

AWARD/CONTRACT		1. THIS CONTRACT IS A RATED ORDER UNDER OFAS 215 CFR 200	RATING	PAGE OF PAGES 1 22
2. CONTRACT (Proc. Inv. Num./NO) HSHQDC-08-C-00139		3. EFFECTIVE DATE 09/23/2008		4. REQUISITION/PURCHASE REQUEST/PROJECT NO. RDTR-08-00244
5. ISSUED BY U.S. Dept. of Homeland Security Office of Procurement Operations Domestic Nuclear Detect. Office Acquisition Division 245 Murray Lane, SW, Bldg. 410 Washington DC 20528		6. ADMINISTERED BY (If other than Item 5)	U.S. Dept. of Homeland Security Office of Procurement Operations Domestic Nuclear Detect. Office Acquisition Division 245 Murray Lane, SW, Bldg. 410 Washington DC 20528	

7. NAME AND ADDRESS OF CONTRACTOR (No., Street, City, Country, State and ZIP Code) RAYTHEON COMPANY 50 APPLE HILL DRIVE TEWKSBURY MA 018761140	8. DELIVERY <input type="checkbox"/> FOR ORIGIN <input checked="" type="checkbox"/> OTHER (See below)
	9. DISCOUNT FOR PROMPT PAYMENT Net 30
	10. SUBMIT INVOICES (If copies unless otherwise specified) TO THE ADDRESS SHOWN IN ITEM

CODE 0010552350000	FACILITY CODE
11. SWP TO MARK FOR Domestic Nuclear Detection Office 245 Murray Drive, Building 410 Washington DC 20528	12. PAYMENT WILL BE MADE BY DND0 Coast Guard Finance Center DND0 Invoices PO Box 4141 Chesapeake VA 23327

13. AUTHORITY FOR USING OTHER THAN FULL AND OPEN COMPETITION: <input type="checkbox"/> 19 U.S.C. 2304 (a) <input type="checkbox"/> 41 U.S.C. 253 (a)	14. ACCOUNTING AND APPROPRIATION DATA See Schedule
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16A. ITEM NO	16B. SUPPLIES/SERVICES	15C. QUANTITY	15D. UNIT	15E. UNIT PRICE	15F. AMOUNT
Continued					
15G. TOTAL AMOUNT OF CONTRACT					\$574,860.00

(X)	SEC.	DESCRIPTION	PAGE(S)	(X)	SEC.	DESCRIPTION	PAGE(S)
		PART I - THE SCHEDULE				PART II - CONTRACT CLAUSES	
X	A	SOLICITATION/CONTRACT FORM	1-3	X	I	CONTRACT CLAUSES	15-21
X	B	SUPPLIES OR SERVICES AND PRICES/COSTS	4			PART III - LIST OF DOCUMENTS, EXHIBITS AND OTHER ATTACH	
X	C	DESCRIPTIONS/SPEC. WORK STATEMENT	5	X	J	LIST OF ATTACHMENTS	22
X	D	PACKAGING AND MARKING	6			PART IV - REPRESENTATIONS AND INSTRUCTIONS	
X	E	INSPECTION AND ACCEPTANCE	7		K	REPRESENTATIONS, CERTIFICATIONS AND OTHER STATEMENTS OF OFFERORS	
X	F	DELIVERY OR PERFORMANCE	8-9		L	INSTRS., COND'S., AND NOTICES TO OFFERORS	
X	G	CONTRACT ADMINISTRATION DATA	10-12		M	EVALUATION FACTORS FOR AWARD	
X	H	SPECIAL CONTRACT REQUIREMENTS	13-14				

17. <input type="checkbox"/> CONTRACTOR'S NEGOTIATED AGREEMENT (Contractor is required to sign this document and return copies to issuing office.) Contractor agrees to furnish and deliver to items or portions of the services set forth or otherwise specified herein and on any continuation sheets or the modification agreed upon. The rights and obligations of the parties to the contract shall be subject to and governed by the following documents: (a) the award contract, (b) the solicitation, if any, and (c) such provisions, representations, certifications, and specifications, as are attached or incorporated by reference herein. (Reference to FAR Part 27.101)	18. <input checked="" type="checkbox"/> AWARD (Contractor is not required to sign this document.) Your offer or 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 terms listed above and on any condition stated. This award encompasses the contract which consists of the following documents: (a) the Government's solicitation and your offer, and (b) the award contract. No further contract documents are necessary.
19A. NAME AND TITLE OF SIGNED (Type or print)	19B. NAME OF CONTRACTING OFFICER Darion McC. Iuz

19C. DATE SIGNED 9-23-08	19D. NAME OF CONTRACTING OFFICER Darion McC. Iuz	19E. DATE SIGNED 9/23/08
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CONTINUATION SHEET

REFERENCE NO. OF DOCUMENT BEING CONTINUED
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NAME OF OFFEROR OR CONTRACTOR
RAYTHEON COMPANY

ITEM NO (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	<p>DUNS Number: 001055235+0000 ALC: 70-23-0001 APP: 70-X-0860</p> <p>The contractor shall provide all necessary labor, materials and all other resources needed in support of the Department of Homeland Security, Domestic Nuclear Detection Office's Exploratory Research program for Stand-Off Warning Against Radiological Materials (SWARM) in accordance with the terms and conditions of this contract in the cost-plus-fixed fee price of \$763,969 for Phase I, incrementally funded in the amount of \$574,860.00.</p> <p>The period of performance for Phase I is 8 months from September 23, 2008 through May 22, 2009.</p> <p>Phases II, III, IV and V are options to be exercised at the government's discretion in accordance with Section F.5.</p> <p>The total value of this contract including the base period and all options (if exercised) is \$2,916,317.00. Accounting Info: 7-RD08XA000D-2008-RT0860-303100-EXPR-TR30-304000-3040000000000000-2550 FOB: Destination Period of Performance: 09/23/2008 to 05/22/2009</p>				
0001	<p>Base Period Phase I - Systems Architecture, Cooperative and Sensor Fusion Algorithm Development in the total cost-plus-fixed-fee ceiling price of \$763,969 as follows:</p> <p>Est. Cost - (b) (4) Fixed Fee - (b) (4) Obligated Amount: \$574,860.00</p>				574,860.00
0002	<p>Option 1 Phase II - Detailed City-Wide Simulation CONOPs in the total cost-plus-fixed-fee ceiling price of \$1,176,115 as follows:</p> <p>Est. Cost - (b) (4) Fixed Fee - (b) (4)</p> <p>Continued ...</p>				0.00

CONTINUATION SHEET

REFERENCE NO. OF DOCUMENT BEING CONTINUED
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NAME OF OFFEROR OR CONTRACTOR
RAYTHEON COMPANY

ITEM NO (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
0003	<p>The period of performance for Phase II (if exercised) shall be for 8 months from May 23, 2009 through January 22, 2010. Product/Service Code: AJ42</p> <p>Option 2 Phase III - Scenario Definition and Systems Analysis in the total cost-plus-fixed-fee ceiling price of \$897,962 as follows:</p> <p>Est. Cost - (b) (4) Fixed Fee - (b) (4)</p>				0.00
0004	<p>The period of performance for Option 2 (if exercised) shall be 8 months from January 23, 2010 through September 22, 2010. Product/Service Code: AJ42</p> <p>Option 3 Phase IV - Prepare Simulation Scenarios in the total cost-plus-fixed fee ceiling price of \$38,713 as follows:</p> <p>Est. Cost - (b) (4) Fixed Fee - (b) (4)</p>				0.00
0005	<p>The period of performance for Option 3 (if exercised) shall be for 1 month from September 23, 2010 to October 22, 2010. Product/Service Code: AJ42</p> <p>Option 4 Phase V - Conduct Proof of Concept Demonstrations in the total cost-plus-fixed-fee ceiling price of \$39,558 as follows:</p> <p>Est. Cost - (b) (4) Fixed Fee - (b) (4)</p> <p>The period of performance for Option 4 (if exercised) shall be for 1 month from October 23, 2010 through November 22, 2010. Product/Service Code: AJ42</p> <p>The total amount of award: \$574,860.00. The obligation for this award is shown in box 15G.</p>				0.00

SECTION B

SUPPLIES OR SERVICES AND PRICES/COSTS

This is a cost-plus-fixed-fee contract for Exploratory Research – Stand-Off Warning Against Radiological Materials (SWARM) in accordance with the terms and conditions of this contract in the total estimated cost-plus-fixed-fee price of \$2,916,317 incrementally funded in the amount of \$574,860 for Phase I – Systems Architecture, Cooperative and Sensor Fusion Algorithm Development, Data Collection, Background, Threat and Sensor Modeling as specified herein.

Each Contract Line Item Number (CLIN) is outlined as follows:

0001	I – Systems Architecture, Cooperative and Sensor Fusion Algorithm Development, Data Collection, Background, Threat and Sensor Modeling	Base	\$(b) (4)	\$(b) (4)	\$ 763,969
0002	II – Detailed City-Wide Simulation CONOPs, Dynamic Image Reconstruction, Additional Network Topologies	Option 1	\$(b) (4)	\$(b) (4)	\$ 1,176,115
0003	III – Scenario Definition and Systems Analysis Under Key Performance Constraints, Alternative Imaging Analysis	Option 2	\$(b) (4)	\$(b) (4)	\$ 897,962
0004	IV – Prepare Simulation Scenarios Per Customer Direction; Generate and Submit Test and Evaluation Plan	Option 3	\$(b) (4)	\$(b) (4)	\$ 38,713
0005	V – Conduct Proof of Concept Demonstrations	Option 4	\$(b) (4)	\$(b) (4)	\$ 39,558

Phases II, III, IV and V are options to be exercised at the government’s discretion as outlined herein in accordance with Section F.3.

Pricing for Phase I is based on the Statement of Work specified in Section J. Statements of work for subsequent Phases II, III, IV and V are estimates based on the Statements of Work in Section J. Work in subsequent phases is based on work completed in the prior phase, which may impact pricing in the subsequent phases.

SECTION C

DESCRIPTION/SPECIFICATION/WORK STATEMENT

J.1 – Statement of Work Phase I

J.1 – Statement of Work Phase II

J.1 – Statement of Work Phase III

J.1 – Statement of Work Phase IV

J.1 – Statement of Work Phase V

J.2 – Monthly Report Format

SECTION D

PACKAGING AND MARKING

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SECTION E

INSPECTION AND ACCEPTANCE

E.1 CONTRACT CLAUSES INCORPORATED BY REFERENCE

The following contract clauses are hereby incorporated by reference in accordance with the Federal Acquisition Regulation clause, 52.252-2 "CLAUSES INCORPORATED BY REFERENCE" in Section I of this contract. The contracting officer can provide a copy of the full text clause or electronic access can be obtained at www.acquisition.gov

<u>NUMBER</u>	<u>TITLE/DATE</u>
52.246-9	INSPECTION OF RESEARCH AND DEVELOPMENT (Short Form) (APR 1984)

E.2 INSPECTION AND ACCEPTANCE

The Contracting Officer Technical Representative (COTR) as identified in Section G of this contract is responsible for inspection and acceptance of all services/deliverables submitted under this contract.

E.3 ACCEPTANCE CRITERIA

Certification by the COTR of satisfactory services provided is contingent upon the contractor performing in accordance with the terms and conditions of the contract and all modifications.

Satisfactory completion of such services shall be documented by submission of a signed Certificate of Completion upon submittal of the Final Report, to be countersigned by COTR. The government shall have 30 days to provide comments for all deliverables. If the contractor does not receive any comments after 30 days the deliverable shall be considered complete. Upon receipt of comments, the contractor shall incorporate such comments and provide one iteration of the deliverable."

SECTION F

DELIVERIES OR PERFORMANCE

F.1 CLAUSES INCORPORATED BY REFERENCE

The following contract clauses are hereby incorporated by reference in accordance with the Federal Acquisition Regulation clause, 52.252-2 "CLAUSES INCORPORATED BY REFERENCE" in Section I of this contract. The contracting officer can provide a copy of the full text clause or electronic access can be obtained at www.acquisition.gov

<u>NUMBER</u>	<u>TITLE/DATE</u>
52.242-15	STOP-WORK ORDER (AUG 1989) ALTERNATE I (APR 1984)
52.247-34	FOB DESTINATION (NOV 1991)

F.2 PERIOD OF PERFORMANCE

The period of performance for this contract is for 8 months from September 22, 2008 through May 21, 2009. If exercised, the option periods are outlined as follows:

- Option 1 (8 months) – May 22, 2009 – January 21, 2010
- Option 2 (8 months) – January 22, 2010 – September 21, 2010
- Option 3 (1 month) – September 22, 2010 – October 21, 2010
- Option 4 (1 month) – October 22, 2010 – November 21, 2010

F.3 OPTION TO EXTEND THE TERM OF CONTRACT

(a) The Government may extend the term of this contract by written notice to the Contractor within 1 day provided that the Government gives the Contractor a preliminary written notice of its intent to extend at least 30 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 26; 2 years, 2 months.

F.4 PLACE OF PERFORMANCE

The primary place of performance for this contract shall be at the contractor's and any subcontractor's facilities.

F.5 DELIVERY ADDRESS

All deliverables shall be submitted electronically to the COTR/Program Manager identified in Section G.

F.6 DELIVERABLES

		Phase	Due	Format	Receipt
1	Monthly Report	All	Two weeks after the last day of each month	Government	COTR/PM, CO
2	Quarterly Performance Review (QPR) Brief	All	One week before QPR	Contractor	COTR/PM, CO
3	End-of-Phase Performance Briefing	All	One week before end of phase review	Contractor	COTR/PM, CO
4	Draft Phase End Report	All	One week before end of phase	Contractor	COTR/PM, CO
5	Final Phase End Report	All	Two weeks after end of phase	Contractor	COTR/PM, CO
6	Final Report	IV	End of program	Contractor	COTR/PM, CO
7	Technical Report	I-III	As needed	Contractor	COTR/PM, CO

This contract assumes the format of the FER, PDR, CDR, and TRR presentation will be mutually agreed upon between the government and contractor. Also, the contractor will submit the presentations to the government 10 days prior to the scheduled event date.

Payment will be made based on submission and acceptance of deliverables (see Section G for payment information).

SECTION G

CONTRACT ADMINISTRATION DATA

G.1 CONTRACTING OFFICER AUTHORITY

The contracting officer (CO) assigned to this contract has responsibility for ensuring the performance of all necessary actions for effective contracting; ensuring compliance with the terms and conditions of the contract and safeguarding the interests of the United States in its contractual relationships. The CO is the only individual authorized to enter, administer or terminate this contract and is the only person authorized to approve changes to any of the contract requirements.

The CO is identified as follows:

Wanda E. Moorman
Department of Homeland Security
Office of Procurement Operations/Domestic Nuclear Detection Office
245 Murray Lane, Bldg. 410
Mail Stop 7100
Washington, DC 20528
Telephone: (202) 254-7025
Email: wanda.moorman@dhs.gov

G.2 CONTRACTING OFFICER'S TECHNICAL REPRESENTATIVE (HSAR 3052.242-72) (DEC 2003)

- (a) The Contracting Officer may designate Government personnel to act as the Contracting Officer's Technical Representative (COTR) to perform functions under the contract such as review or inspection and acceptance of supplies, services, including construction, and other functions of a technical nature. The Contracting Officer will provide a written notice of such designation to the Contractor within five working days after contract award. The designation letter will set forth the authorities and limitations of the COTR under the contract.
- (b) The Contracting Officer cannot authorize the COTR or any other representative to sign documents, such as contracts, contract modifications, etc., that require the signature of the Contracting Officer.

The Program Manager and COTR is identified as follows:

Anu Bowman
Department of Homeland Security
Domestic Nuclear Detection Office
245 Murray Lane, Bldg. 410
Mail Stop 7100
Washington, DC 20528
Telephone: (202) 254-7608
Email: anu.bowman@dhs.gov

G.3 PAYMENT AND INVOICE INFORMATION

Payment shall be made for services accepted by the Government delivered to the destinations set forth in the contract. The Government will make payment in accordance with the Prompt Payment Act (31 U.S.C. 3903) and Office of Management and Budget (OMB) Circular A-125, Prompt Payment. The Government will make payment in accordance with the clause FAR 52-232-33, Payment By Electronic Funds Transfer -- Central Contractor Registration 9May 1999).

All invoices/vouchers shall contain the following information:

- Name and Address of Contractor/Signature and Name of point of contact
- Date and invoice number
- Contract number
- Contract Line Item Number (CLIN)), if applicable
- Quantity, unit price and extension of each CLIN
- Performance period (covered by the invoice)
- Interim payment period, payment for partial delivery, if applicable
- Prompt payment discounts
- Bank Account Number for Electronic Funds Transfer (EFT).

Invoices/Vouchers shall be submitted on a monthly basis for all work performed for the preceding month.

Upon inspection and written acceptance of the services described, the contractor shall be entitled to payment. Payment of each CLIN will be made upon representation of an acceptable voucher.

To receive timely payment, the Contractor shall follow the instructions provided above and submit to the following addresses:

MAILING ADDRESS:
Coast Guard Finance Center
DNDO Invoices
P.O. Box 4141
Chesapeake, VA 23327

ELECTRONIC ADDRESS:

FIN-SMB-DNDOInvoices@uscg.mil

Monthly Reports shall be submitted with electronic invoices

Payment will be made not later than the 30th calendar day after the designated paying office has received a proper invoice/voucher from the contractor.

SECTION H

SPECIAL CONTRACT REQUIREMENTS

H.1 CONFIDENTIALITY OF INFORMATION

- (a) To the extent that the work under this contract requires that the Contractor be given access to or be furnished with confidential or proprietary business, technical or financial information or data belonging to other entities which is clearly marked as confidential or proprietary, the Contractor shall, after receipt thereof, treat such information in confidence and agrees not to appropriate such information to its own use or to disclose such information to third parties unless specifically authorized in writing by the Contracting Officer. The foregoing obligations, however, shall not apply to and the contractor shall have no obligations under this contract to hold information in confidence which, although identified and disclosed as stated herein, has been or is developed by the contractor independently and without benefit of information disclosed hereunder; and:
- (1) Information or data which is in the public domain at the time of receipt by the contractor;
 - (2) Information or data which is published or otherwise subsequently becomes part of the public domain through no fault of the contractor;
 - (3) Information or data which the contractor can demonstrate was already in its possession at the time of receipt thereof ; or
 - (4) Information or data which the contractor can demonstrate was received by it from a third party who did not require the contractor to treat it in confidence.
- (b) The contractor agrees (1) to enter into an agreement, identical in all material respects to the requirements of paragraph (a) above, with each entity requesting such agreement and that is supplying such confidential or proprietary information or data to the contractor under this contract and (2) to supply a copy of such agreement to the Contracting Officer upon written request.
- (c) This clause shall be included in any subcontract under which there is a requirement or there becomes a requirement that the subcontractor be given access to or be furnished with confidential or proprietary business, technical or financial information or data.

H.2 ACCESS RESTRICTION

The contractor shall restrict access to those individuals with a valid need-to-know who are actually providing services under this contract. Further dissemination to other contractors, subcontractors or other Government agencies and private individuals or organizations is prohibited unless authorized in writing by the Contracting Officer's Technical Representative (COTR).

H.3 ADVERTISEMENTS, PUBLICIZING AWARDS, AND NEWS RELEASES

All press releases or announcements about agency programs, projects, and contract awards need to be cleared by the Program Office and the Contracting Officer. Under no circumstances shall the Contractor, or anyone acting on behalf of the Contractor, refer to the supplies, services, or equipment furnished pursuant to the provisions of this contract in any publicity news release or commercial advertising without first obtaining explicit written consent to do so from the Program Office and the Contracting Officer.

The Contractor agrees not to refer to awards in commercial advertising in such a manner as to state or imply that the product or service provided is endorsed or preferred by the Federal Government or is considered by the Government to be superior to other products or services.

H.4 APPLICABILITY OF E-VERIFY

The contractor shall register and participate in the Department of Homeland Security E-Verify program at <https://www.vis-dhs.com/employerregistration/>

H.5 TRAVEL COSTS

All travel costs for the contractor and subcontractors (as applicable) shall be reimbursed in accordance with the Federal Travel Regulations for lodging, meals and incidental expenses.

SECTION I
CONTRACT CLAUSES

I.1 CONTRACT CLAUSES INCORPORATED BY REFERENCE

The following contract clauses are incorporated by reference in accordance with the clause at FAR 52.252-2, CLAUSES INCORPORATED BY REFERENCE (Feb 1998) 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. However, the full text clauses may be accessed electronically at www.acquisition.gov

<u>NUMBER</u>	<u>TITLE</u>	<u>DATE</u>
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 ACITIVITY	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
52.204-7	CENTRAL CONTRACTOR REGISTRATION	APR 2008
52.209-6	PROTECTING THE GOVERNMENT'S INTEREST WHEN SUBCONTRACTING WITH CONTRACTORS DEBARRED, SUSPENDED OR PROPOSED FOR DEBARMENT	SEP 2006
52.215-8	ORDER OF PRECEDENCE—UNIFORM CONTRACT FORMAT	OCT 1997
52.215-14	INTEGRITY OF UNIT PRICE	OCT 1997
52.215-16	FACILITIES CAPITAL COST OF MONEY	JUN 2003
52.215-19	NOTIFICATION OF OWNERSHIP C HANGES	OCT 1997
52.215-21	REQUIREMENTS FOR COST OR PRICING DATA OR INFORMATION OTHER THAN COST OR PRICING DATA—MODIFICATIONS	OCT 1997
52.216-7	ALLOWABLE COST AND PAYMENT	DEC 2002
52.216-8	FIXED FEE	MAR 1997
52.217-8	OPTION TO EXTEND SERVICES	NOV 1999

<u>NUMBER</u>	<u>TITLE</u>	<u>DATE</u>
52.219-8	UTILIZATION OF SMALL BUSINESS CONCERNS	MAY 2004
52.219-9	SMALL BUSINESS SUBCONTRACTING PLAN	APR 2008
52.219-14	LIMITATIONS ON SUBCONTRACTING	DEC 1996
52.222-2	PAYMENT FOR OVERTIME PREMIUMS	JUL 1990
52.222-3	CONVICT LABOR	JUN 2003
52.222-21	PROHIBITION OF SEGREGATED FACILITIES	FEB 1999
52.222-26	EQUAL OPPORTUNITY	MAR 2007
52.222-35	EQUAL OPPORTUNITY FOR SPECIAL DISABLED VETERANS, VETERANS OF VIETNAM ERA, AND OTHER ELIGIBLE VETERANS	SEP 2006
52.222-36	AFFIRMATIVE ACTION FOR WORKERS WITH DISABILITIES	JUN 1998
52.222-37	EMPLOYMENT REPORTS ON SPECIAL DISABLED VETERANS, VETERANS OF THE VIETNAM ERA, AND OTHER ELIGIBLE VETERANS	SEP 2006
52.222-39	NOTIFICATION OF EMPLOYEE RIGHTS CONCERNING PAYMENT OF UNION DUES OR FEES	DEC 2004
52.222-38	COMPLIANCE WITH VETERANS' EMPLOYMENT REPORTING REQUIREMENTS	DEC 2001
52.223-6	DRUG-FREE WORKPLACE	MAY 2001
52.223-14	TOXIC CHEMICAL RELEASE REPORTING	AUG 2003
52.225-13	RESTRICTION ON CERTAIN FOREIGN PURCHASES	JUN 2008
52.227-1	AUTHORIZATION AND CONSENT-- ALTERNATE 1 (APR 1984)	DEC 2007
52.227-2	NOTICE AND ASSISTANCE REGARDING PATENT AND COPYRIGHT INFRINGEMENT	DEC 2007
52.227-11	PATENT RIGHTS-OWNERSHIP BY THE CONTRACTOR	DEC 2007
52.227-14	RIGHTS IN GENERAL--GENERAL	DEC 2007
52.228-7	INSURANCE - LIABILITY TO THIRD PERSONS	MAR 1996
52.232-17	INTEREST	JUNE 1996
52.232-18	AVAILABILITY OF FUNDS	APR 1984
52.232-20	LIMITATION OF COST	APR 1984
52.232-22	LIMITATION OF FUNDS	APR 1984
52.232-23	ASSIGNMENT OF CLAIMS	JAN 1986
52.232-25	PROMPT PAYMENT	OCT 2003
52.232-33	PAYMENT BY ELECTRONIC FUNDS TRANSFER - CENTRACT CONTRACT REGISTRATION	OCT 2003
52.232-35	DESIGNATION OF OFFICE FOR GOVERNMENT RECEIPT OF ELECTRONIC FUNDS TRANSFER INFORMAITON	MAY 1999
52.233-1	DISPUTES	JUL 2002

<u>NUMBER</u>	<u>TITLE</u>	<u>DATE</u>
52.233-2	SERVICE OF PROTEST	SEP 2006
52.233-3	PROTEST AFTER AWARD	AUG 1996
52.233-4	APPLICABLE LAW FOR BREACH OF CONTRACT CLAIM	OCT 2004
52.242-1	NOTICE OF INTENT TO DISALLOW COSTS	APR 1984
52.242-3	PENALTIES FOR UNALLOWABLE COSTS	MAY 2001
52.242-4	CERTIFICATION OF FINAL INDIRECT COSTS	JAN 1997
52.242-13	BANKRUPTCY	JUL 1995
52.243-2	CHANGES – COST-REIMBURSEMENT – ALTERNATE V (APR 1984)	AUG 1987
52.243-7	NOTIFICATION OF CHANGES	APR 1984
52.244-2	SUBCONTRACTS	JUN 2007
52.244-5	COMPETITION IN SUBCONTRACTING	DEC 1996
52.244-6	SUBCONTRACTS FOR COMMERCIAL ITEMS	MAR 2007
52.245-9	USE AND CHARGES	JUN 2007
52.246-25	LIMITATION OF LIABILITY – SERVICES	FEB 1997
52.247-34	F.O.B. DESTINATION	NOV 1991
52.247-67	SUBMISSION OF TRANSPORTATION DOCUMENTS FOR AUDIT	FEB 2006
52.249-6	TERMINATION FOR CONVENIENCE OF THE GOVERNMENT (COST-REIMBURSEMENT)	MAY 2004
52.249-14	EXCUSABLE DELAYS	APR 1984
52.251-1	GOVERNMENT SUPPLY SOURCES	APR 1984
52.253-1	COMPUTER GENERATED FORMS	JAN 1991

I.2 HSAR 3052.209- 70 PROHIBITION ON CONTRACTS WITH CORPORATE EXPATRIATES (JUN 2006)

(a) Prohibitions.

Section 835 of the Homeland Security Act, 6 U.S.C. 395, prohibits the Department of Homeland Security from entering into any contract with a foreign incorporated entity which is treated as an inverted domestic corporation as defined in this clause, or with any subsidiary of such an entity. The Secretary shall waive the prohibition with respect to any specific contract if the Secretary determines that the waiver is required in the interest of national security.

(b) Definitions. As used in this clause:

Expanded Affiliated Group means an affiliated group as defined in section 1504(a) of the Internal Revenue Code of 1986 (without regard to section 1504(b) of such Code), except

that section 1504 of such Code shall be applied by substituting 'more than 50 percent' for 'at least 80 percent' each place it appears.

Foreign Incorporated Entity means any entity which is, or but for subsection (b) of section 835 of the Homeland Security Act, 6 U.S.C. 395, would be, treated as a foreign corporation for purposes of the Internal Revenue Code of 1986.

Inverted Domestic Corporation. A foreign incorporated entity shall be treated as an inverted domestic corporation if, pursuant to a plan (or a series of related transactions)—

(1) The entity completes the direct or indirect acquisition of substantially all of the properties held directly or indirectly by a domestic corporation or substantially all of the properties constituting a trade or business of a domestic partnership;

(2) After the acquisition at least 80 percent of the stock (by vote or value) of the entity is held—

(i) In the case of an acquisition with respect to a domestic corporation, by former shareholders of the domestic corporation by reason of holding stock in the domestic corporation; or

(ii) In the case of an acquisition with respect to a domestic partnership, by former partners of the domestic partnership by reason of holding a capital or profits interest in the domestic partnership; and

(3) The expanded affiliated group which after the acquisition includes the entity does not have substantial business activities in the foreign country in which or under the law of which the entity is created or organized when compared to the total business activities of such expanded affiliated group.

Person, domestic, and foreign have the meanings given such terms by paragraphs (1), (4), and (5) of section 7701(a) of the Internal Revenue Code of 1986, respectively.

(c) Special rules. The following definitions and special rules shall apply when determining whether a foreign incorporated entity should be treated as an inverted domestic corporation.

(1) *Certain Stock Disregarded.* For the purpose of treating a foreign incorporated entity as an inverted domestic corporation these shall not be taken into account in determining ownership:

(i) Stock held by members of the expanded affiliated group which includes the foreign incorporated entity; or

(ii) stock of such entity which is sold in a public offering related to the acquisition described in subsection (b)(1) of Section 835 of the Homeland Security Act, 6 U.S.C. 395(b)(1).

(2) Plan Deemed In Certain Cases. If a foreign incorporated entity acquires directly or indirectly substantially all of the properties of a domestic corporation or partnership during the 4-year period beginning on the date which is 2 years before the ownership requirements of subsection (b)(2) are met, such actions shall be treated as pursuant to a plan.

(3) Certain Transfers Disregarded. The transfer of properties or liabilities (including by contribution or distribution) shall be disregarded if such transfers are part of a plan a principal purpose of which is to avoid the purposes of this section.

(d) Special Rule for Related Partnerships. For purposes of applying section 835(b) of the Homeland Security Act, 6 U.S.C. 395(b) to the acquisition of a domestic partnership, except as provided in regulations, all domestic partnerships which are under common control (within the meaning of section 482 of the Internal Revenue Code of 1986) shall be treated as a partnership.

(e) Treatment of Certain Rights.

(1) Certain rights shall be treated as stocks to the extent necessary to reflect the present value of all equitable interests incident to the transaction, as follows:

(i) warrants;

(ii) options;

(iii) contracts to acquire stock;

(iv) convertible debt instruments; and

(v) others similar interests.

(2) Rights labeled as stocks shall not be treated as stocks whenever it is deemed appropriate to do so to reflect the present value of the transaction or to disregard transactions whose recognition would defeat the purpose of Section 835.

(f) *Disclosure.* The offeror under this solicitation represents that [Check one]: ___ it is not a foreign incorporated entity that should be treated as an inverted domestic corporation pursuant to the criteria of (HSAR) 48 CFR 3009.104-70 through 3009.104-73;

___ it is a foreign incorporated entity that should be treated as an inverted domestic corporation pursuant to the criteria of (HSAR) 48 CFR 3009.104-70 through 3009.104-73, but it has submitted a request for waiver pursuant to 3009.104-74, which has not been denied; or

___ it is a foreign incorporated entity that should be treated as an inverted domestic corporation pursuant to the criteria of (HSAR) 48 CFR 3009.104-70 through 3009.104-73, but it plans to submit a request for waiver pursuant to 3009.104-74.

(g) A copy of the approved waiver, if a waiver has already been granted, or the waiver request, if a waiver has been applied for, shall be attached to the bid or proposal.

(End of provision)

I.3 3052.219-70 SMALL BUSINESS SUBCONTRACTING PLAN REPORTING (JUN 2006)

(a) The Contractor shall enter the information for the Subcontracting Report for Individual Contracts (formally the Standard Form 294 (SF 294)) and the Summary Subcontract Report (formally the Standard Form 295 (SF-295)) into the Electronic Subcontracting Reporting System (eSRS) at www.esrs.gov .

(b) The Contractor shall include this clause in all subcontracts that include the clause at (FAR) 48 CFR 52.2 19-9.

(End of clause)

I.4 3052.242-71 DISSEMINATION OF CONTRACT INFORMATION (DEC 2003)

The Contractor shall not publish, permit to be published, or distribute for public consumption, any information, oral or written, concerning the results or conclusions made pursuant to the performance of this contract, without the prior written consent of the Contracting Officer. An electronic or printed copy of any material proposed to be published or distributed shall be submitted to the Contracting Officer.

(End of clause)

I.5 3052.242-72 CONTRACTING OFFICER'S TECHNICAL REPRESENTATIVE (DEC 2003)

(a) The Contracting Officer may designate Government personnel to act as the Contracting Officer's Technical Representative (COTR) to perform functions under the contract such as review or inspection and acceptance of supplies, services, including construction, and other functions of a technical nature. The Contracting Officer will provide a written notice of such designation to the Contractor within five working days after contract award or for construction, not less than five working days prior to giving the contractor the notice to proceed. The designation letter will set forth the authorities and limitations of the COTR under the contract.

(b) The Contracting Officer cannot authorize the COTR or any other representative to sign documents, such as contracts, contract modifications, etc., that require the signature of the Contracting Officer.

(End of clause)

SECTION J

LIST OF ATTACHMENTS

J.1 – Statement of Work Phase II

J.1 – Statement of Work (Phase II)*

J.1 – Statement of Work (Phase III)*

J.1 – Statement of Work (Phase IV)*

J.1 – Statement of Work (Phase V) *

J.2 – Monthly Progress Report Format

*Statement of Work is subject to change based on work in prior phase.

PROGRAM STATEMENT OF WORK

1.1 SOW – Phase I

Task	WBS	Task Description
1	111	<p>Technical and Program Management (RTN) • Provide overall program direction to the team, including Raytheon, Los Alamos National Laboratory (LANL), ORTEC, MIT, and BU. • Manage cost and schedule and collect appropriate metrics. • Prepare for and conduct Quarterly Program Reviews (QPR). • Prepare for and conduct end of phase review. • Prepare for and conduct internal monthly Tracking Book Reviews. • Manage required submittals (monthly technical progress reports, quarterly review briefing materials and review minutes, end of phase report) • Provide configuration control and management for software & other documentation Deliverables: Monthly technical progress reports, quarterly review briefing materials and review minutes, end of phase report</p>
2	112	<p>Sensor Optimality & Behavior (RTN) • Develop Concept of Operations (CONOPS) for distributed sensor network • Define sensor deployment strategy • Develop approaches to sensor deployment, search and queuing including mathematical formalism and appropriate algorithms, and provide support to software implementation. • Develop approaches to sensor data fusion including mathematical formalism and appropriate algorithms, and provide support to software implementation. Deliverables: Search and queue algorithm description document, data fusion algorithm description document</p>
3	113	<p>Threat, Sensor, and Background Environment Modeling (RTN, LANL, ORTEC) • Provide technical oversight of subcontractors (LANL, ORTEC) RTN • Develop and provide algorithms and models for potential radiological threats, prospective sensors (e.g. PVT, NaI, HpGe), and background radiation (Los Alamos National Laboratory, LANL, ORTEC). This includes: Develop understanding of the threat radiation source through</p>

Use or disclosure of proposal data is subject to the restriction on the transmittal letter of this proposal.

		<p>analysis, simulation, and measurement Develop appropriate mathematical models to represent the threat source and its propagation in space parameterized to account for environmental and physical characteristics Develop understanding of characteristic background radiation for urban environments through analysis of measured data and related environmental characteristics Develop appropriate models to express background signal levels for a simulated urban environment - Develop understanding of detection and performance characteristics of prospective radiation sensors to be utilized in this study (e.g. PVT, NaI, HpGe) Develop appropriate mathematical models to express detector response as a function of external radiation environment and Signal to Noise Ratio (SNR) Support software implementation of threat, background, and sensor models Deliverables: Threat sensor and background model description document</p>
<p>4</p>	<p>114</p>	<p>Software Architecture and Simulation Environment (RTN) • (b) (4) (b) (4) integrate all software models, and configure the environment to instantiate the various scenarios for analysis and demonstration Develop Software Architecture Design Document • Design, code and unit test Initial Sensor Data Fusion Services, Sensor Event & Response Services, Sensor Resource Management Services, Control & Monitoring Display, Situational Display, and Sensor Adaptor Services Initial Threat Physics Models, Sensor Physics Models, and Background Radiation Model Deliverables: Software Architecture Design Document</p>

1.2 SOW – Phase II

1	121	<ul style="list-style-type: none">• Technical and Program Management (RTN) Provide overall program direction to the team, including Raytheon, Los Alamos National Laboratory (LANL), ORTEC, MIT, and BU Manage cost and schedule and collect appropriate metrics Prepare for and conduct end of phase review (PDR) Prepare for and conduct Quarterly Program Reviews (QPR)• Prepare for and conduct internal monthly Tracking Book Reviews. • Manage required submittals (monthly technical progress reports, quarterly review briefing materials and review minutes, end of phase report) • Provide configuration control and management for software & other documentation Deliverables: Monthly technical progress reports, quarterly review briefing materials and review minutes, end of phase report
2	122	Sensor Optimality & Behavior (RTN) • Enhance the search and queue algorithm, and data fusion algorithms, developed in Phase I, to demonstrate the multisensor distributed detection approach and the improvement in Probability of Detection, minimization in search time. Deliverables: Search and queue algorithm description document, data fusion algorithm description document
3	123	Background Radiation Models & Network Data Architecture (LANL, ORTEC) • Conduct tradeoff studies for a physical sensor network implementation Create a componentized and reconfigurable data acquisition and analysis architecture for generalized and specific sensor suites and detection scenarios - Investigate/integrate support sensors (magnetometers, etc) to assist in radiation detection analysis. Investigate lossless combination of data to minimize transmissions. Test the above in simulation. Begin migration into hardware (device drivers, etc.) • Update as required models for background radiation Deliverables: Threat sensor and background model description document

4	124	<p>Software Architecture and Simulation Environment (RTN) • (b) (4) (b) (4) • Refine/update Sensor Data Fusion Services, Sensor Event & Response Services, Sensor Resource Management Services, Control & Monitoring Display, Situational Display, and Sensor Adaptor Services Design Update as required Threat Physics Models, Sensor Physics Models, and Background Radiation Model Design</p>
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		Deliverables: Software Architecture Design Document
5	126	<p>Network Trade Studies (RTN) Conduct trade studies analyzing different networking methods and hardware that would be used for intersensor communications and communications between the sensor and central processor. Deliverables: Network Trade Study Review document</p>
6	128	<p>Investigate Dynamic Image Reconstruction (RTN, (b) (4)) (b) (4) incorporating the results of various sensors to arrive at a unified image, providing improved Probability of Detection and Range resolution. Deliverables: Technical assessment report</p>

1.3 SOW – Phase III

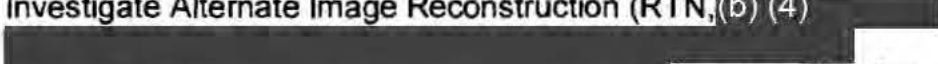

Task	WBS	Task Description
1	131	<p>Technical and Program Management (RTN) • Provide overall program direction to the team, including Raytheon, Los Alamos National Laboratory (LANL), ORTEC, MIT, and BU. • Manage cost and schedule and collect appropriate metrics. • Prepare for and conduct Quarterly Program Reviews (QPR). • Prepare for and conduct end of phase review (CDR) • Prepare for and conduct internal monthly Tracking Book Reviews. • Manage required submittals (monthly technical progress reports, quarterly review briefing materials and review minutes, end of phase report) • Provide configuration control and management for software & other documentation Deliverables: Monthly technical progress reports, quarterly review briefing materials and review minutes, end of phase report</p>

2	132	Sensor Optimality & Behavior (RTN) • Continue to enhance the search and queue algorithm and data fusion algorithms developed in Phases I and II, to demonstrate the multisensor distributed detection approach and the improvement in Probability of Detection, minimization in search time. Deliverables: Search and queue algorithm description document, data
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		fusion algorithm description document
3	133	SWARM Network & Simulation Support (LANL) • Support the development of a critical SWARM design, culminating in a critical design review (CDR). Tasks to include: Finalization and maintenance of simulation and modeling system Modeling and simulation in support of transition to proof of concept physical demonstration Further develop analysis algorithms and CONOPS as required Provide support for conversion and integration of algorithms into operational code and subsequent software testing Deliverables: Data set and algorithm description document

4	134	Software Architecture and Simulation Environment (RTN) • (b) (4)  Software Architecture Design Document
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5	136	Network Trade Studies (RTN) • Conduct trade studies analyzing different networking methods and hardware that would be used for intersensor communications and communications between the sensor and central processor. Deliverables: Network Trade Study Review document
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6	138	Investigate Alternate Image Reconstruction (RTN),(b) (4)   incorporating the results of various sensors to arrive at a unified image, providing improved Probability of Detection and Range resolution Deliverables: Technical assessment report
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1.4 SOW Phase IV

Task	WBS	Task Description
1	141	<p>Technical and Program Management (RTN) • Provide overall program direction to the team, including Raytheon, Los Alamos National Laboratory (LANL), ORTEC, MIT, and BU. • Manage cost and schedule and collect appropriate metrics. • Prepare for and conduct Quarterly Program Reviews (QPR). • Prepare for and conduct end of phase review (CDR) • Prepare for and conduct internal monthly Tracking Book Reviews. • Manage required submittals (monthly technical progress reports, quarterly review briefing materials and review minutes, end of phase report) • Provide configuration control and management for software & other documentation Deliverables: Monthly technical progress reports, quarterly review briefing materials and review minutes, end of phase report</p>
2	142	<p>Test & Evaluation Plan (RTN) • Prepare simulation scenarios per customer direction; generate and submit test and evaluation plan Deliverables: Test and evaluation plan</p>

1.5 SOW Phase V

Task	WBS	Task Description
1	151	<p>Technical and Program Management (RTN) • Provide overall program direction to the team, including Raytheon, Los Alamos National Laboratory (LANL), ORTEC, MIT, and BU. • Manage cost and schedule and collect appropriate metrics. • Prepare for and conduct Quarterly Program Reviews (QPR). • Prepare for and conduct end of phase review (CDR) • Prepare for and conduct internal monthly Tracking Book Reviews. • Manage required submittals (monthly technical progress reports, quarterly review briefing materials and review minutes, end of phase report) • Provide configuration control and management for software & other documentation Deliverables: Monthly technical progress reports, quarterly review briefing materials and review minutes, end of phase report</p>

2	152	<p style="text-align: center;">Proof of Concept Demonstration (RTN)</p> <ul style="list-style-type: none">• Conduct proof of concept demonstrations Realistic urban environment(s) Various threats Demonstrate benefits of cooperative sensor behavior <p>Deliverables: Final Report</p>

Monthly Progress Report #*(Insert)*
Insert FOUO or other restrictions as needed.

Project Title

Solicitation Number / Name
DNDO Program Manager: (Insert PM name)

Contract: *(Insert Contract #)*
CDRL: *(Insert CDRL #)*

Monthly Progress Report *(Insert #)*
Issued: *Month, day, year*
Covering the Period: *Month, Day, Year* through *Month, Day, Year*
(Financial information through *Month, Day, Year*)

Prepared by: *Name, Title*
Company, Laboratory, or Institution Name
Address Line 1
Address Line 2
Place, State Zip
Email Address

Monthly Progress Report #*(Insert)*
Insert FOUO or other restrictions as needed.

1. Program Overview

Provide a one to two paragraph overview of the project.

[Most of this section will not change from month to month.]

2. Progress Since Last Report and Status

Provide several paragraphs providing a summary review of the project progress, compared to the last reporting period. This should include all planned activities discussed in section ‘Planned Activities for Next Period’ of the previous month; planned activities that did not occur should be explained.

In the table below, indicate if significant progress was made or technical difficulties were encountered in any areas during the report period. Include for each row (Task):

- Task numbers and brief description as delineated in the SOW/WBS. Sub-Task numbering and reporting is encouraged when extra detail is required.
- Progress and accomplishments since last report against program SOW/WBS milestones/deliverables.
- Last month color code status (see below) and the number of months (mo) or weeks (wks) behind or ahead of the original target completion date.
- Current month color status and the number of months (mo) or weeks (wks) behind or ahead of the original target completion date.

[Use additional space after the table for a more detailed explanation of progress, accomplishments, and the status and difficulties encountered in reporting period. Changes in status should be explained in sufficient detail for the DNDO PM to understand the rationale.]

Tasks		Progress/ Accomplishments	Last Report Status	Current Report Status
1.0		
2.0	Brief description of task objective	We have made a lot of progress in performing measurements with the bench top apparatus ###, but still have difficulty in acquiring the needed materials – see below.		
3.0		
4.0	Task overview			

Monthly Progress Report #(Insert)
 Insert FOUO or other restrictions as needed.

4.1	Sub task ...		
4.2	Sub task ...		
5.0			

Status color code definitions: ■ = Task completion at risk, Y = Milestones/Deliverables at risk, ■ = Task proceeding as planned, ■ = Task Completed.

Progress Details:

Task N: This is a more detailed explanation of the task progress to properly inform the DNDO PM of anticipated hang-ups or accomplishments.

3. Key Issues: Technical, Budget, and Schedule

Update the table below with any key technical, budget and schedule issues. NOTE any changes from last report.

[Use additional space after the table for more detailed explanations of issues and responses. Changes in status should be explained in sufficient detail for the DNDO PM to understand the rationale.]

Issues		Response	T/B/S	Impact
1	<i>Example: Vendor had delay in obtaining starting materials</i>	<i>CLOSED - Materials received and schedule has adequate contingency</i>		<i>Issue resolved without impact on 6/10/06</i>
2	<i>Work in characterization lab delayed due to water leak</i>	<i>OPEN - Repairs in progress, minimal impact</i>	<i>T,S</i>	<i>1 week delay in results. Contingency adequate</i>
3	<i>Lead engineer retiring</i>	<i>OPEN - Posting out, temp. help available</i>		<i>Milestone 5 delayed by 1 months</i>

Impact type: T/B/S means Technical, Budget and/or Schedule;
Severity Color Code: ■=Project likely at risk, Y= Milestones/Deliverables likely at risk,
■=Milestones/Deliverables slightly at risk, ■=Issue resolved.

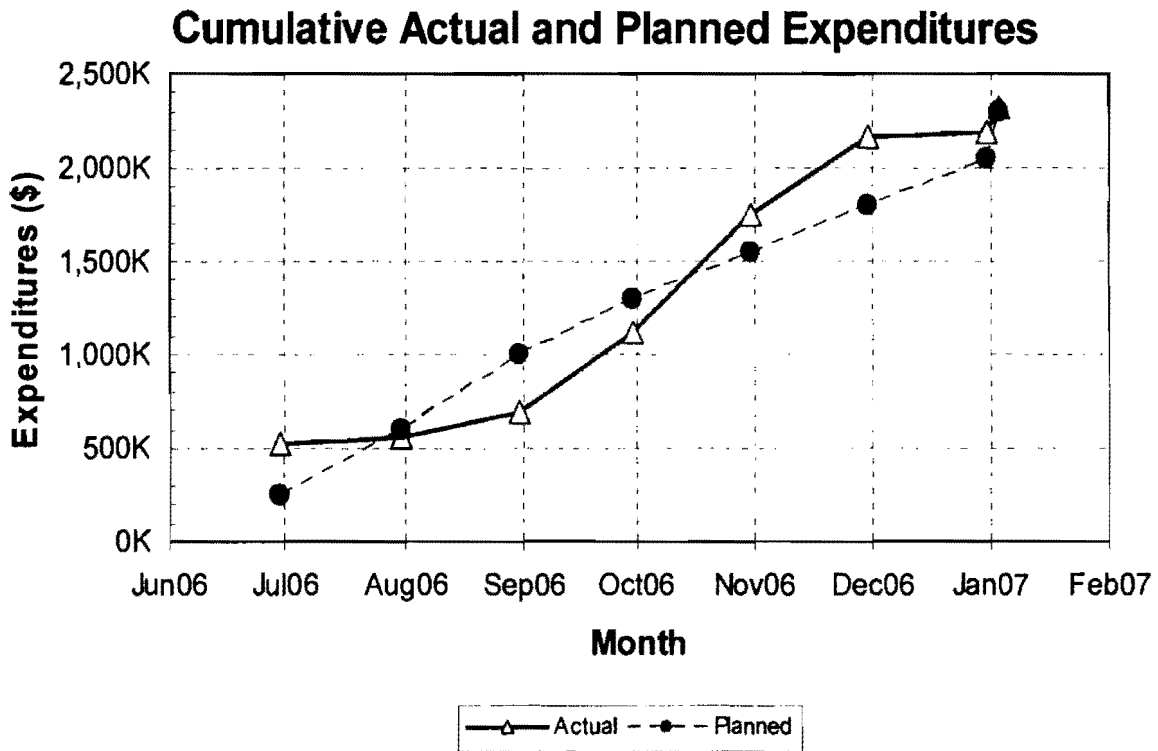
Key Issue Details:

Issue 1: ...

Issue 2: ...

4. Cumulative Funding Profile*

Provide a chart with cumulative actual expenses versus planned (budgeted) expenses over the entire period of performance. Use the chart template shown below. To edit this graph in Excel, double click on it. Explain variances of more than 25% per month, whether positive or negative.



(*Planned as of June, 2006)

5. Funding Summary- Actual Costs

Labor, Material and Supplies (M&S), Travel, Subcontractors and Consultants (Subs), and Other are fully burdened costs. Provide an explanation of costs not yet posted (e.g., commitments). Provide a description of M&S and Other costs above \$25K.

Table 1. Cost Breakdown in Thousands of Dollars by Task and Phase as of (date)

Task	Labor	M&S	Travel	Subs	Other	Monthly Total	Cumulative Total	Plan Total	%
1									
2									
.									
.									
.									
N									
Monthly Total									
Cumulative Total									
Plan Total									

Monthly Travel	
Trip Destination & Dates	Purpose of Trip

6. Planned Activities for Next Month

Provide a detailed list of activities by Task that are planned for the following month.

[Use additional space after the table for more detailed explanations of planned activities, if needed.]

Tasks	Planned Activities
1	Brief description of task
2	
.	

.		
.		
N		

7. Contract Schedule Status

Provide copy of Gantt chart with the all tasks and key milestones and current projected adjustments to meet future deliverables.

8. Organizational Status

Provide relevant information on organizational status including, but not limited to, personnel changes, management changes, safety or security issues etc.

9. Additional Information

Provide any additional information worth sharing: new modeling/measurement/analysis results, photos, graphs, tables, etc. This section should be used to highlight important achievements of the period.