			1. CONTRACT ID CODE		PAGE OF PAGE	S
AMENDMENT OF SOLICITATION	MODIFICATION OF	CONTRACT	U		1 3	
2. AMENDMENT/MODIFICATION NO. P00020	3. EFFECTIVE DATE 18-Sep-2019	4. REQUISITION	/PURCHASE REQ. NO. 04-C075-19	5. PR	OJECT NO. (If applicable N/A	e)
6. ISSUED BY CODE	N00173	7. ADMINISTER	ED BY (If other than Item 6)	CO	DE S2404	1A
Naval Research Laboratory		DCM	A Manassas		SCD: C	
4555 Overlook Ave., SW		1450	1 George Carter Way, 2nd Flo	or		
Washington DC 20375		Char	tilly VA 20151			
tracie.rustin@nrl.navy.mil 202-767-888	37					
8. NAME AND ADDRESS OF CONTRACTOR (A Envisioneering		ip Code)	9A. AMENDMENT OF SOLICIT/	ATION NO	<u>.</u>	
5904 Richmond Highway Suite 300)					
Alexandria VA 22303-1864			9B. DATED (SEE ITEM 11)			
			10A. MODIFICATION OF CONT	RACT/OF	DER NO.	
		[X]				
			N00178-04-D-4047 / I 10B. DATED (SEE ITEM 13)	N00173	17F3000	
11 000	ITY CODE		30-Sep-2017			
	THIS ITEM ONLY APPL		MENTS OF SOLICITATIONS			
The above numbered solicitation is amended				a [] i	s not extended.	
Offers must acknowledge receipt of this amendme (a) By completing Items 8 and 15, and returning o separate letter or telegram which includes a refere DESIGNATED FOR THE RECEIPT OF OFFERS you desire to change an offer already submitted, s	ent prior to the hour and date sp ne (1) copy of the amendment; ence to the solicitation and ame PRIOR TO THE HOUR AND D such change may be made by to	becified in the solicita (b) By acknowledgir ndment numbers. F ATE SPECIFIED MA	tion or as amended, by one of the follow g receipt of this amendment on each co AILURE OF YOUR ACKNOWLEDGEME Y RESULT IN REJECTION OF YOUR (ving metho py of the ENT TO B DFFER.	ds: offer submitted; or (c) By E RECEIVED AT THE PL by virtue of this amendm	LACE
amendment, and is received prior to the opening Mathematical Science Accounting AND APPROPRIATION DATA						
	. (
			ONS OF CONTRACTS/ORDE	RS,		
			AS DESCRIBED IN ITEM 14.			
(*) A. THIS CHANGE ORDER IS ISSUEI ITEM 10A.	D PURSUANT TO: (Specify at	<i>ithority)</i> THE CHAN	GES SET FORTH IN ITEM 14 ARE MAI		CONTRACTORDER N	O. IN
[X] B. THE ABOVE NUMBERED CONTR date, etc.)SET FORTH IN ITEM 14, PU			MINISTRATIVE CHANGES (such as ch	anges in j	paying office, appropriation	on
[] C. THIS SUPPLEMENTAL AGREEM	ENT IS ENTERED INTO PURS	UANT TO AUTHOR	TY OF:			
[] D. OTHER (Specify type of modification	on and authority)					
E. IMPORTANT: Contractor [X] is not, [] is required to sign this do	ocument and return	copies to the issuing office.			
14. DESCRIPTION OF AMENDMENT/MODIFICA	ATION (Organized by UCF sect	ion headings, includi	ng solicitation/contract subject matter wi	here feasi	ole.)	
15A. NAME AND TITLE OF SIGNER (Type or pro	int)	16A NAME AND	TITLE OF CONTRACTING OFFICER (7	vne or pri	nt)	
· · · · · · · · · · · · · · · · · · ·			ustin, Contracting Officer) · · · ·		
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	16B. UNITED STA			16C. DATE SIGN	IED
		BY /s/Tracie	M Rustin		18-Sep-2019	
(Signature of person authorized to sign)		<u>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</u>	(Signature of Contracting Officer)			
NSN 7540-01-152-8070 PREVIOUS EDITION UNUSABLE		30-105	STANDAR Prescribed I FAR (48 CF	by GSA	I 30 (Rev. 10-83)	

CONTRACT NO.	DELIVERY ORDER NO.	AMENDMENT/MODIFICATION NO.	PAGE	FINAL
N00178-04-D-4047	N0017317F3000	P00020	2 of 3	

GENERAL INFORMATION

The purpose of this administrative modification is to restate/confirm the total contract value and the total amount of funds obligated by CLIN/SLIN/ACRN.

The total contract value, in the amount of \$49,880,154.00, by CLIN is as follows:

CLIN 7000 - \$37,122,787.00 (Cost)

\$2,227,367.00 (Fee)

\$39,350,154.00 (CPFF)

CLIN 8000 - \$1,015,074.09 (FFP)

- CLIN 9000 \$8,984,925.91 (Cost)
- CLIN 9001 \$530,000.00 (Cost)

The total amount of funds, in the amount of \$3,413,198.77, is obligated as follows:

CLIN 700001 AA - \$50,292.62

CLIN 700002 AB - \$0.00

CLIN 700003 AC - \$267,000.00

CLIN 700004 AD - \$133,000.00

CLIN 700005 AE - \$450,000.00

CLIN 700006 AF - \$85,000.00

TOTAL: \$985,292.62

CLIN 8000 AA - \$1,015,074.09 (fully funded)

CLIN 9000 AA - \$1,125,532.06

CLIN 9000 AB - \$272,300.00

TOTAL: \$1,397,832.06

CLIN 9001 AF - \$15,000.00

All other terms and conditions remain unchanged. A conformed copy of this Task Order is attached to this modification for informational purposes only.

CONTRACT NO.	DELIVERY ORDER NO.	AMENDMENT/MODIFICATION NO.	PAGE	FINAL
N00178-04-D-4047	N0017317F3000	P00020	3 of 3	

The Line of Accounting information is hereby changed as follows:

The total amount of funds obligated to the task is hereby increased from \$3,413,198.77 by \$0.00 to \$3,413,198.77.

The total value of the order is hereby increased from \$49,880,154.00 by \$0.00 to \$49,880,154.00.

CONTRACT NO.	DELIVERY ORDER NO.	AMENDMENT/MODIFICATION NO.	PAGE	FINAL
N00178-04-D-4047	N0017317F3000	P00020	1 of 31	

SECTION B SUPPLIES OR SERVICES AND PRICES

CLIN - SUPPLIES OR SERVICES

```
For Cost Type Items:
```

Item	PSC	Supplies/Services	Qty	Unit	Est. C	lost		Fixed 1	?ee	CPFF	
7000	AJ42	The Contractor shall provide Research and Development effort as specified in Section C, Descriptions and Specifications. (Fund Type - TBD)	1.0	LO	\$37,12	22,787	.00	\$2,227	,367.00	\$39,350	,154.00
700001	AJ42	(Fund Type - TBD)									
700002	AJ42	(Fund Type - TBD)									
700003	AJ42	(Fund Type - TBD)									
700004	AJ42	(Fund Type - TBD)									
700005	AJ42	(Fund Type - TBD)									
700006	AJ42	(Fund Type - TBD)									
7001		ta in accordance with Exhibit t Separately Priced	Α,	"DD Fo	rm 1423	3".	1.0	LO	Cost	Fee	NSP
For FFF) Iten	ns:									
Item P	SC S	upplies/Services				Qty	Unit	Unit 1	Price	Total	Price
8000 A		aterial in support of CLIN 70 THER)	00 (1	Fund T	ype -	1.0	LO	\$1,01	5,074.09	9 \$1,015	,074.09
For ODC	l Iten	ns:									
Item 1	PSC	Supplies/Services						Qty	Unit	Est. Cos	st
9000 2	AJ42	Materials in support of CLIN	7000	(Fund	Type -	- TBD)		1.0	LO	\$8,984,9	925.91
9001 2	AJ42	Travel in support of CLIN 700	0 (Fi	und Ty	pe – TI	BD)		1.0	LO	\$530,000	0.00

B-1 TRAVEL COSTS

(a) Except as otherwise provided herein, the Contractor shall be reimbursed for its travel costs in accordance with FAR 31.205-46 and the Joint Travel Regulations (JTR). The costs to be reimbursed shall be those costs accepted by the cognizant DCAA office.

CONTRACT NO.	DELIVERY ORDER NO.	AMENDMENT/MODIFICATION NO.	PAGE	FINAL
N00178-04-D-4047	N0017317F3000	P00020	2 of 31	

(b) Reimbursable travel costs include only that travel performed from the Contractor's facility to the worksite, in and around the worksite, and from the worksite to the Contractor's facility.

(c) Relocation costs and travel costs incidental to relocation are allowable to the extent provided for in FAR 31.204-35; however, contracting officer approval shall be required prior to incurring relocation expenses and travel costs incidental to relocation.

(d) The contractor shall not be reimbursed for the following daily local travel costs:

- (i) Travel at U.S. installations where Government transportation is available;
- (ii) Travel performed for personal convenience/errands, including commuting to and from work; and
- (iii) Travel costs incurred in the replacement of personnel when such replacement is accompanied for the Contractor's or employee's convenience.

CONTRACT NO.	DELIVERY ORDER NO.	AMENDMENT/MODIFICATION NO.	PAGE	FINAL
N00178-04-D-4047	N0017317F3000	P00020	3 of 31	

SECTION C DESCRIPTIONS AND SPECIFICATIONS

STATEMENT OF WORK Experimental Radar Development Support

1. INTRODUCTION

This Statement of Work describes the scientific and engineering support to be provided to the Advanced Concepts Group of the Radar Division of the Naval Research Laboratory (NRL), Washington, DC. NRL seeks contractor technical assistance in the highly specialized areas of radar and Radio Frequency (RF) systems, signal processing hardware and software, electromagnetics, and other engineering specialties. Tasks will be performed at the contractor's facilities, NRL-DC, NRL Chesapeake Bay Detachment at Chesapeake Beach, MD, and at other field sites. Some work may be performed aboard ship or aircraft.

1.1. Background

The Advanced Concepts Group plans, encourages and fosters scientific research of millimeter wave technologies in support of future Navy power. This charter includes research and development activities leading to improvements in the performance, reliability and maintainability of new and existing Navy radar systems. Services provided under this SOW will range from top level concept development to detailed design, fabrication, test and operation of subsystems and components. A wide range of experience in radar and electronic warfare as well as a variety of scientific, engineering and support backgrounds will be necessary to be successful. The required services include a number of interrelated tasks that vary in both their technical dimensions and deliverable product.

1.2. Scope

The contractor will provide research and development (R&D), radar and RF system analysis, systems engineering, and software development in support of the following basic task areas:

- Task I RF Systems Engineering
- Task II Signal Processing
- Task III Electromagnetics Engineering
- Task IV Software Engineering and Development
- Task V Electronic Hardware Engineering and Development
- Task VI Mechanical/Aerospace Engineering
- Task VII Control Systems Engineering
- Task VIII Modeling and Simulation
- Task IX Technician
- 2. General Requirements

The Contractor shall have its support team in place and fully functioning within 30 days of contract award. The Contractor must execute the scope of work in a manner that provides for high quality, timely support while incorporating the proper mix and the most effective use of personnel.

2.1. Non-Personal Services

The Government will neither supervise Contractor employees nor control the method by which the Contractor performs the required tasks. The Government will not assign tasks to, or prepare work schedules for, individual Contractor employees.

CONTRACT NO.	DELIVERY ORDER NO.	AMENDMENT/MODIFICATION NO.	PAGE	FINAL
N00178-04-D-4047	N0017317F3000	P00020	4 of 31	

The Contractor shall be responsible for managing its employees and guarding against any actions that are of the nature of personal services, or give the perception of personal services as defined in FAR-Part 37, Service Contracting.

The Contractor shall notify the Contracting Officer (KO) if any Government-requested actions constitute, or are perceived to constitute, personal services.

2.2. Business Relations

The Contractor shall integrate and coordinate all activity needed to execute this contract.

2.3. Contract Administration and Management

The following subsections specify requirements for contract management and Contractor personnel administration.

2.3.1. Contract Management

The Contractor shall establish clear organizational lines of authority and responsibility to ensure effective management of the resources assigned to this contract.

2.3.2. Personnel Administration

The Contractor shall assign a single point of contact, also known as the Program Manager (PM), who must work closely with the Government Contracting Officer and Contracting Officer's Representative (COR), as applicable.

The Contractor PM must ultimately be responsible for ensuring that the Contractor's performance meets all government contracting requirements within cost and schedule. The PM must have the requisite authority for full control over all company resources necessary for contract performance. As appropriate, the role of the PM may be a full time management position, or a collateral duty assigned to a technical team member.

The Contractor shall make necessary travel arrangements for Contractor employees only after the travel has been reviewed and approved by the COR.

2.3.3. Contract Administration

The Contractor shall establish processes and assign appropriate resources to effectively administer this contract.

The Contractor shall respond to Government requests for contractual actions within five (5) working days.

2.3.4. Contractor's Management Plan (CMP)

The Contractor shall submit a Contractor's Management Plan (CMP) defining the Contractor's approach to implementing the contract.

The CMP provides the Government insight into the systems, processes, and structure within which the Contractor operates. The CMP should include, as applicable and if not defined in a separate plan: quality control, risk management, systems engineering, software development, configuration management, earned value management, and subcontract management.

CONTRACT NO.	DELIVERY ORDER NO.	AMENDMENT/MODIFICATION NO.	PAGE	FINAL
N00178-04-D-4047	N0017317F3000	P00020	5 of 31	

A draft CMP is to be delivered with the Contractor's proposal; three copies of the complete version shall be submitted 30 days after contract award to the KO and COR, and within 5 working days when changes are made thereafter.

The Contractor shall receive the contracting officer's acceptance in writing of any proposed change to the management plan once the CMP has been accepted by the Government.

3. Technical Requirements

The following section specifies the technical requirements for the contract.

3.1. RF Systems Engineering

The contractor shall provide subject matter expertise in RF Systems Engineering. Technical instructions may be issued for the execution of projects that include, but are not limited to:

- 3.1.1. Perform system analysis, design, development, and laboratory and/or field-test of RF systems (radar, communications, and/or electronic warfare);
- 3.1.2. Conduct trade studies that lead to optimal systems performance for a defined set of conditions and applications;
- 3.1.3. Perform analysis, test, evaluation, and define improvements to existing (legacy) RF systems;
- 3.1.4. Investigate new RF component technologies and their application to Navy or DoD systems;
- 3.1.5. Perform laboratory measurements and tests of subsystems in support of Navy or DoD RF system development;
- 3.1.6. Script and conduct automated, parametric tests of RF and electronics subassemblies using tools such as MATLAB instrument control toolbox, NI TestStand, or NI LabView.
- 3.1.7. Perform component and transceiver measurements of parameters such as S-parameters, P1dB, OIP3, noise figure, gain, leakage, isolation, etc.
- 3.1.8. Perform technical analysis and computer simulations to evaluate component and subsystem application to Navy or DoD systems;
- 3.1.9. Fully document test results and analysis;
- 3.1.10. Produce and deliver developed systems and subsystems;
- 3.1.11. Develop technical and user manuals for developed equipment;
- 3.1.12. Participate in technical meetings and design reviews, provide critiques, review documentation, and monitor technical progress.
- 3.2. Signal Processing

The contractor shall provide subject matter expertise in signal processing. Technical instructions may be issued for the execution of projects that include but are not limited to:

CONTRACT NO.	DELIVERY ORDER NO.	AMENDMENT/MODIFICATION NO.	PAGE	FINAL
N00178-04-D-4047	N0017317F3000	P00020	6 of 31	

- 3.2.1. Develop embedded signal processing systems using general purpose processors (GPPs), field programmable gate arrays (FPGAs), microcontrollers, and/or graphics processing units (GPUs);
- 3.2.2. Formulate, develop, and demonstrate new signal processing concepts and algorithms for shipboard, airborne, and land-based RF systems;
- 3.2.3. Apply new signal processing technologies to improve performance and/or provide new capabilities to RF systems;
- 3.2.4. Develop real-time image processing algorithms and human interfaces;
- 3.2.5. Investigate basic phenomenology of RF systems and natural environments;
- 3.2.6. Analyze measured and simulated data;
- 3.2.7. Perform laboratory and field tests of experimental and operational systems;
- 3.2.8. Document test results and analysis;
- 3.2.9. Participate in technical meetings and design reviews, provide critiques, review documentation and monitor technical progress.
- 3.3. Electromagnetics Engineering

The contractor shall provide subject matter expertise in electromagnetics engineering. Technical instructions may be issued for the execution of projects that include but are not limited to:

- 3.3.1. Conduct basic and applied research and development in electromagnetic (EM) theory and applications;
- 3.3.2. Conduct research in antenna design;
- 3.3.3. Develop and test advanced antenna and phased array systems;
- 3.3.4. Identify and develop improvements to deployed antenna systems;
- 3.3.5. Perform antenna and radar cross section measurements in a compact range facility;
- 3.3.6. Perform theoretical analysis on the transmission, propagation, and scattering of EM waves;
- 3.3.7. Analyze the radar signature of various ship classes using both calculated and measured data;
- 3.3.8. Develop new, or improve existing, techniques for calculating the radar scattering from ships and other vehicles;
- 3.3.9. Document test results and analysis;
- 3.3.10. Participate in technical meetings and design reviews, provide critiques, review documentation and monitor technical progress.
- 3.4. Software Engineering and Development

The contractor shall provide subject matter expertise in software engineering and software development. Technical instructions may be issued for the execution of projects that include but are not limited to:

CONTRACT NO.	DELIVERY ORDER NO.	AMENDMENT/MODIFICATION NO.	PAGE	FINAL
N00178-04-D-4047	N0017317F3000	P00020	7 of 31	

- 3.4.1. Define, design, and develop software to perform real-time control of RF and data acquisition systems;
- 3.4.2. Develop software to perform real-time signal and data processing required for RF systems;
- 3.4.3. Develop software that manages and directs multiple RF systems;
- 3.4.4. Develop software to model and simulate RF systems and their environment;
- 3.4.5. Develop software to control laboratory equipment;
- 3.4.6. Develop high-level software architectures;
- 3.4.7. Thoroughly document developed software;
- 3.4.8. Participate in technical meetings and design reviews, provide critiques, review documentation and monitor technical progress.
- 3.5. Electronic Hardware Engineering and Development

The contractor shall provide subject matter expertise in hardware engineering and development. Technical instructions may be issued for the execution of projects that include but are not limited to:

- 3.5.1. Design and develop analog/RF/microwave circuits and subsystems, this includes the design, fabrication, and testing of RF and microwave up- and down-converters;
- 3.5.2. Design and develop digital circuits and subsystems, including the design, fabrication and testing of circuits to perform digital functions such as up- and down-conversion, filtering, waveform generation, digitization, and beamforming;
- 3.5.3. Design, develop, and operate test equipment suites for the evaluation and verification of subsystems and systems;
- 3.5.4. Operate, and program as appropriate, test equipment;
- 3.5.5. Design and develop integrated microwave modules and assemblies, including transmit/receive (T/R) modules. Designs must address mechanical, thermal, and cost considerations and constraints;
- 3.5.6. Produce and deliver developed systems and subsystems;
- 3.5.7. Document designs and test results;
- 3.5.8. Develop technical and user manuals for developed equipment;
- 3.5.9. Participate in technical meetings and design reviews, provide critiques, review documentation and monitor technical progress.
- 3.6. Mechanical/Aerospace Engineering

The contractor shall provide subject matter expertise in mechanical and aerospace engineering and equipment development. Technical instructions may be issued for the execution of projects that include but are not limited to:

CONTRACT NO.	DELIVERY ORDER NO.	AMENDMENT/MODIFICATION NO.	PAGE	FINAL
N00178-04-D-4047	N0017317F3000	P00020	8 of 31	

- 3.6.1. Design, fabricate, and test airborne structures, equipment, and electromechanical pointing systems;
- 3.6.2. Integrate and install equipment and structures with air frames;
- 3.6.3. Lead in the flight qualification of equipment and structures;
- 3.6.4. Design and develop thermal management and environmental control in airborne platforms;
- 3.6.5. Perform thermal, vibration, load, and stress analysis;
- 3.6.6. Lead in the development and integration of inertial navigation systems and integration with automatic flight control systems;
- 3.6.7. Fully document designs, and test results;
- 3.6.8. Participate in technical meetings and design reviews, provide critiques, review documentation and monitor technical progress.
- 3.7. Control Systems Engineering

The contractor shall provide subject matter expertise in control systems engineering and equipment development. Technical instructions may be issued for the execution of projects that include but are not limited to:

- 3.7.1. Design, fabricate, and test electromechanical pointing systems;
- 3.7.2. Integrate and install equipment;
- 3.7.3. Analyze control system performance;
- 3.7.4. Optimize control loop stability and performance;
- 3.7.5. Ensure high performance shielding and grounding principles and practices are followed;
- 3.7.6. Program embedded and distributed control systems;
- 3.7.7. Fully document designs, and test results;
- 3.7.8. Participate in technical meetings and design reviews, provide critiques, review documentation and monitor technical progress.
- 3.8. Modeling and Simulation

The contractor shall provide subject matter expertise in modeling and simulation. Technical instructions may be issued for the execution of projects that include but are not limited to:

- 3.8.1. Design and develop models and simulations of radar systems;
- 3.8.2. Design and develop models of combat and weapon systems;
- 3.8.3. Design, develop, or modify propagation models;
- 3.8.4. Perform detailed analysis and simulations using M&S tools;

CONTRACT NO.	DELIVERY ORDER NO.	AMENDMENT/MODIFICATION NO.	PAGE	FINAL
N00178-04-D-4047	N0017317F3000	P00020	9 of 31	

- 3.8.5. Use and modify established modeling tools;
- 3.8.6. Fully document designs, and test results;
- 3.8.7. Participate in technical meetings and design reviews, provide critiques, review documentation and monitor technical progress.
- 3.9. Technician

The contractor shall provide laboratory technician support. The Government may issue Technical instructions for the execution of projects that include but are not limited to:

- 3.9.1. Assemble antennas, arrays, RF hardware, and associated test fixtures;
- 3.9.2. Operate RF test equipment, test fixtures, and data acquisition systems;
- 3.9.3. Generate multilayer printed wiring board layouts based on engineering schematics and vendor-supplied design-for-manufacturing guidance.
- 3.9.4. Assemble and/or rework complex printed wiring board assemblies, including QFN packages, BGAs, and SMT "0201" components.
- 3.9.5. Perform basic verification and troubleshooting of electronic assemblies.
- 3.9.6. Manage the life cycle process for laboratory test and measurement equipment;
- 3.9.7. Maintain inventory control of laboratory equipment and consumable stocks;
- 3.9.8. Assist in the procurement and disposal of laboratory equipment and consumable stocks;
- 3.9.9. Generate test plans;
- 3.9.10. Provide logistical support for experiments and field tests;
- 3.9.11. Document and report the results of test, experiments or assessments;

4. Deliverables

- 4.1. Monthly Labor and Financial Status Report
 - 4.1.1. Funding history, showing when and how much money was added to each ACRN for each person on the task, amounts allocated to labor, travel, and material, along with cumulative task funding for labor, travel, and material;
 - 4.1.2. Funding balance for labor, travel, and materials in each ACRN and by person at the beginning of the monthly reporting period;
 - 4.1.3. Labor hours and amounts expended for labor, travel, and materials in each ACRN and by person during the monthly reporting period;
 - 4.1.4. Funding balance for labor, travel, and materials in each ACRN and by person at the end of the monthly reporting period.

CONTRACT NO.	DELIVERY ORDER NO.	AMENDMENT/MODIFICATION NO.	PAGE	FINAL
N00178-04-D-4047	N0017317F3000	P00020	10 of 31	

4.2. Task Technical Progress Reports

The contractor shall provide a monthly summary report of progress on each task of the contract that includes the following information:

- 4.2.1. Description of the work accomplished;
- 4.2.2. Summary of meetings attended;
- 4.2.3. Plans for next reporting period;
- 4.2.4. Summary of issues or concerns, if any.
- 4.3. Meeting Reports

The contractor shall provide a summary of all meetings attended on behalf of the Radar Division. The report shall include discussion of the purpose of the meeting, attendees, information discussed, and the outcome/results of the meetings. If any actions are assigned to NRL, those are to be fully described.

4.4. Technical Reports & Presentation Materials

The contractor shall provide technical reports and presentations as required.

5. Security requirements

All Contractor personnel who require NRL base access or access to NRL unclassified material and/or unclassified systems shall possess a favorably completed DoD Tier 3 investigation.

Contractors who require access to Secret material must have, at a minimum, a favorably completed DoD Tier 3 investigation and final DoD-granted Secret security clearance. The Contractor shall ensure that all classified material is handled in accordance with the issued DD 254, the National Security Program Operating Manual (NISPOM) (DoD 5220.22M) and all NRL and applicable Security Program Guides/Directives.

All contractors (including subcontractors) identified in the Statement of Work shall supplement their current security practices by requiring any personnel involved in executing the contract to complete Government-sponsored and administered Operations Security (OPSEC) training, OPSE-1301 and any OPSEC guidance that may pertain to the project.

All contractors (including subcontractors) issued a DoD interim SECRET security clearance may ONLY work on unclassified tasks in accordance with this contract SOW. No classified access will be authorized. Unclassified IA or IT positions are NOT authorized with a DoD issued interim SECRET clearance.

- 6. Deliverables
 - 6.1. Monthly Status Report CDRL A001
 - 6.2. Monthly Financial Report CDRL A002
 - 6.3. PO&AM Report CDRL A003
 - 6.4. Final Report CDRL A004

CONTRACT NO.	DELIVERY ORDER NO.	AMENDMENT/MODIFICATION NO.	PAGE	FINAL
N00178-04-D-4047	N0017317F3000	P00020	11 of 31	

SECTION D PACKAGING AND MARKING

D-1 PACKAGING AND MARKING

All unclassified data and deliverable contract line items shall be preserved, packaged, packed and marked and must conform to normal commercial packing standards to assure safe delivery at destination.

D-2 Classified reports, data, and documentation shall be prepared for shipment in accordance with National Industrial Security Program Operating Manual (NISPOM), DOD 5220.22-M dated February 28, 2006 and the DD 254 - Contract Security Classification Specification.

D-3 The Contractor shall mark all shipments under this contract in accordance with the addition of ASTM-D-3951-90 "Standard Practice for Commercial Packaging" in effect on the date of the contract.

D-4 The Contractor shall comply with FED STD 313 (Symbols for Packages and Containers for Hazardous Industrial Chemical and Materials) to the extent applicable.

CONTRACT NO.	DELIVERY ORDER NO.	AMENDMENT/MODIFICATION NO.	PAGE	FINAL
N00178-04-D-4047	N0017317F3000	P00020	12 of 31	

SECTION E INSPECTION AND ACCEPTANCE

E-1 INSPECTION AND ACCEPTANCE CLAUSES INCORPORATED BY REFERENCE

FAR 52.246-8 Inspection of Research and Development - Cost Reimbursement, MAY 2001

DFARS 252.246-7000 Material Inspection and Receiving Report, MAR 2008

E-2 INSPECTION AND ACCEPTANCE

Inspection and acceptance of the final delivery will be accomplished by the Technical Manager (TM) or Contracting Officer Representative (COR) designated in Section G of this contract. Inspection and acceptance will be performed at the Naval Research Laboratory, Washington DC 20375-5320.

Constructive acceptance, in accordance with FAR 32.904, shall be deemed to have occurred on the 7th day after the final delivery.

CONTRACT NO.	DELIVERY ORDER NO.	AMENDMENT/MODIFICATION NO.	PAGE	FINAL
N00178-04-D-4047	N0017317F3000	P00020	13 of 31	

SECTION F DELIVERABLES OR PERFORMANCE

The periods of performance for the following Items are as follows:

7000	9/30/2017 - 9/29/2022
8000	9/30/2017 - 9/29/2022
9000	9/30/2017 - 9/29/2022
9001	9/30/2017 - 9/29/2022

CLIN - DELIVERIES OR PERFORMANCE

Services to be performed hereunder will be provided at the contractor's facilities, the Naval Research Laboratory (NRL) Washington, DC, NRL Chesapeake Bay Detachment at Chesapeake Beach, MD, and at other field sites.

CONTRACT NO.	DELIVERY ORDER NO.	AMENDMENT/MODIFICATION NO.	PAGE	FINAL
N00178-04-D-4047	N0017317F3000	P00020	14 of 31	

SECTION G CONTRACT ADMINISTRATION DATA

G-1 CONTRACT ADMINISTRATION

In order to expedite administration of this contract, the following delineation of duties is provided, including the names and contact information, for each individual or office specified. Contact the individual/position designated as having responsibility for any questions, clarifications or information regarding the functions assigned herein.

(a) The Administrative Contracting Officer (ACO), designated in Block 6 on the Standard Form 26, will expedite administration of the contract and direct inquiries to the appropriate off ice listed below.

(b) The Contract Administration Office (CAO) designated in Block 20A on the Standard Form 26 is responsible for all matters specified in FAR 42.302(a) and DFARS 242.302(a), except in those areas otherwise designated herein.

Contract Specialist: Tracie Rustin, tracie.rustin@nrl.navy.mil, (202) 767-3003

NRL Competition Advocate: Ms. Valarie Hall, Code 3200, (202) 767-6613, DSN 297-6613, valarie.hall@nrl.navy.mil

Task Order Ombudsman (FAR 16.505(b): Ms. Valarie Hall, Code 3200, (202) 767-6613, DSN 297-6613, valarie.hall@nrl.navy.mil

Security Matters: Contracting Officer's Representative for Security, Code 1226, (202) 767-2240, DSN 297-2240, security-group@nrl.navy.mil

Safety Matters: Head Safety Branch, Code 3540, (202) 767-2232, safety@nrl.navy.mil

Patent Matters: Associate Counsel (Intellectual Property), Code 1008.2, (202) 404-1552, patents@nrl.navy.mil

Release of Data: Public Affairs Officer, Code 1030, (202) 767-2541, DSN 297-2541, publicaffairs@nrl.navy.mil. For FOIA information, see <u>http://www.nrl.navy.mil/media/public-affairs-office</u>/foia/.

(c) Contract administration functions withheld, additional contract administration functions assigned, or special instructions are set forth below:

N/A

(d) Inquiries regarding payment should be referred to DFAS at http://www.dod.mil/dfas/contractorpay/myinvoice.html.

G-2 CONTRACTING OFFICER'S REPRESENTATIVE (COR) - FUNCTIONS AND LIMITATIONS

- (a) Joshua Beun, 202-404-3721, josh.beun@nrl.navy.mil is hereby designated as the Contracting Officer's Representative (COR). Unless terminated sooner, this appointment is effective for the period of performance of this contract including any options, if exercised. COR authority may not be re-delegated. No change in COR assignment shall be made without written notice by the Contracting Officer, who will modify the contract to reflect the change of COR assignment. The Contracting Officer may designate assistant or alternate COR(s) to act for the COR by naming such assistant/alternate(s) in writing and transmitting a copy of such designation to the contractor via contract modification.
- (b) The responsibilities and limitations of the COR are as follows:
 - (1) Providing technical direction and guidance as necessary with respect to the performance of work under

CONTRACT NO.	DELIVERY ORDER NO.	AMENDMENT/MODIFICATION NO.	PAGE	FINAL
N00178-04-D-4047	N0017317F3000	P00020	15 of 31	

this contract. Technical direction and guidance may be used to provide technical advice/recommendations/clarifications on the statement of work/specifications. It MAY NOT be used to tell the contractor how to perform the work.

- (2) Submitting interim and final Contractor Performance Assessment Reports (CPARS) at www.cpars.csd.disa.mil/cparsmain.htm.
- (3) Quality assurance of services performed or deliveries made
- (4) Inspection and acceptance of services or deliverables
- (5) Ensuring that Government Furnished Property, to include any contractor use of on-site equipment and/or IT resources is adequately monitored and accounted for.
- (6) Security requirements on Government installation, such as the request and retrieval of personnel security badges and vehicle passes.
- (7) Monitoring contractor's performance and promptly report problems and recommendations for corrective action to the PCO
- (8) Annually, furnish a written report on performance of the contractor to the PCO. And, if deemed necessary, attending a follow-up meeting to discuss.
- (9) Attend post award conference, if conducted.
- (10) Ensuring a copy of all Government technical correspondence, to include Technical Direction Memorandums/Guidance, is forwarded to the PCO for placement in the contract file.
- (11) Monitoring of funds expended
- (12) Ensuring that the Contractor does not exceed the defined statement of work set forth in the contract.
- (c) <u>Limitations</u>: The COR is not authorized to take any action, either directly or indirectly, that could result in a change in the cost/price, quantity, quality, place of performance, delivery schedule, or any other terms or conditions of the contract. If, as a result of technical discussions, it is desirable to alter contract obligations or the statement of work/specifications, a modification must be issued in writing and signed by the Contracting Officer in order to effect such changes. No such changes shall be made without the express written prior authorization/direction of the Contracting Officer.

G-3 DFARS 252.232-7006 WIDE AREA WORKFLOW PAYMENT INSTRUCTIONS (MAY 2013)

(a) Definitions. As used in this clause-

"Department of Defense Activity Address Code (DoDAAC)" is a six position code that uniquely identifies a unit, activity, or organization.

"Document type" means the type of payment request or receiving report available for creation in Wide Area WorkFlow (WAWF).

"Local processing office (LPO)" is the office responsible for payment certification when payment certification is done external to the entitlement system.

(b) *Electronic invoicing*. The WAWF system is the method to electronically process vendor payment requests and receiving reports, as authorized by DFARS <u>252.232-7003</u>, Electronic Submission of Payment Requests and Receiving Reports.

(c) WAWF access. To access WAWF, the Contractor shall-

(1) Have a designated electronic business point of contact in the System for Award Management at https://www.acquisition.gov; and

(2) Be registered to use WAWF at <u>https://wawf.eb.mil/</u> following the step-by-step procedures for self-registration available at this web site.

(d) WAWF training. The Contractor should follow the training instructions of the WAWF Web-Based

CONTRACT NO.	DELIVERY ORDER NO.	AMENDMENT/MODIFICATION NO.	PAGE	FINAL
N00178-04-D-4047	N0017317F3000	P00020	16 of 31	

Training Course and use the Practice Training Site before submitting payment requests through WAWF. Both can be accessed by selecting the "Web Based Training" link on the WAWF home page at <u>https://wawf.eb.mil/</u>

(e) *WAWF methods of document submission*. Document submissions may be via web entry, Electronic Data Interchange, or File Transfer Protocol.

(f) *WAWF payment instructions*. The Contractor must use the following information when submitting payment requests and receiving reports in WAWF for this contract/order:

(1) *Document type*. The Contractor shall use the following document type(s).

____Cost Voucher_

Note: If a "Combo" document type is identified but not supportable by the Contractor's business systems, an "Invoice" (stand-alone) and "Receiving Report" (stand-alone) document type may be used instead.)

(2) *Inspection/acceptance location*. The Contractor shall select the following inspection/acceptance location(s) in WAWF, as specified by the contracting officer.

____Destination_

(3) *Document routing*. The Contractor shall use the information in the Routing Data Table below only to fill in applicable fields in WAWF when creating payment requests and receiving reports in the system.

(4) *Payment request and supporting documentation.* The Contractor shall ensure a payment request includes appropriate contract line item and subline item descriptions of the work performed or supplies delivered, unit price/cost per unit, fee (if applicable), and all relevant back-up documentation, as defined in DFARS Appendix F, (e.g. timesheets) in support of each payment request.

(5) *WAWF email notifications*. The Contractor shall enter the e-mail address identified below in the "Send Additional Email Notifications" field of WAWF once a document is submitted in the system.

ROUTING DATA TABLE

Field Name in WAWF	Data to be entered in WAWF
Pay Official DoDAAC	HQ0338
Issue By DoDAAC	N00173
Admin DoDAAC	S2404A
Inspect By DoDAAC	N00173
Ship To Code	N00173
Mark For Code	5307
Service Approver (DoDAAC)	N00173
Service Acceptor (DoDAAC)	N00173

(4) *Payment request and supporting documentation.* The Contractor shall ensure a payment request includes appropriate contract line item and subline item descriptions of the work performed or supplies delivered, unit price/cost per unit, fee (if applicable), and all relevant back-up documentation, as defined in DFARS Appendix F, (e.g. timesheets) in support of each payment request.

(5) *WAWF email notifications*. The Contractor shall enter the e-mail address identified below in the "Send Additional Email Notifications" field of WAWF once a document is submitted in the system.

COR josh.beun@nrl.navy.mil

CONTRACT NO.	DELIVERY ORDER NO.	AMENDMENT/MODIFICATION NO.	PAGE	FINAL
N00178-04-D-4047	N0017317F3000	P00020	17 of 31	

(1) The Contractor may obtain clarification regarding invoicing in WAWF from the following contracting actitivity's WAWF point of contract.

Donna Dargan: donna.dargan@nrl.navy.mil or 202-767-0547

(2) For technical WAWF help, contact the WAWF helpdesk at 866-618-5988.

(End of clause)

G-4 SUBCONTRACTORS/CONSULTANTS

- (a) Advance notification or requests for consent pursuant to the contract clause entitled "Subcontracts" (FAR 52.244-2) shall be directed to the cognizant administrative contracting officer (ACO).
- (b) Paragraph (j) of FAR 52.244-2 is filled in as follows. The following subcontractor/consultants have been identified in the Contractor's proposal as necessary for performance of this contract and were evaluated during negotiations:

SUBCONTRACTOR/CONSULTANT	ESTIMATED TOTAL COST
J. Hardgove (Lakenheath Electronics Design)	\$1,739,033
T. Seely (Lakenheath Electronics Design)	\$1,739,033
A. Melchior (Lakenheath Electronics Design)	\$1,483,591
S. Harrison (Innovative Wireless Technologies)	\$1,694,208
M. Anderson (1099 Consultant)	\$1,249,893
D. Dao (Mercury Systems)	\$1,882,483
M. Groden (Mercury Systems)	\$1,170,732

G-5 INCREMENTAL FUNDING

Pursuant to the Limitation of Funds clause (FAR 52.232-22), the total amount presently available for payment and allotted to CLIN 700001 of this order is \$50,000.00; including an estimated cost of \$47,169.81 and a fixed fee of \$,2,830.19. It is estimated that the amount allotted for this CLIN will cover the period of date of award through 30 November 2017.

Pursuant to the Limitation of Funds clause (FAR 52.232-22), the total amount presently available for payment and allotted to CLIN 8000 of this order is \$105,994.00.

G-6 INFORMATIONAL SUBLINE ITEMS

It is anticipated that the research and development services performed under this contract will be paid for from multiple sources of funds. Informational subline items will be established as necessary to identify each accounting citation classification.

G-7 PAYMENT INSTRUCTIONS FOR MULTIPLE ACCOUNTING CLASSIFICATION CITATIONS (COST REIMBURSEMENT)

In accordance with PGI 204.7108 (d)(12) (other) verbiage, CLINS are funded by multiple customers for different projects, and cannot disburse funds from ACRNS until the customers work is performed. Using one of the systematic clauses within PGI 204.7108 would cause one customer's funds to be paid against another customer's work, therefore, pay from the ACRN cited on the invoice. The Government will

CONTRACT NO.	DELIVERY ORDER NO.	AMENDMENT/MODIFICATION NO.	PAGE	FINAL
N00178-04-D-4047	N0017317F3000	P00020	18 of 31	

advise the contractor on what ACRNS to invoice.

Accounting Data SLINID PR Number Amount _____ _____ 700001 53-0010-17 50000.00 LLA : AA 97X4930 NH4A 000 77777 0 00173 2F 000000 N00173Z45000 8000 53-0010-17 105994.00 LLA : AA 97X4930 NH4A 000 77777 0 00173 2F 000000 N00173Z45000 BASE Funding 155994.00 Cumulative Funding 155994.00 MOD P00001 9000 53-0032-18 146311.00 LLA : AA 97X4930 NH4A 000 77777 0 000173 2F 000000 N00173Z45000 MOD P00001 Funding 146311.00 Cumulative Funding 302305.00 MOD P00002 700001 53-0022-18 153092.00 LLA : AA 97X4930 NH4A 000 77777 0 00173 2F 000000 N00173Z45000 9000 53-0032-18 43928.00 LLA : AA 97X4930 NH4A 000 77777 0 000173 2F 000000 N00173Z45000 MOD P00002 Funding 197020.00 Cumulative Funding 499325.00 MOD P00003 700001 53-0022-18 (153092.00) LLA : AA 97X4930 NH4A 000 77777 0 00173 2F 000000 N00173Z45000 9000 53-0032-18 153092.00 LLA :

CONTRACT NO. DELIVERY ORDER NO. AMENDMENT/MODIFICATION NO. PAGE N00178-04-D-4047 N0017317F3000 P00020 19 of 31 AA 97X4930 NH4A 000 77777 0 000173 2F 000000 N00173Z45000 MOD P00003 Funding 0.00 Cumulative Funding 499325.00 MOD P00004 9000 53-0032-18 33000.00 LLA : AA 97X4930 NH4A 000 77777 0 000173 2F 000000 N00173Z45000 MOD P00004 Funding 33000.00 Cumulative Funding 532325.00 MOD P00005 8000 53-0031-18 1080.09 LLA : AA 97X4930 NH4A 000 77777 0 00173 2F 000000 N00173Z45000 MOD P00005 Funding 1080.09 Cumulative Funding 533405.09 MOD P00006 9000 53-0032-18 272300.00 LLA : AB 9780400112018030603699D8Z795 UATL 0400D 0603699D8Z UATL 255 MOD P00006 Funding 272300.00 Cumulative Funding 805705.09 MOD P00007 9000 19-0002-18 523269.00 LLA : AA 97X4930 NH4A 000 77777 0 00173 2F 000000 N00173Z45000 MOD P00007 Funding 523269.00 Cumulative Funding 1328974.09 MOD P00008 9000 26224.68 19-0001-19 LLA : AA 97X4930 NH4A 000 77777 0 00173 2F 000000 N00173Z45000 MOD P00008 Funding 26224.68 Cumulative Funding 1355198.77 MOD P00009 700001 53-0022-18 272300.00 LLA : AA 97X4930 NH4A 000 77777 0 00173 2F 000000 N00173Z45000 9000 19-0001-19 (272300.00)LLA : AA 97X4930 NH4A 000 77777 0 00173 2F 000000 N00173Z45000 MOD P00009 Funding 0.00

Cumulative Funding 1355198.77

FINAL

CONTRACT NO. DELIVERY ORDER NO. AMENDMENT/MODIFICATION NO. FINAL PAGE N00178-04-D-4047 N0017317F3000 P00020 20 of 31 MOD P00010 700001 53-0022-18 50000.00 LLA : AA 97X4930 NH4A 000 77777 0 00173 2F 000000 N00173Z45000 8000 908000.00 53-0001-19 T.T.A : AA 97X4930 NH4A 000 77777 0 00173 2F 000000 N00173Z45000 MOD P00010 Funding 958000.00 Cumulative Funding 2313198.77 MOD P00011 Funding 0.00 Cumulative Funding 2313198.77 MOD P00012 700001 53-0003-19 267000.00 LLA : AC 9780400 1120 18 040604250D8Z276 SCO 0400D 0604250D8Z 012215 Previously obligated funds do not move to ACRN AC. Only funds in the amount of \$267,000.00, obligated to CLIN 70001, apply to ACRN AC. MOD P00012 Funding 267000.00 Cumulative Funding 2580198.77 MOD P00013 700001 53-0006-19 450000.00 LLA : AE 5793600 299 ETLS 64A020 5G6R05 82100 C6857F 503000 F03000 Previously obligated funds do not move to ACRN AE. Only funds in the amount of \$450,000.00, obligated to CLIN 70001, apply to ACRN AE. MOD P00013 Funding 450000.00 Cumulative Funding 3030198.77 MOD P00014 700001 53-0005-19 133000.00 LLA : AD 9780400 1120 18 040604250D8Z250 SCO 0400D 0604250D8Z 012215 Previously obligated funds do not move to ACRN AD. Only funds in the amount of \$133,000.00, obligated to CLIN 70001, apply to ACRN AD. 9000 53-0005-19 150000.00 LLA : AA 97X4930 NH4A 000 77777 0 00173 2F 000000 N00173Z45000 MOD P00014 Funding 283000.00 Cumulative Funding 3313198.77 MOD P00015 700001 53-0005-19 (1122300.00) LLA : AA 97X4930 NH4A 000 77777 0 00173 2F 000000 N00173Z45000 700002 53-M002-19 272300.00 LLA : AB 9780400 1120 18 030603699D8Z795 UATL 0400D 0603699D8Z UATL 255 700003 53-0003-19 267000.00 LLA : AC 9780400 1120 18 040604250D8Z276 SCO 0400D 0604250D8Z 012215

CONTRACT NO.	DELIVERY ORDER NO.	AMENDMENT/MODIFICATION NO.	PAGE	FINAL
N00178-04-D-4047	N0017317F3000	P00020	21 of 31	

700004 53-0005-19 133000.00 LLA : AD 9780400 1120 18 040604250D8Z250 SCO 0400D 0604250D8Z 012215 700005 53-0006-19 450000.00 LLA : AE 5793600 299 ETLS 64A020 5G6R05 82100 C6857F 50300 F03000 MOD P00015 Funding 0.00 Cumulative Funding 3313198.77 MOD P00016 Funding 0.00 Cumulative Funding 3313198.77 MOD P00017 700001 53-M017-19 (49707.38) LLA : AA 97X4930 NH4A 000 77777 0 00173 2F 000000 N00173Z45000 9000 53-M017-19 49707.38 LLA : AA 97X4930 NH4A 000 77777 0 00173 2F 000000 N00173Z45000 MOD P00017 Funding 0.00 Cumulative Funding 3313198.77 MOD P00018 700002 04-C048-19 (272300.00) LLA : AB 9780400 1120 18 030603699D8Z795 UATL 0400D 0603699D8Z UATL 255 012215 HQ0642810057 03 000000 30603699D8Z 9000 53-M017-19 272300.00 LLA : AB 9780400 1120 18 030603699D8Z795 UATL 0400D 0603699D8Z UATL 255 012215 HQ0642810057 03 000000 30603699D8Z Document Number H00642810057 MOD P00018 Funding 0.00 Cumulative Funding 3313198.77 MOD P00019 700006 53-0014-19 85000.00 LLA : AF 9790400.1100 000 255 D 40604250D8Z 00008522 012215 USRE OSD DIRECTOR USRE 040604250 3RDEYE 19 THIRD EYE 255 00 RD CONT Funding Document HQ0642926857 9001 53-0014-19 15000.00 LLA : AF 9790400.1100 000 255 D 40604250D8z 00008522 012215 USRE OSD DIRECTOR USRE 040604250 3RDEYE 19 THIRD EYE 255 00 RD CONT Funding Document HQ0642926857 MOD P00019 Funding 100000.00 Cumulative Funding 3413198.77 MOD P00020 Funding 0.00 Cumulative Funding 3413198.77

CONTRACT NO.	DELIVERY ORDER NO.	AMENDMENT/MODIFICATION NO.	PAGE	FINAL
N00178-04-D-4047	N0017317F3000	P00020	22 of 31	

CONTRACT NO.	DELIVERY ORDER NO.	AMENDMENT/MODIFICATION NO.	PAGE	FINAL
N00178-04-D-4047	N0017317F3000	P00020	23 of 31	

SECTION H SPECIAL CONTRACT REQUIREMENTS

H-1 TYPE OF CONTRACT

The is a Cost Plus Fixed Fee (CPFF) term task order.

H-2 ONR 5252.235-9714 - REPORT PREPARATION (JUL 2005)

Scientific or technical reports prepared by the Contractor and deliverable under the terms of this contract will be prepared in accordance with format requirements contained in ANSI/NISO Z39.18-2005, Scientific and Technical Reports: Elements, Organization, and Design.

[NOTE: All NISO American National Standards are available as free, downloadable pdf(s) at http://www.niso.org/standards/index.html. NISO standards can also be purchased in hardcopy form from NISO Press Fulfillment, P. O. Box 451, Annapolis Junction, MD 20701-0451 USA. Telephone U.S. and Canada: (877) 736-6476; Outside the U.S. and Canada: 301-362-6904 fax: 301-206-9789.]

H-3 ORGANIZATION CONFLICTS OF INTEREST

(a) Definitions.

The term "contractor" includes the Contractor and its employees, affiliates, marketing consultants (if any), consultants, and subcontractors at all tiers.

"Organizational Conflict of Interest" ("OCI") means that because of other activities or relationships with other persons, a person is unable or potentially unable to render impartial assistance or advice to the Government, or the person's objectivity in performing the contract work is or might be otherwise impaired, or a person has an unfair competitive advantage. FAR 2.101. An OCI may result when (1) activities or relationships create an actual or potential conflict of interest related to the performance of the Statement of Work (SOW) of this Contract; or, (2) when the nature of the SOW on this Contract creates an actual or potential conflict of interest relation to a future acquisition.

"Marketing consultant," means any independent contractor who furnishes advice, information, direction, or assistance to an offeror or any other contractor in support of the preparation or submission of an offer for a Government contract by that offeror. An independent contractor is not a marketing consultant when rendering— (1) Services excluded in FAR Subpart 37.2; (2) Routine engineering and technical services (such as installation, operation, or maintenance of systems, equipment, software, components, or facilities); (3) Routine legal, actuarial, auditing, and accounting services; and (4) Training services.

(b) In accordance with the guidance in FAR Subpart 9.5, the Contracting Officer has determined that potentially significant organizational conflicts of interest (OCIs) could result if the Contractor is allowed to participate (at any level) in future Federal Government acquisitions that include requirements that may be established or affected by the performance of the Statement of Work (SOW) by the Contractor under this Contract.

(c) It is understood and agreed that the Contractor may be ineligible (unless expressly exempted as provided in FAR Part 9.5) to act as a prime contractor, subcontractor, or consultant or subcontractor to any prime contractor or subcontractor at any tier, for any future requirements (for services, systems, or components of systems) procured by any Federal Government activity where the Contractor, in performance of the SOW under this Contract, has provided or is providing support (as described in FAR 9.505-1 through 9.505-4) that establishes or affects future requirements or may affect the future competition.

CONTRACT NO.	DELIVERY ORDER NO.	AMENDMENT/MODIFICATION NO.	PAGE	FINAL
N00178-04-D-4047	N0017317F3000	P00020	24 of 31	

(d) The contracting officer responsible for securing future requirements, in his/her sole discretion, may make a determination to exempt the Contractor from ineligibility as described in subparagraph (c) above provided the Contractor submits an acceptable mitigation plan.

(1) Items for consideration in a mitigation plan include the following: identification of the organizational conflict(s) of interest; a reporting and tracking system; an organizational conflict of interest compliance/enforcement plan, to include employee training and sanctions, in the event of unauthorized disclosure of sensitive information; a plan for organizational segregation (e.g., separate reporting chains); data security measures; and, non-disclosure agreements.

(2) The Government's determination regarding the adequacy of the mitigation plan or the possibility of mitigation is a unilateral decision made solely at the discretion of the Government and is not subject to the Disputes clause of the contract. The Government may terminate the contract for default if the Contractor fails to implement and follow the procedures contained in any approved mitigation plan.

(3) Nothing contained herein shall preclude the contracting officer in future Federal Government acquisitions from making his/her own determination as to whether an OCI exists and whether any such OCI has been successfully mitigated.

(e) The Contractor shall apply this clause to any subcontractors or consultants who: have access to proprietary information received or generated in the performance of this Contract; and/or, who participate in the development of data, or participate in any other activity related to this Contract which is subject to the terms of this clause at the prime contractor level.

(f) The Contactor agrees that it and its subcontractors at all levels shall use reasonable diligence in protecting proprietary data/information that is received or generated in performance of this Contract in accordance with this clause and any other clause of this Contract pertaining to the nondisclosure of information. The Contractor further agrees that neither it nor its subcontractors will willfully disclose proprietary data/information that is received or generated in the performance of this Contract without the prior permission of the Contracting Officer, and that proprietary information shall not be duplicated, used or disclosed, in whole or part, for any purpose other than to accomplish the work required by the Contract.

(g) The Contractor and its Subcontractors at all levels shall inform their employees that they are required to comply with the applicable requirements and restrictions contained in: restrictive markings applicable to data/information that they receive or generate in the performance of this Contract; FAR Subpart 9.5 pertaining to actual or potential OCIs; FAR 3.104 pertaining to requirements and restrictions under the Procurement Integrity Act; and, Defense FAR Supplement (DFARS) 252.204-7000 pertaining to "Disclosure of Information."

(h) The Contractor agrees to enter into written agreements with all companies whose proprietary data it shall have access to and to protect such data from unauthorized use or disclosure as long as it remains proprietary. The Contractor shall furnish to the Contracting Officer copies of these written agreements. The Contractor agrees to protect the proprietary data and rights of other organizations disclosed to the Contractor during performance of this Contract with the same caution that a reasonably prudent Contractor would use to safeguard its own highly valuable property. The Contractor agrees to refrain from using proprietary information for any purpose other than that for which it was furnished.

(i) The Contractor shall not distribute reports, data or information of any nature received or arising from its performance under this Contract, except as provided by this Contract or as may be directed by the Contracting Officer.

(j) The Contractor agrees that if in the performance of this Contract it discovers a potential OCI, a prompt and full disclosure shall be made in writing to the Contracting Officer. This disclosure shall include a description of the actions the Contractor has taken, or proposes to take, to avoid or mitigate such conflicts.

CONTRACT NO.	DELIVERY ORDER NO.	AMENDMENT/MODIFICATION NO.	PAGE	FINAL
N00178-04-D-4047	N0017317F3000	P00020	25 of 31	

H-4 SPECIAL CONTRACT REQUIREMENT REGARDING NON-DISCLOSURE OF INFORMATION

Data includes all data, information and software, regardless of the medium (e.g. electronic or paper) and/or format in which the data exists, and includes data which is derived from, based on, incorporates, includes or refers to such data. In the course of performing this Contract, the Contractor may be or may have been given access to: Source Selection Information [as defined in Federal Acquisition Regulation (FAR) 3.104]; data that has been assigned (or data that is generated by the Contractor that should be assigned) a contractually required or other Government distribution control (such as a Distribution Statement prescribed in DoD Directive 5230.24); and/or data that has been given a restrictive legend by the source of the data such as "business sensitive," "proprietary," "confidential," or word(s) with similar meaning that impose limits on the use and distribution of the data (see for example FAR 52.215-1(e)). All such data with limitations on use and distribution are collectively referred to herein as "protected data."

This Special Contract Requirement supplements and implements Defense FAR Supplement (DFARS) 252.204-7000, "DISCLOSURE OF INFORMATION." As a condition to receiving access to protected data, the Contractor shall: (1) prior to having access to protected data, obtain the agreement of the source of the protected data to permit access by the Contractor to such protected data; (2) use the protected data solely for the purpose of performing duties under this Contract unless otherwise permitted by the source of the protected data; (3) not disclose, release, reproduce or otherwise provide or make available the protected data, or any portion thereof, to any employee of the Contractor unless and until such employee has been informed of the restrictions on use and distribution of the protected data and agreed in writing to conform with the applicable restrictions; (4) not disclose, release, reproduce or otherwise provide or make available the protected data, or any portion thereof, to any non-Government person or entity (including, but not limited to, affiliates, subcontractors, successors and assignees of the Contractor), unless the Contracting Officer and the source of the protected data have given prior written approval (which shall be conditioned upon the person receiving the protected data having been informed of the restrictions on use and distribution of the protected data and having agreed in writing to conform with the applicable restrictions; (5) establish and execute safeguards to prevent the unauthorized use or distribution of protected data.

Any unauthorized use, disclosure or release of protected data may result in substantial criminal, civil and/or administrative penalties to the Contractor or to the individual who violates a restriction on use or distribution of protected data. Any agreement with another company regarding access to that company's protected data shall not create any limitation on the Government or its employees with regard to such data. A copy of each executed company and individual non-disclosure agreement relating to this Contract shall be provided to the Contracting Officer's Representative (COR).

Appropriate restrictive legends will be included by the Contractor on any copies and reproductions made of all or any part of the protected data and any data that is derived from, based upon, incorporates, includes or refers to the protected data. When the Contractor's need for such protected data ends, the protected data shall be returned promptly to the source of the protected data with notice to the COR. However, the obligation not to use, disclose, release, reproduce or otherwise provide or make available such protected data, or any portion thereof, shall continue, even after completion of the Contract, for so long as required by the terms of any agreement pertaining to the protected data between the Contractor and the source of the protected data or (in the case of Government information) for so long as required by applicable law and regulation. Any actual or suspected unauthorized use, disclosure, release, or reproduction of protected data or violation of this agreement, of which the company or any employee is or may become aware, shall be reported promptly (within one business day after discovery and confirmation) to the Contracting Officer's Representative (COR).

H-5 ONR 5252.216-9706 - LEVEL OF EFFORT (DEC 88)

(a) The Contractor agrees to provide the total level of effort specified in the next sentence in performance of the work described in this contract. The total level of effort for performance of this

CONTRACT NO.	DELIVERY ORDER NO.	AMENDMENT/MODIFICATION NO.	PAGE	FINAL
N00178-04-D-4047	N0017317F3000	P00020	26 of 31	

contract shall be 278,400 total hours of direct labor, including subcontractor direct labor for those subcontractors specifically identified in the Contractor's proposal as having hours included in the proposed level of effort. A breakdown of labor categories and hours is set forth in paragraph (k) below.

(b) The level of effort for this contract shall be expended at an average rate of * hours per month. It is understood and agreed that the rate of hours per month may fluctuate in pursuit of the technical objective, provided such fluctuation does not result in the use of the total hours of effort prior to the expiration of the term of the contract.

(c) The Contractor is required to notify the Contracting Officer when any of the following situations occur, or are anticipated to occur: If during any three consecutive months the monthly average is exceeded by 25% or, if at any time it is forecast that during the last three months of the contract less than 50% of the monthly average will be used during any given month; or, when 85% of the total level of effort has been expended.

(d) If, during the term of the contract, the Contractor finds it necessary to accelerate the expenditure of direct labor to such an extent that the total hours of effort specified would be used prior to the expiration of the term, the Contractor shall notify the Contracting Officer in writing, setting forth the acceleration required, the probable benefits which would result, and an offer to undertake the acceleration at no increase in the estimated cost or fixed fee together with an offer setting forth a proposed level of effort, cost breakdown, and proposed fixed fee for continuation of the work until expiration of the term hereof. The offer shall provide that the work proposed will be subject to the terms and conditions of this contract and any additions or changes required by then current law, regulations, or directives, and that the offer, with a written notice of acceptance by the Contracting Officer, shall constitute a binding contract. The Contractor shall not accelerate any effort until receipt of such written approval by the Contracting Officer. Any agreement to accelerate will be formalized by contract modification.

(e) The Contracting Officer may, by written order, direct the Contractor to accelerate the expenditure of direct labor such that the total hours of effort specified in paragraph (a) above would be used prior to the expiration of the term. This order shall specify the acceleration required and the resulting revised term. The Contractor shall acknowledge this order within five days of receipt.

(f) If the total level of effort specified in paragraph (a) above is not provided by the Contractor during the term of this contract, the Contracting Officer shall either (i) reduce the fixed fee of this contract as follows:

Fee Reduction = Fixed Fee X (Required LOE Hours - Expended LOE Hours)

Required LOE Hours

or (ii) subject to the provisions of the clause of this contract entitled "Limitation of Cost," require the Contractor to continue to perform the work until the total number of hours of direct labor specified in paragraph (a) shall have been expended, at no increase in the fixed fee of this contract.

(g) In the event the government fails to fully fund the contract in a timely manner, the term of the contract may be extended accordingly with no change to cost or fee. If the government fails to fully fund the contract, the fee will be adjusted in direct proportion to that effort which was performed.

(h) Notwithstanding any of the provisions in the above paragraphs, the Contractor may furnish hours up to five percent in excess of the total hours specified in paragraph (a) above, provided that the additional effort is furnished within the term hereof, and provided further that no increase in the estimated cost or fixed fee is required, and no adjustment in the fixed fee shall be made provided that the Contractor has delivered at least 95% of the level of effort required in paragraph (a) above.

(i) It is understood that the mix of labor categories provided by the Contractor under the contract, as well as the distribution of effort among those categories, may vary considerably from the initial mix and distribution of effort which was estimated by the government or proposed by the Contractor.

(j) Nothing herein shall be construed to alter or waive any of the rights or obligations of either party pursuant to the Clause entitled "Limitation of Costs" or "Limitation of Funds," either of which clauses as

CONTRACT NO.	DELIVERY ORDER NO.	AMENDMENT/MODIFICATION NO.	PAGE	FINAL
N00178-04-D-4047	N0017317F3000	P00020	27 of 31	

incorporated herein applies to this contract.

(k) The anticipated breakdown by labor category of the total level of effort is as follows:

LABOR CATEGORY	Hours
Senior Electrical Engineer/Program Manager	9600
Engineer/Physicist/Scientist	4800
Engineer/Physicist/Scientist	4800
Senior RF Engineer	9600
RF Engineer	9600
RF Engineer	9600
RF/Electrical Engineer I	9600
RF/Electrical Engineer II	9600
RF/Electrical Engineer III	9600
Systems Engineer	4800
Systems Engineer	4800
Jr. Electrical Engineer/Physicist	9600
Jr. Electrical Engineer/Physicist	9600
Mechanical Engineer	9600
Software Engineer I	9600
Software Engineer II	9600
Software Engineer III	9600
Senior Electronics Technician	9600
Senior Electronics Technician	9600
Senior Program Analyst	9600
Program Financial Analyst	9600
Program Control Specialist	9600
Senior Electrical Hardware Engineer	9600
Senior Electronics Engineer	7200
Administrative Specialist	9600
Senior Electrical Hardware Engineer	9600
Senior Electronics Engineer	9600
Senior Electronics Engineer	9600
Senior FPGA/Design Engineer	9600
Software Engineer III	9600
RF/Electrical Engineer II	9600
Senior Electronics Engineer	2400

CONTRACT NO.	DELIVERY ORDER NO.	AMENDMENT/MODIFICATION NO.	PAGE	FINAL
N00178-04-D-4047	N0017317F3000	P00020	28 of 31	

CONTRACT NO.	DELIVERY ORDER NO.	AMENDMENT/MODIFICATION NO.	PAGE	FINAL
N00178-04-D-4047	N0017317F3000	P00020	29 of 31	

CONTRACT NO.	DELIVERY ORDER NO.	AMENDMENT/MODIFICATION NO.	PAGE	FINAL
N00178-04-D-4047	N0017317F3000	P00020	30 of 31	

SECTION I CONTRACT CLAUSES

I-1 FAR 52.252-2 CLAUSES INCORPORATED BY REFERENCE (FEB 1998)

52.204-18	Commercial Government Entity Code Maintenance	JUL 2016
52.222-2	Payment For Overtime Premiums - The Use of Overtime Is Authorized Under This Contract If the Overtime Premium Does Not Exceed "0"	JUL 1990
52.222-40	Notification of Employee Rights Under the National Labor Relations Act	DEC 2010
52.223-5	Pollution Prevention and Right-To-Know Information	MAY 2011
52.223-10	Waste Reduction Program	MAY 2001
52.227-14	Rights in Data - General	MAY 2014
52.232-40	Providing Accelerated Payments to Small Business Subcontractors Disputes	DEC 2013
52.237-2	Protection Of Government Buildings, Equipment, and Vegetation	APR 1984
52.244-2	Subcontracts	OCT 2010
252.203-7003	Agency Office of the Inspector General	DEC 2012
252.203-7004	Display of Fraud Hotline Poster(s)	OCT 2016
252.203-7997	Prohibition on Contracting with Entities that Require Certain Internal Confidentiality Agreements	OCT 2015
252.227-7000	Non-Estoppel	OCT 1966
252.235-7010	Acknowledgment of Support and Disclaimer	MAY 1995
252.235-7011	Final Scientific or Technical Report	JAN 2015
252.244-7001	Contractor Purchasing System Administration	MAY 2014

ALL CLAUSES INCORPORATED BY REFERENCE IN THE BASIC IDIQ CONTRACT APPLY TO THIS TASK ORDER, AS APPLICABLE.

CONTRACT NO.	DELIVERY ORDER NO.	AMENDMENT/MODIFICATION NO.	PAGE	FINAL
N00178-04-D-4047	N0017317F3000	P00020	31 of 31	

SECTION J LIST OF ATTACHMENTS

Exhibit A

Attachment 1

Attachment 2

Attachment 3