AWARD/CONTRACT

1. THIS CONTRACT IS A RATED ORDER UNDER DPAS (15 CFR 350)

RATING

PAGE 1 OF PAGES 33

2. CONTRACT (Proc. Inst. Ident.) NO.
HR0011-08-C-0063

3. EFFECTIVE DATE
25 Jun 2008

4. REQUISITION/PURCHASE REQUEST/PROJECT NO.
V081/21

5. ISSUED BY CODE HR0011
DARPA
CMO
ATTN: MICHAEL D. BLACKSTONE
3701 N. FAIRFAX DR.
ARLINGTON VA 22203-1714

6. ADMINISTERED BY (If other than Item 5) CODE SSR01A
DCMA ISRAEL
AMERICAN EMBASSY
UNIT 7228
APO AE 09830-7228

7. NAME AND ADDRESS OF CONTRACTOR (No., street, city, county, state and zip code)
SEMICONDUCTOR DEVICES
LESHEM INSTITUTE
MISGAV, ISRAEL 20179

CODE SEK57 FACILITY CODE

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

11. SHIP TO/MARK FOR CODE W26AAN
CERDEC
JOE PELLEGRINO
NIGHT VISION & ELECTRONICS DIRECTORATE
AMSRD-CER-NV-STD
FORT BELVOIR VA 22060-5806

12. PAYMENT WILL BE MADE BY CODE HQ0339
DFAS COLUMBUS CENTER
WEST ENTITLEMENT OPERATIONS
P.O. BOX 182381
COLUMBUS OH 43218-2381

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 $1,752,482.00

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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 return2 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
BY _____
(Signature of person authorized to sign)

19C. DATE SIGNED

20B. UNITED STATES OF AMERICA
(b)(6)
BY [redacted]
(Signature of Contracting Officer)

20C. DATE SIGNED
25-Jun-2008

Section B - Supplies or Services and Prices

ITEM NO.	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0001					$0.00
	Hotmwir - I Phase I FFP The contractor shall conduct the Hotmwir-I Phase 1 research in accordance with Section C-1. Data deliverables/reports will be provided in accordance with Sections C and F. FOB: Destination				
				NET AMT	$0.00

ITEM NO.	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0001AA		1	Lot	$500,000.00	$500,000.00
	Phase 1, Milestone 1 FFP See Attachment 1& Attachment 4 in Section J. FOB: Destination AO No. V081/21				
				NET AMT	$500,000.00
	ACRN AA CIN: 0000000000000000000000000000				$500,000.00

ITEM NO.	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0001AB		1	Lot	$500,000.00	$500,000.00
	Phase 1, Milestone 2 FFP See Attachment 1& Attachment 4 in Section J. FOB: Destination AO No. V081/21				
				NET AMT	$500,000.00
	ACRN AA CIN: 000000000000000000000000000000				$500,000.00

ITEM NO.	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0001AC		1	Lot	$650,000.00	$650,000.00
	Phase 1, Milestone 3 FFP See Attachment 1& Attachment 4 in Section J. FOB: Destination AO No. V081/21				
				NET AMT	$650,000.00
	ACRN AA CIN: 000000000000000000000000000000				$650,000.00

ITEM NO.	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0001AD		1	Lot	$102,482.00	$102,482.00
	Phase 1, Milestone 4 FFP See Attachment 1& Attachment 4 in Section J. FOB: Destination AO No. V081/21				
				NET AMT	$102,482.00
	ACRN AA CIN: 000000000000000000000000000000				$102,482.00

ITEM NO.	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0002 OPTION					$0.00
	Hotmwir-I Phase II FFP The contractor shall conduct the Hotmwir-I Phase 2 research in accordance with Section C-1. Data deliverables/reports will be provided in accordance with Sections C and F. FOB: Destination				
				NET AMT	$0.00

ITEM NO.	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0002AA OPTION	Phase 2, Milestone 5 FFP See Attachment 1& Attachment 4 in Section J. FOB: Destination	1	Lot	$800,000.00	$800,000.00
				NET AMT	$800,000.00

ITEM NO.	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0002AB OPTION	Phase 2, Milestone 6 FFP See Attachment 1& Attachment 4 in Section J. FOB: Destination	1	Lot	$850,000.00	$850,000.00
				NET AMT	$850,000.00

ITEM NO.	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0002AC OPTION	Phase 2, Milestone 7 FFP See Attachment 1& Attachment 4 in Section J. FOB: Destination	1	Lot	$102,482.00	$102,482.00
				NET AMT	$102,482.00

ITEM NO.	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0003 OPTION					$0.00
	Hotmwir-I Phase III FFP The contractor shall conduct the Hotmwir-I Phase 3 research in accordance with Section C-1. Data deliverables/reports will be provided in accordance with Sections C and F. FOB: Destination				
				NET AMT	$0.00

ITEM NO.	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0003AA OPTION		1	Lot	$700,000.00	$700,000.00
	Phase 3, Milestone 8 FFP See Attachment 1& Attachment 4 in Section J. FOB: Destination				
				NET AMT	$700,000.00

ITEM NO.	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0003AB OPTION		1	Lot	$700,000.00	$700,000.00
	Phase 3, Milestone 9 FFP See Attachment 1& Attachment 4 in Section J. FOB: Destination				
				NET AMT	$700,000.00

ITEM NO.	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0003AC OPTION		1	Lot	$103,757.00	$103,757.00
	Phase 3, Milestone 10 FFP See Attachment 1& Attachment 4 in Section J. FOB: Destination				
				NET AMT	$103,757.00

Section C - Descriptions and Specifications

CLAUSES INCORPORATED BY FULL TEXT

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 Numbers 0001, 0002, and 0003, and in accordance with the Statement of Work, Attachment 1 hereto.

(b) In the event of an inconsistency in the provisions of this contract, the inconsistency shall be resolved by giving precedence in the following order: (1) the contract and then (2) the attachments to the contract. (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 TECHNICAL STATUS REPORT (Quarterly)
This brief narrative, not to exceed five pages in length, 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.

(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) STATEMENT OF WORK DELIVERABLES/REPORTS

The contractor shall provide milestone reports in accordance with Attachment 1 Statement of Work (SOW) and Attachment 4 Milestone Plan.

When a report required to verify the accomplishment of a Milestone is ready to be prepared at approximately the same time as the due date for a quarterly report required under Section C-2(a)(1) herein, the Contractor is permitted to consolidate the two reports. Otherwise, the Milestone Report shall be submitted as a separate data deliverable.

(4) 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."

(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: Hotmwir-I
Issued by DARPA/CMO under Contract No: HR0011-08-C-0063

(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."

(end of clause)

Section D - Packaging and Marking

CLAUSES INCORPORATED BY FULL TEXT

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)

Section E - Inspection and Acceptance

INSPECTION AND ACCEPTANCE TERMS

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

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

3) Government acceptance and payment of each payable milestone will be made based on the contractor's submission of a milestone report provided in accordance with Sections C and F of the contract, and such milestone reports provide all data required by the Attachment 1 Statement of Work. Additionally, Government acceptance and payment of those milestones calling for delivery of hardware items will also be based on delivery of such items to the Government recipient stipulated at Section F of the contract. Regarding payment, see Section I, Clause 52.232-2 "Payments under Fixed-Price Research and Development Contracts."

Section F - Deliveries or Performance

CLAUSES INCORPORATED BY REFERENCE

52.247-34 F.O.B. Destination NOV 1991

CLAUSES INCORPORATED BY FULL TEXT

F-1 Term of Contract

(a) The term of the contract commences on 1 July 2008 and continues through 30 June 2009.

(b) The period of performance for Option 1, as set forth in CLIN 0002, shall be from the effective date of the option exercise (currently estimated to be 1 July 2009) to and including twelve (12) months thereafter.

(c) The period of performance for Option 2, as set forth in CLIN 0003, shall be from the effective date of the option exercise (currently estimated to be 1 July 2010) to and including twelve (12) months thereafter.

(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, 0003	Interim Technical Report	Quarterly as IAW Section C-2
0001, 0002, 0003	Final Report	As required IAW Seciton C2 & SOW/Milestone Plan (Attachments 1 and 4)
0001, 0002, 0003	Additional Technical Data Deliverables (i.e., milestone reports)	As required IAW Section C-2 & SOW/Milestone Plan (Attachments 1 and 4)
0001, 0002, 0003	Hardware Deliverables	As required IAW SOW/Milestone Plan (Attachments 1 and 4)

(end of clause)

F-3 Report Distribution

(a) DARPA/MTO
Attn: Dr. Stuart Horn
3701 North Fairfax Drive
Arlington, VA 22203-1714
Email: Stuart.Horn@darpa.mil

(one copy each report)

(b) DARPA/MTO
Attn: ADPM
3701 North Fairfax Drive
Arlington, VA 22203-1714
(one copy each report)

(c) DARPA/Library
3701 North Fairfax Drive
Arlington, VA 22203-1714
Email: library@darpa.mil
(one copy of the Final Technical Report)

(d) 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)

(e) DARPA/CMO
Attn: Michael Blackstone
3701 North Fairfax Drive
Arlington, VA 22203-1714
Email: michael.blackstone@darpa.mil
(one copy each report)

(f) COR
Joe Pellegrino
Night Vision & Electronics Directorate
AMSRD-CER-NV-STD
Fort Belvoir, VA 22060-5806
Email: joe.pellegrino@us.army.mil
(one copy of each report)

Note 1: (a), (b), (c), (e) and (f) - submissions of unclassified materials only. Submisison of classfied material shall be coordinated through DARPA SID and/or the DARPA Program Manager in accordance with the attached DD254, as applicable.

Note 2: For the Final Technical Report, the Contractor must also comply with the distribution requirements of DFARS 252.235-0011, 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: 9770400 1320 V081 P7H20 2525 DPAC 7 5463 S12136 63739E
AMOUNT: $1,752,482.00
CIN 0000000000000000000000000000: $1,752,482.00

CLAUSES INCORPORATED BY FULL TEXT

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.

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

WAWF Invoice Type:	2-in-1
Issuing Office DoDAAC	HR0011
Admin Offfice DoDAAC	SSR01A
Service Acceptor DoDAAC (for 2-in -1)	SSR01A
DCAA Office DoDAAC (Used on Cost Vouchers only)	02191
Paying Office DoDAAC	HQ0339

(c) For each invoice 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**
Joseph Pellegrino	joe.pellegrino@us.army.mil	703-704-0065	COR

(end of clause)

G-3 Delegation of Authority for Contract Administration

(a) DCMA Israel (SSR01A) is hereby designated as the Contracting Officer's authorized representative for administering this contract in accordance with current directives. The Administrative Contracting Officer (ACO) for this contract is Gila Langford, Contract Administrator, DCMA Israel, Tel:+972(9)960-1227 Fax: -1251/2, Email: Gila.Langford.is@dcma.mil.
(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 Mr. Joe Pellegrino, Night Vision & Electronics Directorate AMSRD-CER-NV-STD, Fort Belvoir, VA 22060-5806, Telephone 703-704-0065 e-mail: joe.pellegrino@us.army.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.

(5) 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)

(end of clause)

Section H - Special Contract Requirements

CLAUSES INCORPORATED BY FULL TEXT

H-1 Type of Contract

(a) This is a Firm Fixed Price (FFP) 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)(4)

(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 Representations and Certifications dated June 1, 2008 are incorporated herein by reference.
(end of clause)

H-6 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 out-of-country travel shall be authorized and approved in advance, in writing, by the Contracting Officer. Request for such travel must be submitted to the Contracting Officer at least forty-five (45) days in advance of traveler's anticipated departure date, and shall include traveler's itinerary.
(end of clause)

H-7 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-8 Proprietary Technical Data and Computer Software

(a) Any deliverable technical data 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. A list of such data and/or software is incorporated into the contract as Attachment No. 2.
(b) No computer software will be developed, generated or delivered in performance of the contract.
(c) Not withstanding use of a firm-fixed-price contract type, the research effort to be conducted by the contractor in accordance with the Attachment 1 Statement of Work will be accomplished with mixed funding within the meaning at DFARS 252.227-7013(a)(9).

(end of clause)

H-9 Export Control

(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-10 Choice of Law

(a) This Contract will be construed and interpreted according to United States law, regardless of any choice of law rules to the contrary.

(end of clause)

H-11 Invention Disclosure Reports (252.227-7038)

(a) 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/iEdison/).

(b) The parties acknowledge that SCD has filed International Patent Applications Nos. WO 2005/004243 and WO 2007/113821. The parties agree that, once the contractor has successfully uploaded these applications into iEdison in connection with this contract, the contractor shall have met in full its legal obligation to disclose such inventions to DARPA in accordance with DFARS 252.227-7038. The parties acknowledge that contractor intends to elect to retain title to such inventions.

(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
52.209-6	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
52.215-15	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
52.219-8	Utilization of Small Business Concerns	MAY 2004
52.222-3	Convict Labor	JUN 2003
52.222-50	Combating Trafficking in Persons	AUG 2007
52.223-14	Toxic Chemical Release Reporting	AUG 2003
52.225-13	Restrictions on Certain Foreign Purchases	FEB 2006
52.227-2	Notice And Assistance Regarding Patent And Copyright Infringement	DEC 2007
52.232-2	Payments Under Fixed-Price Research And Development Contracts	APR 1984
52.232-9	Limitation On Withholding Of Payments	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	Protest After Award	AUG 1996
52.242-13	Bankruptcy	JUL 1995
52.242-15	Stop-Work Order	AUG 1989
52.243-1 Alt V	Changes--Fixed-Price (Aug 1987) - Alternate V	APR 1984
52.244-6	Subcontracts for Commercial Items	MAR 2007
52.249-2	Termination For Convenience Of The Government (Fixed-Price)	MAY 2004
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
252.205-7000	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
252.225-7006	Quarterly Reporting of Actual Contract Performance Outside the United States	MAY 2007
252.225-7012	Preference For Certain Domestic Commodities	MAR 2008
252.227-7013	Rights in Technical Data--Noncommercial Items	NOV 1995
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
252.235-7011	Final Scientific or Technical Report	NOV 2004
252.243-7001	Pricing Of Contract Modifications	DEC 1991
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

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

(a) The Government may extend the term of this contract at any time prior to the expiration of the contract term, provided that the Government gives the Contractor a preliminary written notice of its intent to extend at least 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 36 months.
(End of clause)

52.233-4 APPLICABLE LAW FOR BREACH OF CONTRACT CLAIM (OCT 2004)

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

(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)

252.227-7038 PATENT RIGHTS--OWNERSHIP BY THE CONTRACTOR (LARGE BUSINESS). (DEC 2007)

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

(1) Any invention or discovery that is or may be patentable or otherwise protectable under Title 35 of the United States Code; or

(2) Any variety of plant that is or may be protectable under the Plant Variety Protection Act (7 U.S.C. 2321, et seq.).

Made--

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

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

Nonprofit organization means--

(1) A university or other institution of higher education;

(2) An organization of the type described in the Internal Revenue Code at 26 U.S.C. 501(c)(3) and exempt from taxation under 26 U.S.C. 501(a); or

(3) Any nonprofit scientific or educational organization qualified under a State nonprofit organization statute.

Practical application means--

(1)(i) To manufacture, in the case of a composition or product;

(ii) To practice, in the case of a process or method; or

(iii) To operate, in the case of a machine or system; and

(2) In each case, under such conditions as to establish that--

(i) The invention is being utilized; and

(ii) The benefits of the invention 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 elect to 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-

(A) Extends to any domestic subsidiaries and affiliates within the corporate structure of which the Contractor is a part;

(B) Includes the right to grant sublicenses to the extent the Contractor was legally obligated to do so at the time of contract award; and

(C) Is transferable only with the 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 agency--

(A) May revoke or modify the Contractor's domestic license to the extent necessary to achieve expeditious practical application of the subject invention pursuant to an application for an exclusive license submitted in accordance with 37 CFR Part 404 and agency licensing regulations;

(B) Will not revoke the license in that field of use or the geographical areas in which the Contractor has achieved practical application and continues to make the benefits of the invention reasonably accessible to the public; and

(C) May revoke or modify the license in any foreign country to the extent the Contractor, its licensees, or the domestic subsidiaries or affiliates have failed to achieve practical application in that foreign country.

(iii) Before revoking or modifying the license, the agency--

(A) Will furnish the Contractor a written notice of its intention to revoke or modify the license; and

(B) Will allow the Contractor 30 days (or such other time as the funding agency may authorize for good cause shown by the Contractor) after the notice to show cause why the license should not be revoked or modified.

(iv) The Contractor has the right to appeal, in accordance with 37 CFR part 404 and agency regulations, concerning the licensing of Government-owned inventions, any decision concerning the revocation or modification of the license.

(c) Contractor's obligations. (1) The Contractor shall--

(i) 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, or within 6 months after the Contractor first becomes aware that a subject invention has been made, whichever is earlier;

(ii) Include in the disclosure--

(A) The inventor(s) and the contract under which the invention was made;

(B) Sufficient technical detail to convey a clear understanding of the invention; and

(C) Any publication, on sale (i.e., sale or offer for sale), or public use of the invention and whether a manuscript describing the invention has been submitted for publication and, if so, whether it has been accepted for publication; and

(iii) After submission of the disclosure, promptly notify the Contracting Officer of the acceptance of any manuscript describing the invention for publication and of 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 at the time of disclosure or within 8 months of disclosure, as to those countries (including the United States) in which the Contractor will retain ownership. 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 agency may shorten the period of election of title to a date that is no more than 60 days prior to the end of the statutory period.

(3) The Contractor shall--

(i) File either a provisional or a nonprovisional patent application on an elected subject invention within 1 year after election, provided that in all cases the application is filed prior to the end of any statutory period wherein valid patent protection can be obtained in the United States after a publication, on sale, or public use;

(ii) File a nonprovisional application within 10 months of the filing of any provisional application; and

(iii) 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 the Commissioner of Patents grants permission 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), (2), and (3) of this clause. The Contracting Officer will normally grant the extension unless there is reason to believe the extension would prejudice the Government's interests.

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

(i) If the Contractor elects not to retain title to a subject invention;

(ii) If the Contractor fails to disclose or elect the subject invention within the times specified in paragraph (c) of this clause and the agency requests title within 60 days after learning of the Contractor's failure to report or elect within the specified times;

(iii) In those countries in which the Contractor fails to file patent applications within the times specified in paragraph (c) of this clause, provided 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; and

(iv) 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 behalf of the United States, 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)(1) of this clause and enable the Government to obtain patent protection for that subject invention in any country.

(2) The Contractor shall--

(i) Require, by written agreement, its employees, other than clerical and nontechnical employees, to--

(A) Disclose each subject invention promptly in writing to personnel identified as responsible for the administration of patent matters, so that the Contractor can comply with the disclosure provisions in paragraph (c) of this clause; and

(B) Provide the disclosure in the Contractor's format, which should require, as a minimum, the information required by paragraph (c)(1) of this clause;

(ii) Instruct its 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 statutory foreign bars; and

(iii) Execute all papers necessary to file patent applications on subject inventions and to establish the Government's rights in the subject inventions.

(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 application and any patent 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 this invention."

(5) The Contractor shall--

(i) Establish and maintain active and effective procedures to ensure that subject inventions are promptly identified and disclosed to Contractor personnel responsible for patent matters;

(ii) Include in these procedures the maintenance of--

(A) Laboratory notebooks or equivalent records and other records as are reasonably necessary to document the conception and/or the first actual reduction to practice of subject inventions; and

(B) Records that show that the procedures for identifying and disclosing the inventions are followed; and

(iii) Upon request, furnish the Contracting Officer a description of these procedures for evaluation and for determination as to their effectiveness.

(6) The Contractor shall, when licensing a subject invention, arrange to--

(i) Avoid royalty charges on acquisitions involving Government funds, including funds derived through the Government's Military Assistance Program or otherwise derived through the Government;

(ii) Refund any amounts received as royalty charges on the subject inventions in acquisitions for, or on behalf of, the Government; and

(iii) Provide for the refund in any instrument transferring rights in the invention to any party.

(7) The Contractor shall furnish to the Contracting Officer the following:

(i) Interim reports every 12 months (or any longer period as may be specified by the Contracting Officer) from the date of the contract, listing subject inventions during that period and stating that all subject inventions have been disclosed or that there are no subject inventions.

(ii) A final report, within 3 months after completion of the contracted work, listing all subject inventions or stating that there were no subject inventions, and listing all subcontracts at any tier containing a patent rights clause or stating that there were no subcontracts.

(8)(i) The Contractor shall promptly notify the Contracting Officer in writing upon the award of any subcontract at any tier containing a patent rights clause by identifying--

(A) The subcontractor;

(B) The applicable patent rights clause;

(C) The work to be performed under the subcontract; and

(D) The dates of award and estimated completion.

(ii) The Contractor shall furnish, upon request, a copy of the subcontract, and no more frequently than annually, a listing of the subcontracts that have been awarded.

(9) In the event of a refusal by a prospective subcontractor to accept one of the clauses specified in paragraph (l)(1) of this clause, the Contractor--

(i) Shall promptly submit a written notice to the Contracting Officer setting forth the subcontractor's reasons for the refusal and other pertinent information that may expedite disposition of the matter; and

(ii) Shall not proceed with that subcontract without the written authorization of the Contracting Officer.

(10) The Contractor shall provide to the Contracting Officer, upon request, the following information for any subject invention for which the Contractor has retained ownership:

(i) Filing date.

(ii) Serial number and title.

(iii) A copy of any patent application (including an English-language version if filed in a language other than English).

(iv) Patent number and issue date.

(11) The Contractor shall furnish to the Government, upon request, an irrevocable power to inspect and make copies of any patent application file.

(f) Reporting on utilization of subject inventions. (1) The Contractor shall--

(i) Submit upon request periodic reports no more frequently than annually on the utilization of a subject invention or on efforts in obtaining utilization of the subject invention that are being made by the Contractor or its licensees or assignees;

(ii) Include in the reports information regarding the status of development, date of first commercial sale or use, gross royalties received by the Contractor, and other information as the agency may reasonably specify; and

(iii) Provide additional reports that the agency may request in connection with any march-in proceedings undertaken by the agency in accordance with paragraph (h) of this clause.

(2) To the extent permitted by law, the agency shall not disclose the information provided under paragraph (f)(1) of this clause to persons outside the Government without the Contractor's permission, if the data or information is considered by the Contractor or its licensee or assignee to be ``privileged and confidential" (see 5 U.S.C. 552(b)(4)) and is so marked.

(g) Preference for United States industry. Notwithstanding any other provision of this clause, the Contractor agrees that 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 agency may waive the requirement for an exclusive license agreement upon a showing by the Contractor or its assignee that--

(1) 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

(2) 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), 37 CFR 401.6, and any supplemental regulations of the agency in effect on the date of contract award.

(i) Other inventions. Nothing contained in this clause shall be deemed to grant to the Government any rights with respect to any invention other than a subject invention.

(j) Examination of records relating to inventions. (1) The Contracting Officer or any authorized representative shall, until 3 years after final payment under this contract, have the right to examine any books (including

laboratory notebooks), records, and documents of the Contractor relating to the conception or first reduction to practice of inventions in the same field of technology as the work under this contract to determine whether--

(i) Any inventions are subject inventions;

(ii) The Contractor has established procedures required by paragraph (e)(5) of this clause; and

(iii) The Contractor and its inventors have complied with the procedures.

(2) If the Contracting Officer learns of an unreported Contractor invention that the Contracting Officer believes may be a subject invention, the Contractor shall be required to disclose the invention to the agency for a determination of ownership rights.

(3) Any examination of records under this paragraph (j) shall be subject to appropriate conditions to protect the confidentiality of the information involved.

(k) Withholding of payment (this paragraph does not apply to subcontracts). (1) Any time before final payment under this contract, the Contracting Officer may, in the Government's interest, withhold payment until a reserve not exceeding $50,000 or 5 percent of the amount of the contract, whichever is less, is set aside if, in the Contracting Officer's opinion, the Contractor fails to—

(i) Establish, maintain, and follow effective procedures for identifying and disclosing subject inventions pursuant to paragraph (e)(5) of this clause;

(ii) Disclose any subject invention pursuant to paragraph (c)(1) of this clause;

(iii) Deliver acceptable interim reports pursuant to paragraph (e)(7)(i) of this clause; or

(iv) Provide the information regarding subcontracts pursuant to paragraph (e)(8) of this clause.

(2) The reserve or balance shall be withheld until the Contracting Officer has determined that the Contractor has rectified whatever deficiencies exist and has delivered all reports, disclosures, and other information required by this clause.

(3) The Government will not make final payment under this contract before the Contractor delivers to the Contracting Officer--

(i) All disclosures of subject inventions required by paragraph (c)(1) of this clause;

(ii) An acceptable final report pursuant to paragraph (e)(7)(ii) of this clause; and

(iii) All past due confirmatory instruments.

(4) The Contracting Officer may decrease or increase the sums withheld up to the maximum authorized in paragraph (k)(1) of this clause. No amount shall be withheld under this paragraph while the amount specified by this paragraph is being withheld under other provisions of the contract. The withholding of any amount or the subsequent payment thereof shall not be construed as a waiver of any Government right.

(l) Subcontracts. (1) The Contractor--

(i) Shall include the substance of the Patent Rights-Ownership by the Contractor clause set forth at 52.227-11 of the Federal Acquisition Regulation (FAR), in all subcontracts for experimental, developmental, or research work to be performed by a small business concern or nonprofit organization; and

(ii) Shall include the substance of this clause, including this paragraph (l), in all other subcontracts for experimental, developmental, or research work, unless a different patent rights clause is required by FAR 27.303.

(2) For subcontracts at any tier--

(i) The patents rights clause included in the subcontract shall retain all references to the Government and shall provide to the subcontractor all the rights and obligations provided to the Contractor in the clause. The Contractor shall not, as consideration for awarding the subcontract, obtain rights in the subcontractor's subject inventions; and

(ii) The Government, the Contractor, and the subcontractor agree that the mutual obligations of the parties created by this clause constitute a contract between the subcontractor and the Government with respect to those matters covered by this clause. However, 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)

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-0063.

(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), the U.S. Department of Defense (DoD) or the U.S. Government.
(end of clause)

Section J - List of Documents, Exhibits and Other Attachments

Attachment No. 1 – Semiconductor Devices Hotmwir-I Statement of Work dtd 6 June 2008 (6 pages)

Attachment No. 2 – Data Rights Assertions/Restrictions (3 pages)

Attachment No. 3 – Contracting Officer's Representative Designation Memorandum (3 pages)

Attachment No. 4 – Milestone Plan 6 June 2008 (1 page)

DEFENSE ADVANCED RESEARCH PROJECTS AGENCY
3701 NORTH FAIRFAX DRIVE
ARLINGTON, VA 22203-1714

June 25, 2008

MEMORANDUM FOR ADMINISTRATIVE CONTRACTING OFFICER, DCMA ISRAEL
(ATTN: COGNIZANT ADMINISTRATIVE CONTRACTING OFFICER)

SUBJECT: Specific Delegation of Authority for Administrative Functions for Contract No. HR0011-08-C-0063 with Semiconductor Devices

The subject contract, a copy of which has been transmitted to DCMA via EDA, designates your activity as the Administrative Office for performance of the contract functions listed in the attached checklist of administration functions. Subject to your concurrence, you are requested to perform the functions identified. It is requested that you confirm acceptance of this delegation in writing to the undersigned.

A copy of the Contracting Officer's Representative (COR) assignment letter has been made an attachment to the contract.

Please note that this is a Firm-Fixed-Price (FFP) contract of which includes use of WAWF for invoicing and i-edison for submission of invention disclosures and patent reports.

If you have any questions, please contact me at (571) 218-4804 or michael.blackstone@darpa.mil.

(b)(6)

Michael D. Blackstone
Contracting Officer
Contracts Management Office

Attachments: (1) Checklist of Administration Functions

ATTACHMENT 1
CONTRACT ADMINISTRATION FUNCTIONS

Contract Number: HR0011-08-C-0063

Michael D. Blackstone
Contracting Officer

25 June 2008
Date

The items listed in FAR 42.302(a), DFARS 242.302, and Class Deviation 99-O0010 are the contract administration functions to be performed by the cognizant contract administrative office (CAO), to the extent they apply on this contract, as prescribed in 42.202.

The CAO shall perform the functions in FAR 42.302(b) only when and to the extent specifically authorized by the contracting office as identified below:

- [ ] Negotiate or negotiate and execute supplemental agreements incorporating contractor proposals resulting from change orders issued under the Changes clause. Before completing negotiations, coordinate any delivery schedule change with the contracting office.
- [ ] Negotiate prices and execute priced exhibits for unpriced orders issued by the contracting officer under basic ordering agreements.
- [X] Negotiate or negotiate and execute supplemental agreements changing contract delivery schedules.
- [X] Negotiate or negotiate and execute supplemental agreements providing for the deobligation of unexpended dollar balances considered excess/remaining to known contract requirements.
- [ ] Issue amended shipping instructions and, when necessary, negotiate and execute supplemental agreements incorporating contractor proposals resulting from these instructions.
- [X] Negotiate changes to interim billing prices.
- [ ] Negotiate and definitize adjustments to contract prices resulting from exercise of an economic price adjustment clause (see Subpart 16.2).
- [ ] Issue change orders and negotiate and execute resulting supplemental agreements under contracts for ship construction, conversion, and repair.

ATTACHMENT 1
CONTRACT ADMINISTRATION FUNCTIONS

☐ Execute supplemental agreements on firm-fixed-price supply contracts to reduce required contract line item quantities and deobligate excess funds when notified by the contractor of an inconsequential delivery shortage, and it is determined that such action is in the best interests of the Government, notwithstanding the default provisions of the contract. Such action will be taken only upon the written request of the contractor and, in no event, shall the total downward contract price adjustment resulting from an inconsequential delivery shortage exceed $250.00 or 5 percent of the contract price, whichever is less.

☐ Execute supplemental agreements to permit a change in place of inspection at origin specified in firm-fixed-price supply contracts awarded to nonmanufacturers, as deemed necessary to protect the Government's interests.

☐ Make acceptance of contract deliverables/invoices in the Wide Area Workflow (WAWF) system, as necessary, on behalf of the Contracting Officer's Representative should that organization not be capabable of doing so. Prior to making any such acceptance, the ACO will receive a written acceptance (e-mail is accetable) from the COR. This assistance will not be necessary for cost-type contracts to which WAWF vouchers will be the invoice format.

☒ Prepare evaluations of contractor performance in accordance with Subpart 42.15.

☒ Ensuring timely submission of required reports (to include invention/patent disclosures via i-Edison)

Any additional contract administration functions not identified above, or not otherwise delegated, remain the responsibility of the contracting office.

Contract No. HR0011-08-0C-0063

Attachment 1

Statement of Work
6 June 2008

ATTACHMENT 1
STATEMENT OF WORK (SOW)

1. SCOPE

This SOW covers a research and development program leading to the demonstration of a new type of Mid Wave IR detector array containing an epitaxially grown semiconductor hetero-junction, which will operate at temperatures close to 150K.

1.1 Background

- The " *High Operating Temperature detector for the MWIR band* " program has been initiated to design and develop an improved *Mid Wave IR focal plane array* system that will fulfill the operating temperature and sensitivity requirements as specified in requirements No 1 and 2 in Section 3.1 below. The System will enable further miniaturization of the detector beyond the size of today's standard detectors, increase mission time for battery-operated systems, and reduce life cycle cost due to savings on batteries and improved reliability.

2. RESERVED

3. REQUIREMENTS

- 3.1 Requirements of the array detector to be developed

  1. The operating temperature shall be close to or above 150K with an f/number greater than or equal to 2.
  2. (b)(4) [redacted]

- 3.2 Tasks

  1. (b)(4) [redacted]
  2. A set of masks will be designed and manufactured for the fabrication of test devices of various dimensions and in various configurations including small test arrays suitable for radiometric measurements
  3. (b)(4) [redacted]

4. (b)(4) [redacted]

Milestone 1: Characterization report of 2" wafer comprising GaSb substrate (b)(4) [redacted]

(i) Description of epitaxial structure
(ii) Optical characterization of bandgap (e.g. photoluminescence, absorption)
(iii) Electrical characterization of doping (e.g. Capacitance, Hall)
(iv) Xray Diffraction measurements and analysis
(v) Xray diffraction wafer map
(vi) Analysis of any parameters not achieved, including ramifications for following stages of the Contract

5. (b)(4) [redacted]

6.

7.

Milestone 2: Characterization report of 2" wafer comprising GaSb substrate and (b)(4) [redacted]

(i) Description of epitaxial structure
(ii) Optical characterization (e.g. photoluminescence as barrier in Quantum well)
(iii) Electrical characterization of doping (e.g. Capacitance, Hall)
(iv) Xray Diffraction measurements and analysis
(v) Xray diffraction wafer map
(vi) Analysis of any parameters not achieved, including ramifications for following stages of the Contract

8. (b)(4) [redacted]

9.

10. (b)(4) [redacted]

11.

12.

13.

14.

Milestone 3: Characterization report of XBn device comprising:

(i) Description of mask design
(ii) Description of epitaxial structure
(iii) Description of process (not to include specific proprietary manufacturing know-how)
(iv) Results of temperature dependent measurements between 90K and 300K of dark current vs. bias
(v) Results of dark current vs. device area in variable area test devices or Gate bias in Gate controlled devices
(vi) Results of short circuit current measurements under illumination
(vii) Analysis of electrical results in terms of diffusion and GR currents
(viii) Analysis of quantum efficiency
(ix) Conclusion with proof or disproof of the XBn concept. Proof constitutes a high quantum efficiency and the demonstration of a Diffusion limited device under conditions which would normally give G-R limited behaviour. Disproof constitutes the presence of currents other than the Diffusion current or the existence of a very low quantum efficiency and a convincing explanation of why the currents cannot be eliminated or the quantum efficiency cannot be increased in the XBn architecture.
(x) Analysis of any parameters not achieved, including ramifications for following stages of the Contract

15. A Design Review will be conducted after one year to summarize the work carried out so far.

Milestone 4: A report will be prepared in advance of the Design Review which will include:

(i) A summary of all key results obtained in the first year
(ii) Conclusions derived during the first year
(iii) Proposals for any changes to the program in the light of new knowledge obtained during the first year

(iv) Analysis of any parameters not achieved, including ramifications for following stages of the Contract

16. The passivation will be optimized on test XBn devices with the target of achieving a plot of device dark current at a fixed reverse bias vs. the device area that shows a linear dependence which, in the absence of stray light, passes through the origin.

17. A silicon focal plane processor (FPP) will be chosen from among the FPPs designed by SCD or available commercially that is best suited to the performance of the XBn devices developed under task 13.

18. (b)(4) [redacted]

Milestone 5: Characterization report of 2" wafer comprising GaSb substrate and an XBn device structure:

(i) Description of epitaxial structure
(ii) Xray diffraction wafer map
(iii) Defect map
(iv) Analysis of defect sizes and distribution
(v) Analysis of any parameters not achieved, including ramifications for following stages of the Contract

19. The XBn devices described in task 16 will be optimized with further rounds of epitaxial growth, mesa etching and passivation with the aim of achieving BLIP performance at a temperature of at least 150K and an f/number of at least f/3

20. (b)(4) [redacted]

21. The electrical characteristics of the FPP described in task 17 will be measured at temperatures close to ~150K

22. (b)(4) [redacted]

Milestone 6: Characterization report of test array comprising:

(i) Description of small test array
(ii) Results of temperature dependent measurements of current vs. bias at temperatures between 90K and 300K
(iii) Results of photo-response under backside illumination
(iv) Analysis of dark current and Quantum Efficiency
(v) Analysis in terms of potential BLIP temperature at F/3
(vi) Analysis of any parameters not achieved, including ramifications for following stages of the Contract

23. A Design Review will be conducted to summarize the work carried out in the second year.

Milestone 7: A report will be prepared in advance of the Design Review which will include:

(i) A summary of all key results obtained in the second year
(ii) Conclusions derived during the second year
(iii) Proposals for any changes to the program in the light of new knowledge obtained during the second year
(iv) Analysis of any parameters not achieved, including ramifications for following stages of the Contract

24. (b)(4) [redacted]

25. The array detector developed under task 24 will undergo radiometric testing and optimization in a customized test Dewar cooled with liquid argon (~90K).

26. The array detector developed under task 24 will undergo radiometric testing in the variable temperature test Dewar described in task 20 at temperatures close to ~150K

Milestone 8: First Radiometric Characterization report of array comprising:

(i) Array Layout and measurement conditions
(ii) Results of Radiometric measurements at temperatures close to 150K which will include quantum efficiency (QE) raw non uniformity (NU), residual non-uniformity after two point correction (RNU), Noise Equivalent Temperature Difference (NETD), defect map.
(iii) Analysis and conclusions about detector performance and BLIP operating temperature
(iv) Analysis of any parameters not achieved, including ramifications for following stages of the Contract

27. (b)(4) [redacted]

28. Images will be recorded both during the day and at night using the array in task 27.

Milestone 9: Radiometric Characterization report of Focal Plane Array (FPA) detector comprising:

(i) Description of test set-up.
(ii) Description of FPA and measurement conditions
(iii) Results of Radiometric measurements which will include quantum efficiency (QE) raw non uniformity (NU), residual non-uniformity after two point correction (RNU), Noise Equivalent Temperature Difference (NETD), defect map.
(iv) Analysis and conclusions about detector performance
(v) Analysis of potential BLIP temperature at F/3

(vi) Sample images
(vii) Analysis of any parameters not achieved, including ramifications for following stage of the Contract

29. A Design Review will be conducted to summarize the work carried out in the third year.

Milestone 10: A Final report will be prepared in advance of the Design Review which will summarize the work carried out over all three years and will include:

(i) All key results obtained in the project
(ii) Demonstration of XBn detector radiometric performance
(iii) Demonstration and Discussion of potential operating temperature of detector
(iv) Project conclusions
(v) Analysis of any parameters not achieved.

30. The preceding descriptions of the content of Milestone Reports are not to be construed as requiring the inclusion of "Detailed Manufacturing or Process Data" as defined in DFARS 252.227-7013(a)(5).

- **3.3 Deliverables**

See Section C-2 and Attachment 4 (Milestone Plan) of the Contract

Contract No. HR0011-08-0C-0063

Attachment 2

Data Rights Assertions/Restrictions

DATA RIGHTS ASSERTIONS/RESTRICTIONS

Identification and Assertion of Restrictions on the Government's Use, Release, or Disclosure of Technical Data

Technical Data to be Furnished with Restrictions	Basis for Assertion	Asserted Rights Category	Name of Person Asserting Restrictions
(b)(4) [redacted]			

(b)(4)

(b)(4)

[redacted]

Note (as additional clarification regarding items 1 through 5): In accordance with DFARS 252.227-7017 and DFARS 252.227-7013, items listed reflect technical data that may be delivered to the Government in performance of the work defined in the Attachment 1 Statement of Work (SOW) of which, if so delivered, will be furnished with the asserted restrictions (Limited Rights) on use, reproduction or disclosure. Identified technical data will only be furnished to the Government to the extent it is necessary to meet the SOW/Deliverable requirments and, as such, its identification herein does not consititute a formal deliverables list. Formal contract deliverables are stipulated at Sections C and F and Attachment 1 of the contract.

Contract No. HR0011-08-0C-0063

Attachment 3

Contracting Officer's Representative
(COR) Appointment Memo

DEFENSE ADVANCED RESEARCH PROJECTS AGENCY
3701 NORTH FAIRFAX DRIVE
ARLINGTON, VA 22203-1714

FROM: DARPA, Contracts Management Office

TO: Joseph Pellegrino, Night Vision & Electronics Directorate AMSRD-CER-NV-STD

SUBJECT: Appointment as Contracting Officer's Representative (COR)

1. You are hereby appointed as the Contracting Officer's Representative for:

Contract Number: HR0011-08-C-0063

Contractor: Semiconductor Devices
PO Box 2250
Haifa, 31021, ISRAEL

2. This appointment authorizes and designates you to perform the following duties and/or responsibilities as specified herein:

a. Furnish plans, schedules, specification, descriptions, and other documents to the contractor as required by the contract.

b. Assist the contractor in interpreting technical aspects of the contract specifications/statement of work. Differences of opinion and interpretations which could affect the terms and conditions of the contract will be referred to the Contracting Officer for resolution.

c. Provide government recommendations/approvals to the contractor promptly in all cases where the contract calls for technical approval.

d. Observe, monitor, and assess the contractor's performance under the terms of the contract. This includes reporting promptly to the Contracting Officer: failures, delays, or significant deviations of performance, quality, costs, or other actions which might jeopardize contract performance.

3. You are not authorized to delegate these duties and responsibilities.

4. In your dealings with the contractor you must not give technical direction as though the contractor's employees are government employees. You must maintain a formal, arms-length relationship with the contractor in order to avoid even an appearance that the contract is one for personal services. If the contractor's performance takes place in a government facility, then, to the maximum extent practicable, the contractor's work area should be physically separated from

Subj: Appointment as Contracting Officer's Representative (COR) - HR0011-08-C-0063

g. Assist ACO and/or PCO, as requested, with closeout activities at completion of contract period of performance.

8. If this is your first appointment as a GOR or if you have not performed GOR, Contracting Officer's Representative (COR) or Agreements Officer's Representative (AOR) duties within the last two years, and in order to comply with DFARS 201.6-2, you must complete COR training immediately so that you can properly execute your responsibilities under this grant. A good source of COR training is available via a web-based module, CLC 106, "Contracting Officer's Representative with a Mission Focus" at www.dau.mil. Is requested that a copy of your most recent COR training completion certificate be forwarded to the undersigned at michael.blackstone@darpa.mil.

9. Your good judgment in performing your duties under the contract will have an important effect on the value of the performance obtained by the Government.

10. Your appointment as COR for this effort expires upon final disposition of the contract.

(b)(6)

Michael D. Blackstone
Contracting Officer
Contracts Management Office

6/17/08
Date

(b)(6)

Joseph Pellegrino
Contracting Officer's Representative

June 17, 08
Date

Contract No. HR0011-08-0C-0063

Attachment 4

Milestone Plan

Milestone Number	Due Date	Description	Phase	$	Line Item
1	11/1/2008	(b)(4) [redacted] Deliverable: characterization report	Material Development + Proof of concept	500,000	0001AA
2	1/1/2009	(b)(4) [redacted] Deliverable: characterization report		500,000	0001AB
3	7/1/2009	(b)(4) [redacted]		650,000	0001AC
4	7/1/2009	DR on 1st year: "Proof of Concept" and nBn/CBn decision. Deliverable: Report of DR		102,482	0001AD
5	18	(b)(4) [redacted] Deliverable: Defect map + report	Process Development + Material Optimization	800,000	0002AA
6	24	(b)(4) [redacted] Deliverable: characterization report + *n* x *m* fan out array suitable for electrical and radiometric tests		850,000	0002AB
7	24	DR on 2nd year: "XBn device performance" . Deliverable: Report of DR		102,482	0002AC
8	30	>50,000 element FPA detector, mounted in a temperature controlled test Dewar with F/3 optics+ operating at or above 150K with BLIP performance Deliverable: radiometric characterization report	Detector Development	700,000	0003AA
9	36	>Full radiometric evaluation of >50,000 element FPA detector including Noise Equivalent Temperature Difference (NETD), Residual Non-Uniformity (RNU) and Stability to Temperature Fluctuations (V-curve), and images recorded both during the day and at night. Deliverable: radiometric characterization report + >50,000 element FPA detector mounted on a compatible chip carrier, e.g. 68 PIN JEDEC LCC (type to be agreed) + Optics with f/number between 2 and 4 according to availability and compatibility of test Dewar		700,000	0003AB
10	38	DR on 3rd year : XBn FPA performance and Final Report. Deliverable: Final Report		103,757	0003AC

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE	PAGE OF PAGES	
J	1	2

2. AMENDMENT/MODIFICATION NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO.(If applicable)
P00001	10-Jul-2008	V081/21	

6. ISSUED BY CODE HR0011

DARPA
CMO
ATTN: MICHAEL D. BLACKSTONE
3701 N. FAIRFAX DR.
ARLINGTON VA 22203-1714

7. ADMINISTERED BY (If other than item 6) CODE SSR01A

DCMA ISRAEL
AMERICAN EMBASSY
UNIT 7228
APO AE 09830-7228

8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code)

SEMICONDUCTOR DEVICES
LESHEM INSTITUTE
MISGAV, ISRAEL 20179

CODE SEK57 FACILITY CODE

	9A. AMENDMENT OF SOLICITATION NO.
	9B. DATED (SEE ITEM 11)
X	10A. MOD. OF CONTRACT/ORDER NO. HR0011-08-C-0063
X	10B. DATED (SEE ITEM 13) 25-Jun-2008

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer ☐ is extended, ☐ 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.
X	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:
	D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor [X] is not, ☐ 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: kgrigeri08817

The purpose of this modification is to revise G-3 "Delegation of Authority for Contract Administration." 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 (b)(6) (Signature of Contracting Officer)	16C. DATE SIGNED 10-Jul-2008

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

1. SECTION G - CONTRACT ADMINISTRATION DATA

The following have been modified as highlighted in bold:

G-3 Delegation of Authority for Contract Administration

DCMA Israel (SSR01A) is hereby designated as the Contracting Officer's authorized representative for administering this contract in accordance with current directives. **The Administrative Contracting Officer (ACO) for this contract is David Bahary, Administrative Contracting Officer, Telephone number +972(9)960-1205, Fax +972(9)960-1252, Email: david.bahary@dcma.mil. The Contract Administrator for this contract is Gila Langford, Contract Administrator, DCMA Israel, Telephone number :+972(9)960-1227 Fax: -1251/2, Email: Gila.Langford.is@dcma.mil.**
(end of clause)

2. Except as modified above, the terms and conditions of Contract No. HR0011-08-C-0063 shall remain unchanged and in full force and effect.

(End of Summary of Changes)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE	PAGE OF PAGES	
J	1	3

2. AMENDMENT/MODIFICATION NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO.(If applicable)
P00002	24-Jun-2009	V081/21	

6. ISSUED BY CODE HR0011

DARPA
CMO
ATTN: MICHAEL D. BLACKSTONE
3701 N. FAIRFAX DR.
ARLINGTON VA 22203-1714

7. ADMINISTERED BY (If other than item 6) CODE SSR01A

DCMA ISRAEL
AMERICAN EMBASSY
UNIT 7228
APO AE 09830-7228

8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code)

SEMICONDUCTOR DEVICES
LESHEM INSTITUTE
MISGAV, ISRAEL 20179

CODE SEK57 FACILITY CODE

	9A. AMENDMENT OF SOLICITATION NO.
	9B. DATED (SEE ITEM 11)
X	10A. MOD. OF CONTRACT/ORDER NO. HR0011-08-C-0063
X	10B. DATED (SEE ITEM 13) 25-Jun-2008

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer ☐ is extended, ☐ 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 ☐ is not, ☒ 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: kgrigeri09857

The purpose of this modification is to revise the Attachment (4) Milestone Table and extend the Period of Performance of the Phase 1 effort at no additional cost to the Government. The current Firm Fixed Price (FFP) amount does not change as a result of this modification. The revised Attachment (4) is found as Enclosure (1) to 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 (b)(6) (Signature of Contracting Officer)	16C. DATE SIGNED 24-Jun-2009

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 contract commences on 1 July 2008 and continues through **31 August 2009.**

(b) The period of performance for Option 1, as set forth in CLIN 0002, shall be from the effective date of the option exercise (currently estimated to be 1 July 2009) to and including twelve (12) months thereafter.

(c) The period of performance for Option 2, as set forth in CLIN 0003, shall be from the effective date of the option exercise (currently estimated to be 1 July 2010) to and including twelve (12) months thereafter.

(end of clause)

2. The following has been modified as highlighted in bold in the Attachment (4), Enclosure (1) Milestone Table for Milestone 4 only. All other Milestones have not been modified as a result of this modification.

FROM:

Milestone Number	Due Date	Description	Phase	$	Line Item
4	7/1/2009	DR on 1st year: "Proof of Concept" and nBn/CBn decision. Deliverable: Report of DR		102,482	0001AD

TO:

Milestone Number	Due Date	Description	Phase	$	Line Item
4A	**6/26/2009**	**1st year Research complete.** **Deliverable: 1st year Summary Report**		**70,000**	**0001AD**
4B	**8/31/2009**	**Design Review on 1st year: "Proof of Concept" and nBn/CBn decision.** **Deliverable: Telecon Review Complete & Review Follow-Up/Summary Report**		**32,482**	**0001AE**

3. SECTION J – List of Documents, Exhibits and Other Attachments

The following have been modified as highlighted in bold

FROM:

Attachment No. 1 – Semiconductor Devices Hotmwir-I Statement of Work dtd 6 June 2008 (6 pages)

Attachment No. 2 – Data Rights Assertions/Restrictions (3 pages)

Attachment No. 3 – Contracting Officer's Representative Designation Memorandum (3 pages)

Attachment No. 4 – Milestone Plan 6 June 2008 (1 page)

TO:
Attachment No. 1 – Semiconductor Devices Hotmwir-I Statement of Work dtd 6 June 2008 (6 pages)

Attachment No. 2 – Data Rights Assertions/Restrictions (3 pages)

Attachment No. 3 – Contracting Officer's Representative Designation Memorandum (3 pages)

Attachment No. 4 – Milestone Plan **dtd 22 June 2009 (2 pages)**

4. Except as modified above, the terms and conditions of Contract No. HR0011-08-C-0063 shall remain unchanged and in full force and effect.

(End of Summary of Changes)

Milestone Number	Due Date	Description	Phase	$	Line Item
1	11/1/2008	(b)(4) [redacted] Deliverable: characterization report	Material Development + Proof of concept	500,000	0001AA
2	1/1/2009	(b)(4) [redacted] Deliverable: characterization report		500,000	0001AB
3	7/1/2009	(b)(4) [redacted]		650,000	0001AC
4A	6/26/2009	1st year Research complete. Deliverable: 1st year Summary Report		70,000	0001AD
4B	8/31/2009	Design Review on 1st year: "Proof of Concept" and nBn/CBn decision. Deliverable: Telecon Review Complete & Review Follow-Up/Summary Report		32,482	0001AE
5	18	(b)(4) [redacted] Deliverable: Defect map + report	Process Development + Material Optimization	800,000	0002AA
6	24	(b)(4) [redacted] Deliverable: characterization report + *n* x *m* fan out array suitable for electrical and radiometric tests		850,000	0002AB
7	24	DR on 2nd year: "XBn device performance". Deliverable: Report of DR		102,482	0002AC
8	30	>50,000 element FPA detector, mounted in a temperature controlled test Dewar with F/3 optics+ operating at or above 150K with BLIP performance Deliverable: radiometric characterization report	Detector Development	700,000	0003AA
9	36	>Full radiometric evaluation of >50,000 element FPA detector including Noise Equivalent Temperature Difference (NETD), Residual Non-Uniformity (RNU) and Stability to Temperature Fluctuations (V-curve), and images recorded both during the day and at night.		700,000	0003AB

		Deliverable: radiometric characterization report + >50,000 element FPA detector mounted on a compatible chip carrier, e.g. 68 PIN JEDEC LCC (type to be agreed) + Optics with f/number between 2 and 4 according to availability and compatibility of test Dewar			
10	38	DR on 3rd year : XBn FPA performance and Final Report. Deliverable: Final Report		103,757	0003AC

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE	PAGE OF PAGES	
J	1	3

2. AMENDMENT/MODIFICATION NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applicable)
P00003	09-Jul-2009	V081/21	

6. ISSUED BY CODE HR0011

DARPA
CMO
ATTN: MICHAEL D. BLACKSTONE
3701 N. FAIRFAX DR.
ARLINGTON VA 22203-1714

7. ADMINISTERED BY (If other than item 6) CODE SSR01A

DCMA ISRAEL
AMERICAN EMBASSY
UNIT 7228
APO AE 09830-7228

8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code)

SEMICONDUCTOR DEVICES
LESHEM INSTITUTE
MISGAV, ISRAEL 20179

CODE SEK57 FACILITY CODE

	9A. AMENDMENT OF SOLICITATION NO.
	9B. DATED (SEE ITEM 11)
X	10A. MOD. OF CONTRACT/ORDER NO. HR0011-08-C-0063
X	10B. DATED (SEE ITEM 13) 25-Jun-2008

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer ☐ is extended, ☐ 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.

X 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:

☐ D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor [X] is not, [ ] 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: kgrigeri09921

The purpose of this modification is to revise Section B, Section F, and Section G to accomodate the changes incorporated by Bi-lateral Modification P00002. 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 (b)(6) (Signature of Contracting Officer)	16C. DATE SIGNED 09-Jul-2009

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

1. SECTION B - SUPPLIES OR SERVICES AND PRICES

a. SUBCLIN 0001AD
The CLIN description has changed from Phase 1, Milestone 4 to Phase 1, Milestone 4A.
The unit price amount has decreased by $32,482.00 from $102,482.00 to $70,000.00.
The total cost of this line item has decreased by $32,482.00 from $102,482.00 to $70,000.00.

b. SUBCLIN 0001AE is added as follows:

ITEM NO.	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0001AE		1		$32,482.00	$32,482.00
	Phase 1, Milestone 4B FFP See Attachment 1& Attachment 4 in Section J. FOB: Destination AO No. V081/21				
				NET AMT	$32,482.00
	ACRN AA CIN: 00000000000000000000000000000				$32,482.00

2. SECTION F - DELIVERIES OR PERFORMANCE

The following Delivery Schedule item has been added to CLIN 0001:

DELIVERY DATE	QUANTITY	SHIP TO ADDRESS	UIC
31-AUG-2009		CERDEC JOE PELLEGRINO NIGHT VISION & ELECTRONICS DIRECTORATE AMSRD-CER-NV-STD, STE 409 FORT BELVOIR VA 22060-5806 703-704-0065 FOB: Destination	W26AAN

The following Delivery Schedule item has been added to SUBCLIN 0001AE:

DELIVERY DATE	QUANTITY	SHIP TO ADDRESS	UIC

31-AUG-2009	1	CERDEC JOE PELLEGRINO NIGHT VISION & ELECTRONICS DIRECTORATE AMSRD-CER-NV-STD, STE 409 FORT BELVOIR VA 22060-5806 703-704-0065 FOB: Destination	W26AAN

3. SECTION G - CONTRACT ADMINISTRATION DATA

Accounting and Appropriation

a. Summary for the Payment Office

SUBCLIN 0001AD:

AA: 9770400 1320 V081 P7H20 2525 DPAC 7 5463 S12136 63739E (CIN 00000000000000000000000000000) was decreased by $32,482.00 from $102,482.00 to $70,000.00

b. SUBCLIN 0001AE:
Funding on SUBCLIN 0001AE is initiated as follows:

ACRN: AA

CIN: 00000000000000000000000000000

Acctng Data: 9770400 1320 V081 P7H20 2525 DPAC 7 5463 S12136 63739E

Increase: $32,482.00

Total: $32,482.00

4. Except as modified above, the terms and conditions of Contract No. HR0011-08-C-0063 shall remain unchanged and in full force and effect.

(End of Summary of Changes)

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE	PAGE OF PAGES	
J	1	3

2. AMENDMENT/MODIFICATION NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO.(If applicable)
P00004	31-Aug-2009	SEE SCHEDULE	

6. ISSUED BY CODE HR0011

DARPA
CMO
ATTN: MICHAEL D. BLACKSTONE
3701 N. FAIRFAX DR.
ARLINGTON VA 22203-1714

7. ADMINISTERED BY (If other than item 6) CODE SSR01A

DCMA ISRAEL
AMERICAN EMBASSY
UNIT 7228
APO AE 09830-7228

8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code)

SEMICONDUCTOR DEVICES
LESHEM INSTITUTE
MISGAV, ISRAEL 20179

CODE SEK57 FACILITY CODE

	9A. AMENDMENT OF SOLICITATION NO.
	9B. DATED (SEE ITEM 11)
X	10A. MOD. OF CONTRACT/ORDER NO. HR0011-08-C-0063
X	10B. DATED (SEE ITEM 13) 25-Jun-2008

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer ☐ is extended, ☐ 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 52.217-9 "Option to Extend"

E. IMPORTANT: Contractor [X] is not, ☐ 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: kgrigeri091083

The purpose of this modification is to exercise Option 1 (Phase 2) and provide $1,752,482 to fully fund the option. The Attachment 4 "List of Milestones" has been updated to reflect Phase 2 Milestone Due Dates. The updated Attachment 4 is found as Enclosure 1 to 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 (b)(6) (Signature of Contracting Officer)	16C. DATE SIGNED 31-Aug-2009

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

1. SECTION A - SOLICITATION/CONTRACT FORM

The total cost of this contract was increased by $1,752,482.00 from $1,752,482.00 to $3,504,964.00.

2. SECTION B - SUPPLIES OR SERVICES AND PRICES

a. CLIN 0002
The option status has changed from Option to Option Exercised.

b. SUBCLIN 0002AA
The option status has changed from Option to Option Exercised.

c. SUBCLIN 0002AB
The option status has changed from Option to Option Exercised.

d. SUBCLIN 0002AC
The option status has changed from Option to Option Exercised.

2. SECTION F - DELIVERIES OR PERFORMANCE

The following have been modified as highlighted in bold:

F-1 Term of Contract

(a) The term of the contract commences on 1 July 2008 and continues through 31 August 2009.

(b) The period of performance for Option 1, as set forth in CLIN 0002, shall be from **1 September 2009 and continues through 31 August 2010.**

(c) The period of performance for Option 2, as set forth in CLIN 0003, shall be from the effective date of the option exercise (currently estimated to be 31 August 2010) to and including twelve (12) months thereafter.
(end of clause)

3. 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 $1,752,482.00

from $1,752,482.00 to $3,504,964.00.

b. SUBCLIN 0002AA:

AB: 9790400 1320 V081 P9H20 2525 DPAC 9 5407 S12136 63739E (CIN 000000000000000000000000000000) was increased by $800,000.00 from $0.00 to $800,000.00
The contract ACRN AB has been added.
The CIN 000000000000000000000000000000 has been added.

c. SUBCLIN 0002AB:

AB: 9790400 1320 V081 P9H20 2525 DPAC 9 5407 S12136 63739E (CIN 000000000000000000000000000000) was increased by $850,000.00 from $0.00 to $850,000.00
The contract ACRN AB has been added.
The CIN 000000000000000000000000000000 has been added.

d. SUBCLIN 0002AC:

AB: 9790400 1320 V081 P9H20 2525 DPAC 9 5407 S12136 63739E (CIN 000000000000000000000000000000) was increased by $102,482.00 from $0.00 to $102,482.00
The contract ACRN AB has been added.
The CIN 000000000000000000000000000000 has been added.

4. Except as modified above, the terms and conditions of Contract No. HR0011-08-C-0063 shall remain unchanged and in full force and effect.

(End of Summary of Changes)

Milestone Number	Due Date	Description	Phase	$	Line Item
1	11/1/2008	(b)(4) [redacted] Deliverable: characterization report	Material Development + Proof of concept	500,000	0001AA
2	1/1/2009	(b)(4) [redacted] Deliverable: characterization report		500,000	0001AB
3	7/1/2009	(b)(4) [redacted]		650,000	0001AC
4A	6/26/2009	1st year Research complete. Deliverable: 1st year Summary Report		70,000	0001AD
4B	8/31/2009	Design Review on 1st year: "Proof of Concept" and nBn/CBn decision. Deliverable: Telecon Review Complete & Review Follow-Up/Summary Report		32,482	0001AE
5	2/28/2010	(b)(4) [redacted] Deliverable: Defect map + report	Process Development + Material Optimization	800,000	0002AA
6	08/31/2010	(b)(4) [redacted] Deliverable: characterization report + *n* x *m* fan out array suitable for electrical and radiometric tests		850,000	0002AB
7	08/31/2010	DR on 2nd year: "XBn device performance" . Deliverable: Report of DR		102,482	0002AC
8	30	>50,000 element FPA detector, mounted in a temperature controlled test Dewar with F/3 optics+ operating at or above 150K with BLIP performance Deliverable: radiometric characterization report	Detector Development	700,000	0003AA
9	36	>Full radiometric evaluation of >50,000 element FPA detector including Noise Equivalent Temperature Difference (NETD), Residual Non-Uniformity (RNU) and Stability to Temperature Fluctuations (V-curve), and images recorded both during the day		700,000	0003AB

		and at night. Deliverable: radiometric characterization report + >50,000 element FPA detector mounted on a compatible chip carrier, e.g. 68 PIN JEDEC LCC (type to be agreed) + Optics with f/number between 2 and 4 according to availability and compatibility of test Dewar			
10	38	DR on 3rd year : XBn FPA performance and Final Report. Deliverable: Final Report		103,757	0003AC

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE	PAGE OF PAGES	
J	1	2

2. AMENDMENT/MODIFICATION NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applicable)
P00005	08-Mar-2010	SEE SCHEDULE	

6. ISSUED BY CODE HR0011

DARPA CMO
ATTN: MICHAEL D. BLACKSTONE
MICHAEL.BLACKSTONE@DARPA.MIL
3701 N. FAIRFAX DRIVE
ARLINGTON VA 22203-1714

7. ADMINISTERED BY (If other than item 6) CODE SSR01A

DCMA ISRAEL
AMERICAN EMBASSY
UNIT 7228
APO AE 09830-7228

8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code)

SEMICONDUCTOR DEVICES
LESHEM INSTITUTE
MISGAV, ISRAEL 20179

CODE SEK57 FACILITY CODE

	9A. AMENDMENT OF SOLICITATION NO.
	9B. DATED (SEE ITEM 11)
X	10A. MOD. OF CONTRACT/ORDER NO. HR0011-08-C-0063
X	10B. DATED (SEE ITEM 13) 25-Jun-2008

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer ☐ is extended, ☐ 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.

X 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:

☐ D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor [X] is not, ☐ 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: kbanach10426

The purpose of this modification is to change the DARPA/MTO Program Manager listed in Section F of the contract. 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 (b)(6) (Signature of Contracting Officer)	16C. DATE SIGNED 08-Mar-2010

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

1. SECTION F - DELIVERIES OR PERFORMANCE

The following has changed as highlighted below

F-3 Report Distribution

FROM:
(a) DARPA/MTO
Attn: Dr. Stuart Horn
3701 North Fairfax Drive
Arlington, VA 22203-1714
Email: Stuart.Horn@darpa.mil
(one copy each report)

TO:
(a) DARPA/MTO
Attn: **Dr. Nibir Dhar**
3701 North Fairfax Drive
Arlington, VA 22203-1714
Email: **Nibir.Dhar@darpa.mil**
(one copy each report)

2. Except as modified above, the terms and conditions of Contract No. HR0011-08-C-0063 shall remain unchanged and in full force and effect.

(End of Summary of Changes)