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## **PART 1 - GENERAL INFORMATION**

### **1. Security Requirement**

There is no security requirement associated with the requirement.

### **2. Requirement**

The Department of National Defence has a requirement for commercial off the shelf (COTS) Optical Sights as detailed in Annex A - Technical Specifications.

### **3. Debriefings**

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

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## PART 2 - BIDDER INSTRUCTIONS

**This bid solicitation cancels and supersedes previous bid solicitation number W6399-12DB84/A dated 2012-09-19 with a closing of 2012-10-10 at 2:00pm EDS.**

### 1. Standard Instructions, Clauses and Conditions

All instructions, clauses and conditions identified in the bid solicitation by number, date and title are set out in the Standard Acquisition Clauses and Conditions Manual (<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual>) issued by Public Works and Government Services Canada.

Bidders who submit a bid agree to be bound by the instructions, clauses and conditions of the bid solicitation and accept the clauses and conditions of the resulting contract.

The 2003 (2013-06-01) Standard Instructions - Goods or Services - Competitive Requirements, are incorporated by reference into and form part of the bid solicitation.

#### 1.1 SACC Manual Clauses

A9130T (2011-05-16) Controlled Goods Program

B1000T (2007-11-30) Condition of Material

### 2. Submission of Bids

Bids must be submitted only to Public Works and Government Services Canada (PWGSC) Bid Receiving Unit by the date, time and place indicated on page 1 of the bid solicitation.

### 3. Enquiries - Bid Solicitation

All enquiries must be submitted in writing to the Contracting Authority no later than five (5) 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.

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#### **4. Applicable Laws**

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

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

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

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

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

Section I: Technical Bid - 4 hard copies and 4 soft copies on CD;

Section II: Financial Bid - 1 hard copy;

Section III: Certifications - 2 hard copies.

If there is a discrepancy between the wording of the soft copy and the hard copy, the wording of the hard copy will have priority over the wording of the soft copy.

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

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

- (a) use 8.5 x 11 inch (216 mm x 279 mm) paper;
- (b) use a numbering system that corresponds to the bid solicitation.
- (c) the certifications requested under Part 5 must be provided; and
- (d) the information under Part 6 "Resulting Contract Clauses" should be completed in the spaces provided, with a copy of those pages provided in the bid.

### **Mandatory Requirements**

A mandatory requirement is identified specifically with the word "shall", "must", "will", "mandatory" or the phrase "Canada Requires".

In April 2006, Canada issued a policy directing federal departments and agencies to take the necessary steps to incorporate environmental considerations into the procurement process  
Policy on Green Procurement

(<http://www.tpsgc-pwgsc.gc.ca/ecologisation-greening/achats-procurement/politique-policy-eng.html>). To assist Canada in reaching its objectives, bidders should:

- 1) use 8.5 x 11 inch (216 mm x 279 mm) paper containing fibre certified as originating from a sustainably-managed forest and containing minimum 30% recycled content; and
- 2) use an environmentally-preferable format including black and white printing instead of colour printing, printing double sided/duplex, using staples or clips instead of cerlox, duotangs or binders.

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## Section I: Technical Proposal

1. In their technical bid, bidders should demonstrate their understanding of the requirements contained in the bid solicitation and explain how they will meet these requirements. Bidders should demonstrate their capability and describe their approach in a thorough, concise and clear manner for carrying out the work by providing a completed Compliance Matrix with their response.

2. The completed Compliance Matrix shall explicitly address all the requirements of Annex A - Performance and Technical Specifications, on a paragraph by paragraph basis, using the same numbering system. The response to each paragraph will be the following:

a) A compliance statement ("Compliant" or "Non-compliant"). A "Compliant" statement will be interpreted as meaning full agreement with the requirement. For mandatory requirements, statements such as "Read", "Comply with Intent", "Partial Compliance", "Noted" or the like will be considered as non-responsive;

b) Paragraphs, elements and subparagraphs that convey information rather than a requirement must be marked with "Noted and Understood".

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

The proposed goods and services must meet all mandatory requirements as stated in Annex A, Performance and Technical Specifications and all requirements of the Request for Proposal.

Bidders must provide firm unit prices for the items listed at Annex B, of this document. The total amount of Goods and Services Tax (GST) or Harmonized Sales Tax (HST) must be shown separately, if applicable.

## Section II: Financial Bid

Bidders must submit their financial bid in accordance with Annex B, Basis of Payment, Deliverables. Bidders must provide firm unit prices for the items listed at Annex B, of this document. The total amount of Goods and Services Tax (GST) or Harmonized Sales Tax (HST) must be shown separately, if applicable.

## Section III: Certifications

Bidders must submit the certifications required under Part 5.

## 3. SACC Manual Clauses

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

## PART 4 - EVALUATION PROCEDURES AND BASIS OF SELECTION

### 1. Evaluation of Performance Specification

#### General

(a) Bids will be assessed in accordance with the entire requirement of the bid solicitation including the technical and financial evaluation criteria.

(b) An evaluation team composed of representatives of Canada will evaluate the bids.

#### 1.1 Technical Evaluation

##### 1.1.1 Mandatory Technical Criteria

Compliance with all the mandatory provisions of the bid solicitation, including all annexes and applicable terms and conditions will be verified. In the case where a mandatory item cannot be or is not complied with, the proposal will receive no further consideration.

The mandatory requirements will be evaluated for compliance using compliant/non-compliant criteria against the bidder information provided in the completed Compliance Matrix as submitted with the proposal for each mandatory requirement.

1.1.2 Bidder responses must comply with all the mandatory requirements in Annex A - Performance and Technical Specifications in order to be deemed technically compliant for this portion of the Technical Evaluation.

#### 1.2 Financial Evaluation

The price of the bid will be evaluated in Canadian dollars, Delivery Duty Paid (DDP) within 250 kms of the National Capital Region, Incoterms 2000 and the Goods and Services Tax, or Harmonized sales tax excluded.

For the purposes of evaluation, pricing submitted in foreign currency will be converted to Canadian dollars based on the exchange rate quoted by the Bank of Canada as being in effect on the date of the bid closing. Unless otherwise stated by the Bidder, it will be assumed the bid is submitted in Canadian currency.

#### 1.3 Evaluation of Price

1. The price of the bid will be evaluated as follows:

a. Canadian-based bidders must submit firm prices, Canadian customs duties and excise taxes included, and Goods and Services Tax (GST) or Harmonized Sales Tax (HST) excluded.

b. foreign-based bidders must submit firm prices, Canadian customs duties, excise taxes and GST or HST excluded. Canadian customs duties and excise taxes payable by Canada will be added, for evaluation purposes only, to the prices submitted by foreign-based bidders.

2. Unless the bid solicitation specifically requires bids to be submitted in Canadian currency, bids submitted in foreign currency will be converted to Canadian currency for evaluation purposes. The rate given by the Bank of Canada in effect on the bid solicitation closing date, or on another date specified in the bid solicitation, will be applied as a conversion factor to the bids submitted in foreign currency.



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3. For the purpose of the bid solicitation, bidders with an address in Canada are considered Canadian-based bidders and bidders with an address outside of Canada are considered foreign-based bidders.

## **2. Basis of Selection**

To be declared responsive, a bid must:

- (a) comply with all the requirements of the bid solicitation;
- (b) meet all mandatory technical evaluation criteria.

Bids not meeting (a) or (b) will be declared non-responsive. The responsive bid with the lowest evaluated price for an aggregate of all items will be recommended for contract award.

## PART 5 - CERTIFICATIONS

Bidders must provide the required certifications and related documentation to be awarded a contract. Canada will declare a bid non-responsive if the required certifications and related documentation 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 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, to provide the related documentation or to comply with the request of the Contracting Authority for additional information will also render the bid non-responsive.

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

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

By submitting a bid, the Bidder certifies as per section 01 of Standard Instructions 2003, for himself and his affiliates, to be in compliance with the Code of Conduct and Certifications clause of the Standard instructions. The related documentation therein required will help Canada in confirming that the certifications are true.

### 2. Additional Certifications Precedent to Contract Award

The certifications listed below should be completed and submitted with the bid, but may be submitted afterwards. If any of these required certifications is not completed and submitted as requested, the Contracting Authority will so inform the Bidder and provide the Bidder with a time frame within which to meet the requirement. Failure to comply with the request of the Contracting Authority and meet the requirement within that time period will render the bid non-responsive.

#### 2.1 Federal Contractors Program - Certification - \$200,000 or more

1. The Federal Contractors Program (FCP) requires that some suppliers, including a supplier who is a member of a joint venture, 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, or, if the Bidder is a joint venture and if any member of the joint venture, is subject to the FCP, evidence of its commitment must be provided before the award of the Contract.

Suppliers who have been declared ineligible contractors by Human Resources and Skills Development Canada (HRSDC) are no longer eligible to receive government contracts over the threshold for solicitation of bids as set out in the Government Contracts 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 for a reason other than the reduction of their workforce to less than 100 employees. Any bids from ineligible contractors, including a bid from a joint venture that has a member who is an ineligible contractor, will be declared non-responsive.

2. If 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, 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.

3. The Bidder, or, if the Bidder is a joint venture the member of the joint venture, certifies its status with the FCP, as follows:

The Bidder or the member of the joint venture

a.( ) is not subject to the FCP, having a workforce of less than 100 full-time or part-time permanent employees, and/or temporary employees having worked 12 weeks or more in Canada;

b.( ) is not subject to the FCP, being a regulated employer under the Employment Equity Act, S.C. 1995, c. 44;

c.( ) is subject to the requirements of the FCP, having a workforce of 100 or more full-time or part-time permanent employees, and/or temporary employees having worked 12 weeks or more 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, and has a valid certificate number as follows: \_\_\_\_\_ (e.g. has not been declared an ineligible contractor by HRSDC).

Further information on the FCP is available on the HRSDC Web site.

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## PART 6 - RESULTING CONTRACT CLAUSES

### 1. Security Requirement

There is no security requirement associated with the requirement.

### 2. Requirement

The Contractor agrees to provide the goods and services to the Department of National Defence in accordance with Annexes A & B.

#### 2.1 Optional Goods and/or Services

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

The Contracting Authority may exercise the option to purchase up to an additional 57 optical sights and 1 Lot of spares in accordance with the Manufacturers Recommended Spare Parts List no later than 31 April 2014 by sending a written notice to the Contractor.

### 3. Standard Clauses and Conditions

All clauses and conditions identified in the Contract by number, date and title are set out in the Standard Acquisition Clauses and Conditions

Manual(<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual>) issued by Public Works and Government Services Canada.

#### 3.1 General Conditions

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

### 4. Term of Contract

#### 4.1 Delivery Date

All the deliverables must be received on or before 3 February 2014.

Delivery dates for the optional goods and/or services will be determined at the time of the amendment to the Contract.

### 5. Authorities

#### 5.1 Contracting Authority

The Contracting Authority for the Contract is:

Pamela Bailey

Contracting Officer

E: [pamela.bailey@pwgsc.gc.ca](mailto:pamela.bailey@pwgsc.gc.ca)

Defence and Major Projects Sector (DMPS).

Public Works and Government Services Canada

Place du Portage, Phase III, 11, rue Laurier Street, Gatineau, QC K1A 0S5

Government of Canada

Phone 819 956 3470

Fax 819 956 0636

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

## **5.2 Technical Authority**

The Technical Authority for the Contract will be identified upon 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.

## **5.3 Procurement Authority**

The Procurement Authority for the Contract will be identified upon Contract award.

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

## **6. Payment**

### **6.1 Basis of Payment**

The Contractor will be reimbursed for the performance of the Work, in accordance with Annex B, Basis of Payment. Customs duties are included and the Goods and Services Tax or Harmonized Sales Tax is extra, if applicable.

### **6.3 Method of Payment**

H1001C (2008-05-12) Multiple Payments

### **6.4 SACC Manual Clauses**

C2000C (2007-11-30) Taxes - Foreign-based Contractor

C2605C (2008-05-12) Canadian Customs Duties and Sales Tax - Foreign-based Contractor

G1005C (2008-05-12) Insurance

## **7. Invoicing Instructions**

1. The Contractor must submit invoices in accordance with the section entitled "Invoice Submission" of the general conditions. Invoices cannot be submitted until all work identified in the invoice is completed.

2. The invoices are to be distributed as follows:

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

The Department of National Defence Headquarters  
101 Colonel By Drive  
Ottawa, Ontario Canada  
Attn: To be identified upon Contract award.  
K1A 0K2

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

c. one (1) copy must be forwarded to the consignee.

## **8. Certifications**

### **8.1 Compliance**

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

## **9. Applicable Laws**

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

## **10. Priority of Documents**

If there is a discrepancy between the wording of any documents that appear on the list, the wording of the document that first appears on the list has priority over the wording of any document that subsequently appears on the list.

- (a) the Articles of Agreement and Annex B - Basis of Payment;
- (b) 2010A (2013-04-25) General Conditions - Goods (Medium Complexity)
- (c) Annex A, Performance and Technical Specifications;
- (d) the Contractor's bid dated \_\_\_\_\_ (insert date of bid) (If the bid was clarified or amended, insert at the time of contract award: ", as clarified on \_\_\_\_\_" or ", as amended on \_\_\_\_\_" and insert date(s) of clarification(s) or amendment(s))

## **11. Defence Contract**

The Contract is a defence contract within the meaning of the Defence Production Act, R.S.C. 1985, c. D-1, and must be governed accordingly.

Title to the Work or to any materials, parts, work-in-process or finished work must belong to Canada free and clear of all claims, liens, attachments, charges or encumbrances. Canada is entitled, at any time, to remove, sell or dispose of the Work or any part of the Work in accordance with section 20 of the Defence Production Act.

**12. SACC Manual Clauses**

A9131C (2011-05-16) Controlled Goods Program

B4060C (2011-05-16) Controlled Goods

B7500C (2006-06-16) Excess Goods

D2025C (2008-12-12) Wood Packaging Materials

D5328C (2007-11-30) Delivery, Inspection and Acceptance

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

D5545C (2010-08-16) ISO 9001:2008-Quality Management Systems-Requirements (QAC C)

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

D5605C (2010-01-11) Release Documents (DND) - United States-based Contractor

D5606C (2007-11-30) Release Documents (DND) - Canadian-based Contractor

D6010C (2007-11-30) Palletization

D9002C (2007-11-30) Incomplete Assemblies

**13. Release Documents - Distribution**

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

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

National Defence Headquarters

Mgen George R. Pearkes Building

101 Colonel By Drive

Ottawa, ON K1A 0K2

Attention: To be identified at contract award.

**14. Shipping Instructions**

Goods must be consigned to the destination specified in the Contract and delivered:

Delivery Duty Paid (DDP) Incoterms 2000, for shipments from a commercial contractor.

**15. Preparation for Delivery**

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

The Contractor must package all items in quantities of one (1) per package.

**16. Existing Technical Publications - Translation**

The Contractor grants to Canada a non-exclusive, perpetual, irrevocable and royalty-free license to translate and reproduce for government use all or any part of the technical publications supplied with the equipment delivered under the Contract. Copyright in the translation made by Canada or by independent contractors engaged by Canada will belong to Canada.

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## **17. Consignee**

Within 250 km of the National Capital Region, to be identified upon Contract award.



## Annex B - BASIS OF PAYMENT

The Contractor will be paid the following firm unit or lot prices, Delivered Duty Paid (DDP), within 250 kms of the National Capital Region in Canada, Incoterms 2000, in \_\_\_\_\_ funds. The Harmonized Sales Tax is extra, if applicable.

| Item | Description   | Qty      | Unit price | Ext Price | Option Unit price |
|------|---|----------|------------|-----------|-------------------|
| 1    | Optical Sight (1- 8X) System IAW Annex A, article...  | 57       |            |           | NA                |
| 2    | Manufacturers Recommended Spare Parts List            | 1        |            |           | NA                |
|      | <b>Option items</b>                                   |          |            |           |                   |
| 1    | Optical Sight (1- 8X) System                          | up to 57 |            | NA        |                   |
| 2    | Spares IAW Manufacturers Recommended Spare Parts List | 1 Lot    |            |           |                   |
|      |   |          | Sub Total  |           |                   |
|      |   |          | Total      |           |                   |

**PERFORMANCE AND TECHNICAL SPECIFICATIONS  
FOR THE  
OPTICAL SIGHT**

**1.0 SCOPE**

**1.1 General**

This specification outlines the Performance and technical requirements for the commercial off-the-shelf Optical Sight.

**2.0 APPLICABLE DOCUMENTS**

**2.1 Applicability**

The following documents, definitions and acronyms form part of this specification to the extent specified herein, and are supportive of this specification when referenced in Section 3.0 and beyond. Any other documents are to be considered supplemental information only. Unless otherwise specified, the issue or amendments of documents effective for this contract shall be those in effect on the date of contract award. In the event of a conflict between the documents and the contents of this specification, then the contents of this specification shall take precedence.

- MIL-STD-1913 Military Standard Dimensioning of Accessory Mounting Rails for Small Arms Weapons ([www.everyspec.com](http://www.everyspec.com))
- MIL-STD-810F - Test Method Standard for Environmental Engineering Considerations and Laboratory Tests ([www.everyspec.com](http://www.everyspec.com))
- STANAG 2895 – Extreme climatic conditions and derived conditions for use in defining design/test criteria for NATO forces materiel ([www.nato.int](http://www.nato.int))
- MIL-DTL-44419A - Gloves, Men's and Women's. Intermediate Col/Wet ([assist.deps.dlm.mil](mailto:assist.deps.dlm.mil))

**3.0 REQUIREMENTS**

**3.1 Operational Performance Requirements**

**3.1.1 Climatic Conditions**

The Optical Sight shall:

- (a) Operate under the climatic conditions A1, A2, B1 to B3, and C0, as described in MIL-STD-810F and STANAG 2895; and
- (b) Be waterproof to a minimum of 2.4 meters (8 feet) for a period of not less than one (1) hour.

**3.1.2 Operating Parameters**

The Optical Sight shall:

- (a) Be designed for high visibility in both daylight and low light conditions;
- (b) Have an infinitely variable magnification factor of 1 to 8 times nominal (+/- 10%);
- (c) Have an objective lens diameter of at least 24 mm (0.94 inches);
- (d) Operate in conjunction with a front mounted night vision device;

- (e) Have optical light transmission greater than 85%;
- (f) Have a field of view at 100 m (109 yards), on 1X magnification, of no less than 30 m (33 yards); and
- (g) An eyepiece and lens that do not fog or frost for temperatures ranging from -25 to +55 °C.

### 3.1.3 Shock/Blast Resistance

The Optical Sight shall be compatible with small arms weapons of 5.56mm caliber up to and including 7.62 mm caliber for shock and concussion.

## 3.2 Technical Requirements

### 3.2.1 Physical Features

The Optical Sight shall be an integrated single-body weapon sight with features as follows:

- (a) Reticle - Have a reticle in the First Focal Plane (FFP), graduated in Mil-Radians, as follows:
  - i. Have a P4 reticle;
  - ii. Have a reticle pattern that magnifies at the same rate as the target image in the First Focal Plane;
  - iii. Includes an aiming dot (Red Dot) that is:
    - a. Illuminated;
    - b. Visible throughout the magnification range; and
    - c. Not larger than six (6) Minute of Angle (MOA) at any magnification;
  - iv. Illuminated as follows:
    - a. Have variable intensity to include settings for:
      - 1. Off (including the illumination of the Red Dot);
      - 2. Bright daylight;
      - 3. Poor/low lighting conditions; and
      - 4. For use with night vision goggles;
    - b. Be internally/self-powered; and
    - c. Have an illumination turret that is raised above the surface of the system body, and is arranged/sized to permit easy identification and manipulation in darkness wearing the Cold Wet Weather Glove (MIL-DTL-44419A);
- (b) Elevation/Windage Adjustments - Have elevation and windage adjustment turrets as follows:
  - i. Raised above the surface of the system body;
  - ii. Elevation turret-clockwise adjusting from zero;
  - iii. Windage-clockwise adjusting for RIGHT;
  - iv. Manual-locking;
  - v. Graduated in Mil-Radians with one (1) click equal to 1 cm (0.4 inches) at 100 meters (109 yards);
  - vi. Provide point of aim adjustment as follows:
    - a. Have an elevation range adjustment of no less than 70 cm (27.5 inches) at 100 meters (109 yards); and
    - b. Have a windage range adjustment of no less than  $\pm 50$  cm (19.7 inches) at 100 meters (109 yards);
  - vii. Arranged/sized to permit easy identification and manipulation in darkness from the prone position wearing the Cold Wet Weather Glove (MIL-DTL-44419A) without compromising the location or concealment of the operator;

- (c) Batteries - Utilize a button-cell type battery as follows:
  - i. Require a maximum of two (2) batteries; and
  - ii. Have a minimum battery life of 1000 hours;
- (d) Mounting - Be quickly and easily mountable and removable from the weapon utilizing a MIL-STD-1913 rail adapter and standard scope mounting rings;
- (e) Size/Weight – Have a size/weight as follows:
  - i. An overall length of no more than 30 cm (11.8 in);
  - ii. Weigh no more than 0.7 kg (1.5 lbs) with a complete set of batteries installed (excluding the carrying case and accessories); and
  - iii. Tube diameter of no less than 30 mm (1.18 in);
- (f) Color - Have a non-reflective outer surface (other than the lenses) that is dark brown or black in color;
- (g) Accessories - Include the following accessories with each Optical Sight:
  - i. Protective covers for the eyepiece and objective lens for protection against elements, dust and scratches similar to Butler Creek flip caps as follows:
    - a. A push button operated flip cap for the eye piece; and
    - b. A flip cap for the objective lens;
  - ii. Two (2) complete sets of batteries for the device, including one (1) set in the device and one (1) spare set;
  - iii. A lens cleaning kit;
  - iv. An English-language abridged instruction booklet, made of a weatherproof material that contains illustrated operating, preventive and user maintenance and safety instructions; and
  - v. A reusable Transport Case of rigid design that protects the contents, including the Optical Sight and accessories noted above, from damage due to shifting or minor impact. The case may be constructed of rigid cardboard or plastic.



**INCH-POUND**

**MIL-STD-1913 (AR)  
3 FEBRUARY 1995**

Annex C

**MILITARY STANDARD**

**DIMENSIONING OF ACCESSORY  
MOUNTING RAIL FOR  
SMALL ARMS WEAPONS**



**AMSC N/A**

**FSC 1005**

DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.



## MIL-STD-1913 (AR)

### FOREWORD

1. This military standard is approved for use by all Departments and Agencies of the Department of Defense.
2. Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: Commander, U.S. Army Armament Research, Development and Engineering Center, Attn: SMCAR-QAF-S, Picatinny Arsenal, NJ 07806-5000, by using the Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

## MIL-STD-1913 (AR)

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## MIL-STD-1913 (AR)

### 1. SCOPE

1.1 Scope. This document establishes standard methods of dimensioning accessory mounting rails for small arms weapon systems. It also establishes uniform accessory mounting rails and requirements that are interchangeable among the different units of the Defense Department. Adherence to this standard is mandatory in the preparation of drawings, specifications or technical data packages for the accessory mounting rail used for small arms weapons.

### 2. APPLICABLE DOCUMENTS

#### 2.1 Government documents.

2.1.1 Specifications, standards, and handbooks. The following specifications, standards, and handbooks form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents are those listed in the issue of the Department of Defense Index of Specifications and Standards (DODISS) and supplement thereto, cited in the solicitation (see 6.2)

### SPECIFICATIONS

#### MILITARY

MIL-W-13855 - Weapons, Small Arms and Aircraft Armament Subsystems, General Specification for

(Unless otherwise indicated, copies of federal and military specifications, standards and handbooks are available from the DODSSP - Customer Service, Standardization Documents Order Desk, Bldg. 4D, 700 Robbins Avenue, Philadelphia, PA 19111-5094.)

2.2 Non-Government publications. The following documents form a part of this military standard to the extent specified herein. Unless otherwise specified, the issues of the documents which are DOD adopted are those listed in the issue of the DODISS cited in the solicitation. Unless otherwise specified, the issues of documents not listed in the DODISS are the issues of the documents cited in the solicitation (see 6.2).

#### AMERICAN NATIONAL STANDARDS INSTITUTE

ANSI Y14.5M - Dimensioning and Tolerancing

(Application for copies should be addressed to the American National Standards Institute, 1430 Broadway, New York, NY 10018)

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2.3 Order of precedence. 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. DEFINITIONS

3.1 Accessory. In this document, accessory refers to items which can be attached to the accessory mounting rails such as laser pointers, fire control devices, night vision devices, grenade launchers, optics, thermal weapon sights etc.

3.2 Accessory mounting rail. A grooved dovetail feature that serves as a mounting platform used to mount accessories.

3.3 Dovetail. The wedge shaped cross-section of the accessory mounting rail.

3.4 Recoil groove. Recoil groove is a groove on the accessory mounting rail that prevents forward and aft movement of an accessory.

3.5 Profile. In this document, profile refers to the cross sectional outline as depicted in Figure 1 which establishes a dimensional tolerance zone extending the length, width and depth of the considered feature.

3.6 Small arms. Small arms as used in this document is defined as man-portable individual and crew-served weapon systems used against protected and unprotected personnel and light/unarmored vehicles. Included among these weapon systems are ballistic and non-ballistic systems and associated munitions, aiming, powering, storage and other ancillary items.

### 4. GENERAL REQUIREMENTS

4.1 Dimensioning and tolerancing. Dimensioning and tolerancing of the accessory mounting rail for small arms shall be in accordance with MIL-W-13855, ANSI Y14.5M (using inch-pound units in lieu of metric.) and Figures 1 and 2.

4.1.1 Edge break. Edge break on the accessory mounting rail shall be .002 inch + .010 inch.

4.1.2 Fillet radii. Fillet radii on the accessory mounting rail shall be .020 inch + .015 inch.



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### 5. DETAILED REQUIREMENTS

5.1 Accessory mounting rail profile. Standard dimensioning and tolerancing for the profile of the accessory mounting rail for small arms weapons shall be as shown in Figure 1.

5.2 Recoil groove. The standard dimensions of the recoil groove of the accessory mounting rail for small arms weapons shall be as shown in Figure 2.

5.3 Length of accessory mounting rail. The length of the accessory mounting rail is dependent upon the particular application of small arms weapon it is to be mounted on.

### 6. NOTES

(This section contains information of a general or explanatory nature which may be helpful, but is not mandatory.)

6.1 Intended use. This standard contains requirements for the dimensioning and tolerancing of Accessory Mounting Rails for Small Arms Weapons.

6.2 Issue of DODISS. When this standard is used in acquisition, the issue of the DODISS must be cited in the solicitation (see 2.1.1 and 2.2).

6.3 Application. The location of the mounting rail and its features are dependent upon the particular application. Careful consideration should be given to the following:

- a. Available areas to place the mounting rail on a small arm.
- b. The length of the mounting rail.
- c. The number of grooves on the mounting rail.
- d. The relationship of the mounting rail location to that which is required by the accessory.
- e. The effect on the arms user (i.e., eye relief, safe eye distance, etc.)

### 6.4 Subject term (key word) listing.

|                    |                |                    |
|--------------------|----------------|--------------------|
| Accessory          | Machine Gun    | Carbine            |
| Dovetail           | Modular Weapon | Rifle              |
| M4 Modular Weapon  | Mounting Rail  | Small arms         |
| M16 Modular Weapon | Rail           | Small arms weapons |

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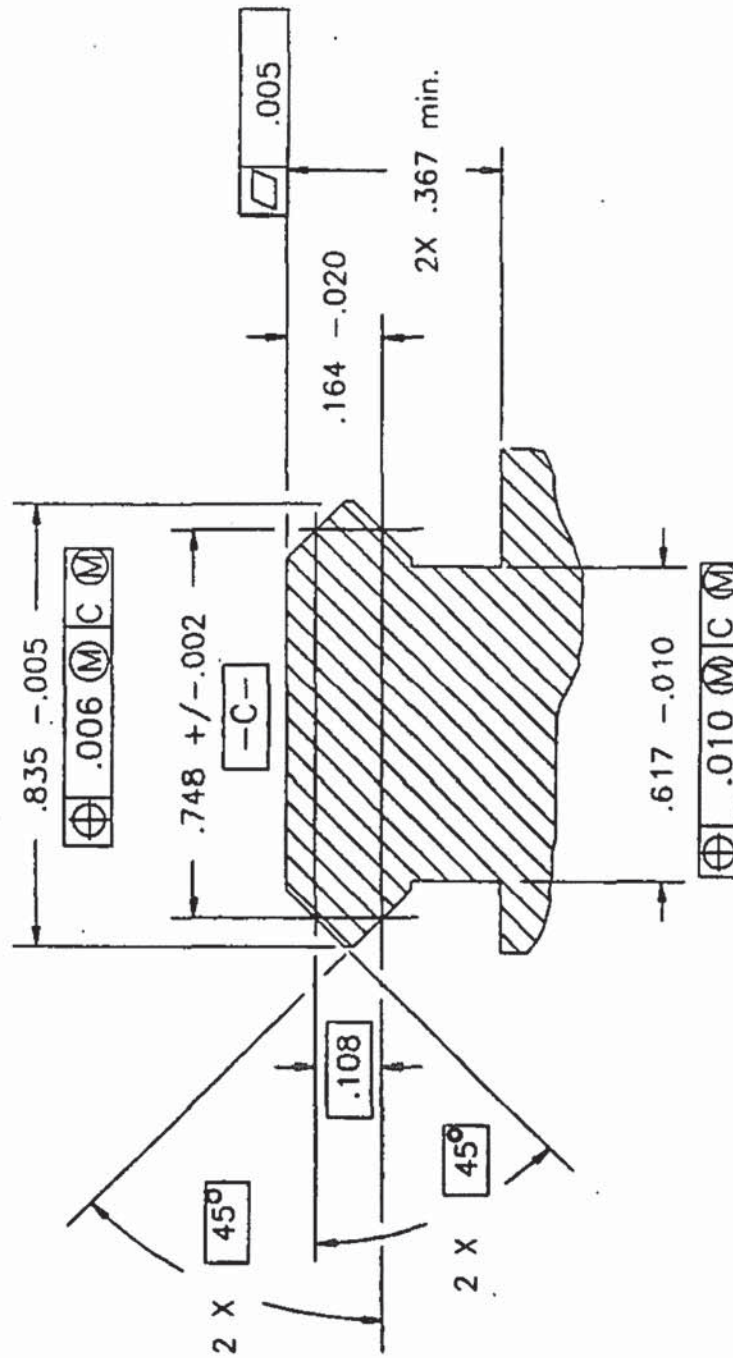
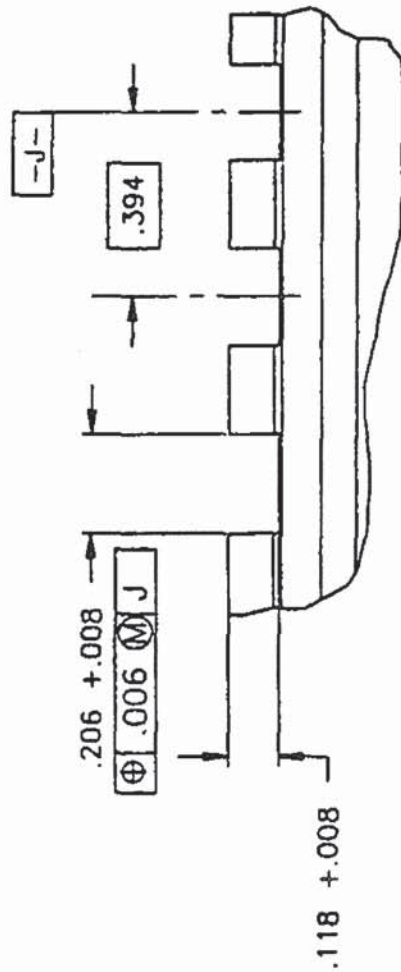


FIGURE 1. Accessory mounting rail profile

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## Note

1. Groove dimensions apply to all grooves. The number of grooves are dependant on application.
2. Center to center dimension applies between adjacent grooves.

FIGURE 2. Recoil groove

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CONCLUDING MATERIAL

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2. DOCUMENT DATE (YYMMDD)

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3. DOCUMENT TITLE **DIMENSIONING OF ACCESSORY MOUNTING RAIL FOR SMALL ARMS WEAPONS**

4. NATURE OF CHANGE (Identify paragraph number and include proposed rewrite, if possible. Attach extra sheets if needed.)

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