

SOLICITATION, OFFER AND AWARD				1. THIS CONTRACT IS A RATED ORDER UNDER DPAS (15 CFR 700)		RATING		PAGE OF PAGES 1 118		
2. CONTRACT NO.			3. SOLICITATION NO. W91CRB20R0047		4. TYPE OF SOLICITATION [] SEALED BID (IFB) [X] NEGOTIATED (RFP)		5. DATE ISSUED 02 Sep 2020		6. REQUISITION/PURCHASE NO.	
7. ISSUED BY ACC - APG - W91CRB BLDG 4310 6515 INTEGRITY COURT ABERDEEN PROVING GROUND MD 21005-3013			CODE W91CRB		8. ADDRESS OFFER TO (If other than Item 7) See Item 7				CODE TEL: FAX:	
NOTE: In sealed bid solicitations "offer" and "offeror" mean "bid" and "bidder".										
SOLICITATION										
9. Sealed offers in original and _____ copies for furnishing the supplies or services in the Schedule will be received at the place specified in Item 8, or if handcarried, in the depository located in _____ until _____ local time _____ (Hour) (Date)										
CAUTION - LATE Submissions, Modifications, and Withdrawals: See Section L, Provision No. 52.214-7 or 52.215-1. All offers are subject to all terms and conditions contained in this solicitation.										
10. FOR INFORMATION CALL:		A. NAME			B. TELEPHONE (Include area code) (NO COLLECT CALLS)			C. E-MAIL ADDRESS		
11. TABLE OF CONTENTS										
(X)	SEC.	DESCRIPTION			PAGE(S)	(X)	SEC.	DESCRIPTION		
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X	C	DESCRIPTION/ SPECS./ WORK STATEMENT			32 - 65	X	J	LIST OF ATTACHMENTS		
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OFFER (Must be fully completed by offeror)										
NOTE: Item 12 does not apply if the solicitation includes the provisions at 52.214-16, Minimum Bid Acceptance Period.										
12. In compliance with the above, the undersigned agrees, if this offer is accepted within _____ calendar days (60 calendar days unless a different period is inserted by the offeror) from the date for receipt of offers specified above, to furnish any or all items upon which prices are offered at the price set opposite each item, delivered at the designated point(s), within the time specified in the schedule.										
13. DISCOUNT FOR PROMPT PAYMENT (See Section I, Clause No. 52.232-8)										
14. ACKNOWLEDGMENT OF AMENDMENTS (The offeror acknowledges receipt of amendments to the SOLICITATION for offerors and related documents numbered and dated):					AMENDMENT NO.		DATE		AMENDMENT NO.	
15A. NAME AND ADDRESS OF OFFEROR		CODE		FACILITY		16. NAME AND TITLE OF PERSON AUTHORIZED TO SIGN OFFER (Type or print)				
15B. TELEPHONE NO (Include area code)			15C. CHECK IF REMITTANCE ADDRESS IS DIFFERENT FROM ABOVE - ENTER SUCH ADDRESS IN SCHEDULE. <input type="checkbox"/>			17. SIGNATURE			18. OFFER DATE	
AWARD (To be completed by Government)										
19. ACCEPTED AS TO ITEMS NUMBERED				20. AMOUNT			21. ACCOUNTING AND APPROPRIATION			
22. AUTHORITY FOR USING OTHER THAN FULL AND OPEN COMPETITION: <input type="checkbox"/> 10 U.S.C. 2304(c)() <input type="checkbox"/> 41 U.S.C. 253(c)()						23. SUBMIT INVOICES TO ADDRESS SHOWN IN (4 copies unless otherwise specified)			ITEM	
24. ADMINISTERED BY (If other than Item 7)				CODE		25. PAYMENT WILL BE MADE BY				CODE
26. NAME OF CONTRACTING OFFICER (Type or print) TEL: EMAIL:						27. UNITED STATES OF AMERICA (Signature of Contracting Officer)			28. AWARD DATE	
IMPORTANT - Award will be made on this Form, or on Standard Form 26, or by other authorized official written notice.										

Section A - Solicitation/Contract Form

CONTRACT AWARD SUMMARY

SPECIAL INSTRUCTION FOR CONTRACT:

Absolutely NO CLASSIFIED INFORMATION shall be requested from the awarding Contracting Agency borne from information or requirements contained within this contract.

TYPE OF CONTRACT

- 1.) The basic contract is issued on an Indefinite Quantity/Indefinite Delivery basis, in accordance with FAR 16.504.
- 2.) Individual orders will be issued in accordance with FAR 16.505 and, orders will either be firm-fixed price or cost depending on which CLIN the order is issued for.

CONTRACT PERIOD OF PERFORMANCE

- 1.) The period of performance for this contract is five (5) years.

ORDERING AND MINIMUM LIMITATIONS

- 1.) Delivery orders will be issued, via e-mail, in accordance with FAR 16.505.
- 2.) Delivery orders will be issued by contracting officer located at Army Contracting Command-Aberdeen Proving Ground, 6515 Integrity Court, Building 4310, Aberdeen Proving Ground, MD 21005.
- 3.) The MINIMUM quantity of supplies to be ordered under this contract are 104.
- 4.) The MAXIMUM quantity of supplies to be ordered under this contract are 86,557 .

INCORPORATIONS

Incorporation of Contractor Proposal:

This contract hereby incorporated XXX final complete proposal submitted under solicitation W91CRB-20-R-0047, to include the red-lined specification submitted with the Technical Factor.

Incorporation of Subcontracting Plan:

In accordance with Federal Acquisition Regulation (FAR) 19.705-5 (a) (5), XXXXXXXX approved Subcontracting Plan is incorporated into this contract via file ****FILE NAME****.

In accordance with DFARS 252.219-7003 incorporated by reference into this contract, the Contractor shall submit reports in the Electronic Subcontracting Reporting System (eSRS) the Individual Subcontract Report (ISR) shall be submitted to the contracting officer at the procuring contracting office, even when contract administration has been delegated to the Defense Contract Management Agency.

Section B - Supplies or Services and Prices

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0001	Qualification Systems FFP Family of Weapon Sights, Individual (FWS-I), Qualification Systems in accordance with Statement of Work (SOW), paragraphs 3.4.9 and 3.5.10. FOB: Destination				
NET AMT					

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0002	Modular Items FFP Family of Weapon Sights, Individual (FWS-I), Modular TMDE Software, Special Tools, Fixtures, and Interface Equipment in accordance with Statement of Work (SOW), paragraphs 3.5.4, 3.5.9 , 3.5.6.2, 3.5.8, 3.5.9, 3.5.11, 3.5.14, 3.5.16.1, 3.6.3.1, 3.6.9.1.1, 3.6.10, 3.7, 4.2 and Appendix A. FOB: Destination				
NET AMT					

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0003	FWS-I Systems PY-1 FFP Family of Weapon Sights, Individual (FWS-I), Systems PY-1 in accordance with Statement of Work (SOW), paragraphs 3.4.4, 3.4.9, 3.4.9.2, 3.4.11, 3.5.1, 3.5.2, 3.5.4.1, 3.5.10.1, 3.5.14.2, 3.5.17 and 3.10. FOB: Destination				
NET AMT					

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0004	FWS-I Spare/Repair Parts PY-1 FFP Family of Weapon Sights, Individual (FWS-I), Spare/Repair Parts PY-1 in accordance with Statement of Work (SOW), paragraphs 3.2.4, 3.3.6, 3.3.8.2, 3.5.1, 3.5.4, 3.5.7.2, 3.5.14.2, 3.5.16.2, 3.5.17, 3.6.2, 3.7, 6.1.4, FOB: Destination				
NET AMT					

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0005	FWS-I Systems PY-2 FFP Family of Weapon Sights, Individual (FWS-I), Systems PY-2 in accordance with Statement of Work (SOW), paragraphs 3.4.4, 3.4.9, 3.4.9.2, 3.4.11, 3.5.1, 3.5.2, 3.5.4.1, 3.5.10.1, 3.5.14.2, 3.5.17 and 3.10. FOB: Destination				
NET AMT					

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0006	FWS-I Spare/Repair Parts PY-2 FFP Family of Weapon Sights, Individual (FWS-I), Spare/Repair Parts PY-2 in accordance with Statement of Work (SOW), paragraphs 3.2.4, 3.3.6, 3.3.8.2, 3.5.1, 3.5.4, 3.5.7.2, 3.5.14.2, 3.5.16.2, 3.5.17, 3.6.2, 3.7, 6.1.4, FOB: Destination				
NET AMT					

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0007	FWS-I Systems PY-3 FFP Family of Weapon Sights, Individual (FWS-I), Systems PY-3 in accordance with Statement of Work (SOW), paragraphs 3.4.4, 3.4.9, 3.4.9.2, 3.4.11, 3.5.1, 3.5.2, 3.5.4.1, 3.5.10.1, 3.5.14.2, 3.5.17 and 3.10. FOB: Destination				
NET AMT					

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0008	FWS-I Spare/Repair Parts PY-3 FFP Family of Weapon Sights, Individual (FWS-I), Spare/Repair Parts PY-3 in accordance with Statement of Work (SOW), paragraphs 3.2.4, 3.3.6, 3.3.8.2, 3.5.1, 3.5.4, 3.5.7.2, 3.5.14.2, 3.5.16.2, 3.5.17, 3.6.2, 3.7, 6.1.4, FOB: Destination				
NET AMT					

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0009	FWS-I Systems PY-4 FFP Family of Weapon Sights, Individual (FWS-I), Systems PY-4 in accordance with Statement of Work (SOW), paragraphs 3.4.4, 3.4.9, 3.4.9.2, 3.4.11, 3.5.1, 3.5.2, 3.5.4.1, 3.5.10.1, 3.5.14.2, 3.5.17 and 3.10. FOB: Destination				
NET AMT					

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0010	FWS-I Spare/Repair Parts PY-4 FFP Family of Weapon Sights, Individual (FWS-I), Spare/Repair Parts PY-4 in accordance with Statement of Work (SOW), paragraphs 3.2.4, 3.3.6, 3.3.8.2, 3.5.1, 3.5.4, 3.5.7.2, 3.5.14.2, 3.5.16.2, 3.5.17, 3.6.2, 3.7, 6.1.4, FOB: Destination				
NET AMT					

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0011	FWS-I Systems PY-5 FFP Family of Weapon Sights, Individual (FWS-I), Systems PY-5 in accordance with Statement of Work (SOW), paragraphs 3.4.4, 3.4.9, 3.4.9.2, 3.4.11, 3.5.1, 3.5.2, 3.5.4.1, 3.5.10.1, 3.5.14.2, 3.5.17 and 3.10. FOB: Destination				
NET AMT					

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0012	FWS-I Spare/Repair Parts PY-5 FFP Family of Weapon Sights, Individual (FWS-I), Spare/Repair Parts PY-5 in accordance with Statement of Work (SOW), paragraphs 3.2.4, 3.3.6, 3.3.8.2, 3.5.1, 3.5.4, 3.5.7.2, 3.5.14.2, 3.5.16.2, 3.5.17, 3.6.2, 3.7, 6.1.4, FOB: Destination				

NET AMT

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0013	Foreign Military Sales FFP Family of Weapon Sights, Individual (FWS-I), Systems for Foreign Military Sales in accordance with Statement of Work (SOW), paragraph 4 FOB: Destination				

NET AMT

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0014	FWS-I Full Rate Production CDRLS FFP CDRL 01401 is Not Separately Priced (NSP) SLINS				

NET AMT

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
001401	CDRL System Engineering Plan FFP The following CDRL 001401, Data Item (A001) is for System Engineering Plan, In Accordance With SOW Par 3.2.2. The following CDRL can be found under section J, Attachments.				

NET AMT

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0015	FWS-I Full Rate Production CDRLS FFP CDRLS 01501 - 01504 are Not Separately Priced (NSP) SLINS				

NET AMT

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
001501	CDRL Integrated Program Managment Report FFP The following CDRL 001501, Data Item (B001) is for Integrated Program Managment Report In Accordance With SOW Par 3.3.2. The following CDRL can be found under section J, Attachments.				

NET AMT

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
001502	CDRL Risk Management / Mitigation Plan FFP The following CDRL 001502, Data Item (B002) is for Risk Management / Mitigation Plan, In Accordance With SOW Par 3.3.3. The following CDRL can be found under section J, Attachments.				
NET AMT					

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
001503	CDRL IPPT Agenda and Read-Ahead Brief FFP The following CDRL 001503, Data Item (B003) is for IPPT Agenda and Read-Ahead Brief, In Accordance With SOW Par 3.3.4.5. The following CDRL can be found under section J, Attachments.				
NET AMT					

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
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001504

CDRL IPPT Action Items List/Meeting Min
FFP

The following CDRL 001504, Data Item (B004) is for IPPT Action Items List & Meeting Minutes, In Accordance With SOW Par 3.3.4.5. The following CDRL can be found under section J, Attachments.

NET AMT

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
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0016

CDRL Preliminary Design Review (PDR)
FFP

The following CDRL CLIN 0016, Data Item (C001) is for Preliminary Design Review (PDR) Report, In Accordance With SOW Par 3.3.4.5.2.2. The following CDRL can be found under section J, Attachments.

FOB: Destination

NET AMT

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
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0017

CDRL FWS-I Critical Design Review (CDR)
FFP

The following CDRL CLIN 0017, Data Item (C002) is for Critical Design Review (CDR) Report , In Accordance With SOW Par 3.3.4.5.2.3. The following CDRL can be found under section J, Attachments.

FOB: Destination

NET AMT

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0018	CDRL FWS-I Production Manufacturing Plan FFP The following CDRL CLIN 0018, Data Item (C003) is for Production Manufacturing Plan, In Accordance With SOW Par 3.3.5. The following CDRL can be found under section J, Attachments. FOB: Destination				
NET AMT					

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0019	FWS-I Full Rate Production CDRLS FFP CDRLS 01901 is Not Separately Priced (NSP) SLIN				
NET AMT					

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
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001901

CDRL FWS-I Make or Buy
FFP

The following CDRL SLIN 001901, Data Item (C004) is for Make or Buy, In Accordance With SOW Par 3.3.6. The following CDRL can be found under section J, Attachments.

NET AMT

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
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0020

FWS-I Full Rate Production CDRLS
FFP

CDRLS 002001- 00208 are Not Separately Priced (NSP) SLINS

NET AMT

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
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002001

CDRL Government Property Inventory
FFP

The following CDRL SLIN 002001, Data Item (D001) is for Government Property Inventory Report, In Accordance With SOW Par 3.4.6.1. The following CDRL can be found under section J, Attachments.

NET AMT

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
002002	CDRL Test Procedures FFP The following CDRL SLIN 002002, Data Item (D002) is for Test Procedures, In Accordance With SOW Par 3.4.11. The following CDRL can be found under section J, Attachments.				

NET AMT

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
002003	CDRL Test Plans FFP The following CDRL SLIN 002003, Data Item (D003) is Test Plans, In Accordance With SOW Par 3.4.10. The following CDRL can be found under section J, Attachments.				

NET AMT

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
002004	CDRL Test Reports FFP The following CDRL SLIN 002004, Data Item (D004) is for Test Reports, In Accordance With SOW Par 3.4.12. The following CDRL can be found under section J, Attachments.				

NET AMT

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
002005	CDRL Failed Item Analysis Reports FFP The following CDRL SLIN 002005, Data Item (D005) is for Failed Item Analysis Reports (FIARs) , In Accordance With SOW Par 3.4.15. The following CDRL can be found under section J, Attachments.				
NET AMT					

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
002006	CDRL Reliability Program Plan (RPP) FFP The following CDRL SLIN 002006, Data Item (D006) is for Reliability Program Plan (RPP), In Accordance With SOW Par 3.4.13.2. The following CDRL can be found under section J, Attachments.				
NET AMT					

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
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002007

CDRL Test Failure Notification

FFP

The following CDRL SLIN 002007, Data Item (D007) is for Test Failure Notification, In Accordance With SOW Par 3.4.15. The following CDRL can be found under section J, Attachments.

 NET AMT

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
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002008

CDRL Production Reliability Acceptance

FFP

The following CDRL SLIN 002008, Data Item (D008) is for Production Reliability Acceptance Test Reports, In Accordance With SOW Par 3.4..13.3. The following CDRL can be found under section J, Attachments.

 NET AMT

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
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0021

CDRL FWS-I Safty Assessment Report (SAR)

FFP

The following CDRL CLIN 0021, Data Item (D009) is for Safety Assessment Report (SAR), In Accordance With SOW Par 3.8.1. The following CDRL can be found under section J, Attachments.

FOB: Destination

 NET AMT

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0022	FWS-I Full Rate Production CDRLS FFP CDRLS 002001- 00206 are Not Separately Priced (NSP) SLINS				

NET AMT

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
002201	CDRL Logistics Support Plan FFP The following CDRL SLIN 002201, Data Item (E001) is for Logistics Support Plan, In Accordance With SOW Par 3.5.4 and 3.5.5. The following CDRL can be found under section J, Attachments.				

NET AMT

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
002202	CDRL Support Packages FFP The following CDRL SLIN 002202, Data Item (E002) is for System Support Package Component List (SSPCL) and System Support Package, In Accordance With SOW Par 3.5.11. The following CDRL can be found under section J, Attachments.				

 NET AMT

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
002203	CDRL Life Cycle Sustainment Plan (LCSP) FFP The following CDRL SLIN 002203, Data Item (E010) is for Life Cycle Sustainment Plan (LCSP), In Accordance With SOW Par 3.5.9. The following CDRL can be found under section J, Attachments.				

 NET AMT

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
002204	CDRL Engineering Data for Provisioning FFP The following CDRL SLIN 002204, Data Item (E012) is for Engineering Data for Provisioning (EDFP), In Accordance With SOW Par 3.5.16.2. The following CDRL can be found under section J, Attachments.				

 NET AMT

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
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002205

CDRL Provisioning Parts List (PPL)

FFP

The following CDRL SLIN 002204, Data Item (E013) is for Provisioning Parts List (PPL), In Accordance With SOW Par 3.5.16.1. The following CDRL can be found under section J, Attachments.

 NET AMT

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
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0023

CDRL Logistics Demonstration (LD) Plan

FFP

The following CDRL CLIN 0023, Data Item (E003) is for Logistics Demonstration(LD) Plans, In Accordance With SOW Par 3.5.10. The following CDRL can be found under section J, Attachments.

FOB: Destination

 NET AMT

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0024	CDRL Logistics Demonstration (LD) Rep FFP The following CDRL CLIN 0024, Data Item (E004) is for Logistics Demonstration(LD) Reports, In Accordance With SOW Par 3.5.10. The following CDRL can be found under section J, Attachments. FOB: Destination				

NET AMT

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0025	CDRL Operator/Crew Training Materials FFP The following CDRL CLIN 0025, Data Item (E005) is for Operator/Crew Training Materials, In Accordance With SOW Par 3.5.12. The following CDRL can be found under section J, Attachments. FOB: Destination				

NET AMT

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0026	CDRL Maintainer Level Training Materials FFP The following CDRL CLIN 0026, Data Item (E006) is for Maintainer Level Training, In Accordance With SOW Par 3.5.13. The following CDRL can be found under section J, Attachments. FOB: Destination				

NET AMT

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0027	CDRL Technical Manuals (TM) Operator FFP The following CDRL CLIN 0027, Data Item (E007) is for Technical Manuals (TM) Operator (-10), In Accordance With SOW Par 3.5.14. The following CDRL can be found under section J, Attachments. FOB: Destination				

NET AMT

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0028	CDRL Technical Manuals (TM) Field FFP The following CDRL CLIN 0028, Data Item (E008) is for Technical Manuals (TM) Maintainer Level (-23&P), In Accordance With SOW Par 3.5.14. The following CDRL can be found under section J, Attachments. FOB: Destination				

NET AMT

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0029	CDRL Quick Reference Card (QRC) FFP The following CDRL CLIN 0029, Data Item (E009) is for Quick Reference Card (QRC), In Accordance With SOW Par 3.5.10. The following CDRL can be found under section J, Attachments. FOB: Destination				

NET AMT

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0030	CDRL Instructor and Key Personnel Train FFP The following CDRL CLIN 0030, Data Item (E011) is for Instructor and Key Personnel Training (I&KPT), In Accordance With SOW Par 3.5.12. The following CDRL can be found under section J, Attachments. FOB: Destination				

NET AMT

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0031	CDRL Level of Repair Analysis (LORA) FFP The following CDRL CLIN 0031, Data Item (E014) is for Level of Repair Analysis (LORA), In Accordance With SOW Par 3.5.6. The following CDRL can be found under section J, Attachments. FOB: Destination				
NET AMT					

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0032	FWS-I Full Rate Production CDRLS FFP CDRLS 003201- 003202 are Not Separately Priced (NSP) SLINS				
NET AMT					

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
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003201

CDRL Warranty Performance Reports
FFP

The following CDRL SLIN 002206, Data Item (E015) is for Warranty Performance Reports, In Accordance With SOW Par 3.5.3. The following CDRL can be found under section J, Attachments.

NET AMT

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
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003202

CDRL Warranty Process Flow Chart
FFP

The following CDRL SLIN 002207, Data Item (E016) is for Warranty Process Flow Chart, In Accordance With SOW Par 3.5.2. The following CDRL can be found under section J, Attachments.

NET AMT

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
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0033

FWS-I Full Rate Production CDRLS
FFP

CDRLS 003301- 003305 are Not Separately Priced (NSP) SLINS

NET AMT

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
003301	CDRL Configuration Management Plan (CMP) FFP The following CDRL SLIN 003301, Data Item (F001) is for Configuration Management Plan (CMP), In Accordance With SOW Par 3.6.1.1. The following CDRL can be found under section J, Attachments.				

NET AMT

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
003302	CDRL Engineering and Configuration FFP The following CDRL SLIN 003302, Data Item (F005) is for Engineering and Configuration Control Documentation (ECP), In Accordance With SOW Par 3.6.11. The following CDRL can be found under section J, Attachments.				

NET AMT

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
003303	CDRL Focal Plane Array (FPA) Data Maps FFP The following CDRL SLIN 003303, Data Item (F006) is for Focal Plane Array (FPA) Data Maps, In Accordance With SOW Par 3.5.17. The following CDRL can be found under section J, Attachments.				

NET AMT

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
003304	CDRL Frequency Allocation Application FFP The following CDRL SLIN 003304, Data Item (F007) is for Frequency Allocation Application and Certification, In Accordance With SOW Par 3.5.18. The following CDRL can be found under section J, Attachments.				
NET AMT					

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
003305	CDRL Performance Specifications FFP The following CDRL SLIN 003305, Data Item (F008) is for Performance Specification, In Accordance With SOW Par 3.6.2.1. The following CDRL can be found under section J, Attachments.				
NET AMT					

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0034	CDRL Engineering Drawings FFP The following CDRL CLIN 0034, Data Item (F002) is for Engineering Drawings, In Accordance With SOW Par 3.6.6. The following CDRL can be found under section J, Attachments. FOB: Destination				

NET AMT

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0035	CDRL Physical Configuration Control FFP The following CDRL CLIN 0035, Data Item (F003) is for Physical Configuration Audit/Functional Configuration Audit Plan (PCA/FCA), In Accordance With SOW Par 3.6.10. The following CDRL can be found under section J, Attachments. FOB: Destination				

NET AMT

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0036	CDRL PCA/FCA Report FFP The following CDRL CLIN 0036, Data Item (F003) is for Physical Configuration Audit/Functional Configuration Audit Plan (PCA/FCA), In Accordance With SOW Par 3.6.10. The following CDRL can be found under section J, Attachments. FOB: Destination				

NET AMT

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0037	CDRL FMS Contractor Formatted Manuals FFP The following CDRL CLIN 0037, Data Item (G001) is for FMS Technical Manuals, In Accordance With SOW Par 4.2. The following CDRL can be found under section J, Attachments. FOB: Destination				

NET AMT

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0038	CDRL FMS Training FFP The following CDRL CLIN 0038, Data Item (G002) is for FMS Training, In Accordance With SOW Par 4.3. The following CDRL can be found under section J, Attachments. FOB: Destination				

NET AMT

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0039	CDRL FMS Training Materials FFP The following CDRL CLIN 0039, Data Item (G003) is for FMS Training Materials With SOW Par 4.4. The following CDRL can be found under section J, Attachments. FOB: Destination				
NET AMT					

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0040	Production Drawing Package FFP The following CLIN 0040, Data Item is for FWS-I Production Drawing Package for Second Source, In Accordance With SOW Par 3.7. FOB: Destination				
NET AMT					

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
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0041

Software Updates

FFP

The following CLIN 0041, Data Item is for FWS-I Software Updates, In
Accordance With SOW Par 3.6.1.

FOB: Destination

NET AMT

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
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0042

Engineering Changes and Technical

FFP

The following CLIN 0042, Data Item is for Engineering Changes and Technical
Insertions, In Accordance With SOW Par 3.6.1.1.

FOB: Destination

NET AMT

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
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0043

FMS Maintenance Support

FFP

The following CLIN 0043, Data Item is for FMS Maintenance Support, In
Accordance With SOW Par 3.5.3 and 3.6.11.3

FOB: Destination

NET AMT

Section C - Descriptions and Specifications

STATEMENT OF WORK**FWS-I FULL RATE PRODUCTION STATEMENT OF WORK (SOW)**

This documentation has been provided for solicitation W91CRB-20-R-0047 for FWS-I Full Rate Production. Recipients shall:

1. Read and comply with distribution markings.
2. Direct all requests for distribution to other parties to Gerald A. Simmons at gerald.a.simmons2.civ@mail.mil.
3. Destroy the documents once they are no longer required to support this solicitation.

Recipients shall NOT: Redistribute the documentation outside their company/organization that includes other subsidiaries within the corporate structure.

FAMILY OF WEAPON SIGHTS INDIVIDUAL (FWS-I) STATEMENT OF WORK

1. Scope. This Statement of Work (SOW) specifies the tasks and efforts the contractor shall perform to produce and deliver FWS-I systems. This SOW provides the systems engineering, program management, quality assurance, Integrated Logistics Support (ILS), configuration management, and safety requirements for the items being sought under this procurement. The contractor shall ensure that the delivered FWS-I systems comply with FWS-I performance specifications.

1.1. Terminology.

1.1.1. Government. When the term “Government” is used throughout this document, it shall refer to the cognizant personnel within PM Soldier Maneuver and Precision Targeting (SMPT) as well as the Procuring Contracting Officer (PCO) and his/her representatives assigned to the FWS-I program.

1.1.2. Days. When the term “days” is used throughout this document, it shall refer to calendar days, unless explicitly specified as business days. All deliveries shall be made on a business day and Close of Business (COB) is defined as 16:00 (Eastern Time).

2. Applicable Documents. The following documents form a part of this SOW to the extent specified herein. Unless otherwise specified, the latest revision of each document shall apply.

2.1. Program Office Documents.

FWS-I Security Classification Guide
 Intra-Soldier Wireless Interface Control Document (v1.4)
 FWS-I Mechanical Envelope Drawing
 FWS-I Operator Manual (TM 11-5855-343-10)
 FWS-I Failure Definition and Scoring Criteria (FDSC)
 FWS-I Performance Specification

2.2. Government Documents.

AR 530-1	Operations Security (OPSEC)
DI-CMAN-80858	Contractor's Configuration Management Plan
DI-MGMT-81861	Integrated Program Management Report (IPMR)
DI-MGMT-81808B	Contractor's Risk Management Plan
DI-NDTI-80566A	Test Plans

DI-NDTI-80603A	Test Procedure
DI-NDTI-80809B	Test/Inspection Report
NOTICE-2	
DOD 5220.22M	National Industrial Security Program Operating Manual
MIL-DTL-14072	Finishes for Ground Based Electronic Equipment
MIL-HDBK-61	Configuration Management Guidance
MIL-PRF-28800F	Performance Specification Test Equipment For Use With Electrical and Electronic Equipment
MIL-STD-129	Military Marking for Shipment and Storage
MIL-STD-130	Identification Marking of US Military Property
MIL-STD-40051.2C	Preparation of Digital Technical Information for Page-Based Technical Manuals
MIL-STD-881D	Work Breakdown Structures for Defense Materiel Items
NOTICE-1	
N/A	DoD Guide for Achieving Reliability, Availability, and Maintainability dated 3 August 2005
TK-105A/G	Tool Kit
AR 700-142	Type Classification, Materiel Release, Fielding, and Transfer

2.3. Non-Government Documents.

ANSI/GEIA-STD-0007	Logistics Product Data
ANSI/GEIA-STD-0009	Reliability Program Standard for Design, Development, and Manufacturing
ANSI/NCSL-Z540.3-2006	Requirements for the Calibration and Measurement of Test Equipment
ASME Y14.5M-2009	Dimensioning and Tolerancing – Includes Inch and Metric
ASME Y14.15-2017	Electrical and Electronics Diagrams
ISO 9001:2015	Quality Management Systems – Requirements
ISO Q10012-2003	Measurement Management Systems - Requirements for Measurement Processes and Measuring Equipment.

3. Requirements.

3.1. FWS-I System Description. The FWS-I is an uncooled, lightweight, infrared imaging device of medium to high resolution used for surveillance and target acquisition of individual weapons during daylight, darkness, adverse weather, and dirty battlefield conditions. The FWS-I, when used in conjunction with an Intra-Soldier Wireless (ISW) Interface Control Document (ICD) compliant device, shall provide a wireless Rapid Target Acquisition (RTA) capability. The FWS-I, when used in conjunction with a Direct View Optic (DVO), shall provide interconnectivity such that the FWS-I displayed output scene imagery serves as the input for the DVO.

3.2. Systems Engineering. The Integrated Systems Engineering effort is CDRL-AAA.

3.2.1. Systems Engineering Objective. The objective of systems engineering under this contract is to ensure the contractor successfully integrates the technologies of the FWS-I in order to provide the wireless RTA capability through interoperability with ISW-compatible systems.

3.2.2. Systems Engineering Plan. The contractor shall prepare an integrated Systems Engineering Plan (SEP) that describes the contractor's processes and resources to incorporate Systems Engineering (SE) practices to design, build, test, deliver, and support the FWS-I. The SEP shall be delivered under CDRL-A001. The SEP shall include, but is not limited to the following:

3.2.2.1. Description of FWS-I major system components (thermal sensor, display, optics, system electronics). The contractor shall describe how Modular Open Systems Architecture (MOSA) principles are incorporated in the FWS-I design to support technology updates.

3.2.2.2. Description of wireless RTA components (wireless transceivers, wireless protocol, RTA processor, RTA executable libraries).

3.2.2.3. Allocation of system performance requirements including Key Performance Parameters (KPPs), to include a system and component/sub-component power allowance table.

3.2.2.4. Description of FWS-I Interface/Interoperability with the ISW ICD.

3.2.2.5. Description of the contractor's SE organizational integration (technical, Quality & Test, logistics), including sub-contractors.

3.2.2.6. Description of the contractor's SE approach to the following topics for the system and components/sub-components: reliability, maintainability/supportability, Chemical, Biological, Radiological, and Nuclear (CBRN), Electromagnetic Interference (EMI), Safety/Environmental, Human Factors Engineering (HFE), producibility, Quality & Test, and training.

3.2.2.7. Description of the system risk management (technical, schedule, cost) process.

3.2.3. FWS-I Interoperability. The contractor shall be responsible for ensuring the FWS-I devices procured under this contract are compliant with the ISW ICD, the buttonology located in the TM 11-588-343-10, and the keep-out zones referenced in Appendix L of the Performance Specification. All Manpower and Personnel Integration (MANPRINT)/man-machine interface characteristics shall be maintained as established in previously fielded systems.

3.2.4. Spare Part Interchangeability. All systems and spare parts delivered under this contract shall be form, fit, and function interchangeable and without degradation of performance with previously fielded systems and spare parts of the same kind down to the spare part level, as established by the current maintenance concept of the U.S. Army. The U.S. Army maintenance concepts for the FWS-I are detailed in paragraph 3.5.5 and Appendix A.

3.2.5. Participation in Technical Integrated Product Teams (IPTs). The contractor shall participate in Government established IPTs with other contractors to resolve technical issues.

3.2.6. Participation in Working Groups (WG's). The contractor shall support ad hoc working groups as required with other vendors to resolve interoperability issues and concerns.

3.3. Program Management. The Integrated Program Management effort is CDRL-BBB and CDRL-CCC.

3.3.1. Program Management Objective. The contractor shall manage all aspects of the contract with respect to cost, schedule, system design, development, fabrication, engineering, configuration management, risk management, test, and technical performance. The contractor shall provide timely, programmatic, schedule and performance information to the Government throughout the life of the contract. The contractor shall maintain a program management structure with a single point of contact for program oversight. The contractor shall perform administrative, technical, business, and financial management functions during the course of this effort to include organizing, directing, and controlling actions, reporting status, recommending solutions, and resolving issues to ensure the successful execution of efforts needed to achieve contract objectives. The contractor, at a minimum, shall implement processes for the following:

3.3.1.1. Program Planning, Management, and Control. The contractor shall manage and participate in necessary business and administrative planning, test planning, organizing, directing, coordination, and approving actions designated to accomplish overall program objectives. The contractor shall ensure that only technically qualified personnel with the proper security clearances and training support the program.

3.3.1.2. Subcontractor and Vendor Management. The contractor shall establish and maintain a subcontract management program. The contractor shall facilitate Government and subcontractor discussions/activities as required by the Government.

3.3.2. Integrated Program Management Report (IPMR). The objective of the IPMR is to provide a tool that provides the FWS-I Integrated Product & Process Team (IPPT) with sufficient detail and insight to assess the current contract status and project future contract performance. The IPMR shall be delivered under CDRL-B001. The IPMR will be prepared in accordance with (IAW) DI-MGMT-81861 and address the following areas of interest:

3.3.2.1. Work Breakdown Structure (WBS). The contractor shall develop and maintain a Contract Work Breakdown Structure (CWBS) in accordance with IAW MIL-STD 881D, Notice 1. The CWBS shall be extended to the lowest appropriate level required by the Government to provide adequate management, surveillance, and performance measurement and shall be the basis for tracking, controlling, measuring and reporting all costs (for Cost Plus Fixed Fee (CPFF) CLINS), risks and schedule performance under this contract. The CWBS shall be used in developing the Integrated Master Schedule (IMS).

3.3.2.2. Organizational Categories. Defines performance, schedule and cost data by the contractor's organizational structure (e.g., Functional or Integrated Product Team (IPT)).

3.3.2.3. Baseline. Defines changes to the baseline system performance.

3.3.2.4. Staffing. Defines staffing forecasts.

3.3.2.5. Integrated Master Schedule (IMS). The contractor shall develop and maintain an IMS that is event based and consists of a hierarchy of project events, with each event being supported by specific accomplishments, and each accomplishment associated with specific criteria to be satisfied for its completion. The IMS shall provide sufficient definition to track the step-by-step completion of the required accomplishments for each event and demonstrate satisfaction of the completion criteria for each accomplishment. The schedule must identify the interdependencies between CWBS elements at the level appropriate for efficient program management. The IMS shall be linked to the CWBS. The IMS shall include the CWBS at a level that provides consistent tracking of contractor data in accordance with Integrated Program Management Report IAW DI-MGMT-81861 requirements. The IMS must include contractor, subcontractor, and Government activities (e.g., Government-led verification and testing events).

3.3.2.6. Explanations and Problem Analyses. Narrative report used to provide analysis of areas required in paragraphs 3.3.2.1-5 above.

3.3.2.7. Cost History and Forecast File. Defines the time-phased historical & forecast cost submission for any CPFF efforts and shall indicate whether effort is below, at, or above cost.

3.3.3. Risk Management/Mitigation Plan. The contractor shall conduct and document an in-house risk management program IAW DI-MGMT-81808B that shall identify, analyze, track, and plan alternatives to reduce schedule and technical risks. Risk items and their mitigation efforts shall be presented at formal reviews and on an as needed basis during other meetings. The risk management/mitigation plan shall include, but is not limited to, the following: risk description, rating (stoplight or low, medium, high), program impact, mitigation strategy, action officer, schedule and status. The Risk Management/Mitigation Plan shall be delivered under CDRL-B002.

3.3.4. Integrated Product & Process Team (IPPT).

3.3.4.1. IPPT Overview. The Government and contractor shall incorporate an IPPT discipline into the FWS-I program. The objectives of the IPPT are to foster an open, shared data/information environment and to implement a disciplined systems engineering approach to influence the design, manufacturing, testing, logistics support, and on-schedule delivery of specification compliant units, while striving to continuously improve the various Government/contractor processes and reduce system life cycle cost. The IPPT shall also complete the following additional actions throughout the life of the contract:

- a. Use risk management techniques to document, track, and manage program areas of risk;
- b. Review/concur on program documentation;

- c. Review follow-on qualification testing with the goal of reducing repetitive testing;
- d. Review/concur on all Failed Item Analysis Reports (FIARs)/Engineering Change Proposals (ECPs)/Waivers/Deviations/Trades;
- e. Review the Integrated Master Schedule.

3.3.4.2. Cross-Vendor IPPTs. The Government will conduct IPPTs between multiple contractors to resolve any issues with interoperability between any ISW ICD devices.

3.3.4.3. IPPT Membership. The IPPT shall consist of Government and contractor personnel associated with the FWS-I program and related efforts. The US Army FWS-I Assistant Product Managers (APMs) will co-chair the IPPT with the associated contractor counterpart. The IPPT chairpersons will work in good faith to reach agreement on all items requiring IPPT approval/concurrence. If agreement cannot be reached between the co-chairpersons, then the issue(s) will be escalated per each organization's chain of command. The co-chairs shall define the membership of the IPPT at the Post Award Conference (PAC).

3.3.4.4. Plans, Reports, Reviews, & Meetings. The IPPT chairs will develop an agenda for all reviews/meetings. The contractor shall provide an agenda and a draft read-ahead brief for all meetings/reviews no later than 2 business days before and final at the scheduled review/meeting. The IPPT Agenda and Read-Ahead Briefing shall be delivered under CDRL-B003. At the end of each review/meeting, the contractor shall prepare action items and meeting minutes for Government concurrence. The IPPT Meeting Minutes and Action Items shall be delivered under CDRL-B004.

3.3.4.4.1. IPPT Reviews. The contractor shall participate in and support IPPT Reviews at approximately 90-day intervals throughout the life of the contract, or as agreed to by the IPPT chairpersons. IPPT reviews may be conducted face-to-face at the contractor's facility, via collaboration software (Microsoft TEAMS, Skype for Business, etc.), or via teleconference as mutually agreed upon by the IPPT co-chairpersons. The first IPPT Review shall be conducted on or about 30 days after the PAC. With Government concurrence, IPPT reviews may be relaxed in frequency, and/or may be combined with formal reviews identified in paragraph 3.3.4.2.2. IPPT reviews shall provide a working level forum to identify, discuss, and resolve issues that could affect the system performance, design, production, testing, logistics support, system deliveries, life cycle cost, and program schedule. The IPMR and Risk Mitigation Document shall also be reviewed at these meetings, as well as an agenda approved by the Government that includes items such as: deliverable status, test status, TM development status, etc.

3.3.4.4.2. FWS-I Formal Reviews. The contractor shall host a PAC within 30 days of contract award to ensure there is a mutual understanding of the terms, conditions, and requirements among all parties responsible for the management and performance of the contract. For any system that has not attained a Materiel Release (MR) per Army Regulation (AR) 700-142, the contractor shall host the below listed Reviews:

- Preliminary Design Review (PDR) to provide a preliminary assessment of the system to ensure compliance with the performance standard will be included in contractors proposed schedule.
- Critical Design Review (CDR) to review the final design in preparation for initial production will be included in contractors proposed schedule.
- Test Readiness Reviews (TRRs) and Production Readiness Reviews (PRRs) in accordance with the timelines established in Table I Anticipated FWS-I Event Schedule. The TRRs shall review the contractor's preparation and ability to execute test events in accordance with approved test procedures. The PRRs shall review the contractor's production readiness to meet the requirements of the contract. Exit criteria for the various reviews includes, but is not limited to:

3.3.4.4.2.1. FWS-I PAC Exit Criteria. IPPT agreement on the following:

- a. Contract terms, conditions, and requirements, including CDRLs A001, B001, D001, D007, E010, E014, E016 and F001 PAC required deliverables.

- b. Requirements for on-line technical information (see 3.3.8.2).
- c. Requirements for on-line file sharing (see 3.3.8.3 and sub paragraphs)
- d. Nominal dates for all events in Table I.

3.3.4.4.2.2. FWS-I PDR Exit Criteria (if required). The contractor shall prepare and submit a PDR Report. The FWS-I PDR Report shall be delivered under CDRL-C001. Government must approve that the contractor has complied with requirements in CDRLs B001, C001, C004, D002, E001, and E016 and has accomplished/verified the following:

- a. All required system performance fully decomposed and defined in the functional baseline.
- b. Technical effort and design indicate operational test success (effective, suitable, and survivable).
- c. Preliminary design, as disclosed, satisfies the FWS-I System Level Performance and Component specifications.
- d. Summarize status of the reliability and maintainability engineering design activities (i.e. allocations, models, block diagrams, predictions, anticipated failure modes and effects).
- e. Established and documented system allocated baseline to enable the design to with proper configuration management.
- f. Established adequate processes and metrics for the program to succeed.
- g. Included human integration design factors in the overall system design.
- h. Identified program risks and established risk mitigation plan for all functional areas (SE, Program Management, Quality/Test, Reliability, Logistics, Manufacturing, etc.).
- i. Program schedule is executable (technical, cost, risk).
- j. Program is staffed properly.
- k. Identify all required unique tooling and test equipment required to produce and test the FWS-I.
- l. The contractor shall prepare and submit a PDR Report. The FWS-I PDR Report shall be delivered under CDRL-C001.

3.3.4.4.2.3. FWS-I CDR Exit Criteria (if required). The contractor shall prepare and submit a PDR Report. The FWS-I CDR Report shall be delivered under CDRL-C002. The contractor shall obtain Government approval that the contractor has complied with requirements in CDRLs A001, B001, C002, C004, E001, E016, F001, and F002 and has accomplished/verified the following:

- a. Established system initial product baseline.
- b. Updated risk assessment for all functional areas (SE, Program Management, Quality/Test, Reliability, Logistics, Manufacturing, etc.).

- c. Updated program development schedule including fabrication, test and evaluation, software coding, critical path drivers, etc.
- d. Updated Logistics Plan addressing program sustainment development efforts and schedules based on current budget, test evaluation results and supportability concept.
- e. Identification of all exposed materials of the design (to include ancillary items) to support the Chemical, Biological, Radiological, and Nuclear (CBRN) Contamination Survivability analysis.
- f. Identification of all precious metals (including amount in grams), toxic or hazardous materials, and all material(s) for each optical element, of the entire design (to include ancillary items).
- g. The contractor shall prepare and submit a CDR Report. The FWS-I CDR Report shall be delivered under CDRL-C002.

3.3.4.4.2.4. FWS-I PRR Exit Criteria (if required). Government approval of the initial and final Production Readiness Review is required for Type Classification – Standard. For both the initial and final PRRs, the exit criteria include Government approval of the Production Manufacturing Plan CDRL-C003 and has accomplished the following:

- a. Design is ready for production.
- b. No unacceptable risks (cost, schedule, performance) exist for prime and subcontractors.
- c. Established and documented system product baseline to enable initial production to proceed with proper configuration management.
- d. Identified production risks and established mitigation plan.
- e. Established adequate processes and metrics for the program to succeed.
- f. Program schedule is executable (technical, cost, risk).
- g. Program is properly staffed.
- h. Design is producible within the production budget.
- i. Required tooling, test equipment, assembly documentation, and operator training is in place, has occurred, or when it will be completed.
- j. Calibration cycles for new tooling and test equipment.
- k. Identification of key tooling and test equipment parameters to include their tolerances or min/max values that are included in the calibration process and their relationship to performance parameters.
- l. Status of material to support builds (on hand, on order, delivery schedules, etc.).
- m. If pilot builds were fabricated, results and/or issues identified.
- n. Production layout and flow analysis.

3.3.4.4.2.5. FWS-I TRR Exit Criteria (if required). Prior to the start of Contractor Test (CT), First Article Test (FAT), or any post FAT qualification test, the contractor shall conduct a Test Readiness Review (TRR) to assess test objectives, test methods and procedures, scope of tests, safety, and verify required test resources have been properly identified and coordinated to support planned tests. The contractor shall host TRRs for the First Article Test and any other required qualification tests no later than 90 days before the start of the test. At the TRR, the Test & Evaluation Working-Level Integrated Product Team (WIPT) shall verify the traceability of planned tests to program requirements and determine the completeness of test procedures and their compliance with test plans and descriptions. The contractor shall provide evidence to assess the system for development maturity, cost/schedule effectiveness, and risk to determine readiness to proceed to formal testing. Exit criteria for the completion of the TRR shall (at a minimum) include:

- a. All action items from previous technical and design reviews have been dispositioned and closed.
- b. Completed and approved test plan(s) in accordance with paragraph 3.4.10
- c. Completed and approved Test Procedures in accordance with paragraph 3.4.11.
- d. Completed identification and coordination of required CT test resources, to include roles and responsibilities of all test participants identified.
- e. Test/inspection data on subsystem and components verifying that the requirements in the System Requirements Management System have been met for those items.
- f. Identified risk level acceptable to the program leadership.
- g. Configuration of the systems under test has been identified, both hardware and software, and all units and test are of the same configuration.

3.3.4.4.3. Informal Reviews. The contractor shall be available for informal reviews and Government visits in addition to the IPT reviews. The IPPT co-chairs will, whenever possible, attempt to minimize travel costs for both parties by utilizing teleconferences or VTCs to conduct these informal reviews.

3.3.5. Production Manufacturing Plan. The FWS-I Production Manufacturing Plan is a deliverable under CDRL-C003 at all PRRs. The plan should cover proposed manufacturing layout, methods, tools, instrumentation, test equipment, material, processes and manpower required. The plan shall include discussion of initial monthly production rate, normal monthly production rate (based on one assembly shift, operating 8 hours a day, five days a week), minimum monthly economical rate, and maximum monthly production capacity. The plan shall discuss ramp up activities and lead times required to achieve normal and surge production rates. The plan shall discuss the contractor's existing manufacturing facilities and detail plans to increase capacity if required. The plan shall discuss the use of subcontractors to provide components and/or subassemblies if applicable. The contractor must provide sufficient narrative to enable an evaluation of the contractor's ability to produce the proposed design at the production rates provided in the Government RFP.

3.3.6. Make or Buy. The contractor shall coordinate with the IPPT to conduct a site visit to an Army Arsenal as determined by the IPPT in order to assess ability to produce/manufacture parts for the FWS-I and any components or spare parts. The contractor shall deliver its assessment of the Army Arsenal ability assess ability to produce/manufacture parts for the FWS-I per CDRL-C004.

3.3.7. Correspondence Transmission. The contractor shall submit, as a minimum, written program correspondence or documentation via electronic submittal. The preferred method of file submission is via e-mail. Alternative correspondence submittal procedures may be allowed on a case-by-case basis, with Government concurrence (either Government IPPT chairperson(s) or Government contracting officer).

3.3.8. Data Submissions.

3.3.8.1. Data Requirements. The data items shall be submitted to the Government via electronic media.

3.3.8.2. On-Line Technical Information. It is the intent of the Government to gain on-line access to contractor maintained data, configuration files, to include drawings down to the spare parts level, and information supporting the FWS-I program. The type of information to be available on-line shall be concurred to by the IPPT prior to its implementation. The most recent version of all data shall be made available within five working days of being updated. The contractor shall allow the Government the capability of retrieving on-line all current and last-modified versions of documentation, as well as uploading documentation to facilitate an information sharing medium. Classified data shall be handled in accordance with National Industrial Security Program Operating Manual DOD 5220.22M and DD Form 254, and applicable Security Classification Guides. Any restrictions on the use of the electronic data shall be as prescribed in FAR clause 52.227-14.

3.3.8.3. Online File Sharing. The contractor shall establish and maintain an on-line file sharing website (e.g., SharePoint) for the program. Access shall be strictly controlled, and granted to contractor project members per contractor internal protocols, and to Government project team members, as identified by the Government.

3.3.8.3.1. File Management System. The contractor shall establish a common user file management system, concurred with by the IPPT, for the website.

3.3.8.3.2. File Library. The contractor shall establish a specific file-sharing library entitled "Deliveries to the Government," containing separate sub-files named exclusively for each contract CDRL, by CDRL number and deliverable title (e.g., FWS-I PDR Report, FWS-I CDR Report, etc.). The contractor shall post all submitted deliverable drafts, Government comments and deliverable final submissions in the appropriately named CDRL folder. This electronic CDRL library shall be the sole recognized file sharing point for electronic copy deliverables for the contract. To facilitate the smooth flow of information, the Government highly encourages establishment of a standard, comprehensive file management structure, approved by the IPPT, to support any contract file sharing arrangement.

3.3.8.3.3. File Naming. The contractor shall, for all deliverables, establish and enforce a file naming convention that requires a standard format for naming the basic submitted file, and all subsequent serial revisions/versions separately, by basic filename, serial revision/version number and date. The file naming convention shall be defined/established as agreed to by the IPPT at the PAC.

3.3.8.4. Delivery Orders. The contractor shall provide the IPPT a serial number list for each completed delivery order. The serial number list shall be in Microsoft Excel format and shall include the below listed line items:

Item Name	System Serial #	System Lot #	System Build Date	Warranty Exp Date
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3.3.9. Data Rights. All publications and publication materials delivered under this contract shall become the property of the Government. At a minimum, all FWS-I drawings and specifications delivered to the Government under this contract shall be provided with Unlimited Rights and shall meet the requirements of paragraph 3.6.6 of this Statement of Work.

3.3.10. Operational Security (OPSEC). The contractor shall develop an OPSEC Standard Operating Procedure/Plan (SOP) within 90 calendar days of contract award (and annually thereafter), to be reviewed and approved by the responsible Government OPSEC officer, per AR 530-1, Operations Security. The contractor should use the provided Security Classification Guides (SCGs) to develop their Standard Operating Procedure (SOP). The SOP/Plan will specify the Government's critical information, why it needs to be protected, where it is located, who is responsible for it, and how to protect it. In addition, the contractor shall identify an individual who will be an OPSEC Coordinator. The contractor will ensure that this individual becomes OPSEC Level II certified per

AR 530-1. The Government will evaluate contractor OPSEC performance on an annual basis or as conditions warrant.

3.3.10.1. Employee Verification. The contractor will implement an employee verification process, whether through background checks or other similar processes, and provide a written response explaining how the verification process was completed and attest to the trustworthiness of the workforce, within 45 days of contract award. The contractor shall comply with FAR 52.204-2, Security Requirement. This clause involves access to information identified as “Confidential,” “Secret,” or “Top Secret” and requires contractors to comply with: (1) the Security Agreement (DD Form 441), including the National Industrial Security Program Operating Manual (DoD 5220.22M); and (2) any revisions to the DoD 5220.22M, notice of which has been furnished to the contractor.

3.4. Quality Assurance and Test. The contractor shall conduct quality assurance and test IAW CDRL-DDD.

3.4.1. Quality Assurance Objectives. The objectives of the Quality Assurance requirements are to establish early insight into the contractor’s tests, plans, procedures, and products/processes to ensure timely deliveries which meet the system/component performance requirements, and identify early-on any issues/concerns that will impact the timeliness of the delivered product and its performance.

3.4.2. Quality System Requirements. The contractor shall establish, maintain, and operate a quality system in accordance with ISO 9001:2015, or an equivalent quality system. The contractor shall provide the Government an overview of their quality management system plan and approach as a briefing at the PAC, to include FWS-I unique areas. Quality Assurance, including reliability shall be addressed at each contractually required review, to include Statistical Process Control (SPC), Pareto charts and other metrics employed by the prime contractor and their major suppliers to control critical processes. The contractor shall maintain a calibration system in accordance with ANSI/NCCL Z540.3-2006, ISO 10012-2003, or equivalent to ensure that all test/inspection, measurement, and diagnostic equipment, including all accessories and ancillary test equipment, are properly calibrated, identified by appropriate labeling, and are traceable to national measurement standards.

3.4.3. Supplier Quality Management. The contractor shall be responsible to verify the quality of the work performed by suppliers, including any inspections and tests performed by the suppliers. The contractor shall describe any methods unique to this contract of supplier selection, retention, management, inspection, and test validation or other supplier controls above and beyond that which is described in the contractor’s Quality Management System. Suppliers of key/critical components or processes shall be identified including names and contact information of key supplier personnel. The Government reserves the right to review/audit any suppliers of key/critical components. No review/audit of any suppliers by the Government will relieve the contractor of the responsibility of managing suppliers.

3.4.4. Thermal Sensor Measurement standards. The contractor shall maintain not less than five (5) each contractor-owned FWS-I systems as standards and provide the Government three (3) FWS-I systems of the qualified configurations. For these thermal sensor standards, the contractor shall maintain measurement records for critical performance parameters including FWS-I Minimum Resolvable Temperature (MRT), Signal Transfer Function (SiTF), Uniformity, 3D Noise, Modulation Transfer Function (MTF), and RTA performance parameters including full ISW ICD compliance. These measurements shall be made and documented on at least a quarterly basis, using actual production test and acceptance equipment, and data shall be presented to the Government at each program review to include comparisons to past data and the identification of any trends, positive or negative. In addition, correlation testing shall be conducted with the Government laboratory, on an as-needed basis, to ensure acceptable standards are being maintained. This may require a Government visit quarterly, or additional visits if there are correlation issues, and the contractor shall measure during this visit up to three (3) each Government-maintained FWS-I systems. The contractor shall be responsible at no additional expense to the Government to address and rectify to the Government’s satisfaction any correlation issues identified through Government correlation testing.

3.4.5. Responsibility for Inspection. The contractor shall be responsible for the performance of all inspection requirements specified herein. Except as otherwise specified elsewhere in the contract and with Government concurrence, the contractor may use his own or any other facilities that are suitable for the performance of the inspection requirements specified herein. The Government reserves the right to audit, perform, witness, or

verify any of the inspections set forth herein. The contractor shall be responsible for correcting any deficiencies found during required testing in all affected contractor products at no additional cost to the Government.

3.4.6. Use of Government Property/Equipment/Material. The contractor's quality program shall include procedures for the control, use, and maintenance of Government Furnished Property (GFP), Government Furnished Equipment (GFE), and Government Furnished Material (GFM), if provided. Within 7 days after receiving the GFP, GFE, or GFM the contractor shall notify the Government that they have conducted an initial inspection and report any noticeable damage or discrepancies in numbers received.

3.4.6.1. Government Property Inventory Report. The contractor shall provide a Government Property Inventory Report in accordance with CDRL-D001. This report will include all GFM, GFE, and GFP.

3.4.7. Use of Contractor's Inspection Equipment. The contractor's gauges, measuring tools, and testing devices shall be made available for use by the Government when requested to determine conformance with contract requirements. If requested by the Government, the contractor's personnel shall be made available for operation of such devices and for verification of their accuracy and condition.

3.4.8. Inspection and Test Records. The contractor shall maintain complete and accurate records of all inspections and tests, and shall make those records available for review or audit by the Government upon request.

3.4.9. Government and Contractor Testing. For any system that has not attained MR, the contractor shall provide FWS-I systems for Government and contractor testing. The contractor shall provide the required number of systems along with repair parts/System Support Package (SSP) and other ancillary items as required for the various test events in accordance with the following anticipated schedule in Table I Anticipated FWS-I Event Schedule. The contractor shall correct all deficiencies found during all Government and Contractor testing events, conduct appropriate retest of Production Qualification Test (PQT) IAW paragraph 3.4.9.2 as necessary at no cost to the Government, and shall provide corrected units for continuance of the test schedule at no cost to the Government. Systems provided will remain property of the contractor throughout testing until the final configuration is qualified. Upon successful completion of testing, all FWS-I systems used during testing shall be refurbished and/or replaced to the qualified production configuration and to a working order capable of passing Group Acceptance-test (less cosmetic defects/scratches resulting from prior testing). It is intended these units shall be used for fielding.

Table I Anticipated FWS-I Event Schedule

<i>Event</i>		<i>Estimated Date after Contract award / Location</i>	<i>No. of Systems Required</i>
Key Reviews	Post Award Conference	1 month / Contractor's Facility	N/A
	PDR	To be proposed by vendor / Contractor's Facility	N/A
	CDR	To be proposed by vendor / Contractor's Facility	N/A
	TRRs	To be proposed by vendor / Contractor's Facility	N/A
	Final PRR	Desired within 18 months / Contractor's Facility	N/A
Operator/Crew level Logistics Events	Weapon Fit Check	TBD at PDR / TBD	1 FWS-I
	Offset Verification	Prior to Op/Crew I&KPT / TBD	
	100% Op/Crew TM review	Prior to validation / Contractor's Facility	2 FWS-I
	Op/Crew TM validation	Prior to verification / Contractor's Facility	
	Op/Crew TM verification	Prior to Field-level Logistics Demonstration (LD) / Army Facility TBD	
	Field-level LD	Prior to Op/Crew I&KPT / Army Facility TBD	
	50% Op/Crew Training review	To be proposed by vendor / Contractor's Facility	
	100% Op/Crew Training review	Prior to Op/Crew I&KPT / Contractor's Facility	
	Op/Crew I&KPT	Prior to OT / Army Facility TBD	25 FWS-I

	<i>Event</i>	<i>Estimated Date after Contract award / Location</i>	<i>No. of Systems Required</i>
Sustainment-level Logistics Events	System Support Package Component List (SSPCL)	3 months prior to Sustainment LD 3 months prior to OT / N/A	N/A
	SSP	2 months prior to OT 2 months prior to sustainment LD / Army Facility TBD	
	50% Field Maintenance TM review	To be proposed by vendor / Contractor's Facility	2 FWS-I
	100% Field Maintenance TM review	Prior to validation / Contractor's Facility	
	Field Maintenance TM validation	Prior to verification / Contractor's Facility	2 FWS-I
	Field Maintenance TM verification	Prior to Sustainment LD / Army Facility TBD	
	Sustainment-level LD	Prior to Maintainer I&KPT / Army Facility TBD	3 FWS-I
Sustainment-level Logistics Events	50% Maintainer Training review	To be proposed by vendor / Contractor's Facility	2 FWS-I
	100% Maintainer Training review	Prior to Maintainer I&KPT / Contractor's Facility	
	Maintainer I&KPT	Prior to first production delivery / Army Facility TBD	10 FWS-I
Test	PQT-C including: - Design - Environmental - Reliability	Start prior to Developmental Testing (DT) Complete prior to PRR, FAT Desired to complete prior to DT start / Contractor Facility	43 FWS-I
	Developmental Testing (DT) including: - KPP and KSA Assessment - Electromagnetic Environmental Effects (emission, interference) - High Altitude Electromagnetic Pulse - Personnel Electrostatic Discharge - Helicopter Electrostatic Discharge <i>if required</i> - Laser Vulnerability Analysis - CBRN (paper study)	Start prior to Operational Test (OT) Complete prior to PRR, FAT Desired to complete prior to OT start / Army Facilities TBD	18 FWS-I
	OT Pilot Test	2 weeks prior to OT / Army Facility TBD	30 FWS-I
	OT	Start prior to PRR Complete prior to FAT Desired to complete prior to PRR / Army Facilities TBD	
	FAT	To be proposed by vendor / Contractor's Facility	TBD (IAW QVM)

3.4.9.1. Developmental/Operational Testing (DT/OT). For any system that has not achieved MR, the Government will conduct DT and OT as part of the initial qualification process to ensure the contract requirements are satisfied both technically as well as in an operational environment. These tests are also required to obtain approval for operational use of these systems from the US Army. During Government DT and OT, the contractor shall be prepared to provide on-call support at a location on or close to the test site. The contractor's representative(s) shall be able to inspect, repair, maintain, modify, perform failure analysis, consult and train the FWS-I if necessary. DT and OT testing will encompass all testing required to confirm that the system meets all KPPs and Key System Attributes (KSAs), and adheres to the applicable Performance specifications.

3.4.9.2. Production Qualification Test (PQT)/First Article Test (FAT)/Acceptance Test (AT)/Conformance Inspection (CI). For any system that has not achieved MR, the contractor shall conduct PQT, FAT, AT, and CI for FWS-I and all major components as agreed by the IPPT, in accordance with the Quality Validation Matrix (QVM) contained in the performance specification and test procedures concurred on by the IPPT, to demonstrate conformance to all requirements of the FWS-I performance specifications. PQT qualification by similarity is encouraged and requires Government approval. Re-qualification is required if the system or component manufacturer has not produced the contracted item within the prior 12-month period. The contractor shall notify the IPPT before any changes are made to the materials (to include suppliers) or processes utilized to manufacture the qualified FWS-I systems. Changes to materials, processes, procedures, equipment, and facilities may require a portion of the respective PQT to be rerun, as determined and agreed upon by the IPPT. The PQT shall demonstrate that the contractor's design meets all requirements of the FWS-I Performance specification. For PQT, the contractor shall use the sampling plan as outlined in Section 4 of the FWS-I Performance Specification. For those performance requirements not listed in Section 4, the contractor shall propose a logical sampling plan. At the conclusion of each PQT conducted, the contractor shall submit a PQT test report in accordance with the requirements of paragraph 3.4.12 of this SOW. Initial qualification (if required) of the FWS-I shall require successful completion of the Government witnessed PQT to include Reliability Testing, successful completion of Government conducted DT/OT, including Follow-on Testing if required, in accordance with paragraph 3.4.9.1, as well as meeting all of paragraph 3.5 (Integrated Logistics Support (ILS) & MANPRINT) and sub-paragraph requirements for the system and achievement of Type Classification - Standard. If failures occur during FWS-I testing, the contractor shall be responsible for subsequent costs associated with any design modifications and corrective actions, support documentation updates, and retesting actions required to validate all corrective actions and successfully complete all contractor tests and Government tests/re-tests. Following completion of DT/OT, the contractor shall complete a FAT if required on FWS-I systems, and shall transition to CI testing in accordance with section 4 of the FWS-I performance specification. At a minimum, FAT shall include all CI (Group A, B, C and D) identified in the approved QVM. At the conclusion of the FAT, the contractor shall submit a FAT Test Report in accordance with the requirements of paragraph 3.4.12 of this SOW. The contractor shall present Group A-test results (number of units tested, pass fail rate, failure Pareto charts to include reasons for failures, corrective actions, and analysis of corrective action effectiveness) at each program review. Reduction of CI based on in-process inspection and control of processes is encouraged, but must be concurred upon by the IPPT based on data.

3.4.9.3. Environmental Stress Screening (ESS). Each FWS-I system, associated and major components, when delivered as spares while system testing/production is not occurring, shall be subjected to an ESS with an appropriate failure-free verification period that is accepted by the Government. The contractor shall include a proposed ESS profile as part of the proposal and shall be designed to effectively reduce/eliminate workmanship and infant mortality type defects. The ESS profile shall consider vibration, temperature exposure, and weapon fire shock. Causes of ESS failures shall be tracked, investigated, and closed per contractor internal procedures for the purpose of continuously improving the screen and the manufacturing processes. ESS performance data shall be made available to the Government for review upon request. Modification of the ESS profile may be allowed with Government approval based on ESS data evaluations. The contractor shall present the ESS status (e.g., serial numbers, pass/fail, reasons for failure(s), corrective actions, and analysis of corrective action effectiveness) at each IPPT review.

3.4.9.4. Disposition of Test Units. All test units shall be refurbished or replaced to the qualified production configuration, following completion of testing to a working order condition capable of passing Group A-test (less cosmetic defects/scratches resulting from prior testing). It is intended these units may be used for fielding. These same refurbishment requirements apply to any units included in Reliability Testing conducted under this effort.

3.4.10. Test Plans. For any system that has not attained MR, the contractor shall prepare and submit a Test Plan, DI-NDTI-80566A, for each system(s) prior to PQT, FAT, and for any configuration change after FAT. The test plan shall provide the approach for ensuring the system and/or major components meet the required performance specifications and applicable drawing requirements. The test plan shall include for each specification requirement, as a minimum, the method of validation (e.g., test, demonstration, inspection, analysis, similarity); test conditions and applicable test standards, sample size, test schedules, and test sequences. The test plan shall address all inspections, demonstrations, testing, and analysis required to validate the Product Baseline, including validation of the processes necessary to build the design. For configuration changes after FAT, the test plan shall include a description of all changes, to include the reason for the change(s), performance parameters that could be affected by each implemented change, and all other requirements of this paragraph. Acceptance Testing (AT) required for final Government acceptance shall be identified in the test plan. Any modifications to the test plan shall be agreed to in writing by the Contracting Officer's Representative (COR) prior to being implemented. FWS-I Test Plans are a deliverable under CDRL-D003.

3.4.11. Test Procedures. The contractor shall prepare and submit, to the IPPT for concurrence, Test Procedures IAW DI-NDTI-80603A for PQT, FAT, AT, and CI testing of the FWS-I systems and major components in compliance with the approved QVM. The contractor shall use the same Test Procedures for all testing (PQT, FAT, AT, and CI) unless modifications are agreed upon by the IPPT. Any modifications to the agreed upon procedures shall be concurred with in writing by the IPPT chairpersons prior to being implemented. Final approval of the Test Procedures shall occur prior to commencement of testing. FWS-I Test Procedures shall be prepared and submitted as a deliverable under CDRL-D002.

3.4.11.1. Test Equipment. Identify electrical and mechanical test equipment – including power supplies, supplementary plug-in leads, and special probes – by manufacturer's name and model number.

3.4.11.2. Initial Conditions. Specify all steps to be taken by the test operator prior to connection in the test set-up or insertion in a jig, fixture, or gage. For example, the operator may be required to perform a visual examination of the item prior to power-up to assure proper polarization of diodes and tantalum capacitors, alignment of connector pins, adjustment of shafts and rotors, etc.

3.4.11.3. Alignment Procedures. Alignment procedures and drawings shall provide all data required to functionally duplicate electrical and mechanical test set-ups (e.g. jigs, fixtures, and test stations) including all alignment procedures used to adjust and evaluate the performance of the major components, modules, assemblies and units. Such data shall be provided on the assembly drawing. These procedures and drawings shall duplicate those used by the contractor's personnel.

3.4.11.4. Test Purpose. Define the purpose of the test and/or alignment, including a description of the required adjustments and all precautionary and special handling notices to prevent damage and ensure safety. Alignment data shall be provided for each tunable module, assembly, and/or unit, and will completely detail following example as provided for reference. Note that the alignment data is provided, followed by a description of the sequences of operations.

EXAMPLE

Set scope to full deflection (bottom grid line is base line, top grid line is peak), adjust R4, R5, and R6 to obtain plus 7.0 volts DC, - .0 volts DC and plus 7.0 volts DC at test points TP2, TP3, and TP4 respectively and adjust L1 for an output frequency of 72.30MHz plus or minus .05MHz.

VC and Buffer Amplifier Reference Figure (Block diagram).

Through the two-way power divider, connect the RF output jack. Using a probe, apply 12 volts DC to the junction of R16 and R21. Adjust C35 for maximum power output. Adjust C37 to R21. Adjust C35 for maximum power output. Adjust C37 to 76.25MHz

plus or minus 0.12MHz. Read just C35 and C37 for maximum power and correct frequency.

3.4.12. Test Reports. Upon completion of any test event, the contractor shall prepare and submit a Test/Inspection Report IAW DI-NDTI-80809B, Notice 2. The Test/Inspection Report shall reflect the test results, including raw data, compiled and calculated data (to include mathematical equations/models used), test conclusions, and test logs. The report shall address all testing performed and all failures encountered. All conclusions shall be clearly identified as such and shall be appropriately segregated from the objective results. FWS-I Test Reports shall be prepared and submitted as a deliverable under CDRL-D004.

3.4.13. Reliability.

3.4.13.1. Reliability Program. The contractor shall establish, maintain, and operate a Reliability Program acceptable to the Government for the FWS-I program. The contractor shall provide the Government an overview of their Reliability Program as a briefing at the Post-Award Conference and at each contractually-required review thereafter. The contractor shall reference the Failure Definition and Scoring Criteria (FDSC) Document provided by the Government. Upon contract award, the Government and contractor shall jointly develop and operate a closed-loop failure-mode mitigation Reliability Program (using ANSI/GEIA-STD-0009 and DoD Guide for Achieving Reliability, Availability, and Maintainability, dated 3 August 2005, as guidelines) with emphasis on areas identified below in order to achieve the following four objectives:

- a) To understand the reliability requirements in the FWS-I Performance specification.
- b) To design for reliability
- c) To produce reliable systems
- d) To monitor and assess field reliability

The Reliability Program shall include the below elements as a minimum:

3.4.13.2. Reliability Program Plan (RPP). The contractor shall prepare and submit an RPP as a comprehensive summary of the FWS-I reliability activities, functions, processes, test strategies, measurements, data collections, resources, and timelines required to ensure that the specified reliability of the FWS-I will be achieved before fielding IAW CDRL-D006. Documentation of the reliability program activities shall be provided in the Reliability Case, which shall be made available to the Government upon request. The RPP shall address the management and organizational structure of personnel responsible for conduct of reliability activities, resources required to implement the plan, detailed descriptions of all planned reliability activities and schedule for completion, process for documentation and coordination with the customer, the plan to flow reliability down to subcontractors and suppliers, and how it is ensured that reliability activities are an integral part of systems engineering. The contractor shall identify the primary drivers of the overall system reliability and describe plans to mitigate the reliability risks. The contractor shall describe how they propose to monitor, assess and report reliability data and findings during the program. The contractor shall provide a reliability prediction/allocation to the Line-Replacement-Unit (LRU) level for the complete FWS-I system. The contractor shall address the planned reliability demonstration, to include sample size, number of planned test hours, description of the test profile and environments, operational checks to be performed, and facilities required.

3.4.13.2.1. System Reliability Model (SRM). The contractor shall develop a System Reliability Model (SRM) consisting of the lowest identifiable functions/elements in the FWS-I and their relationships to each other. The SRM shall encompass all hardware and non-hardware elements including, but not limited to, Commercial Off-the-Shelf (COTS), Non-Developmental Items (NDI), Government Furnished Equipment (GFE), software, human factors, and manufacturing. The contractor shall identify critical elements in the system design and additional design or testing activities required in order to achieve the reliability requirements. Critical elements are defined as those elements whose failure impacts mission completion, essential functions, or safety; or elements whose failure rates

contribute significantly to the overall system. The SRM shall be updated whenever new failure modes are identified, failure definitions are updated, operational and environmental load estimates are revised, or design and manufacturing changes occur throughout the life cycle. Detailed critical component stress and damage models shall be incorporated as appropriate.

3.4.13.2.2. Reliability Allocation. The contractor shall assign each element of the SRM an assessed and consistent reliability metric (e.g., mean time between failures). The values shall be based on one of the following methods:

- a) Reliability Analysis from comparable systems/elements.
- b) Historical reliability from predecessor systems/elements.
- c) Documented subject matter expert engineering estimation.

3.4.13.2.3. Reliability Risk Table. The Contractor shall provide a table with all elements contributing to critical weaknesses of the SRM. Each SRM element shall include its associated reliability metric and risk criteria (low, medium, high) based upon the following guidance:

- a) Low Risk – Test data or reliability analysis of comparable systems (under FWS-I-like Operational Mode Summary /Mission Profile (OMS/MP) conditions)
- b) Medium Risk – Historical reliability of systems of similar complexity, test data, or reliability analysis of comparable systems (not following FWS-I-like OMS/MP conditions)
- c) High Risk – Subject Matter Expert engineering estimates

3.4.13.2.4. Mitigation. The contractor shall develop a plan to mitigate all critical elements rated as high or medium risk. Mitigation plans may include additional testing, redesign, part selection, etc. The contractor shall provide the Government all mitigation plans upon development.

3.4.13.2.5. Life Cycle Loads. The contractor shall estimate life-cycle loads on all assemblies, subassemblies, and components, as a result of the product-level operational and environmental loads to include mechanical, thermal and electrical stress. The contractor shall use these estimates as inputs to engineering and physics-based models in order to identify potential failure mechanisms and resulting failure modes. These estimates of life-cycle loads shall be refined as system-level loads are updated and/or design evolves.

3.4.13.2.6. Identification of Failure Modes and Mechanisms. The Systems Engineering (SE) WIPT shall identify, confirm, and mitigate the critical failure modes through modeling, analysis, and test that will result when life cycle loads are imposed. Failure modes shall be mitigated by one or more of the following approaches:

- a) Eliminating the failure mode,
- b) Reducing its occurrence probability or frequency,
- c) Incorporation of redundancy,
- d) Mitigation of failure effects (e.g., fault recovery, degraded modes of operation, providing advance warning of failure).

3.4.13.2.7. Systems Engineering Integration. The contractor shall:

- a) Incorporate reliability activities as an integral part of disciplined and documented systems engineering process and plan.
- b) Manage and control reliability-critical items.

- c) Monitor and evaluate the reliability impact of changes to the FWS-I design or manufacture.
- d) Coordinate all reliability activities and findings with the system's design team.

3.4.13.2.8. Reliability Verification. The contractor shall perform reliability assessments on data from analysis, modeling & simulation, and test (contractor and Government testing). The contractor shall track the assessments as a function of time and compare them against reliability allocations, reliability requirements, and values to be achieved at various points during development to verify implementation of corrective actions. Table II outlines the test phases that the Government has established for the FWS-I Reliability Verification testing, and the SE WIPT will track progress during program execution. The FWS-I shall demonstrate the required Mean Time Between Essential Function Failure (MTBEFF), Mean Time Between System Abort (MTBSA) and Mean Time Between Failure (MTBF); all with 80% confidence, as specified in the FWS-I performance specification. Only FWS-I units that have not been refurbished shall participate in reliability verification testing.

Table II FWS-I Planned Reliability Verification Plan

Test Phase	Operating Hours (Minimum)	Cumulative Operating Hours	MTBEFF 80% Requirement	MTBSA 80% Requirement	MTBF 80% Requirement
STP	650	650			
PQT-C	3,200	3,850			1,100
Operational Reliability Test	1,850	5,700	275	458	
Delta PQT-C	3,200	8,900			1,100
FAT	3,200	12,100			1,100

3.4.13.2.9. Contractor Reliability Testing. The contractor shall conduct reliability testing on the system(s) as part of PQT, delta PQT, FAT, and periodically as specified in the QVM to verify continued compliance with the system reliability requirements. PQT-C Reliability testing is conducted as part of contractor qualification testing IAW the QVM of the FWS-I performance specification. The FWS-I system shall demonstrate the required MTBF with 80% confidence as specified in the FWS-I Performance specification using a fixed length test plan. The Delta PQT-C corrective action verification is required if the MTBF and MTBEFF have not been achieved, and shall be conducted only if determined necessary by the Government. Component level reliability testing shall only be performed during months when system level testing is not being performed. The contractor shall submit Production Reliability Acceptance Test (PRAT) reports for all reliability tests as specified in 3.4.13.3. Sampling of each lot shall be conducted IAW the approved QVMs. The contractor shall be prepared to institute all necessary corrective actions to bring the systems/components into reliability compliance at no additional cost to the Government, to include all units delivered since the last previously successful reliability test as determined by the Government. Demonstration of reliability compliance following institution of corrective actions shall be conducted by the contractor at no additional expense to the Government.

3.4.13.3. Production Reliability Acceptance Test (PRAT) Reports. Upon completion of each production reliability test, the contractor shall prepare and submit PRAT reports IAW DI-NDTI-80809B, Notice 2. The report shall be in contractor format and shall include, but not be limited to, a test summary, test description, identification of item(s) under test, lot from which the test sample was taken, supplemental lots represented by the sample, test group number, performance requirements, test profile and operating hours, any anomalies, calculated reliability, measured values taken during the test, conclusions, and applicable FIARs and Sub-contractor Corrective Action Reports. FWS-I PRAT reports shall be prepared and submitted as a deliverable under CDRL-D008.

3.4.14. Failure Reporting, Analysis, and Corrective Action System (FRACAS). The Contractor shall utilize a closed-loop FRACAS in accordance with ANSI/GEIA-STD-0009, as its mechanism for monitoring and communicating throughout the organization descriptions of: test and field failures, analyses of failure modes and root cause failure mechanisms, the status of design and/or process corrective actions, risk-mitigation decisions, the effectiveness of corrective actions, and lessons learned. The Contractor shall address failure modes in a timely manner, consistent with their impact on safety, reliability, performance, and total life cycle cost.

3.4.15. Failed Item Analysis Reports (FIARs). The contractor shall submit a FIAR for each failure that occurs during system and component-level PQTs, FAT, CI testing, reliability testing, and Government DT/OT. The Contractor shall notify the Government within 48 hours of failure occurrence for failures occurring during system and major components paragraph 3.10, PQT, FAT, CI testing, and reliability testing. The Government reserves the right to stop acceptance of product at any time while any FIAR is pending based on the impact of the failure in question. The complete content of the FIAR and a list of personnel to be notified of failures shall be concurred on by the IPPT at the PAC. A FIAR shall not be considered closed until the IPPT has concurred on the report. Concurrence by the Government is required prior to shipment of any potentially affected production units. 100% inspections/test (Group A) performance data shall be made available to the Government for review upon request. Each FWS-I Failure Notification shall be prepared and submitted as a deliverable under CDRL-D007. Each FWS-I FIAR shall be prepared and submitted as a deliverable under CDRL-D005.

3.5. Integrated Logistics Support (ILS) & MANPRINT. The contractor shall provide ILS & MANPRINT IAW CDRL-EEE.

3.5.1. Warranty of Equipment. The contractor is required to submit their standard warranty. The FWS-I systems warranty will be for a minimum of one year from the date of government acceptance. The warranty shall be included in the price of the unit product cost. During the warranty period, the contractor shall repair or replace – at no cost to the Government – any FWS-I system and related spare parts that fail under normal operations, storage, or during transportation. The contractor will verify warranty status and ship a spec-compliant replacement system no later than 48 hours upon receipt of the failed unit. The warranty will exclude equipment failures caused by combat damage, natural disaster, or misuse. Government acceptance of a storage warranty does not limit the Government's rights under any other term or condition of this contract. The contractor shall pay for all shipping costs for warranty items.

3.5.2. Warranty Process Flow Chart. The contractor shall prepare and deliver an initial Warranty Process Flow Chart at the PAC. The IPPT shall review and update the Warranty Process Flow Chart at the following events/times: PDR and CDR (paragraph 3.3.4.4.2) for any system that has not attained MR and 2 months, 6 months, and 12 months after the Government's first delivery of the FWS-I systems under this contract. The Warranty Process Flow Chart is a deliverable under CDRL-E016.

3.5.3. Warranty Performance Report. The contractor shall submit the first report one month after the first delivery of the system(s) under this contract. The contractor shall submit a monthly Warranty Performance Report, whether or not there is warranty return activity on the system(s) IAW CDRL-E015.

3.5.4. ILS Requirements. The contractor shall plan, manage, and execute an ILS program that assures the FWS-I achieves an operational availability of $\geq 81\%$ (threshold), 90% (objective). For any system that has not attained MR, the logistics support requirements shall consist of provisioning, Instructor and Key Personnel Training (I&KPT), U.S. Army Training and Doctrine Command training materials (training package, SSP), and TMs (Operator and Field-level TMs), including repair parts and special tools list (RPSTL), and Quick Reference Card (QRC). After establishment of the initial logistics baseline, any changes effecting form, fit, or function of the system down to the spare parts level shall be submitted to the Government for approval. Upon receipt of notification of proposed changes, the Government will identify the required contractual documentation for delivery and acceptance.

3.5.4.1. Logistics Support Plan (LSP). For any system that has not attained MR, the contractor shall develop and implement an LSP to deliver all materials and documentation required to support the FWS-I deliverable (including TMDE, see Appendix A). The LSP shall be developed from a supportability analysis completed in accordance with ANSI GEIA-STD-0007 and is a deliverable under CDRL-E001. The IPPT shall review and update

the LSP at the PDR and CDR, and 2 months, 6 months, and 12 months after the first delivery of FWS-I systems under this contract for any system that has not attained MR.

3.5.5. Maintenance Concept. The FWS-I maintenance concept must conform to the Army's two-level maintenance concept. The two level maintenance concept is defined by AR 750-1. FWS-I maintenance at the field-level shall be organic. FWS-I maintenance at the sustainment-level shall be organic. Utilizing the U.S. Army Communications-Electronics Command (CECOM) Regional Support Centers (RSCs) is an acceptable maintenance approach for the FWS-I at the sustainment-level. Sustainment-level support shall consist primarily of fault isolation, removal and replacement of modules and individual parts, and system exchange during the warranty period as needed.

3.5.5.1. Maintenance Metrics. The manpower associated with field-level maintenance performed in support of the FWS-I shall not exceed 0.5 hours of field-level maintenance and 0.75 hours of sustainment-level maintenance, totaling 1.25 direct production man-hours, over the course of a year. Additionally, FWS-I maintenance (inspection, service, repair) shall not exceed 0.1 hours (as the maximum time to repair) for 95 percent of all maintenance actions. Compliance with Direct Productive Annual Maintenance Man-Power Hours (DPAMMH) and availability requirements at both the Operator/Crew and Sustainment Maintainer Level will be determined by the Logistics Support Plan.

3.5.6. Level of Repair Analysis (LORA). For any system that has not attained MR, the contractor shall perform a LORA to determine the optimum maintenance concept for the FWS-I. The LORA is used to determine the repair level within the Army maintenance system. The initial LORA shall be submitted at the PAC. The FWS-I LORA is a deliverable under CDRL-E014.

3.5.6.1. The LORA is used to determine the optimum maintenance levels for repair actions and recovery of the end item and components. The LORA considers availability and requirements for additional tools, support equipment, and skills in intended supporting units.

3.5.6.2. The LORA shall address the requirement to minimize additional special tools and test equipment for new equipment.

3.5.6.3. The LORA process shall be initiated as early in the life cycle as possible to aid in assessing the supportability of a system. Repair can be evaluated as the system matures. As part of the post deployment evaluation, the LORA will be rerun no earlier than 1 year and no later than 3 years from First Unit Equipped (FUE) date, using actual reliability data from fielded equipment.

3.5.6.4. The Maintenance Allocation Charts (MAC) are an output of the LORA, and reflect the approved maintenance concept.

3.5.7. ILS Definitions.

3.5.7.1. End Item. A final combination of end products, assemblies/materials which is ready for its intended use.

3.5.7.2. Spare Parts. Throughout this Statement of Work, the term "spares" or "spare parts" refers to all Line Replaceable Units (LRUs) and Shop Replaceable Units (SRUs). The contractor shall describe the method of validation/certification of each spare item to ensure when the item is correctly utilized in a maintenance action, it will function properly, meeting the system and component (if applicable) performance requirements. When spare parts are required to be shipped they shall be packaged and labeled IAW MIL-STD-129 and MIL-STD-130. The spare parts can be individually wrapped and labeled. If more than one spare part is required they can be packaged together with the labeling reflecting the appropriate number included in the package.

3.5.7.3. Field Maintenance. Field maintenance is the first operation of the Army Maintenance System. Field maintenance is characterized by the performance of maintenance tasks "on system" in a tactical environment using trained personnel performing fewer maintenance tasks actions requiring tools. Field maintenance is typically

operator/crew and/or maintainer maintenance requiring replace and repair and return to user maintenance operations. Field Maintenance was formally known as Unit and Direct Support Operations.

3.5.7.4. Sustainment Maintenance. Sustainment maintenance, also known as off-system maintenance, involves tasks requiring a larger variety of tools to perform maintenance actions which primarily repairs and returns equipment and components to National Standards. Sustainment maintenance was formally known as General Support and Depot Operations.

3.5.7.5. Line Replaceable Units (LRUs). Item removed and replaced “on the Line”, usually by the Unit to repair the end item. FWS-I LRUs are non-reparable.

3.5.7.6. Shop Replaceable Units (SRUs). Item removed and replaced “in a repair Shop” to repair the end item. SRUs removal and replacement requires skills and tools not available at the field-level. SRUs can be repairable or non-reparable.

3.5.7.7. Piece Parts. Minor consumable parts required for the maintenance, overhaul, or repair of a component, assembly, equipment or end item.

3.5.7.8. Logistics Cost Estimating Tools. The contractor is required to utilize the Army Computerized Optimization Model for Predicting and Analyzing Support Structures (COMPASS) and the Logistics Cost Estimating Tool (LCET) model as the logistics cost estimating tools under this contract. The Government will provide executable copies of the models either by download instructions or on disc. The Government will provide baseline input data and instructions as required to the contractor.

3.5.8. Special Tools, Fixtures, Test, Measurement, and Diagnostic Equipment (TMDE). No special tools or TMDE shall be required to repair the FWS-I at the field-level. For any system that has not attained MR, use of Modular ARMY TMDE for sustainment-level maintenance.

3.5.9. Life Cycle Sustainment Plan (LCSP). For any system that has not attained MR, the contractor shall provide an LCSP for the FWS-I, special tools, and any common tool that is not part of the TK-105A/G, and fixtures to include the contractor’s plan to deliver training materials (both field-level and sustainment-level, warranty, calibration standards and levels, configuration control, and long-term (10-year) supportability plan. The LCSP shall be submitted during the PAC. The contractor shall provide destructive modules and piece parts as required for training. If special tools/common tools/fixtures are required for organic sustainment-level maintenance, they shall:

- a) Function with the FWS-I design that successfully completes Government/OT and the contractor PQT.
- b) Be compatible with the Modular TMDE outlined in Appendix A.

Any special or common tool that will be used to repair and maintain the FWS-I must be fully developed and delivered to the Government NLT 90 days prior to the Logistics Demonstration (LD) for independent evaluation and acceptance. Location for delivery will be determined by the Government for any special tools, common tools, and fixtures that shall be needed to achieve organic maintainer-level maintenance. The LCSP is a deliverable under CDRL-E010.

3.5.10. Logistics Demonstration (LD). LDs are used to evaluate the adequacy of the SSP and ensure that the gaining unit has the logistical capability to achieve Initial Operational Capability (IOC). For any system that has not completed MR, the contractor shall plan and support Field-Level and Sustainment-Level LDs for the FWS-I prior to Government OT using an LD Plan, Government personnel representative of the target audience trained by the contractor, and contractor-provided training material and revised GFI technical manuals. The contractor shall also prepare and provide test systems, an SSPCL (3.5.11.1) and SSP (3.5.11) required for the LDs IAW the schedules in Table I Anticipated FWS-I Event Schedule. The vendor will ensure the Government has the ability to insert/simulate faults to verify all repair actions. The SSPs provided will be returned (less consumables) to the contractor at the conclusion of the LD. The contractor shall prepare and submit an LD Report for each LD. The

FWS-I Field and Sustainment-Level LD Plans are deliverables under CDRL-E003, and the Field and Sustainment-Level LD Reports are deliverables under CDRL-E004.

3.5.10.1. Field-Level LD. For any system that has not attained MR, the Field-Level LD will demonstrate that the FWS-I meets all logistics/maintainability and MANPRINT requirements at the Field-Level, and will identify any system design changes needed for improved supportability and/or reduced life cycle cost. The Field-Level LD and supporting tasks shall be shown in the contractor's IMS. FWS-I systems must be available to support the FWS-I LD.

3.5.10.2. Sustainment-Level LD. For any system that has not attained MR, the Sustainment-Level LD will demonstrate that the FWS-I meets all logistics/maintainability and MANPRINT requirements at the Sustainment-Level, and will identify any system design changes needed for improved supportability and/or reduced life cycle cost. FWS-I must be available to support the FWS-I Sustainment-Level LD, and supporting tasks shall be shown in the contractor's IMS.

3.5.11. System Support Package (SSP). For any system that has not attained MR, the SSP includes all items required to support a test event (LD, Limited User Test, OT, Air Jump, etc.). The FWS-I SSP is a deliverable under CDRL-E002. The SSP will consist of the following:

- a) Revised GFI Technical Manuals
- b) Training Documentation
- c) Common Tools
- d) Special Tools
- e) Repair Parts
- f) Lubricating/Cleaning Items
- g) Additional Systems
- h) QRC
- i) Any other item required to support the system

The SSP will be verified by the Government prior to the event. The contractor shall be prepared to provide the SSP items required to support the events for the FWS-I to the Government test site as early as 60 days prior to the start of the demonstration/testing. The availability of the SSP shall be included in the IMS.

3.5.11.1. System Support Package Component List (SSPCL). For any system that has not attained MR, the contractor shall be prepared to provide the SSPCL required to support the LD and OT events for the FWS-I to the Government as early as 90 days prior to the start of the demonstration/testing. The SSPCL is a list comprised of all the items contained in the SSP. The FWS-I SSPCL is a deliverable under CDRL-E002.

3.5.12. Instructor and Key Personnel Training (I&KPT). For any system that has not attained MR, the contractor shall conduct I&KPT at locations selected by the Government. The objective of the I&KPT is to provide FWS-I operators and maintainers the required skills to operate and support the systems in a structured school environment, in garrison, and in a field environment. FWS-I I&KPT is a deliverable under CDRL-E011. The contractor shall conduct a Field-level training course and a Sustainment-level training course. Training shall be conducted at CONUS Government-selected sites. Training shall provide students with the skills necessary to operate and maintain the FWS-I. Training shall include, but is not limited to, all tasks contained in the -10 and -23&P TMs. The training shall consist of two (2) classes for each course with options for two (2) additional classes for each course. Draft and final training material reviews, as well as scheduled class dates, shall be finalized and concurred upon by the Government and contractor at the PAC, and shall be integrated into the IMS. The contractor shall also

prepare and deliver a CD or DVD of the training presentations for use as a reach-back or refresher training tool. The anticipated government training and TM review schedule is included in Table I Anticipated FWS-I Event Schedule. The contractor shall provide updates to the training for all configuration changes that occur through Contractor PQT, Government DT/OT, and verification of the FWS-I maintenance concept.

3.5.13. Training Material. For any system that has not attained MR, the contractor shall deliver to the Government all training materials reviewed and concurred to by the Government for use during the conduct of each course. The contractor shall provide drafts available for review, with updated drafts for training, as required. Finals as updated during the conduct of the training course are due 30 days after completion of the last training class. Final submission shall be submitted with a DD Form 250. Final submissions shall be in electronic media format. FWS-I Operator/Crew Training Material is a deliverable under CDRL-E005. FWS-I Maintainer Training Material is a deliverable under CDRL-E006.

3.5.14. Technical Manuals (TMs). TMs for the FWS-I shall consist of a pocket-sized Operator TM (-10) and a standard 8" X 11" Field Maintenance TM (23&P) including a MAC, Repair Parts and Special Tools Lists (RPSTL), Component of End Item (COEI), Additional Authorized List (AAL), and an Expendable and Durable Items List. The Operator TM (-10) and 23&P shall be in Work Package Format. For any system that has not attained MR, the contractor shall revise GFI operator (-10) TM to adequately reflect the FWS-I being provided under this contract. For any system that has not attained MR, the contractor shall develop a 23&P in accordance with the approved maintenance concept. As shown in Table I, a 50% TM Review will be required for the 23&P. TMs shall be provided for the FWS-I in accordance with MIL-STD-40051.2C or most current publication guide and as tailored by the Government IPPT. The IMS shall include development through final delivery of the TM material. The Government requires the digital files for review two weeks prior to the TM verification start date. The Government's review/comments will be provided at the completion of the verification effort. Digital files are due from the contractor 30 days after receipt of comments from the Government. The contractor shall provide updates to the TM for all configuration changes that occur through Contractor PQT, Government DT/OT, and verification of the FWS-I maintenance concept. The contractor shall also deliver a laminated QRC for the FWS-I providing basic operating procedures. The QRC is a deliverable under CDRL-E009. Each manual and the QRC shall reflect all configurations of the FWS-I delivered under this contract, and shall be prepared at the reading grade level (i.e., 8th grade reading level) and comprehension level described in the target audience description provided by the Government after contract award. The FWS-I Op/Crew is a deliverable under CDRL-E007. The FWS-I -23&P TM is a deliverable under CDRL-E008.

3.5.14.1. Digital Files. The contractor shall deliver the TMs and QRC digital files in native (editable) format (MS Word) in page orientation. The Operator TM (-10) and Field Maintenance TM (-23&P) shall be in Work Package Format. All TMs shall also be delivered in Portable Document Format (PDF) with all fonts embedded.

3.5.14.2. TM Validation and Verification. The contractor shall schedule and conduct a TM Validation at the contractor's facility prior to a Government-run TM Verification at a Government-selected location (i.e. Ft Bragg, NC). Contractor personnel performing operating and maintenance procedures on the equipment during validation shall be independent of the contractor's TM preparation activity. The contractor shall certify validation of the TMs to the Government in writing. The Government will perform all of the operating and maintenance procedures in each publication during Verification. The contractor shall provide the following support to the verification:

- a) Schedule sufficient time and materials (i.e. special and common tools, TMDE consumables, etc.) as needed for the Government to successfully complete its verification effort.
- b) Record and maintain records during the verification process.
- c) Maintain a master copy of each publication that shall be corrected during the verification process.
- d) Assist the contracting activity, as requested, during the verification process.
- e) Provide the contracting activity with a report of the corrective actions taken.

The contractor shall provide to the verification site: ten copies of each validated TM and QRC to be verified, Test equipment (minimum of 2 sets), FWS-I systems (minimum 2), spare parts and pieces IAW the MAC chart, and personnel necessary to document needed changes and resolve hardware issues. TMs must be verified at least 60 days prior to conducting the Logistic Demonstration (LD). The Government IPPT will verify that the TMs are suitable and that the content and features are correct. The manuals will be reviewed for the accuracy and completeness of all operating and maintenance procedures using a Government-provided target audience. The QRC for the FWS-I will also be verified at this time.

3.5.14.3. Digital Files Verification. The Government will verify that the digital files (formatted for final output, MS Word and PDF) delivered allow the Government to print paper copies of the FWS-I Operator and Field-Level Maintenance manuals.

3.5.14.4. Pack-Up of TMs with Equipment. The contractor shall pack one paper copy of the Operator TM and a laminated QRC with basic system operating instructions with each FWS-I system delivered under this contract. The contractor shall print both the TM and the laminated QRC that will be provided with each system.

3.5.15. Human Factors Engineering (HFE). For any system that has not attained MR, the contractor shall implement a Human Factors Engineering program to assure the FWS-I conforms to the requirements of its Performance specification and to address any HFE issues found during Government DT/OT. The HFE program shall focus on Soldier portability, Soldier/system interface, system set-up and tear-down, and maintenance operations. The HFE program progress and current findings shall be presented at each IPPT review.

3.5.16. Provisioning Technical Documentation (PTD). For any system that has not attained MR, the contractor shall work with the IPPT to develop and provide a Provisioning Parts List (PPL) and accompanying Engineering Data for Provisioning (EDFP) for the FWS-I. For all systems, the contractor shall provide updates to the PPL, with accompanying EDPF, for all configuration changes that occur through final hardware delivery. Delivery of the PPL and EDPF shall be in electronic media together with accompanying hardcopy listing. The PTD, drawings, and National Stock Number (NSN) assignment are required to be completed prior to TM verification. The contractor shall allow for up to 6 months for Government NSN assignment, which commences upon Government receipt of the proper PTD and associated drawings. The submission and approval process of the PTD and associated drawings shall be reflected in the IPMS.

3.5.16.1. Provisioning Parts List (PPL). The PPL shall be structured for the end item, component, or assembly level as specified by the MAC in a top-down breakdown sequence and shall be suitable for submission to the Provisioning Master Record (PMR) of the Commodity Command Standards System. The PPL shall contain the end item, component, or assembly equipment and all support items which can be disassembled, reassembled, or replaced and which, when combined, constitute the end item, component or assembly equipment and any special tools and/or kits. The PPL shall provide all data and information required to support the Repair Parts and Special Tools List (RPSTL) portion of the Technical Manuals. The FWS-I PPL is a deliverable under CDRL-E013. See Provisioning Data Requirements Forms for PPL content information in Table III Program Data Requirements Form for Provisioning Guidance.

3.5.16.2. Engineering Data for Provisioning. The contractor shall provide EDPF for all FWS-I maintenance-significant items on the PPL which do not have NSNs. The EDPF shall be data such as specifications, sketches or drawings with descriptions necessary to indicate the physical characteristics, location, and function of the item to permit proper cataloging. The FWS-I EDPF is a deliverable under CDRL-E012. Data within the PPL shall permit spares requirements calculations so that the provisioning parts buys can be initiated upon receipt of the NSN assignments. The PPL and EDPF shall be developed in accordance with ANSI/GEIA-STD-0007 and delivery of the PPL and the EDPF shall be as agreed to by the IPPT and documented in the IMS. Upon acceptance by Government, the contractor shall submit by DD Form 250.

Table III Program Data Requirements Form for Provisioning Guidance

DATA REQUIREMENTS FORM					
PROVISIONING REQUIREMENTS	LSA 036 CARD BLOCK	REQUIRED (REQD)	SHORT FORM PROVISIONING PARTS LISTS (SFPPL)	PARTS PROVISIONING LIST (PPL)	DESIGN CHANGE NOTICE (DCN)
DATA ELEMENT TITLE					
CROSS FUNCTIONAL REQUIREMENT (SEE SOW)					
PCCN (Government provides)	1	X		X	X
PROVISIONING LINE ITEM SEQUENCE NUMBER (PLISN)	2	X		X	X
TYPE OF CHANGE CODE	3	X			X
INDENTURE CODE	A-4	X		X	X
CAGE CODE	A-5	X		X	X
REFERENCE NUMBER	A-6	X		X	X
ADDITIONAL CAGE CODE	A-5	X		X	X
ADDITIONAL REFERENCE NUMBER	A-6	X		X	X
ESSENTIALITY CODE	A-11	X		X	X
ITEM NAME	A-12	X		X	X
SHELF LIFE	A-13	X		X	X
UNIT OF MEASURE	B-16	X		X	X
UNIT OF MEASURE (UM) PRICE	B-17	X		X	X
SOURCE, MAINT AND RECOVER CODE	B-22	X		X	X
DEMILITARIZATION CODE	B-23	X		X	X
PRODUCTION LEAD TIME	B-24	X		X	X
PHYSICAL SECURITY PILFERAGE CODE	B-26	X		X	X
PRECIOUS METAL INDICATOR CODE	B-27	X		X	X
NEXT HIGHER ASSEMBLY (NHA) PLISN	C-29	X		X	X
QUANTITY PER ASSEMBLY	C-32	X		X	X
QUANTITY PER END ITEM	C-33	X		X	X
MAINTENANCE REPLACEMENT RATE I	C-34	X		X	X
MAINTENANCE REPLACEMENT RATE II	C-35	X		X	X
MAINT REPLACEMENT RATE MODIFIER	C-36	X		X	X
SAME AS PLISN	C-38	X		X	X
USABLE ON CODE (Government provides code)	D-43	X		X	X
MAINTENANCE TASK DISTRIBUTION (reparable items only)	E-58	X		X	X
REPLACEMENT TASK DISTRIBUTION	E-60	X		X	X
CHANGE AUTHORITY NUMBER	F-67	X			X
INTERCHANGEABILITY CODE	F-68	X			X
SERIAL NUMBER EFFECTIVITY	F-69	X			X
REPLACED OR SUPERSEDING (R/S) PLISN	F-71	X			X
R/S PLISN INDICATOR	F-72	X			X

OPTIONAL: Additional information may be included for “H” Remarks card and “J” and “K” RPSTL cards as useful for contractor and Government provisioning and RPSTL reviews.

3.5.17. FWS-I Focal Plane Array (FPA) Data Maps. The contractor shall provide a CD or DVD of the complete pixel map for each Focal Plane Array (FPA) delivered in FWS-I systems and as spared items to support maintenance actions. Each pixel map shall correlate to the pixel defects/substitutions, calibration maps, and have the temperature calibration tables for each FPA. Each CD/DVD is a deliverable under CDRL-F006.

3.5.18. Frequency Allocation Application and Certification Support. For any system utilizing an unapproved wireless chipset, the contractor shall submit a preliminary stage 2 DD1494 application for equipment frequency allocation for spectrum certification for the FWS-I as part of the contractor's proposal. The contractor shall submit a Stage 3 DD1494 Application for Equipment Frequency Allocation for spectrum certification for FWS-I NLT 60 ARO. Government shall have 14 days to review and provide comments. The contractor shall then

have 7 days to incorporate any Government comments. The Government will then coordinate with the Army Spectrum Management Office for the DD1494 certification approval. The contractor shall provide technical support to the Government for frequency spectrum testing and certification during the certification approval process as required. Upon Government direction, the contractor shall submit a Stage 4 DD Form 1494. DD1494 is a deliverable under CDRL-F007.

3.6. Configuration Management.

3.6.1. Configuration Management Objective. The objectives of the Configuration Management requirements are to assure the Government that the contractor maintains a structured approach to controlling the hardware and software configuration integrity of the production systems, maintains interchangeability of hardware, tracks forward and backward compatibility of software, and assures the functional baseline of the FWS-I are maintained throughout the contract life.

3.6.1.1. Configuration Management Plan (CMP). The CMP shall describe the contractor's configuration management program; how it is organized; how it will be conducted; and the methods, procedures, and controls relative to the FWS-I system. The content of the CMP shall define the technical and administrative guidelines for change control, status accounting, and audits of the total hardware and software configurations. The contractor shall establish a configuration management process to manage the software technical baseline and provide the Government a complete audit trail of plans, decisions and software design modifications. Also included shall be the implementation of the use of firmware, relative to contractor test stations. For any proposed engineering changes, the Contractor will submit engineering change control documents – DD Form 1692 Engineering Change Proposal, DD Form 1695 Notice of Revision, and DD Form 1696 Specification Change Notice – electronically. The Government can supply the Contractor with these Government forms in Microsoft Word format, if requested. The Contractor shall use DI-CMAN-80858 “Contractor's Configuration Management Plan” and MIL-HDBK-61 “Configuration Management Guidance” in the preparation of the CMP. The CMP is a deliverable under CDRL-F001.

3.6.2. System Baseline. The FWS-I performance specification shall represent the Functional Baseline which will be maintained by the Government. Product Baselines shall be maintained by the contractor and shall be established for the FWS-I at the successful completion of all testing including the contractor PQT and Government DT/OT and the Physical Configuration Audit/Functional Configuration Audit (PCA/FCA). The contractor shall provide, at the next IPPT review after the system's successful PQT, a complete drawing and performance specification list for the system and major components which reflect the Product Baseline and includes the drawing/specification revision number and drawing/specification date. The Product Baseline is defined by the system and major component engineering drawings, parts lists, and process specifications down to the spare parts level, which shall all be in contractor formats. The contractor shall establish a software technical baseline that will provide configuration information and documentation of the functional characteristics of each Computer Software Configuration Items (CSCIs).

3.6.2.1. Performance Specifications. The contractor shall submit performance specifications for the FWS-I, major components (as described in 3.2.2.1 and 3.2.2.2), and RTA that capture the performance of the contractor's proposed system in response to the Government's FWS-I Performance Specifications. Following completion of PQT and Government DT/OT, the FWS-I IPPT shall finalize the performance specifications. These specifications shall become Government documents and may be used in conjunction with the contractually required spare part ICDs to support competitive procurement of spared items during the life cycle of the proposed FWS-I. These performance specifications for the major spared items/replacement parts shall contain all information necessary to define the operation/performance of each of the individual spared items/replacement parts. The contractor's initial performance specifications for the system and major components shall be included as part of the contractor's proposal. FWS-I performance specifications are deliverables under CDRL-F008.

3.6.2.1.1. Specification Data. Data shall provide all performance requirements and parameters to characterize and quantify the function and operation of the end-item, assembly, and module at the operating level for which it was designed. Such data shall include the environmental conditions under which the performance requirements are to be met. This requirement shall not result in a duplication of the overall equipment or unit specification(s) referenced by this contract. However, all specification data necessary for fabrication, evaluation and acceptance of subordinate units, assemblies, and modules shall be included as part of the drawings.

3.6.3. Test Requirements. The quality assurance provisions shall include a description of the specific test requirements to assure performance of the item at the next higher assembly level and/or system level. When environmental conditions are specified, tests to assure conformance shall be included. Input and output signals or stresses and tolerances shall be specified.

3.6.3.1. Test Documentation. Test documentation shall include a complete description of any unique or unusual test procedures/methods, including environmental stresses, and all data required to duplicate electrical test set-ups, jigs, fixtures or tests stations. The contractor shall include a description of software verification and audit procedures to ensure the performance and functional requirements defined in the software technical baseline are achieved by the design and that the software design is accurately documented in the software technical baseline and updates. Documentation shall define all parameters and reference all associated drawings and/or specifications (by number and title) that specify the performance of the item to be tested. All alignment requirements shall be defined through the use Government-approved contractor test equipment, or standard equipment. When special test/inspection equipment is required, the contractor will create Special Inspection Equipment Drawings and Associated Lists as required by applicable Notices of Revision.

3.6.4. Configuration Control. Any changes to the Product Baseline shall result in a common configuration for Government operational use and maintenance activities that provides interchangeability and interoperability to the replaceable part level. The Product Baseline shall be documented in the contractor's configuration status accounting database. The contractor's configuration status accounting shall manage the capture and maintenance of product configuration information necessary to account for the configuration of all CSCI's throughout the system's lifecycle. Any changes to the Functional and/or Product Baselines shall be made via Engineering Change Proposal (ECP) per paragraph 3.6.11.1 of this statement of work. At any time during the period of performance of the contract, the contractor shall provide upon Government request within 30 days, an allocated baseline of all hardware and software delivered as of the date of request. Changes to each system's software configuration baseline shall be properly identified, recorded, evaluated, approved or disapproved, incorporated, and verified as appropriate IAW MIL-HDBK-61. The allocated baseline will include, at a minimum for each serial numbered system, the relevant functional and product baseline, and any discriminating information down to the spare level (serial numbers, item revision and/or lot number, software/firmware versions, date of manufacture).

3.6.5. Engineering Data. For all applicable engineering documents, dimensioning and tolerances shall be IAW ASME Y14.5M-2009 or equivalent. Electrical characteristics and performance parameters of parts, modules, assemblies, and units shall be expressed as numerical values with tolerances specifying upper and lower (or maximum and minimum) limits. Drawings and all drawing associated files shall not contain any copyright or proprietary markings and shall be in CAD format as agreed to by the IPPT, PRO/Engineer preferred. Specifications shall be compatible with Microsoft Office products as agreed to by the IPPT.

3.6.6. Engineering Drawings. The contractor shall prepare and submit product drawings and associated lists as ICDs for both the system and test equipment at the spare part/assembly-level that assure 100% form, fit, and function interchangeability for the FWS-I. The FWS-I Engineering Drawings are a deliverable under CDRL-F002. The ICDs shall contain sufficient information to permit successful completion of the PCA/FCA. The ICDs shall include:

- a) Configuration and interface dimensional data applicable to the envelope, mounting and interconnection of the related items;
- b) Complete interface engineering requirements (mechanical, electrical, electronic, optical, human, etc.) which affect the physical or functional characteristics of the co-functioning items;

c) Any other characteristics, including material and finishes, which cannot be changed without affecting system interfaces or interfering down to the spareable level.

3.6.6.1. Part Drawings. A drawing for each part shall be prepared defining the object's geometry, dimensions, tolerances, materials, and finishes.

3.6.6.2. Assembly Drawings. Assembly drawings shall be prepared for each instance in which two or more parts are connected by means which permit disassembly without destruction of any parts. The following data shall be provided:

- a) Sufficient views to demonstrate the relationship of each part comprising the assembly
- b) Part or other identifying number for each part
- c) Quantity of each part required for one assembly
- d) All required assembly operations including clearance data, required adjustments, hand or machine fitting, etc. Assembly interchangeability control dimensions and tolerances shall also be included. Such dimensions shall be referenced by the following note:

NOTE: Assembly of parts shall be adjusted to meet these requirements.

- e) Cross references to parts lists, next assembly, wiring schematic diagrams and test procedures

In addition, assembly drawings will be referenced by corresponding parts lists and connection or wiring diagrams.

3.6.6.3. Module Drawings. Module drawings shall include all input and output parameters necessary to define and evaluate the module's operation in the next higher assembly. Sufficient identification data (i.e., specification and drawings) for all parts of the test setup shall be furnished. At a minimum, the data shall include:

- a) A description of the module's function.
- b) Input power.
- c) Input and output signal characteristics in terms of voltage levels.
- d) Wave shapes, pulse widths, rise and delay times and settling time.
- e) Complete test methods and procedures, including schematic diagrams of all test equipment setups required to evaluate all module operational parameters. The use of a unit or operating assembly as a test bed or fixture to evaluate module performance is not acceptable.

3.6.7. Parts List. Parts lists identify all subordinate assemblies and parts that apply to the corresponding assembly drawing. Such assemblies and parts will be referenced by name and quantity required to assemble a single assembly, unit, module, etc. All replaceable parts needed for operation of the assembly under consideration will be included. Items listed on a subordinate assembly parts list shall not be repeated or referenced on the Parts List for the next-higher assembly.

3.6.7.1. Part List Format. The contractor shall prepare a separate or integral parts list for each assembly that requires a call-out of parts. The contractor will determine whether separate or integral parts lists are used. However, the entire drawing package will use a consistent parts list format, i.e., all separate or all integral. When Parts Lists are integral with the assembly drawings, the list shall contain, as a minimum, the following columns:

- a) Find Number
- b) Quantity Required

- c) Code Identification
- d) Part or Identifying Number
- e) Nomenclature or Item Description
- f) Specification
- g) Notes

3.6.8. Alternate Designs. Drawings of approved alternate designs or alternate parts shall not be listed in Parts Lists. The alternate drawings shall be referenced as an alternate on the approved design drawing.

3.6.9. Schematic Drawings. Electrical or electronic schematic drawings in accordance with ASME Y14.15-2017 shall be prepared for each unit, module and assembly. Schematics shall show electrical connections to each part and assembly, without regard to their physical location.

3.6.9.1. Digital Signal Processing Circuits. Testing requirements for digital circuits shall specify all possible combinations of inputs and resulting outputs. Inputs and output signal parameters shall be explicitly defined. Truth tables alone are not sufficient to specify the input/output characteristics of a given digital circuit, but may be provided as supplementary information. Applicable requirements for digital circuits shall be specified to define the test requirements for D/A and A/D circuits. GO/NO-GO type acceptance criteria shall be acceptable only for those measurements where test effectiveness is not compromised AND must be agreed upon by the IPPT. The following data shall be specified as applicable:

- a) Rise and fall times
- b) Amplitude and levels
- c) Phase relationships to other inputs
- d) Pulse widths
- e) Overshoot and ringing
- f) Source impedance characteristics if non-linear
- g) Jitter
- h) Frequency and stability
- i) Bit Patterns or “words”
- j) Interface circuitry required

3.6.9.1.1. Electrical Test Fixture. When the contractor uses an electrical test fixture designed for a specific purpose, the drawing shall include a complete schematic diagram of the fixture and all information required to calibrate it using standard test equipment. When the contractor is required to furnish electrical test fixtures and test procedures as a separate item on this contract, the test procedure (requiring use of the fixture) shall be referenced on the assembly drawing of the applicable unit, assembly, or module.

3.6.10. Physical Configuration Audit (PCA)/Functional Configuration Audit (FCA). For any system that has not attained MR, a PCA/FCA shall be conducted for the FWS-I, down to the spareable level that successfully completes qualification testing. The PCA/FCA shall also include any special and common tools, and fixtures required to support/sustain the FWS-I. The contractor shall host and support a PCA/FCA of equipment to be delivered under this contract. The PCA/FCA shall include all hardware and software developed for this contract and

any hardware or software that is to be modified as a result of this contract. The contractor shall prepare a PCA/FCA Plan in contractor format that shall be approved by the IPPT prior to the commencement of the PCA/FCA. The FWS-I PCA/FCA Plan is a deliverable under CDRL-F003. The PCA/FCA shall be conducted no later than 60 days after the contractor submits the final PCA/FCA Plan. The PCA/FCA shall be conducted on all interface, mating and interconnection dimensions, and shall include a visual inspection of all subcomponents, as a minimum. A destructive PCA will not be performed; instruments will inspect only items that can be disassembled without damage. In the event the IPPT finds evidence the drawings do not adequately represent the equipment design and details of construction, acceptance of the equipment on order may be stopped until corrective action, acceptable to the Government, has been accomplished. The contractor shall prepare a PCA/FCA Report recording the result of the PCA/FCA. The FWS-I PCA/FCA Report is a deliverable under CDRL-F004. The Government requires 15 days for review/comment/approval of the PCA plan and 21 days for the PCA report. Submittal of the final report shall be with DD Form 250 NLT 30 days after receipt of Government comments or approval.

3.6.11. Engineering and Configuration Control Documentation. For all requested configuration changes, the contractor shall prepare and submit Engineering Change Proposals (ECPs), Value Engineering Change Proposals (VECPs), Requests for Deviation (RFD), and Requests for Waiver (RFW) to the IPPT for concurrence. Delivery shall include merged text and graphics. The contractor shall include a tolerance analysis as backup data for all configuration control document submittals. Each FWS-I RFD, RFW, ECP, and VECP is a deliverable under CDRL-F005.

3.6.11.1. Engineering Change Proposal (ECP). The contractor shall prepare a separate ECP for each engineering change that has its own distinct objective and is against a Government approved baseline. The contractor shall prepare and submit ECPs to the Government that shall include appropriate Notices of Revision, Specification Change Notices, and TM change pages, as necessary in accordance with the CMP.

3.6.11.2. Value Engineering Change Proposal (VECP). The contractor shall submit VECPs in accordance with the value engineering clause of this contract.

3.6.11.3. Technology Insertion Engineering Change Proposal (TIECP). The contractor shall conduct engineering analyses, studies, and maintenance/supply support related to the repair and/or improvement of the FWS-I. These analyses and studies may be used to improve the performance, quality, and maintainability of the systems and/or related maintenance equipment. The Government will define to the contractor the analyses, studies, or maintenance support to be conducted. The contractor shall develop a Statement of Work that includes specific pricing and all related engineering, program management, quality, and logistics tasks required to implement the repair/improvement effort. Delivery orders will be awarded on an as needed basis after the Government approves the repair/improvement Statement of Work and an agreement is reached on a negotiated price. Individual TIECPs will be priced as sub-items to CLIN 0042. If ordered, delivery of the Draft TIECP shall be no later than 60 days after award. The Final TIECP would be due 30 days after receipt of Government comments. These efforts may include, but are not limited to, the following:

- a) Boresight retention analysis on various/new weapon types
- b) Audibility analysis
- c) New weapon compatibility study
- d) New reticle generation
- e) Reticle modifications based on new/different ballistic data
- f) Failure analysis of returned items, evaluation of maintenance trends
- g) Support for Operational and Technical Test/Evaluations
- h) TIM application in other products

- i) Life Cycle Cost Reduction
- j) Battery life
- k) Reliability and Maintainability
- l) Modular Ballistic Solution
- m) FWS-I system repair

3.7. Production Drawing Package for Second Source. The Government may establish an additional source to produce the FWS-I, and/or major FWS-I replacement assemblies/spare parts, and/or any special tools required to support/sustain the FWS-I. The contractor shall provide a complete production drawing package including sufficient detailed component and assembly data to build, qualify, and support/sustain the FWS-I in the qualified/approved configuration. Components exempt from this requirement include the thermal sensor, microdisplay, RTA processor, and wireless radio/transceiver. The drawings shall provide all information to enable the procurement of an interchangeable item that duplicates the physical and performance characteristics of the original product, without additional design engineering effort or recourse to the original design activity. The contractor shall provide pricing for Production Drawing Package for the FWS-I design. The Production Drawing Package will be priced as a CLIN on the contract and will be ordered if deemed in the best interest of the Government. The Production Drawing Package is CLIN 0040. If ordered, delivery of the Draft Production Drawing Package shall be 60 days after award. The Final Production Drawing Package would be due 30 days after receipt of Government comments.

3.7.1. Dimensions and Tolerances for Manufacturing. Actual dimensions and tolerances required for manufacture shall be provided.

3.7.2. Materials. The materials used to manufacture all parts and all required treatments shall be described completely on the applicable drawing(s), or referenced by a specification or standard for the material. When specification or standards do not exist, the description shall include common trade name, chemical composition and name and address of the manufacturer or licensor. Alternate materials approved design may be specified on the drawings in addition to the original material.

3.7.3. Finishes. Protective coatings, paintings, and other finishes, include prior treatment, shall be referenced by the finish designations described in MIL-DTL-14072. When protective finishes are used that are not included in MIL-DTL-14072, the finish shall be completely defined on the drawing, or referenced by other specifications or standards.

3.8. Safety. The contractor shall ensure the FWS-I presents no uncontrolled safety hazards to operators or maintainers.

3.8.1. Safety Assessment Report (SAR). For any system that has not attained MR, the contractor shall prepare and submit a SAR for the FWS-I that evaluates the safety risks being assumed prior to test or operation of the system and provide specific controls or precautions to be followed. The SAR shall document the safety risk being assumed during operation. The SAR shall identify all safety features of the system, specific controls or precautions to be followed during use, and shall provide verification of compliance to safety requirements identified in this specification. The contractor shall provide updates to the SAR for all configuration changes that occur during initial qualification of the FWS-I. If toxic/hazardous materials are utilized, the contractor shall provide the technical information required to complete Part II of the Defense Reutilization Marketing Service (DRMS) Form 1930, Hazardous Waste Profile Sheet. The FWS-I SAR is a deliverable under CDRL-D009.

3.8.1.1. Toxic Substances. The SAR shall identify toxic and environmentally unacceptable materials used in the design and production of the systems and components, any possible alternative materials, and recommended actions to eliminate or reduce the use of hazardous materials. The SAR shall address any exposure concerns to personnel during operational or maintenance procedures to include fabrication, transportation, setup and tear down, or resulting from damage to the equipment. The contractor shall identify any material used in the system design that requires disposal as a hazardous waste. Radioactive material shall NOT be utilized in the system design

and production without prior approval by the Government. The SAR shall specifically describe control measures taken to ensure that the hardware is free of any radioactive materials, including optical glass and lens coatings.

3.8.1.2. Safety Inspection/Verification. The contractor shall schedule sufficient time in the program schedule to permit a safety inspection of the system by the Government prior to Soldier involved technical or user testing and associated training, or contract completion. The inspections will be used to verify the information contained in the SAR. The contractor must allow sufficient time to correct any unresolved high or medium risk hazards prior to testing or delivery of the system to the Government.

3.8.1.3. Hazard Tracking. The contractor shall obtain a Common Access Card (CAC) by working with the US Army FWS-I APMs. Once the CAC has been issued, the COR/COTR will provide the contractor with the proper account information for entry into the CECOM electronic Hazard and Accident Tracking System (eHATS). The contractor shall enter all system hazards into the eHATS, located on-line at: https://cecomsafety.apg.army.mil/safety/ehats/visor_frames_list.asp. The hazard tracking log, created from this site, shall be attached to the SAR.

3.8.2. Pollution Prevention. The contractor shall implement a hazardous material and pollution prevention program ensuring compliance with all Local, State, and Federal laws.

3.9. Non-standard Packaging, Handling, Storage, and Transportation (PHS&T). The sensitive nature of these systems require constant surveillance and tracking during shipping IAW DoD 4500.9 Part II Transportation Regulation, AR 190-51 Chapter (3) Paragraph 3-6. This AR is the overriding controlling authority. The FWS-I are classified as Controlled Inventory Item Code (CIIC) IV Items. The following documents provide additional guidance: AR 710-2, AR 735-2, DA Pam 710-2-1, and DOD 5100.76-M (Physical Security of Sensitive Items). The Packaging requirements shall be in accordance with MIL-STD 129. For any additional shipping and storage requirements refer to the applicable performance specification.

3.10. Marking, labeling, and Item Unique Identification (IUID). The Contractor shall mark each FWS-I system IAW DFARS 252.211-7003 IUID. The FWS-I shall be marked externally with the NSN, part number, contractor name, to be provided XXXX, designation, production date, serial number, warranty expiration date and IUID. The FWS-I shall be marked in compliance with the IUID standards outlined in MIL-STD-130 using construct #2 with a square two dimensional data matrix. Markings shall be designed to be legible and permanent for the entire life of the system. The FWS-I transit/storage container shall be marked with the NSN, part number, and serial number IAW MIL-STD 129.

4. Foreign Military Sales (FMS) requirements. Under this contract the Government may order FWS-I systems for allied military customers.

4.1. FMS Performance Specification. The FWS-I system performance shall be specified on a case-by-case basis in accordance with US Department of State.

4.2. FMS Technical Manuals. The contractor shall develop operator/ crew level and maintenance contractor-format technical manuals for FMS customers in accordance with CDRL-G001 to adequately reflect the FWS-I, special tools, fixtures, and interface equipment delivered in response to each FMS case. The contractor shall provide updates to the contractor-format technical manuals for each FMS case. The contractor shall deliver all required contractor-format technical manuals in both PDF and MS Word format at the end of validation.

4.2.1. Packing of TMs with Equipment. The contractor shall pack one paper copy of the Operator Contractor Format Technical Manual for FMS customers with basic system operating instructions for the FWS-I system delivered under this contract.

4.2.2. Maintenance TMs. Maintenance TMs will be provided for FMS Customers upon request per individual Delivery Order requirements.

4.2.3. Contractor Format TM Releasability Review. All contractor format TMs require Government determination of releasability prior to delivery. The COR will coordinate Government releasability review. The contractor shall provide the following support to the releasability review:

- a) Schedule sufficient time and materials for the Government to successfully complete its review.
- b) Maintain a record of all comments and corrective actions during the review process.
- c) Maintain a master copy of each publication that shall be corrected during the review process.

4.3. FMS Training. The Contractor shall provide operator and maintainer training in accordance with CDRL-G002 as required by each FMS case at locations (CONUS/OCONUS) determined by the Government.

4.3.1. Student Rosters. The contractor shall create, maintain, and submit student rosters to the Government within 10 working days of training completion. Rosters shall have at a minimum each student's name, rank, service, country, and indication of satisfactory completion.

4.3.2. Training Certificates. The contractor shall provide each student with a completion certificate upon successful completion of training. Copies of the certificates shall be provided to the Government within 10 working days of training completion. The completion certificate can be in contractor's format.

4.4. FMS Training Materials. The contractor shall provide updated/tailored training materials for each FMS training event. The contractor shall deliver to the Government all training materials in accordance with CDRL-G003. Approved Training material shall be provided for each operator/crew level and maintainer level training event in sufficient quantities to support all students.

4.5. Technical Assistance. The contractor shall provide technical assistance as required. Technical assistance is defined as:

4.5.1. Fielding Assistance. The contractor shall provide assistance in the initial set-up of FWS-I and ancillary support items to ensure materiel is operational, sustainable, and properly accounted for upon delivery in-country. The contractor shall assist the customer/country in identifying and arranging all required support facilities and equipment.

4.5.2. Follow-On Support. The contractor shall support FMS customer management of FWS-I sustainment activities to ensure the supportability of the FWS-I. Efforts include configuration management activities.

4.5.3. Maintenance Support. The contractor shall assist FMS customers by performing and/or managing required maintenance actions/programs. Each FMS will specify the level of maintenance support required. Contractors shall assist in the resolution of material issues related to the operation of FWS-I per the approved maintenance concept.

Appendix A

FWS-I Test, Measurement, and Diagnostic Equipment (TMDE)

Summary: The FWS-I shall be supported by the Standard Army Maintenance and Supply System to the maximum extent deemed practical. A Common TMDE station shall be provided by the Government which includes a base hardware and software interface (NVLabCap-based) to support all measurements required to sustain the FWS-I. The Contractor shall develop system-specific software, special tools, fixtures, and interface equipment to integrate the contractor's FWS-I design with this Common TMDE. The FWS-I TMDE software, special tools, fixtures, and interface equipment developed by the Contractor shall provide full maintenance functionality as defined in the FWS-I Statement of Work and FWS-I Product Description to ensure system supportability based on the proposed Supportability Strategy.

1. The TMDE software, special tools, fixtures, and interface equipment are being developed for sustainment-level maintenance. The contractor shall prepare and submit a logistics support plan for the TMDE software, special tools, fixtures, and interface equipment. The TMDE logistics support plan shall be delivered in accordance with CDRL-E001.
2. The TMDE software, special tools, fixtures, and interface equipment shall be utilized by the Sustainment Maintainer to maintain the FWS-I for faults higher than the operator/crew level maintenance. The Contractor developed TMDE software, special tools, fixtures, and interface equipment shall function without the use of a dark room or clean room.
3. The Contractor shall provide input into Government developed TMDE training materials and Technical Instruction to ensure that the materials accurately represent the use and function of the Contractor-developed TMDE software, special tools, fixtures, and interface equipment.
4. The TMDE software, special tools, fixtures, and interface equipment shall facilitate the FWS-I maintenance concept as defined in SOW 3.12.5.
5. The TMDE software, special tools, fixtures, and interface equipment shall enable all FWS- I maintenance actions required by the LORA as defined in SOW 3.12.6.
6. Contractor-Developed TMDE Requirements.
 - 6.1. TMDE Software, Special Tools, Fixtures, and Interface Equipment.
 - 6.1.1. The TMDE interface equipment shall operate on 110V AC, 50-60 Hz. When required, power supplies for interface equipment should be supplied by the Contractor.
 - 6.1.2. The TMDE fixtures, and interface equipment shall be capable of being mounted to and removed from the Common TMDE and FWS-I as needed and without damage. The TMDE fixtures, and interface equipment shall not degrade the stability of the Common TMDE.
 - 6.1.3. The TMDE Software shall interface with the baseline Common TMDE Software to provide a complete set of scripts to enable all sustainment-level maintenance activities.
 - 6.1.4. After establishment of the initial logistics baseline, any changes affecting form, fit, or function of the TMDE software, special tools, fixtures, and interface equipment down to the spare parts level shall be submitted to the Government for approval. Upon receipt of proposed changes, the Government will identify the required contractual documentation for delivery and acceptance.

6.2. TMDE Capabilities. The TMDE, i.e. the Government-developed Common TMDE together with the Contractor-developed TMDE software, special tools, fixtures, and interface equipment, shall provide the following capabilities:

6.2.1. The TMDE shall physically connect to the FWS-I Input/Output port directly or through interface equipment, establish bidirectional communications, and report results.

6.2.2. The TMDE components shall have the ability to initiate a Built In Test (BIT) of the FWS-I that reports results and provides an indicator if newer versions of software or firmware are available. The BIT shall report software/firmware version and thermal calibration information, diagnose various operating modes of the FWS-I and fault isolate to the SRU of the FWS-I weapon sight.

6.2.3. The TMDE shall have equipment to enable/verify thermal boresight alignment (e.g. black bodies, calibrated cameras, collimator, and thermal imaging).

6.2.4. The TMDE shall perform a pixel operability check for the thermal camera and eyepiece display. The TMDE shall drive an all-white and an all-black image so the maintainer can verify all pixels are responsive (no information pixel check) on the thermal camera and eyepiece display.

6.2.5. The TMDE shall be capable of evaluating the thermal imaging module and imaging lens, including the lens focus, focus mechanism, thermal calibration, image quality, field of view, resolution (Modulation Transfer Function), temporal noise, spatial noise, and image uniformity. The TMDE shall evaluate the model-predicted performance of the thermal channel, combining the performance of the thermal imaging lens and the thermal imaging module.

6.2.6. The TMDE shall be capable of evaluating the eyepiece and display by driving the display with a test pattern with 16 shades of gray to verify proper output, focus, and field of view.

6.2.7. The TMDE shall be capable of evaluating the wireless communications from the weapon sight including signal strength, distance, orientation, and proper data transmission by emulating ISW compliant devices. The TMDE shall receive and display the FWS-I video, verify resolution, frame rate, and other data/video parameters and confirm transmission.

Section E - Inspection and Acceptance

INSPECTION AND ACCEPTANCE TERMS

Supplies/services will be inspected/accepted at:

CLIN	INSPECT AT	INSPECT BY	ACCEPT AT	ACCEPT BY
0001	N/A	N/A	N/A	Government
0002	N/A	N/A	N/A	Government
0003	N/A	N/A	N/A	Government
0004	N/A	N/A	N/A	Government
0005	N/A	N/A	N/A	Government
0006	N/A	N/A	N/A	Government
0007	N/A	N/A	N/A	Government
0008	N/A	N/A	N/A	Government
0009	N/A	N/A	N/A	Government
0010	N/A	N/A	N/A	Government
0011	N/A	N/A	N/A	Government
0012	N/A	N/A	N/A	Government
0013	N/A	N/A	N/A	Government
0014	N/A	N/A	N/A	N/A
001401	N/A	N/A	N/A	N/A
0015	N/A	N/A	N/A	N/A
001501	N/A	N/A	N/A	N/A
001502	N/A	N/A	N/A	N/A
001503	N/A	N/A	N/A	N/A
001504	N/A	N/A	N/A	N/A
0016	N/A	N/A	N/A	Government
0017	N/A	N/A	N/A	Government
0018	N/A	N/A	N/A	Government
0019	N/A	N/A	N/A	N/A
001901	N/A	N/A	N/A	N/A
0020	N/A	N/A	N/A	N/A
002001	N/A	N/A	N/A	N/A
002002	N/A	N/A	N/A	N/A
002003	N/A	N/A	N/A	N/A
002004	N/A	N/A	N/A	N/A
002005	N/A	N/A	N/A	N/A
002006	N/A	N/A	N/A	N/A
002007	N/A	N/A	N/A	N/A
002008	N/A	N/A	N/A	N/A
0021	N/A	N/A	N/A	Government
0022	N/A	N/A	N/A	N/A
002201	N/A	N/A	N/A	N/A
002202	N/A	N/A	N/A	N/A
002203	N/A	N/A	N/A	N/A
002204	N/A	N/A	N/A	N/A
002205	N/A	N/A	N/A	N/A
0023	N/A	N/A	N/A	Government
0024	N/A	N/A	N/A	Government
0025	N/A	N/A	N/A	Government

0026	N/A	N/A	N/A	Government
0027	N/A	N/A	N/A	Government
0028	N/A	N/A	N/A	Government
0029	N/A	N/A	N/A	Government
0030	N/A	N/A	N/A	Government
0031	N/A	N/A	N/A	Government
0032	N/A	N/A	N/A	N/A
003201	N/A	N/A	N/A	N/A
003202	N/A	N/A	N/A	N/A
0033	N/A	N/A	N/A	N/A
003301	N/A	N/A	N/A	N/A
003302	N/A	N/A	N/A	N/A
003303	N/A	N/A	N/A	N/A
003304	N/A	N/A	N/A	N/A
003305	N/A	N/A	N/A	N/A
0034	N/A	N/A	N/A	Government
0035	N/A	N/A	N/A	Government
0036	N/A	N/A	N/A	Government
0037	N/A	N/A	N/A	Government
0038	N/A	N/A	N/A	Government
0039	N/A	N/A	N/A	Government
0040	N/A	N/A	N/A	Government
0041	N/A	N/A	N/A	Government
0042	N/A	N/A	N/A	Government
0043	N/A	N/A	N/A	Government

Section F - Deliveries or Performance

DELIVERY INFORMATION

CLIN	DELIVERY DATE	QUANTITY	SHIP TO ADDRESS	DODAAC / CAGE
0001	N/A	N/A	N/A	N/A
0002	N/A	N/A	N/A	N/A
0003	N/A	N/A	N/A	N/A
0004	N/A	N/A	N/A	N/A
0005	N/A	N/A	N/A	N/A
0006	N/A	N/A	N/A	N/A
0007	N/A	N/A	N/A	N/A
0008	N/A	N/A	N/A	N/A
0009	N/A	N/A	N/A	N/A
0010	N/A	N/A	N/A	N/A
0011	N/A	N/A	N/A	N/A
0012	N/A	N/A	N/A	N/A
0013	N/A	N/A	N/A	N/A
0014	N/A	N/A	N/A	N/A
001401	N/A	N/A	N/A	N/A
0015	N/A	N/A	N/A	N/A
001501	N/A	N/A	N/A	N/A
001502	N/A	N/A	N/A	N/A
001503	N/A	N/A	N/A	N/A
001504	N/A	N/A	N/A	N/A
0016	N/A	N/A	N/A	N/A
0017	N/A	N/A	N/A	N/A

0018	N/A	N/A	N/A	N/A
0019	N/A	N/A	N/A	N/A
001901	N/A	N/A	N/A	N/A
0020	N/A	N/A	N/A	N/A
002001	N/A	N/A	N/A	N/A
002002	N/A	N/A	N/A	N/A
002003	N/A	N/A	N/A	N/A
002004	N/A	N/A	N/A	N/A
002005	N/A	N/A	N/A	N/A
002006	N/A	N/A	N/A	N/A
002007	N/A	N/A	N/A	N/A
002008	N/A	N/A	N/A	N/A
0021	N/A	N/A	N/A	N/A
0022	N/A	N/A	N/A	N/A
002201	N/A	N/A	N/A	N/A
002202	N/A	N/A	N/A	N/A
002203	N/A	N/A	N/A	N/A
002204	N/A	N/A	N/A	N/A
002205	N/A	N/A	N/A	N/A
0023	N/A	N/A	N/A	N/A
0024	N/A	N/A	N/A	N/A
0025	N/A	N/A	N/A	N/A
0026	N/A	N/A	N/A	N/A
0027	N/A	N/A	N/A	N/A
0028	N/A	N/A	N/A	N/A
0029	N/A	N/A	N/A	N/A
0030	N/A	N/A	N/A	N/A
0031	N/A	N/A	N/A	N/A

0032	N/A	N/A	N/A	N/A
003201	N/A	N/A	N/A	N/A
003202	N/A	N/A	N/A	N/A
0033	N/A	N/A	N/A	N/A
003301	N/A	N/A	N/A	N/A
003302	N/A	N/A	N/A	N/A
003303	N/A	N/A	N/A	N/A
003304	N/A	N/A	N/A	N/A
003305	N/A	N/A	N/A	N/A
0034	N/A	N/A	N/A	N/A
0035	N/A	N/A	N/A	N/A
0036	N/A	N/A	N/A	N/A
0037	N/A	N/A	N/A	N/A
0038	N/A	N/A	N/A	N/A
0039	N/A	N/A	N/A	N/A
0040	N/A	N/A	N/A	N/A
0041	N/A	N/A	N/A	N/A
0042	N/A	N/A	N/A	N/A
0043	N/A	N/A	N/A	N/A

Section H - Special Contract Requirements

SPECIAL CONTRACT REQUIREMENTS**ECONOMIC PRICING****ECONOMIC QUANTITY DISCOUNTS:**

The contractor shall offer an economic quantity discount for purchases in excess of certain amounts (as specified by the Contractor). Should the Government issue delivery orders within 60* days of each other and final delivery has not occurred, the delivery order will be issued reflecting the economic quantity pricing for the total quantity of all relevant delivery orders. All affected delivery orders will be subsequently modified to reflect the lower economic quantity pricing. The Contractor is encouraged to make early and partial delivery of items at no additional cost to the Government.

*NOTE: The first 60-day period begins when the first delivery order is issued to the Contractor after award of the contract. Delivery orders issued within that 60-day period will reflect the economic quantity pricing as described above but may not be utilized to begin another 60-day period.

Subsequent 60-day periods begin when a delivery order is issued after the expiration of the previous 60-day period.

SPECIAL CONSIDERATION:

Contractor Performance. If the contractor fails to meet performance requirements or contractual delivery schedules during contract execution, Government acceptance of Contract Line Items is suspended until all issues are resolved to the Government's satisfaction and a revised delivery schedule and associated consideration have been negotiated and incorporated into the contract. Additionally, the contractor may be suspended from competing in future Fair Opportunity Delivery Order competitions until all issues are resolved to the Government's satisfaction. Consideration will be negotiated between both parties before any deviation is granted by the Government.

Section I - Contract Clauses

CLAUSES INCORPORATED BY TEXT

CLAUSES INCORPORATED BY FULL TEXT

NOTICE – ADEQUATE OF ACCOUNTING SYSTEM (Oct 2012)

ACC-APG 5152.216-4901

The Government anticipates award of a cost-reimbursement type contract as a result of this solicitation. As required by FAR 16.301-3(a)(3), this type of contract may only be used after a determination has been made regarding the adequacy of the accounting system for determining costs applicable to the contract or order. The adequacy determination is performed by the cognizant Defense Contract Audit Agency (DCAA) or Defense Contract Management Agency (DCMA) office. In order to be considered for award, offerors are required to provide evidence of an adequate accounting system as determined by either DCAA or DCMA. Evidence can be provided via email(s), letter(s) or report(s) with the appropriate identification, i.e. signature block or letterhead.

MULTIPLE AWARD TASK ORDER CONTRACT AND DELIVERY ORDER CONTRACT OMBUDSMAN (Oct 2012)

ACC-APG 5152.216-4904

a. In accordance with FAR 16.505(b)(6), the following individual has been appointed as ombudsman for multiple award task order and delivery order contracts issued by this organization:

Mr. Dennis Longo
Army Contracting Command - APG
Bldg. 6001
Aberdeen Proving Ground, MD 21005-1846

Telephone: (443) 861-5087

Facsimile: (410) 306-3736

E-mail Address: dennis.p.longo.civ@mail.mil

b. The ombudsman has the authority to review contractor complaints that they have not been afforded fair opportunity to be considered for award of a particular task order or delivery order under a multiple award contract.

c. A contractor who receives an award under a multiple award contract may contact the ombudsman with a complaint concerning the award of a particular task order or delivery order placed under the multiple award contract.

(1) The contractor is encouraged to try to resolve the issue with the contracting officer prior to contacting the ombudsman. However, contractor complaints to the ombudsman must be made within 5 work days of the award under complaint.

(2) The ombudsman's authority is limited to issues pertaining to the awarding of task orders and delivery orders under multiple award contracts. Contractor complaints directed to the ombudsman shall be confined to these issues. All other complaints will be outside the authority of the ombudsman and will be returned to the contractor without action.

d. Upon review of the facts, the ombudsman will determine whether or not the contractor was afforded a fair opportunity to be considered consistent with the procedures in the contract and either:

- (1) Deny the contractor's complaint; or,
- (2) Require that the contracting officer take corrective action regarding the complaint.

e. If the contracting officer does not agree with the decision of the ombudsman, the matter shall be

referred to the ACC-APG Principal Assistant Responsible for Contracting for final decision.

f. These ombudsman procedures are not subject to FAR 52.233-1, Disputes, with or without its Alternate I found elsewhere in this contract.

INSURANCE REQUIREMENTS (Oct 2012)

ACC-APG 5152.228-4900

The following insurance is required, as a minimum, in accordance with the Federal Acquisition Regulations and the appropriate clause in Section I:

a. Legally Required Insurance: Where certain laws apply, such as State laws governing workman's compensation and employer's liability coverage, etc., the contractor, prior to commencement of work, shall furnish the Contracting Officer a written statement that such laws have been complied with and that compliance will continue throughout the period of contract performance. Minimum coverage of \$100,000 is required.

b. Comprehensive General Liability and Automobile Liability:

Comprehensive General Liability	<u>Each Person</u> None	<u>Per Occurrence</u> \$500,000	<u>Property Damage</u> None
Automobile Liability	\$200,000	\$500,000	\$20,000

INCREMENTALLY FUNDED CONTRACT (Oct 2012)

ACC-APG 5152.232-4900

This contract may be funded in increments. The amount presently available for payment purposes and allotted to this contract is _____ to cover performance hereof through _____. From time-to-time, additional funds will be allotted to the contract in accordance with contract clauses in Section I entitled, "Limitation of Funds."

AMC-LEVEL PROTEST PROGRAM (Aug 2012)

ACC-APG 5152.233-4900

If you have complaints about this procurement, it is preferable that you first attempt to resolve those concerns with the responsible Contracting Officer. However, you can also protest to Headquarters, AMC. The HQ, AMC-Level Protest Program is intended to encourage interested parties to seek resolution of their concerns within AMC as an Alternative Dispute Resolution forum, rather than filing a protest with the General Accounting Office (GAO) or other external forum. Contract award or performance is suspended during the protest to the same extent, and within the same time periods, as if filed at the GAO. The AMC protest decision goal is to resolve protests within 20 working days from filing. To be timely, protests must be filed within the periods specified in FAR 33.103. Send protests (other than protests to the Contracting Officer) to:

Headquarters U.S. Army Materiel Command
Office of Command Counsel-Deputy Command Counsel 4400 Martin Road
Rm: A6SE040.001
Redstone Arsenal, AL 35898-5000
Phone: (256) 450-8165
Fax: (256) 450-8840
E-mail: amcprotests@conus.army.mil

The AMC-Level Protest Procedures are accessible via the Internet at:

www.amc.army.mil/amc/commandcounsel.html. If Internet access is not available, contact the Contracting Officer or HQ, AMC, to obtain the AMC-Level Protest Procedures.

INSTRUCTIONS TO PAYING OFFICE AND ADMINISTRATIVE CONTRACTING OFFICE (Oct 2012) ACC-APG 5152.242-4901

a. The Contracting Office representative is:

Name: _____ *

Organization Code: _____

Telephone Area Code and Number: _____

DSN: _____

FAX: _____

Email: _____

b. Payment to the contractor shall be made IAW FAR Subpart 32.11, Electronic Funds Transfer.

c. Paying Office information:

Telephone Inquiries: _____

FAX: _____

WIDE AREA WORKFLOW (WAWF) INFORMATION AND INSTRUCTIONS – For Cost-Type Contracts, Grants, and/or CLINs, including Time & Materials and Labor Hour (Jun 2012) ACC-APG 5152.232-4902

The Vendor shall submit payment requests electronically for supplies/services rendered in Wide Area Workflow (WAWF) at the website: <https://wawf.eb.mil>. WAWF is a secure, web-based system which enables vendors and Government officials to electronically access and process the documentation needed to generate payment for goods and services. It is free of charge and allows vendor submittal and tracking of vouchers and approval documents.

The Vendor shall self-register at the web site.

Available Training – For questions on how to use WAWF, including how to submit your document, please go to: <https://wawftraining.eb.mil>. A WAWF practice site is also available at that website.

For questions or issues regarding technical issues, contact the Ogden, UT Help Desk at:

Email: cscassig@csd.disa.mil

CONUS Only: 1-866-618-5988 Commercial Fax: 801-605-7453

Commercial Phone: 801-605-7095

Questions or issues concerning payments should be directed to the Defense Finance and Accounting Service (DFAS) office listed below:

DFAS Location:

DFAS Vendor Pay Phone Number:

Note: Vendor, please have your purchase order/contract/delivery order/assistance instrument, i.e., grant, cooperative agreement, other transaction, number(s) ready when calling about payments.

Vendor shall submit requests for payment per contract/assistance instrument terms, and the Government shall process requests for payment per contract/assistance instrument terms.

Instructions to create payment requests: Vendor shall create the type of document(s) to request payment as indicated by the check(s) below.

☐ Construction Payment Invoice

☐ Progress Payment

☐ Cost Voucher

[] Grant and Cooperative Agreement Voucher

Instructions for routing documents: The codes listed below will be required to route your documents through WAWF.

Cage Code:
 Issue by DoDAAC:
 Admin by DoDAAC:
 Reviewer/Approver for Interim Payments of Cost Vouchers:
 Reviewer/Approver for Final Payment of Cost Vouchers:
 Grant Approver:
 Ship to DoDAAC:
 Local Processing Office DoDAAC:
 Payment Office DoDAAC:

When Vendor submits a document, WAWF will prompt asking for “additional email submission” after clicking “Signature”. Vendor shall enter the following email addresses to expedite the review and verification process:

Procurement Contracting Officer:
 Administrative Contracting Officer:
 Contracting Officer’s Representative(s):
 Other:
 Email Addresses for Points of Contact (POC):
 Administrative Contracting Officer:
 Procurement Contracting Officer:
 Contracting Officer’s Representative(s):
 Reviewer/Approver for Interim Payments of Cost Vouchers:
 Reviewer/Approver for Final Payment of Cost Voucher:
 Grant Approver:
 Receiving Office/Ship to POC:
 Additional Points of Contact:

CLAUSES INCORPORATED BY REFERENCE

52.203-3	Gratuities	APR 1984
52.203-5	Covenant Against Contingent Fees	MAY 2014
52.203-6	Restrictions On Subcontractor Sales To The Government	JUN 2020
52.203-7	Anti-Kickback Procedures	JUN 2020
52.203-8	Cancellation, Rescission, and Recovery of Funds for Illegal or Improper Activity	MAY 2014
52.203-10	Price Or Fee Adjustment For Illegal Or Improper Activity	MAY 2014
52.203-12	Limitation On Payments To Influence Certain Federal Transactions	JUN 2020
52.203-13	Contractor Code of Business Ethics and Conduct	JUN 2020
52.204-2	Security Requirements	AUG 1996
52.204-4	Printed or Copied Double-Sided on Postconsumer Fiber Content Paper	MAY 2011
52.204-7	System for Award Management	OCT 2018
52.204-10	Reporting Executive Compensation and First-Tier Subcontract Awards	JUN 2020

52.204-24	Representation Regarding Certain Telecommunications and Video Surveillance Services or Equipment.	AUG 2020
52.204-25	Prohibition on Contracting for Certain Telecommunications and Video Surveillance Services or Equipment.	AUG 2020
52.207-4	Economic Purchase Quantity-Supplies	AUG 1987
52.209-6	Protecting the Government's Interest When Subcontracting With Contractors Debarred, Suspended, or Proposed for Debarment	JUN 2020
52.211-5	Material Requirements	AUG 2000
52.211-15	Defense Priority And Allocation Requirements	APR 2008
52.211-17	Delivery of Excess Quantities	SEP 1989
52.211-17	Delivery of Excess Quantities	SEP 1989
52.215-2	Audit and Records--Negotiation	JUN 2020
52.215-8	Order of Precedence--Uniform Contract Format	OCT 1997
52.215-9	Changes or Additions to Make-or-Buy Program	OCT 1997
52.215-10	Price Reduction for Defective Certified Cost or Pricing Data	AUG 2011
52.215-11	Price Reduction for Defective Certified Cost or Pricing Data--Modifications	JUN 2020
52.215-12	Subcontractor Certified Cost or Pricing Data	JUN 2020
52.215-13	Subcontractor Certified Cost or Pricing Data--Modifications	JUN 2020
52.215-14	Integrity of Unit Prices	JUN 2020
52.215-15	Pension Adjustments and Asset Reversions	OCT 2010
52.215-18	Reversion or Adjustment of Plans for Postretirement Benefits (PRB) Other than Pensions	JUL 2005
52.215-19	Notification of Ownership Changes	OCT 1997
52.215-21	Requirements for Certified Cost or Pricing Data and Data Other Than Certified Cost or Pricing Data -- Modifications	JUN 2020
52.215-23	Limitations on Pass-Through Charges	JUN 2020
52.216-7	Allowable Cost And Payment	AUG 2018
52.216-8	Fixed Fee	JUN 2011
52.216-18	Ordering	AUG 2020
52.219-4	Notice of Price Evaluation Preference for HUBZone Small Business Concerns	MAR 2020
52.219-8	Utilization of Small Business Concerns	OCT 2018
52.219-9	Small Business Subcontracting Plan	JUN 2020
52.219-14	Limitations On Subcontracting	MAR 2020
52.219-16	Liquidated Damages-Subcontracting Plan	JAN 1999
52.219-28	Post-Award Small Business Program Rerepresentation	MAY 2020
52.222-3	Convict Labor	JUN 2003
52.222-4	Contract Work Hours and Safety Standards - Overtime Compensation	MAY 2018
52.222-19	Child Labor -- Cooperation with Authorities and Remedies	JAN 2020
52.222-20	Contracts for Materials, Supplies, Articles, and Equipment	JUN 2020
52.222-21	Prohibition Of Segregated Facilities	APR 2015
52.222-26	Equal Opportunity	SEP 2016
52.222-35	Equal Opportunity for Veterans	JUN 2020
52.222-36	Equal Opportunity for Workers with Disabilities	JUN 2020
52.222-37	Employment Reports on Veterans	JUN 2020
52.222-50	Combating Trafficking in Persons	JAN 2019
52.222-54	Employment Eligibility Verification	OCT 2015
52.223-4	Recovered Material Certification	MAY 2008
52.223-6	Drug-Free Workplace	MAY 2001
52.225-13	Restrictions on Certain Foreign Purchases	JUN 2008

52.225-25	Prohibition on Contracting with Entities Engaging in Certain Activities or Transactions Relating to Iran-- Representation and Certifications.	JUN 2020
52.227-1	Authorization and Consent	JUN 2020
52.227-2	Notice And Assistance Regarding Patent And Copyright Infringement	JUN 2020
52.227-14	Rights in Data--General	MAY 2014
52.228-7	Insurance--Liability To Third Persons	MAR 1996
52.229-1	State and Local Taxes	APR 1984
52.229-3	Federal, State And Local Taxes	FEB 2013
52.229-4	Federal, State, And Local Taxes (State and Local Adjustments)	FEB 2013
52.230-2	Cost Accounting Standards	JUN 2020
52.230-6	Administration of Cost Accounting Standards	JUN 2010
52.232-1	Payments	APR 1984
52.232-8	Discounts For Prompt Payment	FEB 2002
52.232-9	Limitation On Withholding Of Payments	APR 1984
52.232-11	Extras	APR 1984
52.232-17	Interest	MAY 2014
52.232-18	Availability Of Funds	APR 1984
52.232-19	Availability Of Funds For The Next Fiscal Year	APR 1984
52.232-20	Limitation Of Cost	APR 1984
52.232-20	Limitation Of Cost	APR 1984
52.232-22	Limitation Of Funds	APR 1984
52.232-22	Limitation Of Funds	APR 1984
52.232-23	Assignment Of Claims	MAY 2014
52.232-23	Assignment Of Claims	MAY 2014
52.232-24	Prohibition of Assignment of Claims	MAY 2014
52.232-25	Prompt Payment	JAN 2017
52.232-25	Prompt Payment	JAN 2017
52.233-1	Disputes	MAY 2014
52.233-1	Disputes	MAY 2014
52.233-3	Protest After Award	AUG 1996
52.233-4	Applicable Law for Breach of Contract Claim	OCT 2004
52.242-1	Notice of Intent to Disallow Costs	APR 1984
52.242-2	Production Progress Reports	APR 1991
52.242-3	Penalties for Unallowable Costs	MAY 2014
52.242-4	Certification of Final Indirect Costs	JAN 1997
52.242-13	Bankruptcy	JUL 1995
52.242-15	Stop-Work Order	AUG 1989
52.242-17	Government Delay Of Work	APR 1984
52.242-17	Government Delay Of Work	APR 1984
52.243-1	Changes--Fixed Price	AUG 1987
52.243-7	Notification Of Changes	JAN 2017
52.244-2	Subcontracts	JUN 2020
52.244-5	Competition In Subcontracting	DEC 1996
52.245-1	Government Property	JAN 2017
52.245-9	Use And Charges	APR 2012
52.246-2	Inspection Of Supplies--Fixed Price	AUG 1996
52.246-3	Inspection Of Supplies Cost-Reimbursement	MAY 2001
52.246-8	Inspection Of Research And Development Cost Reimbursement	MAY 2001
52.246-15	Certificate of Conformance	APR 1984
52.246-23	Limitation Of Liability	FEB 1997
52.247-29	F.O.B. Origin	FEB 2006

52.247-34	F.O.B. Destination	NOV 1991
52.247-34	F.O.B. Destination	NOV 1991
52.247-68	Report of Shipment (REPSHIP)	FEB 2006
52.249-2	Termination For Convenience Of The Government (Fixed-Price)	APR 2012
52.249-8	Default (Fixed-Price Supply & Service)	APR 1984
52.249-14	Excusable Delays	APR 1984
52.252-2	Clauses Incorporated By Reference	FEB 1998
52.253-1	Computer Generated Forms	JAN 1991
252.201-7000	Contracting Officer's Representative	DEC 1991
252.203-7000	Requirements Relating to Compensation of Former DoD Officials	SEP 2011
252.203-7001	Prohibition On Persons Convicted of Fraud or Other Defense-Contract-Related Felonies	DEC 2008
252.203-7002	Requirement to Inform Employees of Whistleblower Rights	SEP 2013
252.204-7000	Disclosure Of Information	OCT 2016
252.204-7002	Payment For Contract Line or Subline Items Not Separately Priced	APR 2020
252.204-7003	Control Of Government Personnel Work Product	APR 1992
252.204-7004	Antiterrorism Awareness Training for Contractors.	FEB 2019
252.204-7006	Billing Instructions	OCT 2005
252.205-7000	Provision Of Information To Cooperative Agreement Holders	DEC 1991
252.209-7002	Disclosure Of Ownership Or Control By A Foreign Government	JUN 2010
252.209-7004	Subcontracting With Firms That Are Owned or Controlled By The Government of a Country that is a State Sponsor of Terrorism	MAY 2019
252.211-7002	Availability For Examination Of Specifications, Standards, Plans, Drawings, Data Item Descriptions, And Other Pertinent Documents	DEC 1991
252.211-7003	Item Unique Identification and Valuation	MAR 2016
252.211-7005	Substitutions for Military or Federal Specifications and Standards	NOV 2005
252.211-7006	Passive Radio Frequency Identification	DEC 2019
252.211-7007	Reporting of Government-Furnished Property	AUG 2012
252.211-7007	Reporting of Government-Furnished Property	AUG 2012
252.217-7001	Surge Option	DEC 2018
252.217-7003	Changes	DEC 1991
252.219-7003	Small Business Subcontracting Plan (DOD Contracts)	DEC 2019
252.223-7004	Drug Free Work Force	SEP 1988
252.223-7008	Prohibition of Hexavalent Chromium	JUN 2013
252.225-7000	Buy American--Balance Of Payments Program Certificate--Basic (Nov 2014)	NOV 2014
252.225-7001	Buy American And Balance Of Payments Program-- Basic	DEC 2017
252.225-7002	Qualifying Country Sources As Subcontractors	DEC 2017
252.225-7004	Report of Intended Performance Outside the United States and Canada--Submission after Award	MAY 2019
252.225-7005	Identification Of Expenditures In The United States	JUN 2005
252.225-7006	Acquisition of the AmericanFlag	AUG 2015
252.225-7009	Restriction on Acquisition of Certain Articles Containing Specialty Metals	DEC 2019
252.225-7012	Preference For Certain Domestic Commodities	DEC 2017
252.225-7013	Duty-Free Entry--Basic	APR 2020
252.225-7016	Restriction On Acquisition Of Ball and Roller Bearings	JUN 2011
252.225-7021	Trade Agreements--Basic	SEP 2019

252.225-7030	Restriction On Acquisition Of Carbon, Alloy, And Armor Steel Plate	DEC 2006
252.225-7031	Secondary Arab Boycott Of Israel	JUN 2005
252.226-7001	Utilization of Indian Organizations and Indian-Owned Economic Enterprises, and Native Hawaiian Small Business Concerns	APR 2019
252.227-7013	Rights in Technical Data--Noncommercial Items	FEB 2014
252.227-7014	Rights in Noncommercial Computer Software and Noncommercial Computer Software Documentation	FEB 2014
252.227-7016	Rights in Bid or Proposal Information	JAN 2011
252.227-7025	Limitations on the Use or Disclosure of Government-Furnished Information Marked with Restrictive Legends	MAY 2013
252.227-7028	Technical Data or Computer Software Previously Delivered to the Government	JUN 1995
252.227-7030	Technical Data--Withholding Of Payment	MAR 2000
252.227-7037	Validation of Restrictive Markings on Technical Data	SEP 2016
252.231-7000	Supplemental Cost Principles	DEC 1991
252.232-7003	Electronic Submission of Payment Requests and Receiving Reports	DEC 2018
252.232-7003	Electronic Submission of Payment Requests and Receiving Reports	DEC 2018
252.232-7010	Levies on Contract Payments	DEC 2006
252.243-7001	Pricing Of Contract Modifications	DEC 1991
252.243-7002	Requests for Equitable Adjustment	DEC 2012
252.244-7000	Subcontracts for Commercial Items	JUN 2013
252.245-7001	Tagging, Labeling, and Marking of Government-Furnished Property	APR 2012
252.245-7002	Reporting Loss of Government Property	DEC 2017
252.245-7004	Reporting, Reutilization, and Disposal	DEC 2017
252.246-7001	Warranty Of Data	MAR 2014
252.246-7003	Notification of Potential Safety Issues	JUN 2013
252.247-7022	Representation of Extent of Transportation by Sea.	JUN 2019
252.247-7022	Representation of Extent of Transportation by Sea.	JUN 2019
252.247-7023	Transportation of Supplies by Sea	FEB 2019

CLAUSES INCORPORATED BY FULL TEXT

52.202-1 DEFINITIONS (JUN 2020)

When a solicitation provision or contract clause uses a word or term that is defined in the Federal Acquisition Regulation (FAR), the word or term has the same meaning as the definition in FAR 2.101 in effect at the time the solicitation was issued, unless--

- (a) The solicitation, or amended solicitation, provides a different definition;
- (b) The contracting parties agree to a different definition;
- (c) The part, subpart, or section of the FAR where the provision or clause is prescribed provides a different meaning;
- (d) The word or term is defined in FAR part 31, for use in the cost principles and procedures; or

(e) The word or term defines an acquisition-related threshold, and if the threshold is adjusted for inflation as set forth in FAR 1.109(a), then the changed threshold applies throughout the remaining term of the contract, unless there is a subsequent threshold adjustment; see FAR 1.109(d).

(End of clause)

52.203-11 CERTIFICATION AND DISCLOSURE REGARDING PAYMENTS TO INFLUENCE CERTAIN FEDERAL TRANSACTIONS (SEP 2007)

(a) Definitions. As used in this provision--"Lobbying contact" has the meaning provided at 2 U.S.C. 1602(8). The terms "agency," "influencing or attempting to influence," "officer or employee of an agency," "person," "reasonable compensation," and "regularly employed" are defined in the FAR clause of this solicitation entitled "Limitation on Payments to Influence Certain Federal Transactions" (52.203-12).

(b) Prohibition. The prohibition and exceptions contained in the FAR clause of this solicitation entitled "Limitation on Payments to Influence Certain Federal Transactions" (52.203-12) are hereby incorporated by reference in this provision.

(c) Certification. The offeror, by signing its offer, hereby certifies to the best of its knowledge and belief that no Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress on its behalf in connection with the awarding of this contract.

(d) Disclosure. If any registrants under the Lobbying Disclosure Act of 1995 have made a lobbying contact on behalf of the offeror with respect to this contract, the offeror shall complete and submit, with its offer, OMB Standard Form LLL, Disclosure of Lobbying Activities, to provide the name of the registrants. The offeror need not report regularly employed officers or employees of the offeror to whom payments of reasonable compensation were made.

(e) Penalty. Submission of this certification and disclosure is a prerequisite for making or entering into this contract imposed by 31 U.S.C. 1352. Any person who makes an expenditure prohibited under this provision or who fails to file or amend the disclosure required to be filed or amended by this provision, shall be subject to a civil penalty of not less than \$10,000, and not more than \$100,000, for each such failure.

(End of provision)

52.203-14 DISPLAY OF HOTLINE POSTER(S) (JUN 2020)

(a) Definition.

United States, as used in this clause, means the 50 States, the District of Columbia, and outlying areas.

(b) Display of fraud hotline poster(s). Except as provided in paragraph (c)--

(1) During contract performance in the United States, the Contractor shall prominently display in common work areas within business segments performing work under this contract and at contract work sites--

(i) Any agency fraud hotline poster or Department of Homeland Security (DHS) fraud hotline poster identified in paragraph (b)(3) of this clause; and

(ii) Any DHS fraud hotline poster subsequently identified by the Contracting Officer.

(2) Additionally, if the Contractor maintains a company website as a method of providing information to employees, the Contractor shall display an electronic version of the poster(s) at the website.

(3) Any required posters may be obtained as follows:

Poster(s) Obtain from

(Contracting Officer shall insert—

(i) Appropriate agency name(s) and/or title of applicable Department of Homeland Security fraud hotline poster); and

(ii) The website(s) or other contact information for obtaining the poster(s).)

(c) If the Contractor has implemented a business ethics and conduct awareness program, including a reporting mechanism, such as a hotline poster, then the Contractor need not display any agency fraud hotline posters as required in paragraph (b) of this clause, other than any required DHS posters.

(d) Subcontracts. The Contractor shall include the substance of this clause, including this paragraph (d), in all subcontracts that exceed the threshold specified in Federal Acquisition Regulation 3.1004(b)(1) on the date of subcontract award, except when the subcontract--

(1) Is for the acquisition of a commercial item; or

(2) Is performed entirely outside the United States.

(End of clause)

52.203-14 DISPLAY OF HOTLINE POSTER(S) (JUN 2020)

(a) Definition.

United States, as used in this clause, means the 50 States, the District of Columbia, and outlying areas.

(b) Display of fraud hotline poster(s). Except as provided in paragraph (c)--

(1) During contract performance in the United States, the Contractor shall prominently display in common work areas within business segments performing work under this contract and at contract work sites--

(i) Any agency fraud hotline poster or Department of Homeland Security (DHS) fraud hotline poster identified in paragraph (b)(3) of this clause; and

(ii) Any DHS fraud hotline poster subsequently identified by the Contracting Officer.

(2) Additionally, if the Contractor maintains a company website as a method of providing information to employees, the Contractor shall display an electronic version of the poster(s) at the website.

(3) Any required posters may be obtained as follows:

Poster(s) Obtain from

(Contracting Officer shall insert—

(i) Appropriate agency name(s) and/or title of applicable Department of Homeland Security fraud hotline poster); and

(ii) The website(s) or other contact information for obtaining the poster(s).)

(c) If the Contractor has implemented a business ethics and conduct awareness program, including a reporting mechanism, such as a hotline poster, then the Contractor need not display any agency fraud hotline posters as required in paragraph (b) of this clause, other than any required DHS posters.

(d) Subcontracts. The Contractor shall include the substance of this clause, including this paragraph (d), in all subcontracts that exceed the threshold specified in Federal Acquisition Regulation 3.1004(b)(1) on the date of subcontract award, except when the subcontract--

(1) Is for the acquisition of a commercial item; or

(2) Is performed entirely outside the United States.

(End of clause)

52.204-8 ANNUAL REPRESENTATIONS AND CERTIFICATIONS (MAR 2020)

(a)(1) The North American Industry Classification System (NAICS) code for this acquisition is [insert NAICS code].

(2) The small business size standard is [insert size standard].

(3) The small business size standard for a concern which submits an offer in its own name, other than on a construction or service contract, but which proposes to furnish a product which it did not itself manufacture, is 500 employees.

(b)(1) If the provision at 52.204-7, System for Award Management, is included in this solicitation, paragraph (d) of this provision applies.

(2) If the provision at 52.204-7, System for Award Management, is not included in this solicitation, and the Offeror has an active registration in the System for Award Management (SAM), the Offeror may choose to use paragraph (d) of this provision instead of completing the corresponding individual representations and certifications in the solicitation. The Offeror shall indicate which option applies by checking one of the following boxes:

() Paragraph (d) applies.

() Paragraph (d) does not apply and the offeror has completed the individual representations and certifications in the solicitation.

(c) (1) The following representations or certifications in SAM are applicable to this solicitation as indicated:

(i) 52.203-2, Certificate of Independent Price Determination. This provision applies to solicitations when a firm-fixed-price contract or fixed-price contract with economic price adjustment is contemplated, unless—

(A) The acquisition is to be made under the simplified acquisition procedures in Part 13;

(B) The solicitation is a request for technical proposals under two-step sealed bidding procedures; or

(C) The solicitation is for utility services for which rates are set by law or regulation.

(ii) 52.203-11, Certification and Disclosure Regarding Payments to Influence Certain Federal Transactions. This provision applies to solicitations expected to exceed \$150,000.

(iii) 52.203-18, Prohibition on Contracting with Entities that Require Certain Internal Confidentiality Agreements or Statements--Representation. This provision applies to all solicitations.

(iv) 52.204-3, Taxpayer Identification. This provision applies to solicitations that do not include the provision at 52.204-7, System for Award Management.

(v) 52.204-5, Women-Owned Business (Other Than Small Business). This provision applies to solicitations that—

(A) Are not set aside for small business concerns;

(B) Exceed the simplified acquisition threshold; and

(C) Are for contracts that will be performed in the United States or its outlying areas.

(vi) 52.204-26, Covered Telecommunications Equipment or Services--Representation. This provision applies to all solicitations.

(vii) 52.209-2, Prohibition on Contracting with Inverted Domestic Corporations--Representation.

(viii) 52.209-5, Certification Regarding Responsibility Matters. This provision applies to solicitations where the contract value is expected to exceed the simplified acquisition threshold.

(ix) 52.209-11, Representation by Corporations Regarding Delinquent Tax Liability or a Felony Conviction under any Federal Law. This provision applies to all solicitations.

(x) 52.214-14, Place of Performance--Sealed Bidding. This provision applies to invitations for bids except those in which the place of performance is specified by the Government.

(xi) 52.215-6, Place of Performance. This provision applies to solicitations unless the place of performance is specified by the Government.

(xii) 52.219-1, Small Business Program Representations (Basic, Alternates I, and II). This provision applies to solicitations when the contract will be performed in the United States or its outlying areas.

(A) The basic provision applies when the solicitations are issued by other than DoD, NASA, and the Coast Guard.

(B) The provision with its Alternate I applies to solicitations issued by DoD, NASA, or the Coast Guard.

(C) The provision with its Alternate II applies to solicitations that will result in a multiple-award contract with more than one NAICS code assigned.

(xiii) 52.219-2, Equal Low Bids. This provision applies to solicitations when contracting by sealed bidding and the contract will be performed in the United States or its outlying areas.

(xiv) 52.222-22, Previous Contracts and Compliance Reports. This provision applies to solicitations that include the clause at 52.222-26, Equal Opportunity.

(xv) 52.222-25, Affirmative Action Compliance. This provision applies to solicitations, other than those for construction, when the solicitation includes the clause at 52.222-26, Equal Opportunity.

(xvi) 52.222-38, Compliance with Veterans' Employment Reporting Requirements. This provision applies to solicitations when it is anticipated the contract award will exceed the simplified acquisition threshold and the contract is not for acquisition of commercial items.

(xvii) 52.223-1, Biobased Product Certification. This provision applies to solicitations that require the delivery or specify the use of USDA-designated items; or include the clause at 52.223-2, Affirmative Procurement of Biobased Products Under Service and Construction Contracts.

(xviii) 52.223-4, Recovered Material Certification. This provision applies to solicitations that are for, or specify the use of, EPA- designated items.

(xix) 52.223-22, Public Disclosure of Greenhouse Gas Emissions and Reduction Goals--Representation. This provision applies to solicitations that include the clause at 52.204-7.)

(xx) 52.225-2, Buy American Certificate. This provision applies to solicitations containing the clause at 52.225-1.

(xxi) 52.225-4, Buy American--Free Trade Agreements--Israeli Trade Act Certificate. (Basic, Alternates I, II, and III.) This provision applies to solicitations containing the clause at 52.225- 3.

(A) If the acquisition value is less than \$25,000, the basic provision applies.

(B) If the acquisition value is \$25,000 or more but is less than \$50,000, the provision with its Alternate I applies.

(C) If the acquisition value is \$50,000 or more but is less than \$83,099, the provision with its Alternate II applies.

(D) If the acquisition value is \$83,099 or more but is less than \$100,000, the provision with its Alternate III applies.

(xxii) 52.225-6, Trade Agreements Certificate. This provision applies to solicitations containing the clause at 52.225-5.

(xxiii) 52.225-20, Prohibition on Conducting Restricted Business Operations in Sudan--Certification. This provision applies to all solicitations.

(xxiv) 52.225-25, Prohibition on Contracting with Entities Engaging in Certain Activities or Transactions Relating to Iran—Representation and Certification. This provision applies to all solicitations.

(xxv) 52.226-2, Historically Black College or University and Minority Institution Representation. This provision applies to solicitations for research, studies, supplies, or services of the type normally acquired from higher educational institutions.

(2) The following representations or certifications are applicable as indicated by the Contracting Officer:

[Contracting Officer check as appropriate.]

(i) 52.204-17, Ownership or Control of Offeror.

(ii) 52.204-20, Predecessor of Offeror.

(iii) 52.222-18, Certification Regarding Knowledge of Child Labor for Listed End Products.

(iv) 52.222-48, Exemption from Application of the Service Contract Labor Standards to Contracts for Maintenance, Calibration, or Repair of Certain Equipment--Certification.

(v) 52.222-52 Exemption from Application of the Service Contract Labor Standards to Contracts for Certain Services--Certification.

(vi) 52.223-9, with its Alternate I, Estimate of Percentage of Recovered Material Content for EPA-Designated Products (Alternate I only).

(vii) 52.227-6, Royalty Information.

(A) Basic.

(B) Alternate I.

(viii) 52.227-15, Representation of Limited Rights Data and Restricted Computer Software.

(d) The Offeror has completed the annual representations and certifications electronically in SAM accessed through <https://www.sam.gov>. After reviewing the SAM information, the Offeror verifies by submission of the offer that the representations and certifications currently posted electronically that apply to this solicitation as indicated in paragraph (c) of this provision have been entered or updated within the last 12 months, are current, accurate, complete, and applicable to this solicitation (including the business size standard applicable to the NAICS code referenced for this solicitation), as of the date of this offer and are incorporated in this offer by reference (see FAR 4.1201); except for the changes identified below [offeror to insert changes, identifying change by clause number, title, date]. These amended representation(s) and/or certification(s) are also incorporated in this offer and are current, accurate, and complete as of the date of this offer.

FAR Clause	Title	Date	Change
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Any changes provided by the offeror are applicable to this solicitation only, and do not result in an update to the representations and certifications posted on SAM.

(End of provision)

52.209-3 FIRST ARTICLE APPROVAL--CONTRACTOR TESTING (SEP 1989)

[Contracting Officer shall insert details]

(a) The Contractor shall test _____ unit(s) of Lot/Item _____ as specified in this contract. At least _____ calendar days before the beginning of first article tests, the Contractor shall notify the Contracting Officer, in writing, of the time and location of the testing so that the Government may witness the tests.

(b) The Contractor shall submit the first article test report within _____ calendar days from the date of this contract to _____ [insert address of the Government activity to receive the report] marked "FIRST ARTICLE TEST REPORT: Contract No. _____, Lot/Item No. _____" Within _____ calendar days after the Government receives the test report, the Contracting Officer shall notify the Contractor, in writing, of the conditional approval, approval, or disapproval of the first article. The notice of conditional approval or approval shall not relieve the Contractor from complying with all requirements of the specifications and all other terms and conditions of this contract. A notice of conditional approval shall state any further action required of the Contractor. A notice of disapproval shall cite reasons for the disapproval.

(c) If the first article is disapproved, the Contractor, upon Government request, shall repeat any or all first article tests. After each request for additional tests, the Contractor shall make any necessary changes, modifications, or repairs to the first article or select another first article for testing. All costs related to these tests are to be borne by the Contractor, including any and all costs for additional tests following a disapproval. The Contractor shall then conduct the tests and deliver another report to the Government under the terms and conditions and within the time specified by the Government. The Government shall take action on this report within the time specified in paragraph (b) above. The Government reserves the right to require an equitable adjustment of the contract price for any extension of the delivery schedule, or for any additional costs to the Government related to these tests.

(d) If the Contractor fails to deliver any first article report on time, or the Contracting Officer disapproves any first article, the Contractor shall be deemed to have failed to make delivery within the meaning of the Default clause of this contract.

(e) Unless otherwise provided in the contract, and if the approved first article is not consumed or destroyed in testing, the Contractor may deliver the approved first article as part of the contract quantity if it meets all contract requirements for acceptance.

(f) If the Government does not act within the time specified in paragraph (b) or (c) above, the Contracting Officer shall, upon timely written request from the Contractor, equitably adjust under the changes clause of this contract the delivery or performance dates and/or the contract price, and any other contractual term affected by the delay.

(g) Before first article approval, the acquisition of materials or components for, or the commencement of production of, the balance of the contract quantity is at the sole risk of the Contractor. Before first article approval, the costs thereof shall not be allocable to this contract for (1) progress payments, or (2) termination settlements if the contract is terminated for the convenience of the Government.

(h) The Government may waive the requirement for first article approval test where supplies identical or similar to those called for in the schedule have been previously furnished by the offeror/contractor and have been accepted by the Government. The offeror/contractor may request a waiver.

(End of clause)

52.215-6 PLACE OF PERFORMANCE (OCT 1997)

(a) The offeror or respondent, in the performance of any contract resulting from this solicitation, () intends, () does not intend (check applicable block) to use one or more plants or facilities located at a different address from the

address of the offeror or respondent as indicated in this proposal or response to request for information.

(b) If the offeror or respondent checks "intends" in paragraph (a) of this provision, it shall insert in the following spaces the required information:

Place of Performance(Street Address, City, State, County, Zip Code)

Name and Address of Owner and Operator of the Plant or Facility if Other Than Offeror or Respondent

(End of provision)

52.216-18 ORDERING. (AUG 2020)

(a) Any supplies and services to be furnished under this contract shall be ordered by issuance of delivery orders or task orders by the individuals or activities designated in the Schedule. Such orders may be issued from through [insert dates].

(b) All delivery orders or task orders are subject to the terms and conditions of this contract. In the event of conflict between a delivery order or task order and this contract, the contract shall control.

(c) A delivery order or task order is considered "issued" when--

(1) If sent by mail (includes transmittal by U.S. mail or private delivery service), the Government deposits the order in the mail;

(2) If sent by fax, the Government transmits the order to the Contractor's fax number; or

(3) If sent electronically, the Government either--

(i) Posts a copy of the delivery order or task order to a Government document access system, and notice is sent to the Contractor; or

(ii) Distributes the delivery order or task order via email to the Contractor's email address.

(d) Orders may be issued by methods other than those enumerated in this clause only if authorized in the contract.

(End of clause)

52.216-19 ORDER LIMITATIONS (OCT 1995)

(a) Minimum order. When the Government requires supplies or services covered by this contract in an amount of less than (insert dollar figure or quantity), the Government is not obligated to purchase, nor is the Contractor obligated to furnish, those supplies or services under the contract.

(b) Maximum order. The Contractor is not obligated to honor -

(1) Any order for a single item in excess of (insert dollar figure or quantity);

(2) Any order for a combination of items in excess of (insert dollar figure or quantity); or

(3) A series of orders from the same ordering office within days that together call for quantities exceeding the limitation in paragraph (b) (1) or (2) of this section.

(c) If this is a requirements contract (i.e., includes the Requirements clause at subsection 52.216-21 of the Federal Acquisition Regulation (FAR)), the Government is not required to order a part of any one requirement from the Contractor if that requirement exceeds the maximum-order limitations in paragraph (b) of this section.

(d) Notwithstanding paragraphs (b) and (c) of this section, the Contractor shall honor any order exceeding the maximum order limitations in paragraph (b), unless that order (or orders) is returned to the ordering office within days after issuance, with written notice stating the Contractor's intent not to ship the item (or items) called for and the reasons. Upon receiving this notice, the Government may acquire the supplies or services from another source.

(End of clause)

52.216-22 INDEFINITE QUANTITY. (OCT 1995)

(a) This is an indefinite-quantity contract for the supplies or services specified, and effective for the period stated, in the Schedule. The quantities of supplies and services specified in the Schedule are estimates only and are not purchased by this contract.

(b) Delivery or performance shall be made only as authorized by orders issued in accordance with the Ordering clause. The Contractor shall furnish to the Government, when and if ordered, the supplies or services specified in the Schedule up to and including the quantity designated in the Schedule as the "maximum". The Government shall order at least the quantity of supplies or services designated in the Schedule as the "minimum".

(c) Except for any limitations on quantities in the Order Limitations clause or in the Schedule, there is no limit on the number of orders that may be issued. The Government may issue orders requiring delivery to multiple destinations or performance at multiple locations.

(d) Any order issued during the effective period of this contract and not completed within that period shall be completed by the Contractor within the time specified in the order. The contract shall govern the Contractor's and Government's rights and obligations with respect to that order to the same extent as if the order were completed during the contract's effective period; provided, that the Contractor shall not be required to make any deliveries under this contract after [insert date].

(End of clause)

52.219-28 POST-AWARD SMALL BUSINESS PROGRAM REREPRESENTATION (MAY 2020)

(a) Definitions. As used in this clause--

Long-term contract means a contract of more than five years in duration, including options. However, the term does not include contracts that exceed five years in duration because the period of performance has been extended for a cumulative period not to exceed six months under the clause at 52.217-8, Option to Extend Services, or other appropriate authority.

Small business concern means a concern, including its affiliates, that is independently owned and operated, not dominant in the field of operation in which it is bidding on Government contracts, and qualified as a small business under the criteria in 13 CFR part 121 and the size standard in paragraph (d) of this clause. Such a concern is "not dominant in its field of operation" when it does not exercise a controlling or major influence on a national basis in a kind of business activity in which a number of business concerns are primarily engaged. In determining whether dominance exists, consideration shall be given to all appropriate factors, including volume of business, number of employees, financial resources, competitive status or position, ownership or control of materials, processes, patents, license agreements, facilities, sales territory, and nature of business activity.

(b) If the Contractor represented that it was any of the small business concerns identified in 19.000(a)(3) prior to award of this contract, the Contractor shall rerepresent its size and socioeconomic status according to paragraph (f) of this clause or, if applicable, paragraph (h) of this clause, upon occurrence of any of the following:

(1) Within 30 days after execution of a novation agreement or within 30 days after modification of the contract to include this clause, if the novation agreement was executed prior to inclusion of this clause in the contract.

(2) Within 30 days after a merger or acquisition that does not require a novation or within 30 days after modification of the contract to include this clause, if the merger or acquisition occurred prior to inclusion of this clause in the contract.

(3) For long-term contracts--

(i) Within 60 to 120 days prior to the end of the fifth year of the contract; and

(ii) Within 60 to 120 days prior to the date specified in the contract for exercising any option thereafter.

(c) If the Contractor represented that it was any of the small business concerns identified in 19.000(a)(3) prior to award of this contract, the Contractor shall rerepresent its size and socioeconomic status according to paragraph (f) of this clause or, if applicable, paragraph (h) of this clause, when the Contracting Officer explicitly requires it for an order issued under a multiple-award contract.

(d) The Contractor shall rerepresent its size status in accordance with the size standard in effect at the time of this rerepresentation that corresponds to the North American Industry Classification System (NAICS) code(s) assigned to this contract. The small business size standard corresponding to this NAICS code(s) can be found at <https://www.sba.gov/document/support--table-size-standards>.

(e) The small business size standard for a Contractor providing a product which it does not manufacture itself, for a contract other than a construction or service contract, is 500 employees.

(f) Except as provided in paragraph (h) of this clause, the Contractor shall make the representation(s) required by paragraph (b) and (c) of this clause by validating or updating all its representations in the Representations and Certifications section of the System for Award Management (SAM) and its other data in SAM, as necessary, to ensure that they reflect the Contractor's current status. The Contractor shall notify the contracting office in writing within the timeframes specified in paragraph (b) of this clause, or with its offer for an order (see paragraph (c) of this clause), that the data have been validated or updated, and provide the date of the validation or update.

(g) If the Contractor represented that it was other than a small business concern prior to award of this contract, the Contractor may, but is not required to, take the actions required by paragraphs (f) or (h) of this clause.

(h) If the Contractor does not have representations and certifications in SAM, or does not have a representation in SAM for the NAICS code applicable to this contract, the Contractor is required to complete the following rerepresentation and submit it to the contracting office, along with the contract number and the date on which the rerepresentation was completed:

(1) The Contractor represents that it [] is, [] is not a small business concern under NAICS Code assigned to contract number .

(2) [Complete only if the Contractor represented itself as a small business concern in paragraph (h)(1) of this clause.] The Contractor represents that it [] is, [] is not, a small disadvantaged business concern as defined in 13 CFR 124.1002.

(3) [Complete only if the Contractor represented itself as a small business concern in paragraph (h)(1) of this clause.] The Contractor represents that it [] is, [] is not a women-owned small business concern.

(4) Women-owned small business (WOSB) concern eligible under the WOSB Program. [Complete only if the Contractor represented itself as a women-owned small business concern in paragraph (h)(3) of this clause.] The Contractor represents that--

(i) It [] is, [] is not a WOSB concern eligible under the WOSB Program, has provided all the required documents to the WOSB Repository, and no change in circumstances or adverse decisions have been issued that affects its eligibility; and

(ii) It [] is, [] is not a joint venture that complies with the requirements of 13 CFR part 127, and the representation in paragraph (h)(4)(i) of this clause is accurate for each WOSB concern eligible under the WOSB Program participating in the joint venture.

[The Contractor shall enter the name or names of the WOSB concern eligible under the WOSB Program and other small businesses that are participating in the joint venture: .] Each WOSB concern eligible under the WOSB Program participating in the joint venture shall submit a separate signed copy of the WOSB representation.

(5) Economically disadvantaged women-owned small business (EDWOSB) concern. [Complete only if the Contractor represented itself as a women-owned small business concern eligible under the WOSB Program in (h)(4) of this clause.] The Contractor represents that--

(i) It [] is, [] is not an EDWOSB concern eligible under the WOSB Program, has provided all the required documents to the WOSB Repository, and no change in circumstances or adverse decisions have been issued that affects its eligibility; and

(ii) It [] is, [] is not a joint venture that complies with the requirements of 13 CFR part 127, and the representation in paragraph (h)(5)(i) of this clause is accurate for each EDWOSB concern participating in the joint venture. [The Contractor shall enter the name or names of the EDWOSB concern and other small businesses that are participating in the joint venture: .] Each EDWOSB concern participating in the joint venture shall submit a separate signed copy of the EDWOSB representation.

(6) [Complete only if the Contractor represented itself as a small business concern in paragraph (h)(1) of this clause.] The Contractor represents that it [] is, [] is not a veteran-owned small business concern.

(7) [Complete only if the Contractor represented itself as a veteran-owned small business concern in paragraph (h)(6) of this clause.] The Contractor represents that it [] is, [] is not a service-disabled veteran-owned small business concern.

(8) [Complete only if the Contractor represented itself as a small business concern in paragraph (h)(1) of this clause.] The Contractor represents that--

(i) It [] is, [] is not a HUBZone small business concern listed, on the date of this representation, on the List of Qualified HUBZone Small Business Concerns maintained by the Small Business Administration, and no

material changes in ownership and control, principal office, or HUBZone employee percentage have occurred since it was certified in accordance with 13 CFR part 126; and

(ii) It [] is, [] is not a HUBZone joint venture that complies with the requirements of 13 CFR part 126, and the representation in paragraph (h)(8)(i) of this clause is accurate for each HUBZone small business concern participating in the HUBZone joint venture. [The Contractor shall enter the names of each of the HUBZone small business concerns participating in the HUBZone joint venture: .] Each HUBZone small business concern participating in the HUBZone joint venture shall submit a separate signed copy of the HUBZone representation.

[Contractor to sign and date and insert authorized signer's name and title.]

(End of clause)

52.225-18 PLACE OF MANUFACTURE (AUG 2018)

(a) Definitions. As used in this provision--

Manufactured end product means any end product in product and service codes (PSCs) 1000-9999, except--

- (1) PSC 5510, Lumber and Related Basic Wood Materials;
- (2) Product or Service Group (PSG) 87, Agricultural Supplies;
- (3) PSG 88, Live Animals;
- (4) PSG 89, Subsistence;
- (5) PSC 9410, Crude Grades of Plant Materials;
- (6) PSC 9430, Miscellaneous Crude Animal Products, Inedible;
- (7) PSC 9440, Miscellaneous Crude Agricultural and Forestry Products;
- (8) PSC 9610, Ores;
- (9) PSC 9620, Minerals, Natural and Synthetic; and
- (10) PSC 9630, Additive Metal Materials.

Place of manufacture means the place where an end product is assembled out of components, or otherwise made or processed from raw materials into the finished product that is to be provided to the Government. If a product is disassembled and reassembled, the place of reassembly is not the place of manufacture.

(b) For statistical purposes only, the offeror shall indicate whether the place of manufacture of the end products it expects to provide in response to this solicitation is predominantly--

- (1) () In the United States (Check this box if the total anticipated price of offered end products manufactured in the United States exceeds the total anticipated price of offered end products manufactured outside the United States); or
- (2) () Outside the United States.

(End of provision)

52.243-7 NOTIFICATION OF CHANGES (JAN 2017)

(a) Definitions.

"Contracting Officer," as used in this clause, does not include any representative of the Contracting Officer.

"Specifically authorized representative (SAR)," as used in this clause, means any person the Contracting Officer has so designated by written notice (a copy of which shall be provided to the Contractor) which shall refer to this subparagraph and shall be issued to the designated representative before the SAR exercises such authority.

(b) Notice. The primary purpose of this clause is to obtain prompt reporting of Government conduct that the Contractor considers to constitute a change to this contract. Except for changes identified as such in writing and signed by the Contracting Officer, the Contractor shall notify the Administrative Contracting Officer in writing, within _____ calendar days from the date that the Contractor identifies any Government conduct (including actions, inactions, and written or oral communications) that the Contractor regards as a change to the contract terms and conditions. On the basis of the most accurate information available to the Contractor, the notice shall state--

- (1) The date, nature, and circumstances of the conduct regarded as a change;
- (2) The name, function, and activity of each Government individual and Contractor official or employee involved in or knowledgeable about such conduct;
- (3) The identification of any documents and the substance of any oral communication involved in such conduct;
- (4) In the instance of alleged acceleration of scheduled performance or delivery, the basis upon which it arose;
- (5) The particular elements of contract performance for which the Contractor may seek an equitable adjustment under this clause, including--
 - (i) What line items have been or may be affected by the alleged change;
 - (ii) What labor or materials or both have been or may be added, deleted, or wasted by the alleged change;
 - (iii) To the extent practicable, what delay and disruption in the manner and sequence of performance and effect on continued performance have been or may be caused by the alleged change;
 - (iv) What adjustments to contract price, delivery schedule, and other provisions affected by the alleged change are estimated; and
- (6) The Contractor's estimate of the time by which the Government must respond to the Contractor's notice to minimize cost, delay or disruption of performance.

(c) Continued performance. Following submission of the notice required by (b) above, the Contractor shall diligently continue performance of this contract to the maximum extent possible in accordance with its terms and conditions as construed by the Contractor, unless the notice reports a direction of the Contracting Officer or a communication from a SAR of the Contracting Officer, in either of which events the Contractor shall continue performance; provided, however, that if the Contractor regards the direction or communication as a change as described in (b) above, notice shall be given in the manner provided. All directions, communications, interpretations, orders and similar actions of the SAR shall be reduced to writing and copies furnished to the Contractor and to the Contracting Officer. The Contracting Officer shall countermand any action which exceeds the

authority of the SAR.

(d) Government response. The Contracting Officer shall promptly, within _____ calendar days after receipt of notice, respond to the notice in writing. In responding, the Contracting Officer shall either--

(1) Confirm that the conduct of which the Contractor gave notice constitutes a change and when necessary direct the mode of further performance;

(2) Countermand any communication regarded as a change;

(3) Deny that the conduct of which the Contractor gave notice constitutes a change and when necessary direct the mode of further performance; or

(4) In the event the Contractor's notice information is inadequate to make a decision under (1), (2), or (3) above, advise the Contractor what additional information is required, and establish the date by which it should be furnished and the date thereafter by which the Government will respond.

(e) Equitable adjustments.

(1) If the Contracting Officer confirms that Government conduct effected a change as alleged by the Contractor, and the conduct causes an increase or decrease in the Contractor's cost of, or the time required for, performance of any part of the work under this contract, whether changed or not changed by such conduct, an equitable adjustment shall be made--

(i) In the contract price or delivery schedule or both; and

(ii) In such other provisions of the contract as may be affected.

(2) The contract shall be modified in writing accordingly. In the case of drawings, designs or specifications which are defective and for which the Government is responsible, the equitable adjustment shall include the cost and time extension for delay reasonably incurred by the Contractor in attempting to comply with the defective drawings, designs or specifications before the Contractor identified, or reasonably should have identified, such defect. When the cost of property made obsolete or excess as a result of a change confirmed by the Contracting Officer under this clause is included in the equitable adjustment, the Contracting Officer shall have the right to prescribe the manner of disposition of the property. The equitable adjustment shall not include increased costs or time extensions for delay resulting from the Contractor's failure to provide notice or to continue performance as provided, respectively, in (b) and (c) above.

Note: The phrases "contract price" and "cost" wherever they appear in the clause, may be appropriately modified to apply to cost-reimbursement or incentive contracts, or to combinations thereof.

(End of clause)

52.245-1 GOVERNMENT PROPERTY (JAN 2017)

(a) **Definitions.** As used in this clause—

"Cannibalize" means to remove parts from Government property for use or for installation on other Government property.

"Contractor-acquired property" means property acquired, fabricated, or otherwise provided by the Contractor for performing a contract, and to which the Government has title.

“Contractor inventory” means—

- (1) Any property acquired by and in the possession of a Contractor or subcontractor under a contract for which title is vested in the Government and which exceeds the amounts needed to complete full performance under the entire contract;
- (2) Any property that the Government is obligated or has the option to take over under any type of contract, *e.g.*, as a result either of any changes in the specifications or plans thereunder or of the termination of the contract (or subcontract thereunder), before completion of the work, for the convenience or at the option of the Government; and
- (3) Government-furnished property that exceeds the amounts needed to complete full performance under the entire contract.

“Contractor’s managerial personnel” means the Contractor’s directors, officers, managers, superintendents, or equivalent representatives who have supervision or direction of—

- (1) All or substantially all of the Contractor’s business;
- (2) All or substantially all of the Contractor’s operation at any one plant or separate location; or
- (3) A separate and complete major industrial operation.

“Demilitarization” means rendering a product unusable for, and not restorable to, the purpose for which it was designed or is customarily used.

“Discrepancies incident to shipment” means any differences (*e.g.*, count or condition) between the items documented to have been shipped and items actually received.

“Equipment” means a tangible item that is functionally complete for its intended purpose, durable, nonexpendable, and needed for the performance of a contract. Equipment is not intended for sale, and does not ordinarily lose its identity or become a component part of another article when put into use. Equipment does not include material, real property, special test equipment or special tooling.

“Government-furnished property” means property in the possession of, or directly acquired by, the Government and subsequently furnished to the Contractor for performance of a contract. Government-furnished property includes, but is not limited to, spares and property furnished for repair, maintenance, overhaul, or modification. Government-furnished property also includes contractor-acquired property if the contractor-acquired property is a deliverable under a cost contract when accepted by the Government for continued use under the contract.

“Government property” means all property owned or leased by the Government. Government property includes both Government-furnished and Contractor-acquired property. Government property includes material, equipment, special tooling, special test equipment, and real property. Government property does not include intellectual property and software.

“Loss of Government property” means unintended, unforeseen or accidental loss, damage or destruction to Government property that reduces the Government’s expected economic benefits of the property. Loss of Government property does not include purposeful destructive testing, obsolescence, normal wear and tear or manufacturing defects. Loss of Government property includes, but is not limited to—

- (1) Items that cannot be found after a reasonable search;
- (2) Theft;
- (3) Damage resulting in unexpected harm to property requiring repair to restore the item to usable condition; or

(4) Destruction resulting from incidents that render the item useless for its intended purpose or beyond economical repair.

“Material” means property that may be consumed or expended during the performance of a contract, component parts of a higher assembly, or items that lose their individual identity through incorporation into an end item. Material does not include equipment, special tooling, special test equipment or real property.

“Nonseverable” means property that cannot be removed after construction or installation without substantial loss of value or damage to the installed property or to the premises where installed.

“Precious metals” means silver, gold, platinum, palladium, iridium, osmium, rhodium, and ruthenium.

“Production scrap” means unusable material resulting from production, engineering, operations and maintenance, repair, and research and development contract activities. Production scrap may have value when re-melted or reprocessed, *e.g.*, textile and metal clippings, borings, and faulty castings and forgings.

“Property” means all tangible property, both real and personal.

“Property Administrator” means an authorized representative of the Contracting Officer appointed in accordance with agency procedures, responsible for administering the contract requirements and obligations relating to Government property in the possession of a Contractor.

“Property records” means the records created and maintained by the contractor in support of its stewardship responsibilities for the management of Government property.

“Provide” means to furnish, as in Government-furnished property, or to acquire, as in contractor-acquired property.

“Real property” See Federal Management Regulation 102-71.20 (41 CFR 102-71.20).

“Sensitive property” means property potentially dangerous to the public safety or security if stolen, lost, or misplaced, or that shall be subject to exceptional physical security, protection, control, and accountability. Examples include weapons, ammunition, explosives, controlled substances, radioactive materials, hazardous materials or wastes, or precious metals.

“Unit acquisition cost” means—

(1) For Government-furnished property, the dollar value assigned by the Government and identified in the contract; and

(2) For contractor-acquired property, the cost derived from the Contractor’s records that reflect consistently applied generally accepted accounting principles.

(b) *Property management.*

(1) The Contractor shall have a system of internal controls to manage (control, use, preserve, protect, repair, and maintain) Government property in its possession. The system shall be adequate to satisfy the requirements of this clause. In doing so, the Contractor shall initiate and maintain the processes, systems, procedures, records, and methodologies necessary for effective and efficient control of Government property. The Contractor shall disclose any significant changes to its property management system to the Property Administrator prior to implementation of the changes. The Contractor may employ customary commercial practices, voluntary consensus standards, or industry-leading practices and standards that provide effective and efficient Government property management that are necessary and appropriate for the performance of this contract (except where inconsistent with law or regulation).

(2) The Contractor's responsibility extends from the initial acquisition and receipt of property, through stewardship, custody, and use until formally relieved of responsibility by authorized means, including delivery, consumption, expending, sale (as surplus property), or other disposition, or via a completed investigation, evaluation, and final determination for lost property. This requirement applies to all Government property under the Contractor's accountability, stewardship, possession or control, including its vendors or subcontractors (see paragraph (f)(1)(v) of this clause).

(3) The Contractor shall include the requirements of this clause in all subcontracts under which Government property is acquired or furnished for subcontract performance.

(4) The Contractor shall establish and maintain procedures necessary to assess its property management system effectiveness and shall perform periodic internal reviews, surveillances, self assessments, or audits. Significant findings or results of such reviews and audits pertaining to Government property shall be made available to the Property Administrator.

(c) Use of Government property.

(1) The Contractor shall use Government property, either furnished or acquired under this contract, only for performing this contract, unless otherwise provided for in this contract or approved by the Contracting Officer.

(2) Modifications or alterations of Government property are prohibited, unless they are—

(i) Reasonable and necessary due to the scope of work under this contract or its terms and conditions;

(ii) Required for normal maintenance; or

(iii) Otherwise authorized by the Contracting Officer.

(3) The Contractor shall not cannibalize Government property unless otherwise provided for in this contract or approved by the Contracting Officer.

(d) Government-furnished property.

(1) The Government shall deliver to the Contractor the Government-furnished property described in this contract. The Government shall furnish related data and information needed for the intended use of the property. The warranties of suitability of use and timely delivery of Government-furnished property do not apply to property acquired or fabricated by the Contractor as contractor-acquired property and subsequently transferred to another contract with this Contractor.

(2) The delivery and/or performance dates specified in this contract are based upon the expectation that the Government-furnished property will be suitable for contract performance and will be delivered to the Contractor by the dates stated in the contract.

(i) If the property is not delivered to the Contractor by the dates stated in the contract, the Contracting Officer shall, upon the Contractor's timely written request, consider an equitable adjustment to the contract.

(ii) In the event property is received by the Contractor, or for Government-furnished property after receipt and installation, in a condition not suitable for its intended use, the Contracting Officer shall, upon the Contractor's timely written request, advise the Contractor on a course of action to remedy the problem. Such action may include repairing, replacing, modifying, returning, or otherwise disposing of the property at the Government's expense. Upon completion of the required action(s), the Contracting Officer shall consider an equitable adjustment to the contract (see also paragraph (f)(1)(ii)(A) of this clause).

(iii) The Government may, at its option, furnish property in an "as-is" condition. The Contractor will be given the opportunity to inspect such property prior to the property being provided. In such cases, the Government makes no

warranty with respect to the serviceability and/or suitability of the property for contract performance. Any repairs, replacement, and/or refurbishment shall be at the Contractor's expense.

(3)

(i) The Contracting Officer may by written notice, at any time—

(A) Increase or decrease the amount of Government-furnished property under this contract;

(B) Substitute other Government-furnished property for the property previously furnished, to be furnished, or to be acquired by the Contractor for the Government under this contract; or

(C) Withdraw authority to use property.

(ii) Upon completion of any action(s) under paragraph (d)(3)(i) of this clause, and the Contractor's timely written request, the Contracting Officer shall consider an equitable adjustment to the contract.

(e) *Title to Government property.*

(1) All Government-furnished property and all property acquired by the Contractor, title to which vests in the Government under this paragraph (collectively referred to as "Government property"), is subject to the provisions of this clause. The Government shall retain title to all Government-furnished property. Title to Government property shall not be affected by its incorporation into or attachment to any property not owned by the Government, nor shall Government property become a fixture or lose its identity as personal property by being attached to any real property.

(2) Title vests in the Government for all property acquired or fabricated by the Contractor in accordance with the financing provisions or other specific requirements for passage of title in the contract. Under fixed price type contracts, in the absence of financing provisions or other specific requirements for passage of title in the contract, the Contractor retains title to all property acquired by the Contractor for use on the contract, except for property identified as a deliverable end item. If a deliverable item is to be retained by the Contractor for use after inspection and acceptance by the Government, it shall be made accountable to the contract through a contract modification listing the item as Government-furnished property.

(3) *Title under Cost-Reimbursement or Time-and-Material Contracts or Cost-Reimbursable line items under Fixed-Price contracts.*

(i) Title to all property purchased by the Contractor for which the Contractor is entitled to be reimbursed as a direct item of cost under this contract shall pass to and vest in the Government upon the vendor's delivery of such property.

(ii) Title to all other property, the cost of which is reimbursable to the Contractor, shall pass to and vest in the Government upon—

(A) Issuance of the property for use in contract performance;

(B) Commencement of processing of the property for use in contract performance; or

(C) Reimbursement of the cost of the property by the Government, whichever occurs first.

(f) *Contractor plans and systems.*

(1) Contractors shall establish and implement property management plans, systems, and procedures at the contract, program, site or entity level to enable the following outcomes:

(i) **Acquisition of Property.** The Contractor shall document that all property was acquired consistent with its engineering, production planning, and property control operations.

(ii) **Receipt of Government Property.** The Contractor shall receive Government property and document the receipt, record the information necessary to meet the record requirements of paragraph (f)(1)(iii)(A)(1) through (5) of this clause, identify as Government owned in a manner appropriate to the type of property (*e.g.*, stamp, tag, mark, or other identification), and manage any discrepancies incident to shipment.

(A) **Government-furnished property.** The Contractor shall furnish a written statement to the Property Administrator containing all relevant facts, such as cause or condition and a recommended course(s) of action, if overages, shortages, or damages and/or other discrepancies are discovered upon receipt of Government-furnished property.

(B) **Contractor-acquired property.** The Contractor shall take all actions necessary to adjust for overages, shortages, damage and/or other discrepancies discovered upon receipt, in shipment of Contractor-acquired property from a vendor or supplier, so as to ensure the proper allocability and allowability of associated costs.

(iii) **Records of Government property.** The Contractor shall create and maintain records of all Government property accountable to the contract, including Government-furnished and Contractor-acquired property.

(A) Property records shall enable a complete, current, auditable record of all transactions and shall, unless otherwise approved by the Property Administrator, contain the following:

(1) The name, part number and description, National Stock Number (if needed for additional item identification tracking and/or disposition), and other data elements as necessary and required in accordance with the terms and conditions of the contract.

(2) Quantity received (or fabricated), issued, and balance-on-hand.

(3) Unit acquisition cost.

(4) Unique-item identifier or equivalent (if available and necessary for individual item tracking).

(5) Unit of measure.

(6) Accountable contract number or equivalent code designation.

(7) Location.

(8) Disposition.

(9) Posting reference and date of transaction.

(10) Date placed in service (if required in accordance with the terms and conditions of the contract).

(B) **Use of a Receipt and Issue System for Government Material.** When approved by the Property Administrator, the Contractor may maintain, in lieu of formal property records, a file of appropriately cross-referenced documents evidencing receipt, issue, and use of material that is issued for immediate consumption.

(iv) **Physical inventory.** The Contractor shall periodically perform, record, and disclose physical inventory results. A final physical inventory shall be performed upon contract completion or termination. The Property Administrator may waive this final inventory requirement, depending on the circumstances (*e.g.*, overall reliability of the Contractor's system or the property is to be transferred to a follow-on contract).

(v) **Subcontractor control.**

(A) The Contractor shall award subcontracts that clearly identify items to be provided and the extent of any restrictions or limitations on their use. The Contractor shall ensure appropriate flow down of contract terms and conditions (*e.g.*, extent of liability for loss of Government property).

(B) The Contractor shall assure its subcontracts are properly administered and reviews are periodically performed to determine the adequacy of the subcontractor's property management system.

(vi) **Reports.** The Contractor shall have a process to create and provide reports of discrepancies, loss of Government property, physical inventory results, audits and self-assessments, corrective actions, and other property-related reports as directed by the Contracting Officer.

(vii) **Relief of stewardship responsibility and liability.** The Contractor shall have a process to enable the prompt recognition, investigation, disclosure and reporting of loss of Government property, including losses that occur at subcontractor or alternate site locations.

(A) This process shall include the corrective actions necessary to prevent recurrence.

(B) Unless otherwise directed by the Property Administrator, the Contractor shall investigate and report to the Government all incidents of property loss as soon as the facts become known. Such reports shall, at a minimum, contain the following information:

- (1) Date of incident (if known).
- (2) The data elements required under (f)(1)(iii)(A).
- (3) Quantity.
- (4) Accountable contract number.
- (5) A statement indicating current or future need.
- (6) Unit acquisition cost, or if applicable, estimated sales proceeds, estimated repair or replacement costs.
- (7) All known interests in commingled material of which includes Government material.
- (8) Cause and corrective action taken or to be taken to prevent recurrence.
- (9) A statement that the Government will receive compensation covering the loss of Government property, in the event the Contractor was or will be reimbursed or compensated.
- (10) Copies of all supporting documentation.
- (11) Last known location.
- (12) A statement that the property did or did not contain sensitive, export controlled, hazardous, or toxic material, and that the appropriate agencies and authorities were notified.

(C) Unless the contract provides otherwise, the Contractor shall be relieved of stewardship responsibility and liability for property when—

- (1) Such property is consumed or expended, reasonably and properly, or otherwise accounted for, in the performance of the contract, including reasonable inventory adjustments of material as determined by the Property Administrator;

- (2) Property Administrator grants relief of responsibility and liability for loss of Government property;
- (3) Property is delivered or shipped from the Contractor's plant, under Government instructions, except when shipment is to a subcontractor or other location of the Contractor; or
- (4) Property is disposed of in accordance with paragraphs (j) and (k) of this clause.

(viii) *Utilizing Government property.*

(A) The Contractor shall utilize, consume, move, and store Government Property only as authorized under this contract. The Contractor shall promptly disclose and report Government property in its possession that is excess to contract performance.

(B) Unless otherwise authorized in this contract or by the Property Administrator the Contractor shall not commingle Government material with material not owned by the Government.

(ix) *Maintenance.* The Contractor shall properly maintain Government property. The Contractor's maintenance program shall enable the identification, disclosure, and performance of normal and routine preventative maintenance and repair. The Contractor shall disclose and report to the Property Administrator the need for replacement and/or capital rehabilitation.

(x) *Property closeout.* The Contractor shall promptly perform and report to the Property Administrator contract property closeout, to include reporting, investigating and securing closure of all loss of Government property cases; physically inventorying all property upon termination or completion of this contract; and disposing of items at the time they are determined to be excess to contractual needs.

(2) The Contractor shall establish and maintain Government accounting source data, as may be required by this contract, particularly in the areas of recognition of acquisitions, loss of Government property, and disposition of material and equipment.

(g) *Systems analysis.*

(1) The Government shall have access to the Contractor's premises and all Government property, at reasonable times, for the purposes of reviewing, inspecting and evaluating the Contractor's property management plan(s), systems, procedures, records, and supporting documentation that pertains to Government property. This access includes all site locations and, with the Contractor's consent, all subcontractor premises.

(2) Records of Government property shall be readily available to authorized Government personnel and shall be appropriately safeguarded.

(3) Should it be determined by the Government that the Contractor's (or subcontractor's) property management practices are inadequate or not acceptable for the effective management and control of Government property under this contract, or present an undue risk to the Government, the Contractor shall prepare a corrective action plan when requested by the Property Administer and take all necessary corrective actions as specified by the schedule within the corrective action plan.

(4) The Contractor shall ensure Government access to subcontractor premises, and all Government property located at subcontractor premises, for the purposes of reviewing, inspecting and evaluating the subcontractor's property management plan, systems, procedures, records, and supporting documentation that pertains to Government property.

(h) *Contractor Liability for Government Property.*

(1) Unless otherwise provided for in the contract, the Contractor shall not be liable for loss of Government property furnished or acquired under this contract, except when any one of the following applies—

(i) The risk is covered by insurance or the Contractor is otherwise reimbursed (to the extent of such insurance or reimbursement). The allowability of insurance costs shall be determined in accordance with [31.205-19](#).

(ii) Loss of Government property that is the result of willful misconduct or lack of good faith on the part of the Contractor's managerial personnel.

(iii) The Contracting Officer has, in writing, revoked the Government's assumption of risk for loss of Government property due to a determination under paragraph (g) of this clause that the Contractor's property management practices are inadequate, and/or present an undue risk to the Government, and the Contractor failed to take timely corrective action. If the Contractor can establish by clear and convincing evidence that the loss of Government property occurred while the Contractor had adequate property management practices or the loss did not result from the Contractor's failure to maintain adequate property management practices, the Contractor shall not be held liable.

(2) The Contractor shall take all reasonable actions necessary to protect the property from further loss. The Contractor shall separate the damaged and undamaged property, place all the affected property in the best possible order, and take such other action as the Property Administrator directs.

(3) The Contractor shall do nothing to prejudice the Government's rights to recover against third parties for any loss of Government property.

(4) The Contractor shall reimburse the Government for loss of Government property, to the extent that the Contractor is financially liable for such loss, as directed by the Contracting Officer.

(5) Upon the request of the Contracting Officer, the Contractor shall, at the Government's expense, furnish to the Government all reasonable assistance and cooperation, including the prosecution of suit and the execution of instruments of assignment in favor of the Government in obtaining recovery.

(i) ***Equitable adjustment.*** Equitable adjustments under this clause shall be made in accordance with the procedures of the Changes clause. However, the Government shall not be liable for breach of contract for the following:

(1) Any delay in delivery of Government-furnished property.

(2) Delivery of Government-furnished property in a condition not suitable for its intended use.

(3) An increase, decrease, or substitution of Government-furnished property.

(4) Failure to repair or replace Government property for which the Government is responsible. [Standard Form 1428](#)

(j) ***Contractor inventory disposal.*** Except as otherwise provided for in this contract, the Contractor shall not dispose of Contractor inventory until authorized to do so by the Plant Clearance Officer or authorizing official.

(1) Predisposal requirements.

(i) If the Contractor determines that the property has the potential to fulfill requirements under other contracts, the Contractor, in consultation with the Property Administrator, shall request that the Contracting Officer transfer the property to the contract in question, or provide authorization for use, as appropriate. In lieu of transferring the property, the Contracting Officer may authorize the Contractor to credit the costs of Contractor-acquired property (material only) to the losing contract, and debit the gaining contract with the corresponding cost, when such material is needed for use on another contract. Property no longer needed shall be considered contractor inventory.

(ii) For any remaining Contractor-acquired property, the Contractor may purchase the property at the unit acquisition cost if desired or make reasonable efforts to return unused property to the appropriate supplier at fair market value (less, if applicable, a reasonable restocking fee that is consistent with the supplier's customary practices.)

(2) *Inventory disposal schedules.*

(i) Absent separate contract terms and conditions for property disposition, and provided the property was not reutilized, transferred, or otherwise disposed of, the Contractor, as directed by the Plant Clearance Officer or authorizing official, shall use Standard Form 1428, Inventory Disposal Schedule or electronic equivalent, to identify and report—

(A) Government-furnished property that is no longer required for performance of this contract;

(B) Contractor-acquired property, to which the Government has obtained title under paragraph (e) of this clause, which is no longer required for performance of that contract; and

(C) Termination inventory.

(ii) The Contractor may annotate inventory disposal schedules to identify property the Contractor wishes to purchase from the Government, in the event that the property is offered for sale.

(iii) Separate inventory disposal schedules are required for aircraft in any condition, flight safety critical aircraft parts, and other items as directed by the Plant Clearance Officer.

(iv) The Contractor shall provide the information required by FAR [52.245-1](#)(f)(1)(iii) along with the following:

(A) Any additional information that may facilitate understanding of the property's intended use.

(B) For work-in-progress, the estimated percentage of completion.

(C) For precious metals in raw or bulk form, the type of metal and estimated weight.

(D) For hazardous material or property contaminated with hazardous material, the type of hazardous material.

(E) For metals in mill product form, the form, shape, treatment, hardness, temper, specification (commercial or Government) and dimensions (thickness, width and length).

(v) Property with the same description, condition code, and reporting location may be grouped in a single line item.

(vi) Scrap should be reported by "lot" along with metal content, estimated weight and estimated value.

(3) *Submission requirements.*

(i) The Contractor shall submit inventory disposal schedules to the Plant Clearance Officer no later than—

(A) 30 days following the Contractor's determination that a property item is no longer required for performance of this contract;

(B) 60 days, or such longer period as may be approved by the Plant Clearance Officer, following completion of contract deliveries or performance; or

(C) 120 days, or such longer period as may be approved by the Termination Contracting Officer, following contract termination in whole or in part.

(ii) Unless the Plant Clearance Officer determines otherwise, the Contractor need not identify or report production scrap on inventory disposal schedules, and may process and dispose of production scrap in accordance with its own internal scrap procedures. The processing and disposal of other types of Government-owned scrap will be conducted in accordance with the terms and conditions of the contract or Plant Clearance Officer direction, as appropriate.

(4) ***Corrections.*** The Plant Clearance Officer may—

- (i) Reject a schedule for cause (*e.g.*, contains errors, determined to be inaccurate); and
- (ii) Require the Contractor to correct an inventory disposal schedule.

(5) ***Postsubmission adjustments.*** The Contractor shall notify the Plant Clearance Officer at least 10 working days in advance of its intent to remove an item from an approved inventory disposal schedule. Upon approval of the Plant Clearance Officer, or upon expiration of the notice period, the Contractor may make the necessary adjustments to the inventory schedule.

(6) ***Storage.***

(i) The Contractor shall store the property identified on an inventory disposal schedule pending receipt of disposal instructions. The Government's failure to furnish disposal instructions within 120 days following acceptance of an inventory disposal schedule may entitle the Contractor to an equitable adjustment for costs incurred to store such property on or after the 121st day.

(ii) The Contractor shall obtain the Plant Clearance Officer's approval to remove property from the premises where the property is currently located prior to receipt of final disposition instructions. If approval is granted, any costs incurred by the Contractor to transport or store the property shall not increase the price or fee of any Government contract. The storage area shall be appropriate for assuring the property's physical safety and suitability for use. Approval does not relieve the Contractor of any liability for such property under this contract.

(7) ***Disposition instructions.***

(i) The Contractor shall prepare for shipment, deliver f.o.b. origin, or dispose of Contractor inventory as directed by the Plant Clearance Officer. Unless otherwise directed by the Contracting Officer or by the Plant Clearance Officer, the Contractor shall remove and destroy any markings identifying the property as U.S. Government-owned property prior to its disposal.

(ii) The Contracting Officer may require the Contractor to demilitarize the property prior to shipment or disposal. In such cases, the Contractor may be entitled to an equitable adjustment under paragraph (i) of this clause.

(8) ***Disposal proceeds.*** As directed by the Contracting Officer, the Contractor shall credit the net proceeds from the disposal of Contractor inventory to the contract, or to the Treasury of the United States as miscellaneous receipts.

(9) ***Subcontractor inventory disposal schedules.*** The Contractor shall require its Subcontractors to submit inventory disposal schedules to the Contractor in accordance with the requirements of paragraph (j)(3) of this clause.

(k) ***Abandonment of Government property.***

(1) The Government shall not abandon sensitive property or termination inventory without the Contractor's written consent.

(2) The Government, upon notice to the Contractor, may abandon any nonsensitive property in place, at which time all obligations of the Government regarding such property shall cease.

(3) Absent contract terms and conditions to the contrary, the Government may abandon parts removed and replaced from property as a result of normal maintenance actions, or removed from property as a result of the repair, maintenance, overhaul, or modification process.

(4) The Government has no obligation to restore or rehabilitate the Contractor's premises under any circumstances; however, if Government-furnished property is withdrawn or is unsuitable for the intended use, or if other Government property is substituted, then the equitable adjustment under paragraph (i) of this clause may properly include restoration or rehabilitation costs.

(l) **Communication.** All communications under this clause shall be in writing.

(m) **Contracts outside the United States.** If this contract is to be performed outside of the United States and its outlying areas, the words "Government" and "Government-furnished" (wherever they appear in this clause) shall be construed as "United States Government" and "United States Government-furnished," respectively.

(End of clause)

52.248-1 VALUE ENGINEERING (JUN 2020)

(a) General. The Contractor is encouraged to develop, prepare, and submit value engineering change proposals (VECP's) voluntarily. The Contractor shall share in any net acquisition savings realized from accepted VECP's, in accordance with the incentive sharing rates in paragraph (f) below.

(b) Definitions. "Acquisition savings," as used in this clause, means savings resulting from the application of a VECP to contracts awarded by the same contracting office or its successor for essentially the same unit. Acquisition savings include--

(1) Instant contract savings, which are the net cost reductions on this, the instant contract, and which are equal to the instant unit cost reduction multiplied by the number of instant contract units affected by the VECP, less the Contractor's allowable development and implementation costs;

(2) Concurrent contract savings, which are net reductions in the prices of other contracts that are definitized and ongoing at the time the VECP is accepted; and

(3) Future contract savings, which are the product of the future unit cost reduction multiplied by the number of future contract units in the sharing base. On an instant contract, future contract savings include savings on increases in quantities after VECP acceptance that are due to contract modifications, exercise of options, additional orders, and funding of subsequent year requirements on a multiyear contract.

"Collateral costs," as used in this clause, means agency cost of operation, maintenance, logistic support, or Government-furnished property.

"Collateral savings," as used in this clause, means those measurable net reductions resulting from a VECP in the agency's overall projected collateral costs, exclusive of acquisition savings, whether or not the acquisition cost changes.

"Contracting office" includes any contracting office that the acquisition is transferred to, such as another branch of the agency or another agency's office that is performing a joint acquisition action.

"Contractor's development and implementation costs," as used in this clause, means those costs the Contractor incurs on a VECP specifically in developing, testing, preparing, and submitting the VECP, as well as those costs the Contractor incurs to make the contractual changes required by Government acceptance of a VECP.

"Future unit cost reduction," as used in this clause, means the instant unit cost reduction adjusted as the Contracting Officer considers necessary for projected learning or changes in quantity during the sharing period. It is calculated at the time the VECP is accepted and applies either (1) throughout the sharing period, unless the Contracting Officer

decides that recalculation is necessary because conditions are significantly different from those previously anticipated or (2) to the calculation of a lump-sum payment, which cannot later be revised.

"Government costs," as used in this clause, means those agency costs that result directly from developing and implementing the VECP, such as any net increases in the cost of testing, operations, maintenance, and logistics support. The term does not include the normal administrative costs of processing the VECP or any increase in this contract's cost or price resulting from negative instant contract savings.

"Instant contract," as used in this clause, means this contract, under which the VECP is submitted. It does not include increases in quantities after acceptance of the VECP that are due to contract modifications, exercise of options, or additional orders. If this is a multiyear contract, the term does not include quantities funded after VECP acceptance. If this contract is a fixed-price contract with prospective price redetermination, the term refers to the period for which firm prices have been established.

"Instant unit cost reduction" means the amount of the decrease in unit cost of performance (without deducting any Contractor's development or implementation costs) resulting from using the VECP on this, the instant contract. If this is a service contract, the instant unit cost reduction is normally equal to the number of hours per line-item task saved by using the VECP on this contract, multiplied by the appropriate contract labor rate.

"Negative instant contract savings" means the increase in the cost or price of this contract when the acceptance of a VECP results in an excess of the Contractor's allowable development and implementation costs over the product of the instant unit cost reduction multiplied by the number of instant contract units affected.

"Net acquisition savings" means total acquisition savings, including instant, concurrent, and future contract savings, less Government costs.

"Sharing base," as used in this clause, means the number of affected end items on contracts of the contracting office accepting the VECP.

Sharing period, as used in this clause, means the period beginning with acceptance of the first unit incorporating the VECP and ending at a calendar date or event determined by the contracting officer for each VECP.

"Unit," as used in this clause, means the item or task to which the Contracting Officer and the Contractor agree the VECP applies.

"Value engineering change proposal (VECP)" means a proposal that--

- (1) Requires a change to this, the instant contract, to implement; and
- (2) Results in reducing the overall projected cost to the agency without impairing essential functions or characteristics; provided, that it does not involve a change--
 - (i) In deliverable end item quantities only;
 - (ii) In research and development (R&D) end items or R&D test quantities that is due solely to results of previous testing under this contract; or
 - (iii) To the contract type only.
- (c) VECP preparation. As a minimum, the Contractor shall include in each VECP the information described in subparagraphs (1) through (8) below. If the proposed change is affected by contractually required configuration management or similar procedures, the instructions in those procedures relating to format, identification, and priority assignment shall govern VECP preparation. The VECP shall include the following:

(1) A description of the difference between the existing contract requirement and the proposed requirement, the comparative advantages and disadvantages of each, a justification when an item's function or characteristics are being altered, the effect of the change on the end item's performance, and any pertinent objective test data.

(2) A list and analysis of the contract requirements that must be changed if the VECP is accepted, including any suggested specification revisions.

(3) Identification of the unit to which the VECP applies.

(4) A separate, detailed cost estimate for (i) the affected portions of the existing contract requirement and (ii) the VECP. The cost reduction associated with the VECP shall take into account the Contractor's allowable development and implementation costs, including any amount attributable to subcontracts under the Subcontracts paragraph of this clause, below.

(5) A description and estimate of costs the Government may incur in implementing the VECP, such as test and evaluation and operating and support costs.

(6) A prediction of any effects the proposed change would have on collateral costs to the agency.

(7) A statement of the time by which a contract modification accepting the VECP must be issued in order to achieve the maximum cost reduction, noting any effect on the contract completion time or delivery schedule.

(8) Identification of any previous submissions of the VECP, including the dates submitted, the agencies and contract numbers involved, and previous Government actions, if known.

(d) Submission. The Contractor shall submit VECP's to the Contracting Officer, unless this contract states otherwise. If this contract is administered by other than the contracting office, the Contractor shall submit a copy of the VECP simultaneously to the Contracting Officer and to the Administrative Contracting Officer.

(e) Government action. (1) The Contracting Officer will notify the Contractor of the status of the VECP within 45 calendar days after the contracting office receives it. If additional time is required, the Contracting Officer will notify the Contractor within the 45-day period and provide the reason for the delay and the expected date of the decision. The Government will process VECP's expeditiously; however, it shall not be liable for any delay in acting upon a VECP.

(2) If the VECP is not accepted, the Contracting Officer will notify the Contractor in writing, explaining the reasons for rejection. The Contractor may withdraw any VECP, in whole or in part, at any time before it is accepted by the Government. The Contracting Officer may require that the Contractor provide written notification before undertaking significant expenditures for VECP effort.

(3) Any VECP may be accepted, in whole or in part, by the Contracting Officer's award of a modification to this contract citing this clause and made either before or within a reasonable time after contract performance is completed. Until such a contract modification applies a VECP to this contract, the Contractor shall perform in accordance with the existing contract. The decision to accept or reject all or part of any VECP is a unilateral decision made solely at the discretion of the Contracting Officer.

(f) Sharing rates. If a VECP is accepted, the Contractor shall share in net acquisition savings according to the percentages shown in the table below. The percentage paid the Contractor depends upon (1) this contract's type (fixed-price, incentive, or cost-reimbursement), (2) the sharing arrangement specified in paragraph (a) above (incentive, program requirement, or a combination as delineated in the Schedule), and (3) the source of the savings (the instant contract, or concurrent and future contracts), as follows:

CONTRACTOR'S SHARE OF NET ACQUISITION SAVINGS

(Figures in percent)

--	--	--	--	--

Contract Type	Incentive (Voluntary)		Program Requirement (Mandatory)	
	Instant Contract Rate	Concurrent and Future Contract Rate	Instant Contract Rate	Concurrent and Future Contract Rate
Fixed-price (includes fixed-price-award-fee; excludes other fixed-price incentive contracts)	(1) 50	(1) 50	(1) 25	25
Incentive (fixed-price or cost) (other than award fee)	(2)	(1) 50	(2)	25
Cost-reimbursement (includes cost-plus-award-fee; excludes other cost-type incentive Contracts)	(3) 25	(3) 25	15	15

* The Contracting Officer may increase the Contractor's sharing rate to as high as 75 percent for each VECP.

* Same sharing arrangement as the contract's profit or fee adjustment formula.

* The Contracting Officer may increase the Contractor's sharing rate to as high as 50 percent for each VECP.

(g) Calculating net acquisition savings.

(1) Acquisition savings are realized when (i) the cost or price is reduced on the instant contract, (ii) reductions are negotiated in concurrent contracts, (iii) future contracts are awarded, or (iv) agreement is reached on a lump-sum payment for future contract savings (see subparagraph (i)(4) below). Net acquisition savings are first realized, and the Contractor shall be paid a share, when Government costs and any negative instant contract savings have been fully offset against acquisition savings.

(2) Except in incentive contracts, Government costs and any price or cost increases resulting from negative instant contract savings shall be offset against acquisition savings each time such savings are realized until they are fully offset. Then, the Contractor's share is calculated by multiplying net acquisition savings by the appropriate Contractor's percentage sharing rate (see paragraph (f) above). Additional Contractor shares of net acquisition savings shall be paid to the Contractor at the time realized.

(3) If this is an incentive contract, recovery of Government costs on the instant contract shall be deferred and offset against concurrent and future contract savings. The Contractor shall share through the contract incentive structure in savings on the instant contract items affected. Any negative instant contract savings shall be added to the target cost or to the target price and ceiling price, and the amount shall be offset against concurrent and future contract savings.

(4) If the Government does not receive and accept all items on which it paid the Contractor's share, the Contractor shall reimburse the Government for the proportionate share of these payments.

(h) Contract adjustment. The modification accepting the VECP (or a subsequent modification issued as soon as possible after any negotiations are completed) shall--

(1) Reduce the contract price or estimated cost by the amount of instant contract savings, unless this is an incentive contract;

- (2) When the amount of instant contract savings is negative, increase the contract price, target price and ceiling price, target cost, or estimated cost by that amount;
 - (3) Specify the Contractor's dollar share per unit on future contracts, or provide the lump-sum payment;
 - (4) Specify the amount of any Government costs or negative instant contract savings to be offset in determining net acquisition savings realized from concurrent or future contract savings; and
 - (5) Provide the Contractor's share of any net acquisition savings under the instant contract in accordance with the following:
 - (i) Fixed-price contracts--add to contract price.
 - (ii) Cost-reimbursement contracts--add to contract fee.
 - (i) Concurrent and future contract savings.
- (1) Payments of the Contractor's share of concurrent and future contract savings shall be made by a modification to the instant contract in accordance with subparagraph (h)(5) above. For incentive contracts, shares shall be added as a separate firm-fixed-price line item on the instant contract. The Contractor shall maintain records adequate to identify the first delivered unit for 3 years after final payment under this contract.
- (2) The Contracting Officer shall calculate the Contractor's share of concurrent contract savings by (i) subtracting from the reduction in price negotiated on the concurrent contract any Government costs or negative instant contract savings not yet offset and (ii) multiplying the result by the Contractor's sharing rate.
- (3) The Contracting Officer shall calculate the Contractor's share of future contract savings by (i) multiplying the future unit cost reduction by the number of future contract units scheduled for delivery during the sharing period, (ii) subtracting any Government costs or negative instant contract savings not yet offset, and (iii) multiplying the result by the Contractor's sharing rate.
- (4) When the Government wishes and the Contractor agrees, the Contractor's share of future contract savings may be paid in a single lump sum rather than in a series of payments over time as future contracts are awarded. Under this alternate procedure, the future contract savings may be calculated when the VECP is accepted, on the basis of the Contracting Officer's forecast of the number of units that will be delivered during the sharing period. The Contractor's share shall be included in a modification to this contract (see subparagraph (h)(3) above) and shall not be subject to subsequent adjustment.
- (5) Alternate no-cost settlement method. When, in accordance with section 48.104-4 of the Federal Acquisition Regulation (FAR), the Government and the Contractor mutually agree to use the no-cost settlement method, the following applies:
- (i) The Contractor will keep all the savings on the instant contract and on its concurrent contracts only.
 - (ii) The Government will keep all the savings resulting from concurrent contracts placed on other sources, savings from all future contracts, and all collateral savings.
 - (j) Collateral savings. If a VECP is accepted, the Contracting Officer will increase the instant contract amount, as specified in paragraph (h)(5) of this clause, by a rate from 20 to 100 percent, as determined by the Contracting Officer, of any projected collateral savings determined to be realized in a typical year of use after subtracting any Government costs not previously offset. However, the Contractor's share of collateral savings will not exceed the contract's firm-fixed-price, target price, target cost, or estimated cost, at the time the VECP is accepted, or \$100,000, whichever is greater. The Contracting Officer will be the sole determiner of the amount of collateral savings.

(k) Relationship to other incentives. Only those benefits of an accepted VECP not rewardable under performance, design-to-cost (production unit cost, operating and support costs, reliability and maintainability), or similar incentives shall be rewarded under this clause. However, the targets of such incentives affected by the VECP shall not be adjusted because of VECP acceptance. If this contract specifies targets but provides no incentive to surpass them, the value engineering sharing shall apply only to the amount of achievement better than target.

(l) Subcontracts. The Contractor shall include an appropriate value engineering clause in any subcontract-valued at or above the simplified acquisition threshold, as defined in FAR 2.101 on the date of subcontract award, and may include one in subcontracts of lesser value. In calculating any adjustment in this contract's price for instant contract savings (or negative instant contract savings), the Contractor's allowable development and implementation costs shall include any subcontractor's allowable development and implementation costs, and any value engineering incentive payments to a subcontractor, clearly resulting from a VECP accepted by the Government under this contract. The Contractor may choose any arrangement for subcontractor value engineering incentive payments; provided, that the payments shall not reduce the Government's share of concurrent or future contract savings or collateral savings.

(m) Data. The Contractor may restrict the Government's right to use any part of a VECP or the supporting data by marking the following legend on the affected parts:

"These data, furnished under the Value Engineering clause of contract , shall not be disclosed outside the Government or duplicated, used, or disclosed, in whole or in part, for any purpose other than to evaluate a value engineering change proposal submitted under the clause. This restriction does not limit the Government's right to use information contained in these data if it has been obtained or is otherwise available from the Contractor or from another source without limitations."

If a VECP is accepted, the Contractor hereby grants the Government unlimited rights in the VECP and supporting data, except that, with respect to data qualifying and submitted as limited rights technical data, the Government shall have the rights specified in the contract modification implementing the VECP and shall appropriately mark the data. (The terms "unlimited rights" and "limited rights" are defined in Part 27 of the Federal Acquisition Regulation.)

(End of clause)

52.252-2 CLAUSES INCORPORATED BY REFERENCE (FEB 1998)

This contract incorporates one or more clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. Also, the full text of a clause may be accessed electronically at this/these address(es):

[Insert one or more Internet addresses]

(End of clause)

52.252-6 AUTHORIZED DEVIATIONS IN CLAUSES (APR 1984)

(a) The use in this solicitation or contract of any Federal Acquisition Regulation (48 CFR Chapter 1) clause with an authorized deviation is indicated by the addition of "(DEVIATION)" after the date of the clause.

(b) The use in this solicitation or contract of any insert regulation name (48 CFR _____) clause with an authorized deviation is indicated by the addition of "(DEVIATION)" after the name of the regulation.

(End of clause)

252.211-7003 ITEM UNIQUE IDENTIFICATION AND VALUATION (MAR 2016)

(a) Definitions. As used in this clause-

Automatic identification device means a device, such as a reader or interrogator, used to retrieve data encoded on machine-readable media.

Concatenated unique item identifier means--

(1) For items that are serialized within the enterprise identifier, the linking together of the unique identifier data elements in order of the issuing agency code, enterprise identifier, and unique serial number within the enterprise identifier; or

(2) For items that are serialized within the original part, lot, or batch number, the linking together of the unique identifier data elements in order of the issuing agency code; enterprise identifier; original part, lot, or batch number; and serial number within the original part, lot, or batch number.

Data Matrix means a two-dimensional matrix symbology, which is made up of square or, in some cases, round modules arranged within a perimeter finder pattern and uses the Error Checking and Correction 200 (ECC200) specification found within International Standards Organization (ISO)/International Electrotechnical Commission (IEC) 16022.

Data qualifier means a specified character (or string of characters) that immediately precedes a data field that defines the general category or intended use of the data that follows.

DoD recognized unique identification equivalent means a unique identification method that is in commercial use and has been recognized by DoD. All DoD recognized unique identification equivalents are listed at http://www.acq.osd.mil/dpap/pdi/uid/iuid_equivalents.html.

DoD item unique identification means a system of marking items delivered to DoD with unique item identifiers that have machine-readable data elements to distinguish an item from all other like and unlike items. For items that are serialized within the enterprise identifier, the unique item identifier shall include the data elements of the enterprise identifier and a unique serial number. For items that are serialized within the part, lot, or batch number within the enterprise identifier, the unique item identifier shall include the data elements of the enterprise identifier; the original part, lot, or batch number; and the serial number.

Enterprise means the entity (e.g., a manufacturer or vendor) responsible for assigning unique item identifiers to items.

Enterprise identifier means a code that is uniquely assigned to an enterprise by an issuing agency.

Government's unit acquisition cost means--

(1) For fixed-price type line, subline, or exhibit line items, the unit price identified in the contract at the time of delivery;

(2) For cost-type or undefinitized line, subline, or exhibit line items, the Contractor's estimated fully burdened unit cost to the Government at the time of delivery; and

(3) For items produced under a time-and-materials contract, the Contractor's estimated fully burdened unit cost to the Government at the time of delivery.

Issuing agency means an organization responsible for assigning a globally unique identifier to an enterprise, as indicated in the Register of Issuing Agency Codes for ISO/IEC 15459, located at http://www.aimglobal.org/?Reg_Authority15459.

Issuing agency code means a code that designates the registration (or controlling) authority for the enterprise identifier.

Item means a single hardware article or a single unit formed by a grouping of subassemblies, components, or constituent parts.

Lot or batch number means an identifying number assigned by the enterprise to a designated group of items, usually referred to as either a lot or a batch, all of which were manufactured under identical conditions.

Machine-readable means an automatic identification technology media, such as bar codes, contact memory buttons, radio frequency identification, or optical memory cards.

Original part number means a combination of numbers or letters assigned by the enterprise at item creation to a class of items with the same form, fit, function, and interface.

Parent item means the item assembly, intermediate component, or subassembly that has an embedded item with a unique item identifier or DoD recognized unique identification equivalent.

Serial number within the enterprise identifier means a combination of numbers, letters, or symbols assigned by the enterprise to an item that provides for the differentiation of that item from any other like and unlike item and is never used again within the enterprise.

Serial number within the part, lot, or batch number means a combination of numbers or letters assigned by the enterprise to an item that provides for the differentiation of that item from any other like item within a part, lot, or batch number assignment.

Serialization within the enterprise identifier means each item produced is assigned a serial number that is unique among all the tangible items produced by the enterprise and is never used again. The enterprise is responsible for ensuring unique serialization within the enterprise identifier.

Serialization within the part, lot, or batch number means each item of a particular part, lot, or batch number is assigned a unique serial number within that part, lot, or batch number assignment. The enterprise is responsible for ensuring unique serialization within the part, lot, or batch number within the enterprise identifier.

Type designation means a combination of letters and numerals assigned by the Government to a major end item, assembly or subassembly, as appropriate, to provide a convenient means of differentiating between items having the same basic name and to indicate modifications and changes thereto.

Unique item identifier means a set of data elements marked on items that is globally unique and unambiguous. The term includes a concatenated unique item identifier or a DoD recognized unique identification equivalent.

Unique item identifier type means a designator to indicate which method of uniquely identifying a part has been used. The current list of accepted unique item identifier types is maintained at http://www.acq.osd.mil/dpap/pdi/uid/uii_types.html.

(b) The Contractor shall deliver all items under a contract line, subline, or exhibit line item.

(c) Unique item identifier. (1) The Contractor shall provide a unique item identifier for the following:

(i) Delivered items for which the Government's unit acquisition cost is \$5,000 or more, except for the following line items:

Contract line, subline, or exhibit line item No.	Item description
.....	

(ii) Items for which the Government's unit acquisition cost is less than \$5,000 that are identified in the Schedule or the following table:

Contract line, subline, or exhibit line item No.	Item description
.....	

(If items are identified in the Schedule, insert "See Schedule" in this table.)

(iii) Subassemblies, components, and parts embedded within delivered items, items with warranty requirements, DoD serially managed repairables and DoD serially managed nonrepairables as specified in Attachment Number ----.

(iv) Any item of special tooling or special test equipment as defined in FAR 2.101 that have been designated for preservation and storage for a Major Defense Acquisition Program as specified in Attachment Number ----.

(v) Any item not included in paragraphs (c)(1)(i), (ii), (iii), or

(iv) of this clause for which the contractor creates and marks a unique item identifier for traceability.

(2) The unique item identifier assignment and its component data element combination shall not be duplicated on any other item marked or registered in the DoD Item Unique Identification Registry by the contractor.

(3) The unique item identifier component data elements shall be marked on an item using two dimensional data matrix symbology that complies with ISO/IEC International Standard 16022, Information technology--International symbology specification--Data matrix; ECC200 data matrix specification.

(4) Data syntax and semantics of unique item identifiers. The Contractor shall ensure that--

(i) The data elements (except issuing agency code) of the unique item identifier are encoded within the data matrix symbol that is marked on the item using one of the following three types of data qualifiers, as determined by the Contractor:

(A) Application Identifiers (AIs) (Format Indicator 05 of ISO/IEC International Standard 15434), in accordance with ISO/IEC International Standard 15418, Information Technology--EAN/UCC Application Identifiers and Fact Data Identifiers and Maintenance and ANSI MH 10.8.2 Data Identifier and Application Identifier Standard.

(B) Data Identifiers (DIs) (Format Indicator 06 of ISO/IEC International Standard 15434), in accordance with ISO/IEC International Standard 15418, Information Technology--EAN/UCC Application Identifiers and Fact Data Identifiers and Maintenance and ANSI MH 10.8.2 Data Identifier and Application Identifier Standard.

(C) Text Element Identifiers (TEIs) (Format Indicator 12 of ISO/IEC International Standard 15434), in accordance with the Air Transport Association Common Support Data Dictionary; and

(ii) The encoded data elements of the unique item identifier conform to the transfer structure, syntax, and coding of messages and data formats specified for Format Indicators 05, 06, and 12 in ISO/IEC International Standard 15434, Information Technology-Transfer Syntax for High Capacity Automatic Data Capture Media.

(5) Unique item identifier.

(i) The Contractor shall--

(A) Determine whether to--

(1) Serialize within the enterprise identifier;

(2) Serialize within the part, lot, or batch number; or

(3) Use a DoD recognized unique identification equivalent (e.g. Vehicle Identification Number); and

(B) Place the data elements of the unique item identifier (enterprise identifier; serial number; DoD recognized unique identification equivalent; and for serialization within the part, lot, or batch number only: Original part, lot, or batch number) on items requiring marking by paragraph (c)(1) of this clause, based on the criteria provided in MIL-STD-130, Identification Marking of U.S. Military Property, latest version;

(C) Label shipments, storage containers and packages that contain uniquely identified items in accordance with the requirements of MIL-STD-129, Military Marking for Shipment and Storage, latest version; and

(D) Verify that the marks on items and labels on shipments, storage containers, and packages are machine readable and conform to the applicable standards. The contractor shall use an automatic identification technology device for this verification that has been programmed to the requirements of Appendix A, MIL-STD-130, latest version.

(ii) The issuing agency code--

(A) Shall not be placed on the item; and

(B) Shall be derived from the data qualifier for the enterprise identifier.

(d) For each item that requires item unique identification under paragraph (c)(1)(i), (ii), or (iv) of this clause or when item unique identification is provided under paragraph (c)(1)(v), in addition to the information provided as part of the Material Inspection and Receiving Report specified elsewhere in this contract, the Contractor shall report at the time of delivery, as part of the Material Inspection and Receiving Report, the following information:

(1) Unique item identifier.

(2) Unique item identifier type.

(3) Issuing agency code (if concatenated unique item identifier is used).

(4) Enterprise identifier (if concatenated unique item identifier is used).

(5) Original part number (if there is serialization within the original part number).

- (6) Lot or batch number (if there is serialization within the lot or batch number).
 - (7) Current part number (optional and only if not the same as the original part number).
 - (8) Current part number effective date (optional and only if current part number is used).
 - (9) Serial number (if concatenated unique item identifier is used).
 - (10) Government's unit acquisition cost.
 - (11) Unit of measure.
 - (12) Type designation of the item as specified in the contract schedule, if any.
 - (13) Whether the item is an item of Special Tooling or Special Test Equipment.
 - (14) Whether the item is covered by a warranty.
- (e) For embedded subassemblies, components, and parts that require DoD unique item identification under paragraph (c)(1)(iii) of this clause, the Contractor shall report as part of, or associated with, the Material Inspection and Receiving Report specified elsewhere in this contract, the following information:
- (1) Unique item identifier of the parent item under paragraph (c)(1) of this clause that contains the embedded subassembly, component, or part.
 - (2) Unique item identifier of the embedded subassembly, component, or part.
 - (3) Unique item identifier type.**
 - (4) Issuing agency code (if concatenated unique item identifier is used).**
 - (5) Enterprise identifier (if concatenated unique item identifier is used).**
 - (6) Original part number (if there is serialization within the original part number).**
 - (7) Lot or batch number (if there is serialization within the lot or batch number).**
 - (8) Current part number (optional and only if not the same as the original part number).**
 - (9) Current part number effective date (optional and only if current part number is used).**
 - (10) Serial number (if concatenated unique item identifier is used).**
 - (11) Description.
- ** Once per item.
- (f) The Contractor shall submit the information required by paragraphs (d) and (e) of this clause as follows:
- (1) End items shall be reported using the receiving report capability in Wide Area WorkFlow (WAWF) in accordance with the clause at 252.232-7003. If WAWF is not required by this contract, and the contractor is not using WAWF, follow the procedures at <http://dodprocurementtoolbox.com/site/uidregistry/>.
 - (2) Embedded items shall be reported by one of the following methods--

(i) Use of the embedded items capability in WAWF;

(ii) Direct data submission to the IUID Registry following the procedures and formats at <http://dodprocurementtoolbox.com/site/uiidregistry/>; or

(iii) Via WAWF as a deliverable attachment for exhibit line item number (fill in) ----, Unique Item Identifier Report for Embedded Items, Contract Data Requirements List, DD Form 1423.

(g) Subcontracts. If the Contractor acquires by subcontract any items for which item unique identification is required in accordance with paragraph (c)(1) of this clause, the Contractor shall include this clause, including this paragraph (g), in the applicable subcontract(s), including subcontracts for commercial items.

(End of clause)

252.217-7026 IDENTIFICATION OF SOURCES OF SUPPLY. (NOV 1995)

(a) The Government is required under 10 U.S.C. 2384 to obtain certain information on the actual manufacturer or sources of supplies it acquires.

(b) The apparently successful Offeror agrees to complete and submit the following table before award:

TABLE

Line Items	National Stock No.	Commercial Item (Y or N)	Source of supply Company	Address	Actual Part No.	Mfg?
(1)	(2)	(3)	(4)	(5)	(6)	

(1) List each deliverable item of supply and item of technical data.

(2) If there is no national stock number, list "none."

(3) Use "Y" if the item is a commercial item; otherwise, use "N". If "Y" is listed, the Offeror need not complete the remaining columns in the table.

(4) For items of supply, list all sources. For technical data, list the source.

(5) For items of supply, list each source's part number for the item.

(6) Use "Y" if the source of supply is the actual manufacturer; "N" if it is not; and "U" if unknown.

(End of clause)

252.232-7007 LIMITATION OF GOVERNMENT'S OBLIGATION (APR 2014)

(a) Contract line item(s) _____ is/are incrementally funded. For this/these item(s), the sum of \$---- _____ of the total price is presently available for payment and allotted to this contract. An allotment schedule is set forth in paragraph (j) of this clause.

(b) For item(s) identified in paragraph (a) of this clause, the Contractor agrees to perform up to the point at which the total amount payable by the Government, including reimbursement in the event of termination of those item(s) for the Government's convenience, approximates the total amount currently allotted to the contract. The Contractor is not authorized to continue work on those item(s) beyond that point. The Government will not be obligated in any event to reimburse the Contractor in excess of the amount allotted to the contract for those item(s) regardless of anything to the contrary in the clause entitled "TERMINATION FOR THE CONVENIENCE OF THE GOVERNMENT." As used in this clause, the total amount payable by the Government in the event of termination of applicable contract line item(s) for convenience includes costs, profit and estimated termination settlement costs for those item(s).

(c) Notwithstanding the dates specified in the allotment schedule in paragraph (j) of this clause, the Contractor will notify the Contracting Officer in writing at least ninety days prior to the date when, in the Contractor's best judgment, the work will reach the point at which the total amount payable by the Government, including any cost for termination for convenience, will approximate 85 percent of the total amount then allotted to the contract for performance of the applicable item(s). The notification will state (1) the estimated date when that point will be reached and (2) an estimate of additional funding, if any, needed to continue performance of applicable line items up to the next scheduled date for allotment of funds identified in paragraph (j) of this clause, or to a mutually agreed upon substitute date. The notification will also advise the Contracting Officer of the estimated amount of additional funds that will be required for the timely performance of the item(s) funded pursuant to this clause, for subsequent period as may be specified in the allotment schedule in paragraph (j) of this clause, or otherwise agreed to by the parties. If after such notification additional funds are not allotted by the date identified in the Contractor's notification, or by an agreed substitute date, the Contracting Officer will terminate any item(s) for which additional funds have not been allotted, pursuant to the clause of this contract entitled "TERMINATION FOR THE CONVENIENCE OF THE GOVERNMENT".

(d) When additional funds are allotted for continued performance of the contract line item(s) identified in paragraph (a) of this clause, the parties will agree as to the period of contract performance which will be covered by the funds. The provisions of paragraph (b) through (d) of this clause will apply in like manner to the additional allotted funds and agreed substitute date, and the contract will be modified accordingly.

(e) If, solely by reason of failure of the Government to allot additional funds, by the dates indicated below, in amounts sufficient for timely performance of the contract line item(s) identified in paragraph (a) of this clause, the Contractor incurs additional costs or is delayed in the performance of the work under this contract and if additional funds are allotted, an equitable adjustment will be made in the price or prices (including appropriate target, billing, and ceiling prices where applicable) of the item(s), or in the time of delivery, or both. Failure to agree to any such equitable adjustment hereunder will be a dispute concerning a question of fact within the meaning of the clause entitled "disputes."

(f) The Government may at any time prior to termination allot additional funds for the performance of the contract line item(s) identified in paragraph (a) of this clause.

(g) The termination provisions of this clause do not limit the rights of the Government under the clause entitled "DEFAULT." The provisions of this clause are limited to work and allotment of funds for the contract line item(s) set forth in paragraph (a) of this clause. This clause no longer applies once the contract is fully funded except with regard to the rights or obligations of the parties concerning equitable adjustments negotiated under paragraphs (d) or (e) of this clause.

(h) Nothing in this clause affects the right of the Government to this contract pursuant to the clause of this contract entitled "TERMINATION FOR CONVENIENCE OF THE GOVERNMENT."

(i) Nothing in this clause shall be construed as authorization of voluntary services whose acceptance is otherwise prohibited under 31 U.S.C. 1342.

(j) The parties contemplate that the Government will allot funds to this contract in accordance with the following schedule:

On execution of contract \$--

(month) (day), (year) \$----

(month) (day), (year) \$----

(month) (day), (year) \$----

(End of clause)

Section J - List of Documents, Exhibits and Other Attachments

LIST OF ATTACHMENTS

Attachment Number	Document Title
001	Specs FRP-PRF FWS-I
002	Combined CDRLs