularity

3.2.26.1 Modules or sub-components shall be fully interchangeable without requiring factory or internal re-calibration.

3.2.27 Transport/Carry Cases

3.2.27.1 Hard Case

3.2.27.1.1 The FerOL shall be delivered in a purpose-built hard shell, shock-resistant, carry case complete with standard and optional accessories such as headset, batteries, carrying belt/harness, data logger, operation and maintenance manuals, field guide and soft case.

3.2.27.1.2 The carry case of the FerOL shall not exceed one hundred (100) cm in length, sixty (60) cm in height or width, and twenty five (25) kilograms (kg) in weight while fully loaded with the locator in its operational configuration and a probe extension cable of twenty-five (25) meters long rolled on a drum.

3.2.27.2 Soft Case

3.2.27.2.1 The FerOL shall include a soft carry case having sufficient pockets to contain spare batteries, field guide and other necessary accessories to set-up and operate the locator.

3.2.27.2.2 The soft case, when not in use, shall be able to be stored inside the hard shell case.

3.3 Ergonomic Criteria

3.3.1 Man/Machine Interface

3.3.1.1 The FerOL shall allow operation by the 5th to 95th percentile male and female CF population as per following table:

Serial	Anthropometric Measurement	Percentile Value
1	Suprasternal Height (Feet to shoulder)	Male 5% - 1337 mm
		Male 95% - 1525 mm
		Female 5% - 1248 mm
		Female 95% - 1421 mm
2	Arm Length (Shoulder to tip of hand)	Male 5% - 720 mm
		Male 95% - 844 mm
		Female 5% - 659 mm
		Female 95% - 774 mm

Table 1. Anthropometric Measurements for Locator User

- 3.3.1.2 The FerOL shall be provided with a shoulder strap, harness or belt to support the locator and reduce operators' fatigue with the strap, harness or belt having appropriate non-slippery quality padding where they come into contact with the user's body parts or clothing.

3.3.2 Operational Weight

- 3.3.2.1 The operational weight of the FerOL, including batteries, shall not exceed five decimal zero (5.0) kg in the land-surveying configuration (without probe extension cable).
- 3.3.2.2 The probe extension cable and drum for the bore-hole/underwater surveying shall not exceed a weight of eight (8) kg.

3.3.3 Operational Clothing Compatibility

- 3.3.3.1 Neither the FerOL nor its accessories shall restrict the operator's ability to perform detection functions while wearing full fighting order (including protective body armour, flack jacket), full NBCW ensemble, Personal Landmine Protection System (PLPS) or heavy bomb suit.

3.4 Maintenance Characteristics

3.4.1 Special Tools

- 3.4.1.1 The FerOL shall be equipped with any special tools required by the operator/maintainer.

3.4.2 Preventive Maintenance

- 3.4.2.1 The FerOL shall not require preventive maintenance at a frequency greater than once every two-hundred (200) operating hours or twice a year, whichever occurs first.

3.4.3 Corrosion Protection

- 3.4.3.1 The FerOL shall be designed to have protection against corrosion and deterioration caused by atmospheric conditions, airborne corrosive agents and salt.

3.4.4 Cleaning/Decontamination

- 3.4.4.1 The design of the FerOL shall allow cleaning with hot and cold water and detergents or steam with no performance degradation or damages to the equipment.

The Canadian Forces Explosive Ordnance (EOD) Team Equipment

**Technical Proposal Evaluation Process
For
The Ferrous Ordnance Locator (FerOL)**

Last revised: 16 April, 2012

Prepared by:
PMO Enhanced Counter IED Project
DCSEM 9
National Defence Headquarters
Major General George R. Pearkes Building
Ottawa, Ontario
K1A 0K2

TABLE OF CONTENTS

TABLE OF CONTENTS 2

1.0 General 3

1.1 Introduction 3

2.0 Evaluation Criteria..... 3

2.1 Compliance Documentation 3

3.0 Evaluation Method 3

3.1 Assessment of Mandatory Requirements 3

Appendix 1 to Annex C: Compliance Matrix - MANDATORY REQUIREMENTS 5

1 GENERAL

1.1 Introduction

- 1.1.1 This document defines the criteria that will be used to determine technically compliant bid for the procurement of the Ferrous Ordnance Locator (FerOL). It contains a description of the evaluation process and identifies all mandatory requirements. It also defines and identifies information that is required from bidders in order to evaluate their proposals.

2 EVALUATION CRITERIA

2.1 Compliance Documentation

- 2.1.1 Bidders shall provide all information requested in the “Bidder’s Response Required” column in Appendix 1 of this Annex in order to assist the evaluation team to determine compliance.
- 2.1.2 Where “Compliance Statement” is identified in the “Bidder’s Response Required” column, the Bidder shall provide a compliance statement in the “Bidder’s Response Required” column or in a reference document that describes in detail how the equipment offered fully complies with the requirement.
- 2.1.3 If a compliance statement against a specific requirement is provided in a reference document, the Bidder shall clearly indicate this reference in the “Bidder’s Response Required” column of Appendix 1 to this Annex and attach the reference document with the Bid.

3 EVALUATION METHOD

3.1 Assessment of Mandatory Requirements

- 3.1.1 The assessment of the locators against key technical and performance requirements will be done using compliance statements provided by the bidder as well as test results from verification testing conducted on the bidder’s supplied locators.
- 3.1.2 Technical and Performance verification tests will be conducted on samples of the Bidder’s supplied locator with the locator operated in accordance with Original Equipment Manufacturer (OEM) procedures.
- 3.1.3 All technical and performance verification tests will be performed by DND Subject Matter Experts (SME) at one or more DND’s research facilities (DRDC) located in Alberta, Ontario, or Quebec regions in Canada. However, the location of the test might be switched to any other suitable location as deemed required by DND TA.
- 3.1.4 Only those criteria that are marked as “R” in the respective “Verification Testing” column of Appendix 1 to this Annex C will be assessed using verification test results.
- 3.1.5 All other mandatory criteria, marked as “N/R” in the respective “Verification Testing” column of Appendix 1 to this Annex, will be

assessed using bidder's provided information as requested in "Bidder's Responses Required" column of Appendix 1 to this Annex.

- 3.1.6 While DND will not be seeking to verify all specifications, if any mandatory requirement is discovered to be non-compliant during the evaluation process, the bid will be deemed non-compliant and will be removed from the bidding process.
- 3.1.7 Only technically compliant proposals will undergo financial evaluation in order to determine the winning proposal by the Contracting Authority.

Note:

Two bidders participated already in the FerOL Technical Verification Testing performed by DRDC(S) in 2011.

If there are no changes to their technical bids they are both granted an exemption from new trials and there is no need for them to deliver new FerOL samples.

Appendix 1 to Annex C: Compliance Matrix - MANDATORY REQUIREMENTS

Ref	Key Criteria (Reference)	Mandatory Requirements	Bidder's Responses Required	Verification Testing Required → "R" Not Required → "N/R"	Compliance Indicator Yes → "Y" No → "N" (This Column is only for the Evaluation Team Use)
1	Proven System (Annex B – Para 3.2.1)	The equipment shall be a proven ordnance locator that has been tested and introduced into an operational military unit with a North Atlantic Treaty Organization (NATO) or American, British, Canadian, Australian (ABCA) military partner.	Compliance Statement	N/R	
2	Integration Capability (Annex B – Para 3.2.2)	The FerOL shall have features that are capable of integrating external accessories, future options/technologies and interfacing with following instruments/devices/systems, as a minimum, for greater detection range over the expected in-service life of the instrument: a. personal data assistant (PDA); b. computing devices (such as PC or Laptop); c. global positioning system (GPS); d. navigation system; e. multi-sensor application; and f. optional sensor probe(s).	Compliance Statement	N/R	
3	Probe Extendibility (Annex B – Para 3.2.3)	The FerOL shall be capable of lowering its Sensor Probe for performing detection function at various depths of up to twenty-five (25) meter (m) through cable extensions added between the probe and control unit.	Compliance Statement	R	

Ref	Key Criteria (Reference)	Mandatory Requirements	Bidder's Responses Required	Verification Testing Required → "R" Not Required → "N/R"	Compliance Indicator Yes → "Y" No → "N" (This Column is only for the Evaluation Team Use)
4	Robustness (Annex B – Para 3.2.5)	The FerOL shall function and achieve all detection performances after at least two (2) drops from a height of one (1) meter onto a hard compacted gravel surface.	Compliance Statement	R	
5	Climatic Condition (Annex B – Para 3.2.7.2)	The FerOL shall operate without any performance degradation over any terrain or waters in climatic conditions ranging from -20°C to +55°C.	Compliance Statement	N/R	
6	Expected In-Service life (Annex B – Para 3.2.8)	The FerOL expected in-service life shall not be less than ten (10) years with an overall expected use being approximately five hundred (500) hours a year.	Compliance Statement	N/R	
7	Detection Capability (Annex B – Para 3.2.9)	The FerOL shall be capable of performing detection operations in land, borehole and underwater environments.		R	
8	Detection in Land Environment (Annex B – Para 3.2.9.2)	The FerOL shall detect an inert or simulated one thousand (1,000) pounds ferro-magnetic general purpose (GP) bomb buried at a minimum depth of three (3) meter as measured from the sensor head bottom to the target's closest point in normal (non-magnetic) soil conditions.	Compliance Statement	R	
		The FerOL shall be capable of detecting an inert or simulated 155 mm shell buried at a minimum depth of two (2) meters measured from the sensor head bottom to the target's closest point in normal soil conditions.	Compliance Statement	R	

Ref	Key Criteria (Reference)	Mandatory Requirements	Bidder's Responses Required	Verification Testing Required → "R" Not Required → "N/R"	Compliance Indicator Yes → "Y" No → "N" (This Column is only for the Evaluation Team Use)
9	Detection in Boreholes (Annex B – Para 3.2.9.3)	The FerOL shall have the ability to detect sample ordnance as described in paragraphs 3.2.9.2.1 & 3.2.9.2.2 above through boreholes on land using a twenty five (25) meter sensor probe extension cable.	Compliance Statement	R	
10	Detection in Water (Annex B – Para 3.2.9.4)	The FerOL shall have the ability to detect sample ordnance as described in paragraphs 3.2.9.2.1 & 3.2.9.2.2 above in fresh or salt water at a maximum water depth of twenty-five (25) meter using probe extension cable of twenty five (25) m long connected between the probe and the control unit.	Compliance Statement	R	
11	Audio Alarm (Annex B – Para 3.2.10)	The FerOL shall have in-built volume adjustable audio alarm system with external speaker which shall be turned OFF when connected to a headset or earphone.	Compliance Statement	R	
12	Data Display (Annex B – Para 3.2.11)	The FerOl shall have an indication meter or, preferably, an LCD display to indicate/display detection results.	Compliance Statement	R	
13	Pinpointing (Annex B – Para 3.2.12)	The FerOL operator shall be able to pinpoint the location of the one-thousand (1,000) pounds GP bomb within fifty (50) cm and, for smaller objects in lesser depths, within twenty-five (25) cm, with the use of PDA / computer software.	Compliance Statement	R	
14	Data Logging (Annex B – Para 3.2.13)	The FerOL shall have multi-channel data logging capability for accepting and recording data from up to four (4) sensor probes that may be attached to the locator.	Compliance Statement	N/R	

Ref	Key Criteria (Reference)	Mandatory Requirements	Bidder's Responses Required	Verification Testing Required → "R" Not Required → "N/R"	Compliance Indicator Yes → "Y" No → "N" (This Column is only for the Evaluation Team Use)
		The data logger shall provide the option to interface with a global positioning system (GPS or DGPS) to be used to set and mark the field area to be scanned, establish the intended survey route or track(s) (thus allowing the surveyor to navigate in the field to be surveyed), and precisely mark the geographical position of the recorded magnetic anomalies.	Compliance Statement	N/R	
15	Compensation Function (Annex B – Para 3.2.15)	The FerOL and Analysis Software shall have a compensation function to compensate and minimize interference or possible effects of the terrestrial magnetic field from the magnetic soils.	Compliance Statement	N/R	
16	Sensitivity (Annex B – Para 3.2.17.1)	Linear measurement ranges or levels of selection shall be in the spectrum range/scale of at least plus/minus ten-thousand (10,000) nanotesla (nT), +/-10,000 nT, for a gradiometer type, or scale of zero (0) to hundred-thousand (100,000) nT, 0-100,000 nT, for a magnetometer type of the device.	Compliance Statement	N/R	
17	Self-Diagnostics (Annex B – Para 3.2.19)	The FerOL shall have the capability for self-diagnosis upon start-up, either initiated manually by the operator or done automatically, in order to determine whether it is operating within designated parameters.	Compliance Statement	R	
18	Fault Indication (Annex B – Para 3.2.20)	The FerOL shall have the capability to warn the operator with audio or visual signals in the event of any error detection or malfunctioning of the equipment.	Compliance Statement	N/R	
19	Power Supply (Annex B- Para	The FerOL shall have an integral power supply that is robust,	Compliance Statement	N/R	

Ref	Key Criteria (Reference)	Mandatory Requirements	Bidder's Responses Required	Verification Testing Required → "R" Not Required → "N/R"	Compliance Indicator Yes → "Y" No → "N" (This Column is only for the Evaluation Team Use)
	3.2.22)	reliable, and provide at least fifteen (15) hours of continuous operation at a temperature of 20°C or less on a fully charged set of batteries (without battery replacement or recharge).			
20	Operational weight (Annex B – Para 3.3.2)	The Operational weight of the FerOL, including batteries, shall not exceed five decimal zero (5.0) kilograms in the land-surveying configuration (without probe extension cable)	Compliance Statement	N/R	
		The twenty-five meter long probe extension cable and the drum for the borehole/underwater surveying shall not exceed a weight of eight (8) kg.	Compliance Statement	R	

**TECHNICAL AND PERFORMANCE VERIFICATION
TESTS
FOR
THE FERROUS ORDNANCE LOCATOR (FerOL)**

Last revised: 18 May, 2011

Prepared by:

DRDC(S) and DCSEM 9
National Defence Headquarters
Major General George R. Pearkes Building
Ottawa, Ontario
K1A 0K2

Technical and Performance Verification Tests

Overview

The following technical and performance verification tests will be executed by DRDC Suffield on the Bidder's supplied locator. These tests are linked to Appendix 1 to Annex C (Compliance Matrix – Mandatory Requirements).

- T1. Robustness (Ref 4)
- T2. Detection in Land Environment - GP bomb (Ref 8a)
- T3. Pinpointing (Ref 13)
- T4. Detection in Land Environment - 155mm (Ref 8b)
- T5. Detection in Boreholes - GP bomb (Ref 9a)
- T6. Detection in Boreholes - 155 mm (Ref 9b)
- T7. Detection in Water - GP bomb (Ref 10a)
- T8. Detection in Water - 155 mm (Ref 10b)
- T9. Insensitivity to RF Interference - 2 m (Ref 20a)
- T10. Insensitivity to RF Interference - 5 m (Ref 20b)
- T11. Operational weight /w extension cable (Ref 21b)

During the execution of the technical and performance verification tests listed above, the following Mandatory Requirements will be assessed and compliance noted (derived capabilities).

- D1. Probe Extendibility (Ref 3)
- D2. Detection Capability (Ref 7)
- D3. Audio Alarm (Ref 11)
- D4. Data Display (Ref 12)
- D5. Self-Diagnostics (Ref 17)

Test Procedures

T1. Robustness

1. The system will be assembled into land surface search configuration with batteries installed, but not powered on.
2. Using a typically hard compacted gravel surface as found on the DRDC Suffield Experimental Proving Grounds, the system will be dropped twice from a height of 1m as measured from the ground surface to the lowest point of the system.
3. The first drop will be with the system oriented as if a land surface search was occurring.
4. The second drop will be with the system in the most vulnerable orientation as determined by the operator.
5. The system will be powered on and the self-diagnostics allowed executing.
6. If the self-diagnostics indicate a fault, then the system should not be tested further.
7. If no fault is indicated, the remaining tests can be executed and, if the system functions and achieves all detection performances, then the system can be declared compliant to Ref 4.

T2. Detection in Land Environment - GP bomb

1. The system will be assembled into land surface search configuration.
2. New batteries will be installed into the detector.
3. The detector will be powered on and allowed to stabilize for 15 minutes in a metal free environment.
4. As the mandatory requirement calls for detection in "normal (non-magnetic) soil conditions", this test can be executed in-air. As such, a non-magnetic platform will be used to provide a 3m separation between the top of the platform and the top of the 1000 lbs Ferro-magnetic practice general purpose (GP) bomb.
5. Without the GP bomb present, the system will be moved across the platform in a manner similar to a ground surface search.
6. The output of the system (audio alarm and data display) will be observed. No alarm is expected.

7. The GP bomb will then be placed under the platform and oriented such that the long axis is horizontal and aligned with the direction of system motion.
8. The system will be moved across the platform in a manner similar to a ground surface search.
9. The output of the system (audio alarm and data display) will be observed. Alarm is expected from both output methods.
10. If the system indicates an anomaly that is roughly centered over the GP bomb, then the system is compliant to Ref 8a.
11. While moving over the GP bomb, if the system provided an audio alarm that has a built-in volume adjustment which turns off when connected to a headset or earphone, then the system is compliant to Ref 11.
12. While moving over the GP bomb, if the system provided an indication meter or a LCD display of signal level, then the system is compliant to Ref 12.
13. If the system does not indicate an anomaly, audio alarm, or display, then the system should not be tested further.

T3. Pinpointing

1. The system will be assembled into land surface search configuration.
2. The same batteries from T2 will be installed into the detector.
3. The detector will remain powered after T2.
4. The test configuration is the same as T2.
5. Using the manufacturer's recommended pinpointing procedure, the system will be moved across the platform in a manner similar to a ground surface search.
6. Once the system as estimated the center position of the target, the difference between the estimated and true position will be measured.
7. If the difference is within 0.5m, then the system is compliant to Ref 13.
8. If the difference is greater than 0.5m, then the system should not be tested further.

T4. Detection in Land Environment - 155mm

1. The system will be assembled into land surface search configuration.
2. The same batteries from T3 will be installed into the detector.
3. The detector will be powered on and allowed to stabilize for 15 minutes in a metal free environment.
4. As the mandatory requirement calls for detection in "normal (non-magnetic) soil conditions", this test can be executed in-air. As such, a non-magnetic platform will be used to provide a 2m separation between the top of the platform and the top of the free from explosive 155mm dummy shell.
5. Without the 155mm shell present, the system will be moved across the platform in a manner similar to a ground surface search.
6. The output of the system (audio alarm and data display) will be observed. No alarm is expected.
7. The 155mm shell will then be placed under the platform and oriented such that the long axis is horizontal and aligned with the direction of system motion.
8. The system will be moved across the platform in a manner similar to a ground surface search.
9. The output of the system (audio alarm and data display) will be observed. Alarm is expected from both output methods.
10. If the system indicates an anomaly that is roughly centered over the 155mm shell, then the system is compliant to Ref 8b.
11. If the system does not indicate an anomaly, then the system should not be tested further.

T5. Detection in Boreholes - GP bomb

1. The system will be assembled into borehole search configuration.
2. The same batteries from T4 will be installed into the detector.
3. The detector will be powered on and allowed to stabilize for 15 minutes in a metal free environment.
4. As the mandatory requirement calls for detection in "normal (non-magnetic) soil conditions", this test can be executed in-air. As such, a non-magnetic platform will be used to provide a 3m vertical drop in order to simulate a borehole. The remaining length of extension cable (22m) will

- be position in such a way as to not interfere with the test.
5. Without the GP bomb present, the system's probe will be lowered from the top of the platform to the ground in a manner similar to a borehole search.
 6. The output of the system (audio alarm and data display) will be observed. No alarm is expected.
 7. The GP bomb will then be placed on the ground, 3m from the point at which the probe would contact the ground. The GP bomb will be oriented such that the long axis is horizontal and perpendicular to the probe.
 8. The system's probe will be lowered from the top of the platform to the ground in a manner similar to a borehole search.
 9. The output of the system (audio alarm and data display) will be observed. Alarm is expected from both output methods.
 10. If the system indicates an anomaly that can be associated with the presence of the GP bomb, then the system is compliant to Ref 9a and Ref 3.
 11. If the system does not indicate an anomaly, then the system should not be tested further.

T6. Detection in Boreholes - 155 mm

1. The system will be assembled into borehole search configuration.
2. The same batteries from T5 will be installed into the detector.
3. The detector will be powered on and allowed to stabilize for 15 minutes in a metal free environment.
4. As the mandatory requirement calls for detection in "normal (non-magnetic) soil conditions", this test can be executed in-air. As such, a non-magnetic platform will be used to provide a 3m vertical drop in order to simulate a borehole. The remaining length of extension cable (22m) will be position in such a way as to not interfere with the test.
5. Without the 155mm shell present, the system's probe will be lowered from the top of the platform to the ground in a manner similar to a borehole search.
6. The output of the system (audio alarm and data display) will be observed. No alarm is expected.
7. The 155mm shell will then be placed on the ground, 2m from the point at which the probe would contact the ground. The 155mm shell will be oriented such that the long axis is horizontal and perpendicular to the probe.
8. The system's probe will be lowered from the top of the platform to the ground in a manner similar to a borehole search.
9. The output of the system (audio alarm and data display) will be observed. Alarm is expected from both output methods.
10. If the system indicates an anomaly that can be associated with the presence of the 155mm shell, then the system is compliant to Ref 9b.
11. If the system does not indicate an anomaly, then the system should not be tested further.

T7. Detection in Water - GP bomb

1. The system will be assembled into underwater survey configuration.
2. New batteries will be installed into the detector.
3. The detector will be powered on and allowed to stabilize for 15 minutes in a metal free environment.
4. As the mandatory requirement calls for detection in "fresh or salt water at a maximum water depth of 25m", this test must use an environment where the water pressure can be matched with the requirement. As such, a body of water (lake or ocean) will be used.
5. Without the GP bomb present, the system's probe will be lowered into the water until it reaches a depth of 25m (and just above the bottom).
6. The output of the system (audio alarm and data display) will be observed. No alarm is expected.
7. The GP bomb will then be lowered into the water, 3m from the point at which the probe would contact the bottom. The GP bomb will be oriented such that the long axis is horizontal and perpendicular to the probe.
8. The system's probe will be lowered into the water until it reaches a depth of 25m.
9. The output of the system (audio alarm and data display) will be observed. Alarm is expected from both output methods.
10. If the system indicates an anomaly that can be associated with the presence of the GP bomb, then

the system is compliant to Ref 10a.

11. If the system does not indicate an anomaly, then the system should not be tested further.

T8. Detection in Water - 155 mm

1. The system will be assembled into underwater survey configuration.
2. The same batteries from T7 will be installed into the detector.
3. The detector will be powered on and allowed to stabilize for 15 minutes in a metal free environment.
4. As the mandatory requirement calls for detection in "fresh or salt water at a maximum water depth of 25m", this test must use an environment where the water pressure can be matched with the requirement. As such, a body of water (lake or ocean) will be used.
5. Without the 155mm shell present, the system's probe will be lowered into the water until it reaches a depth of 25m (and just above the bottom).
6. The output of the system (audio alarm and data display) will be observed. No alarm is expected.
7. The 155mm shell will then be lowered into the water, 2m from the point at which the probe would contact the bottom. The 155mm shell will be oriented such that the long axis is horizontal and perpendicular to the probe.
8. The system's probe will be lowered into the water until it reaches a depth of 25m.
9. The output of the system (audio alarm and data display) will be observed. Alarm is expected from both output methods.
10. If the system indicates an anomaly that can be associated with the presence of the 155mm shell, then the system is compliant to Ref 10b.
11. If the system does not indicate an anomaly, then the system should not be tested further.

T9. Insensitivity to RF Interference - 2 m

1. The system will be assembled into land surface search configuration.
2. New batteries will be installed into the detector.
3. The detector will be powered on and allowed to stabilize for 15 minutes in a metal free environment.
4. A 155 mm shell will be placed on the ground, 2m from the search path to be taken by the system.
5. The system will be moved along the search path in order to confirm that the target can be detected.
6. A Canadian Force's Personal Role Radio (PRR) or similar radio system will be located at a point 5 m from the target and 2 m from the search path taken by the system.
7. The system will be moved along the search path while the radio system is in use.
8. If the system indicates an anomaly that can be associated with the presence of the 155mm shell, then the system is compliant to Ref 20a.
9. If the system does not indicate an anomaly, then the system should not be tested further.

T10. Insensitivity to RF Interference - 5 m

1. The system will be assembled into land surface search configuration.
2. The same batteries from T9 will be installed into the detector.
3. The detector will remain powered after T9.
4. A 155 mm shell will be placed on the ground, 3 m from the search path to be taken by the system.
5. The system will be moved along the search path in order to confirm that the target can be detected.
6. A Canadian Force's man portable electronic counter-measures (PCM) radio or equivalent radio system will be located at a point 8 m from the target and 5 m from the search path taken by the system.
7. The system will be moved along the search path while the radio system is in use.
8. If the system indicates an anomaly that can be associated with the presence of the 155mm shell, then the system is compliant to Ref 20b.
9. If the system does not indicate an anomaly, then the system should not be tested further.

T12. Operational weight /w extension cable

1. The mass of the 25m probe extension cable and its holder will be measured.
2. If the mass is less than 8kg, then the system is compliant with Ref 21b.

Derived Capabilities

D1. Probe Extendibility

Inferred during T5 as a 25m extension cable is used during the test. If the system succeeds in T5 (Ref 9a), then it complies with Ref 3.

D2. Detection Capability

Inferred from the system's compliance to Refs 8a, 8b, 9a, 9b, 10a and 10b. If the system succeeds in T2, T4, T5, T6, T7 and T8, then it complies with Ref 7.

D3. Audio Alarm

Inferred from the system's compliance to Ref 8a. If the system succeeds in T2, then it complies with Ref 11.

D4. Data Display

Inferred from the system's compliance to Ref 8a. If the system succeeds in T2, then it complies with Ref 12.

D5. Self-Diagnostics

Inferred from the system's compliance to Ref 4. If the system succeeds in T1, then it complies with Ref 17.

Annex D to W8476-112853
COMMERCIAL ENGINEERING DRAWINGS
AND
ASSOCIATED LISTS
FOR
THE FERROUS ORDNANCE LOCATOR
(FerOL)

TABLE OF CONTENTS

1	General: _____	3
1.1	DSCO 5-3-5 Technical Data Action Notice (TDAN) Number: _____	3
1.2	Applicable Documents: _____	3
1.3	New Drawings: _____	3
1.3.1	Drawing Level: _____	3
1.4	Drawing Practices: _____	3
2	Data Lists: _____	4
3	Reference Documents: _____	4
4	Contractor Drawings: _____	4
5	Technical Data Action Notice (TDAN): _____	4
5.1	Drawing System: _____	4
5.2	Drawing Types: _____	4
5.3	Parts Lists: _____	4
5.4	Control Drawings: _____	4
5.5	Family-Tree Drawing(s): _____	4
5.6	Units of Measure: _____	5
6	Integration: _____	5
7	Data Rights: _____	5
7.1	Data Rights Legend: _____	5
8	Quality Assurance Provisions: _____	5
8.1	Acceptance: _____	5
8.1.1	Interim Deliverables for Acceptance Purposes: _____	5
8.1.1.1	Level 1 - Design Concept: _____	5
	Error! Bookmark not defined.	
8.1.1.2	Level 2 - Prototype / Limited Production: _____	5
8.1.1.3	Level 3 - Production: _____	5
	Error! Bookmark not defined.	
9	Final Deliverables: _____	6
9.1	Soft Copy Deliverables: _____	6
9.1.1	Engineering Drawings: _____	6
9.1.2	Associated Lists: _____	6
9.1.3	Reference Documents: _____	6
9.1.4	TDAN: _____	6
9.1.5	Metadata (Capture of Related Information): _____	6
9.1.5.1	DATABASE TABLE: _____	6
9.1.6	File Formats for Raster Data: _____	7
9.1.6.1	PeI Density: _____	7

9.1.6.2	Position of Pels:	7
9.1.6.3	Image Sizes:	7
9.1.6.4	Cropping:	7
9.1.6.5	Skew Correction:	7
9.1.6.6	Despeckling:	7
9.1.6.7	Image Foreground /Background:	7
9.1.6.8	File Names/Batch Number Allocation:	7
9.1.7	Media of Delivery:	8
10	Packaging/Marking/Loss/Damage:	8
11	Mail Delivery:	8
12	Inquiries, Visits or Courier Deliveries:	8
TABLE 1	INDEX FIELDS	9/10
TABLE 2	DRAWING SIZES	11
FIGURE 1	Sample Metadata Records	12

1 General:

Engineering Drawings, Associated Lists and Reference Documents shall be provided in accordance with the following requirements and in the final form specified below.

1.1 DSCO 5-3-5 Technical Data Action Notice (TDAN) Number:

The following number has been assigned to control the acquisition of all Engineering Drawings and Associated Lists produced under this contract:

TDAN Number: TBD

1.2 Applicable Documents:

D-01-400-002/SF-000 dated 83-11-30, Drawings, Engineering and Associated Lists.

D-LM-008-022/SG-000, Standard for Packaging of Documentation

ASME Y14.100, Engineering Drawing Practices

ASME Y14.24, Types and Applications of Engineering Drawings

ASME Y14.34M, Associated Lists

ISO 9660, Information Processing - Volume and File Structure of CDROM for Information Interchange

Z234.1-00, Canadian Metric Practices Guide

TIFF Revision 6, Adobe Systems Incorporated, dated June 3, 1992

1.3 New Drawings:

The contractor shall prepare and deliver Engineering Drawings and Associated Lists which meet the design disclosure and legibility requirements of the specified level as defined by the Canadian Forces Engineering Drawings and Associated Lists specification D-01-400-002/SF-000.

1.3.1 Drawing Level: Level 2 Limited Production / Prototype

1.4 Drawing Practices:

Drawing practices shall be in accordance with ASME Y14.100.

2 Data Lists:

Data Lists complete with Cover Sheets are required and shall be prepared in accordance with ASME Y14.34M and supplied as part of the Engineering Drawings. Data Lists shall be prepared at the item level of assembly (and/or end item) declared for future production by the Technical Authority. Cover sheets shall be prepared as sheet one (1) of the Data List. Cover Sheets shall include the Contract Number and a note which details the **Intellectual Property Rights** that apply to the data identified on the Data List (see para 7).

3 Reference Documents:

Reference documents called up on the Engineering Drawings (excepting those, which are government, society and readily available industrial specifications or standards) shall be included as part of the Engineering Drawings and Associated Lists.

4 Contractor Drawings:

Existing Contractor Drawings being provided as part of the Engineering Drawing Package shall meet the requirements of paragraph 3.2 of D-01-400-002/SF-000. In the event that Contractor Drawings do not meet the specified requirements the contractor shall rework the drawings to ensure that the requirements are met.

5 Technical Data Action Notice (TDAN):

A TDAN shall be prepared listing all Drawings and Associated Lists delivered as a result of the contract. A sample TDAN can be provided upon request.

5.1 Drawing System:

The mono-detail drawing system shall be used.

5.2 Drawing Types:

The contractor shall provide the necessary types of drawings that will satisfy the sophistication of the specified drawing level. Drawing types selected shall be in accordance with ASME Y14.24. Type selection shall be subject to the approval of both the DND Technical Authority and DSCO 5-3-5.

5.3 Parts Lists:

Parts lists shall be prepared integral with the drawings. On multi-sheet drawings, the parts list shall be placed on sheet one (1).

5.4 Control Drawings:

Control Drawings as defined in ASME Y14.24 shall be prepared for commercial items approved for use in the design, which are not defined by Government or nationally recognized industrial specifications and standards.

5.5 Family-Tree Drawing(s):

The contractor shall prepare a Family-Tree Drawing(s) of the complete configuration of the Engineering Drawing Package and it shall be subject to the approval of both the DND Technical Authority and DSCO 5-3-5.

5.6 Units of Measure:

The DND Technical Authority will determine the units of measure (metric or Imperial). Metric drawings shall comply with Z234.1-00 Canadian Metric Practices Guide.

6 Integration:

The prime Contractor shall be fully responsible for the integration of the new and existing drawings to form a complete Engineering Drawing Package.

7 Data Rights:

The Government of Canada shall have rights in data as detailed in the Terms and Conditions of the contract.

7.1 Data Rights Legend:

The Contractor shall mark all Foreground & Background Engineering Drawings & Associated Lists delivered under this contract with a complete notation as detailed at “**Intellectual Property Rights**” and/or “**Data Rights**” clause(s) of the contract.

8 Quality Assurance Provisions:

Quality of the Engineering Drawings and Associated Lists delivered on this contract is the responsibility of the contractor and subject to the quality requirements of the contract.

8.1 Acceptance:

Acceptance of the Engineering Drawings, Associated Lists and Reference Documents for technical content requirements will be the responsibility of the DND Technical Authority. Acceptance of the Engineering Drawings, Associated Lists, Reference Documents and Electronic Data Deliverables for format requirements will be DSCO 5-3-5.

8.1.1 Interim Deliverables for Acceptance Purposes:

Two complete, full-size, print copy sets of the Engineering Drawings, Associated Lists and Reference Data shall be delivered in hard copy form for acceptance purposes (reduced size" print copies may be acceptable provided that they are legible). If the package cannot be accepted, for reasons of either technical content or format, it may be necessary to resubmit the print copy sets.

8.1.1.1 Level 2 - Prototype / Limited Production:

Following acceptance of the Level 2 Engineering Drawings, Associated Lists and Reference Documents, the Level 2 Engineering Drawings, Associated Lists and Reference Documents shall be forwarded to the DSCO 5-3-5.

9 Final Deliverables:

Upon acceptance, the Level 2 Engineering Drawings, Associated Lists and Reference Data shall be delivered in soft copy form as outlined herein.

9.1 Soft Copy Deliverables:

Soft copy deliverables shall include the Engineering Drawings, Associated Lists, Reference Data and the associated Metadata in electronic form.

9.1.1 Engineering Drawings:

Engineering Drawings shall be delivered as Raster files as detailed herein. Multi-sheet drawings shall be delivered one sheet per file.

9.1.2 Associated Lists:

Associated Lists shall be delivered as Raster files as detailed in herein. Multi-sheet lists shall be delivered one sheet per file.

9.1.3 Reference Documents:

Reference Documents shall be delivered as Raster files as detailed herein or in a format deemed acceptable by the DSCO 5-3-5.

9.1.4 TDAN:

The TDAN shall be delivered as Raster files as detailed in herein. Multi-sheet TDANs shall be delivered one sheet per file.

9.1.5 Metadata (Capture of Related Information):

Metadata (the data that describes data objects) shall be provided for all Engineering Drawings, Associated Lists and Reference Data deliverables. Metadata records shall contain the information in the order shown in Table 1. Metadata shall be delivered as a Microsoft Access 2000 database shown at Figure 1.

9.1.5.1 DATABASE TABLE:

Each delivered image shall have a corresponding database record. All records shall be entered into a single Microsoft Access 2000 database table. Fields without corresponding information shall remain blank. The Microsoft Access 2000 database file shall be named "metadata.mdb".

9.1.6 File Formats for Raster Data:

Raster data shall be Tagged Image File Format in accordance with Adobe Systems Inc. specification "TIFF Revision 6", compressed to CCITT Group 4. Files shall be UNTILED and be wholly raster (hybrid files shall not be delivered).

9.1.6.1 Pel Density:

Raster image pixel element (Pel) density shall be 200 dpi.

9.1.6.2 Position of Pels:

Position of Pels shall be as follows:

- i) Portrait Data: line progression 270 degrees, Pel path 0 degrees.
- ii) Landscape Data: line progression 270 degrees, Pel path 0 degrees.

9.1.6.3 Image Sizes:

Image sizes as outlined in Table 2 are provided as a guide and sizes may vary slightly, but no more than plus or minus one inch (25 mm) in either width or length.

9.1.6.4 Cropping:

Images shall be cropped such that the engineering drawing is free from extraneous information. For example, drawing formats having an inside and an outside border shall be cropped closely to the outside of the outside border. Drawing formats having only one border, where zone or quadrant identification is outside of that border shall be cropped such that the zone information is retained.

9.1.6.5 Skew Correction:

In general, skew correction is not required. If the Contractor deems it necessary, correction shall be done to 0 degrees and 90 degrees.

9.1.6.6 Despeckling:

If any despeckling is required, the Contractor shall ensure that data integrity is not compromised by this operation.

9.1.6.7 Image Foreground /Background:

Images shall be black on white background.

9.1.6.8 File Names/Batch Number Allocation:

File names and a batch number shall be requested in writing from DSCO 5-3-5. Quantity of file names required shall be specified at the time of the request.

9.1.7 Media of Delivery:

The media form for final delivery of electronic data shall be CD-ROM, written in accordance with ISO 9660. (File compression software shall not be used.) Each CD-ROM and its case shall be labeled or marked in a method of the contractor's choosing. Each label or marking shall display the Batch Number, Contract / Task number, TDAN number and the date the CD-ROM was created.

10 Packaging/Marking/Loss/Damage:

Reproducible and non-reproducible data shall be preserved packaged and marked in accordance with CF Standard D-LM-008-022/SG-000. Exterior shipping containers shall be marked with the contract and TDAN number and in the event of loss or damage while in shipment, the responsibility for replacement shall be that of the primary Contractor and shall be at the primary Contractor's expense.

11 Mail Delivery:

DSCO 5-3-5 Deliverables shall be forwarded to:

Department of National Defence
National Defence Headquarters,
MGen George R. Pearkes Building,
OTTAWA ON K1A 0K2

Attention: **DSCO 5-3-5, 1 LSTL NQ 09**

12 Inquiries, Visits or Courier Deliveries:

After contract award, **DSCO 5-3-5** may be contacted at **(819) 994-9352**,
Fax **(819) 997-0302**. The address is:

Department of National Defence
Louis St. Laurent Building
555 boul de la Carriere,
GATINEAU QC J8Y 6R5

Attention: **DSCO 5-3-5**

TABLE 1 INDEX FIELDS

Order	Field Name	Max Field Length	Field Definition / Description	Example Entry
1	FILENAME <i>(all one word)</i>	12 (8.3)	Name of electronic file - unique filename for uploading in database. File names will be issued by DSCO 5-3-5. Alpha characters shall be uppercase.	LZ000235.TIF
2	BATCHNO <i>(all one word)</i>	8	Batch number - used for uploading files in database. Batch number will be assigned with filenames. Alpha characters shall be uppercase.	LZ001
3	DOCUMENTNO <i>(all one word)</i>	25	This field shall contain the document number.	9775458
4	REVISION	3	Letter or number indicating the revision level. If there is no rev, indicate with dash ("-")	B
5	SHEETNO <i>(all one word)</i>	3	Sheet number x of y. Enter the value of x.	1
6	NOOFSHEETS <i>(all one word)</i>	3	Sheet number x of y. Enter the value of y.	1
7	FRAMENO <i>(all one word)</i>	3	Frame number x of y. Enter the value of x. (This field is applicable only when capturing data from aperture cards.) When field is not applicable, leave blank.	
8	NOOFFRAMES <i>(all one word)</i>	3	Frame number x of y. Enter the value of y. (This field is applicable only when capturing data from aperture cards.) When field is not applicable, leave blank.	
9	NSCM	5	This field shall contain the NATO Supply Code for Manufacturers (NSCM) of the Owner of the data. (Also known as FSCM, CAGE or NCAGE code.)	35097
10	SIZE	2	This field contains the document size. -For imperial sizes use A, B, C, D, E, F, G, H, J, K and LE (for legal) -For metric sizes use A4, A3, A2, A1, A0 and B1.	A2
11	ADDITIONALIDENTIFIER <i>(all one word)</i>	10	This open field shall be used when two (2) or more documents have the same document number but are different documents. e.g. Document 12345, Document 12345 DCR 001, then "DCR 001" would be entered in this field. When field is not applicable, leave blank.	DCR 001

12	DATARIGHTS <i>(all one word)</i>	1	The data rights as specified in the contract. "L" for "LIMITED" or "U" for "UNLIMITED"	U
13	DOCUMENTTITLE <i>(all one word)</i>	240	Title of document. (i.e. Drawing title)	BRACKET ASSY
14	TDANNO <i>(all one word)</i>	12	This field shall be used to enter the TDAN number assigned for the project.	094471123
15	ERN	8	This field shall be used for the Equipment Registration Number. Information shall be provided if required, otherwise the field may be left blank.	
16	EAC	8	This field shall be used for the Equipment Application Code. Information shall be provided if required, otherwise the field may be left blank.	
17	EQUIPMENT	75	Name of the Equipment. Information shall be provided if required, otherwise the field may be left blank.	

TABLE 2 DRAWING SIZES

METRIC DRAWING SIZES			
Drawing Size	W x L (max) (mm)	Pels Per Line	Number of Lines
A4	210 X 297	1656	2344
A3	297 X 420	2344	3312
A2	420 X 594	3312	4680
A1	594 X 841	4680	6624
A0	841 X 1189	6624	9368
B1	707 X 1000	5567	7875
NORTH AMERICAN / IMPERIAL DRAWING SIZES			
Drawing Size	W x L (max) (inches)	Pels Per Line	Number of Lines
A	8.5 x 11	1704	2200
B	11 x 17	2200	3400
C	17 x 22	3400	4400
D	22 x 34	4400	6800
E	34 x 44	6800	8800
F	28 x 40	5600	8000
G	11 x 90	2200	18000
H	28 x 143	5600	28600
J	34 x 176	6800	35200
K	40 x 143	8000	28600
Legal	8.5 x 14	1704	2800

Sample record entries (Metadata) in database table:
 (The following table is shown on two lines to suit page width.)

FILENAME	BATCHNO	DOCUMENTNO	REVISION	SHEETNO	NOOFSHEETS	FRAMENO	NOOFFRAMES
LZ000235.TIF	LZ001	9775458	B	1	1	1	1
LZ000236.TIF	LZ001	9775457	-	1	1		

NSCM	SIZE	ADDITIONALIDENTIFIER	DATARIGHTS	DOCUMENTTITLE	TDANNO	ERN	EAC	EQUIPMENT
35097	A2	DCR 001	U	BRACKET ASSY	094471123			
35097	A1		U	BRACKET	094471123			

FIGURE 1 Sample Metadata Records



FOR GOVERNMENT USE ONLY POUR USAGE DU GOUVERNEMENT SEULEMENT	
Special Investigations Directorate File No. N° de dossier de la Direction des enquêtes spéciales	Date Received (Y-A M D-J) Date de réception

CONSENT TO A CRIMINAL RECORD VERIFICATION CONSENTEMENT À LA VÉRIFICATION DE L'EXISTENCE D'UN CASIER JUDICIAIRE

This form must be completed and signed by each individual who is currently on the Board of Directors of the Bidder/Offeror/Supplier and provided with the Bid/Offer/Arrangement.

Le présent formulaire doit être rempli et signé par chaque membre du conseil d'administration du soumissionnaire/ de l'offrant/du fournisseur et fourni avec la soumission/l'offre/l'arrangement.

A	PRIVACY ACT STATEMENT ÉNONCÉ CONCERNANT LA LOI SUR LA PROTECTION DES RENSEIGNEMENTS PERSONNELS
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The personal information requested on this form is collected under the authority of subsection 750(3) of the *Criminal Code*, paragraph 42(1(c)) of the *Financial Administration Act*, and sections 7 and 21 of the *Department of Public Works and Government Services Act*. The information will be used for validating the criminal conviction certifications necessary for obtaining or maintaining a procurement instrument. It may be shared with other government departments, agencies, as well as provincial, territorial, and federal courts, within the limits of what is required to conduct the criminal conviction verification.

Les renseignements personnels demandés dans le présent formulaire sont recueillis en vertu du paragraphe 750(3) du *Code criminel*, du paragraphe 42(1(c)) de la *Loi sur la gestion des finances publiques* et des articles 7 et 21 de la *Loi sur le ministère des Travaux publics et des Services gouvernementaux*. Ces renseignements seront utilisés pour valider les attestations de condamnation au criminel nécessaires pour obtenir ou conserver un instrument d'approvisionnement. Les renseignements peuvent être diffusés à d'autres ministères et organismes fédéraux, ainsi qu'à des tribunaux provinciaux, territoriaux et fédéraux, dans les limites de ce qui est requis pour la vérification des condamnations au criminel.

A refusal to provide information will result in the bid/offer/arrangement being rejected or the contract terminated, the standing offer being set-aside or the supply arrangement being cancelled, as applicable.

À défaut de fournir les renseignements demandés, la soumission/l'offre/l'arrangement sera rejeté ou le contrat résilié, l'offre à commandes sera mise de côté ou l'arrangement en matière d'approvisionnement sera annulé, selon le cas.

The personal information is described in personal information bank PWGSC PPU 184 - Integrity Assessment Program. Individuals have a right of access to, correction of and protection of their information in accordance with the *Privacy Act*.

Les renseignements personnels sont décrits dans les fichiers de renseignement personnels n° TPSGC PPU 184 - Programme de l'évaluation de l'intégrité. Les personnes ont le droit d'accéder aux renseignements personnels qui les concernent, ainsi que de les faire corriger ou protéger, conformément à la *Loi sur la protection des renseignements personnels*.

B	BIOGRAPHICAL INFORMATION - Must be completed by the individual RENSEIGNEMENTS BIOGRAPHIQUES - À remplir par l'individu
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Family Name (Last Name) - Nom (de famille)	Family Name at Birth - Nom de famille à la naissance
Full Given Names (No initials) - Prénoms au complet (aucune initiale)	
All other previously used names (i.e. maiden name, previously married names, legal name change, nicknames) Tout autre nom utilisé (tel que nom de jeune fille, noms maritaux précédents, changement de nom légaux, sobriquets)	
Gender - Sexe <input type="checkbox"/> Male / Masculin <input type="checkbox"/> Female / Féminin	Date of Birth - Date de naissance (Y-A M D-J)

Current Residential Information Information résidentielle actuelle

Apartment No. - N° d'appartement	Street No. - N° civique	Street Name - Nom de la rue	
City - Ville	Province	Postal Code - Code postal	

C	CONSENT - Must be signed by the individual CONSENTEMENT - Doit être signé par l'individu
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I, the undersigned, confirm that I have read and understand the above *Privacy Act* statement and that I consent to the collection and use of my personal information as described therein.

Je, soussigné, confirme avoir pris connaissance de l'Énoncé concernant la *Loi sur la protection des renseignements personnels* et consens à la collecte et à l'utilisation des renseignements personnels fournis aux présentes.

Signature	
Print Name - Nom en lettres moulées	Date (Y-A M D-J)

D	ADMINISTRATIVE INFORMATION - Internal Government Use Only RENSEIGNEMENTS ADMINISTRATIFS - Pour usage interne du gouvernement seulement
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Requesting Branch/Sector/Directorate/Division - Direction générale/Secteur/Direction/Division requérante

Solicitation/Proposed Contract No. - N° de la demande de soumission/N° du contrat	Date of Request (Y-A M D-J) Date de la demande
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Requesting Contact Person - Personne-ressource requérante	Contact Person Tel. No. - N° de tél. de la personne-ressource
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