SOLICITATION, OFFER AND AWARD

1. THIS CONTRACT IS A RATED ORDER UNDER DPAS (15 CFR 700)	RATING

2. CONTRACT NO.	3. SOLICITATION NO. HC1028-16-R-0005	4. TYPE OF SOLICITATION [ ] SEALED BID (IFB) [X] NEGOTIATED (RFP)	5. DATE ISSUED 10 Mar 2016	6. REQUISITION/PURCHASE NO. 10726863

7. ISSUED BY	CODE HC1028	8. ADDRESS OFFER TO (If other than Item 7) CODE
DISA/DITCO-SCOTT-PL83 2300 EAST DRIVE SCOTT AFB IL 62225-5406 TEL: FAX:		**See Item 7** 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 DUSTIE M. THOMPSON	B. TELEPHONE (Include area code) *(NO COLLECT CALLS)* 618-229-9127	C. E-MAIL ADDRESS dustie.m.thompson.civ@mail.mil

11. TABLE OF CONTENTS

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.	DATE

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.	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: [ ] 10 U.S.C. 2304(c)( ) [ ] 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 B - Supplies or Services and Prices

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0001			Lot		

CLIN 0001-AFATDS Baseline
CPIF
Base CLIN 0001 - AFATDS Modernization/Development Baseline
NON-PERSONAL. The contractor shall modernize the existing AFATDS software baseline to provide a modernized backend AFATDS architecture; incorporate the Common Services provided by Common Operating Environment v3; implement role duty based functionality; and provide embedded computer based training.

Work shall be accomplished in alignment with AFATDS v7.0 Statement of Objectives; contractor developed Performance Work Statement; contractor developed integrated master plan; and AFATDS v7.0 software requirements specification baseline requirements. Work shall be inclusive of all design, development, and contractor testing.

The Contractor shall provide Unlimited Rights for all data and all non-commercial software developed/modified under this CLIN as defined in DFARS 252.227-7013 and DFARS 252.227-7014. The introduction of propriety data, code, or products into the Government owned AFATDS baseline is strictly prohibited, with the exception of free and open source software (FOSS).

This is a Cost Plus Incentive Fee CLIN. The contractor may earn incentive fee in accordance with AFATDS v7.0 Incentives Plan. Earned incentives are payable under CLIN 0004.

This CLIN is incrementally funded.

PERIOD OF PERFORMANCE: 26 MONTHS

FOB: Destination
PURCHASE REQUEST NUMBER: 10726863

TARGET COST
TARGET FEE
_____

TOTAL TGT COST + FEE
MINIMUM FEE
MAXIMUM FEE
SHARE RATIO ABOVE TARGET
SHARE RATIO BELOW TARGET

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0002			Lot		

OPTION

CLIN 0002-AFATDS Follow-On
CPIF
NON-PERSONAL. AFATDS Modernization and Development Follow-On. The contractor shall continue to modernize the AFATDS software to meet target requirements. Work shall be accomplished in alignment with AFATDS v7.0 Statement of Objectives; contractor developed performance work statement; contractor developed integrated master plan; and AFATDS v7.0 Software Requirements Specification Target Requirements. Work shall be inclusive of all design, development, and contractor testing.

The Contractor shall provide Unlimited Rights for all data and all non-commercial software developed/modified under this CLIN as defined in DFARS 252.227-7013 and DFARS 252.227-7014. The introduction of propriety data, code, or products into the Government owned AFATDS baseline is strictly prohibited, with the exception of free and open source software (FOSS).

The Contractor may earn Incentive Fee in accordance with the AFATDS v7.0 Incentives Plan. Earned incentives are payable under CLIN 0005.

This CLIN is incrementally funded.

PERIOD OF PERFORMANCE: 26 MONTHS

FOB: Destination

TARGET COST
TARGET FEE

TOTAL TGT COST + FEE
MINIMUM FEE
MAXIMUM FEE
SHARE RATIO ABOVE TARGET
SHARE RATIO BELOW TARGET

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0003			Lot		

AFATDS Data -Not Separately Priced
CPIF
The contractor shall provide data associated with the modernization and development of AFATDS v7.0 required under CLINs 0001 and 0002 and in accordance with DD Form 1423, Exhibit A, Contract Data Requirements Lists.

The Contractor shall provide Unlimited Rights for all data and all non-commercial software developed/modified under this CLIN as defined in DFARS 252.227-7013 and DFARS 252.227-7014. The introduction of propriety data, code, or products into the Government owned AFATDS baseline is strictly prohibited, with the exception of free and open source software (FOSS).

This CLIN is Not Separately Priced. All costs associated with this CLIN are included in the price of CLINs 0001 and 0002.

FOB: Destination

TARGET COST
TARGET FEE

TOTAL TGT COST + FEE
MINIMUM FEE
MAXIMUM FEE
SHARE RATIO ABOVE TARGET
SHARE RATIO BELOW TARGET

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0004			Lot		

AFATDS Incentive Fee Earned
CPIF
The contractor may earn up to 15% in incentive fee based upon the agreed upon target cost and performance of CLIN 0001 and in accordance with AFATDS v7.0 Incentives Plan. Each incentive fee payment will be added to this CLIN based upon the AFATDS v7.0 incentives plan criteria.

This CLIN is Not Separately Priced. Earnable fee is up to 15% of the agreed upon target cost of CLIN 0001.

FOB: Destination

TARGET COST
TARGET FEE

TOTAL TGT COST + FEE
MINIMUM FEE
MAXIMUM FEE
SHARE RATIO ABOVE TARGET
SHARE RATIO BELOW TARGET

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0005			Lot		

AFATDS Incentive Fee Earned
CPIF
The contractor may earn up to 15% in incentive fee based upon the agreed upon target cost and performance of CLIN 0002 and in accordance with AFATDS v7.0 Incentives Plan. Each incentive fee payment will be added to this CLIN based upon the AFATDS v7.0 incentives plan criteria.

This CLIN is Not Separately Priced. Earnable fee is up to 15% of the agreed upon target cost of CLIN 0002.

FOB: Destination

TARGET COST
TARGET FEE

TOTAL TGT COST + FEE
MINIMUM FEE
MAXIMUM FEE
SHARE RATIO ABOVE TARGET
SHARE RATIO BELOW TARGET

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0006			Lot		

OPTION

OPTIONAL CLIN Engineering Supt Svcs
CPFF
OPTIONAL CLIN. NON-PERSONAL. The contractor shall provide
engineering support services in accordance with AFATDS v7.0 Statement of
Objectives; contractor developed performance work statement; contractor
developed integrated master plan; and AFATDS v7.0 software requirements
specification.

Technical Direction Letters (TDLs) may be issued under this CLIN for tasks
involving:
-        Systems/Software Engineering Support Services
-        New Requirements Decomposition and Analysis
-        Requirements Trade Analysis and Risk Assessments
-        Conducting Training
-        Government Developmental/Operational Testing Support

The contractor shall provide these services as directed by the government
through TDLs. The cost of each TDL will be negotiated and agreed based upon
the labor hour basis and from the agreed upon rates in the contract.

The Contractor shall provide Unlimited Rights for all data and all non-
commercial software developed/modified under this CLIN as defined in DFARS
252.227-7013 and DFARS 252.227-7014. The introduction of propriety data,
code, or products into the Government owned AFATDS baseline is strictly
prohibited, with the exception of free and open source software (FOSS).

This is a CPFF CLIN with fee payable to 8%.
The period of performance for each TDL will be designated in the TDL. TDLs
may be issued under this CLIN from contract award through final acceptable of
work under CLINs 0001 and 0002.

FOB: Destination

ESTIMATED COST
FIXED FEE

TOTAL EST COST + FEE

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0007		1	Lot		

Other Direct Costs/Travel
COST
The contractor shall provide ODCs, Travel, Subsistence, & Material as defined in Technical Direction Letters issued under CLIN 0006.

The ceiling price for this CLIN is $1,000,000.00

FOB: Destination

ESTIMATED COST

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
1006			Lot		
OPTION					

OPTIONAL CLIN Engineering Supt Svcs
CPFF
OPTIONAL CLIN. NON-PERSONAL. The contractor shall provide
engineering support services in accordance with AFATDS v7.0 Statement of
Objectives; contractor developed performance work statement; contractor
developed integrated master plan; and AFATDS v7.0 software requirements
specification.

Technical Direction Letters (TDLs) may be issued under this CLIN for tasks
involving:
- Systems/Software Engineering Support Services
- New Requirements Decomposition and Analysis
- Requirements Trade Analysis and Risk Assessments
- Conducting Training
- Government Developmental/Operational Testing Support

The contractor shall provide these services as directed by the government
through TDLs. The cost of each TDL will be negotiated and agreed based upon
the labor hour basis and from the agreed upon rates in the contract.

The Contractor shall provide Unlimited Rights for all data and all non-
commercial software developed/modified under this CLIN as defined in DFARS
252.227-7013 and DFARS 252.227-7014. The introduction of propriety data,
code, or products into the Government owned AFATDS baseline is strictly
prohibited, with the exception of free and open source software (FOSS).

This is a CPFF CLIN with fee payable to 8%.
The period of performance for each TDL will be designated in the TDL. TDLs
may be issued under this CLIN from contract award through final acceptable of
work under CLINs 0001 and 0002.
FOB: Destination

ESTIMATED COST
FIXED FEE

TOTAL EST COST + FEE

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
1007		1	Lot		
OPTION					

Other Direct Costs/Travel
COST
The contractor shall provide ODCs, Travel, Subsistence, & Material as defined in
Technical Direction Letters issued under CLIN 1006.

The ceiling price for this CLIN is $1,000,000.00
FOB: Destination

ESTIMATED COST

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
2006			Lot		
OPTION					

OPTIONAL CLIN Engineering Supt Svcs
CPFF
OPTIONAL CLIN. NON-PERSONAL. The contractor shall provide engineering support services in accordance with AFATDS v7.0 Statement of Objectives; contractor developed performance work statement; contractor developed integrated master plan; and AFATDS v7.0 software requirements specification.

Technical Direction Letters (TDLs) may be issued under this CLIN for tasks involving:
- Systems/Software Engineering Support Services
- New Requirements Decomposition and Analysis
- Requirements Trade Analysis and Risk Assessments
- Conducting Training
- Government Developmental/Operational Testing Support

The contractor shall provide these services as directed by the government through TDLs. The cost of each TDL will be negotiated and agreed based upon the labor hour basis and from the agreed upon rates in the contract.

The Contractor shall provide Unlimited Rights for all data and all non-commercial software developed/modified under this CLIN as defined in DFARS 252.227-7013 and DFARS 252.227-7014. The introduction of propriety data, code, or products into the Government owned AFATDS baseline is strictly prohibited, with the exception of free and open source software (FOSS).

This is a CPFF CLIN with fee payable to 8%.
The period of performance for each TDL will be designated in the TDL. TDLs may be issued under this CLIN from contract award through final acceptable of work under CLINs 0001 and 0002.

FOB: Destination

ESTIMATED COST
FIXED FEE
_____

TOTAL EST COST + FEE

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
2007		1	Lot		
OPTION					

Other Direct Costs/Travel
COST
The contractor shall provide ODCs, Travel, Subsistence, & Material as defined in Technical Direction Letters issued under CLIN 2006.

The ceiling price for this CLIN is $1,000,000.00
FOB: Destination

ESTIMATED COST

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
3006			Lot		
OPTION					

OPTIONAL CLIN Engineering Supt Svcs
CPFF
OPTIONAL CLIN. NON-PERSONAL. The contractor shall provide engineering support services in accordance with AFATDS v7.0 Statement of Objectives; contractor developed performance work statement; contractor developed integrated master plan; and AFATDS v7.0 software requirements specification.

Technical Direction Letters (TDLs) may be issued under this CLIN for tasks involving:
- Systems/Software Engineering Support Services
- New Requirements Decomposition and Analysis
- Requirements Trade Analysis and Risk Assessments
- Conducting Training
- Government Developmental/Operational Testing Support

The contractor shall provide these services as directed by the government through TDLs. The cost of each TDL will be negotiated and agreed based upon the labor hour basis and from the agreed upon rates in the contract.

The Contractor shall provide Unlimited Rights for all data and all non-commercial software developed/modified under this CLIN as defined in DFARS 252.227-7013 and DFARS 252.227-7014. The introduction of propriety data, code, or products into the Government owned AFATDS baseline is strictly prohibited, with the exception of free and open source software (FOSS).

This is a CPFF CLIN with fee payable to 8%.
The period of performance for each TDL will be designated in the TDL. TDLs may be issued under this CLIN from contract award through final acceptable of work under CLINs 0001 and 0002.
FOB: Destination

ESTIMATED COST
FIXED FEE

TOTAL EST COST + FEE

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
3007		1	Lot		
OPTION	Other Direct Costs/Travel				

COST
The contractor shall provide ODCs, Travel, Subsistence, & Material as defined in
Technical Direction Letters issued under CLIN 3006.

The ceiling price for this CLIN is $1,000,000.00
FOB: Destination

ESTIMATED COST

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
4006 OPTION			Lot		

OPTIONAL CLIN Engineering Supt Svcs
CPFF
OPTIONAL CLIN. NON-PERSONAL. The contractor shall provide engineering support services in accordance with AFATDS v7.0 Statement of Objectives; contractor developed performance work statement; contractor developed integrated master plan; and AFATDS v7.0 software requirements specification.

Technical Direction Letters (TDLs) may be issued under this CLIN for tasks involving:
- Systems/Software Engineering Support Services
- New Requirements Decomposition and Analysis
- Requirements Trade Analysis and Risk Assessments
- Conducting Training
- Government Developmental/Operational Testing Support

The contractor shall provide these services as directed by the government through TDLs. The cost of each TDL will be negotiated and agreed based upon the labor hour basis and from the agreed upon rates in the contract.

The Contractor shall provide Unlimited Rights for all data and all non-commercial software developed/modified under this CLIN as defined in DFARS 252.227-7013 and DFARS 252.227-7014. The introduction of propriety data, code, or products into the Government owned AFATDS baseline is strictly prohibited, with the exception of free and open source software (FOSS).

This is a CPFF CLIN with fee payable to 8%.
The period of performance for each TDL will be designated in the TDL. TDLs may be issued under this CLIN from contract award through final acceptable of work under CLINs 0001 and 0002.
FOB: Destination

ESTIMATED COST
FIXED FEE

TOTAL EST COST + FEE

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
4007 OPTION		1	Lot		

Other Direct Costs/Travel
COST
The contractor shall provide ODCs, Travel, Subsistence, & Material as defined in Technical Direction Letters issued under CLIN 4006.

The ceiling price for this CLIN is $1,000,000.00
FOB: Destination

ESTIMATED COST

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
9999 OPTION		1	Lot		

CLIN 9999-SURGE SUPPORT
CPFF
NON.PERSONAL. Technical Direction Letters (TDLs) may be issued for tasks involving:
-        Systems/Software Engineering Support Services
-        New Requirements Decomposition and Analysis
-        Requirements Trade Analysis and Risk Assessments
-        Conducting Training
-        Government Developmental/Operational Testing Support

The contractor shall provide these services as directed by the government through TDLs. The price of each TDL will be determined based upon the labor hour basis and from the agreed upon rates on the contract.

The Contractor shall provide Unlimited Rights for all data and all non-commercial software developed/modified under this CLIN as defined in DFARS 252.227-7013 and DFARS 252.227-7014. The introduction of propriety data, code, or products into the Government owned AFATDS baseline is strictly prohibited, with the exception of free and open source software (FOSS).

This is a CPFF CLIN with fee payable up to 8%.
The period of performance for each TDL will be designated in the TDL. TDLs may be issued under this CLIN from contract award through final acceptable of work under CLINs 0001 and 0002.
The ceiling for the Surge CLIN is $20,000,000.00
FOB: Destination

ESTIMATED COST
FIXED FEE
_____

TOTAL EST COST + FEE

Section C - Descriptions and Specifications

STATEMENT OF OBJECTIVES

STATEMENT OF OBJECTIVES (SOO)
as of April 4, 2016

Contract Number:	*(completed by the KO at time of TO award)*
Task Order Number:	*(completed by the KO at time of TO award)*
Tracking Number:	831506055
Follow-on to Previous Contract and Task Order Number:	Not Applicable

1. Contracting Officer's Representatives (CORs).

   a. Primary COR.

Name:	
Organization:	United States (U.S.) Army, Project Manager (PM) Mission Command (MC)
Department of Defense Activity Address Code (DODAAC):	W80YBY
Address:	PM MC W6DR PEO C3T BLDG 6007 COMBAT DRIVE ABERDEEN PROVING GROUND, MD 21005-1846
Phone Number:	To be Determined (TBD)
Fax Number:	TBD
E-Mail Address:	TBD

   b. Alternate COR.

Name:	
Organization:	U.S. Army, PM MC
DODAAC:	W80YBY
Address:	PM MC W6DR PEO C3T BLDG 6007 COMBAT DRIVE ABERDEEN PROVING GROUND, MD 21005-1846
Phone Number:	TBD

Fax Number:	TBD
E-Mail Address:	TBD

2. **Task Order Title.** Advanced Field Artillery Tactical Data System (AFATDS) 7.0 Modernization

3. **Background.** The AFATDS is a multi-service, automated Command, Coordination, Communication, and Computing system that provides automated fire support and coordination to all echelons, from Firing Unit through Theater Level, at Army, Marine Corps, Naval Firing Platforms, Navy Command and Amphibious Assault Ships, Air Force Operations Centers and Joint Command and Control Centers. AFATDS enables the Force Commander's guidance to be automatically applied in the Fires Warfighting Function to plan, execute, and deliver effects at all levels of command within the current and future force. AFATDS can automatically tailor the selection of fire support assets (field artillery, mortars, close air support, naval gunfire, attack helicopters and offensive electronic warfare assets) based on Commander's Guidance, thereby enabling maximum effective use of all available fire support assets across the full spectrum of conflict.

It is the Government's objective to modernize the underlying AFATDS architecture, redesign the AFATDS front-end to a fully web and role based interface, integrate available common services made available through the Army's Common Operating Environment (COE) and incorporate advanced embedded training technologies to aid in operator initiated system instruction and refresher training. This next generation version of AFATDS is referred to as AFATDS 7.0.

4. **Objectives:** This SOO defines the top-level objectives for AFATDS 7.0. A supplemental AFATDS 7.0 Software Requirements Specification (SRS) (RFP attachment J-1) provides amplified details for the technical requirements discussed in this SOO. See section 14 of this document for instructions to obtaining the SRS.

5. **Scope.** The scope of the AFATDS 7.0 effort includes system architecture design and analysis, system software interface support, design/system engineering and system integration. This effort includes software design and development, programmatic, engineering, testing, training, and integration for the implementation of the AFATDS capability in support of fires operational requirements within the Army and Marine Corps operational architecture from fires platoon to echelon above Corps, Joint and Coalition command staffs, Artillery Systems Cooperation Activities (ASCA), and other international agreements.

6. **Performance Requirements. Program Objectives**

6.1 Task 1- AFATDS 7.0 Overarching Program Objectives

    6.1.1 **Subtask 1** Acquire an AFATDS 7.0 software baseline that is Smart Client and Web Client based, no longer dependent upon a traditional thick client for accessing fires

functionality. The AFATDS 7.0 will allow a user to access fires capabilities from a commodity end user device. In environments with reliable network connectivity and server infrastructure, the user will interact with AFATDS 7.0 via a browser that reaches back to a server hosting the AFATDS 7.0 application(s) and COE common services. In environments with less reliable network connections or those where server infrastructure is not available, the AFATDS 7.0 application(s) will be locally hosted on the end user device.

6.1.2 **Subtask 2** Acquire an AFATDS 7.0 software baseline that has application(s) implemented in HTML5 when used as a Web Client. Smart Client instances will be implemented using HTML5 or as a native Android application(s).

6.1.3 **Subtask 3** Acquire an AFATDS 7.0 software baseline that maximizes the use of common services made available from the COE environment; thus, allowing the AFATDS 7.0 developer to focus their primary efforts on the development of fires capabilities and integration tasks associated with accessing external services.

6.1.4 **Subtask 4** Acquire an AFATDS 7.0 software baseline that utilizes Industry Best Practices for the development of the front-end interface to ensure a modern role-based user interface. The interface will be designed in a manner to be innately usable to intended Army and Joint users. The interface will dynamically tailor itself to the needs of different user roles accessing the system so that irrelevant information and capability is hidden while relevant capabilities are exposed.

6.1.5 **Subtask 5** Acquire an AFATDS 7.0 software baseline that utilizes the most modern training technologies available. These training technologies will offer on-screen (embedded) guided support to users who need refresher training or ad-hoc guidance on a specific capability; and training will be animated and interactive as opposed to text based and must be accessible directly from the AFATDS 7.0 system without additional modules or software being installed.

6.1.6 **Subtask 6** Acquire an AFATDS 7.0 software baseline that implements a service based architecture. These services will be connected to a common Enterprise Service Bus defined by the COE. Utilization of existing enterprise service technology within AFATDS will be discontinued in favor of the common service bus in the COE.

6.1.7 **Subtask 7** Acquire an AFATDS 7.0 software baseline that supports existing and new munitions variants, to include smart munitions that will encompass but not be restricted to the following types: a) New and/or improved artillery, shell, fuze, propellants; b) New and/or improved mortar munitions for Army and the Marine Corps Expeditionary Fire Support System (EFSS); c) New and/or improved Rocket Missile Munitions. These munitions will have new ranges, lethality, accuracy, and/or shell/fuze/charge combinations. These updated characteristics will be reflected in the appropriate AFATDS 7.0 components as determined by munition type.

6.1.8 **Subtask 8** Acquire an AFATDS 7.0 software baseline that supports upgrades to existing weapon platforms, new weapon platforms or platform variants, to include hosted fire control systems (e.g. Paladin, M777, Multiple Launch Rocket System (MLRS), High Mobility Artillery Rocket System (HIMARS), EFSS, Mortar Systems, M119A3). AFATDS 7.0 will accommodate changes in message data to/from platforms to support new ballistic and non-ballistic trajectory, range and rate requirements. AFATDS 7.0 will also support the elimination of outdated munitions and weapon systems.

6.1.9 **Subtask 9** Acquire an AFATDS 7.0 software baseline that supports enhancement of current behavior that supports current platforms and munitions. This will include but not be limited to multiple precision targets, mixed munitions loads, mixed weapon types within unit, increased message automation (fewer manual class 3 messages) and longer range communications with platforms.

6.1.10 **Subtask 10** Acquire an AFATDS 7.0 software baseline that will in no way result in a loss of current capability or interoperability. The same capabilities that can be performed by AFATDS 6.8.1.1 today must still be available from the AFATDS 7.0 system, unless otherwise noted in the AFATDS 7.0 SRS

6.1.11 **Subtask 11** Acquire an AFATDS 7.0 software baseline that retires and consolidates: AFATDS Tactical and Logistics Access Screens (ATLAS) and Effects Management Tool (EMT). ATLAS will no longer be supported as an individual end item within the AFATDS product line. Collaborative functionality previously made available via ATLAS will be supported within the collaboration services made available to AFATDS 7.0. EMT will no longer be supported as an individual end item within the AFATDS product line. The capability previously exposed via EMT will be found within AFATDS 7.0.

6.1.12 **Subtask 12** Acquire an AFATDS 7.0 software baseline utilizing the most modern and innovative technologies to achieve all outlined objectives and requirements.

6.1.13 **Subtask 13** Acquire an AFATDS 7.0 software baseline with Government unlimited data rights; the inclusion of proprietary or limited data rights will not be acceptable.

6.1.14 **Subtask 14** Establish an integrated, collaborative work environment between the Government and the Contractor in order to maximize efforts and achieve program success while reducing risk and requirements/cost creep.

6.1.15 **Subtask 15** Use a Contractor developed Integrated Master Plan (IMP) and Performance Work Statement. The Government's objective is to use the approved IMP and Integrated Master Schedule as day-to-day execution tools and to periodically assess progress in meeting program requirements.

6.1.16 **Subtask 16** The Contractor will be certified in Capability Maturity Model Integration (CMMI) to a minimum of Level III and utilize CMMI process standards

for all aspects of the AFATDS 7.0 work effort. All processes will be documented in Microsoft Office or Portable Document Format (PDF) format and made available for review at the request of the Government.

6.1.17 **Subtask 17** The Contractor will support efforts within PM MC to leverage an agile methodology in the development of capabilities for COE v3. Support to be provided includes:

a.   Publication of AFATDS 7.0 engineering releases (in accordance with SOO section 6.15), to include source and relevant build components, to the Defense Intelligence Information Enterprise (DI2E). Instructions for accessing and use of DI2E will be provided after contract award.

b.   Provide support to the Government and/or its designated systems integrator for building, integrating, and testing AFATDS 7.0 within the Mission Command Modernization framework utilizing DI2E.

c.   Participate in PM MC sprint planning sessions and reviews to assist the Government or Mission Command Lead Systems Integrator to integrate AFATDS 7.0 into the overarching MC Command Post Computing Environment (CPCE) framework. Sprint planning meetings occur at the beginning of every sprint following the previous sprint. Sprint reviews will occur at the end of a sprint.

d.   Utilize DI2E as the authoritative source for issue reporting and tracking. DI2E will be kept up-to-date to reflect the latest status of issues from initial identification thru closure.

e.   The Contractor will maintain a Configuration Management (CM) program visible on DI2E. The CM program will establish and maintain consistency of the product's performance, functionality, and attributes with respect to its requirements. The CM program will establish and maintain control of all architectures, requirements, specifications, designs, drawings, interfaces, software, hardware, firmware, operational information, and documentation for the project.

f.   The Contractor will submit data in an electronic format and post to DI2E to support effective communication and timely exchange of information to support Mission Command CPCE framework efforts. Only unclassified information will be allowed in this forum.

6.2 Task 2 Core Requirement Objectives

6.2.1   Subtask 1 Support Current/Upgraded/New Weapon Systems and Munitions

a.   AFATDS 7.0 will support new munitions variants, to include smart munitions that will encompass but not be restricted to the following types:

a) New and/or improved artillery, shell, fuze, propellants; b) New and/or improved mortar munitions for Army and the Marine Corps EFSS system; and c) New and/or improved Rocket Missile Munitions. These munitions will have new ranges, lethality, accuracy, and/or shell/fuze/charge combinations. These updated characteristics will be reflected in the appropriate AFATDS 7.0 components as determined by munition type.

b.   AFATDS 7.0 will support upgrades to existing weapon platforms, new weapon platforms or platform variants, to include hosted fire control systems (e.g. Paladin, M777, MLRS, HIMARS, EFSS, Mortar Systems, M119A3).

c.   AFATDS 7.0 will accommodate changes in message data to/from platforms to support new ballistic and non-ballistic trajectory, range, and rate requirements.

d.   AFATDS 7.0 will support the elimination of outdated munitions and weapon systems.

e.   AFATDS 7.0 will support enhancement of current behavior that supports current platforms and munitions. This will include but not be limited to: multiple precision targets; mixed munitions loads; mixed weapon types within unit; increased message automation (fewer manual Class 3 messages); and longer range communications with platforms.

f.   The AFATDS 7.0 re-architecting and modernization efforts will not in any way result in capability or interoperability loss. The same capabilities that can be performed by AFATDS 6.8.1.1 today will still be available from the AFATDS 7.0 system, unless otherwise noted in the AFATDS 7.0 SRS.

6.2.2   Subtask 2- Capability Retirement and Consolidation

AFATDS 7.0 will retire and consolidate the following:

a.   ATLAS – ATLAS will no longer be supported as an individual end item within the AFATDS product line. Collaborative functionality previously made available via ATLAS will be supported within the collaboration services made available to AFATDS 7.0.

b.   EMT – EMT will no longer be supported as an individual end item within the AFATDS product line. The capability previously exposed via EMT will be found within AFATDS 7.0.

c.   Digital Fire Support Training System (DFSTS) – Capabilities will be merged with the AFATDS 7.0 application. These functions will be incorporated as part of the embedded training capabilities.

6.2.3   **Subtask 3 Operate in CPCE and Mounted Computing Environment (MCE)**

The AFATDS 7.0 architecture will be designed to work both within CPCE and MCE. Meeting the needs of both environments will require AFATDS 7.0 to be accessible from both web and smart client devices. When operating via a Web Client, AFATDS 7.0 will support all versions of ozone and the joint command and control common user interface that are targeted for COE v3 along with associated browsers. AFATDS 7.0 will run on supported server infrastructure planned for hosting COE web applications. When operating via a Smart Client, AFATDS 7.0 will run on COE v3 end user device hardware and run within the resource constraints dictated by COE Technical Guidance.

6.2.4   **Subtask 4- Maximize Use of CPCE Services**

AFATDS 7.0 will maximize the use of common services and architecture frameworks made available from within the COE environment. These services include:

a.   Mission Command Data Bus
b.   Semantic Extensible Attribute Model data model
c.   Unified Data
d.   Common CPCE/MCE Client Instantiations
         –   Smart Client
         –   Web Client

e.   Infrastructure and Support Services
         –   Data Services
         –   Messaging Service
         –   Collaboration Services
         –   Chat
         –   Map and white boarding
         –   Geospatial Services
         –   Plug In Services
         –   Configuration Services
         –   Vehicular Integration for Command, Control, Communication, Computers, Intelligence, Surveillance, Reconnaissance/ Electronic Warfare Services
         –   Security Services
         –   Addressing Services
         –   Identify Services
         –   Terrain Analysis Services
         –   Email Services
         –   File Sharing/Synchronization Services
         –   Pluggable Graphics Tool Kit Services

6.2.5   Subtask 5 AFATDS 7.0 as Web Application

a.   When operating on a Smart Client, AFATDS 7.0 may be used as a web application(s) (same application(s) used for Web Client end user devices, but with the application(s) hosted locally) or as a native Android application(s). To minimize the software maintenance burden associated with managing two separate AFATDS 7.0 variants, the Government intends to implement AFATDS 7.0 as a web application(s) for use both on the Web and Smart Clients. Should the Contractor find that there is a significant challenge in supporting AFATDS 7.0 as a web application(s) when running on a Smart Client, these concerns will be presented to the Government so alternatives can be discussed and selected.

b.   In addition to HTML5 web applications, MCE also allows for application developers to implement applications as native Android based applications. Development of AFATDS 7.0 as a native Android application(s) is not a preferred implementation method given portability challenges that may exist with this approach.

c.   If the Contractor finds that circumstances favor implementation of all or portions of AFATDS 7.0 as a native Android application(s), these factors will be brought to the attention of the Government for discussion and final decision.

6.2.6   Subtask 6 Legacy Code Review and Removal

With utilization of common services available from COE being a major emphasis area for AFATDS 7.0, it is expected that certain capabilities within AFATDS may become duplicative with COE derived functionality. Organic functionality that is redundant with capability provided via COE will be removed from AFATDS 7.0.

6.2.7   Subtask 7 Data Distribution Service (DDS) Support

AFATDS 7.0 will interface with DDS via the publication and subscription services made available to Web and Smart Clients. Deltas between DDS capability found in previous AFATDS versions and AFATDS 7.0 when using the COE provided publication/subscription services will be brought to the attention of the Government for resolution.

6.2.8   Subtask 8 Messaging

All messaging formats and communication methods supported in AFATDS 6.8.1.1 will be retained in AFATDS 7.0. COE common services will be utilized as the primary means for meeting all messaging requirements for AFATDS. Deltas will be identified to the Government so that appropriate action can be taken. It remains possible that capability deltas may need to be filled via

development actions performed by the AFATDS 7.0 developer working in coordination with the primary service developer.

6.2.9   Subtask 9 External Interface Requirements

AFATDS 7.0 will support all external interfaces and devices as described in the AFATDS 7.0 SRS.

6.2.10   Subtask10 AFATDS Graphical User Interface Front End

The existing Fires Command Web (FCW) code base will be used as an initialization point for developing the AFATDS 7.0 Web Client front end. The following factors will be taken into account:

a.   All existing FCW code must be re-written in HTML5. The origin of this requirement is that HTML5 is the agreed upon common standard for web based applications running within MCE and will likewise support running in the CPCE framework.

b.   FCW today only represents a fraction of the total AFATDS fires capability. Those capabilities that exist today in AFATDS but not in FCW must be developed so they can be accessible via the HTML5 based AFATDS 7.0 web application(s).

c.   Support for the widest range of browsers is desired but at a minimum support for Firefox and Internet Explorer is required. Versions supported will at least be in compliance with versions of these browsers found on Army Golden Master (AGM) for the COE v3 timeframe.

6.2.11   Subtask 11 Embedded Interactive Training

AFATDS 7.0 will make use of embedded training technologies which enable the operator to initiate on demand training for all major portions of the system. The embedded training capability will, at a minimum, support the following:

a.   In Application Guidance: ability for the operator to receive instruction on a given AFATDS 7.0 capability from the screen without having to log into other applications or refer to non-digital (e.g. paper manuals).

b.   Interactive: guidance provided to the user will be interactive so that the training system adapts to the user's clicks and inputs. For example, if the user has requested assistance on how to create a new target, the system will be expected to direct the user on how to fill out the target type then instruct the operator to make a selection.

c.   On Screen Animation and Sound: visual and verbal guidance will be available on screen and via the local system's speakers when issuing instructions to the user.

d.   AFATDS 7.0 will be designed to decrease the amount of initial and sustainment training required to acquire and maintain proficiency in the use of AFATDS.

e.   Perform individual training programs and collective training vignettes.

f.   Operate the DFSTS on the platform or from common core application server.

g.   Training Management System resident in core application to keep track of programs and the operator's performance on individual and collective sustainment training modules.

h.   Network reach back to soldier's home station's Digital Training Management System for digital records.

i.   The core application will include adequate help capability supporting 24/7 education and training of units and individuals dispersed around the world.

j.   The training support capability will focus on the implementation and application of the web-accessed functionality of role/duty-based execution of networked joint surface-to-surface fires.

k.   At the unit and higher levels, AFATDS core application shall include capabilities facilitating training on not just "how" the system works ("knobology" training), but more importantly, "how" the functionality of the applications can be employed collectively to achieve superior fires command and control capability with joint forces.

l.   Software application will be able to interface and exchange information with the DFSTS.

m.   Application will interface with standard simulations (Tactical Engagement Simulation System, Joint Exercise Support System, Call for Fire Trainer and Fires Integrated Application which adhere to interoperability and architecture standards (e.g., high level architecture) to provide individual and collective training and mission rehearsals at each echelon in accordance with Army Training and Doctrine Command (TRADOC) Regulation 350-70.

6.2.12   Subtask 12 Role Centric

a. AFATDS 7.0 will support a fully role based operating construct. Based on the role of a user logging into the system, the system will present a customized interface to the operator along with access to a set of capabilities which pertain to that user's role. Association of users with roles will support the ability to be managed both locally and via enterprise-level repositories such as active directory. AFATDS 7.0 will support the following default roles of:

- Fire Direction
- Fire Control
- Fire Support
- Universal

b. AFATDS 7.0 will allow for additional custom roles to be implemented that support their own unique user interface and capability access profiles.

6.2.13 Subtask 13 Host Based Security System (HBSS)

AFATDS 7.0 will execute, with no degradation in speed of service or quality of service, on the HBSS. The Government will provide the awardee access to the Government facility with the HBSS environment. HBSS environment is located at Aberdeen Proving Ground, Maryland or Fort Hood, Texas.

6.2.14 Subtask 14 Service Based Back End

The AFATDS 7.0 backend will be re-architected and modernized to form a modern service based architecture. To accomplish this task the existing enterprise service technology within AFATDS will be replaced by a common COE derived message bus.

All AFATDS business logic will be exposed as a web service to the common bus. Much of the business logic currently in AFATDS is not service based and will need to be converted to a web service. Approaches to be used to accomplish this conversion will minimize the maintenance burden placed on future development efforts. Preferred approaches that may be considered are as follows:

- Conversion to native web service
- Web service wrapper
- Hybrid (some components are converted and others are wrapped)

6.2.15 Subtask 15 Streamlined Software Language Implementation

AFATDS 7.0 will attempt to reduce the number of languages used in its construction. This includes both limiting the number of software languages used for implementing new portions of the software that will be constructed under

AFATDS 7.0 as well as looking for opportunities to re-write existing portions of the system with a common language. It is not the Government's intent to implement AFATDS 7.0 in its entirety with a single language, but to reduce the variety of software languages used wherever practical to minimize the skillsets required to develop and maintain AFATDS 7.0 and future iterations.

6.2.16   Subtask 16 Mission Command and Computing Environment Standards

AFATDS 7.0 is heavily interdependent on foundation products and services provided by COE. The Contractor's support of COE related activities will be essential to the overall success of AFATDS 7.0. The implementation solution developed by the Contractor will maximize to the fullest extent possible those services provided through COE. The Contractor's work will be synchronized with the overall COE schedule and accommodate COE specific design, integration and test events.

6.3 Task 3 AFATDS Documents

All documents cited by reference in this SOO are contractually binding to the extent specified herein. If there is a conflict between this SOO and the contents of the documents cited by reference within this SOO, including hyperlinked information, this SOO prevails. The documents in Section 6.3.1 are contractually binding. The documents in Section 6.3.2 are guidance documents for meeting the objectives outlined in the SOO.

6.3.1 Subtask 1 Applicable Documents
Those documents not included as contract attachments will be provided as Government Furnished Information (GFI); some of the below referenced documents will be released as drafts during the solicitation process the version referenced below is the contractually binding version:

a.   AFATDS 7.0 SRS (contract attachment)
b.   AFATDS 7.0 Incentives Plan (contract attachment)
c.   AFATDS 7.0 Build Schedule Requirements (contract attachment)
d.   CPCE/MCE v3.0 Technical Guidance, 27 August 2015
e.   Assistant Secretary of the Army, Acquisition, Logistics and Technology COE Implementation Plan Core, Version 3, November 2011
f.   System Segment Specification (2016 Update)
g.   Interface Control Document (2016 Update)
h.   System Segment Design Document (2016 Update)
i.   Version Description Document w/ Release Notes (2016 Update)
j.   AFATDS Dynamic Object Oriented Requirement System (DOORS) Database (2016 Update)
k.   AFATDS Services User Manual (2016 Update)
l.   AFATDS Software Development Kit (2016 Update)
m.   AFATDS Test Cases (2016 Update)

n.   North Atlantic Treaty Organization Artillery Ballistics Kernel (NABK)
       Test Cases (2016 Update)
o.   Source and Executable Codes, Scripts, Libraries (2016 Update)
p.   System Security Program Plan (SSPP) (2016 Update)
q.   System Security Architecture Report (2016 Update)
r.   Trusted Facilities Manual (2016 Update)
s.   Trusted Computing Base (2016 Update)
t.   Security Features User's Manual (2016 Update)
u.   Security Concept of Operations (2016 Update)
v.   AFATDS Technical Manual (2016 Update)
w.   AFATDS Technical Bulletins (2016 Update)
x.   DFSTS User Manual (2016 Update)
y.   Unified Specification for ABCS Symbology, 5 September 2014
z.   COE v3 Technical Standards View 1 (2015 Update)

6.3.2 Reference Documents

a.   Army Regulation (AR) 350-1, Army Training and Leader Development,
       19 August 2014
b.   AR 530-1, Operations Security, 26 September 2014
c.   Committee on National Security Systems Instruction No. 1253, Security
       Categorization and Control Selection for National Security Systems, 27
       March 2014
d.   Department of Army Pamphlet 73-7, Software Test and Evaluation
       Guidelines, 25 July 1997
e.   Department of Defense (DoD) Instruction 1322.23, Development,
       Management, and Delivery of Distributed Learning, 16 June 2006
f.   DoD Instruction 2040.02, International Transfers of Technology, Articles,
       and Services, 27 March 2014
g.   DoD Instruction 8510.01, Risk Management Framework (RMF) for DoD
       Information Technology (IT), 12 March 2014
h.   DoD Instruction 8500.01, Cybersecurity, 14 March 2014
i.   Electronic Industries Alliance (EIA)-649-1, Configuration Management
       Requirements for Defense Contracts, 20 November 2014
j.   Information Assurance Best Business Practice, 05-PR-M-0002,
       Information Assurance Training and Certification, Version 5.0, 30 March
       2012
k.   Military Performance Specification, MIL-PRF-29612B Notice (NOT) 2,
       Training Data Products, 20 June 2011
l.   Military Standard (MIL-STD)6017C, Variable Message Format, 31 May
       2012
m.   MIL-STD-188-220D NOT 1, Digital Message Transfer Device
       Subsystems, 10 May 2013
n.   MIL-STD-2045-47001D(1) NOT 1, Connectionless Data Transfer
       Application Layer Standard, 10 May 2013

o. MIL-STD-2525C, Joint Military Symbology, 17 November 2008

p. MIL-STD-40051-1B, Preparation of Digital Technical Information for Interactive Electronic Technical Manuals (IETMs), 30 November 2012

q. MIL-STD-40051-2B, Preparation of Digital Technical Information for page-based technical manuals, 30 November 2012

r. MIL-STD-882E, System Safety, 11 May 2012

s. Title 15, Code of Federal Regulations, (also known as the "Export Administration Regulations")

t. Title 22, Code of Federal Regulations, (also known as the "International Traffic in Arms Regulations")

u. TRADOC Regulation 350-70, Army Learning Policy and Systems, 6 December 2011

v. TRADOC Pamphlet 350-70-2, Training Multimedia Courseware Development Guide, 26 June 2003

w. TRADOC Pamphlet 350-70-5, Systems Approach to Training: Testing, 20 August 2004

x. TRADOC Pamphlet 350-70-9, Budgeting and Resourcing, 12 October 2012

y. TRADOC Pamphlet 350-70-10, Systems Approach to Training Course and Courseware Validation, 29 March 2004

z. TRADOC PAMPHLET 350-70-12, The Army Distributed Learning Guide, 3 May 2013

aa. Joint Software System Safety Engineering Handbook, Version 1.0, 27 August 2010

bb. National Institute of Standards and Technology Special Publication 800-37, Revision 1, Guide for Applying the Risk Management Framework to Federal Information Systems: A Security Life Cycle Approach, February 2010

cc. National Institute of Standards and Technology Special Publication 800-53, Revision 4, Security and Privacy Controls for Federal Information Systems and Organizations, April 2013

dd. AFATDS Operational Requirements Document, 30 March 2004

ee. AFATDS Increment II Capability Development Document, 06 June 2011

6.4 Task 4 Performance Objectives

a. The Contractor will provide the services and items specified in Section B, Contract Line Item Numbers (CLINs), of the contract in alignment with the objectives stated herein and in compliance with the AFATDS SRS and other applicable documents found in section 6.3.1.

b. The Contractor will provide superior performance in alignment with the AFATDS 7.0 Incentive Plan (Attachment J-3).

6.5 Task 5 Program Management