

AWARD/CONTRACT		1. THIS CONTRACT IS A RATED ORDER UNDER DPAS (15 CFR 350)		RATING		PAGE OF PAGES 1 30	
2. CONTRACT (Proc. Inst. Ident.) NO. HR0011-08-C-0125		3. EFFECTIVE DATE 10 Sep 2008		4. REQUISITION/PURCHASE REQUEST/PROJECT NO. X6700509			
5. ISSUED BY DARPA CMO ATTN: MICHAEL D. BLACKSTONE 3701 N. FAIRFAX DR. ARLINGTON VA 22203-1714		CODE HR0011		6. ADMINISTERED BY (If other than Item 5) DCMA MUNITIONS AND SUPPORT SYSTEMS BLDG 1, ARDEC PICATINNY ARSENAL NJ 07806		CODE S3101A	
7. NAME AND ADDRESS OF CONTRACTOR (No., street, city, county, state and zip code) OFS LABS 19 SCHOOLHOUSE RD SOMERSET NJ 08873-1235				8. DELIVERY [] FOB ORIGIN [X] OTHER (See below)			
				9. DISCOUNT FOR PROMPT PAYMENT Net 30 Days			
				10. SUBMIT INVOICES 1 (4 copies unless otherwise specified) TO THE ADDRESS SHOWN IN:		ITEM Section G	
CODE 43C65		FACILITY CODE					
11. SHIP TO/MARK FOR SPAWAR SYSTEMS CENTER SAN DIEGO DR. FRANK HANSON SPAWARSYSCEN 55430 53490 DOW STREET SAN DIEGO CA 92152-5743		CODE N00039		12. PAYMENT WILL BE MADE BY DFAS COLUMBUS CENTER NORTH ENTITLEMENT OPERATIONS P.O. BOX 182266 COLUMBUS OH 43218-2266		CODE HQ0337	
13. AUTHORITY FOR USING OTHER THAN FULL AND OPEN COMPETITION: [] 10 U.S.C. 2304(c)() [] 41 U.S.C. 253(c)()				14. ACCOUNTING AND APPROPRIATION DATA See Schedule			
15A. ITEM NO.	15B. SUPPLIES/ SERVICES	15C. QUANTITY	15D. UNIT	15E. UNIT PRICE	15F. AMOUNT		
SEE SCHEDULE							
15G. TOTAL AMOUNT OF CONTRACT							\$5,077,399.00
16. TABLE OF CONTENTS							
(X)	SEC.	DESCRIPTION	PAGE(S)	(X)	SEC.	DESCRIPTION	PAGE(S)
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CONTRACTING OFFICER WILL COMPLETE ITEM 17 OR 18 AS APPLICABLE							
17. [X] CONTRACTOR'S NEGOTIATED AGREEMENT Contractor is required to sign this document and return _____ copies to issuing office. Contractor agrees to furnish and deliver all items or perform all the services set forth or otherwise identified above and on any continuation sheets for the consideration stated herein. The rights and obligations of the parties to this contract shall be subject to and governed by the following documents: (a) this award/contract, (b) the solicitation, if any, and (c) such provisions, representations, certifications, and specifications, as are attached or incorporated by reference herein. (Attachments are listed herein.)				18. [] AWARD (Contractor is not required to sign this document.) Your offer on Solicitation Number _____ including the additions or changes made by you which additions or changes are set forth in full above, is hereby accepted as to the items listed above and on any continuation sheets. This award consummates the contract which consists of the following documents: (a) the Government's solicitation and your offer, and (b) this award/contract. No further contractual document is necessary.			
19A. NAME AND TITLE OF SIGNER (Type or print)				20A. NAME OF CONTRACTING OFFICER MICHAEL D. BLACKSTONE / PCO TEL: (571) 218-4804 EMAIL: michael.blackstone@darpa.mil			
19B. NAME OF CONTRACTOR		19C. DATE SIGNED		20B. UNITED STATES OF AMERICA		20C. DATE SIGNED	
BY _____ (Signature of person authorized to sign)				BY _____ (Signature of Contracting Officer)		10-Sep-2008	

Section B - Supplies or Services and Prices

ITEM NO	SUPPLIES/SERVICES	ESTIMATED COST	FIXED FEE	TOTAL EST. COST PLUS FIXED FEE
0001	RIFL Base (Phase 1) AO No. X670/05/09	(b)(4)	(b)(4)	\$5,077,399.00
	The contractor shall conduct the Phase 1 research entitled "Higher Order Mode Fiber Amplifiers" in accordance with the Attachment 1 Statement of Work, dated 8 Sept 08, and in Section C herein. Data deliverables/reports shall be provided in accordance with Sections C and F herein.			\$5,077,399.00

ITEM NO		AMOUNT
000101	funding for CLIN 0001	
	AO No. X670/05/09	
	ACRN AA	\$1,471,950.00

ITEM NO	SUPPLIES/SERVICES	ESTIMATED COST	FIXED FEE	TOTAL EST. COST PLUS FIXED FEE
0002	RIFL Phase 2 (Option 1) AO No. X670/05/09	(b)(4)	(b)(4)	\$3,816,969.00
	The contractor shall conduct the Phase 2 research entitled "Higher Order Mode Fiber Amplifiers" in accordance with the Attachment 1 Statement of Work, dated 8 Sep 08, and in Section C herein. Data deliverables/reports shall be provided in accordance with Sections C and F herein.			\$3,816,969.00

Section C - Descriptions and Specifications

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C-1 Scope of Work

- (a) The Contractor shall furnish the necessary personnel, materials, facilities and other services as may be required to perform Contract Line Item Number (CLIN) 0001 and, to the extent exercised, CLIN 0002, in accordance with the Statement of Work, Attachment 1 hereto.
(end of clause)

C-2 Reports and Other Deliverables

- (a) The Contractor shall submit the following reports and other deliverables in accordance with the delivery schedule set forth in Section F. Reports and other deliverables shall be submitted in writing, as defined in FAR 2.101, or as specified below:

(1) R&D STATUS REPORT (MONTHLY)

This brief narrative, not to exceed five pages in length, shall contain the following:

- (i) Description of progress during the reporting period, supported by reasons for any change in approach reported previously.
- (ii) The contractor shall also discuss any technical and/or financial problems discovered during the reporting period in this narrative.

(2) DETAILED TECHNICAL/FINANCIAL (QUARTERLY)

This detailed narrative does not have page restrictions and shall contain the following:

- (i) For first report only; the date work actually started.
- (ii) Description of progress during the reporting period, supported by reasons for any change in approach reported previously
- (iii) Planned activities and milestones for the next reporting period.
- (iv) Description of any major items of experimental or special equipment purchased or constructed during the reporting period.
- (v) Notification of any changes in key personnel associated with the contract during the reporting period.
- (vi) Summary of substantive information derived from noteworthy trips, meetings, and special conferences held in connection with the contract during the reporting period.
- (vii) Summary of all problems or areas of concern.
- (viii) Related accomplishments since last report.
- (ix) Fiscal status, to include reporting of summary level financial data in the following format:
(next page)

R&D STATUS REPORT
PROGRAM FINANCIAL STATUS

Work Breakdown		Cumulative to Date			At Completion	
Structure or Task Element	Planned Expend	Actual Expend	% Budget Compl	At Compl	Latest Revised Estimate	Remarks
Subtotal: _____						
Management Reserve: _____						
Or						
Unallocated Resources: _____						
TOTAL: _____						

Note: Budget at completion changes only with the amount of any scope changes. (Not affected by underrun or overrun)

Based on currently authorized work:

Is current funding sufficient for the current fiscal year (FY)? (Explain in narrative if "NO")

YES NO

What is the next FY funding requirement at current anticipated levels?

\$ _____

Have you included in the report narrative any explanation of the above data and are they cross-referenced?

YES NO

(2) FINAL REPORT

This report shall document the results of the complete effort and should be delivered at the completion of the contract. If the Government chooses to exercise the options under this contract, the due date for the final report is extended accordingly. Title pages shall include a disclaimer worded substantially as follows:

“The views and conclusions contained in this document are those of the authors and should not be interpreted as representing the official policies, either expressly or implied, of the Defense Advanced Research Projects Agency or the U.S. Government.”

The Final Technical Report summary shall include:

Task Objectives
 Technical Problems
 General Methodology (i.e., literature review, laboratory experiments, surveys, etc.)
 Technical Results
 Important Findings and Conclusions
 Significant Hardware Development
 Special Comments
 Implications for Further Research
 Standard Form 298, September 1988

(3) ALL REPORTS

(a) Reports delivered by the Contractor in the performance of the contract shall be considered “Technical Data” as defined in Section I contract clauses entitled “Rights in Technical Data – Noncommercial Items” and “Rights in Noncommercial Computer Software and Noncommercial Computer Software Documentation.”

(b) Bulky Reports shall be mailed by other than first-class mail unless the urgency of submission requires use of first-class mail. In this situation, one copy shall be mailed first-class and the remaining copies forwarded by less than first-class.

(c) All papers and articles published as a result of DARPA sponsored research shall include a statement reflecting the sponsorship. In addition, a bibliography of the titles and authors of all such papers are to be included in the Final Technical Report

(i) The cover or title page of each of the above reports or publications prepared, will have the following citation:

Sponsored by
 Defense Advanced Research Projects Agency
 Microsystems Technology Office (MTO)
 Program: Revolution in Fiber Lasers (RIFL)
 Issued by DARPA/CMO under Contract No: HR0011-08-C-0125

(ii) The title page shall include a disclaimer worded substantially as follows:

“The views and conclusions contained in this document are those of the authors and should not be interpreted as representing the official policies, either expressly or implied, of the Defense Advanced Research Projects Agency or the U.S. Government.”

(d) All technical reports must (i) be prepared in accordance with American National Standards Institute (ANSI) Standard Z39.18; (ii) include a Standard Form 298, August 1998; and (iii) be marked with an appropriate Distribution Statement.

(e) Distribution Statement B applies.

"Distribution authorized to U.S. Government agencies only due to the inclusion of proprietary information and to prevent Premature Dissemination of potentially critical technological Information. Other requests for this document shall be referred to DARPA Technical Information Office via email at tio@darpa.mil."

Note to contractor: In accordance with the applicable Data Rights clauses(s), all proprietary information within the data deliverables shall be clearly identified/marked as such for each such occurrence (use of footnotes, or similar forms of reference, for purposes of such identification is encouraged).

(4) ADDITIONAL MISCELLANEOUS DATA DELIVERABLES

The Contractor shall also deliver those items listed in the Contract Attachment (1) - Statement of Work under the paragraph entitled "Deliverables", as applicable. The Contractor shall adhere to the schedule, as applicable, in the Statement of Work. Briefing materials (hard and softcopy) for all briefings given to the Government shall be provided in the Contractor's format.

(end of clause)

REMAINDER OF PAGE LEFT BLANK

Section D - Packaging and Marking

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D-1 Packaging and Marking

- (a) All items shall be preserved, packaged, packed and marked in accordance with best commercial practices to meet the packing requirements of the carrier, and to ensure safe delivery at destination.
- (end of clause)

REMAINDER OF PAGE LEFT BLANK

Section E - Inspection and Acceptance

INSPECTION AND ACCEPTANCE TERMS

Supplies/services will be inspected/accepted at destination by the Contracting Officer's Representative identified at Section G herein.

Use of the DD250 is required for submission of the Final Report only.

CLAUSES INCORPORATED BY REFERENCE

52.246-8

Inspection Of Research And Development Cost
Reimbursement

MAY 2001

Section F - Deliveries or Performance

CLAUSES INCORPORATED BY REFERENCE

52.242-15 Alt I	Stop-Work Order (Aug 1989) - Alternate I	APR 1984
52.247-34	F.O.B. Destination	NOV 1991

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F-1 Term of Contract

- (a) The term of the base contract commences on 10 September 2008 and continues through 10 December 2009.
- (b) The period of performance for Option 1 (Phase 2), as set forth in CLIN 0002, shall be from the effective date of the option exercise (estimated to be 10 December 2009) through nine (9) months thereafter (estimated to be 10 September 2010).

(end of clause)

F-2 Reports and Other Deliverables

- (a) Delivery of all reports and other deliverables shall be made to the addressee specified in F-3 entitled "Report Distribution" in accordance with the following:

Item No.	Description	Due Date (on or before)
0001,0002	R&D Status Reports	Monthly IAW Section C-2
0001,0002	Interim R&D Technical Reports	Quarterly IAW Section C-2
0001,0002	RIFL Final Report	15 months after date of contract award (10 December 2008)
		If option is exercised, 33 months after date of contract award (10 September 2010)
0001,0002	Additional Misc. Deliverables	As required IAW Section C-2

(end of clause)

F-3 Report Distribution

- (a) DARPA/MTO(RIFL Program Manager)
 Attn: Dr. Joseph Mangano
 3701 North Fairfax Drive
 Arlington, VA 22203-1714
 Email: (joseph.mangano@darpa.mil)
 (one copy each report/data deliverable)

(b) Dr. Frank Hanson
SPAWARSYSCEN 55430
53490 Dow Street
San Diego, CA 92152-5743
(619) 553-2094
Email: hansonfe@spawar.navy.mil
(one copy each report/data deliverable)

(c) DARPA/MTO
Attn: ADPM (R. Glaze)
3701 North Fairfax Drive
Arlington, VA 22203-1714
Email: robert.glaze@darpa.mil
(one copy each monthly status report and final report)

(d) DARPA/Library
3701 North Fairfax Drive
Arlington, VA 22203-1714
Email: library@darpa.mil
(one copy of the final report)

(e) Defense Technical Information Center

(1) Email: TR@dtic.mil
(one electronic copy of the Final Technical Report, if unclassified)

OR

(2) Attn: DTIC-BCS
8725 John J. Kingman Road, Suite 0944
Fort Belvoir, VA 22060-0944
(two hard copies of the Final Technical Report if unclassified)

(f) DARPA/CMO
Attn: Michael D. Blackstone (PCO)
3701 North Fairfax Drive
Arlington, VA 22203-1714
Email: michael.blackstone@darpa.mil
(one copy each monthly status report and final report)
(end of clause)

Note 1: (a) through (f) – submission of unclassified materials only. Submission of classified material shall be coordinated through DARPA SID and/or the DARPA Program Manager in accordance with the attached DD 254, as applicable.

Note 2: (a) through (f) – Interim Report submissions may be made electronically via e-mail. Final Report submissions shall be made in hardcopy and CD soft copy.

Note 3: For the Final Technical Report (s), the Contractor must also comply with the distribution requirements of DFARS 252.235-7011, as applicable.
(end of clause)

F-4 Notice Regarding Late Delivery

(a) In the event the Contractor anticipates difficulty in complying with the contract delivery schedule, the Contractor shall immediately notify the Contracting Officer in writing, giving pertinent details, including the date by which it expects to make delivery; PROVIDED, however, that this date shall be informational only in character and the receipt thereof shall not be construed as a waiver by the Government of any contract delivery schedule, or any rights or remedies provided by law or under this contract.
(end of clause)

Section G - Contract Administration Data

ACCOUNTING AND APPROPRIATION DATA

AA: 9780400 1320 X670 P8G10 2525 DPAC 8 5249 S12136 62702E
 AMOUNT: \$1,471,950.00
 CIN 00000000000000000000000000000000: \$1,471,950.00

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252.204-7006 BILLING INSTRUCTIONS (OCT 2005)

When submitting a request for payment, the Contractor shall--

- (a) Identify the contract line item(s) on the payment request that reasonably reflect contract work performance; and
- (b) Separately identify a payment amount for each contract line item included in the payment request.

(End of clause)

G-1 Procuring Office Representative

- (a) The Procuring Office Representative is Michael D. Blackstone, DARPA/CMO, 3701 North Fairfax Drive, Arlington, VA 22203-1714, telephone: 571-218-4804, e-mail: michael.blackstone@darpa.mil.
- (b) Notwithstanding any other provision of this contract, the Contracting Officer is the only individual authorized to redirect the effort or in any way amend or modify any of the terms of this contract. If, as a result of technical discussions, it is desirable to alter contract obligations or statement of work, a modification must be issued in writing and signed by the Contracting Officer.

(end of clause)

G-2 Electronic Submission of Payment Requests

- (a) Invoices for goods received or services rendered under this contract shall be submitted electronically through Wide Area Work Flow – Receipt and Acceptance (WAWF):

(1) Vendors that have never used WAWF shall follow the directions in the WAWF Vendor Getting Started Guide available at the following website:
<http://www.dfas.mil/contractorpay/electroniccommerce/wideareaworkflow.html>. This website also contains links for Vendor training and practice. Additional support can be obtained by calling WAWF Customer Service at 866-618-5988.

(2) Back up documentation (such as timesheets, monthly status reports, etc.) can be included and attached to the invoice in WAWF. Attachments should be in PDF format, but Attachments created in any Microsoft Office product may be attached. Total limit for the size of files per invoice is 5 megabytes.

(b) The following information, regarding invoice routing DoDAAC's, must be entered for completion of the invoice in WAWF:

WAWF Invoice Type:	Cost Voucher
Issuing Office DoDAAC	HR0011
Admin Office DoDAAC	S3101A
Service Approver DoDAAC (Cost Voucher)	S3101A
DCAA Office DoDAAC (Used on Cost Vouchers only)	HAA310
Paying Office DoDAAC	HQ0337

(c) Cost Vouchers from Contractors approved by DCAA for direct billing will be directly routed to DFAS. Cost Vouchers from Contractors not approved for direct billing will be routed to DCAA for approval before the Cost Voucher is routed to DFAS. All Final Cost Voucher submissions will be routed to the Service Approver for approval. The DCAA office for this award is:

Southern New Jersey Branch Office- 06341
 10 Melrose Avenue, Suite 200
 Woodcrest Pavilion
 Cherry Hill, NJ 08003-3647 **DoDAAC: HAA310**
Phone No: (856) 354-7550
Fax No: (856) 354-7520
E-mail: dcaa-fao6341@dcaa.mil

(d) For each invoice/cost voucher submitted for payment, the contractor shall also e-mail the WAWF automated invoice notice directly to the following points of contact:

Name	E-mail	Phone	Role
Frank Hanson	hansonfe@spawar.navy.mil	(619) 553-2094	COR

G-3 Delegation of Authority for Contract Administration

(a) DCMA MUNITIONS AND SUPPORT SYSTEMS SPRINGFIELD (S3101A), is hereby designated as the Contracting Officer's authorized representative for administering this contract in accordance with current directives.

(end of clause)

G-4 Contracting Officer's Representative (COR)

(a) Performance of work under this contract shall be subject to the technical direction of Dr. Frank Hanson SPAWARSYSCEN 55430, 53490 Dow Street, San Diego, CA 92152-5743, (619) 553-2094, Email: hansonfe@spawar.navy.mil. Such technical direction includes those instructions to the Contractor necessary to accomplish the Statement of Work. The COR is not otherwise authorized to make any representations or commitments of any kind on behalf of the Contracting Officer or the Government. The COR does not have the authority to alter the Contractor's obligations or to change the specifications of the contract.

(b) Technical direction shall not include any direction which:

- (1) Constitutes additional work outside the scope of work;
- (2) Constitutes a change as defined in Section I contract clause entitled "Changes";
- (3) In any manner causes an increase or decrease in the total estimated cost or the time required for contract performance; or
- (4) Changes any of the stated terms, conditions, or specifications of the contract.
- (4) See Attachment 3, "Memorandum for Contracting Officer's Representative."

(end of clause)

G-5 Payment Instructions for Multiple Accounting Classification Citations

- (a) Payments under contract line items funded by multiple accounting classification citations shall be made from the earliest available fiscal year funding sources. The earliest assigned ACRN must be fully disbursed before making disbursements from a succeeding ACRN.

(end of clause)

G-6 Incremental Funding

- (a) This contract shall be subject to incremental funding with the amount(s) shown in the table below presently made available for performance under this contract. It is estimated that the funds presently available are sufficient to permit the Contractor's performance through the date noted in the table below. Except in accordance with the Section I clause FAR 52.232-22, "Limitation of Funds," no legal liability of the part of the Government for payment of any money in excess of the amount(s) shown in the table below shall arise unless and until additional funds are made available by the Contracting Officer through a modification to this contract.

<u>CLIN</u>	<u>AMOUNT FUNDED TO DATE</u>	<u>ESTIMATED PERFORMANCE PERIOD</u>
0001	\$1,147,950	18 April 2008
0002	Option Not Yet Exercised	

(end of clause)

G-7 Payment of Cost and Fee

- (a) As consideration for the proper performance of work required under this contract, the Contractor shall be paid as follows:

- (1) Costs, as provided for under Section I contract clause titled "Allowable Cost and Payment" not to exceed the amount set forth as "Total Estimated Cost" in Section B, and subject further to those Section I clauses entitled "Limitation of Cost" or "Limitation of Funds".
- (2) A fixed fee in the amount set forth as "Fixed Fee" in Section B, in accordance with the Section I contract clause entitled "Fixed Fee". The Contractor may bill on each invoice the amount of the fixed fee bearing the same percentage to the total fixed fee as the amount of cost billed bears to the total estimated cost.

(end of clause)

Section H - Special Contract Requirements

CLAUSES INCORPORATED BY FULL TEXT

H-1 Type of Contract

(a) This is a Cost-Plus-Fixed-Fee (CPFF) completion contract.
(end of clause)

H-2 Public Release or Dissemination of Information

(a) There shall be no dissemination or publication, except within and between the Contractor and any subcontractors, of information developed under this contract or contained in the reports to be furnished pursuant to this contract without prior written approval of the DARPA Technical Information Officer (DARPA/TIO). All technical reports will be given proper review by appropriate authority to determine which Distribution Statement is to be applied prior to the initial distribution of these reports by the Contractor. Papers resulting from unclassified contracted fundamental research are exempt from prepublication controls and this review requirement, pursuant to DoD Instruction 5230.27 dated October 6, 1987.

(b) When submitting material for written approval for open publication as described in subparagraph (a) above, the Contractor must submit a request for public release request to the DARPA TIO and include the following information: 1) Document Information: document title, document author, short plain-language description of technology discussed in the material (approx 30 words), number of pages (or minutes of video) and document type (briefing, report, abstract, article, or paper); 2) Event Information: event type (conference, principle investigator meeting, article or paper), event date, desired date for DARPA's approval; 3) DARPA Sponsor: DARPA Program Manager, DARPA office, and contract number; and 4) Contractor's Information: POC name, e-mail and phone. Allow four weeks for processing; due dates under four weeks require a justification. Unusual electronic file formats may require additional processing time. Requests can be sent either via e-mail to tio@darpa.mil or via 3701 North Fairfax Drive, Arlington VA 22203-1714, telephone (571) 218-4235. Refer to www.darpa.mil/tio for information about DARPA's public release process.

(c) See also Section I, Clause 252.232-7010 "Acknowledgement of Support and Disclaimer."

(end of clause)

H-3 Key Personnel

(a) The Contractor shall notify the Contracting Officer prior to making any change in key personnel. Key personnel are defined as follows:



(b) The Contractor must demonstrate that the qualifications of the prospective personnel are equal to or better than the qualifications of the personnel being replaced. Notwithstanding any of the foregoing provisions, key personnel shall be furnished unless the Contractor has demonstrated to the satisfaction of the COR that the qualifications of the proposed substitute personnel are equal to or better than the qualifications of the personnel being replaced.

(end of clause)

H-4 Restrictions on Printing

(a) Unless otherwise authorized in writing by the Contracting Officer, reports, data, or other written material produced using funds provided by this contract and submitted hereunder shall be reproduced only by duplicating processes and shall not exceed 5,000 single page reports or a total of 25,000 pages of a multiple-page report. These restrictions do not preclude the writing, editing, preparation of manuscript or reproducible copy of related illustrative materials if required as part of this contract, or incidental printing such as forms or materials necessary to be used by the Contractor to respond to the terms of the contract.

(end of clause)

H-5 Contractor Representations and Certifications

(a) The Contractor's contract specific Representations and Certifications dated 23 July 2008 are incorporated herein by reference. Additionally, the Contractor's ORCA, Certification Validity 12/26/2007 through 12/26/2008 (DUNS 603104840), are hereby made a part of this contract by reference.

(end of clause)

H-6 Insurance Schedule

(a) The Contractor shall maintain the types of insurance listed in FAR 28.307-2 (a), (b) and (c), with the minimum amounts of liability indicated therein. The types of insurance coverage listed in paragraphs (d) and (e) shall also be maintained when applicable.

(end of clause)

H-7 Travel

(a) Reimbursement for travel-related expenses shall be in accordance with the Contractor's approved travel policy. The Federal Travel Regulations, Joint Travel Regulations (JTR), and Standardized Regulations as stated in FAR 31.205-46 will be used as a guide in determining reasonableness of per diem costs. Costs for travel shall be allowable subject to the provisions of FAR 31.205-46.

(b) In connection with direct charge to the contract of travel-related expenses, the Contractor shall hold travel to the minimum required to meet the objectives of the contract, and substantial deviations from the amount of travel agreed to during contract negotiation shall not be made without the authorization of the Contracting Officer.

When applicable, the Contractor shall notify the COR of proposed travel of an employee beyond that agreed to during negotiations.

(c) Approval of the Contracting Officer shall be obtained in advance for attendance by personnel at training courses, seminars, and other meetings not directly related to contract performance if the costs for the courses, seminars, and other meetings are charged to the contract.

(d) All foreign travel shall be authorized and approved in advance, in writing, by the Contracting Officer. Request for such travel must be submitted to the Grants Officer at least forty-five (45) days in advance of traveler's anticipated departure date, and shall include traveler's itinerary of United States Flag Air Carriers.

(end of clause)

H-8 Metric System

- (a) The Defense Advanced Research Projects Agency (DARPA) will consider the use of the metric system in all of its activities consistent with operational, economical, technical and safety requirements.
 - (b) The metric system will be considered for use in all new designs. When it is deemed not to be in the best interest of the DoD to provide metric design, justification shall be provided.
 - (c) Physical and operational interfaces between metric items and U.S. customary items will be designed to assure that interchangeability and interoperability will not be affected.
 - (d) Existing designs dimensioned in U.S. customary units will be converted to metric units only if determined to be necessary or advantageous. Unnecessary retrofit of existing systems with new metric components will be avoided where both the new metric and existing units are interchangeable and interoperable. Normally, the system of measurement in which an item is originally designed will be retained for the life of the item.
 - (e) During the metric transition phase hybrid metric and U.S. customary designs will be necessary and acceptable. Material components, parts, subassemblies, and semi-fabricated material, which are of adequate or when it is otherwise specifically determined to be in the best interest of the Department of Defense. Bulk materials will be specified and accepted in metric units when it is expedient or economical to do so.
 - (f) Technical reports, studies, and position papers, (except those pertaining to items dimensioned in U.S. customary units) will include metric units of measurement in addition to or in lieu of U.S. customary units. With respect to existing contracts, this requirement applies only if such documentation can be obtained without an increase in contract costs.
 - (g) Use of the dual dimensions (i.e., both metric and U.S. customary dimensions) on drawings will be avoided unless it is determined in specific instances that such usage will be beneficial. However, the use of tables on the document to translate dimensions from one system of measurement to the other is acceptable.
- (end of clause)

H-9 Consent to Subcontract

- (a) Pursuant to the clause of the General Provisions entitled "Subcontracts (AUG 1998)," FAR 52.244-2, the Contracting Officer hereby consents to the placement of subcontract(s) with the following firm(s)/consultant(s) at the ceiling amounts specified:
- | NAME | TOTAL AMOUNT |
|---------------------------------------------------|--------------|
| NONE IDENTIFIED AT TIME OF CONTRACT AWARD. | |
- (b) Approval must be obtained from the Administrative Contracting Officer to increase the use or number of subcontractors from the level established in subparagraph a.
- (end of clause)

H-10 Proprietary Technical Data and Computer Software

- (a) Any deliverable technical data or computer software developed or generated at private expense and considered to be proprietary by the Contractor or subcontractors shall be delivered in accordance with DFARS 252.227-7013 and 252.227-7014. A list of such data and/or software is incorporated into the contract as Attachment No. 2
- (end of clause)

H-11 Export Control Clause

Should this project develop beyond fundamental research (basic and applied research ordinarily published and shared broadly within the scientific community) with military or dual-use applications the following apply:

- (a) The contractor shall comply with all U. S. export control laws and regulations, including the International Traffic in Arms Regulations (ITAR), 22 CFR Parts 120 through 130, and the Export Administration Regulations (EAR), 15 CFR Parts 730 through 799, in the performance of this contract. In the absence of available license exemptions/exceptions, the Contractor shall be responsible for obtaining the appropriate licenses or other approvals, if required, for exports of (including deemed exports) hardware, technical data, and software, or for the provision of technical assistance.
- (b) The Contractor shall be responsible for obtaining export licenses, if required, before utilizing foreign persons in the performance of this contract, including instances where the work is to be performed on-site at any Government installation (whether in or outside the United States), where the foreign person will have access to export-controlled technical data or software.
- (c) The Contractor shall be responsible for all regulatory record keeping requirements associated with the use of licenses and license exemptions/exceptions.
- (d) The Contractor shall be responsible for ensuring that the provisions of this clause apply to its subcontractors.

(end of clause)

H-12 Invention Disclosure Reports (DFARS 252.227-7038)

All written communications required by this clause shall be submitted to the Administrative Contracting Officer (ACO). All required reporting (invention disclosures, patent disclosures, etc.) shall be accomplished using the i-Edison.gov reporting website (<https://s-edison.info.nih.gov/i-Edison/>).

(end of clause)

Section I - Contract Clauses

CLAUSES INCORPORATED BY REFERENCE

52.202-1	Definitions	JUL 2004
52.203-3	Gratuities	APR 1984
52.203-5	Covenant Against Contingent Fees	APR 1984
52.203-6	Restrictions On Subcontractor Sales To The Government	SEP 2006
52.203-7	Anti-Kickback Procedures	JUL 1995
52.203-8	Cancellation, Rescission, and Recovery of Funds for Illegal or Improper Activity	JAN 1997
52.203-10	Price Or Fee Adjustment For Illegal Or Improper Activity	JAN 1997
52.203-12	Limitation On Payments To Influence Certain Federal Transactions	SEP 2007
52.204-4	Printed or Copied Double-Sided on Recycled Paper	AUG 2000
52.204-7	Central Contractor Registration	APR 2008
52.209-6	Protecting the Government's Interest When Subcontracting With Contractors Debarred, Suspended, or Proposed for Debarment	SEP 2006
52.215-2	Audit and Records--Negotiation	JUN 1999
52.215-8	Order of Precedence--Uniform Contract Format	OCT 1997
52.215-10	Price Reduction for Defective Cost or Pricing Data	OCT 1997
52.215-12	Subcontractor Cost or Pricing Data	OCT 1997
52.215-14	Integrity of Unit Prices	OCT 1997
52.215-14 Alt I	Integrity of Unit Prices (Oct 1997) - Alternate I	OCT 1997
52.215-15	Pension Adjustments and Asset Reversions	OCT 2004
52.215-17	Waiver of Facilities Capital Cost of Money	OCT 1997
52.215-18	Reversion or Adjustment of Plans for Postretirement Benefits (PRB) Other than Pensions	JUL 2005
52.215-21	Requirements for Cost or Pricing Data or Information Other Than Cost or Pricing Data--Modifications	OCT 1997
52.216-7	Allowable Cost And Payment	DEC 2002
52.216-8	Fixed Fee	MAR 1997
52.219-8	Utilization of Small Business Concerns	MAY 2004
52.222-3	Convict Labor	JUN 2003
52.222-21	Prohibition Of Segregated Facilities	FEB 1999
52.222-26	Equal Opportunity	MAR 2007
52.222-35	Equal Opportunity For Special Disabled Veterans, Veterans of the Vietnam Era, and Other Eligible Veterans	SEP 2006
52.222-36	Affirmative Action For Workers With Disabilities	JUN 1998
52.222-37	Employment Reports On Special Disabled Veterans, Veterans Of The Vietnam Era, and Other Eligible Veterans	SEP 2006
52.222-39	Notification of Employee Rights Concerning Payment of Union Dues or Fees	DEC 2004
52.222-50	Combating Trafficking in Persons	AUG 2007
52.222-51	Exemption from Application of the Service Contract act to Contracts for Maintenance, Calibration, or Repair of Certain Equipment--Requirements	NOV 2007
52.222-53	Exemption from Application of the Service Contract Act to Contracts for Certain Services--Requirements	NOV 2007
52.223-14	Toxic Chemical Release Reporting	AUG 2003

52.223-16 Alt I	IEEE 1680 Standard for the Environmental Assessment of Personal Computer Products (Dec 200&0 Alternate I	DEC 2007
52.225-13	Restrictions on Certain Foreign Purchases	JUN 2008
52.226-1	Utilization Of Indian Organizations And Indian-Owned Economic Enterprises	JUN 2000
52.227-1 Alt I	Authorization And Consent (Dec 2007) - Alternate I	APR 1984
52.227-2	Notice And Assistance Regarding Patent And Copyright Infringement	DEC 2007
52.228-7	Insurance--Liability To Third Persons	MAR 1996
52.230-2	Cost Accounting Standards	APR 1998
52.230-6	Administration of Cost Accounting Standards	MAR 2008
52.232-9	Limitation On Withholding Of Payments	APR 1984
52.232-18	Availability Of Funds	APR 1984
52.232-23 Alt I	Assignment of Claims (Jan 1986) - Alternate I	APR 1984
52.232-25	Prompt Payment	OCT 2003
52.232-33	Payment by Electronic Funds Transfer--Central Contractor Registration	OCT 2003
52.233-1	Disputes	JUL 2002
52.233-3 Alt I	Protest After Award (Aug 1996) - Alternate I	JUN 1985
52.242-1	Notice of Intent to Disallow Costs	APR 1984
52.242-3	Penalties for Unallowable Costs	MAY 2001
52.242-4	Certification of Final Indirect Costs	JAN 1997
52.242-13	Bankruptcy	JUL 1995
52.243-2 Alt V	Changes--Cost-Reimbursement (Aug 1987) - Alternate V	APR 1984
52.244-5	Competition In Subcontracting	DEC 1996
52.244-6	Subcontracts for Commercial Items	MAR 2007
52.245-1 (Dev)	Government Property (June 2007)	JUN 2007
52.245-9	Use And Charges	JUN 2007
52.249-6	Termination (Cost Reimbursement)	MAY 2004
52.249-14	Excusable Delays	APR 1984
52.253-1	Computer Generated Forms	JAN 1991
252.201-7000	Contracting Officer's Representative	DEC 1991
252.203-7001	Prohibition On Persons Convicted of Fraud or Other Defense-Contract-Related Felonies	DEC 2004
252.204-7003	Control Of Government Personnel Work Product	APR 1992
252.204-7004 Alt A	Central Contractor Registration (52.204-7) Alternate A	SEP 2007
252.204-7009	Requirements Regarding Potential Access to Export-Controlled Items	JUL 2008
252.205-7000	Provision Of Information To Cooperative Agreement Holders	DEC 1991
252.209-7004	Subcontracting With Firms That Are Owned or Controlled By The Government of a Terrorist Country	DEC 2006
252.215-7000	Pricing Adjustments	DEC 1991
252.215-7002	Cost Estimating System Requirements	DEC 2006
252.215-7004	Excessive Pass-Through Charges	MAY 2008
252.225-7006	Quarterly Reporting of Actual Contract Performance Outside the United States	MAY 2007
252.225-7012	Preference For Certain Domestic Commodities	MAR 2008
252.226-7001	Utilization of Indian Organizations and Indian-Owned Economic Enterprises, and Native Hawaiian Small Business Concerns	SEP 2004
252.227-7013	Rights in Technical Data--Noncommercial Items	NOV 1995
252.227-7014	Rights in Noncommercial Computer Software and Noncommercial Computer Software Documentation	JUN 1995

252.227-7015	Technical Data--Commercial Items	NOV 1995
252.227-7016	Rights in Bid or Proposal Information	JUN 1995
252.227-7019	Validation of Asserted Restrictions--Computer Software	JUN 1995
252.227-7027	Deferred Ordering Of Technical Data Or Computer Software	APR 1988
252.227-7037	Validation of Restrictive Markings on Technical Data	SEP 1999
252.231-7000	Supplemental Cost Principles	DEC 1991
252.232-7003	Electronic Submission of Payment Requests and Receiving Reports	MAR 2008
252.232-7010	Levies on Contract Payments	DEC 2006
252.235-7010	Acknowledgment of Support and Disclaimer	MAY 1995
252.235-7011	Final Scientific or Technical Report	NOV 2004
252.239-7001	Information Assurance Contractor Training and Certification	JAN 2008
252.242-7004	Material Management And Accounting System	NOV 2005
252.243-7002	Requests for Equitable Adjustment	MAR 1998
252.244-7000	Subcontracts for Commercial Items and Commercial Components (DoD Contracts)	JAN 2007
252.247-7023	Transportation of Supplies by Sea	MAY 2002
252.247-7024	Notification Of Transportation Of Supplies By Sea	MAR 2000

CLAUSES INCORPORATED BY FULL TEXT

52.203-14 DISPLAY OF HOTLINE POSTER(S) (DEC 2007)

(a) Definition.

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

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

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

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

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

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

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

Poster(s) Obtain from

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

Poster(s) Obtain from

DoD Inspector General, ATTN: Defense Hotline, 400 Army Navy Drive, Washington, DC 22202-2884

(c) If the Contractor has implemented a business ethics and conduct awareness program, including a reporting mechanism, such as a

<<http://farsite.hill.af.mil/otcgi/llscgi60.exe?ACTION=Highlight&QUERY=%68%6F%74%6C%69%6E%65%20%70%6F%73%74%65%72&OP=and&DB=2&SORTBY=%54%49%54%4C%45&SUBSET=SUBSET&FROM=1&SIZE=50&ITEM=3#test7#test7>> hotline poster

<<http://farsite.hill.af.mil/otcgi/llscgi60.exe?ACTION=Highlight&QUERY=%68%6F%74%6C%69%6E%65%20%70%6F%73%74%65%72&OP=and&DB=2&SORTBY=%54%49%54%4C%45&SUBSET=SUBSET&FROM=1&SIZE=50&ITEM=3#test9#test9>> , then the Contractor need not display any agency fraud hotline posters as required in paragraph (b) of this clause, other than any required DHS posters.

(d) Subcontracts. The Contractor shall include the substance of this clause, including this paragraph (d), in all subcontracts that exceed \$5,000,000, except when the subcontract—

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

(2) Is performed entirely outside the United States.

(End of clause)

52.215-19 NOTIFICATION OF OWNERSHIP CHANGES (OCT 1997)

(a) The Contractor shall make the following notifications in writing:

(1) When the Contractor becomes aware that a change in its ownership has occurred, or is certain to occur, that could result in changes in the valuation of its capitalized assets in the accounting records, the Contractor shall notify the Administrative Contracting Officer (ACO) within 30 days.

(2) The Contractor shall also notify the ACO within 30 days whenever changes to asset valuations or any other cost changes have occurred or are certain to occur as a result of a change in ownership.

(b) The Contractor shall--

(1) Maintain current, accurate, and complete inventory records of assets and their costs;

(2) Provide the ACO or designated representative ready access to the records upon request;

(3) Ensure that all individual and grouped assets, their capitalized values, accumulated depreciation or amortization, and remaining useful lives are identified accurately before and after each of the Contractor's ownership changes; and

(4) Retain and continue to maintain depreciation and amortization schedules based on the asset records maintained before each Contractor ownership change.

The Contractor shall include the substance of this clause in all subcontracts under this contract that meet the applicability requirement of FAR 15.408(k).

(End of clause)

52.217-9 OPTION TO EXTEND THE TERM OF THE CONTRACT (MAR 2000)

(a) The Government may extend the term of this contract by written notice to the Contractor :

CLIN 0002 - within fifteen (15) months from the effective date of CLIN 0001

provided that the Government gives the Contractor a preliminary written notice of its intent to extend at least fifteen (15) days before the contract expires. The preliminary notice does not commit the Government to an extension.

(b) If the Government exercises this option, the extended contract shall be considered to include this option clause.

(c) The total duration of this contract, including the exercise of any options under this clause, shall not exceed twenty-four (24) months.

(End of clause)

52.222-2 PAYMENT FOR OVERTIME PREMIUMS (JUL 1990)

(a) The use of overtime is authorized under this contract if the overtime premium cost does not exceed \$0.00 or the overtime premium is paid for work --

(1) Necessary to cope with emergencies such as those resulting from accidents, natural disasters, breakdowns of production equipment, or occasional production bottlenecks of a sporadic nature;

(2) By indirect-labor employees such as those performing duties in connection with administration, protection, transportation, maintenance, standby plant protection, operation of utilities, or accounting;

(3) To perform tests, industrial processes, laboratory procedures, loading or unloading of transportation conveyances, and operations in flight or afloat that are continuous in nature and cannot reasonably be interrupted or completed otherwise; or

(4) That will result in lower overall costs to the Government.

(b) Any request for estimated overtime premiums that exceeds the amount specified above shall include all estimated overtime for contract completion and shall--

(1) Identify the work unit; e.g., department or section in which the requested overtime will be used, together with present workload, staffing, and other data of the affected unit sufficient to permit the Contracting Officer to evaluate the necessity for the overtime;

(2) Demonstrate the effect that denial of the request will have on the contract delivery or performance schedule;

(3) Identify the extent to which approval of overtime would affect the performance or payments in connection with other Government contracts, together with identification of each affected contract; and

(4) Provide reasons why the required work cannot be performed by using multishift operations or by employing additional personnel.

* Insert either "zero" or the dollar amount agreed to during negotiations. The inserted figure does not apply to the exceptions in paragraph (a)(1) through (a)(4) of the clause.

(End of clause)

52.227-11 PATENT RIGHTS--OWNERSHIP BY THE CONTRACTOR (DEC 2007)

(a) As used in this clause--

Invention means any invention or discovery that is or may be patentable or otherwise protectable under title 35 of the U.S. Code, or any variety of plant that is or may be protectable under the Plant Variety Protection Act (7 U.S.C. 2321, et seq.)

Made means--

(1) When used in relation to any invention other than a plant variety, the conception or first actual reduction to practice of the invention; or

(2) When used in relation to a plant variety, that the Contractor has at least tentatively determined that the variety has been reproduced with recognized characteristics.

Nonprofit organization means a university or other institution of higher education or an organization of the type described in section 501(c)(3) of the Internal Revenue Code of 1954 (26 U.S.C. 501(c)) and exempt from taxation under section 501(a) of the Internal Revenue Code (26 U.S.C. 501(a)), or any nonprofit scientific or educational organization qualified under a State nonprofit organization statute.

Practical application means to manufacture, in the case of a composition of product; to practice, in the case of a process or method; or to operate, in the case of a machine or system; and, in each case, under such conditions as to establish that the invention is being utilized and that its benefits are, to the extent permitted by law or Government regulations, available to the public on reasonable terms.

Subject invention means any invention of the Contractor made in the performance of work under this contract.

(b) Contractor's rights. (1) Ownership. The Contractor may retain ownership of each subject invention throughout the world in accordance with the provisions of this clause.

(2) License. (i) The Contractor shall retain a nonexclusive royalty-free license throughout the world in each subject invention to which the Government obtains title, unless the Contractor fails to disclose the invention within the times specified in paragraph (c) of this clause. The Contractor's license extends to any domestic subsidiaries and affiliates within the corporate structure of which the Contractor is a part, and includes the right to grant sublicenses to the extent the Contractor was legally obligated to do so at contract award. The license is transferable only with the written approval of the agency, except when transferred to the successor of that part of the Contractor's business to which the invention pertains.

(ii) The Contractor's license may be revoked or modified by the agency to the extent necessary to achieve expeditious practical application of the subject invention in a particular country in accordance with the procedures in FAR 27.302(i)(2) and 27.304-1(f).

(c) Contractor's obligations. (1) The Contractor shall disclose in writing each subject invention to the Contracting Officer within 2 months after the inventor discloses it in writing to Contractor personnel responsible for patent matters. The disclosure shall identify the inventor(s) and this contract under which the subject invention was made. It shall be sufficiently complete in technical detail to convey a clear understanding of the subject invention. The disclosure shall also identify any publication, on sale (i.e., sale or offer for sale), or public use of the subject

invention, or whether a manuscript describing the subject invention has been submitted for publication and, if so, whether it has been accepted for publication. In addition, after disclosure to the agency, the Contractor shall promptly notify the Contracting Officer of the acceptance of any manuscript describing the subject invention for publication and any on sale or public use.

(2) The Contractor shall elect in writing whether or not to retain ownership of any subject invention by notifying the Contracting Officer within 2 years of disclosure to the agency. However, in any case where publication, on sale, or public use has initiated the 1-year statutory period during which valid patent protection can be obtained in the United States, the period for election of title may be shortened by the agency to a date that is no more than 60 days prior to the end of the statutory period.

(3) The Contractor shall file either a provisional or a nonprovisional patent application or a Plant Variety Protection Application on an elected subject invention within 1 year after election. However, in any case where a publication, on sale, or public use has initiated the 1-year statutory period during which valid patent protection can be obtained in the United States, the Contractor shall file the application prior to the end of that statutory period. If the Contractor files a provisional application, it shall file a nonprovisional application within 10 months of the filing of the provisional application. The Contractor shall file patent applications in additional countries or international patent offices within either 10 months of the first filed patent application (whether provisional or nonprovisional) or 6 months from the date permission is granted by the Commissioner of Patents to file foreign patent applications where such filing has been prohibited by a Secrecy Order.

(4) The Contractor may request extensions of time for disclosure, election, or filing under paragraphs (c)(1), (c)(2), and (c)(3) of this clause.

(d) Government's rights--(1) Ownership. The Contractor shall assign to the agency, on written request, title to any subject invention--

(i) If the Contractor fails to disclose or elect ownership to the subject invention within the times specified in paragraph (c) of this clause, or elects not to retain ownership; provided, that the agency may request title only within 60 days after learning of the Contractor's failure to disclose or elect within the specified times.

(ii) In those countries in which the Contractor fails to file patent applications within the times specified in paragraph (c) of this clause; provided, however, that if the Contractor has filed a patent application in a country after the times specified in paragraph (c) of this clause, but prior to its receipt of the written request of the agency, the Contractor shall continue to retain ownership in that country.

(iii) In any country in which the Contractor decides not to continue the prosecution of any application for, to pay the maintenance fees on, or defend in reexamination or opposition proceeding on, a patent on a subject invention.

(2) License. If the Contractor retains ownership of any subject invention, the Government shall have a nonexclusive, nontransferable, irrevocable, paid-up license to practice, or have practiced for or on its behalf, the subject invention throughout the world.

(e) Contractor action to protect the Government's interest. (1) The Contractor shall execute or have executed and promptly deliver to the agency all instruments necessary to--

(i) Establish or confirm the rights the Government has throughout the world in those subject inventions in which the Contractor elects to retain ownership; and

(ii) Assign title to the agency when requested under paragraph (d) of this clause and to enable the Government to obtain patent protection and plant variety protection for that subject invention in any country.

(2) The Contractor shall require, by written agreement, its employees, other than clerical and nontechnical employees, to disclose promptly in writing to personnel identified as responsible for the administration of patent matters and in the Contractor's format, each subject invention in order that the Contractor can comply with the disclosure provisions of paragraph (c) of this clause, and to execute all papers necessary to file patent applications on subject inventions and to establish the Government's rights in the subject inventions. The disclosure format should require, as a minimum, the information required by paragraph (c)(1) of this clause. The Contractor shall instruct such employees, through employee agreements or other suitable educational programs, as to the importance of reporting inventions in sufficient time to permit the filing of patent applications prior to U.S. or foreign statutory bars.

(3) The Contractor shall notify the Contracting Officer of any decisions not to file a nonprovisional patent application, continue the prosecution of a patent application, pay maintenance fees, or defend in a reexamination or opposition proceeding on a patent, in any country, not less than 30 days before the expiration of the response or filing period required by the relevant patent office.

(4) The Contractor shall include, within the specification of any United States nonprovisional patent or plant variety protection application and any patent or plant variety protection certificate issuing thereon covering a subject invention, the following statement, "This invention was made with Government support under (identify the contract) awarded by (identify the agency). The Government has certain rights in the invention."

(f) Reporting on utilization of subject inventions. The Contractor shall submit, on request, periodic reports no more frequently than annually on the utilization of a subject invention or on efforts at obtaining utilization of the subject invention that are being made by the Contractor or its licensees or assignees. The reports shall include information regarding the status of development, date of first commercial sale or use, gross royalties received by the Contractor, and other data and information as the agency may reasonably specify. The Contractor also shall provide additional reports as may be requested by the agency in connection with any march-in proceeding undertaken by the agency in accordance with paragraph (h) of this clause. The Contractor also shall mark any utilization report as confidential/proprietary to help prevent inadvertent release outside the Government. As required by 35 U.S.C. 202(c)(5), the agency will not disclose that information to persons outside the Government without the Contractor's permission.

(g) Preference for United States industry. Notwithstanding any other provision of this clause, neither the Contractor nor any assignee shall grant to any person the exclusive right to use or sell any subject invention in the United States unless the person agrees that any products embodying the subject invention or produced through the use of the subject invention will be manufactured substantially in the United States. However, in individual cases, the requirement for an agreement may be waived by the agency upon a showing by the Contractor or its assignee that reasonable but unsuccessful efforts have been made to grant licenses on similar terms to potential licensees that would be likely to manufacture substantially in the United States, or that under the circumstances domestic manufacture is not commercially feasible.

(h) March-in rights. The Contractor acknowledges that, with respect to any subject invention in which it has retained ownership, the agency has the right to require licensing pursuant to 35 U.S.C. 203 and 210(c), and in accordance with the procedures in 37 CFR 401.6 and any supplemental regulations of the agency in effect on the date of contract award.

(i) Special provisions for contracts with nonprofit organizations. If the Contractor is a nonprofit organization, it shall--

(1) Not assign rights to a subject invention in the United States without the written approval of the agency, except where an assignment is made to an organization that has as one of its primary functions the management of inventions, provided, that the assignee shall be subject to the same provisions as the Contractor;

(2) Share royalties collected on a subject invention with the inventor, including Federal employee co-inventors (but through their agency if the agency deems it appropriate) when the subject invention is assigned in accordance with 35 U.S.C. 202(e) and 37 CFR 401.10;

(3) Use the balance of any royalties or income earned by the Contractor with respect to subject inventions, after payment of expenses (including payments to inventors) incidental to the administration of subject inventions for the support of scientific research or education; and

(4) Make efforts that are reasonable under the circumstances to attract licensees of subject inventions that are small business concerns, and give a preference to a small business concern when licensing a subject invention if the Contractor determines that the small business concern has a plan or proposal for marketing the invention which, if executed, is equally as likely to bring the invention to practical application as any plans or proposals from applicants that are not small business concerns; provided, that the Contractor is also satisfied that the small business concern has the capability and resources to carry out its plan or proposal. The decision whether to give a preference in any specific case will be at the discretion of the Contractor.

(5) Allow the Secretary of Commerce to review the Contractor's licensing program and decisions regarding small business applicants, and negotiate changes to its licensing policies, procedures, or practices with the Secretary of Commerce when the Secretary's review discloses that the Contractor could take reasonable steps to more effectively implement the requirements of paragraph (i)(4) of this clause.

(j) Communications.

All written notifications required by this clause shall be submitted to the Administrative Contracting Officer (ACO). All required reporting shall be accomplished using the i-Edison.gov reporting website (<https://s-edison.info.nih.gov/iEdison/>).

Final patent report will be submitted in hard copy to the Administrative Contracts Officer (ACO) and Procurement Contract Officer (PCO) designated herein until such time that iEdison allows for electronic submission.

(k) Subcontracts. (1) The Contractor shall include the substance of this clause, including this paragraph (k), in all subcontracts for experimental, developmental, or research work to be performed by a small business concern or nonprofit organization.

(2) The Contractor shall include in all other subcontracts for experimental, developmental, or research work the substance of the patent rights clause required by FAR Subpart 27.3.

(3) At all tiers, the patent rights clause must be modified to identify the parties as follows: references to the Government are not changed, and the subcontractor has all rights and obligations of the Contractor in the clause. The Contractor shall not, as part of the consideration for awarding the subcontract, obtain rights in the subcontractor's subject inventions.

(4) In subcontracts, at any tier, the agency, the subcontractor, and the Contractor agree that the mutual obligations of the parties created by this clause constitute a contract between the subcontractor and the agency with respect to the matters covered by the clause; provided, however, that nothing in this paragraph is intended to confer any jurisdiction under the Contract Disputes Act in connection with proceedings under paragraph (h) of this clause.

(End of clause)

United States law will apply to resolve any claim of breach of this contract.

(End of clause)

52.247-1 COMMERCIAL BILL OF LADING NOTATIONS (FEB 2006)

When the Contracting Officer authorizes supplies to be shipped on a commercial bill of lading and the Contractor will be reimbursed these transportation costs as direct allowable costs, the Contractor shall ensure before shipment is made that the commercial shipping documents are annotated with either of the following notations, as appropriate:

(a) If the Government is shown as the consignor or the consignee, the annotation shall be:

"Transportation is for the Defense Advanced Research Projects Agency (DARPA) and the actual total transportation charges paid to the carrier(s) by the consignor or consignee are assignable to, and shall be reimbursed by, the Government."

(b) If the Government is not shown as the consignor or the consignee, the annotation shall be:

"Transportation is for the Defense Advanced Research Projects Agency (DARPA) and the actual total transportation charges paid to the carrier(s) by the consignor or consignee shall be reimbursed by the Government, pursuant to cost-reimbursement contract no. HR011-08-C-0125. This may be confirmed by contacting the Administrative Contracting Officer at DCMA Munitions and Support Systems."

(End of clause)

52.252-2 CLAUSES INCORPORATED BY REFERENCE (FEB 1998)

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

<http://farsite.hill.af.mil>

(End of clause)

52.252-6 AUTHORIZED DEVIATIONS IN CLAUSES (APR 1984)

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

(b) The use in this solicitation or contract of any Defense Federal Acquisition Regulation Supplement (48 CFR Chapter 2) clause with an authorized deviation is indicated by the addition of "(DEVIATION)" after the name of the regulation.

(End of clause)

252.235-7010 Acknowledgment of Support and Disclaimer. (MAY 1995)

(a) The Contractor shall include an acknowledgment of the Government's support in the publication of any material based on or developed under this contract, stated in the following terms: This material is based upon work supported by the Defense Advanced Research Projects Agency (DARPA) under Contract No. HR0011-08-C-0125.

(b) All material, except scientific articles or papers published in scientific journals, must, in addition to any notices or disclaimers by the Contractor, also contain the following disclaimer: Any opinions, findings and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the Defense Advanced Research Projects Agency (DARPA), U.S. Department of Defense (DoD) or U.S. Government.

(End of clause)

Section J - List of Documents, Exhibits and Other Attachments

Exhibit/Attachment Table of Contents

DOCUMENT TYPE	DESCRIPTION	PAGES	DATE
Attachment 1	Statement of Work	6	8 Sept 2008
Attachment 2	List of Intellectual Propoery Restrictions	2	8 Sept 2008

**Statement of Work
For
Revolution in Fiber Lasers (RIFL)
By
OFS Laboratories**

8 September 2008

1.0 Objective

The objective of the RIFL program is to scale fiber laser amplifiers to > 1 kW in Phase 1, and then to explore scaling fiber laser amplifiers to > 3kW in Phase 2. In each case the high power output of the fiber laser amplifier shall be single-mode, polarization-maintaining, and narrowline (consistent with coherent combination of multiple fiber laser amplifiers).

OFS Laboratories shall demonstrate the components required to realize the DARPA RIFL vision of high power fiber amplifiers scalable to multi-kilowatt power levels. Specifically, OFS shall convert polarized light from the fundamental mode to a higher order mode (HOM), amplify the light in this HOM, and then convert it back to the fundamental polarized Gaussian mode. This will require design, fabrication and demonstration of PM-HOM fibers, suitable mode converters, robust pump combiners, acquisition of suitable pump diodes, and integration of all components in a multi-stage optical amplifier.

2.0 Technical Tasks

The program requires attention to several broad areas: design, fabrication and testing of HOM fibers; development of fused pump combiners which can handle multi-kilowatt throughput; and design and construction of the integrated, multi-stage amplifier platform. The program is broken into a series of tasks, as listed below. Phases I and II are listed separately.

Although no hardware deliverables will be provided to the Government, several significant results, indicated below, will be derived from the research being performed by OFS under this SOW which will be documented and/or validated by OFS via Technical Reports, Demonstrations and a Final Program Report. The program goals are listed below along with a summary of the key SOW tasks and associated research metric for each phase of the program.

Phase I Goals (Summary)

- PM-HOM fiber with (b)(4) and mode stability similar to conventional singlemode fiber
- (b)(4)
- Demonstration of HOM amplifier at intermediate power levels
- Multimode pump combiner with reliable transmission of (b)(4)
- 1 kW amplifier-laser with >15% efficiency, $M^2 \leq 1.4$, PER >13 dB

Phase I Tasks: Metrics (Summary)**Task 1 Develop Pre-Amplifier**

- Fabricate PM [REDACTED]
- Fabricate LMA-PM pump combiner: (b)(4)
- Demonstrate PM pre-amp: (b)(4)

Task 2 Pump combiner development

- Demonstrate high power combiner: (b)(4)

Task 3 Demo passive PM-HOM fiber

- Fabricate passive PM HOM fiber [REDACTED]
- Demonstrate PM performance $PER \geq 13\text{dB}$
- Demo reversion to Gaussian mode [REDACTED]

Task 4 Demonstration of HOM amplifier

- Fabricate HOM gain fibers: (b)(4)
- Demonstrate PM operation: (b)(4)
- Demonstrate high power operation: (A) 500W & (B) 1kW

Phase II Goals (Summary)

- PM-HOM fiber [REDACTED]
- Multimode pump combiner with reliable transmission of [REDACTED] of pump power
- 3 kW amplifier laser with $\geq 30\%$ efficiency, $M2 \leq 1.4$, [REDACTED]

Phase II Tasks & Metrics (Summary)**Task 6 [REDACTED] Pump Combiner**

- Demonstrate high power combiner (b)(4)

Task 7 Demo PM-HOM amplifier

- Design and fab HOM gain fibers (b)(4)
- Demonstrate PM operation $PER \geq 13\text{dB}$
- Demonstrate high power operation: (A) 1500W & (B) 3kW

OFS shall allow Government representatives to witness any tests deemed necessary in order to validate performance consistent with the metrics delineated in this SOW. The final disposition of the hardware developed by OFS will be determined during the course of Phase II, if the Phase II option is exercised. The Government will, at that time, notify OFS of its intent regarding the delivery of any such hardware, to include providing delivery location, if the Government chooses to exercise its right to have the resulting hardware items delivered.

Phase I:**2.1: Task 1: Development of Pre-Amplifier platform:**

The goal of this task is to develop the preamplifier architecture. This includes a seed source with a linewidth ≤ 1 kHz, and a multi-stage amplifier chain capable of producing [REDACTED] of signal power with high PER, low ASE and free of nonlinear impairments. This preamplifier should meet the RIFL specifications in all regards except output pump power. This will entail:

- Design and fabrication of a [REDACTED] LMA Yb-doped fiber with [REDACTED]
- Development of the multi-stage amplifier chain, including the seed source
- Full testing and characterization of the preamplifier.

Exit Criteria: A preamplifier meeting the specifications of the RIFL program at [REDACTED] (b)(4)

Dependent on Other Tasks: No;

Responsible Team Member: [REDACTED]

Deliverable: A report of the results

Milestones:

- (b)(4) completion of design and fabrication of SBS-suppressed PM Yb fiber.
- (b)(4) completion of fully operational preamplifier.

2.2: Task 2: Pump Combiner Development

The goal of this task is to design, fabricate and test all-fiber pump combiners capable of coupling [REDACTED] of pump power into the PM-HOM amplifier fiber. After preliminary development, pump combiners will be fabricated on an ongoing basis and delivered to the program as needed. Pump combiners must minimize signal and pump loss, maintain high PER, and be robust for long-term operation. (b)(4)

This task entails

- (b)(4)
- Development of fused fiber assemblies with very large output fiber diameter
- Development of combiner package for efficient dissipation of light and heat.
- Testing of combiner performance (optical and thermal) to high pump power.

Exit Criteria: Performance suitable for operation at [REDACTED]

Dependent on Other Tasks: None

Responsible Team Member: (b)(4)

Deliverable: A functioning combiner delivered to Task 4.

Milestones:

- (b)(4) completion of combiner design and preliminary combiner fabrication.
- (b)(4) demonstration of operation at (b)(4) and delivery to Task 4.
- (b)(4) demonstration of operation at (b)(4) and delivery to Task 4.

2.3: Task 3: Demonstration of passive PM-HOM fibers

The goal of this task is a first demonstration of polarization-maintaining HOM propagation in fibers with extremely large effective area. This will entail:

- Design of the index profile and fiber structure for PM operation in an HOM. Appropriate designs must allow robust propagation with minimal mode coupling and be suitable for fabrication of high extinction mode converters.

- Fabrication of a passive fiber capable of supporting an HOM (b)(4)
- Fabrication and testing of mode-converting long-period gratings
- Demonstration of the polarization extinction ratio with high output mode quality.
- Fabrication and demonstration of a passive module with reconversion back to the fundamental Gaussian mode.

Exit Criteria: A signal propagating with (b)(4) through (b)(4) PM-HOM fiber with $\geq 90\%$ conversion back to Gaussian mode.

Dependent on Other Tasks: No;

Responsible Team Member: (b)(4)

Deliverable: A report of the results

Milestones:

- | | |
|--------|------------------------------------------------------|
| (b)(4) | preliminary HOM fiber design |
| (b)(4) | fabrication of preliminary PM-HOM fiber |
| (b)(4) | demonstration of PM propagation in (b)(4) of fiber. |
| (b)(4) | demonstration of reconversion back to Gaussian mode. |

2.4: Task 4: Demonstration of HOM amplifier: >1kW output power

The goal of this task is to produce suitable PM-HOM fiber and demonstrate high gain and high output power. The results of passive fiber testing in Task 3 will be used to design several Yb-doped gain fibers (b)(4)

This will entail:

- Design, fabrication and testing of a PM Yb-doped HOM fiber. The preliminary gain fiber will have effective area (b)(4)
- Fabrication of mode converters and assembly of gain modules
- Acquisition, testing and integration of pump diodes
- Amplifier layout and packaging for thermal management
- Assembly and test of HOM amplification to (b)(4)
- Design, fabrication and testing of gain fiber with (b)(4)
- Assembly and test of HOM amplification to >1kW, meeting RIFL Phase I goals.

Exit Criteria: Demonstration of amplifier meeting the RIFL Phase 1 specifications.

Dependent on Other Tasks: Tasks 1-3;

Responsible Team Member: (b)(4)

Deliverable: Final report

Milestones:

- | | |
|--------|---------------------------------------------------------|
| (b)(4) | demonstration of (b)(4) in PM-HOM fiber (b)(4) |
| (b)(4) | demonstration of (b)(4) in PM-HOM fiber (b)(4) |
| (b)(4) | demonstration of (b)(4) in PM-HOM fiber |
| (b)(4) | demonstration of (b)(4) meeting all RIFL Phase I goals. |

2.5: Task 5: Program management

OFS shall provide oversight of all development activities, including those at the diode vendor, to ensure cost and schedule compliance in accordance with the basic contract. OFS shall

be prepared to support a kickoff meeting at the contractor's facility and support periodic reporting and offsite program reviews, including a final report.

OFS shall support/host up to two (2) weeks of on-site performance testing by a Government team at the end of Phase I.

OFS shall allow Government representatives to witness any contractor-performed tests that will be carried out, as scheduled, in order to validate performance consistent with the metrics delineated in this SOW. OFS shall coordinate such test activities with the Contracting Officer's Representative (COR) to allow the Government the opportunity to witness such tests on-site as they are being conducted.

Phase II:

The basic design and action strategy will continue from Phase I, with appropriate scaling to achieve 3kW output power.

2.6: Task 6: Development of [REDACTED] pump combiner

The basic optical design of the pump combiner is expected to be similar to that developed in Phase I, but packaging and fabrication modifications are anticipated to handle the higher pump power. This will entail:

- (b)(4)
- (b)(4)
- Testing at high throughput power.

Exit Criteria: Performance suitable for operation at [REDACTED]

Dependent on Other Tasks: None

Responsible Team Member: (b)(4)

Deliverable: A functioning combiner delivered to Task 7.

Milestones:

[REDACTED] demonstration of operation at [REDACTED] and delivery to Task 7.

2.7: Task 7: Demonstration of HOM amplifier: >3kW output power

The goal of this task is to improve the PM-HOM fiber based on Phase I results for higher efficiency and more robust operation. More efficient heat dissipation may also be required. This task will entail:

- Redesign, fabrication and testing of the PM Yb-doped HOM fiber for more efficient operation.
- Fabrication of mode converters and assembly of gain modules, (b)(4)
- Acquisition, testing and integration of pump diodes with higher power and brightness
- Amplifier layout and packaging for thermal management
- Assembly and test of HOM amplification to >3kW, meeting RIFL Phase II goals.

Exit Criteria: Demonstration of amplifier meeting the RIFL Phase II specifications.

Dependent on Other Tasks: Tasks 1-6;

Responsible Team Member: [REDACTED]

Deliverable: Final report

Milestones:

[REDACTED] Delivery of PM-HOM fiber with (b)(4)

(b)(4) demonstration of (b)(4) in PM-HOM fiber (b)(4)
(b)(4) demonstration of >3kW meeting all RIFL Phase II goals.


2.8: Task 8: Program management

OFS shall provide oversight of all development activities, including those at the diode vendor, to ensure cost and schedule compliance in accordance with the basic contract. OFS shall be prepared to support a kickoff meeting at the contractor's facility and support periodic reporting and offsite program reviews, including a final report.


OFS shall support/host up to two (2) weeks of on-site performance testing by a Government team at the end of Phase 2.

OFS shall allow Government representatives to witness any contractor-performed tests that will be carried out, as scheduled, in order to validate performance consistent with the metrics delineated in this SOW. OFS shall coordinate such test activities with the Contracting Officer's Representative (COR) to allow the Government the opportunity to witness such tests on-site as they are being conducted.

List of Intellectual Property Restrictions

Technical Data/ Computer Software to be Furnished With Restrictions	Basis for Assertion*	Asserted Rights Category	Name Asserting Restrictions
			



AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				1. CONTRACT ID CODE U		PAGE OF PAGES 1 2	
2. AMENDMENT/MODIFICATION NO. P00001		3. EFFECTIVE DATE 02-Oct-2008		4. REQUISITION/PURCHASE REQ. NO. X67005/09		5. PROJECT NO. (If applicable)	
6. ISSUED BY DARPA CMO ATTN: MICHAEL D. BLACKSTONE 3701 N. FAIRFAX DR. ARLINGTON VA 22203-1714		CODE HR0011		7. ADMINISTERED BY (If other than item 6) DCMA MUNITIONS AND SUPPORT SYSTEMS BLDG 1, ARDEC PICATINNY ARSENAL NJ 07806		CODE S3101A	
8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code) OFS LABS 19 SCHOOLHOUSE RD SOMERSET NJ 08873-1235				9A. AMENDMENT OF SOLICITATION NO.			
				9B. DATED (SEE ITEM 11)			
				<input checked="" type="checkbox"/> 10A. MOD. OF CONTRACT/ORDER NO. HR0011-08-C-0125			
				<input checked="" type="checkbox"/> 10B. DATED (SEE ITEM 13) 10-Sep-2008			
CODE 43C65		FACILITY CODE					
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of offer <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended. Offer must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)							
13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.							
A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.							
B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(B).							
<input checked="" type="checkbox"/> C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: By Mutual Agreement of the Parties.							
D. OTHER (Specify type of modification and authority)							
E. IMPORTANT: Contractor <input type="checkbox"/> is not, <input checked="" type="checkbox"/> is required to sign this document and return <u>1</u> copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.) Modification Control Number: kgrieger081047 The purpose of this modification is to delete DFARS Clause 252.204-7009 "Requirements Regarding Potential Access to Export-Controlled Items," and replace with 252.204-7008 "Requirements for Contracts Involving Export-Controlled Items." See page 2.							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) MICHAEL D. BLACKSTONE / PCO TEL: (571) 218-4804 EMAIL: michael.blackstone@darpa.mil			
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA BY 		16C. DATE SIGNED 02-Oct-2008	

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

1. SECTION I - CONTRACT CLAUSES

The following have been added by reference:


252.204-7008	Requirements for Contracts Involving Export-Controlled Items	JUL 2008
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The following have been deleted:

252.204-7009	Requirements Regarding Potential Access to Export-Controlled Items	JUL 2008
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2. Except as modified above, the terms and conditions of Contract No. HR0011-08-C-0125 shall remain unchanged and in full force and effect.

(End of Summary of Changes)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				1. CONTRACT ID CODE U		PAGE OF PAGES 1 3	
2. AMENDMENT/MODIFICATION NO. P00002		3. EFFECTIVE DATE 18-Nov-2008		4. REQUISITION/PURCHASE REQ. NO. SEE SCHEDULE		5. PROJECT NO. (If applicable)	
6. ISSUED BY DARPA CMO ATTN: MICHAEL D. BLACKSTONE 3701 N. FAIRFAX DR. ARLINGTON VA 22203-1714		CODE HR0011		7. ADMINISTERED BY (If other than item 6) DCMA MUNITIONS AND SUPPORT SYSTEMS BLDG 1, ARDEC PICATINNY ARSENAL NJ 07806		CODE S3101A	
8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code) OFS LABS 19 SCHOOLHOUSE RD SOMERSET NJ 08873-1235 CODE 43065 FACILITY CODE				9A. AMENDMENT OF SOLICITATION NO.			
				9B. DATED (SEE ITEM 11)			
				X 10A. MOD. OF CONTRACT/ORDER NO. HR0011-08-C-0125			
				X 10B. DATED (SEE ITEM 13) 10-Sep-2008			
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of offer <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended. Offer must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required) See Schedule							
13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.							
A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.							
B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(B).							
C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:							
X D. OTHER (Specify type of modification and authority) Unilateral: FAR 52.232-22 "Limitation of Funds."							
E. IMPORTANT: Contractor <input checked="" type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.) Modification Control Number: kgrigeri09137 The purpose of this modification is to provide funding in the amount of \$3,605,449 (AO No. X670/16). This modification fully funds Phase 1 of the effort. See page 2.							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) MICHAEL D. BLACKSTONE / PCO TEL: (571) 218-4804 EMAIL: michael.blackstone@darpa.mil			
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA BY  (Signature of Contracting Officer)		16C. DATE SIGNED 18-Nov-2008	

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

1. SECTION B - SUPPLIES OR SERVICES AND PRICES

SUBCLIN 000102 is added as follows:

ITEM NO	AMOUNT
000102	\$0.00

AO No. X670/16

ACRN AB	\$3,605,449.00
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2. SECTION G - CONTRACT ADMINISTRATION DATA

Accounting and Appropriation

a. Summary for the Payment Office

As a result of this modification, the total funded amount for this document was increased by \$3,605,449.00 from \$1,471,950.00 to \$5,077,399.00.

b. SUBCLIN 000102:

Funding on SUBCLIN 000102 is initiated as follows:

ACRN: AB

CIN: 00000000000000000000000000000000

Acctng Data: 9790400 1320 X670 P9G10 2525 DPAC 9 5062 S12136 62702E

Increase: \$3,605,449.00

Total: \$3,605,449.00

c. The following have been modified as highlighted in bold:


G-6 Incremental Funding

- (a) This contract shall be subject to incremental funding with the amount(s) shown in the table below presently made available for performance under this contract. It is estimated that the funds presently available are sufficient to permit the Contractor's performance through the date noted in the table below. Except in accordance with the Section I clause FAR 52.232-22, "Limitation of Funds," no legal liability of the part of the Government for payment of any money in excess of the amount(s) shown in the table below shall arise unless and until additional funds are made available by the Contracting Officer through a modification to this contract.

<u>CLIN</u>	<u>AMOUNT FUNDED TO DATE</u>	<u>ESTIMATED PERFORMANCE PERIOD</u>
0001	\$5,077,399	10 December 2008
0002	Option Not Yet Exercised	
(end of clause)		

3. Except as modified above, the terms and conditions of Contract No. HR0011-08-C-0125 shall remain unchanged and in full force and effect.

(End of Summary of Changes)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				1. CONTRACT ID CODE U		PAGE OF PAGES 1 2	
2. AMENDMENT/MODIFICATION NO. P00003		3. EFFECTIVE DATE 10-Dec-2009		4. REQUISITION/PURCHASE REQ. NO. SEE SCHEDULE		5. PROJECT NO. (If applicable)	
6. ISSUED BY DARPA CMO ATTN: MICHAEL D. BLACKSTONE 3701 N. FAIRFAX DR. ARLINGTON VA 22203-1714		CODE HR0011		7. ADMINISTERED BY (If other than item 6) DCMA MUNITIONS AND SUPPORT SYSTEMS BLDG 1, ARDEC PICATINNY ARSENAL NJ 07806		CODE S3101A	
8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code) OFS LABS 19 SCHOOLHOUSE RD SOMERSET NJ 08873-1235				9A. AMENDMENT OF SOLICITATION NO.			
				9B. DATED (SEE ITEM 11)			
				X 10A. MOD. OF CONTRACT/ORDER NO. HR0011-08-C-0125			
				10B. DATED (SEE ITEM 13) X 10-Sep-2008			
CODE 43C65		FACILITY CODE					
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended. Offer must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)							
13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.							
A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.							
B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(B).							
X C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: By mutual agreement of the parties.							
D. OTHER (Specify type of modification and authority)							
E. IMPORTANT: Contractor <input type="checkbox"/> is not, <input checked="" type="checkbox"/> is required to sign this document and return <u>1</u> copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.) Modification Control Number: kbanach10199 The purpose of this modification is to extend the Period of Performance of the effort at no additional cost to the Government. The current Cost-Plus-Fixed-Fee amount of the contract does not change as a result of this modification. See page 2.							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) MICHAEL D. BLACKSTONE / PCO TEL: (571) 218-4804 EMAIL: michael.blackstone@darpa.mil			
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA BY 		16C. DATE SIGNED 17-Dec-2009	
				(Signature of Contracting Officer)			

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

1. SECTION F - DELIVERIES OR PERFORMANCE

The following have been modified as highlighted in bold:

F-1 Term of Contract

- (a) The term of the base contract commences on 10 September 2008 and continues through **15 January 2010**.
- (b) The period of performance for Option 1 (Phase 2), as set forth in CLIN 0002, shall be from the effective date of the option exercise (estimated to be 10 December 2009) through nine (9) months thereafter (estimated to be 10 September 2010).

(end of clause)

2. SECTION G - CONTRACT ADMINISTRATION DATA

The following have been modified as highlighted in bold:

G-6 Incremental Funding

- (a) This contract shall be subject to incremental funding with the amount(s) shown in the table below presently made available for performance under this contract. It is estimated that the funds presently available are sufficient to permit the Contractor's performance through the date noted in the table below. Except in accordance with the Section I clause FAR 52.232-22, "Limitation of Funds," no legal liability of the part of the Government for payment of any money in excess of the amount(s) shown in the table below shall arise unless and until additional funds are made available by the Contracting Officer through a modification to this contract.

<u>CLIN</u>	<u>AMOUNT FUNDED TO DATE</u>	<u>ESTIMATED PERFORMANCE PERIOD</u>
-------------	------------------------------	-------------------------------------

0001	\$5,077,399	15 January 2010
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0002	Option Not Yet Exercised	
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(end of clause)

3. Except as modified above, the terms and conditions of this contract shall remain unchanged and in full force and effect.

(End of Summary of Changes)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				1. CONTRACT ID CODE <div style="text-align: center;">U</div>	PAGE OF PAGES <div style="text-align: center;">1 2</div>
2. AMENDMENT/MODIFICATION NO. P00004	3. EFFECTIVE DATE 15-Jan-2010	4. REQUISITION/PURCHASE REQ. NO. SEE SCHEDULE	5. PROJECT NO. (If applicable)		
6. ISSUED BY <div style="font-size: small;">DARPA CMO ATTN: MICHAEL D. BLACKSTONE 3701 N. FAIRFAX DR. ARLINGTON VA 22203-1714</div>	CODE HR0011	7. ADMINISTERED BY (If other than item 6) <div style="font-size: small;">DCMA MUNITIONS AND SUPPORT SYSTEMS BLDG 1, ARDEC PICATINNY ARSENAL NJ 07806</div>			
8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code) <div style="font-size: small;">OFS LABS 19 SCHOOLHOUSE RD SOMERSET NJ 08873-1235</div>		9A. AMENDMENT OF SOLICITATION NO.			
		9B. DATED (SEE ITEM 11)			
		X 10A. MOD. OF CONTRACT/ORDER NO. HR0011-08-C-0125			
		X 10B. DATED (SEE ITEM 13) 10-Sep-2008			
CODE 43C65		FACILITY CODE			
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS					
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended. Offer must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.					
12. ACCOUNTING AND APPROPRIATION DATA (If required)					
13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.					
A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.					
B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(B).					
X C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: By mutual agreement of the parties.					
D. OTHER (Specify type of modification and authority)					
E. IMPORTANT: Contractor <input type="checkbox"/> is not, <input checked="" type="checkbox"/> is required to sign this document and return <u>1</u> copies to the issuing office.					
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.) Modification Control Number: kbanach10264 The purpose of this modification is to extend the Period of Performance of the Phase 1 effort at no additional cost to the Government. The current Cost-Plus-Fixed-Fee amount does not change as a result of this modification. See page 2.					
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.					
15A. NAME AND TITLE OF SIGNER (Type or print)			16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) <div style="font-size: x-small;">MICHAEL D. BLACKSTONE / PCO TEL: (571) 218-4804 EMAIL: michael.blackstone@darpa.mil</div>		
15B. CONTRACTOR/OFFEROR <div style="border-top: 1px solid black; text-align: center;">(Signature of person authorized to sign)</div>	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA <div style="border-top: 1px solid black; text-align: center;">BY (Signature of Contracting Officer)</div>		16C. DATE SIGNED 15-Jan-2010	

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

1. SECTION F - DELIVERIES OR PERFORMANCE

The following have been modified as highlighted in bold:

a. F-1 Term of Contract

- (a) The term of the base contract commences on 10 September 2008 and continues through **30 March 2010**.
- (b) The period of performance for Option 1 (Phase 2), as set forth in CLIN 0002, shall be from the effective date of the option exercise (estimated to be 10 December 2009) through nine (9) months thereafter (estimated to be 10 September 2010).

(end of clause)

b. F-2 Reports and Other Deliverables

- (a) Delivery of all reports and other deliverables shall be made to the addressee specified in F-3 entitled "Report Distribution" in accordance with the following:

Item No.	Description	Due Date (on or before)
0001,0002	R&D Status Reports	Monthly IAW Section C-2
0001,0002	Interim R&D Technical Reports	Quarterly IAW Section C-2
0001,0002	RIFL Final Report	23 March 2010
		If option is exercised, 36 months after date of contract award
0001,0002	Additional Misc. Deliverables	As required IAW Section C-2

(end of clause)

2. SECTION G - CONTRACT ADMINISTRATION DATA

The following have been modified as highlighted in bold:

G-6 Incremental Funding

- (a) This contract shall be subject to incremental funding with the amount(s) shown in the table below presently made available for performance under this contract. It is estimated that the funds presently available are sufficient to permit the Contractor's performance through the date noted in the table below. Except in accordance with the Section I clause FAR 52.232-22, "Limitation of Funds," no legal liability of the part of the Government for payment of any money in excess of the amount(s) shown in the table below shall arise unless and until additional funds are made available by the Contracting Officer through a modification to this contract.

CLIN	AMOUNT FUNDED TO DATE	ESTIMATED PERFORMANCE PERIOD
0001	\$5,077,399	30 March 2010
0002	Option Not Yet Exercised	

(end of clause)

- 3. Except as modified above, the terms and conditions of Contract No. HR0011-08-C-0125 shall remain unchanged and in full force and effect.

(End of Summary of Changes)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				1. CONTRACT ID CODE U		PAGE OF PAGES 1 2	
2. AMENDMENT/MODIFICATION NO. P00004		3. EFFECTIVE DATE 1/15/2010		4. REQUISITION/PURCHASE REQ. NO. SEE SCHEDULE		5. PROJECT NO. (If applicable)	
6. ISSUED BY DARPA CMO ATTN: MICHAEL D. BLACKSTONE 3701 N. FAIRFAX DR. ARLINGTON VA 22203-1714		CODE HR0011		7. ADMINISTERED BY (If other than item 6) DCMA MUNITIONS AND SUPPORT SYSTEMS BLDG 1, ARDEC PICATINNY ARSENAL NJ 07806		CODE S3101A	
8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code) OFS LABS 19 SCHOOLHOUSE RD SOMERSET NJ 08873-1235				9A. AMENDMENT OF SOLICITATION NO.			
				9B. DATED (SEE ITEM 11)			
				<input checked="" type="checkbox"/> 10A. MOD. OF CONTRACT/ORDER NO. HR0011-08-C-0125			
				<input checked="" type="checkbox"/> 10B. DATED (SEE ITEM 13) 10-Sep-2008			
CODE 43C65		FACILITY CODE					
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended. Offer must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)							
13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.							
A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.							
B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(B).							
<input checked="" type="checkbox"/> C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: By mutual agreement of the parties.							
D. OTHER (Specify type of modification and authority)							
E. IMPORTANT: Contractor <input type="checkbox"/> is not, <input checked="" type="checkbox"/> is required to sign this document and return 1 copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.) Modification Control Number: kbanach10264 The purpose of this modification is to extend the Period of Performance of the Phase 1 effort at no additional cost to the Government. The current Cost-Plus-Fixed-Fee amount does not change as a result of this modification. See page 2.							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print) Lisa C. Hudson Controller				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Michael D. Blackstone, PCO TEL: 571-218-4804 EMAIL: Michael.Blackstone@darpa.mil			
15B. CONTRACTOR/OFFEROR Lisa C Hudson (Signature of person authorized to sign)		15C. DATE SIGNED 1/13/10		16B. UNITED STATES OF AMERICA BY (b)(6)		16C. DATE SIGNED	

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

1. SECTION F - DELIVERIES OR PERFORMANCE

The following have been modified as highlighted in bold:

a. F-1 Term of Contract

(a) The term of the base contract commences on 10 September 2008 and continues through **30 March 2010**.

(b) The period of performance for Option 1 (Phase 2), as set forth in CLIN 0002, shall be from the effective date of the option exercise (estimated to be 10 December 2009) through nine (9) months thereafter (estimated to be 10 September 2010).

(end of clause)

b. F-2 Reports and Other Deliverables

(a) Delivery of all reports and other deliverables shall be made to the addressee specified in F-3 entitled "Report Distribution" in accordance with the following:

Item No.	Description	Due Date (on or before)
0001,0002	R&D Status Reports	Monthly IAW Section C-2
0001,0002	Interim R&D Technical Reports	Quarterly IAW Section C-2
0001,0002	RIFL Final Report	23 March 2010
		If option is exercised, 36 months after date of contract award
0001,0002	Additional Misc. Deliverables	As required IAW Section C-2

(end of clause)

2. SECTION G - CONTRACT ADMINISTRATION DATA

The following have been modified as highlighted in bold:

G-6 Incremental Funding


(a) This contract shall be subject to incremental funding with the amount(s) shown in the table below presently made available for performance under this contract. It is estimated that the funds presently available are sufficient to permit the Contractor's performance through the date noted in the table below. Except in accordance with the Section I clause FAR 52.232-22, "Limitation of Funds," no legal liability of the part of the Government for payment of any money in excess of the amount(s) shown in the table below shall arise unless and until additional funds are made available by the Contracting Officer through a modification to this contract.

CLIN	AMOUNT FUNDED TO DATE	ESTIMATED PERFORMANCE PERIOD
0001	\$5,077,399	30 March 2010
0002	Option Not Yet Exercised	

(end of clause)

3. Except as modified above, the terms and conditions of Contract No. HR0011-08-C-0125 shall remain unchanged and in full force and effect.

(End of Summary of Changes)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				1. CONTRACT ID CODE U	PAGE OF PAGES 1 2		
2. AMENDMENT/MODIFICATION NO. P00005		3. EFFECTIVE DATE 10-Mar-2010		4. REQUISITION/PURCHASE REQ. NO. SEE SCHEDULE		5. PROJECT NO. (If applicable)	
6. ISSUED BY DARPA CMO ATTN: MICHAEL D. BLACKSTONE MICHAEL.BLACKSTONE@DARPA.MIL 3701 N. FAIRFAX DRIVE ARLINGTON VA 22203-1714		CODE HR0011		7. ADMINISTERED BY (If other than item 6) DCMA MUNITIONS AND SUPPORT SYSTEMS BLDG 1, ARDEC PICATINNY ARSENAL NJ 07806		CODE S3101A	
8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code) OFS LABS 19 SCHOOLHOUSE RD SOMERSET NJ 08873-1235				9A. AMENDMENT OF SOLICITATION NO.			
				9B. DATED (SEE ITEM 11)			
				X 10A. MOD. OF CONTRACT/ORDER NO. HR0011-08-C-0125			
				X 10B. DATED (SEE ITEM 13) 10-Sep-2008			
CODE 43C65		FACILITY CODE					
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended. Offer must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)							
13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.							
A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.							
B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(B).							
X C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: By mutual agreement of the parties.							
D. OTHER (Specify type of modification and authority)							
E. IMPORTANT: Contractor <input type="checkbox"/> is not, <input checked="" type="checkbox"/> is required to sign this document and return <u> 1 </u> copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.) Modification Control Number: kbanach10427 The purpose of this modification is to change the Small Business Designation from Small Business to Large Business, revise Section I clauses related to the designation, and to incorporate a Small Business Subcontracting Plan in Section H. See page 2.							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) MICHAEL D. BLACKSTONE / PCO TEL: (571) 218-4804 EMAIL: michael.blackstone@darpa.mil			
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA BY  (Signature of Contracting Officer)		16C. DATE SIGNED 10-Mar-2010	

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

1. SECTION H - SPECIAL CONTRACT REQUIREMENTS

The following have been incorporated as highlighted in bold:

H-13 Small Business Subcontracting Plan and Goals

(a) The Contractor's Small Business Subcontracting Plan, dated 27 January 2010, is incorporated herein and made a part of this contract by reference.
(end of clause)

2. SECTION I - CONTRACT CLAUSES

a. The following have been added by reference:

52.219-9	Small Business Subcontracting Plan	APR 2008
52.219-16	Liquidated Damages-Subcontracting Plan	JAN 1999
252.227-7038	Patent Rights--Ownership by the Contractor (Large Business)	DEC 2007

b. The following have been deleted in full text:

52.227-11	Patent Rights--Ownership By The Contractor	DEC 2007
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3. Except as modified above, the terms and conditions of Contract No. HR0011-08-C-0125 shall remain unchanged and in full force and effect.

(End of Summary of Changes)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				1. CONTRACT ID CODE U		PAGE OF PAGES 1 2	
2. AMENDMENT/MODIFICATION NO. P00006		3. EFFECTIVE DATE 23-Mar-2010		4. REQUISITION/PURCHASE REQ. NO. SEE SCHEDULE		5. PROJECT NO. (If applicable)	
6. ISSUED BY DARPA CMO ATTN: MICHAEL D. BLACKSTONE MICHAEL.BLACKSTONE@DARPA.MIL 3701 N. FAIRFAX DRIVE ARLINGTON VA 22203-1714		CODE HR0011		7. ADMINISTERED BY (If other than item 6) DCMA MUNITIONS AND SUPPORT SYSTEMS BLDG 1, ARDEC PICATINNY ARSENAL NJ 07806		CODE S3101A	
8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code) OFS LABS 19 SCHOOLHOUSE RD SOMERSET NJ 08873-1235				9A. AMENDMENT OF SOLICITATION NO.			
				9B. DATED (SEE ITEM 11)			
				X 10A. MOD. OF CONTRACT/ORDER NO. HR0011-08-C-0125			
				X 10B. DATED (SEE ITEM 13) 10-Sep-2008			
CODE 43C85		FACILITY CODE					
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended. Offer must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)							
13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.							
A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.							
B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(B).							
X C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: By mutual agreement of the parties.							
D. OTHER (Specify type of modification and authority)							
E. IMPORTANT: Contractor <input type="checkbox"/> is not, <input checked="" type="checkbox"/> is required to sign this document and return <u>1</u> copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.) Modification Control Number: kbanach10519 The purpose of this modification is to extend the period of performance of the Phase 1 effort at no additional cost to the Government. The current Cost-Plus-Fixed-Fee (CPFF) amount does not change as a result of this modification. See page 2.							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) MICHAEL D. BLACKSTONE / PCO TEL: (571) 218-4804 EMAIL: michael.blackstone@darpa.mil			
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA BY _____ (Signature of Contracting Officer)		16C. DATE SIGNED 23-Mar-2010	

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

1. SECTION F - DELIVERIES OR PERFORMANCE

The following have been modified as highlighted in bold:

a. F-1 Term of Contract

- (a) The term of the base contract commences on 10 September 2008 and continues through **30 July 2010**.
- (b) The period of performance for Option 1 (Phase 2), as set forth in CLIN 0002, shall be from the effective date of the option exercise (estimated to be 10 December 2009) through nine (9) months thereafter (estimated to be 10 September 2010).

(end of clause)

b. F-2 Reports and Other Deliverables

- (a) Delivery of all reports and other deliverables shall be made to the addressee specified in F-3 entitled "Report Distribution" in accordance with the following:

Item No.	Description	Due Date (on or before)
0001,0002	R&D Status Reports	Monthly IAW Section C-2
0001,0002	Interim R&D Technical Reports	Quarterly IAW Section C-2
0001,0002	RIFL Final Report	23 July 2010 If option is exercised, 36 months after date of contract award
0001,0002	Additional Misc. Deliverables	As required IAW Section C-2

(end of clause)

- 2. Except as modified above, the terms and conditions of Contract No. HR0011-08-C-0125 shall remain unchanged and in full force and effect.

(End of Summary of Changes)