

CONTRACT DATA REQUIREMENTS LIST

DD FORM 1423 (MECHANIZED)

CATEGORY: MISC SYSTEM/ITEM: M144 TELESCOPE ETC.

TO CONTRACT/PR: M121S019,20,21,22,23

1. SEQUENCE NUMBER		14. DISTRIBUTION	DRFT/REG/REPRO COPIES
2. TITLE OF DATA ITEM			
3. SUBTITLE			
4. DATA ITEM NUMBER			
5. CONTRACT REFERENCE			
6. TECHNICAL OFFICE	7. DD	8. APP	9. DIST STATEMENT
	250	CODE	REQUIRED
10. FREQUENCY	11. AS OF DATE		15. TOTAL:
12. DATE OF 1ST SUBMISSION	13. DATE OF SUBSEQUENT SUBMISSION		
16. REMARKS			

1. A001		14. SEE ADDRESS CODE	/ /
2. ENGINEERING CHANGE PROPOSAL (ECP)		DISTRIBUTION	/ /
3.		ATTACHED***	/ /
4. DI-CMAN-80639C*			
5. SECTION C			
6. AMSTA-AR-QAW	7. LT	8. -	9. **
10. ASREQ	11. ---	15. TOTAL	0/ 0/ 0
12. ASREQ	13. ASREQ		
16. REMARKS	<p>*DELETE PARAGRAPH 2 OF DID. SEE ATTACHED DATA DELIVERY DESCRIPTION FOR CONTENT OF THE ECP. CONTRACTOR FORMAT IS ACCEPTABLE, DATA MUST BE IN GOVT COMPATIBLE SOFTWARE (I.E., MICROSOFT OFFICE). **DIST STATEMENT WILL BE ASSIGNED AND IMPLEMENTED BY THE DOD CONFIGURATION MGR. ***SUBMIT ELECTRONICALLY TO ECP-INPUT@RIA.ARMY.MIL. ELECTRONIC FILES MUST BE LESS THAN 7MB. THE FORMS LOCATED AT HTTP://W4.PICA.ARMY.MIL/ARDEC-RI/CMFORM.HTM ARE THE PREFERRED METHOD OF SUBMISSION FOR THIS DATA ITEM. (DD FORMS 1692, 1694 AND 1695)</p>		

1. A002		14. SEE ADDRESS CODE	/ /
2. REQUEST FOR DEVIATION (RFD)		DISTRIBUTION	/ /
3.		ATTACHED***	/ /
4. DI-CMAN-80640C*			
5. SECTION C			
6. AMSTA-AR-QAW	7. LT	8. -	9. **
10. ASREQ	11. ---	15. TOTAL	0/ 0/ 0
12. ASREQ	13. ASREQ		
16. REMARKS	<p>*DELETE PARAGRAPH 2 OF DID. SEE ATTACHED DATA DELIVERY DESCRIPTION FOR CONTENT OF RFD. ADEQUATE DATA/ANALYSIS/TESTING TO SUPPORT THE POSITION RELATIVE TO PARAGRAPH 24 AND 25 OF DATA DELIVERY DESCRIPTION SHALL BE INCLUDED. CONTRACTOR FORMAT IS ACCEPTABLE, BUT DATA MUST BE IN GOVT COMPATIBLE SOFTWARE (I.E., MICROSOFT OFFICE). **DISTRIBUTION STATEMENT WILL BE ASSIGNED AND IMPLEMENTED BY THE DOD CONFIG MGR. ***SUBMIT ELECTRONICALLY TO ECP-INPUT@RIA.ARMY.MIL. ELECTRONIC FILES MUST BE LESS THAN 7MB. THE FORMS LOCATED AT HTTP://W4.PICA.AMRY.MIL/ARDEC-RI/CMFORM.HTM ARE THE PREFERRED METHOD OF SUBMISSION FOR THIS DATA ITEM. (DD FORMS 1692, 1694, AND/OR 1695)</p>		

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1. A003		14.	
		SEE ADDRESS CODE	/ /
2. NOTICE OF REVISION (NOR)		DISTRIBUTION	/ /
3.		ATTACHED**	/ /
4. DI-CMAN-80642C*			
5. SECTION C			
6. AMSTA-AR-QAW	7. LT	8. -	9. ***
10. ASREQ	11. ---	15. TOTAL	0/ 0/ 0
12. ASREQ	13. ASREQ		

16. REMARKS  
 \*DELETE PARAGRAPH 2 OF DID. SEE ATTACHED DATA DELIVERY DESCRIPTION FOR CONTENT OF NOR. CONTRACTOR FORMAT IS ACCEPTABLE, DATA MUST BE IN GOVT COMPATIBLE SOFTWARE (I.E., MICROSOFT OFFICE). \*\*SUBMIT ELECTRONICALLY TO ECP-INPUT@RIA.ARMY.MIL. ELECTRONIC FILES MUST BE LESS THAN 7MB. FORMS LOCATED AT HTTP://W4PICA.ARMY.MIL/ARDEC-RI/CMFORM.HTM ARE THE PREFERRED METHOD OF SUBMISSION FOR THIS DATA ITEM. \*\*\*DISTRIBUTION STATEMENT WILL BE ASSIGNED AND IMPLEMENTED BY THE DOD CONFIGURATION MANAGER.

The data delivery descriptions are available on the attached tacom-ri intranet site:  
[https://aais.ria.army.mil/aais/SOLINFO/Standard\\_Attachments/Index%20of%20Attachments.html](https://aais.ria.army.mil/aais/SOLINFO/Standard_Attachments/Index%20of%20Attachments.html)

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<b>DEPARTMENT OF DEFENSE CONTRACT SECURITY CLASSIFICATION SPECIFICATION</b> <i>(The requirements of the DoD Industrial Security Manual apply to all security aspects of this effort.)</i>				<b>1. CLEARANCE AND SAFEGUARDING</b> a. FACILITY CLEARANCE REQUIRED <p style="text-align: center; font-weight: bold;">SECRET</p> b. LEVEL OF SAFEGUARDING REQUIRED <p style="text-align: center; font-weight: bold;">SECRET</p>		
<b>2. THIS SPECIFICATION IS FOR:</b> <i>(X and complete as applicable)</i>			<b>3. THIS SPECIFICATION IS:</b> <i>(X and complete as applicable)</i>			
a. PRIME CONTRACT NUMBER		<b>X</b>		a. ORIGINAL <i>(Complete date in all cases)</i>		DATE (YYYYMMDD)
						20011203
b. SUBCONTRACT NUMBER				b. REVISED <i>(Supersedes all previous specs)</i>	REVISION NO.	DATE (YYYYMMDD)
c. SOLICITATION OR OTHER NUMBER		DUE DATE (YYYYMMDD)		c. FINAL <i>(Complete Item 5 in all cases)</i>		DATE (YYYYMMDD)
<b>X</b>		DAAE20-01-R-0207		20020630		
<b>4. IS THIS A FOLLOW-ON CONTRACT?</b> <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO. If Yes, complete the following: Classified material received or generated under _____ <i>(Preceding Contract Number)</i> is transferred to this follow-on contract.						
<b>5. IS THIS A FINAL DD FORM 254?</b> <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO. If Yes, complete the following: In response to the contractor's request dated _____, retention of the classified material is authorized for the period of _____.						
<b>6. CONTRACTOR</b> <i>(Include Commercial and Government Entity (CAGE) Code)</i>						
a. NAME, ADDRESS, AND ZIP CODE		b. CAGE CODE		c. COGNIZANT SECURITY OFFICE <i>(Name, Address, and Zip Code)</i>		
<b>7. SUBCONTRACTOR</b>						
a. NAME, ADDRESS, AND ZIP CODE		b. CAGE CODE		c. COGNIZANT SECURITY OFFICE <i>(Name, Address, and Zip Code)</i>		
<b>8. ACTUAL PERFORMANCE</b>						
a. LOCATION		b. CAGE CODE		c. COGNIZANT SECURITY OFFICE <i>(Name, Address, and Zip Code)</i>		
<b>9. GENERAL IDENTIFICATION OF THIS PROCUREMENT</b> Procurement for Telescope, Straight, M144						
<b>10. CONTRACTOR WILL REQUIRE ACCESS TO:</b>			<b>11. IN PERFORMING THIS CONTRACT, THE CONTRACTOR WILL:</b>			
	YES	NO		YES	NO	
a. COMMUNICATIONS SECURITY (COMSEC) INFORMATION		<b>X</b>	a. HAVE ACCESS TO CLASSIFIED INFORMATION ONLY AT ANOTHER CONTRACTOR'S FACILITY OR A GOVERNMENT ACTIVITY		<b>X</b>	
b. RESTRICTED DATA		<b>X</b>	b. RECEIVE CLASSIFIED DOCUMENTS ONLY		<b>X</b>	
c. CRITICAL NUCLEAR WEAPON DESIGN INFORMATION		<b>X</b>	c. RECEIVE AND GENERATE CLASSIFIED MATERIAL	<b>X</b>		
d. FORMERLY RESTRICTED DATA		<b>X</b>	d. FABRICATE, MODIFY, OR STORE CLASSIFIED HARDWARE		<b>X</b>	
e. INTELLIGENCE INFORMATION		<b>X</b>	e. PERFORM SERVICES ONLY		<b>X</b>	
(1) Sensitive Compartmented Information (SCI)		<b>X</b>	f. HAVE ACCESS TO U.S. CLASSIFIED INFORMATION OUTSIDE THE U.S., PUERTO RICO, U.S. POSSESSIONS AND TRUST TERRITORIES		<b>X</b>	
(2) Non-SCI		<b>X</b>	g. BE AUTHORIZED TO USE THE SERVICES OF DEFENSE TECHNICAL INFORMATION CENTER (DTIC) OR OTHER SECONDARY DISTRIBUTION CENTER		<b>X</b>	
f. SPECIAL ACCESS INFORMATION		<b>X</b>	h. REQUIRE A COMSEC ACCOUNT		<b>X</b>	
g. NATO INFORMATION		<b>X</b>	i. HAVE TEMPEST REQUIREMENTS		<b>X</b>	
h. FOREIGN GOVERNMENT INFORMATION		<b>X</b>	j. HAVE OPERATIONS SECURITY (OPSEC) REQUIREMENTS		<b>X</b>	
i. LIMITED DISSEMINATION INFORMATION		<b>X</b>	k. BE AUTHORIZED TO USE THE DEFENSE COURIER SERVICE		<b>X</b>	
j. FOR OFFICIAL USE ONLY INFORMATION		<b>X</b>	l. OTHER <i>(Specify)</i>			
k. OTHER <i>(Specify)</i>						

**12. PUBLIC RELEASE.** Any information (*classified or unclassified*) pertaining to this contract shall not be released for public dissemination except as provided by the Industrial Security Manual or unless it has been approved for public release by appropriate U.S. Government authority. Proposed public releases shall be submitted for approval prior to release  Direct  Through (*Specify*)

COMMANDER,  
U.S. ARMY TACOM-ARDEC  
ATTN: AMSTA-AR-FSF-R  
PICATINNY ARSENAL, NJ 07806-5000

to the Directorate for Freedom of Information and Security Review, Office of the Assistant Secretary of Defense (Public Affairs)\* for review.  
\*In the case of non-DoD User Agencies, requests for disclosure shall be submitted to that agency.

**13. SECURITY GUIDANCE.** The security classification guidance needed for this classified effort is identified below. If any difficulty is encountered in applying this guidance or if any other contributing factor indicates a need for changes in this guidance, the contractor is authorized and encouraged to provide recommended changes; to challenge the guidance or the classification assigned to any information or material furnished or generated under this contract; and to submit any questions for interpretation of this guidance to the official identified below. Pending final decision, the information involved shall be handled and protected at the highest level of classification assigned or recommended. (*Fill in as appropriate for the classified effort. Attach, or forward under separate correspondence, any documents/guides/extracts referenced herein. Add additional pages as needed to provide complete guidance.*)

02-014

Classified material must be handled in accordance with the National Industrial Security Program Operating Manual (NISPOM), DoD 5220.22-M (Jan 95).

INTELLIGENCE material will not be released to the contractor under this contract.

Classified in accordance with:  
Security Classification Guide for Laser Protection Materiel, Dated 7 March, 2000  
Signed by: Chief of Staff, U.S. Army Communications Electronic Command, Fort Monmouth, NJ 07703-5000

CONCURRENCE     //S//      
PETER R. LAWSON  
Security Specialist

**14. ADDITIONAL SECURITY REQUIREMENTS.** Requirements, in addition to ISM requirements, are established for this contract.  Yes  No  
(*If Yes, identify the pertinent contractual clauses in the contract document itself, or provide an appropriate statement which identifies the additional requirements. Provide a copy of the requirements to the cognizant security office. Use Item 13 if additional space is needed.*)  
Per SCG for Laser Protection Materiel, NOFORN restriction applies to all classified information and data.

**15. INSPECTIONS.** Elements of this contract are outside the inspection responsibility of the cognizant security office.  Yes  No  
(*If Yes, explain and identify specific areas or elements carved out and the activity responsible for inspections. Use Item 13 if additional space is needed.*)

**16. CERTIFICATION AND SIGNATURE.** Security requirements stated herein are complete and adequate for safeguarding the classified information to be released or generated under this classified effort. All questions shall be referred to the official named below.

<p>a. TYPED NAME OF CERTIFYING OFFICIAL Louis S. Herczeg, Jr.</p>	<p>b. TITLE Physicist</p>	<p>c. TELEPHONE (<i>Include Area Code</i>) (201) 724-6276</p>												
<p>d. ADDRESS (<i>Include Zip Code</i>) Commander U.S. Army TACOM-ARDEC, ATTN: AMSTA-AR-FSF-R Picatinny Arsenal, NJ 0780605000</p>	<p><b>17. REQUIRED DISTRIBUTION</b></p> <table border="1"> <tr><td><input checked="" type="checkbox"/></td><td>a. CONTRACTOR</td></tr> <tr><td><input checked="" type="checkbox"/></td><td>b. SUBCONTRACTOR</td></tr> <tr><td><input checked="" type="checkbox"/></td><td>c. COGNIZANT SECURITY OFFICE FOR PRIME AND SUBCONTRACTOR</td></tr> <tr><td><input checked="" type="checkbox"/></td><td>d. U.S. ACTIVITY RESPONSIBLE FOR OVERSEAS SECURITY ADMINISTRATION</td></tr> <tr><td><input checked="" type="checkbox"/></td><td>e. ADMINISTRATIVE CONTRACTING OFFICER</td></tr> <tr><td><input checked="" type="checkbox"/></td><td>f. OTHERS AS NECESSARY</td></tr> </table>		<input checked="" type="checkbox"/>	a. CONTRACTOR	<input checked="" type="checkbox"/>	b. SUBCONTRACTOR	<input checked="" type="checkbox"/>	c. COGNIZANT SECURITY OFFICE FOR PRIME AND SUBCONTRACTOR	<input checked="" type="checkbox"/>	d. U.S. ACTIVITY RESPONSIBLE FOR OVERSEAS SECURITY ADMINISTRATION	<input checked="" type="checkbox"/>	e. ADMINISTRATIVE CONTRACTING OFFICER	<input checked="" type="checkbox"/>	f. OTHERS AS NECESSARY
<input checked="" type="checkbox"/>	a. CONTRACTOR													
<input checked="" type="checkbox"/>	b. SUBCONTRACTOR													
<input checked="" type="checkbox"/>	c. COGNIZANT SECURITY OFFICE FOR PRIME AND SUBCONTRACTOR													
<input checked="" type="checkbox"/>	d. U.S. ACTIVITY RESPONSIBLE FOR OVERSEAS SECURITY ADMINISTRATION													
<input checked="" type="checkbox"/>	e. ADMINISTRATIVE CONTRACTING OFFICER													
<input checked="" type="checkbox"/>	f. OTHERS AS NECESSARY													
<p>e. SIGNATURE SIGNED Louis S. Herczeg, Jr.</p>														

CLIN 0001 NSN: 1240-01-386-2771  
 M144 Telescope, includes telescope, tripod, optical case and transportation case

Order Quantity	Unit Price	Weight
100 - 199	\$	70%
200 - 299	\$	15%
300 - 500	\$	15%
		100%

Ordering Period 1	Unit Price	Weight
Ordering Period 1	\$	70%
Ordering Period 2	\$	15%
Ordering Period 3	\$	15%
Ordering Period 4	\$	70%
Ordering Period 5	\$	100%

CLIN 0002 NSN: 1240-01-424-7122  
 M144 Telescope

Order Quantity	Unit Price	Weight
100 - 199	\$	70%
200 - 299	\$	15%
300 - 500	\$	15%
		100%

Ordering Period 1	Unit Price	Weight
Ordering Period 1	\$	70%
Ordering Period 2	\$	15%
Ordering Period 3	\$	70%
Ordering Period 4	\$	15%
Ordering Period 5	\$	100%

CLIN 0003 NSN: 1240-01-424-7677  
 M144 tripod

Order Quantity	Unit Price	Weight
100 - 199	\$	70%
200 - 299	\$	15%
300 - 500	\$	15%
		100%

Ordering Period 1	Unit Price	Weight
Ordering Period 1	\$	70%
Ordering Period 2	\$	15%
Ordering Period 3	\$	70%
Ordering Period 4	\$	15%
Ordering Period 5	\$	100%

CLIN 0004 NSN: 1240-01-424-7118  
 M144 optical case

Order Quantity	Unit Price	Weight	Ordering Period 1	Ordering Period 2	Ordering Period 3	Ordering Period 4	Ordering Period 5
100 - 199	\$	70%					
200 - 299	\$	15%					
300 - 500	\$	15%					
		100%					

CLIN 0005 NSN: 5855-01-425-1041  
 M144 transportation case

Order Quantity	Unit Price	Weight	Ordering Period 1	Ordering Period 2	Ordering Period 3	Ordering Period 4	Ordering Period 5
100 - 199	\$	70%					
200 - 299	\$	15%					
300 - 500	\$	15%					
		100%					

1. The evaluated price will be calculated by summing the multiplication of each order quantity unit price by its respective weight and the minimum order quantity of the range for each ordering period.
2. The FAT costs will be added as part of the total evaluated price, if appropriate.
3. The sum of all ordering period evaluated prices and FAT costs will be the Total Evaluated Price.
4. For evaluation purposes, the Government has weighted the ranges based on the likelihood that if an order is placed, it will be in that range.
5. If a FAT is required its cost will be added to the delivery order price, when issued; and amortized into the unit price.

**PURCHASE DESCRIPTION: TELESCOPE, STRAIGHT M144**

**1. SCOPE**

This Purchase Description establishes the operational requirements, environmental requirements, and evaluation testing for the Telescope, Straight: M144 that includes the following subcomponents: a removable laser filter unit (LFU); tripod, manual and; both soft and hard carrying cases and has an interface to accept an Anti-reflection Device (ARD) with and without the LFU attached.

2. Applicable standards/specifications. The following documents, of the issue in effect on the date of invitation for bids or request for proposals, form a part of this purchase description to the extent specified herein. It is the intent of this PD to comply with Secretary of Defense memorandum dated 29 June 1994, subject: "Specifications and Standards – A New way of Doing Business". Therefore, in accordance with this directive, the contractor is encouraged to propose and recommend non-government standards and the use of performance and commercial specifications, and industry standards in lieu of these military specifications and standards that meet the intent of the military specifications and standards.

**Military Specifications and Standards:**

MIL-DTL-117 -Bags, Sleeves and Tubing

MIL-STD-129 -Standard Practices for Military Marking

MIL-PRF-131 -Barrier Materials, Watervapor proof, Grease proof, Flexible,  
Heat seal-able

MIL-STD 1916 -DOD Preferred Methods for Acceptance of Product

MIL-STD-2073-1 -Preservation, Methods

MIL-STD-2073-1B -DOD Material Procedures for Development and Application of  
Packaging Requirements

**Other Non Government Documents:**

ASTM-D1974 - Standard Practices for Methods of Closing Sealing, and Reinforcing  
Fiberboard Boxes

ASTM-D5118 -Boxes, Shipping, Fiberboard

ASTM-D5486 -Tape, Packaging, Waterproof

ASQC A8402 -Quality Assurance Terms and Definitions.

ANSI -Z540-1 - Laboratories & Measuring Test Equipment-General Requirements

**Addenda to the Purchase Description:**

Addendum A: Tripod for the Telescope, Straight M144

Addendum B: Soft Carrying Case for the Telescope, Straight M144

Addendum C: Laser Filter Unit (LFU) for the Telescope, Straight M144 (this  
addendum is classified at the secret level)

**3. Requirements.**

## PURCHASE DESCRIPTION: TELESCOPE, STRAIGHT M144

3.1 Objective Lens. A telescope with a sixty-millimeter objective lens is required.

3.2 Magnification. Magnification shall be continuously variable from at least the 22 power to 43 power range. The magnifying power shall be indicated at the low and high magnification positions.

3.3 Resolution. Resolution of the telescope shall be better than or equal to 4.5 seconds of arc at highest magnification. Horizontal and vertical lines shall be resolvable within 0.5 diopter.

3.4 Field of View. The minimum field of view at 40-power magnification shall be at least one degree or 17.5 meters at 1000 meters.

3.5 Clear Eye Distance. Clear eye relief shall be greater than or equal to 11 millimeters at lowest magnification.

3.6 Image Focus and Quality. The telescope shall bring a target into sharp focus at any distance between 75 feet and infinity with no multiple or ghost images observable.

3.7 Cleanliness. The optical parts and the entire interior of the telescope shall be clean and free from dirt, dust, grease and other foreign matter obvious to the unaided eye when examined through the objective lens and/or eyepiece lens. The telescope interior shall be free of glare from non-optical surfaces and free from lubricants and coatings which may bleed, outgas, chip or flake.

3.8 Length. Length of telescope shall not exceed 346 millimeters (13.6 inches).

3.9 Width. Width of telescoped shall not exceed 80 millimeters (3.1 inches)

3.10 Weight. Weight of telescope shall not exceed 835 grams (29.5 ounces)

3.11 External Covering. The external surface of the telescope shall be of rubber or other non-slip covering with a matte surface, and shall be predominantly one basic color: black, gray, green or, field drab. Leather is not an acceptable covering.

3.12 Eyepiece and Objective Lens Covers. The telescope shall be provided with covers for the objective and eyepiece lenses. The eyepiece and objective lens covers shall be attached to the telescope in such a way as to allow telescope operation and prevent loss of the covers when removed from the lenses.

3.12.1 Cover Material. Lens covers shall be made of tear-resistant rubber or elastomer material.

3.13 Interchangeability. Objective lens cover and eyepiece cover shall be interchangeable between telescopes without: modification or the use of tools.

## PURCHASE DESCRIPTION: TELESCOPE, STRAIGHT M144

3.14 Non-removable eyepiece. The telescope eyepiece shall be permanently attached to the telescope body. The eyepiece shall not be removable and/or loosen by an unscrewing type action, from the telescope body.

3.15 Purging. The telescope shall be purged with dry nitrogen.

3.16 Watertightness. The internal optics of the telescope shall remain moisture free after immersed in one meter of water for one hour.

3.17 Vibration. The telescope shall have no damage at a vibration frequency of 30 cycles per second.

3.18 Drop. The telescope shall have no damage when dropped twelve times vertically and horizontally from a height of four feet onto tamped dirt covered by a thin cloth.

3.19 Operational Temperature. The telescope shall have no damage after a two-hour exposure to temperatures of -40 degrees C and +49 degrees C (-40 degrees F and +120 degrees F). The telescope's focus and zoom mechanisms shall operate freely by hand at these temperatures.

3.20 Storage Temperature. The telescope shall have no damage after a two-hour exposure to temperatures of -40 degrees C and +71 degrees C (-40 degrees F and +160 degree F).

3.21 Humidity. The internal components of the telescope shall remain moisture free after exposure to 94 +/- 5% relative humidity at a temperature of 49 degrees C (120 degrees F) for 24 hours.

3.22 Anti-reflection Device (ARD) Interface. The ARD currently within the Army stockpile system (NSN 6650-01-456-4526) shall attach to both the objective lens of the telescope and LFU (see Note 6.2)

3.23 Hard Transportation/Storage Case. The hard transportation case currently within the Army stockpile system (NSN 5855-01-246-6805) or an approved alternative case shall provide for storage of the soft carrying case when the soft case contains telescope, LFU, and tripod. (see Note 6.2.1). A foam cutout shall be provided per this configuration.

### 4.0 Quality Assurance Provisions

4.1 Responsibility for Compliance. Unless otherwise specified in the contract or purchase order, the contractor is responsible for the performance of all inspection requirements (examinations and tests) as specified herein. Except as otherwise specified in the contract or purchase order, the contractor may use its own or any other facilities suitable for the performance of the inspection requirements specified herein,

PURCHASE DESCRIPTION: TELESCOPE, STRAIGHT M144

unless disapproved by the Government. The Government reserves the right to perform any of the inspections set forth in this document where such inspections are deemed necessary to assure that supplies and services conform to prescribed requirements.

4.1.1 Responsibility for Compliance. All items shall meet all requirements of sections 3 and 5. The inspections set forth in this document shall become a part of the contractors overall inspection system or quality program. The absence of any inspection requirements in this document shall not relieve the contractor of the responsibility of ensuring that all products or supplies submitted to the Government for acceptance comply with all requirements of the contract. Sampling inspection, as part of manufacturing operation, is an acceptable practice to ascertain conformance to requirements, however, this does not authorize submission of known defective material, either indicated or actual, nor does it commit the Government to accept defective material.

4.1.2 General Provisions. Reference shall be made to ASQC-A8402 to define quality assurance terms used herein.

4.1.3 Calibration. Inspection equipment used shall be calibrated in accordance with ANSI Z540-1

4.2 Inspection Equipment. The inspection equipment required to perform the inspections specified herein is identified in the "Inspection Method Reference" column of the Classification of Characteristics listings starting with 4.4.2.1. Contractor test procedures and inspection equipment designs shall be submitted for Government approval as specified in the contract. Designs which provide variable measurements instead of attributes data are preferred in order to facilitate the use of statistical process control.

4.3 Classification of Inspection. The inspection requirements (examinations and tests) specified herein are classified as follows:

- a. First Article Inspection (see 4.4)
- b. Quality Conformance Inspection (see 4.5)

4.4 First Article Inspection.

4.4.1 Submission. The contractor shall submit a first article sample as designated by the Contracting Officer for evaluation in accordance with provisions of 4.4.2. The first article sample shall consist of the assemblies, components and test specimens listed below in the quantities indicated.

QUANTITY	NOMENCLATURE	INSTRUCTIONS
3 each	Telescope, Straight M144	Finished Assembly

## PURCHASE DESCRIPTION: TELESCOPE, STRAIGHT M144

4.4.2 Inspections to be performed. As determined by the Government, the first article assemblies, components and test specimens may be subjected to any or all of the examinations and tests specified in this detailed document and inspected for compliance with any or all requirements of the applicable documents.

### 4.4.2.1 Classification of Characteristics. First Article Test

Examination or Test	Conformance Criteria	Requirement Paragraph	Inspection Method
Objective Lens	100%	3.1	Test
Magnification	100%	3.2	Analysis
Resolution	100%	3.3	Test
Field of View	100%	3.4	Test
Clear Eye Distance	100%	3.5	Test
Image Focus & Quality	100%	3.6	Examination
Cleanliness	100%	3.7	Examination
Length	100%	3.8	Test
Width	100%	3.9	Test
Weight	100%	3.10	Test
External Covering	100%	3.11	Examination
Lens Covers	100%	3.12	Examination
Cover Material	100%	3.12.1	Examination
Interchangeability	100%	3.13	Examination
Non-removable Eyepiece	100%	3.14	Test
Purging	100%	3.15	Certification
Watertightness	100%	3.16	Test
Vibration	100%	3.17	4.6.1
Drop	100%	3.18	4.6.2
Operational Temperature	100%	3.19	4.6.3
Storage Temperature	100%	3.20	4.6.4
Humidity	100%	3.21	4.6.5
ARD	100%	3.22	Certification
Hard Case	100%	3.23	Certification
Packaging	100%	5.0-5.7	Examination

4.4.3 Rejection. If any assembly, component of test specimen fails to comply with any of the applicable requirements, the first article sample shall be rejected. The Government reserves the right to terminate inspection upon any failure of an assembly, component or test specimen to comply with any of the requirements.

4.5 Conformance verification. Conformance inspection shall include the examination and tests listed in Table 4-1 using the attribute sampling plan in MIL-STD-1916. All verifications are classified as minor characteristics and shall use Verification Level II except those that are classified as major characteristics 3.3 & 3.16 and shall use Verification Level IV. Environmental requirements 3.17, 3.18, 3.19, 3.20 & 3.21 and the interchangeability requirement shall use Verification Level I Reduced. For definition of Major and Minor characteristics, see MIL-STD-1916

4.5.1 Inspection Lot Formation. The term "inspection lot" is defined as a homogeneous

## PURCHASE DESCRIPTION: TELESCOPE, STRAIGHT M144

collection of units of product from which a representative sample is drawn or which is inspected 100 percent to determine conformance with applicable requirements. Units of product selected for inspection shall represent only the inspection lot from which they are drawn and shall not be construed to represent any prior or subsequent quantities presented for inspection. Homogeneity shall be considered to exist provided the inspection lot has been produced by one manufacturer, in one unchanged process, using the same materials and methods, in accordance with the same drawings, same drawing revisions, same specification and same specification revisions. All material submitted for inspection in accordance with this document shall comply with the homogeneity criteria specified herein, regardless of the type of inspection procedure, which is being applied to determine conformance with the requirements.

4.5.2 Lot Size. The Straight Telescope shall be constructed in lots of not less than one days production and not greater than 500.

### 4.5.3 Examinations and Tests

a. Classification of Characteristics. Quality conformance examinations and tests are specified in the following classification of Characteristics paragraphs. The contractor's quality program or detailed inspection shall provide assurance of compliance of all characteristics with the applicable document and specification requirements utilizing as a minimum the conformance criteria specified. When cited herein, attributes sampling shall be conducted in accordance with Table 4-1 below, using the inspection levels stated in the Classification of Characteristics paragraphs.

b. Alternate Quality Conformance Provisions. Alternate quality conformance procedures, methods, or equipment, such as statistical process control, tool control, other types of sampling procedures, etc., may be used by the contractor when they provide, as a minimum, the level of quality assurance required by the provisions specified herein. Prior to applying such alternative procedures, methods, or equipment, the contractor shall describe them in a written proposal submitted to the Government for evaluation (see 6.1). When required, the contractor shall demonstrate that the effectiveness of each proposed alternative is equal to or better than the specified quality assurance provision(s) herein. In cases of dispute as to whether the contractor's proposed alternative(s) provides equivalent assurance, the provisions of this document shall apply. All approved alternative provisions shall be specifically incorporated into the contractor's quality program or detailed inspection system, as applicable.

#### 4.5.3.1 Classification of Characteristics. Quality Conformance Table 4-1

Examination or Test	Requirement Paragraph	Inspection Method
Objective Lens	3.1	Test
Magnification	3.2	Analysis
Resolution	3.3	Test
Field of View	3.4	Test

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Clear Eye Distance	3.5	Test
Image Focus & Quality	3.6	Examination
Cleanliness	3.7	Examination
Length	3.8	Test
Width	3.9	Test
Weight	3.10	Test
External Covering	3.11	Examination
Lens Covers	3.12	Examination
Cover Material	3.12.1	Examination
Interchangeability	3.13	Examination
Non-removable Eyepiece	3.14	Test
Purging	3.15	Certification
Watertightness	3.16	Test
Vibration	3.17	4.6.1
Drop	3.18	4.6.2
Operational Temperature	3.19	4.6.3
Storage Temperature	3.20	4.6.4
Humidity	3.21	4.6.5
ARD	3.22	Certification
Hard Case	3.23	Certification
Packaging	5.0-5.7	Examination

**\*\* Table 4-1 Verification Levels do not apply where a certification is required. A certification is required for all hardware in each lot.**

**4.6 Special Methods of Inspection.**

**4.6.1 Vibration.** The telescope shall be vibrated in three mutually perpendicular axes at a constant frequency of 30 cycles per second with an amplitude of 0.16 cm or 0.32 cm total excursion (1/16 inch or 1/8 inch total excursion) for a period of 5 minutes +/- 15 seconds for each axis. Subsequent to vibration, the telescope shall show no sign of visual damage and shall meet the Resolution requirement of 3.3.

**4.6.2 Drop.** The telescope shall be dropped three times each in the following orientations: vertical with objective end down, vertical with the eyepiece lens down, horizontal with base down and horizontal with top down. The telescope shall be dropped from a height of four feet onto a bed of dry tamped dirt at least six inches deep, and covered by a thin cloth. The dirt shall have a minimum soil penetration resistance of 750 psi at a depth between 1" and 1 ½ ". Subsequent to drop, the telescope shall show no sign of visual damage and shall meet the Resolution requirement of 3.3.

**4.6.3 Operational Temperature.** The telescope shall be placed in a climatic chamber and the temperature reduced gradually (see "Note" below) to -40° +/- 2° F (-40 °C) and allowed to remain at this temperature for 2 hours. After thermal stabilization is reached the telescope focus and zoom mechanism shall be operated freely by hand with no binding. The temperature shall gradually (see "Note" below) be increased to +120° F (+49° C ) and held constant for 2 hours. After thermal stabilization is reached the telescope focus and zoom mechanism shall be operated freely by hand with no binding. The temperature shall then be reduced to standard ambient temperature and allowed to

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remain at this temperature for 2 hours. This test can be run in conjunction with the storage temperature 4.6.4.

Note: The rate of temperature change in the climatic chamber shall not exceed 3 degrees per minute throughout the temperature cycling test of 4.6.3 & 4.6.4.

4.6.4 Storage Temperature. The telescope shall be placed in a climatic chamber and the temperature reduced gradually (see "Note" above) to  $-40^{\circ} \pm 2^{\circ} \text{ F}$  ( $-40^{\circ} \text{ C}$ ) and allowed to remain at this temperature for 2 hours. After thermal stabilization is reached the temperature shall gradually (see "Note" above) be increased  $+160^{\circ} \text{ F}$  ( $+71^{\circ} \text{ C}$ ) and held constant for 2 hours. After thermal stabilization is reached the temperature shall then be reduced to standard ambient temperature and allowed to remain at this temperature for 2 hours. Subsequent to temperature testing, the telescope shall show no sign of visual damage or loose components or evidence of internal moisture and shall meet the Resolution requirement of 3.3.

4.6.5 Humidity. The telescope shall be preconditioned in a climatic chamber at  $68 \pm 2^{\circ} \text{ F}$  with  $50 \pm 5\%$  relative humidity for 24 hours prior to starting the test. Gradually raise the chamber temperature to  $120 \pm 2^{\circ} \text{ F}$  and relative humidity to  $94 \pm 5\%$ . After 12 hours of exposure at  $120^{\circ} \text{ F}$  and  $94 \pm 5\%$  humidity remove the item from the chamber, wipe the outside dry, and inspect. When inspected the item shall show no evidence of moisture within interior cavities.

5. Packaging. Definitions and packaging terms shall be as defined in MIL-STD-2073-1B. Preservation and packing protection Level A is mandatory.

5.2 Special Packaging. The objective and eyepiece lens shall exhibit no trace of dirt, lint or smears. Lens covers shall be in place over their respective lenses with one sheet of lens paper that shall be placed between each lens cover and lens. The telescope shall be placed in a barrier bag constructed per MIL-DTL-117, type II or I, Class E, Style 1 (MIL-PRF-131, Type I, Class I). Exhaust all excess air and heat seal bag closed.

5.2.1 One telescope, one LFU (Addendum C), one Tripod (Addendum A) and, one manual shall be placed inside a soft carrying case (Addendum B). The contractor shall preserve manuals per Method 31 of MIL-STD-2073-1 using a MIL-DTL-117 Type III or II, Class B or C, style 1 bag.

5.3 Unit Pack. One Soft Carrying Case containing a telescope, LFU, tripod and, manual shall be placed into one hard transportation/storage case (Paragraph 3.23) as the unit pack item.

5.3.1 Place unit pack item in a minimum size fiberboard container constructed of ASTM-D5118, grade W5C. Unit container shall be closed per ASTM-D1974 using ASTM-D5486 tape.

5.4 Intermediate Pack. The contractor shall determine the number of unit packs forming

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the intermediate pack based on FOB source information. The unit packs shall be placed in a larger fiberboard container constructed of ASTM-D5118, Grade V3C material, closed per ASTM-D1974 and in accordance with MIL-STD-2073-1B.

5.5 Packing. Packing shall be per MIL-STD-2073-1B. An appropriate shipping container may be selected from Table I of Appendix C.

5.6 Marking. Marking shall be per MIL-STD-129.

5.7 Unitization. Unitize per MIL-STD-2073-1B. Packaging Data Forms shall be per Appendix F.

### 6. Notes.

6.1 Submission of Alternate Quality Conformance Provisions. Unless otherwise specified in the contract or purchase order, alternate quality conformance provisions shall be submitted by the contractor in letter format for evaluation by the technical activity responsible for preparation of this document.

6.2 Existing Components. Anti-reflection Device (ARD). The only currently approved source for the specified ARD (NSN 6650-01-456-4526) is Tenebraex Corp. 326 A Street, Boston, MA 02210 ([Http://www.camouflage.com](http://www.camouflage.com)). Although specific ARD interface testing is not required in this Purchase Description, the Government reserves the right to test and reject production hardware that does not provide a rigid interface to the ARD.

6.2.1 The hard transportation case currently within the Army stockpile system (NSN 5855-01-246-6805) is used for the U.S. Army AN/PAS-7 Night Vision Goggles. An equivalent case, subject to review and approval from the Government contracting/procurement official, may be used.

6.3 Test equipment. Design of equipment and test procedures should be submitted to AMSTA-AR-QAT-F, Picatinny Arsenal, NJ 07806-5000 in accordance with the provisions of the contract prior to use.

6.4 Changes in manufacturing process or materials. Notwithstanding the provision for waiver of first article, an additional first article sample or portion thereof, may be ordered by the Contracting Officer in writing when (1) a major change is made to the technical data, (2) whenever there is a lapse in production for a period in excess of 90 days, or (3) whenever a change occurs in place of performance, manufacturing process, material used, drawing, specification or source of supply. When conditions (1), (2), or (3) above occurs, the Contractor shall notify the Contracting Officer so that a determination can be made concerning the need for an additional first article sample or portion thereof, and instructions provided concerning the submission, inspection, and notification of results. Costs of the additional first article testing resulting from any of the causes listed herein that were instituted by the contractor and not due to changes

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directed by the Government shall be borne by the Contractor.

## Addendum A

1. Tripod for use with the Telescope, Straight M144 that includes a sliding dovetail mounting head and thumb clamp.

2. Applicable standards/specifications. The following documents, of the issue in effect on the date of invitation for bids or request for proposals, form a part of this purchase description to the extent specified herein:

**Military Standards:**

MIL-STD-810F Environmental Test Methods and Engineering Guidelines

**Other Documents:**

ASQC A8402 - Quality Assurance Terms and Definitions

ANSI-Z540-1 - Laboratories & Measuring Test Equipment-General Requirements

3. Requirements.

3.1 Adjustable Center Shaft. The tripod shall have an adjustable center shaft capable of extending a minimum of 65 millimeters (2.6 in) from stop to stop while providing full 360-degree rotation throughout the entire extension range.

3.2 Center Shaft Locking. The adjustable center shaft shall have two position locking mechanisms. One locking device shall allow the center shaft to extend/slip freely in one direction while permitting full 360-degree shaft rotation. A second locking device shall secure the center shaft in any shaft position including: both height and rotational positions.

3.3 Center Post Stop. The bottom of the center post shall be fitted with a threaded plug to stop the center post from slipping completely out of the tripod assembly. This center post plug shall be pinned through the shaft or bonded to prevent/discourage removal.

3.4 External finish. The external surface of the tripod shall be of a matte surface, and shall be predominantly one basic color: black, gray, green or, field drab.

3.5 Dovetail Mounting Head. The telescope, as described in the Purchase Description for the Telescope Straight M144, shall attach to the tripod using a dovetail sliding type design with a locking clamp type mechanism. One mate of the dovetail shall be screw attached to the tripod head. The other mate of the dovetail shall be screw attached to the telescope body. The telescope shall attach to the tripod head with one smooth motion in a single direction. A thumb-activated clamp, forming part of the quick release mount shall secure the sliding dovetail.

3.6 Interchangeability. Tripods, dovetail mounting heads and telescopes shall be interchangeable with each other without: modification, the use of special tools and, hand fitting.

3.7 Elevation Adjustment. The tripod mounting head shall be capable of both coarse

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and fine Elevation rotational adjustments.

3.8 Tripod Length Closed. Tripod length to top of sliding dovetail mount shall not exceed 375 millimeters (14.75 in) with legs folded and mount in horizontal position.

3.9 Tripod Height Opened. Tripod height to top of sliding dovetail mount with legs spread to maximum and center shaft completely down shall not exceed 286 millimeters (11.25 in) with mount in horizontal position.

3.10 Tripod Legs. Tripod legs. Length of tripod leg shall be between 191 and 204 millimeters (7.5 in and 8.0 in) at attachment point and shall not be adjustable in length.

3.11 Tripod Weight. Tripod weight shall not exceed 910 grams (2 lb).

3.12 Weight Support. The tripod, with legs fully opened, shall be capable of supporting a weight of 34 kg (75 lb) without damage.

3.13 Operational Temperature. The tripod shall have no damage after a two-hour exposure to temperatures of -40 degrees C and +49 degrees C (-40 degrees F and +120 degrees F). All mechanical parts of the tripod and dovetail mounting head shall operate freely by hand at these temperatures.

3.14 Storage Temperature. The tripod shall have no damage after a two-hour exposure to temperatures of -40 degrees C and +71 degrees C (-40 degrees F and +160 degrees F).

3.15 Drop. The tripod shall have no damage when dropped twelve times vertically and horizontally from a height of four feet onto tamped dirt covered by a thin cloth.

3.16 Salt Fog. The tripod shall have no damaged after exposure to a 48 hour salt fog test using 5 +/- 1 percent salt solution at a constant temperature of 35 degrees c.

### 4.0 Quality Assurance Provisions

4.1 Responsibility for Compliance. Unless otherwise specified in the contract or purchase order, the contractor is responsible for the performance of all inspection requirements (examinations and tests) as specified herein. Except as otherwise specified in the contract or purchase order, the contractor may use its own or any other facilities suitable for the performance of the inspection requirements specified herein, unless disapproved by the Government. The Government reserves the right to perform any of the inspections set forth in this document where such inspections are deemed necessary to assure that supplies and services conform to prescribed requirements.

4.1.1 Responsibility for Compliance. All items shall meet all requirements of sections 3 and 5. The inspections set forth in this document shall become a part of the contractors overall inspection system or quality program. The absence of any inspection

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requirements in this document shall not relieve the contractor of the responsibility of ensuring that all products or supplies submitted to the Government for acceptance comply with all requirements of the contract. Sampling inspection, as part of manufacturing operation, is an acceptable practice to ascertain conformance to requirements, however, this does not authorize submission of known defective material, either indicated or actual, nor does it commit the Government to accept defective material.

4.1.2 General Provisions. Reference shall be made to ASQC-A8402 to define quality assurance terms used herein.

4.1.3 Calibration. Inspection equipment used shall be calibrated in accordance with ANSI Z540-1.

4.2 Inspection Equipment. The inspection equipment required to perform the inspections specified herein is identified in the "Inspection Method Reference" column of the Classification of Characteristics listings starting with 4.4.2.1. Contractor inspection equipment designs shall be submitted for Government approval as specified in the contract. Designs which provide variable measurements instead of attributes data are preferred in order to facilitate the use of statistical process control.

4.3 Classification of Inspection. The inspection requirements (examinations and tests) specified herein are classified as follows:

- a. First Article Inspection (see 4.4)
- b. Quality Conformance Inspection (see 4.5)

4.4 First Article Inspection.

4.4.1 Submission. The contractor shall submit a first article sample as designated by the Contracting Officer for evaluation in accordance with provisions of 4.4.2. The first article sample shall consist of the assemblies, components and test specimens listed below in the quantities indicated.

QUANTITY	NOMENCLATURE	INSTRUCTIONS
3 each	Tripod	Finished Assembly

4.4.2 Inspections to be performed. As determined by the Government, the first article assemblies, components and test specimens may be subjected to any or all of the examinations and tests specified in this detailed document and be inspected for compliance with any or all requirements of the applicable document.

4.4.2.1 Classification of Characteristics: First Article Test for Tripod

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Examination/Test	Conformance Criteria	Requirement Paragraph	Inspection Method Reference
Adjust. Center Shaft	100%	3.1	Test/Visual
Center Shaft Lock	100%	3.2	Examination
Center Post Stop	100%	3.3	Examination
External Finish	100%	3.4	Examination
Dovetail Mount Head	100%	3.5	Examination
Interchangeability	100%	3.6	Examination
Elevation Adjustment	100%	3.7	Examination
Length Closed	100%	3.8	Test
Height Opened	100%	3.9	Test
Legs, No Length Adj.	100%	3.10	Test
Weight	100%	3.11	Test
Weight Support	100%	3.12	Test
Operational Temp	100%	3.13	4.5.1
Storage Temperature	100%	3.14	4.5.2
Drop	100%	3.15	4.5.3
Salt Fog	100%	3.16	4.5.4

**4.4.3 Rejection.** If any assembly, component of test specimen fails to comply with any of the applicable requirements, the first article sample shall be rejected. The Government reserves the right to terminate inspection upon any failure of an assembly, component or test specimen to comply with any of the requirements.

### 4.5 Quality Conformance Inspection.

**4.5.1 Inspection Lot Formation.** The term "inspection lot" is defined as a homogeneous collection of units of product from which a representative sample is drawn or which is inspected 100 percent to determine conformance with applicable requirements. Units of product selected for inspection shall represent only the inspection lot from which they are drawn and shall not be construed to represent any prior or subsequent quantities presented for inspection. Homogeneity shall be considered to exist provided the inspection lot has been produced by one manufacturer, in one unchanged process, using the same materials and methods, in accordance with the same drawings, same drawing revisions, same specification and same specification revisions. All material submitted for inspection in accordance with this document shall comply with the homogeneity criteria specified herein, regardless of the type of inspection procedure which is being applied to determine conformance with the requirements.

**4.5.2 Lot Size.** The tripod shall be constructed in lots of not less than one days production and not greater than 500.

### 4.5.3 Examinations and Tests

a. **Classification of Characteristics.** Quality conformance examinations and tests are specified in the following Classification of Characteristics paragraphs. The contractor's quality program or detailed inspection shall provide assurance of compliance of all characteristics with the applicable document and

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specification requirements utilizing as a minimum the conformance criteria specified. When cited herein, attributes sampling shall be conducted in accordance with Table 4-1 below, using the inspection levels stated in the Classification of Characteristics paragraphs.

TABLE 4-1. Attributes Sampling Inspection

Numbers under inspection levels indicate sample size; asterisks (\*) indicate one hundred percent inspection. If sample size exceeds lot size, perform one hundred percent inspection. Accept on zero and reject on one or more for all inspection levels.

### b. Alternate Quality Conformance Provisions.

Alternate quality conformance procedures, methods, or equipment, such as statistical process control, tool control, other types of sampling procedures, etc., may be used by the contractor when they provide, as a minimum, the level of quality assurance required by the provisions specified herein. Prior to applying such alternative procedures, methods, or equipment, the contractor shall describe them in a written proposal submitted to the Government for evaluation (see 6.1). When required, the contractor shall demonstrate that the effectiveness of each proposed alternative is equal to or better than the specified quality assurance provision(s) herein. In cases of dispute as to whether the contractor's proposed alternative(s) provides equivalent assurance, the provisions of this document shall apply. All approved alternative provisions shall be specifically incorporated into the contractor's quality program or detailed inspection system, as applicable.

### 4.4.2.1 Classification of Characteristics: Quality Conformance for Tripod Table 4-1

Examination/Test	Requirement Paragraph	Inspection Method Reference
Adjust. Center Shaft	3.1	Test/Visual
Center Shaft Lock	3.2	Examination
Center Post Stop	3.3	Examination
External Finish	3.4	Examination
Dovetail Mount Head	3.5	Examination
Interchangeability	3.6	Examination
Elevation Adjustment	3.7	Examination
Length Closed	3.8	Test
Height Opened	3.9	Test
Legs, No Length Adj.	3.10	Test
Weight	3.11	Test
Weight Support	3.12	Test
Operational Temperature	3.13	Test
Storage Temperature	3.14	4.5.1
Drop	3.15	4.5.2
Salt fog	3.16	4.5.3

### 4.5 Special Methods of Inspection

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4.5.1 Operational Temperature. The tripod shall be placed in a climatic chamber and the temperature reduced gradually (see "Note" below) to  $-40^{\circ} \pm 2^{\circ} \text{ F}$  ( $-40^{\circ} \text{ C}$ ) and allowed to remain at this temperature for 2 hours. After thermal stabilization is reached the tripod mechanisms shall be operated freely by hand with no binding. The temperature shall gradually (see "Note" below) be increased to  $+120^{\circ} \text{ F}$  ( $+49^{\circ} \text{ C}$ ) and held constant for 2 hours. After thermal stabilization is reached the tripod mechanisms shall be operated freely by hand with no binding. The temperature shall then be reduced to standard ambient temperature and allowed to remain at this temperature for 2 hours. This test can be run in conjunction with the storage temperature 4.5.2.

Note: The rate of temperature change in the climatic chamber shall not exceed 3 degrees per minute throughout the temperature cycling test of 4.5.1 & 4.5.2.

4.5.2 Storage Temperature. The tripod shall be placed in a climatic chamber and the temperature reduced gradually (see "Note" above) to  $-40^{\circ} \pm 2^{\circ} \text{ F}$  ( $-40^{\circ} \text{ C}$ ) and allowed to remain at this temperature for 2 hours. After thermal stabilization is reached the temperature shall gradually (see "Note" above) be increased  $+160^{\circ} \text{ F}$  ( $+71^{\circ} \text{ C}$ ) and held constant for 2 hours. After thermal stabilization is reached the temperature shall then be reduced to standard ambient temperature and allowed to remain at this temperature for 2 hours. Subsequent to temperature testing, the tripod shall show no signs of visual damage.

4.5.3 Drop. The tripod shall be dropped three times each in the following orientations: vertical with legs down, vertical with legs up, and horizontal. The tripod shall be dropped from a height of four feet onto a bed of dry tamped dirt at least six inches deep, and covered by a thin cloth. The dirt shall have a minimum soil penetration resistance of 750 psi at a depth between 1" and 1 ½ ". Subsequent to drop, the tripod shall show no sign of visual damage and shall meet the Resolution requirement of 3.3.

4.5.4 Salt Fog. The tripod shall be placed in a climatic chamber and exposed to 48-hour salt fog test using 5 +/- 1 percent salt solution at a constant temperature of 35 degrees C (see MIL-STD-810F, Method 509.4). The salt used for this test shall be sodium chloride (NaCl). Subsequent to salt fog, the tripod shall show no sign of visual damage or corrosion; failure of any finish, and operational functions shall meet the requirements of 3.7, and be able to be opened and closed per requirement 3.8 and 3.9.

## 5. Packaging.

5.1 Packaging Definitions. Definitions and packaging terms shall be as defined in MIL-STD-2073-1B. Preservation and packing protection Level A is mandatory.

## 6. Notes.

6.1 Submission of Alternate Quality Conformance Provisions. Unless otherwise specified in the contract or purchase order, alternate quality conformance provisions shall be submitted by the contractor in letter format for evaluation by the technical

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activity responsible for preparation of this document.

**6.2 Test equipment.** Design of equipment and test procedures should be submitted to AMSTA-AR-QAT-F, Picatinny Arsenal, NJ 07806-5000 in accordance with the provisions of the contract prior to use.

**6.3 Changes in manufacturing process or materials.** Notwithstanding the provision for waiver of first article, an additional first article sample or portion thereof, may be ordered by the Contracting Officer in writing when (1) a major change is made to the technical data, (2) whenever there is a lapse in production for a period in excess of 90 days, or (3) whenever a change occurs in place of performance, manufacturing process, material used, drawing, specification or source of supply. When conditions (1), (2), or (3) above occurs, the Contractor shall notify the Contracting Officer so that a determination can be made concerning the need for an additional first article sample or portion thereof, and instructions provided concerning the submission, inspection, and notification of results. Costs of the additional first article testing resulting from any of the causes listed herein that were instituted by the contractor and not due to changes directed by the Government shall be borne by the Contractor.

## Addendum B

1. Soft Carrying Case for the Telescope, Straight M144.

2. Applicable standards/specifications. The following documents, of the issue in effect on the date of invitation for bids or request for proposals, form part of this document to the extent specified herein:

Military Standards:

MIL-STD-45662 -Calibration System Requirements

MIL-STD-109 -Quality Assurance Terms and Definitions.

3. Requirements.

3.1. Case shall be tear resistant and water resistant and the external surface shall be a matte finish, and shall be predominantly one basic color: black, gray, green or, field drab. Leather is an unacceptable material.

3.2. Provide storage for M144 Telescope, Tripod and LFU as described in the Purchase Description: Telescope, Straight M144

3.3 Provide a separate storage for the telescope with the LFU attached.

3.4 Provide a separate compartment for the Tripod.

3.5. Provide a separate compartment for the Laser Filter Unit.

3.6. Telescope, LFU and Tripod shall be secured and in case and shall not be free to move, rattle or roll.

3.7. Case shall have a replaceable carrying strap and shall be removable without the use of tools. Strap shall be 5 centimeters (2.0 inches) wide and be adjustable in length from 76 centimeters to 122 centimeters (30 inches to 48 inches) and include a rubber shoulder pad. Leather is an unacceptable strap material

3.8 Back of case shall have two pair of CE clips, one at each end of case on same side.

3.9 Operability. Case shall operate freely at -40 degrees C and +49 degrees C (-40 degrees F and +120 degrees F).

3.10 Temperature. Case shall have no damage after exposure to temperatures of -40 degrees C and +71 degrees C (-40 degrees F and +160 degree F) for a period of at least two hours at each temperature.

3.11. Humidity. Case shall have no damage after exposure to 90% to 100% relative humidity at +49 degrees C (+120 degrees F) for a period of 24 hours.

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3.12 Drop. The case, with telescope, LFU and tripod secured shall be dropped from a height of two feet onto plywood covered concrete with no damage to the case.

### 4.0 Quality Assurance Provisions

4.1 Responsibility for Compliance. Unless otherwise specified in the contract or purchase order, the contractor is responsible for the performance of all inspection requirements (examinations and tests) as specified herein. Except as otherwise specified in the contract or purchase order, the contractor may use its own or any other facilities suitable for the performance of the inspection requirements specified herein, unless disapproved by the Government. The Government reserves the right to perform any of the inspections set forth in this document where such inspections are deemed necessary to assure that supplies and services conform to prescribed requirements.

4.1.1 Responsibility for Compliance. All items shall meet all requirements of sections 3 and 5. The inspections set forth in this document shall become a part of the contractors overall inspection system or quality program. The absence of any inspection requirements in this document shall not relieve the contractor of the responsibility of ensuring that all products or supplies submitted to the Government for acceptance comply with all requirements of the contract. Sampling inspection, as part of manufacturing operation, is an acceptable practice to ascertain conformance to requirements, however, this does not authorize submission of known defective material, either indicated or actual, nor does it commit the Government to accept defective material.

4.1.2 General Provisions. Reference shall be made to MIL-STD-109 to define quality assurance terms used herein.

4.1.3 Calibration. Inspection equipment used shall be calibrated per MIL-STD-45662.

4.2 Inspection Equipment. The inspection equipment required to perform the inspections specified herein is identified in the "Inspection Method Reference" column of the Classification of Characteristics listings starting with 4.4.2.1. Contractor inspection equipment designs shall be submitted for Government approval as specified in the contract. Designs which provide

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variable measurements instead of attributes data are preferred in order to facilitate the use of statistical process control.

**4.3 Classification of Inspection.** The inspection requirements (examinations and tests) specified herein are classified as follows:

- a. First Article Inspection (see 4.4)
- b. Quality Conformance Inspection (see 4.5)

### 4.4 First Article Inspection.

**4.4.1 Submission.** The contractor shall submit a first article sample as designated by the Contracting Officer for evaluation in accordance with provisions of 4.4.2. The first article sample shall consist of the assemblies, components and test specimens listed below in the quantities indicated.

QUANTITY	NOMENCLATURE	INSTRUCTIONS
3 each	Case, Telescope	Finished Assembly

**4.4.2 Inspections to be performed.** As determined by the Government, the first article assemblies, components and test specimens may be subjected to any or all of the examinations and tests specified in this detailed document and be inspected for compliance with any or all requirements of the applicable document.

#### 4.4.2.1 Classification of Characteristics: FAT for Soft Carrying Case for M144 Telescope

Examination/Test	Conformance Criteria	Requirement Paragraph	Inspection Method Reference
Material	100%	3.1	Certificate
Tele, LFU, Tripod Storage	100%	3.2	Examine
Tele-LFU Attached Comp	100%	3.3	Examine
Tripod Compartment	100%	3.4	Examine
LFU Compartment	100%	3.5	Examine
Components Secured	100%	3.6	Determine
Carrying Strap	100%	3.7	Examine
CE Clips	100%	3.8	Measure
Operability	100%	3.9	Measure
Temperature	100%	3.10	Measure/Visual
Humidity	100%	3.11	Determine
Drop	100%	3.12	4.6.1

**4.4.3 Rejection.** If any assembly, component of test specimen fails to comply with any of the applicable requirements, the first article sample shall be rejected. The

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Government reserves the right to terminate inspection upon any failure of an assembly, component or test specimen to comply with any of the requirements.

### 4.5 Quality Conformance Inspection

4.5.1 Inspection Lot Formation. The term "inspection lot" is defined as a homogeneous collection of units of product from which a representative sample is drawn or which is inspected 100 percent to determine conformance with applicable requirements. Units of product selected for inspection shall represent only the inspection lot from which they are drawn and shall not be construed to represent any prior or subsequent quantities presented for inspection. Homogeneity shall be considered to exist provided the inspection lot has been produced by one manufacturer, in one unchanged process, using the same materials and methods, in accordance with the same drawings, same drawing revisions, same specification and same specification revisions. All material submitted for inspection in accordance with this document shall comply with the homogeneity criteria specified herein, regardless of the type of inspection procedure which is being applied to determine conformance with the requirements.

4.5.2 Lot Size. The telescope case shall be constructed in lots of not less than one days production and not greater than 500.

### 4.5.3 Examinations and Tests

a. Classification of Characteristics. Quality conformance examinations and tests are specified in the following Classification of Characteristics paragraphs. The contractor's quality program or detailed inspection shall provide assurance of compliance of all characteristic applicable document and specification requirements utilizing as a minimum the conformance criteria specified. When cited herein, attributes sampling shall be conducted in accordance with Table 4-1 below, using the inspection levels stated in the Classification of Characteristics paragraphs.

TABLE 4-1. Attributes Sampling Inspection

Lot Size	Inspection Levels		
	I	II	III
2 to 5	*	*	2
6 to 25	*	5	2
26 to 50	32	5	2
51 to 150	32	13	2
151 to 500	32	20	2

Numbers under inspection levels indicate sample size; asterisks (\*) indicate one hundred percent inspection. If sample size exceeds lot size, perform one hundred

## Addendum B

percent inspection. Accept on zero and reject on one or more for all inspection levels.

### b. Alternate Quality Conformance Provisions.

Alternate quality conformance procedures, methods, or equipment, such as statistical process control, tool control, other types of sampling procedures, etc., may be used by the contractor when they provide, as a minimum, the level of quality assurance required by the provisions specified herein. Prior to applying such alternative procedures, methods, or equipment, the contractor shall describe them in a written proposal submitted to the Government for evaluation (see 6.1). When required, the contractor shall demonstrate that the effectiveness of each proposed alternative is equal to or better than the specified quality assurance provision(s) herein. In cases of dispute as to whether the contractor's proposed alternative(s) provides equivalent assurance, the provisions of this document shall apply. All approved alternative provisions shall be specifically incorporated into the contractor's quality program or detailed inspection system, as applicable.

#### 4.4.2.1 Classification of Characteristics: Quality Conformance Tests for Soft Carrying Case for M144 Telescope

Examination/Test	Conformance Criteria Table 4-1	Requirement Paragraph	Inspection Method Reference
Material	**	3.1	Certificate
Tele, LFU, Tripod Storage	III	3.2	Examine
Tele-LFU Attached Comp	III	3.3	Examine
Tripod Compartment	III	3.4	Examine
LFU Compartment	III	3.5	Examine
Components Secured	III	3.6	Determine
Carrying Strap	II	3.7	Examine
CE Clips	II	3.8	Measure
Operability	III	3.9	Measure
Temperature	III	3.10	Measure/Visual
Humidity	III	3.11	Determine
Drop	III	3.12	4.6.1

\*\* Table 4-1 Inspection Levels do not apply where a certification is required. A certification is required for all hardware in each lot.

### 4.6 Methods of Inspection.

4.6.1 Drop. Case, with telescope, tripod and Laser Filter Unit secured, shall be dropped three times each in the following orientations: end down and bottom down. The case shall be dropped from a height of two (2) feet (the distance between any part of the case in the down position and plywood shall be 2 feet) onto 1/2 inch plywood covered concrete.

## Addendum B

### 6. Notes.

6.1 Submission of Alternate Quality Conformance Provisions. Unless otherwise specified in the contract or purchase order, alternate quality conformance provisions shall be submitted by the contractor in letter format for evaluation by the technical activity responsible for preparation of this document.

APPENDIX I

GOVERNMENT-DESIGNED ACCEPTANCE INSPECTION EQUIPMENT

<u>AVAILABLE EQUIPMENT</u>					<u>Estimated Weight 5 lb</u>		
<u>QTY</u>	<u>DRAWING NUMBER</u>	<u>REV</u>	<u>COST</u>	<u>QTY</u>	<u>DRAWING NUMBER</u>	<u>REV</u>	<u>COST</u>
	<u>SYM</u>	<u>EACH</u>			<u>SYM</u>	<u>EACH</u>	
1	7641866	N	\$2000.00				

## DOCUMENT SUMMARY LIST

Item: M144 TELESCOPE ETC.  
 NSN: various  
 Control Number/PRON: M121S019,20,21,22,23

Identifies all first tier documents (cited in SOW) (applicable DIDs). Also included are all referenced documents (2nd, (includes DID block 10 references), 3<sup>rd</sup> and lower tier) which have been tailored.

### DOCUMENT CATEGORY:

**CATEGORY 0** - Unless otherwise specified in the solicitation, contract, or contract modifications, all documents are for guidance and information only.

**CATEGORY 1** - The requirements contained in the directly cited document are contractually applicable to the extent specified. All referenced documents are for guidance and information only.

**CATEGORY 2** - The requirements contained in the directly cited document and the reference documents identified in the directly cited document are contractually applicable to the extent specified. All subsequently referenced documents are for guidance and information only.

**CATEGORY 3** - Unless otherwise specified in the solicitation, contract or contract modification, all requirements contained in the directly cited document and all reference and subsequently referenced documents are contractually applicable to the extent specified.

Document Number (Contract Reference) Applicable Tailoring	Document Title	Document Date/ Document Category
1a. N/A	Section C titled: Configuration Management Documentation	N/A Cat 2
1b. DI-CMAN-80639C (seq A001)	Engineering Change Proposal (ECP)	30 Sep 00 Cat 1
1c. DI-CMAN-80640C (seq A002)	Request for Deviation (RFD)	30 Sep 00 Cat 1
1d. DI-CMAN-80642C (seq A003)	Notice of Revision (NOR)	30 Sep 00 Cat 1
2. ANSI/ISO/ASQC Q9002	Model for Quality Assurance in Production, Installation & Servicing OR	18 Jul 94
ANSI/ISO/ASQC Q9001-2000	American National Standard Quality management systems- Requirements	13 Dec 00
3. MIL-PRF-13830 Rev B	Optical Components For Fire Control Instruments; Gen.Spec.	09 Jan 97 Cat 2

## Test Plan for M144 Telescope Bid Samples

Reference: Purchase Description (PD) for the Telescope, Straight M144

Three bid sample telescopes shall be provided. Any failure to meet a requirement as stated below will result in elimination from further consideration for award.

1. Clear Aperture PD 3.1. The clear aperture of the objective lens shall be 60 +/- 2.5 millimeters. Three bid samples shall meet this requirement.
2. Magnification PD 3.2. Magnification shall be continuously variable from at least the 20 power to 43 power range. The magnifying power shall be indicated at the low and high magnification positions. Three bid samples shall meet this requirement.
3. Resolution PD 3.3. Resolution of the telescope shall be better than or equal to 4.5 seconds of arc at a magnification greater than or equal to 25 power. Horizontal and vertical lines shall be resolvable within 0.5 diopter. Two bid samples shall meet this requirement.
4. Image Focus and Quality PD 3.6. The telescope shall bring a target into sharp focus at any distance between 75 feet and infinity with no multiple or ghost images observable. Two bid samples shall meet this requirement.
5. Length PD 3.8. Length of telescope shall not exceed 346 millimeters (13.6 inches). Three bid samples shall meet this requirement.
6. Weight PD 3.10. Weight of telescope shall not exceed 835 grams (29.5 ounces). Three bid samples shall meet this requirement.
7. Non-removable eyepiece PD 3.14. The telescope eyepiece shall be permanently attached to the telescope body. The eyepiece shall not be removable and/or loosen by an unscrewing type action, from the telescope body. Three bid samples shall meet this requirement.
8. Watertightness PD 3.16. The internal optics of the telescope shall remain moisture free after immersed in one meter of water for one hour. Two bid samples shall meet this requirement.

**Enclosure 9**  
**PAST PERFORMANCE INFORMATION QUESTIONNAIRE**  
(Reference Solicitation DAAE20-01-0207)

If this form is used and more room is required, you may use the space at the bottom of the second page or continue on a separate sheet.

1. CONTRACT NUMBER \_\_\_\_\_ Award Date \_\_\_\_\_ with (contractor name)

2. Contracting Activity: (Government or Commercial)  
(Address) \_\_\_\_\_

3. Contract Dollar Value: \$ \_\_\_\_\_

4. Points of Contact:

a. Procuring Contracting Officer  
(name) \_\_\_\_\_  
(email) \_\_\_\_\_  
(phone) \_\_\_\_\_  
(FAX) \_\_\_\_\_

b. Current Admin Contracting Officer  
(name) \_\_\_\_\_  
(email) \_\_\_\_\_  
(phone) \_\_\_\_\_  
(FAX) \_\_\_\_\_

c. Gov't Quality Assurance Rep (QAR)  
(name) \_\_\_\_\_  
(email) \_\_\_\_\_  
(phone) \_\_\_\_\_  
(FAX) \_\_\_\_\_

d. Industrial Specialist  
(name) \_\_\_\_\_  
(email) \_\_\_\_\_  
(phone) \_\_\_\_\_  
(FAX) \_\_\_\_\_

e. Other (Private Firm, Company President or other POC)  
(name) \_\_\_\_\_  
(email) \_\_\_\_\_  
(phone) \_\_\_\_\_  
(FAX) \_\_\_\_\_

5. Was the contract terminated or cancelled (in whole or part)? YES or NO If yes, why?  
\_\_\_\_\_  
\_\_\_\_\_

6. Description of Item:

a. Item: \_\_\_\_\_  
b. Part Number: \_\_\_\_\_  
c. NSN: \_\_\_\_\_

7. The following is the contractor's description of the work performed under this contract. Please comment on the accuracy of the information and detail any disagreements. The Government must determine if this description is relevant to our solicitation Requirements.

**Contract number and description of work performed.**

Relevant Contracts: REFER to Section L, L.4

8. Were there any instances where quality or schedule requirements were not met? If so, please explain. If not, please state "none".

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9. Delivery Data:

a. Original Delivery Schedule: Start Date: \_\_\_\_\_ End Date: \_\_\_\_\_

b. Revised Delivery Schedule: Start Date: \_\_\_\_\_ End Date: \_\_\_\_\_

(ii) State reason for revision of schedule: \_\_\_\_\_

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c. Contract Delivery Status: Please check proper description

On Time                       Delinquent                       Product Delivered and Paper Delay  
 Government Caused         Contractor Caused         Other/Explain

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d. Contract Delinquency Age Status: Please check proper description

15-30 Days Delinquent         31-60 Days Delinquent  
 61-90 Days Delinquent         Over 90 Days Delinquent

10. Were there any problems encountered in the performance of the contract, conforming to specifications and to standards of good workmanship that negatively impacted the customer? If so, please describe. In addition, list the Quality Deficiency Report (QDR) number (if applicable) and describe the deficiency, include a description of corrective actions implemented as a result of the problem encountered.

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11. Overall, are there any deficiencies, weakness, or strengths in the contractor's workmanship/quality, timeliness of performance, adherence to contract delivery schedules.

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**Small Business Participation Proposal**

**Offeror's Name** \_\_\_\_\_

**Company Size:** \_\_\_\_\_ **Small Business (SB),** \_\_\_\_\_ **Large Business (LB)**\_\_\_\_\_

**Company Status: (IF):**

- \_\_\_\_\_ **SB,**
- \_\_\_\_\_ **Historically Underutilized Business Zone Small Business (HUBZone SB),**
- \_\_\_\_\_ **Small Disadvantaged Business (SDB),**
- \_\_\_\_\_ **Woman-Owned Small Business (WOSB),**
- \_\_\_\_\_ **Historically Black College and University/Minority Institution (HBCU/MI),**
- \_\_\_\_\_ **Veteran-owned Small Business (VOSB),**
- \_\_\_\_\_ **Service-Disabled Veteran-Owned Small Business (SDVOSB)**

**Total estimated value of proposed contract:**  
\$ \_\_\_\_\_

**Total estimated value of subcontracts:**  
\$ \_\_\_\_\_

**Dollar value of subcontracts planned for all: SBs:** \$ \_\_\_\_\_

**Company name(s)**  
\_\_\_\_\_  
\_\_\_\_\_

**HUBZone SBs:** \$ \_\_\_\_\_

**Company name(s)**  
\_\_\_\_\_  
\_\_\_\_\_

**SDBs:** \$ \_\_\_\_\_

**Company name(s)**  
\_\_\_\_\_  
\_\_\_\_\_

**WOSBs:** \$ \_\_\_\_\_

**Company name(s)**  
\_\_\_\_\_

**HBCU/MIs: \$** \_\_\_\_\_

**Institution  
name(s)** \_\_\_\_\_

**VOSBs: \$** \_\_\_\_\_

**SDVOSBs: \$** \_\_\_\_\_

**Percentages of contract value subcontracted for all:**

**SB:**                    % \_\_\_\_\_

**HUBZone SB:** % \_\_\_\_\_

**SDB:**                    % \_\_\_\_\_

**WOSB:**                    % \_\_\_\_\_

**HBCU/MI:**                    % \_\_\_\_\_

**VOSB:**                    % \_\_\_\_\_

**SDVOSB:**                    % \_\_\_\_\_

**For SBs, VOSBs, SDVOSBs, HUBZone SBs, SDBs, or WOSBs – Offeror’s percentage of contract value you will perform at the prime contract level:**

% \_\_\_\_\_

**Principle supplies/services to be subcontracted to:**

**SB:**

\_\_\_\_\_

**HUBZone SB:**

\_\_\_\_\_

**SDB:**

\_\_\_\_\_

**WOSB:**

\_\_\_\_\_

**HBCU/MI:**

\_\_\_\_\_

**VOSB:**

\_\_\_\_\_

**SDVOSB:**

\_\_\_\_\_

**Principle supplies/services you will be providing at the prime contractor level (in house):**

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**During the past three calendar years, provide the following:**

Description of your methods employed to promote the use of:

SBs, VOSBs, SDVOSBs, HUBZone SBs, SDBs, WOSBs, and HBCU/MI's

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Description of the internal methods used to monitor your utilization of the above (database mgmt, reports, etc.):

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**IF OFFEROR IS A LARGE BUSINESS, AN ADDITIONAL EVALUATION OF PAST PERFORMANCE OVER THE PAST THREE CALENDAR YEARS IN COMPLYING WITH THE REQUIREMENTS OF FAR 52.219-9, SMALL BUSINESS SUBCONTRACTING PLAN, WILL BE MADE. INCLUDE DOCUMENTATION OF ACCOMPLISHMENTS AGAINST GOALS ESTABLISHED UNDER SUBCONTRACTING PLANS OF PRIOR CONTRACTS.**

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