ORDER FOR SUPPLIES OR SERVICES

1. DATE OF ORDER
   09/27/2010

2. CONTRACT NO. (If applicable)
   HSHQDC-10-D-00003

3. ORDER NO.
   HSHQDC-10-J-00455

4. REQUISITION/REFERENCE NO.
   ROHA-10-00182

5. ISSUING OFFICE (Address correspondence to)
   U.S. Dept. of Homeland Security
   Office of Procurement Operations
   OHA Acquisition Division
   245 Murray Lane, SW
   Building 410
   Washington DC 20528

6. SHIP TO:
   Department of Homeland Security

7. TO:
   NORTHROP GRUMMAN SECURITY SYSTEMS LLC
   1580 B WEST NURSERY RD

8. CITY
   LINTHICUM HEIGHTS
   MD 210900000

9. STREET ADDRESS
   245 Murray Lane
   Bldg. 410
   Washington DC 20528

10. CITY
    Washington
    DC 20528

11. STREET ADDRESS
    245 Murray Lane
    Bldg. 410
    Washington DC 20528

12. COUNTRY
    United States

13. ZIP CODE
    20528

14. ACCOUNTING AND APPROPRIATION DATA
    See Schedule

15. GOVERNMENT BY.
    U.S. Dept. Of Homeland Security

16. F.O.B. POINT
    DESTINATION

17. SCHEDULE (See reverse for Rejections)

   ITEM NO.
   QUANTITY ORDERED
   SUPPLIES OR SERVICES
   ITEM PRICE
   AMOUNT
   QUANTITY ACCEPTED

   1. DNS Number: 104638205+0000
      Component: WMD & Biodefense
      FPA: BioWatch
      Program: Generation 3
      Activity: Phase I Gen-3 Testing
      Performer: NORTHROP GRUMMAN SECURITY
      Continued...

   18. SHIPPING POINT
   19. GROSS SHIPPING WEIGHT
   20. INVOICE NO.
   21. MAIL INVOICE TO:
    Department of Homeland Security
    Burlington Finance Center
    P.O. Box 1000
    Attn: Office of Health Affairs
    OHA.Invoice.Consolidation@dhs.gov

   22. UNITED STATES OF AMERICA BY (Signature)

   23. NAME (Typed)
    Christopher Wallis
    TITLE CONTRACTING/ORDERING OFFICER

IMPORTANT: Mark all packages and papers with contract and/or order numbers.

OPTIONAL FORM 467 (date 10/2008)

AUTHORIZED FOR LOCAL REPRODUCTION
PREVIOUS EDITION NOT USBABLE
This is Task Order 2 for the procurement of twelve (12) ready-to-test detection systems and associated test and support services issued against Contract No. HSHQDC-10-D-00003 under the Base Year Ordering Period (11/12/2009-11/11/2010) for the Department of Homeland Security, Office of Health Affairs BioWatch Gen-3 (Phase 1) Operational Field Testing in accordance with Section C and the Contractor's attached Performance Work Statement (18 pages) at the total estimated value* of $9,923,271 as follows:

- Estimated Cost: [5](4)
- Fixed Fee: [6](4)

(*Total estimated value if optional CLINS 0001A and 0001B are exercised.)

This Task Order is issued on a cost-plus-fixed-fee basis and is pursuant to the terms and conditions of Contract No. HSHQDC-10-D-00003, and the following FAR Clauses, which are hereby incorporated by reference:

52.246-3 Inspection of Supplies: Cost-Reimbursement
52.232-22 Limitation of Funds
3052.231-70 Precontract costs (DEC 2003)

The Contractor shall be entitled to reimbursement for pre-contract costs incurred on or after 21 September 2010 in an amount not to exceed [5](4) that, if incurred after this contract had been entered into, would have been reimbursable under this contract *per the terms of the precontract cost letter dated 21 September 2010*.

(End of clause)

Continued...
The Period of Performance for this Task Order is September 27, 2010 - September 26, 2011.

Accepted: (b) (6) 9/27/10

DO/DPAS Rating: NONE
Admin Office:
U.S. Dept. of Homeland Security
Office of Procurement Operations
OHA Acquisition Division
245 Murray Lane, SW
Building 410
Washington DC 20528
Period of Performance: 09/27/2010 to 09/26/2011

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<th>ITEM NO.</th>
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<td></td>
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<td>(c)</td>
<td>(e)</td>
<td>(f)</td>
<td>(g)</td>
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CLIN 0001 is incrementally funded at the time of award in the amount of $8,264,125.

Total Line Item Value (b) (4)

Accounting Info:
WMD0010-000-HN-13-50-02-000-05-00-0000
00-00-00-00-CE-CE-25-76-000000
Funded: $7,479,966.00
Accounting Info:
WMD0010-000-R0-13-50-02-000-05-00-0000
Continued ...
**ORDER FOR SUPPLIES OR SERVICES**

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**DATE OF ORDER**: 09/27/2010  
**CONTRACT NO.**: HSHQDC-10-D-00003  
**ORDER NO.**: HSHQDC-10-J-00455

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The total amount of award: $9,923,271.00.  
The obligation for this award is shown in box 17(i).
Performance Work Statement – Task Order 2

1 Objectives and Goals

Under the Phase I Systems Performance Demonstration (SPD) contract, the Contractor will provide Next-Gen Automated Detection Systems (NG-ADS) and all technical and operational support to enable the Government to test in an operationally relevant field environment in Task Order 2 to determine the adequacy of the NG-ADS for future procurement and deployment. The Government may also issue additional task orders for engineering enhancements to correct and validate issues identified during testing activities described below.

The objective of this effort is to demonstrate that the NG-ADS:
• Conforms to the Gen-3 performance specification,
• Has a system performance with associated technologies that meet a minimum Technology Readiness Level (TRL) of 7, and
• Contains acceptable assays and uses reagents produced with adequate quality control procedures.

In support of these objectives, the Contractor shall provide ready-to-test NG-ADS units and the full range of support to include consumables, data management, operations and maintenance (O&M) support, and technical personnel to support the test activities described below. In particular, the Contractor shall:
• Manufacture and deliver ready-to-test NG-ADS units required for all testing. The NG-ADS units’ configuration will be baselined at the Task Order 1 configuration, unless otherwise approved by DHS, and remain under configuration control by the Contractor. All NG-ADS units will be of the same configuration and from the same assembly line. The number of spares required to support the testing activities is shown in Attachment 1 – List of Spare Parts.
  (b) (4)

• Operate NG-ADS units in support of the tests, including replenishment of consumables and maintenance of the systems when necessary (unless noted otherwise).
• Establish a capability within the independent testing organization and operational test jurisdiction (specifically BioWatch Lab personnel and BioWatch Action Committee) to receive, interpret, and monitor the NG-ADS test results to evaluate the performance of the equipment.
• Collect data and provide reports (Reliability, Availability, Maintainability and Testability (RAM-T) and IT performance data.
• Provide engineering and configuration support.
• Ensure intellectual property and licensing rights are obtained, as appropriate, for commercial-off-the-shelf (COTS) products to allow DHS to operate the NG-ADS units during this Task Order.

1.1 Program Plan

The Contractor has developed a program schedule that meets DHS’ Milestone...
requirements and schedule objectives (Attachment 2).

The Contractor shall meet the Task Order 2 technical Milestones as follows:

- Milestone #3 – Successful completion of the Field Testing activities under Task Order 2 within the scheduled time frame.

1.2 Task Order 2

In support of the Task Order 2 field testing activities, the Contractor will provide twelve (12) ready-to-test NG-ADS units plus spares, which will be placed in field test, reliability, availability, maintainability, and testability (RAM-T) testing, and IT verification and validation. The Contractor will be responsible for providing equipment and technical support, including the O&M of the NG-ADS units during the course of the field test. This support will include supplying/replenishing all consumables, providing any required preventative maintenance, and corrective maintenance (fixing the system) should it break down during the course of the testing.

Tight configuration control will be used to ensure that all units will be of the same configuration for this testing. All the NG-ADS units will be manufactured on the same assembly line.

The Contractor will support the Task Order 2 efforts as described below. This will include providing the necessary NG-ADS units for each test, consumables, spare parts, training, test support, and maintenance support.

1.2.1 Resources

The Contractor shall provide the necessary consumables and other supplies necessary to support the Task Order 2 testing. The Contractor will also setup the necessary equipment, spares, and consumables during field testing. Since all testing will take place in Government designated field sites, the Contractor’s support will be focused on providing the necessary NG-ADS units, spares, consumables, and personnel to conduct each test. The NG-ADS units will be prepared for the testing in the facility and the spare parts and consumables necessary to support the testing will also be stored and shipped from this facility.

1.2.2 Task Order 2 Subtasks

1.2.2.1 Task Order 2 Equipment Procurement and Fabrication

In preparation for Task Order 2 field testing, the Contractor will provide all necessary NG-ADS units, reagents, spare parts, tools, associated information technology, and support plans. This preparation will include the ordering of all material for the fabrication and checkout of the NG-ADS units, all reagents and consumables required to operate the units, and all spares and other support equipment required, including the use and maintenance of the depot facility. The Contractor will also establish a depot facility to support the installation, baseline calibration, operational field testing, RAM-T testing, and IT verification and validation.
(b) (4)

The Contractor will procure all material and fabricate twelve (12) NG-ADS units plus spares (same configuration as described for Task Order 1) to support Task Order 2 field test activities. All NG-ADS units delivered for testing under the Phase I SPD contract will be manufactured on the same assembly line.

The Contractor will maintain supplies, consumables, and personnel adequate to keep the NG-ADS units operational 24/7 during Operational Environment Field Testing (not including down-time for maintenance, calibration, etc.) and to assist in providing failure analysis data as part of the field test. The Contractor will implement a Failure Reporting, Analysis and Corrective Actions System (FRACAS) to facilitate the capture of failure data during Baseline Calibration and the Operational Environment Field Testing. Failure analysis data will identify all observed problems by test unit / instrument, the sub-system at fault, the total time the system / sub-system was down and the required corrective maintenance action needed to repair the problem and restore the system /subsystem. The categories for subsystem at fault and associated subsystems will be agreed to prior to the start of testing. If the FRACAS data is maintained in a proprietary format, the FRACAS application must be provided, or the data must be converted to a common useable format such as Microsoft Excel.

The Contractor will procure all consumables required for testing activities performed under Task Order 2. The Contractor’s plan for quality control of the reagents is described in the Quality Assurance Surveillance Plan (QASP) contained in Volume II—Management Proposal.

The Contractor will provide all spare components that are necessary to support Task Order 2 activities. The assessment of spare parts required to support Task Order 2 is provided in Attachment 1.

(b) (4)
copy of a maintenance and operator manual(s) (draft or preliminary version acceptable) not later than 30 days before the start of Operational Environment Field Testing.

1.2.2.3 Detector Baseline Calibration for Field Test Start

After delivery of the twelve (12) NG-ADS units to the jurisdiction for Field Testing, the Contractor will be given not less than one (1) month to install, set-up and baseline the units at the operational testing sites identified by DHS. At the end of the set up/baseline period, a Test Readiness Review period lasting not longer than 1 week will occur. The Field Test will commence immediately following the review period. The NG-ADS units will continue to operate and be supported during the review period. Each NG-ADS will be co-located with other competitive autonomous biodetectors and a sponsor in both indoor and outdoor test environments. The Government will identify the site(s) two (2) months prior to unit delivery (a preliminary list of site(s) will be provided within 2 weeks after receipt of order), provide site prep prior to unit delivery (in accordance with the Contractor’s specifications), provide jurisdiction coordination, and will provide security for the NG-ADS during the duration of the test. The Contractor will be responsible for the security of the NG-ADS enclosure (i.e., locked door to access interior of system). The jurisdiction depot will be used during the installation and baseline testing.

The detector baseline calibration will begin four (4) months after receipt of order and will last up to one (1) month in duration. As part of the installation, the contractor will provide Material Safety Data Sheets (MSDS), as necessary, for common consumable items used by their biodetection systems for each consumable subject to spilling (i.e., each liquid), as well as any other common items which may generate disposal/environmental concern, such as batteries.

Detector Baseline Calibration and Review Period Support Details:

- (b)(4)
- (b)(4)
- The Government will operate a TOC that will provide personnel 24/7 for timely site access coordination and escort, observation, and data collection. Unless otherwise required by the site manager, a Government escort will not be required to access the site whenever required by the Contractor.
- All system maintenance will be performed by the Contractor. DHS and other parties will not attempt maintenance on the units without NGSS involvement.

The Contractor will provide site visit log information to DHS on a weekly basis during Baseline Calibration in an electronic format, which will capture the site arrival and departure times, Contractor personnel visiting site, and site visit activity.

1.2.2.4 Operational Environment Field Testing

The Contractor will support the operations and maintenance of the twelve (12) ready-to-test NG-ADS units in support of the Government’s test objectives. The NG-ADS units will
be split between indoor and outdoor locations based upon a deployment plan that will be developed by the Government.

The Contractor will provide test labor for operational environment field testing of twelve (12) instruments in the jurisdiction beginning within one (1) week of the completion of Baseline Calibration for up to ten (10) continuous weeks. This includes weekly Preventive Maintenance (PM) and as-needed Corrective Maintenance (CM).

Operational Environment Field Maintenance Support Details:

- (b) (4)

- The Government will operate a TOC that will provide personnel 24/7 for timely site access coordination and escort, observation, and data collection.
- All system maintenance will be performed by the Contractor. DHS and other parties will not attempt maintenance on the units without NGSS involvement.
- (b) (4)

At the conclusion of the field test there will be a post-test recovery period of approximately two (2) weeks at which time the contractor will de-install, clean, remove, transport, and unload the twelve (12) biodefector units at a storage facility within the vicinity of (b) (4) as designated by the Government, and restore the site to the condition which it was in when installation started, except for modifications made by DHS or at DHS’ direction as part of site prep. The Contractor will remove all equipment and materials originally provided by the Contractor, observing all applicable safety and hazardous materials management regulations and good operating practices.

The Contractor will provide site visit log information to DHS on a weekly basis during the post-test period in an electronic format, which will capture the site arrival and departure times, Contractor personnel visiting site, and site visit activity.

1.2.2.5 RAM-T Data Collection

The goal of the RAM-T Data Collection effort is to gather RAM-T data on the NG-ADS in an applicable operational environment. This effort will be conducted in applicable operational environments (i.e., indoor environment, outdoor environment) to evaluate and validate overall supportability of the system.
1.2.2.6 IT Signal Processing V&V and Report Generation

The goal of this activity is to conduct verification and validation on the proposed information technology (IT) system and gather data from the system to support independent Verification and Validation (V&V) of signal processing and report generation functions. The Contractor will provide equipment for signal receipt to up to eight (8) local public health and DHS personnel for this task (same personnel as identified and trained per paragraph 1.2.2.2). This equipment will include software used to monitor system test results.

The Contractor will provide DHS with information regarding how the IT system functions in order to establish a baseline of its current implementation. The Contractor will collaborate with DHS to develop the procedures that will be used by DHS to capture and validate the data generated by the system. Agreed-upon test data/reports will be generated in accordance with these procedures during the last two (2) weeks of Baseline Calibration and during the Operational Environment Field Testing. The Contractor will also participate with DHS in the selection of appropriate standards and conventions that will be applied to the V&V activities. Any findings or discrepancies between these agreed-upon standards and conventions and the existing IT system implementation will be documented and addressed in later phases of the program as appropriate.

1.2.2.7 Field Test Extension Options

Prior to the start of field testing, the Government may exercise an option(s) to extend field testing beyond the initial ten (10) weeks for 30 to 60 days. These optional efforts shall be exercised before, or during, the 1-month Baseline Calibration effort of Section 1.2.2.3 of this PWS. The option(s) will be exercised via a funded modification to this Task Order.

If the field test is extended, the contractor shall provide the same level of base support as provided in the initial 10 weeks for Option 1 (a 30-day extension) and Option 2 (a 2nd 30-day extension). The contractor shall provide all consumables and technical support required to repair, maintain and operate the twelve (12) biodetector units 24 hours a day, 7 days a week (24/7) for the extension period. The contractor shall also be responsible for collecting and reporting reliability, availability, maintainability and testability data for the duration of the extension period.

1.3 Other Requirements

1.3.1 Program Reviews
1.3.2 Management Information

The Contractor shall submit Monthly Project Status Reports (MPSR) no later than the fifteenth workday after the reporting calendar month. Reports will include breakouts by Task Order and SOO Test Events. The Contractor shall provide an MPSR that includes the following elements:

- Project Cost by Task Order:
  - Budget at Completion (BAC)
  - Actual Cost (AC)
  - Accrued Cost (estimates)
  - Cost Variance (CV) - Actuals vs. Budget
- Estimate at Complete (EAC)
  - Estimate to Completion (ETC)
  - Cost Funds Status
- Performance/Schedule by Task Order and Test Event:
  - Project Schedule
  - Overall Technical Performance Evaluation
  - Completion percentage of the Milestones and/or Deliverables
  - Schedule Variance (SV)
  - Variance at Completion (VAC)
- Risk Management by Task Order and Test Event:
  - Risk Reporting Matrix
  - Risk Mitigation Worksheet

Current period values and cumulative values for data, variances, and forecasts will be provided in numerical format showing values and in graphical format showing trends. Any schedule variance on the critical path will be identified and its impact on subsequent milestones and the project cost and schedule quantified.

The Contractor shall also deliver a draft Program Management Plan and final Program Management Plan. The draft Project Management Plan will be submitted 15 days after a task order is received, with a final submittal reflecting Government input due 30 days after the task order is received. The Project Management Plan shall provide a detailed schedule, including a critical path analysis, along with a narrative discussing the salient issues affecting task execution in terms of needed technical inputs and analysis to meet cost, schedule, and performance in the task execution.

1.3.3 Technology Readiness Assessment
The Contractor shall provide adequate information to permit the Government to determine the TRL level of the NG-ADS technology throughout the course of the program.

1.3.4 Configuration Management

Minor modifications and adjustments to the NG-ADS equipment or manufacturing processes may be required as a result of characterization and field testing. To ensure that the Government is fully engaged and informed about the NG-ADS and the various options for improving them, the Contractor shall maintain a robust configuration management system. The Contractor shall submit proposed changes/modifications that result from the characterization or field testing to the Government for approval.

Once units are delivered for testing, all changes will be reviewed and approved by DHS before they are implemented.

If the program implements modifications or changes that require additional characterization and system tests, the Contractor will provide the consumables and technical support for this effort. These changes will be subject to a contract modification in accordance with the contract's changes clause (FAR 52.243-2).

The Contractor shall implement drawing configuration management consistent with Task Order 1.

1.3.5 Occupational Health and Safety

Prior to delivery of the ready-to-test NG-ADS units, the Contractor shall self-certify that the units being delivered are safe to operate and that all known occupational safety and health concerns are appropriately mitigated.

1.3.6 Technical Exchange Meetings

The Contractor shall prepare for and support technical exchange meetings (TEM) as required to discuss technical issues and agree on an appropriate path forward.
1.4 Deliverables

The Contractor shall deliver the equipment, documentation and training listed in Table 1, Table 2, and Table 3, below. DHS will provide acceptance or comments within 2 calendar weeks of submittal of all data deliverables. Comments and changes will be incorporated once into a single, final submittal. Final coordination of the training deliverables outlined in Table 3 will occur upon completion of the equipment deliverables outlined in Table 2.

Table 1 Program Deliverables

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<th>Description</th>
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<tr>
<td>Monthly Project Status Report (MPSR)</td>
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<tr>
<td>Technical Exchange Meetings</td>
<td>1st TEM NLT 30 days ARO</td>
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<td>Subsequent meetings as required, not to exceed 1 meeting per month</td>
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<tr>
<td>Updated Project Management Plan</td>
<td>Draft 15 days ARO</td>
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<td></td>
<td>Final 30 days ARO</td>
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<tr>
<td>Trip Reports</td>
<td>As needed</td>
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<td>Summary Subcontract Report</td>
<td>Oct 30 for period 10/1-9/30</td>
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<td>RAM-T - IT Signal Processing V&amp;V Report Generation</td>
<td>Upon the completion of IT V&amp;V Testing</td>
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<td>Safety Assessment Report</td>
<td>Prior to delivery of NG ADS units</td>
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<tr>
<td>Material Safety Data Sheets (MSDS)</td>
<td>2 months ARO</td>
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<tr>
<td>Technology Readiness Assessment support materials</td>
<td>Concurrent with final report</td>
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<tr>
<td>FRACAS summary report</td>
<td>At 14 day intervals, commencing 10 days after start of Operational Environment Field Test and ending 1 month after completion of Operational Environment Field Test</td>
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<tr>
<td>Complete FRACAS data set</td>
<td>With final FRACAS summary report</td>
</tr>
<tr>
<td>Maintenance and Operator manual(s)</td>
<td>30 days prior to start of Operational Environment Field Test</td>
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<tr>
<td>Site log, 1 for each system, during pre-test (Baseline Calibration) and post-test</td>
<td>Delivered weekly during pre-test and post-test periods</td>
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### Table 2 Equipment Deliverables

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<td>Twelve (12) NG-ADS Units for Detector Baseline Calibration and Operational Environment Field Testing</td>
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<td>Equipment for signal receipt at jurisdiction</td>
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### Table 3 Training Deliverables

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<td>User Interface Training in the Field Testing Jurisdiction</td>
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<tr>
<td>Technical Orientation Training in the Field Testing Jurisdiction and...</td>
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Attachment 1 - Task Order 2 Spares List

Baseline Scope Spares List

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<td></td>
</tr>
<tr>
<td>(b)(7)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(E)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(b)(4) (b)(7)(E)
### Option 1 Spares List

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Title/Description</th>
<th>QTY</th>
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</thead>
<tbody>
<tr>
<td>(b)(4)</td>
<td>(b)(7)(E)</td>
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</tr>
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</table>

### Option 2 Spares List

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Title/Description</th>
<th>QTY</th>
</tr>
</thead>
<tbody>
<tr>
<td>(b)(4)</td>
<td>(b)(7)(E)</td>
<td></td>
</tr>
</tbody>
</table>
NOTE: Baselines Scope Spares not utilized/consumed in support of Task Order 2 Field Test activities shall be available for utilization/consumption for Option 1 and Option 2 Field Test Extensions.
### Attachment 2 – DHS SPD Program Schedule

<table>
<thead>
<tr>
<th>Task Order</th>
<th>Duration (Work Days)</th>
<th>Start Month</th>
<th>Finish Month</th>
<th>Months After Receipt of Order</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contract Award (TO1)</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>0</td>
<td>N/A</td>
<td>N/A</td>
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</tr>
<tr>
<td>Task Order #1 - Assay Validation and Characterization Testing</td>
<td></td>
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</tr>
<tr>
<td>Assay Testing - Vendor Delivers Units per PWS</td>
<td>0</td>
<td>2</td>
<td>2.25</td>
<td>2.25</td>
</tr>
<tr>
<td>Assay Testing - Train/Certify Lab Personnel</td>
<td>10</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Assay Testing (50% Utilization per PWS)</td>
<td>120</td>
<td>4</td>
<td>9</td>
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<tr>
<td>Aerosol Collection Subsystem Test - Vendor Delivers units per PWS to ECBC</td>
<td>9</td>
<td>4</td>
<td>4</td>
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</tr>
<tr>
<td>Aerosol Collection Subsystem Test - Vendor Trains ECBC personnel</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Aerosol Collection Subsystem Test</td>
<td>20</td>
<td>5</td>
<td>6</td>
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<tr>
<td>Analytical Subsystem Tests - Vendor Delivers units per PWS to DPG</td>
<td>0</td>
<td>4</td>
<td>4</td>
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</tr>
<tr>
<td>Analytical Subsystem Test - Vendor Trains DPG personnel</td>
<td>5</td>
<td>5</td>
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<tr>
<td>Analytical Subsystem Test 2.a - Limit of Detection</td>
<td>20</td>
<td>5</td>
<td>6</td>
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<tr>
<td>Milestone #1</td>
<td>68</td>
<td>6</td>
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</tr>
<tr>
<td>Analytical Subsystem Test 2.b - Probability of Detection</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>System Level Test - Vendor Delivers units per PWS to DPG</td>
<td>30</td>
<td>7</td>
<td>9</td>
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</tr>
<tr>
<td>System Level Test</td>
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<td></td>
</tr>
<tr>
<td>Milestone #2</td>
<td>0</td>
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</tr>
<tr>
<td>Contract Award (TO2)</td>
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<tr>
<td>Task Order #2 - Field Test</td>
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<tr>
<td>Vendor Delivers units per PWS to R&amp;D Detector baseline calibration</td>
<td>0</td>
<td>12</td>
<td>12</td>
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<tr>
<td>Field Test/RAM-T/TIT Verification and Validation</td>
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<td>12</td>
<td>13</td>
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<tr>
<td>Option 1: 30-Day Field Test Extension</td>
<td>70</td>
<td>13</td>
<td>16</td>
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<tr>
<td>Option 2: Additional 30-Day Field Test Extension</td>
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<td>16</td>
<td>17</td>
<td></td>
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<tr>
<td>Decommission, Transport, and Unload at the Government Storage Facility</td>
<td>14</td>
<td>16</td>
<td>16</td>
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<tr>
<td>Data compilation/report</td>
<td>25</td>
<td>16</td>
<td>17</td>
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</tr>
<tr>
<td>Milestone #3</td>
<td>0</td>
<td>17</td>
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<tr>
<td>Future Task Orders (Unpriced)</td>
<td>TBD</td>
<td>18</td>
<td>TBD</td>
<td></td>
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<tr>
<td>Engineering Design Changes</td>
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<tr>
<td>Regression Testing of Design Changes</td>
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<tr>
<td>Extended Field Testing</td>
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</tr>
</tbody>
</table>
AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. AMENDMENT/MODIFICATION NO. 000001
2. EFFECTIVE DATE 11/18/2010
3. REQUISITION/PURCHASE REQ NO. 14000000
4. PROJECT NO. (IF APPLICABLE)

U.S. Dept. of Homeland Security
Office of Procurement Operations
ONAC Acquisition Division
245 Murray Lane, SW
Building 410
Washington DC 20528

6. NAME AND ADDRESS OF CONTRACTOR (No. street, county, State and Zip Code)
NORTHROP GRUMMAN SECURITY SYSTEMS LLC
1580 B WEST NURSERY RD
LINTHICUM HEIGHTS MD 210900000

7. ADMINISTERED BY (If other than Item 2) U.S. Dept. of Homeland Security
Office of Procurement Operations
ONAC Acquisition Division
245 Murray Lane, SW
Building 410
Washington DC 20528

8. AMENDMENT OF SOLICITATION NO. X
9. MODIFICATION OF CONTRACT/ORDER NO. RSHQDC-10-J-00455
10. DATED (SEE ITEM 11) 09/27/2010

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 Offers is extended. Is not extended.

Offers 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 and returning copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer statement; or (c) By separate letter or telegram which indicates this acknowledgment to be received at the place designated for the receipt of offers prior to the hour and date specified. 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 is marked reference to the solicitation and the amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)
See Schedule

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACT/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE
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 10.
B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT ADMINISTRATIVE CHANGES (such as changes in pricing or fee, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.100(b).
C. THIS MODIFICATION IS ENTERED INTO PURSUANT TO AUTHORITY OF:
52.243-2 Changes - Cost-Reimbursement
D. OTHER (Specify type of modification and authority)

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation|contract subject matter where feasible.)

DUNS Number: 104638205+0000

The purpose of this modification is to document acceptance of the contractor's additional cost Engineering Change Proposal (ECP-005) submitted November 2, 2010.

All other Task Order terms and conditions remain unchanged.

DO/DPAS Rating: NONE

Period of Performance: 09/27/2010 to 09/26/2011

Exhibit as provided herein. All terms and conditions of the document referenced in Item 14 remain unchanged and in full force and effect.

(b) (6)

CONTRACTS REPRESENTATIVE
Carla Davis
11/22/10

(continued on reverse)

STANDARD FORM 30 (REV 10-07)
Prepared by OSA
FAR (48 CFR) 52.243

10. DATE SIGNED
11. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)
02 November 2010

Letter Number: 2010-11-02 SPD-Biowatch-0057

U.S. Dept. of Homeland Security
Office of Procurement Operations
OHA Acquisition Division
245 Murray Lane, SW
Building 410
Washington DC 20528

Attention: Mr. Chris Wallis - Contracting Officer

Reference: (A) HSHQDC-10-D-00003 Final Contract
(B) HSHQDC-10-J-00024 Executed Task Order 1

Attachments: ECP-SPD-005; Engineering Change Proposal (ECP)

Subject: BioWatch ECP

Mr. Wallis,

Please find attached an Engineering Change Proposal (ECP) (ECP-SPD-005). The attached ECP is for a change in cost of Task Order 1.

Sincerely,
Northrop Grumman Security Systems, LLC

Contracts Representative
Phone:
Fax:
Email:
# ENGINEERING CHANGE PROPOSAL (ECP)

Public reporting burden for the collection of information is estimated to average 2 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of the collection of information, including suggestions for reducing this burden, to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (7040-0185), Washington, DC 20503.

PLEASE DO NOT RETURN YOUR COMPLETED FORM TO EITHER OF THESE ADDRESSES. RETURN COMPLETED FORM TO THE GOVERNMENT ISSUING CONTRACTING OFFICER FOR THE CONTRACT/PROCURING ACTIVITY NUMBER LISTED IN ITEM 2 OF THIS FORM.

## 4. ORIGINATOR
- **Typed Name:** NORTHROP GRUMMAN
- **Address:** (Street, City, State, Zip Code)
- **ECP Designation:** ECP-SPD-005
- **Model Type:** NG-ADS
- **REV:** NA
- **OTHER SYS/CONFIG. ITEMS AFFECTED:** NO
- **PRIORITY:** U
- **FUNCTIONAL:** F
- **PRODUCT:** NA
- **ALLOCATED:** NA
- **CAGE Code:** (b)(4)(6)(7)(E)
- **CAGE Code:** (b)(4)(6)(7)(E)
- **Other Sys/Config. Items Affected:** NO

## 11. SPECIFICATIONS AFFECTED
- **Cage Code:** (b)(4)(6)(7)(E)
- **Specification/Document No.:** (b)(4)(6)(7)(E)
- **Rev.:** B
- **SCN:** NA
- **Number:** B

## 12. DRAWINGS AFFECTED
- **CAGE Code:** (b)(4)(6)(7)(E)
- **Specification/Document No.:** (b)(4)(6)(7)(E)
- **Rev.:** B
- **SCN:** NA
- **Number:** B

## 13. TITLE OF CHANGE
**Task Order 2 Manufacturing Changes**

## 14. CONTRACT NO. AND LINE ITEM
- **Contract No.:** HSHQDC-10-D-00003
- **Line Item:** (b)(4)(6)(7)(E)

## 15. PROCUREMENT CONTRACTING OFFICER
- **Name:** Christopher Wallis
- **Code:** (b)(4)(6)(7)(E)
- **Telephone Number:** (202) 254-6718

## 17. IN PRODUCTION
- **Yes:** YES
- **No:** NO

## 19. DESCRIPTION OF CHANGE
Further details can be found in Attachment 1

## 20. NEED FOR CHANGE
Further details can be found in Attachment 1

## 21. PRODUCTION EFFECTIVITY BY SERIAL NUMBER
**Serial Number:** (b)(4)(6)(7)(E)

## 22. EFFECT ON PRODUCTION DELIVERY SCHEDULE
**No Impact**

## 23. ESTIMATED ITEM EFFECTIVITY
- **Recommended Item Effectivity:** NA
- **Ship/Vehicle Class Affected:** NA

## 24. ESTIMATED KIT DELIVERY SCHEDULE
- **Locations or Ship/Vehicle Numbers Affected:** NA

## 25. ESTIMATED NET TOTAL COST SAVINGS
- **NO ESTIMATED COST IMPACT**

## 26. SUBMITTING ACTIVITY
- **Authorized Signature:** (b)(6)
- **Title:** CONTRACTS REPRESENTATIVE

## 27. APPROVAL/DISAPPROVAL
- **Class I:** APPROVAL
- **Class II:** DISAPPROVAL
- **Government Activity:** APPROVED
- **Signature:** (b)(6)
- **Date Signed:** (YMMDD)

## DD FORM 1692, APR 92

*Previous editions are obsolete*
(b)(4) (b)(7)(E)
(b)(4) (b)(7)(E)
AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT CODE

2. AMENDMENT/MODIFICATION NO.

3. EFFECTIVE DATE

4. REQUISITION/PURCHASE REQ NO.

5. PROJECT NO. (If applicable)

6. ISSUED BY

7. ADMINISTERED BY (If other than Item 6)

U.S. Dept. of Homeland Security
Office of Procurement Operations
245 Murray Lane, SW
Building 410
Washington DC 20528

8. NAME AND ADDRESS OF CONTRACTOR (No. street, city, State and ZIP Code)

NORTHROP GRUMMAN SECURITY SYSTEMS LLC
1580 B WEST NURSERY RD
LINTHICUM HEIGHTS MD 210900000

9. AMENDMENT OF SOLICITATION NO.

10. DATED (See Item 13)

11. MODIFICATION OF CONTRACT ORDER NO.

12. DATED (See Item 13)

13. FACILITY CODE

1046382050000

14. CODE

1046382050000

15. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT ORDER NO. AS DESCRIBED IN ITEM 14.

16. CHECK FOR APPLICABLE ITEMS (Circle)

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 16.

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 42.2102(c).

X C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF 52.243-2 CHANGES - COST-REIMBURSEMENT

D. OFFER (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 UCP section headings, including solicitations/contract subject matter whenever feasible.)

DUNS Number: 104638205-0000

The purpose of this modification is to:

1) Fully fund the Northrop Grumman Security Systems (NGSS) Task Order 2 base effort.

A) Task Order 2 was awarded with a total estimated cost plus fixed fee value of $8,264,125, leaving a remainder of $173,590.00 to be further funded. CLIN 003 now provides this remainder.

B) $52.243-2 is being provided to fund the following additional tasks under the Task Order 2: Performance Work Statement (PWS): preparation of archival retrieval training, notification Continued ...
exercises, response sampling archive retrieval exercise, review of the technical orientation package and include 

2) NGSS ECP-3PD-004, dated October 14, 2010, is also being incorporated by reference.

As a result of this modification:

Task Order base effort estimated cost ceiling is increased from [b] [4] by [b] [4] to [b] [4] [b] [4].

Task Order base effort fixed fee is increased from [b] [4] by [b] [4] to [b] [4] [b] [4].

Task Order base effort total is increased from $8,366,089, by $71,627, to $8,437,715.

All other Task Order terms and conditions remain unchanged.

AAP Number: 64418 DO/DPAS Rating: NONE

Discount Terms: Net 30

Delivery Location Code: DHS
Department of Homeland Security
245 Murray Lane
Bldg. 410
Washington DC 20528

FOB: Destination
Period of Performance: 09/27/2010 to 09/26/2011

Add Item 0002 as follows:

0002
Funding for additional tasks under Task Order 2
Performance Work Statement.
Product/Service Code: AJ14

Add Item 0003 as follows:

0003
Remainder of Task Order 2 base effort funding.
Product/Service Code: AJ14
Performance Work Statement – Task Order 2

1 Objectives and Goals

Under the Phase I Systems Performance Demonstration (SPD) contract, the Contractor will provide Next-Gen Automated Detection Systems (NG-ADS) and all technical and operational support to enable the Government to test in an operationally relevant field environment in Task Order 2 to determine the adequacy of the NG-ADS for future procurement and deployment. The Government may also issue additional task orders for engineering enhancements to correct and validate issues identified during testing activities described below.

The objective of this effort is to demonstrate that the NG-ADS:
- Conforms to the Gen-3 performance specification,
- Has a system performance with associated technologies that meet a minimum Technology Readiness Level (TRL) of 7, and
- Contains acceptable assays and uses reagents produced with adequate quality control procedures.

In support of these objectives, the Contractor shall provide ready-to-test NG-ADS units and the full range of support to include consumables, data management, operations and maintenance (O&M) support, and technical personnel to support the test activities described below. In particular, the Contractor shall:
- Manufacture and deliver ready-to-test NG-ADS units required for all testing. The NG-ADS units’ configuration will be baselined at the Task Order 1 configuration, unless otherwise approved by DHS, and remain under configuration control by the Contractor. All NG-ADS units will be of the same configuration and from the same assembly line, except as otherwise noted herein. The number of spares required to support the testing activities is shown in Attachment 1 – List of Spare Parts.
- Operate NG-ADS units in support of the tests, including replenishment of consumables and maintenance of the systems when necessary (unless noted otherwise).
- Establish a capability within the independent testing organization and operational test jurisdiction (specifically BioWatch Lab personnel and BioWatch Action Committee) to receive, interpret, and monitor the NG-ADS test results to evaluate the performance of the equipment.
- Collect data and provide reports (Reliability, Availability, Maintainability and Testability (RAM-T) and IT performance data.
- Provide engineering and configuration support.
- Ensure intellectual property and licensing rights are obtained, as appropriate, for commercial-off-the-shelf (COTS) products to allow DHS to operate the NG-ADS units during this Task Order.

1.1 Program Plan
The Contractor has developed a program schedule that meets DHS' Milestone requirements and schedule objectives (Attachment 2).

The Contractor shall meet the Task Order 2 technical Milestones as follows:
- Milestone #3 – Successful completion of the Field Testing activities under Task Order 2 within the scheduled time frame.

1.2 Task Order 2

In support of the Task Order 2 field testing activities, the Contractor will provide twelve (12) ready-to-test NG-ADS units plus spares, which will be placed in [redacted] and associated information technology to support the field test, reliability, availability, maintainability, and testability (RAM-T) testing, and IT verification and validation. The Contractor will be responsible for providing equipment and technical support, including the O&M of the NG-ADS units during the course of the field test. This support will include supplying/replenishing all consumables, providing any required preventative maintenance, and corrective maintenance (fixing the system) should it break down during the course of the testing.

Tight configuration control will be used to ensure that all units will be of the same configuration for this testing. All the NG-ADS units will be manufactured on the same assembly line.

The Contractor will support the Task Order 2 efforts as described below. This will include providing the necessary NG-ADS units for each test, consumables, spare parts, training, test support, and maintenance support.

1.2.1 Resources

The Contractor shall consumables and other supplies necessary to support the Task Order 2 testing. The Contractor will also setup [redacted] to perform local repairs and store equipment, spares, and consumables during field testing. Since all testing will take place in Government designated field sites, the Contractor's support will be focused on providing the necessary NG-ADS units, spares, consumables, and personnel to conduct each test. The NG-ADS units will be prepared for the testing in the [redacted]. The spare parts and consumables necessary to support the testing will also be stored and shipped from this facility and the [redacted].

1.2.2 Task Order 2 Subtasks
1.2.2.1 Task Order 2 Equipment Procurement and Fabrication

In preparation for Task Order 2 field testing, the Contractor will provide all necessary NG-ADS units, reagents, spare parts, tools, associated information technology, and support plans. This preparation will include the ordering of all material for the fabrication and checkout of the NG-ADS units, all reagents and consumables required to operate the units, and all spares and other support equipment required, including the use and maintenance of the [redacted]. The Contractor will also establish a depot facility to
support the installation, baseline calibration, operational field testing, RAM-T testing, and IT verification and validation.

The Contractor will procure all material and fabricate twelve (12) NG-ADS units plus spares (same configuration as described for Task Order 1) to support Task Order 2 field test activities. All NG-ADS units delivered for testing under the Phase I SPD contract will be manufactured on the same assembly line.

The Contractor will maintain supplies, consumables, and personnel adequate to keep the NG-ADS units operational 24/7 during Operational Environment Field Testing (not including down-time for maintenance, calibration, etc.) and to assist in providing failure analysis data as part of the field test. The Contractor will implement a Failure Reporting, Analysis and Corrective Actions System (FRACAS) to facilitate the capture of failure data during Baseline Calibration and the Operational Environment Field Testing. Failure analysis data will identify all observed problems by test unit / instrument, the sub-system at fault, the total time the system / sub-system was down and the required corrective maintenance action needed to repair the problem and restore the system /subsystem.

The categories for subsystem at fault and associated subsystems will be agreed to prior to the start of testing. If the FRACAS data is maintained in a proprietary format, the FRACAS application must be provided, or the data must be converted to a common useable format such as Microsoft Excel.

The Contractor will procure all consumables required for testing activities performed under Task Order 2. The Contractor's plan for quality control of the reagents is described in the Quality Assurance Surveillance Plan (QASP) contained in Volume II—Management Proposal.

The Contractor will provide all spare components that are necessary to support Task Order 2 activities. The assessment of spare parts required to support Task Order 2 is provided in Attachment 1.

1.2.2.2 Jurisdictional Training and Coordination

The Contractor will provide eight (8) sets of equipment for signal receipt for use by various users to be specified by the Government. This equipment will be in the form of used to monitor system operational status and test results as well as system and logistical management.

12/10/2010
1.2.2.3 Detector Baseline Calibration for Field Test Start

After delivery of the twelve (12) NG-ADS units to the [REDACTED] jurisdiction for Field Testing, the Contractor will be given not less than one (1) month to install, set-up and baseline the units at the operational testing sites identified by DHS. [REDACTED]

At the end of the set up/baseline period, a review period lasting not longer than 1 week will occur. The Field Test will commence immediately following the review period. The NG-ADS units may continue to operate and be supported during the review period, as mutually agreed upon. Each NG-ADS will be co-located with other
competitive autonomous biodetectors and \( (b)(4) \) in both indoor and outdoor test environments. The Government will identify the site(s) two (2) months prior to unit delivery (a preliminary list of site(s) will be provided within 2 weeks after receipt of order), provide site prep prior to unit delivery (in accordance with the Contractor's specifications), provide jurisdiction coordination, and will provide security for the NG-ADS during the duration of the test. The Contractor will be responsible for the security of the NG-ADS enclosure (i.e., locked door to access interior of system). The jurisdiction depot \( (b)(4) \) will be used during the installation and baseline testing.

The detector baseline calibration will begin four (4) months after receipt of order and will last up to one (1) month in duration. Prior to the installation, the contractor will provide Material Safety Data Sheets (MSDS), as necessary, for common consumable items used by their biodetection systems for each consumable subject to spilling (i.e., each liquid), as well as any other common items which may generate disposal/environmental concern, such as batteries. The MSDS will be provided not later than two (2) months after receipt of order.

**Detector Baseline Calibration and Review Period Support Details:**

- \( (b)(4) \)

- The Government will operate a TOC that will provide personnel 24/7 for timely site access coordination and escort, observation, and data collection. Unless otherwise required by the site manager, a Government escort will not be required to access the site whenever required by the Contractor.

- All system maintenance will be performed by the Contractor. DHS and other parties will not attempt maintenance on the units without NGSS involvement.

The Contractor will provide site visit log information to DHS on a weekly basis during Baseline Calibration in an electronic format, which will capture the site arrival and departure times, Contractor personnel visiting site, and site visit activity.

**1.2.2.4 Operational Environment Field Testing**

The Contractor will support the operations and maintenance of the twelve (12) ready-to-test NG-ADS units in support of the Government's test objectives. The NG-ADS units will be split between indoor and outdoor locations based upon a deployment plan that will be developed by the Government.

The Contractor will provide test labor for operational environment field testing of twelve (12) instruments in the \( (b)(7)(F) \) jurisdiction beginning within one (1) week of the completion of Baseline Calibration for up to ten (10) continuous weeks. This includes weekly Preventive Maintenance (PM) and as-needed Corrective Maintenance (CM).

**Operational Environment Field Maintenance Support Details:**

- \( (b)(7)(F) \)
The Government will operate a TOC that will provide personnel 24/7 for timely site access coordination and escort, observation, and data collection. All system maintenance will be performed by the Contractor. DHS and other parties will not attempt maintenance on the units without NGSS involvement.

At the conclusion of the field test there will be a post-test recovery period of approximately two (2) weeks at which time the contractor will de-install, clean, remove, transport, and upload the twelve (12) biodetector units at a storage facility within the vicinity of the sites designated by the Government, and restore the site to the condition which it was in when installation started, except for modifications made by DHS or at DHS’ direction as part of site prep. The Contractor will remove all equipment and materials originally provided by the Contractor, observing all applicable safety and hazardous materials management regulations and good operating practices.

The Contractor will provide site visit log information to DHS on a weekly basis during the post-test period in an electronic format, which will capture the site arrival and departure times, Contractor personnel visiting site, and site visit activity.

1.2.2.5 RAM-T Data Collection

The goal of the RAM-T Data Collection effort is to gather RAM-T data on the NG-ADS in an applicable operational environment. This effort will be conducted in applicable operational environments (i.e., indoor environment, outdoor environment) to evaluate and validate overall supportability of the system.

1.2.2.6 IT Signal Processing V&V and Report Generation

The goal of this activity is to conduct verification and validation on the proposed information technology (IT) system and gather data from the to support independent Verification and Validation (V&V) of signal processing and report generation functions. The Contractor will provide equipment for signal receipt to up to eight (8) local

12/10/2010
public health and DHS personnel for this task (same personnel as identified and trained per paragraph 1.2.2.2). This equipment will include(a)(4)(B)(7)(E) used to monitor system test results. (b) (4)

(b) (4)

The Contractor will provide DHS with information regarding how the IT system functions in order to establish a baseline of its current implementation. The Contractor will collaborate with DHS to develop the procedures that will be used by DHS to capture and validate the data generated by the system. Agreed-upon test data/reports will be generated in accordance with these procedures during the last two (2) weeks of Baseline Calibration and during the Operational Environment Field Testing. The Contractor will also participate with DHS in the selection of appropriate standards and conventions that will be applied to the V&V activities. Any findings or discrepancies between these agreed-upon standards and conventions and the existing IT system implementation will be documented and addressed in later phases of the program as appropriate.

1.2.2.7 Field Test Extension Options

Prior to the start of field testing, the Government may exercise an option(s) to extend field testing beyond the initial ten (10) weeks for 30 to 60 days. These optional efforts shall be exercised before, or during, the 1-month Baseline Calibration effort of Section 1.2.2.3 of this PWS. The option(s) will be exercised via a funded modification to this Task Order.

If the field test is extended, the contractor shall provide the same level of base support as provided in the initial 10 weeks for Option 1 (a 30-day extension) and Option 2 (a 2nd 30-day extension). The contractor shall provide all consumables and technical support required to repair, maintain and operate the twelve (12) biodetector units 24 hours a day, 7 days a week (24/7) for the extension period. The contractor shall also be responsible for collecting and reporting reliability, availability, maintainability and testability data for the duration of the extension period.

1.3 Other Requirements

1.3.1 Program Reviews

1.3.2 Management Information

12/10/2010
The Contractor shall submit Monthly Project Status Reports (MPSR) no later than the fifteenth workday after the reporting calendar month. Reports will include breakouts by Task Order and SOO Test Events. The Contractor shall provide an MPSR that includes the following elements:

- **Project Cost by Task Order:**
  - Budget at Completion (BAC)
  - Actual Cost (AC)
  - Accrued Cost (estimates)
  - Cost Variance (CV) - Actuals vs. Budget
- **Estimate at Complete (EAC):**
  - Estimate to Completion (ETC)
  - Cost Funds Status
- **Performance/Schedule by Task Order and Test Event:**
  - Project Schedule
  - Overall Technical Performance Evaluation
  - Completion percentage of the Milestones and/or Deliverables
  - Schedule Variance (SV)
  - Variance at Completion (VAC)
- **Risk Management by Task Order and Test Event:**
  - Risk Reporting Matrix
  - Risk Mitigation Worksheet

Current period values and cumulative values for data, variances, and forecasts will be provided in numerical format showing values and in graphical format showing trends. Any schedule variance on the critical path will be identified and its impact on subsequent milestones and the project cost and schedule quantified.

The Contractor shall also deliver a draft Program Management Plan and final Program Management Plan. The draft Project Management Plan will be submitted 15 days after a task order is received, with a final submittal reflecting Government input due 30 days after the task order is received. The Project Management Plan shall provide a detailed schedule, including a critical path analysis, along with a narrative discussing the salient issues affecting task execution in terms of needed technical inputs and analysis to meet cost, schedule, and performance in the task execution.

### 1.3.3 Technology Readiness Assessment

The Contractor shall provide adequate information to permit the Government to determine the TRL level of the NG-ADS technology throughout the course of the program.

### 1.3.4 Configuration Management

Minor modifications and adjustments to the NG-ADS equipment or manufacturing processes may be required as a result of characterization and field testing. To ensure that the Government is fully engaged and informed about the NG-ADS and the various...
options for improving them, the Contractor shall maintain a robust configuration management system. The Contractor shall submit proposed changes/modifications that result from the characterization or field testing to the Government for approval. (b) (4)

Once units are delivered for testing, all changes will be reviewed and approved by DHS before they are implemented.

If the program implements modifications or changes that require additional characterization and system tests, the Contractor will provide the consumables and technical support for this effort. These changes will be subject to a contract modification in accordance with the contract's changes clause (FAR 52.243-2).

The Contractor shall implement drawing configuration management consistent with Task Order 1.

1.3.5 Occupational Health and Safety

Prior to delivery of the ready-to-test NG-ADS units, the Contractor shall self-certify that the units being delivered are safe to operate and that all known occupational safety and health concerns are appropriately mitigated.

1.3.6 Technical Exchange Meetings

The Contractor shall prepare for and support technical exchange meetings (TEM) as required to discuss technical issues and agree on an appropriate path forward.

1.4 Deliverables

The Contractor shall deliver the equipment, documentation and training listed in Table 1, Table 2, and Table 3, below. Final coordination of the training deliverables outlined in Table 3 will occur upon completion of the equipment deliverables outlined in Table 2.
### Table 1 Program Deliverables

<table>
<thead>
<tr>
<th>Description</th>
<th>Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monthly Project Status Report (MPSR)</td>
<td>NLT 15th of each month</td>
</tr>
<tr>
<td>Technical Exchange Meetings</td>
<td>1st TEM NLT 30 days ARO</td>
</tr>
<tr>
<td></td>
<td>Subsequent meetings as required, not to exceed 1 meeting per month</td>
</tr>
<tr>
<td>Updated Project Management Plan</td>
<td>Draft 15 days ARO</td>
</tr>
<tr>
<td></td>
<td>Final 30 days ARO</td>
</tr>
<tr>
<td>Trip Reports</td>
<td>As needed</td>
</tr>
<tr>
<td>Summary Subcontract Report</td>
<td>Oct 30 for period 10/1-9/30</td>
</tr>
<tr>
<td>[b] (4)</td>
<td>[b] (4)</td>
</tr>
<tr>
<td>RAM-T - IT Signal Processing V&amp;V Report Generation</td>
<td>Upon the completion of IT V&amp;V Testing</td>
</tr>
<tr>
<td>Safety Assessment Report</td>
<td>Prior to delivery of NG ADS units</td>
</tr>
<tr>
<td>Material Safety Data Sheets (MSDS)</td>
<td>2 months ARO</td>
</tr>
<tr>
<td>Technology Readiness Assessment support materials</td>
<td>Concurrent with final report</td>
</tr>
<tr>
<td>FRACAS summary report</td>
<td>At 14 day intervals, commencing 10 days after start of Operational Environment Field Test and ending 1 month after completion of Operational Environment Field Test; NOTE: During Field Testing, reports will be submitted to the Gen-3 OTA, not the Program Office.</td>
</tr>
<tr>
<td>Complete FRACAS data set</td>
<td>With final FRACAS summary report</td>
</tr>
<tr>
<td>Maintenance and Operator manual(s)</td>
<td>30 days prior to start of Operational Environment Field Test</td>
</tr>
<tr>
<td>Site log, 1 for each system, during pre-test (Baseline Calibration) and post-test periods</td>
<td>Delivered weekly during pre-test and post-test periods</td>
</tr>
</tbody>
</table>

### Table 2 Equipment Deliverables

<table>
<thead>
<tr>
<th>Description</th>
<th>Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>Twelve (12) NG-ADS Units</td>
<td>NLT 4 months ARO</td>
</tr>
<tr>
<td>Spares and consumables in support of Detector Baseline Calibration and Operational Environment Field Testing</td>
<td>First delivery NLT 4 months ARO; certain consumables and spares may be delivered in multiple, time-staggered deliveries after the first delivery</td>
</tr>
<tr>
<td>Equipment for signal receipt at jurisdiction</td>
<td>Concurrent with the associated training class</td>
</tr>
<tr>
<td>Description</td>
<td>Due</td>
</tr>
<tr>
<td>--------------------------------------------------</td>
<td>------------------------------------------</td>
</tr>
<tr>
<td>User Interface Training in the Field Testing</td>
<td>Beginning at the start of</td>
</tr>
<tr>
<td>Jurisdiction and [(b) (4)]</td>
<td>Detector Baseline Calibration</td>
</tr>
<tr>
<td>Technical Orientation Training support materials</td>
<td>(b) (4) receipt of order</td>
</tr>
<tr>
<td>Archive Retrieval Training and associated</td>
<td>Prior to the start of Detector Baseline</td>
</tr>
<tr>
<td>materials</td>
<td>Calibration</td>
</tr>
</tbody>
</table>
Attachment 1 – Task Order 2 Spares List

Baseline Scope Spares List

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Title/Description</th>
<th>QTY</th>
</tr>
</thead>
<tbody>
<tr>
<td>(b)(4)</td>
<td>(b)(7)(E)</td>
<td></td>
</tr>
<tr>
<td>Part Number</td>
<td>Title/Description</td>
<td>QTY</td>
</tr>
<tr>
<td>-------------</td>
<td>-------------------</td>
<td>-----</td>
</tr>
<tr>
<td>(b)(4)</td>
<td>(b)(7)(E)</td>
<td></td>
</tr>
</tbody>
</table>
### Option 1 Spares List

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Title/Description</th>
<th>QTY</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(b)(4) (b)(7)(E)</td>
<td></td>
</tr>
</tbody>
</table>

### Option 2 Spares List

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Title/Description</th>
<th>QTY</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(b)(4) (b)(7)(E)</td>
<td></td>
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</tbody>
</table>

12/10/2010
<table>
<thead>
<tr>
<th>Part Number</th>
<th>Title/Description</th>
<th>QTY</th>
</tr>
</thead>
<tbody>
<tr>
<td>(b)(4)</td>
<td>(b)(7)(E)</td>
<td></td>
</tr>
</tbody>
</table>

NOTE: Baselines Scope Spares not utilized/consumed in support of Task Order 2 Field Test activities shall be available for utilization/consumption for Option 1 and Option 2 Field Test Extensions.
## Attachment 2 – DHS SPD Program Schedule

<table>
<thead>
<tr>
<th>Task</th>
<th>Duration (Work Days)</th>
<th>Start Month</th>
<th>Finish Month</th>
<th>Months After Receipt of Order</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contract Award (T01)</td>
<td>0</td>
<td>N/A</td>
<td>N/A</td>
<td>1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18</td>
</tr>
<tr>
<td>Task Order #1 - Assay Validation and Characterization Testing</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assay Testing - Vendor Delivers Units per PWS</td>
<td>0</td>
<td></td>
<td></td>
<td>2.25 2.25</td>
</tr>
<tr>
<td>Assay Testing - Train/Certify Lab Personnel</td>
<td>10</td>
<td>2</td>
<td>3</td>
<td>4 5 6 7 8 9 10 11 12 13 14 15 16 17 18</td>
</tr>
<tr>
<td>Assay Testing (50% Utilization per PWS)</td>
<td>120</td>
<td>4</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>Aerosol Collection Subsystem Test - Vendor Delivers units per PWS</td>
<td>0</td>
<td>4</td>
<td>4</td>
<td>2.25 2.25</td>
</tr>
<tr>
<td>Aerosol Collection Subsystem Test - Vendor Trains ECBC per PWS</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>4 4 4 2.25 2.25</td>
</tr>
<tr>
<td>Aerosol Collection Subsystem Test</td>
<td>20</td>
<td>5</td>
<td>6</td>
<td>4 4 4 2.25 2.25</td>
</tr>
<tr>
<td>Analytical Subsystem Tests - Vendor Delivers units per PWS</td>
<td>0</td>
<td>4</td>
<td>4</td>
<td>4 4 4 2.25 2.25</td>
</tr>
<tr>
<td>Analytical Subsystem Test - Vendor Trains DPG personnel</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>4 4 4 2.25 2.25</td>
</tr>
<tr>
<td>Analytical Subsystem Test 2.a. - Limit of Detection</td>
<td>20</td>
<td>5</td>
<td>6</td>
<td>4 4 4 2.25 2.25</td>
</tr>
<tr>
<td>Milestone #1</td>
<td>0</td>
<td>6</td>
<td>6</td>
<td>4 4 4 2.25 2.25</td>
</tr>
<tr>
<td>Analytical Subsystem Test 2.b. - Probability of Detection</td>
<td>68</td>
<td>6</td>
<td>9</td>
<td>4 4 4 2.25 2.25</td>
</tr>
<tr>
<td>System Level Test - Vendor Delivers units per PWS to DPG</td>
<td>0</td>
<td>4</td>
<td>4</td>
<td>4 4 4 2.25 2.25</td>
</tr>
<tr>
<td>System Level Test</td>
<td>30</td>
<td>7</td>
<td>9</td>
<td>4 4 4 2.25 2.25</td>
</tr>
<tr>
<td>Milestone #2</td>
<td>0</td>
<td>10</td>
<td>10</td>
<td>4 4 4 2.25 2.25</td>
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**Contract Award (T02)**

<table>
<thead>
<tr>
<th>Task Order #2 - Field Test</th>
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<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Vendor Delivers units per PWS</td>
<td>0</td>
<td>12</td>
<td>12</td>
<td>4 4 4 2.25 2.25</td>
</tr>
<tr>
<td>Biodefector baseline calibration</td>
<td>30</td>
<td>12</td>
<td>13</td>
<td>4 4 4 2.25 2.25</td>
</tr>
<tr>
<td>Field test/RAM-T/TIT Verification and Validation</td>
<td>60</td>
<td>13</td>
<td>16</td>
<td>4 4 4 2.25 2.25</td>
</tr>
<tr>
<td>Option 1: 30-Day Field Test Extension</td>
<td>30</td>
<td>16</td>
<td>17</td>
<td>4 4 4 2.25 2.25</td>
</tr>
<tr>
<td>Option 2: Additional 30-Day Field Test Extension</td>
<td>30</td>
<td>17</td>
<td>18</td>
<td>4 4 4 2.25 2.25</td>
</tr>
<tr>
<td>Decommission, Transport, and Unload at the Government Site</td>
<td>14</td>
<td>16</td>
<td>16</td>
<td>4 4 4 2.25 2.25</td>
</tr>
<tr>
<td>Data compilation/report</td>
<td>25</td>
<td>16</td>
<td>17</td>
<td>4 4 4 2.25 2.25</td>
</tr>
<tr>
<td>Milestone #3</td>
<td>0</td>
<td>17</td>
<td>17</td>
<td>4 4 4 2.25 2.25</td>
</tr>
</tbody>
</table>

**Future Task Orders (Unpriced)**

- Engineering Design Changes
- Regression Testing of Design Changes
- Extended Field Testing

---

12/10/2010
# Engineering Change Proposal (ECP)

**Public reporting burden for the collection of information is estimated to average 2 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of the collection of information, including suggestions for reducing this burden, to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503.**

Please do not return your completed form to either of these addresses. Return completed form to the government issuing contracting officer for the contract/procuring activity number listed in item 2 of this form.

## 4. Originator

**Northrop Grumman**

<table>
<thead>
<tr>
<th>TYPED NAME</th>
<th>ADDRESS (Street, City, State, Zip)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(b)(4) (b)(7)(F)</td>
<td>(b)(4) (b)(7)(F)</td>
</tr>
</tbody>
</table>

## 5. Class of ECP

**I**


**D**

## 7. PRIORITY

**U**

## 8. ECP Designation

<table>
<thead>
<tr>
<th>MODEL TYPE</th>
<th>CAGE CODE</th>
<th>SYSTEM DESIGNATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>(b)(4) (b)(7)(E)</td>
<td>(b)(4) (b)(7)(E)</td>
<td>NG-ADS</td>
</tr>
</tbody>
</table>

## 9. BASELINE AFFECTED

- **PRODUCT**
- **ALLOCATED**

## 10. OTHER SYS/CONFIG. ITEMS AFFECTED

- **YES**
- **NO**

## 11. SPECIFICATIONS AFFECTED

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(b)(4) (b)(7)(E)</td>
<td>(b)(4) (b)(7)(E)</td>
<td>B</td>
<td>NA</td>
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</tr>
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## 12. DRAWINGS AFFECTED

<table>
<thead>
<tr>
<th>DRAWING NO.</th>
<th>DRAWING TITLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>NA</td>
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</tr>
</tbody>
</table>

## 13. TITLE OF CHANGE

**Analytical Sensitivity Improvements**

## 14. CONTRACT NO. AND LINE ITEM

- HSHDOC-10-D-00003
- HSHDOC-10-D-00024

## 15. PROCURING CONTRACTING OFFICER

**Christopher Wallis**

## 16. CONFIGURATION ITEM NOMENCLATURE

**NA**

## 18. ALL LOWER LEVEL ITEMS AFFECTED

<table>
<thead>
<tr>
<th>NOMENCLATURE</th>
<th>PART NO.</th>
<th>NSN</th>
</tr>
</thead>
<tbody>
<tr>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
</tbody>
</table>

## 19. DESCRIPTION OF CHANGE

This change will configure the NG-ADS units with the following 2 changes:

1. (b)(4) (b)(7)(E)

2. (b)(4) (b)(7)(E)

This change is an ASSURED routine script change only. No hardware, software or consumable modifications are required.

## 20. INFO FOR CHANGE

Implementation of this change has no cost impact to the system configuration.

## 21. PRODUCTION EFFECTIVITY BY SERIAL NUMBER

<table>
<thead>
<tr>
<th>SERIAL</th>
<th>EFFECTIVITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>(b)(4)</td>
<td>(b)(7)(E)</td>
</tr>
</tbody>
</table>

## 22. EFFECT ON PRODUCTION DELIVERY SCHEDULE

**NO IMPACT**

## 23. RETROFIT

**NA**

## 24. ESTIMATED COSTS/SAVINGS UNDER CONTRACT

**NO ESTIMATED COST IMPACT**

<table>
<thead>
<tr>
<th>LOCATION</th>
<th>SHIP/VEHICLE CLASS AFFECTED</th>
</tr>
</thead>
<tbody>
<tr>
<td>NA</td>
<td>NA</td>
</tr>
</tbody>
</table>

## 25. ESTIMATED NET TOTAL COSTS/SAVINGS

**NA**

<table>
<thead>
<tr>
<th>LOCATION</th>
<th>SHIP/VEHICLE NUMBERS AFFECTED</th>
</tr>
</thead>
<tbody>
<tr>
<td>DPG, NGSS</td>
<td>NA</td>
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## 26. AUTHORIZED SIGNATURE

**CONTRACTS REPRESENTATIVE**

<table>
<thead>
<tr>
<th>CLASS</th>
<th>APPROVAL</th>
<th>DISAPPROVAL</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>(b)(6)</td>
<td>(b)(6)</td>
</tr>
</tbody>
</table>

## 27. APPROVAL/DISAPPROVAL

a. **CLASS I**
   - APPROVAL
   - DISAPPROVAL
b. **CLASS II**
   - APPROVAL
   - DISAPPROVAL
c. **CLASS III**
   - CONCUR IN CLASSIFICATION OF CHANGE
   - CONCUR IN CLASSIFICATION OF CHANGE
   - DO NOT CONCUR IN CLASSIFICATION OF CHANGE

## 28. GOVERNMENT ACTIVITY

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>SIGNATURE</th>
<th>DATE SIGNED</th>
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<tbody>
<tr>
<td>NA</td>
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**Previous editions are obsolete**
**AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT**

<table>
<thead>
<tr>
<th>1. CONTRACT ID CODE</th>
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<tr>
<td>1580 B WEST NURSERY RD</td>
<td>1</td>
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<thead>
<tr>
<th>2. AMENDMENT/MODIFICATION NO.</th>
<th>3. EFFECTIVE DATE</th>
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<tbody>
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<td>POD003</td>
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<th>4. REQUISITION/PURCHASE REQ. NO.</th>
<th>5. PROJECT NO. (If applicable)</th>
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<tbody>
<tr>
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<table>
<thead>
<tr>
<th>6. ISSUED BY: CODE</th>
<th>7. ADMINISTERED BY: CODE</th>
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<td>DHS/OPO/OHA</td>
<td>DHS/OPO/OHA</td>
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</tbody>
</table>


<table>
<thead>
<tr>
<th>NAME AND ADDRESS OF CONTRACTOR (incl. street, city and ZIP Code)</th>
<th>NAME AND ADDRESS OF CONTRACTOR (incl. street, city and ZIP Code)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NORTHROP GRUMMAN SECURITY SYSTEMS LLC 1580 B WEST NURSERY RD LINTHICUM HEIGHTS MD 210900000</td>
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<table>
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<th>CODE</th>
<th>FACILITY CODE</th>
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<thead>
<tr>
<th>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers is extended.</td>
</tr>
<tr>
<td>□ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers is not extended.</td>
</tr>
</tbody>
</table>

Offers must acknowledge receipt of this amendment prior to the hour and date specified in this 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. A confirmation of this amendment you desire to change an offer already submitted, such change may be made by letter or telegram which makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

<table>
<thead>
<tr>
<th>12. ACCOUNTING AND APPROPRIATION DATA (If required)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net Increase: 9872,644.00</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT OR ORDER NO. AS DESCRIBED IN ITEM 14.</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ 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.</td>
</tr>
<tr>
<td>□ B. THE ABOVE NUMBERED CHANGE ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, accounting date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(a).</td>
</tr>
<tr>
<td>□ C. THE SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:</td>
</tr>
<tr>
<td>□ P.W.S. 1.2.2.7 Field Test Extension Options</td>
</tr>
<tr>
<td>□ OTHER (Specify type of modification and authority)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including associated contract subject matter where feasible.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DUNS Number: 104638205-0000</td>
</tr>
</tbody>
</table>

The purpose of this modification is to:

1. Incorporate a revised Performance Work Statement (attached, 19 pages).

2. Incorporate the changes required under Material Review Board No. MRB-SPD-066 submitted by NGSS on Dec. 23, 2010 and approved by the COTR on January 20, 2011 (attached, 1 page).

3. Exercise and fully fund Optional Effort 1 (Option 1).

A) The contractor shall provide the same level of base support as provided in the initial 10 weeks.

Continued ...
B) The contractor shall provide all consumables and technical support required to repair, maintain and operate the twelve (12) biodetector units 24 hours a day, 7 days a week (24/7) for the 30 day extension period.

C) The contractor shall be responsible for collecting and reporting reliability, availability, maintainability and testability data for the duration of the extension period.

As a result of this modification to exercise Option 1:

Task Order estimated cost ceiling is increased by [_amount] from [original_amount] to [new_amount]

Task Order estimated fixed fee is increased by [amount] from [original_amount] to [new_amount]

Task Order total is increased by $972,644 from $8,437,715 to $9,310,359.

All other Task Order terms and conditions remain unchanged.

AAP Number: 64418 DO/DPAS Rating: NONE

Delivery: 30 Days After Award

Discount Terms: Net 30

Delivery Location Code: DHS

Department of Homeland Security
245 Murray Lane
Bldg. 410
Washington DC 20528

FOB: Destination

Period of Performance: 09/27/2010 to 05/26/2011

Change Item 0001A to read as follows (amount shown is the obligated amount):

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Supplies/Services</th>
<th>Quantity</th>
<th>Unit</th>
<th>Unit Price</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>0001A</td>
<td>Option 1: 30-Day Extension</td>
<td>[amount]</td>
<td>[unit]</td>
<td>$972,644</td>
<td>[amount]</td>
</tr>
</tbody>
</table>

Option 1 Estimated Cost: [amount]
Option 1 Fixed Fee: [amount]
Option 1 Total Price: $972,644

Total Line Item Value: $972,644.00

Award Distribution: Continued...
<table>
<thead>
<tr>
<th>ITEM NO</th>
<th>SUPPLIES/SERVICES</th>
<th>QUANTITY</th>
<th>UNIT</th>
<th>UNIT PRICE</th>
<th>AMOUNT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>NORTHROP GRUMMAN SECURITY SYSTEMS LLC</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Payment Office:
Department of Homeland Security
Burlington Finance Center
P.O. Box 1000
Williston, VT 05495-1000
Attn: Office of Health Affairs (OHA)
Fax (802-288-7659)
E-mail: OHA.invoice.consolidation@dhs.gov
ALC: 70-03-1513
TIN: 26-1623625
Dun: 027414181

FY Appropriated: FY10
 Appropriation Title and Year(s): Two year OHA program funds, 2010
Treasury Account Symbol (TAS): 700117
Treasury Appropriation Fund Symbol (TAFS): 700/100117
Amount: $872,644.00 (Carryover)
Performance Work Statement – Task Order 2

1 Objectives and Goals

Under the Phase I Systems Performance Demonstration (SPD) contract, the Contractor will provide Next-Gen Automated Detection Systems (NG-ADS) and all technical and operational support to enable the Government to test in an operationally relevant field environment in Task Order 2 to determine the adequacy of the NG-ADS for future procurement and deployment. The Government may also issue additional task orders for engineering enhancements to correct and validate issues identified during testing activities described below.

The objective of this effort is to demonstrate that the NG-ADS:

- Conforms to the Gen-3 performance specification,
- Has a system performance with associated technologies that meet a minimum Technology Readiness Level (TRL) of 7, and
- Contains acceptable assays and uses reagents produced with adequate quality control procedures.

In support of these objectives, the Contractor shall provide ready-to-test NG-ADS units and the full range of support to include consumables, data management, operations and maintenance (O&M) support, and technical personnel to support the test activities described below. In particular, the Contractor shall:

- Manufacture and deliver ready-to-test NG-ADS units required for all testing. The NG-ADS units’ configuration will be baselined at the Task Order 1 configuration, unless otherwise approved by DHS, and remain under configuration control by the Contractor. All NG-ADS units will be of the same configuration and from the same assembly line, except as otherwise noted herein. The number of spares required to support the testing activities is shown in Attachment 1 – List of Spare Parts.

- Operate NG-ADS units in support of the tests, including replenishment of consumables and maintenance of the systems when necessary (unless noted otherwise).
- Establish a capability within the independent testing organization and operational test jurisdiction (specifically BioWatch Lab personnel and BioWatch Action Committee) to receive, interpret, and monitor the NG-ADS test results to evaluate the performance of the equipment.
- Collect data and provide reports (Reliability, Availability, Maintainability and Testability (RAM-T) and IT performance data.
- Provide engineering and configuration support.
- Ensure intellectual property and licensing rights are obtained, as appropriate, for commercial-off-the-shelf (COTS) products to allow DHS to operate the NG-ADS units during this Task Order.

1.1 Program Plan

1/26/2011
The Contractor has developed a program schedule that meets DHS’ Milestone requirements and schedule objectives (Attachment 2).

The Contractor shall meet the Task Order 2 technical Milestones as follows:
- **Milestone #3** – Successful completion of the Field Testing activities under Task Order 2 within the scheduled time frame.

1.2 Task Order 2

In support of the Task Order 2 field testing activities, the Contractor will provide twelve (12) ready-to-test NG-ADS units plus spares, which will be placed in support of associated information technology testing, and associated information technology to support the field test, reliability, availability, maintainability, and testability (RAM-T) testing, and IT verification and validation. The Contractor will be responsible for providing equipment and technical support, including the O&M of the NG-ADS units during the course of the field test. This support will include supplying/replenishing all consumables, providing any required preventative maintenance, and corrective maintenance (fixing the system) should it break down during the course of the testing.

Tight configuration control will be used to ensure that all units will be of the same configuration for this testing. **All the NG-ADS units will be manufactured on the same assembly line.**

The Contractor will support the Task Order 2 efforts as described below. This will include providing the necessary NG-ADS units for each test, consumables, spare parts, training, test support, and maintenance support.

1.2.1 Resources

The Contractor shall consumables and other supplies necessary to support the Task Order 2 testing. The Contractor will also setup a facility to perform local repairs and store equipment, spares, and consumables during field testing. Since all testing will take place in Government designated field sites, the Contractor’s support will be focused on providing the necessary NG-ADS units, spares, consumables, and personnel to conduct each test. The NG-ADS units will be prepared for the testing in the facility. The spare parts and consumables necessary to support the testing will also be stored and shipped from this facility and the facility.

1.2.2 Task Order 2 Subtasks
1.2.2.1 Task Order 2 Equipment Procurement and Fabrication

In preparation for Task Order 2 field testing, the Contractor will provide all necessary NG-ADS units, reagents, spare parts, tools, associated information technology, and support plans. This preparation will include the ordering of all material for the fabrication and checkout of the NG-ADS units, all reagents and consumables required to operate the units, and all spares and other support equipment required, including the use and maintenance of the depot facility. The Contractor will also establish a depot facility to

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support the installation, baseline calibration, operational field testing, RAM-T testing, and IT verification and validation (b)(4).

(b)(4)

The Contractor will procure all material and fabricate twelve (12) NG-ADS units plus spares (same configuration as described for Task Order 1) to support Task Order 2 field test activities. All NG-ADS units delivered for testing under the Phase 1 SPD contract will be manufactured on the same assembly line.

The Contractor will maintain supplies, consumables, and personnel adequate to keep the NG-ADS units operational 24/7 during Operational Environment Field Testing (not including down-time for maintenance, calibration, etc.) and to assist in providing failure analysis data as part of the field test. The Contractor will implement a Failure Reporting, Analysis and Corrective Actions System (FRACAS) to facilitate the capture of failure data during Baseline Calibration and the Operational Environment Field Testing. Failure analysis data will identify all observed problems by test unit / instrument, the sub-system at fault, the total time the system / sub-system was down and the required corrective maintenance action needed to repair the problem and restore the system /subsystem. The categories for subsystem at fault and associated subsystems will be agreed to prior to the start of testing. If the FRACAS data is maintained in a proprietary format, the FRACAS application must be provided, or the data must be converted to a common useable format such as Microsoft Excel.

The Contractor will procure all consumables required for testing activities performed under Task Order 2. The Contractor’s plan for quality control of the reagents is described in the Quality Assurance Surveillance Plan (QASP) contained in Volume II—Management Proposal.

The Contractor will provide all spare components that are necessary to support Task Order 2 activities. The assessment of spare parts required to support Task Order 2 is provided in Attachment 1.

(b)(4)

1.2.2.2 Jurisdictional Training and Coordination

The Contractor will provide eight (8) sets of equipment for signal receipt for use by various users to be specified by the Government. This equipment will be in the form of [b][4] [b][7][E] used to monitor system operational status and test results as well as system and logistical management. (b)(4)

(b)(4)

1/26/2011
The Contractor will provide the Government will access to an electronic copy of a maintenance and operator manual(s) (draft or preliminary version acceptable) not later than 30 days before the start of Operational Environment Field Testing.

1.2.2.3 Detector Baseline Calibration for Field Test Start

After delivery of the twelve (12) NG-ADS units to the jurisdiction for Field Testing, the Contractor will be given not less than one (1) month to install, set-up and baseline the units at the operational testing sites identified by DHS. Inspection and acceptance of each NG-ADS unit will take place after the installation and activation at each of the operational testing sites in accordance with FAR 52.246-3, Inspection of Supplies-Cost Reimbursement. This inspection will be done during the Contractor’s activities that are necessary to install the units and acceptance will be based upon the successful completion and review of the Contractor’s installation checklist.

At the end of the set up/baseline period, a review period lasting not longer than 1 week will occur. The Field Test will commence immediately following the review period. The NG-ADS units may continue to operate and be supported during the review period, as mutually agreed upon. Each NG-ADS will be co-located with other competitive autonomous biodetectors and in both indoor and outdoor test environments. The Government will identify the site(s) two (2) months prior to unit delivery (a preliminary list of site(s) will be provided within 2 weeks after receipt of order), provide site prep prior to unit delivery (in accordance with the Contractor’s specifications), provide jurisdiction coordination, and will provide security for the NG-ADS during the duration of the test. The Contractor will be responsible for the security of the NG-ADS enclosure (i.e., locked door to access interior of system). The jurisdiction depot will be used during the installation and baseline testing.

The detector baseline calibration will begin four (4) months after receipt of order and will last up to one (1) month in duration. Prior to the installation, the contractor will provide
Material Safety Data Sheets (MSDS), as necessary, for common consumable items used by their biodetection systems for each consumable subject to spilling (i.e., each liquid), as well as any other common items which may generate disposal/environmental concern, such as batteries. The MSDS will be provided not later than two (2) months after receipt of order.

Detector Baseline Calibration and Review Period Support Details:

- **(b) (4)**

- The Government will operate a TOC that will provide personnel 24/7 for timely site access coordination and escort, observation, and data collection. Unless otherwise required by the site manager, a Government escort will not be required to access the site whenever required by the Contractor.
- All system maintenance will be performed by the Contractor. DHS and other parties will not attempt maintenance on the units without NGSS involvement.

The Contractor will provide site visit log information to DHS on a weekly basis during Baseline Calibration in an electronic format, which will capture the site arrival and departure times, Contractor personnel visiting site, and site visit activity.

1.2.2.4 Operational Environment Field Testing

The Contractor will support the operations and maintenance of the twelve (12) ready-to-test NG-ADS units in support of the Government's test objectives. The NG-ADS units will be split between indoor and outdoor locations based upon a deployment plan that will be developed by the Government. **(b) (4)**

The Contractor will provide test labor for operational environment field testing of twelve (12) instruments in the test jurisdiction beginning within one (1) week of the completion of Baseline Calibration for up to ten (10) continuous weeks. This includes weekly Preventive Maintenance (PM) and as-needed Corrective Maintenance (CM).

Operational Environment Field Maintenance Support Details:

- PM work will be performed during first-shift (7 am to 5 pm) Monday–Saturday, or at other times if elected by the Contractor and coordinated with the TOC.
- CM work will be performed on an as-needed basis. The Contractor will be provided access to the systems 24 hour a day, 7 days a week. Units will be operational 24/7 (not including downtime for maintenance, calibration, etc.). CM will be performed as soon as reasonably possible to minimize field test disruption. The ability to respond and correct errors or faults will factor into the Achieved Availability assessment.
- The Government will operate a TOC that will provide personnel 24/7 for timely site access coordination and escort, observation, and data collection.
- All system maintenance will be performed by the Contractor. DHS and other parties will not attempt maintenance on the units without NGSS involvement.
- Remote fault isolation and corrective action are acceptable.

At the conclusion of the field test there will be a post-test recovery period of approximately two (2) weeks at which time the contractor will de-install, clean, remove, transport, and unload the twelve (12) biodetector units at a storage facility within the vicinity of as designated by the Government, and restore the site to the condition which it was in when installation started, except for modifications made by DHS or at DHS' direction as part of site prep. The Contractor will remove all equipment and materials originally provided by the Contractor, observing all applicable safety and hazardous materials management regulations and good operating practices.

The Contractor will provide site visit log information to DHS on a weekly basis during the post-test period in an electronic format, which will capture the site arrival and departure times, Contractor personnel visiting site, and site visit activity.

1.2.2.5 RAM-T Data Collection

The goal of the RAM-T Data Collection effort is to gather RAM-T data on the NG-ADS in an applicable operational environment. This effort will be conducted in applicable operational environments (i.e., indoor environment, outdoor environment) to evaluate and validate overall supportability of the system.

1.2.2.6 IT Signal Processing V&V and Report Generation

The goal of this activity is to conduct verification and validation on the proposed information technology (IT) system and gather data from the to support independent Verification and Validation (V&V) of signal processing and report generation functions. The Contractor will provide equipment for signal receipt to up to eight (8) local public health and DHS personnel for this task (same personnel as identified and trained per paragraph 1.2.2.2). This equipment will include used to monitor system test results.

The Contractor will provide DHS with information regarding how the IT system functions in order to establish a baseline of its current implementation. The Contractor will collaborate with DHS to develop the procedures that will be used by DHS to capture and validate the data generated by the system. Agreed-upon test data/reports will be generated in accordance with these procedures during the last two (2) weeks of
Baseline Calibration and during the Operational Environment Field Testing. The Contractor will also participate with DHS in the selection of appropriate standards and conventions that will be applied to the V&V activities. Any findings or discrepancies between these agreed-upon standards and conventions and the existing IT system implementation will be documented and addressed in later phases of the program as appropriate.

1.2.2.7 Field Test Extension Options

Prior to the start of field testing, the Government may exercise an option(s) to extend field testing beyond the initial ten (10) weeks for 30 to 60 days. These optional efforts shall be exercised before, or during, the 1-month Baseline Calibration effort of Section 1.2.2.3 of this PWS. The option(s) will be exercised via a funded modification to this Task Order.

If the field test is extended, the contractor shall provide the same level of base support as provided in the initial 10 weeks for Option 1 (a 30-day extension) and Option 2 (a 2nd 30-day extension). The contractor shall provide all consumables and technical support required to repair, maintain and operate the twelve (12) biodetector units 24 hours a day, 7 days a week (24/7) for the extension period. The contractor shall also be responsible for collecting and reporting reliability, availability, maintainability and testability data for the duration of the extension period.

1.3 Other Requirements

1.3.1 Program Reviews

1.3.2 Management Information

The Contractor shall submit Monthly Project Status Reports (MPSR) no later than the fifteenth workday after the reporting calendar month. Reports will include breakouts by Task Order and SOO Test Events. The Contractor shall provide an MPSR that includes the following elements:

- Project Cost by Task Order:
  - Budget at Completion (BAC)
  - Actual Cost (AC)
  - Accrued Cost (estimates)
- Cost Variance (CV) - Actuals vs. Budget
- Estimate at Complete (EAC)
  - Estimate to Completion (ETC)
  - Cost Funds Status
- Performance/Schedule by Task Order and Test Event:
  - Project Schedule
  - Overall Technical Performance Evaluation
  - Completion percentage of the Milestones and/or Deliverables
  - Schedule Variance (SV)
  - Variance at Completion (VAC)
- Risk Management by Task Order and Test Event:
  - Risk Reporting Matrix
  - Risk Mitigation Worksheet

Current period values and cumulative values for data, variances, and forecasts will be provided in numerical format showing values and in graphical format showing trends. Any schedule variance on the critical path will be identified and its impact on subsequent milestones and the project cost and schedule quantified.

The Contractor shall also deliver a draft Program Management Plan and final Program Management Plan. The draft Project Management Plan will be submitted 15 days after a task order is received, with a final submittal reflecting Government input due 30 days after the task order is received. The Project Management Plan shall provide a detailed schedule, including a critical path analysis, along with a narrative discussing the salient issues affecting task execution in terms of needed technical inputs and analysis to meet cost, schedule, and performance in the task execution.

1.3.3 Technology Readiness Assessment

The Contractor shall provide adequate information to permit the Government to determine the TRL level of the NG-ADS technology throughout the course of the program.

1.3.4 Configuration Management

Once units are delivered for testing, all changes will be reviewed and approved by DHS.

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before they are implemented.

If the program implements modifications or changes that require additional characterization and system tests, the Contractor will provide the consumables and technical support for this effort. These changes will be subject to a contract modification in accordance with the contract’s changes clause (FAR 52.243-2).

The Contractor shall implement drawing configuration management consistent with Task Order 1.

1.3.5 Occupational Health and Safety

Prior to delivery of the ready-to-test NG-ADS units, the Contractor shall self-certify that the units being delivered are safe to operate and that all known occupational safety and health concerns are appropriately mitigated.

(b) (4)

1.3.6 Technical Exchange Meetings

The Contractor shall prepare for and support technical exchange meetings (TEM) as required to discuss technical issues and agree on an appropriate path forward.

1.4 Deliverables

The Contractor shall deliver the equipment, documentation and training listed in Table 1, Table 2, and Table 3, below. Inspection and acceptance of each NG-ADS unit will take place after the installation and activation at each of the operational testing sites in accordance with FAR 52.246-3, Inspection of Supplies - Cost Reimbursement. This inspection will be done during the Contractor’s activities that are necessary to install the units and acceptance will be based upon the successful completion and review of the Contractor’s installation checklist. DHS will provide acceptance or comments within 2 calendar weeks of submittal of all data deliverables. Comments and changes will be incorporated once into a single, final submittal. Final coordination of the training deliverables outlined in Table 3 will occur upon completion of the equipment deliverables outlined in Table 2.

Table 1 Program Deliverables

<table>
<thead>
<tr>
<th>Description</th>
<th>Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monthly Project Status Report (MPSR)</td>
<td>NLT 15th of each month</td>
</tr>
<tr>
<td>Technical Exchange Meetings</td>
<td>1st TEM NLT 30 days ARO</td>
</tr>
<tr>
<td></td>
<td>Subsequent meetings as required, not to exceed 1 meeting per month</td>
</tr>
<tr>
<td>Updated Project Management Plan</td>
<td>Draft 15 days ARO</td>
</tr>
</tbody>
</table>

1/26/2011
### Table 2 Equipment Deliverables

<table>
<thead>
<tr>
<th>Description</th>
<th>Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>Twelve (12) NG-ADS Units for Spares and consumables in support of Detector Baseline Calibration and Operational Environment Field Testing</td>
<td>(b) (4) ARO; certain consumables and spares may be delivered in multiple, time-staggered deliveries after the first delivery</td>
</tr>
<tr>
<td>Equipment for signal receipt at jurisdiction</td>
<td>Concurrent with the associated training class</td>
</tr>
</tbody>
</table>

### Table 3 Training Deliverables

<table>
<thead>
<tr>
<th>Description</th>
<th>Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>User Interface Training in the Field Testing Jurisdiction</td>
<td>(b) (4) after start of Detector Baseline Calibration</td>
</tr>
<tr>
<td>Technical Orientation Training support materials</td>
<td>(b) (4) after receipt of order</td>
</tr>
</tbody>
</table>

1/26/2011
| Common Archive Retrieval Training and associated materials | Prior to the start of Detector Baseline Calibration |
Attachment 1 - Task Order 2 Spares List

Baseline Scope Spares List

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Title/Description</th>
<th>QTY</th>
</tr>
</thead>
<tbody>
<tr>
<td>(b)(4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(b)(7)(E)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Part Number</td>
<td>Title/Description</td>
<td>QTY</td>
</tr>
<tr>
<td>-------------</td>
<td>-------------------</td>
<td>-----</td>
</tr>
<tr>
<td>(b)(4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(b)(7)(E)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Part Number</td>
<td>Title/Description</td>
<td></td>
</tr>
<tr>
<td>-------------</td>
<td>-------------------</td>
<td></td>
</tr>
<tr>
<td>(b)(4)</td>
<td>(b)(7)(E)</td>
<td></td>
</tr>
</tbody>
</table>
### Option 1 Spares List

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Title/Description</th>
<th>QTY</th>
</tr>
</thead>
<tbody>
<tr>
<td>(b)(4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(b)(7)(E)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Option 2 Spares List

<table>
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<tr>
<th>Part Number</th>
<th>Title/Description</th>
<th>QTY</th>
</tr>
</thead>
<tbody>
<tr>
<td>(b)(4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(b)(7)(E)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1/26/2011
<table>
<thead>
<tr>
<th>Part Number</th>
<th>Title/Description</th>
<th>QTY</th>
</tr>
</thead>
<tbody>
<tr>
<td>(b)(4)</td>
<td>(b)(7)(E)</td>
<td></td>
</tr>
</tbody>
</table>

**NOTE:** Baselines Scope Spares not utilized/consumed in support of Task Order 2 Field Test activities shall be available for utilization/consumption for Option 1 and Option 2 Field Test Extensions.
### Attachment 2 - DHS SPD Program Schedule

<table>
<thead>
<tr>
<th>Task</th>
<th>Duration (Work Days)</th>
<th>Start Month</th>
<th>Finish Month</th>
<th>Months After Receipt of Order</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Contract Award (T01)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Task Order #1 - Assay Validation and Characterization Testing</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assay Testing - Vendor Delivers Units per PWS</td>
<td>0</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Assay Testing - Train/Calibrate/Screen Population</td>
<td>10</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Assay Testing (50% Utilization per PWS)</td>
<td>120</td>
<td>4</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>Aerosol Collection Subsystem Test - Vendor Delivers units per PWS</td>
<td>0</td>
<td>4</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Aerosol Collection Subsystem Test - Vendor Trans ECBC per PWS</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Aerosol Collection Subsystem Test</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Analytical Subsystem Tests - Vendor Delivers units per PWS</td>
<td>0</td>
<td>4</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Analytical Subsystem Test - Vendor Trans DPG personnel</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Analytical Subsystem Test 2.a. - Limit of Detection</td>
<td>20</td>
<td>5</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td><strong>Milestone #1</strong></td>
<td>0</td>
<td>6</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Analytical Subsystem Test 2.b. - Probability of Detection</td>
<td>68</td>
<td>6</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>System Level Test - Vendor Delivers units per PWS to DPG</td>
<td>0</td>
<td>4</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>System Level Test</td>
<td>30</td>
<td>7</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td><strong>Milestone #2</strong></td>
<td>0</td>
<td>10</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td><strong>Contract Award (T02)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Task Order #2 - Field Test</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vendor Delivers units per PWS</td>
<td>0</td>
<td>12</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>Biodefense baseline calibration</td>
<td>30</td>
<td>12</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>Field test/BAM/IT Verification and Validation</td>
<td>70</td>
<td>13</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td>Option 1: 30-Day Field Test Extension</td>
<td>30</td>
<td>16</td>
<td>17</td>
<td></td>
</tr>
<tr>
<td>Option 2: Additional 30-Day Field Test Extension</td>
<td>30</td>
<td>17</td>
<td>18</td>
<td></td>
</tr>
<tr>
<td>Decommission, Transport, and Unload at the Government Site</td>
<td>14</td>
<td>16</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td>Data compilation/report</td>
<td>25</td>
<td>16</td>
<td>17</td>
<td></td>
</tr>
<tr>
<td><strong>Milestone #3</strong></td>
<td>0</td>
<td>17</td>
<td>17</td>
<td></td>
</tr>
<tr>
<td><strong>Future Task Orders (Unpriced)</strong></td>
<td>TBD</td>
<td>18</td>
<td>TBD</td>
<td></td>
</tr>
</tbody>
</table>

*Notes:*
- TBD: To be determined.
(b) (4)
AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE
   P00004

2. AMENDMENT/MODIFICATION NO.
   See Block 16C

3. EFFECTIVE DATE
   ROHA-11-00067

4. REQUISITION/PURCHASE REQ. NO.
   U.S. Dept. of Homeland Security
   Office of Procurement Operations
   OHA Acquisition Division
   245 Murray Lane, SW
   Building 410
   Washington DC 20528

6. ISSUED BY
   DHS/OPO/OHA

7. ADMINISTERED BY
   DHS/OPO/OHA

8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)
   NORTHPROP GRUMAN SECURITY SYSTEMS LLC
   1580 B WEST NURSERY RD
   LINTHICUM HEIGHTS MD 210900000

10A. AMENDMENT OF SOLICITATION NO.

10B. DATED (SEE ITEM 11)
   09/27/2010

12. ACCOUNTING AND APPROPRIATION DATA (Required)
   See Schedule

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT ORDER NO. AS DESCRIBED IN ITEM 14.

   CHECK ONE
   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 pricing office, appropriation data, 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)

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCX section headings, including solicitation/contract subject matter where feasible.)
   DUNS Number: 104638205-0000
   The purpose of this modification is to realign the accounting strings and funding from CLIN 0002 in the amount of (b)(4) (Funding for additional tasks under Task 2) and CLIN 0003 in the amount of (b)(4) (remainder of Task Order 2 base effort funding) to CLIN 0001 (Task Order 2 - Operational Field Testing). As a result, the total cost of CLIN 0001 is now (b)(4).

   The total cost of the task order, terms, and conditions remain unchanged.

Send signed modification to (b)(6) and (b)(6)

AAP Number: 64418 DO/DPS Rating: NONE
Continued ...

Exempt as provided herein, all terms and conditions of the document referenced in Item 9A or 13A, as hereafter changed, remain unchanged and in full force and effect.

16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)
   Carla Davis
   Standards Form 30 (REV. 10-83)

Previous edition unusable

FAR (48 CFR) 52.243
## Discount Terms:
- Net 30

### Delivery Location Code: DHS
**Department of Homeland Security**
- 245 Murray Lane
- Bldg. 410
- Washington DC 20528

### FOB: Destination:
- Period of Performance: 09/27/2010 to 09/26/2011

Change Item 0001 to read as follows (amount shown is the obligated amount):

<table>
<thead>
<tr>
<th>ITEM NO.</th>
<th>SUPPLIES/SERVICES</th>
<th>QUANTITY</th>
<th>UNIT</th>
<th>UNIT PRICE</th>
<th>AMOUNT</th>
</tr>
</thead>
<tbody>
<tr>
<td>0001</td>
<td>Task Order 2 - Operational Field Testing</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Task Order 2 Base Effort Estimated Cost:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Task Order 2 Base Effort Fixed Fee:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Task Order 2 Base Effort Total Price: $8,437,715</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Total Line Item Value:
- $8,437,715

### Accounting Info:
- **WMD0010-000-H9-13-50-02-000-05-00-0000-00-00-00**
  - GE-05-25-76-000000
  - Funded: $0.00
- **WMD0010-000-H0-13-50-02-000-05-00-0000-00-00-00**
  - GE-05-25-76-000000
  - Funded: $0.00
- **WMD0011-000-H0-13-50-00-00-05-00-0000-00-00-00**
  - GE-05-25-76-000000
  - Funded: $0.00

### Cancel Item 0002 in its entirety.

### Cancel Item 0003 in its entirety.
**AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT**

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMENDMENT/MODIFICATION NO.</td>
<td>P00005</td>
</tr>
<tr>
<td>EFFECTIVE DATE</td>
<td>02/25/2011</td>
</tr>
<tr>
<td>ISSUED BY</td>
<td>DHS/OPA/CHA</td>
</tr>
<tr>
<td>NAME AND ADDRESS OF CONTRACTOR</td>
<td>NORTHROP GRUMMAN SECURITY SYSTEMS LLC, 1580 E. WEST NURSERY RD, LINTHICUM HEIGHTS MD 210900000</td>
</tr>
<tr>
<td>MODIFICATION NO.</td>
<td>9A. AMENDMENT OF SOLICITATION NO. 09/27/2010</td>
</tr>
<tr>
<td>MODIFICATION OF CONTRACT ORDER NO.</td>
<td>HSHQDC-10-D-00530</td>
</tr>
<tr>
<td>DATED (SEE ITEM 11)</td>
<td>09/27/2010</td>
</tr>
<tr>
<td>MODIFICATION ORDER NO.</td>
<td>HSHQDC-10-J-00435</td>
</tr>
<tr>
<td>DATED (SEE ITEM 12)</td>
<td>09/27/2010</td>
</tr>
<tr>
<td>CONTRACT ID CODE</td>
<td>1046382050000</td>
</tr>
<tr>
<td>FACILITY CODE</td>
<td></td>
</tr>
</tbody>
</table>

**13. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS**

- The above solicitation is amended as set forth in Item 14. The hour and date specified for receipt of offers is not extended.
- Offers 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 Item 8 and 10, 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 amendment and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT 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 a value of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided this 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

**14. DESCRIPTION OF AMENDMENT/MODIFICATION**

- The purpose of this task order modification is to incorporate NG ECP-SPD-006, dated February 17, 2011, at no additional cost to the Government.

All other task order terms and conditions remain unchanged.

Send signed modification to (b) (6) and (b) (6)

DO/DPAS Rating: none

Period of Performance: 09/27/2010 to 09/26/2011
ENGINEERING CHANGE PROPOSAL (ECP)

Public reporting burden for this collection of information is estimated to average 2 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503.

PLEASE DO NOT RETURN YOUR COMPLETED FORM TO EITHER OF THESE ADDRESSES. RETURN COMPLETED FORM TO THE GOVERNMENT ISSUING CONTRACTING OFFICER FOR THE CONTRACT/PROCURING ACTIVITY NUMBER LISTED IN ITEM 2 OF THIS FORM.

NORTHROP GRUMMAN

ECP SPD-006

ECP DESIGNATION

NG-ADS

SPECIFICATIONS AFFECTED

SYSTEM

CAGE Code

Specification/ Document No

Rev

SN

CLASS CODE

Number

Rev

NOR

SYSTEM

REV

GAGE

Code

SPECIFICATION/ DOCUMENT NO

CLASS CODE

NUMBER

Rev

NOR

PRODUCT

13. TITLE OF CHANGE

Aerosol collector heater control changes and MSVI frame material change.

14. CONTRACT NO. AND LINE ITEM

HSHQDC-13-D-00003

HSHQDC-13-D-00456

15. PROCURING CONTRACTING OFFICER

a. NAME (First, Middle, Last)

Carla Davis

b. CODE

CAGE

16. CONFIGURATION ITEM NOMENCLATURE

NA

17. IN PRODUCTION

YES

18. ALL LOWER LEVEL ITEMS AFFECTED

a. NOMENCLATURE NA

b. PART NO. NA

c. NSN NA

19. DESCRIPTION OF CHANGE

This ECP covers the following changes:

Further details can be found in Attachment 1

NEED FOR CHANGE

Further details can be found in Attachment 1

PRODUCTION EFFECTIVITY BY SERIAL NUMBER

NA

EFFECT ON PRODUCTION DELIVERY SCHEDULE

NO IMPACT

RECOMMENDED ITEM EFFECTIVITY

KIT DELIVERY SCHEDULE

LOCATIONS OR SHIP/VEHICLE NUMBERS AFFECTED

JURISDICTION

ESTIMATED COSTS/SAVINGS UNDER CONTRACT

ESTIMATED NET TOTAL COSTS/SAVINGS

SUBMITTING ACTIVITY

AUTHORIZED SIGNATURE

CONTRACTS REPRESENTATIVE

APPROVAL/DISAPPROVAL

CLASS I

CLASS II

CLASS II

GOVERNMENT ACTIVITY

APPROVAL

SIGNATURE

DATE SIGNED (YYMMD)

DD FORM 1692, APR 92

Previous editions are obsolete
(b)(4) (b)(7)(E)
AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

2 AMENDMENT/MODIFICATION NO.
P00006

3 EFFECTIVE DATE
See Block 16C

4. REQUISITION/PURCHASE REQ. NO.
ROHA-11-00094

5. PROJECT NO. (If applicable)

6. ISSUED BY
U.S. Dept. of Homeland Security
Office of Procurement Operations
OHA Acquisition Division
245 Murray Lane, SW
Building 410
Washington DC 20528

7. ADMINISTERED BY (If other than Item 6)
U.S. Dept. of Homeland Security
Office of Procurement Operations
OHA Acquisition Division
245 Murray Lane, SW
Building 410
Washington DC 20528

8. NAME AND ADDRESS OF CONTRACTOR (No, street, county, State and ZIP Code)
NORTHROP GRUMMAN SECURITY SYSTEMS LLC
1580 B WEST NURSERY RD
LINTHICUM HEIGHTS MD 210900000

9A. AMENDMENT OF SOLICITATION NO.

9B. DATED (SEE ITEM 11)

X 10A. MODIFICATION OF CONTRACT/ORDER NO.
HSQDC-10-D-00003
HSQDC-10-J-00455

10B. DATED (SEE ITEM 11)
09/27/2010

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 Offers ☐ is extended. ☐ is not extended.

Offers 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 13, 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 ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE:
A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority)
B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation data, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.102(b).
C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor ☐ is not ☑ is required to sign this document and return one copy of this amendment to the issuing office.

DUNS Number: 104638205+0000

The purpose of this modification # P00006 to HSHQDC-10-D-00003/HSQDC-10-J-00455 is as follows:

1. Realign the accounting strings and funding from CLIN 0001a (Option 1: 30-Day Extension) in the amount of (b)(4) to CLIN 0001 (Task Order 2 - Operational Field Testing). As a result, the total obligated amount of CLIN 0001 is now $9,310,359.00.

2. Note that ECP-SPD-004 was erroneously incorporated in modification # P00002 of HSHQDC-10-J-00455. ECP-SPD-004 actually refers to HSHQDC-10-J-00024.

Continued...

[Signature]
Carla Davis

14A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)

15A. DATE SIGNED
3/17/11

15C. DATE SIGNED
3/17/11

STANDARD FORM 30 (REV 10-83)

Prescribed by USA
FAR (all CFR) 53.243
The total obligated amount of the task order, terms, and conditions remain unchanged.
AAR Number: 64148 DO/DFAS Rating: NONE
Discount Terms: Net 30
Delivery Location Code: DHS
Department of Homeland Security
245 Murray Lane
Bldg. 410
Washington DC 20528

FOB: Destination
Period of Performance: 09/27/2010 to 09/26/2011

Change Item 0001 to read as follows (amount shown is the obligated amount):

<table>
<thead>
<tr>
<th>ITEM NO.</th>
<th>SUPPLIES/SERVICES</th>
<th>QUANTITY</th>
<th>UNIT</th>
<th>UNIT PRICE</th>
<th>AMOUNT</th>
</tr>
</thead>
<tbody>
<tr>
<td>0001</td>
<td>Task Order 2 - Operational Field Testing</td>
<td>$9,310,359.00</td>
<td>(b) (4)</td>
<td>(b) (4)</td>
<td>(b) (4)</td>
</tr>
</tbody>
</table>

Accounting Info:

<table>
<thead>
<tr>
<th>Reference No.</th>
<th>Description</th>
<th>Funded</th>
<th>Accounting Info:</th>
</tr>
</thead>
<tbody>
<tr>
<td>WD00010-000-H9-13-50-02-000-05-00-0000-00-00-00-00-00-00-00-00-0000</td>
<td>GE-GE-25-76-000000</td>
<td>$0.00</td>
<td>WD00010-000-H0-13-50-02-000-05-00-0000-00-00-00-00-00-00-00-00-0000</td>
</tr>
</tbody>
</table>

Continued...
Change Item 0001A to read as follows (amount shown is the obligated amount):

<table>
<thead>
<tr>
<th>ITEM NO.</th>
<th>SUPPLIES/SERVICES (A)</th>
<th>QUANTITY (C)</th>
<th>UNIT (D)</th>
<th>UNIT PRICE (E)</th>
<th>AMOUNT (F)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0001A</td>
<td>Option 1: 30-Day Extension</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cost is decreased by (b)(4) from (b)(4) to (b)(4).</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fixed fee is decreased by (b)(4) from (b)(4) to (b)(4).</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total obligated amount is decreased by (b)(4)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total Line Item Value (b)(4)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Delivery: 30 Days After Award
Accounting Info:
WWD0011-000-H0-13-50-00-000-05-00-0000-00-00-00-00-00-00-00-00-GE-GE-25-76-000000
Funded: (b)(4)
Award Distribution: OHA procurements@dhs.gov

Payment Office:
Department of Homeland Security
Burlington Finance Center
P.O. Box 1000
Williston, VT 05495-1000
Attn: Office of Health Affairs (OHA)
Fax (802-288-7658)
E-mail: OHA.invoice.consolidation@dhs.gov
ALC: 70-03-1513
TIN: 26-1623625
Dun: 827414181

Funding Appropriated: FY10
Appropriation Title and Year(s): Two year OHA program funds
Treasury Account Symbol (TAS): 700117
Treasury Appropriation Fund Symbol (TAFS): 700/100117
Amount: (b)(4)
The purpose of this modification is to authorize the Contractor to continue the Phase I field testing on the four (4) NG-ADS units located at [redacted] through September 26, 2011, and provide the following items:

1. Transport all equipment and spares in the currently leased depot facility to an NGSS facility in [redacted].

2. Continue depot support;

3. Continue IT support;

Continued...

[Handwritten notes and redactions]
<table>
<thead>
<tr>
<th>ITEM NO. (A)</th>
<th>SUPPLIES/SERVICES (B)</th>
<th>QUANTITY (C)</th>
<th>UNIT (D)</th>
<th>UNIT PRICE (E)</th>
<th>AMOUNT (F)</th>
</tr>
</thead>
</table>

4. Continue FRACAS collection and RAM-T reports.

This additional testing shall be performed in accordance with the updated Performance Work Statement (PWS) dated 6/22/2011 (attached, 19 pages).

The estimated cost for additional testing and support through September 26, 2011 is (b) (4) according to proposal dated 6/22/2011 (NGSS Letter No.: 2011-06-22 SPD Biowatch-0121, attached, 2 pages).

There is sufficient funding already obligated on this Task Order to continue the testing through September 26, 2011. As such, the extension of the testing period and additional support shall be provided at no additional cost to the Government.

Testing on the four (4) aforementioned units may be further extended beyond September 26, 2011. The Government will make this determination and notify the Contractor no later than September 1, 2011.

All other Task Order terms remain unchanged.
AAP Number: 64418 DO/DPAS Rating: NONE
Discount Terms:
Net 30
Delivery Location Code: DHS
Department of Homeland Security
245 Murray Lane
Bldg. 410
Washington DC 20528

FOB: Destination
Period of Performance: 09/27/2010 to 09/26/2011

Change Item 0001 to read as follows (amount shown is the obligated amount):

0001
Total Line Item Value $9,310.359.00

Accounting Info:
WM30010-000-H9-13-50-02-000-05-00-0000-00-00-00-00
-GE-0E-25-76-000000
Funded: (b) (4)

Continued...
<table>
<thead>
<tr>
<th>ITEM NO. (A)</th>
<th>SUPPLIES/SERVICES (B)</th>
<th>QUANTITY (C)</th>
<th>UNIT (D)</th>
<th>UNIT PRICE (E)</th>
<th>AMOUNT (F)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting Info:</td>
<td>WMD0010-000-H0-13-50-02-000-05-00-0000-00-00-00-00</td>
<td>Funded: $0.00</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Accounting Info: | WMD0010-000-H0-13-50-02-000-05-00-0000-00-00-00-00 |
| Funded: $0.00 |

Accounting Info: | WMD0011-000-H0-13-50-00-000-05-00-0000-00-00-00-00 |
| Funded: $0.00 |

Accounting Info: | WMD0011-000-H0-13-50-00-000-05-00-0000-00-00-00-00 |
| Funded: $0.00 |

Accounting Info: | WMD0011-000-H0-13-50-00-000-05-00-0000-00-00-00-00 |
| Funded: $0.00 |

Award Distribution: OHAprocurements@dhs.gov

Payment Office:
Department of Homeland Security
Burlington Finance Center
P.O. Box 1000
Williston, VT 05495-1000
Attn: Office of Health Affairs (OHA)
Fax (802-288-7658)
E-mail: OHA.invoice.consolidation@dhs.gov
ALC: 70-03-1513
TIN: 26-1623625
Dun: 827414181

FY Appropriated: FY10
Appropriation Title and Year(s): Two year OHA program funds
Treasury Account Symbol (TAS): 700117
Treasury Appropriation Fund Symbol (TAFS): 700/100117
Amount: (b) (4)
Performance Work Statement – Task Order 2

1 Objectives and Goals

Under the Phase I Systems Performance Demonstration (SPD) contract, the Contractor will provide Next-Gen Automated Detection Systems (NG-ADS) and all technical and operational support to enable the Government to test in an operationally relevant field environment in Task Order 2 to determine the adequacy of the NG-ADS for future procurement and deployment. The Government may also issue additional task orders for engineering enhancements to correct and validate issues identified during testing activities described below.

The objective of this effort is to demonstrate that the NG-ADS:
- Conforms to the Gen-3 performance specification,
- Has a system performance with associated technologies that meet a minimum Technology Readiness Level (TRL) of 7, and
- Contains acceptable assays and uses reagents produced with adequate quality control procedures.

In support of these objectives, the Contractor shall provide ready-to-test NG-ADS units and the full range of support to include consumables, data management, operations and maintenance (O&M) support, and technical personnel to support the test activities described below. In particular, the Contractor shall:

- Manufacture and deliver ready-to-test NG-ADS units required for all testing. The NG-ADS units’ configuration will be baselined at the Task Order 1 configuration, unless otherwise approved by DHS, and remain under configuration control by the Contractor. All NG-ADS units will be of the same configuration and from the same assembly line, except as otherwise noted herein. The number of spares required to support the testing activities is shown in Attachment 1 – List of Spare Parts.
- Operate NG-ADS units in support of the tests, including replenishment of consumables and maintenance of the systems when necessary (unless noted otherwise).
- Establish a capability within the independent testing organization and operational test jurisdiction (specifically BioWatch Lab personnel and BioWatch Action Committee) to receive, interpret, and monitor the NG-ADS test results to evaluate the performance of the equipment.
- Collect data and provide reports (Reliability, Availability, Maintainability and Testability (RAM-T) and IT performance data.
- Provide engineering and configuration support.
- Ensure intellectual property and licensing rights are obtained, as appropriate, for commercial-off-the-shelf (COTS) products to allow DHS to operate the NG-ADS units during this Task Order.

1.1 Program Plan
The Contractor has developed a program schedule that meets DHS' Milestone requirements and schedule objectives (Attachment 2).

The Contractor shall meet the Task Order 2 technical Milestones as follows:

- Milestone #3 – Successful completion of the Field Testing activities under Task Order 2 within the scheduled time frame.

1.2 Task Order 2

In support of the Task Order 2 field testing activities, the Contractor will provide twelve (12) ready-to-test NG-ADS units plus spares, which will be placed in the field and associated information technology to support the field test, reliability, availability, maintainability, and testability (RAM-T) testing, and IT verification and validation. The Contractor will be responsible for providing equipment and technical support, including the O&M of the NG-ADS units during the course of the field test. This support will include supplying/replenishing all consumables, providing any required preventative maintenance, and corrective maintenance (fixing the system) should it break down during the course of the testing.

Tight configuration control will be used to ensure that all units will be of the same configuration for this testing. All the NG-ADS units will be manufactured on the same assembly line.

The Contractor will support the Task Order 2 efforts as described below. This will include providing the necessary NG-ADS units for each test, consumables, spare parts, training, test support, and maintenance support.

1.2.1 Resources

The Contractor shall consumables and other supplies necessary to support the Task Order 2 testing. The Contractor will also setup personnel to perform local repairs and store equipment, spares, and consumables during field testing. Since all testing will take place in Government designated field sites, the Contractor's support will be focused on providing the necessary NG-ADS units, spares, consumables, and personnel to conduct each test. The NG-ADS units will be prepared for the testing in the field. The spare parts and consumables necessary to support the testing will also be stored and shipped from this facility and the

1.2.2 Task Order 2 Subtasks
1.2.2.1 Task Order 2 Equipment Procurement and Fabrication

In preparation for Task Order 2 field testing, the Contractor will provide all necessary NG-ADS units, reagents, spare parts, tools, associated information technology, and support plans. This preparation will include the ordering of all material for the fabrication and checkout of the NG-ADS units, all reagents and consumables required to operate the units, and all spares and other support equipment required including the use and maintenance of the

The Contractor will also establish one or more depot facilities

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The Contractor will procure all material and fabricate twelve (12) NG-ADS units plus spares (same configuration as described for Task Order 1) to support Task Order 2 field test activities. All NG-ADS units delivered for testing under the Phase I SPD contract will be manufactured on the same assembly line.

The Contractor will maintain supplies, consumables, and personnel adequate to keep the NG-ADS units operational 24/7 during Operational Environment Field Testing (not including down-time for maintenance, calibration, etc.) and to assist in providing failure analysis data as part of the field test. The Contractor will implement a Failure Reporting, Analysis and Corrective Actions System (FRACAS) to facilitate the capture of failure data during Baseline Calibration and the Operational Environment Field Testing. Failure analysis data will identify all observed problems by test unit / instrument, the sub-system at fault, the total time the system / sub-system was down and the required corrective maintenance action needed to repair the problem and restore the system /subsystem. The categories for subsystem at fault and associated subsystems will be agreed to prior to the start of testing. If the FRACAS data is maintained in a proprietary format, the FRACAS application must be provided, or the data must be converted to a common useable format such as Microsoft Excel.

The Contractor will procure all consumables required for testing activities performed under Task Order 2. The Contractor’s plan for quality control of the reagents is described in the Quality Assurance Surveillance Plan (QASP) contained in Volume II—Management Proposal.

The Contractor will provide all spare components that are necessary to support Task Order 2 activities. The assessment of spare parts required to support Task Order 2 is provided in Attachment 1.

1.2.2.2 Jurisdictional Training and Coordination

The Contractor will provide eight (8) sets of equipment for signal receipt for use by various users to be specified by the Government. This equipment will be in the form of system and logistical management.
The Contractor will provide the Government with access to an electronic copy of a maintenance and operator manual(s) (draft or preliminary version acceptable) not later than 30 days before the start of Operational Environment Field Testing.

1.2.2.3 Detector Baseline Calibration for Field Test Start

After delivery of the twelve (12) NG-ADS units to the jurisdiction for Field Testing, the Contractor will be given not less than one (1) month to install, set-up and baseline the units at the operational testing sites identified by DHS. Inspection and acceptance of each NG-ADS unit will take place after the installation and activation at each of the operational testing sites in accordance with FAR 52.246-3, Inspection of Supplies-Cost Reimbursement. This inspection will be done during the Contractor’s activities that are necessary to install the units and acceptance will be based upon the successful completion and review of the Contractor’s installation checklist.

At the end of the set-up/baseline period, a review period lasting not longer than 1 week will occur. The Field Test will commence immediately following the review period. The NG-ADS units may continue to operate and be supported during the review period, as mutually agreed upon. Each NG-ADS will be co-located with other competitive autonomous biodetectors and a [REDACTED] in both indoor and outdoor test environments. The Government will identify the site(s) two (2) months prior to unit delivery (a preliminary list of site(s) will be provided within 2 weeks after receipt of order), provide site prep prior to unit delivery (in accordance with the Contractor’s specifications), provide jurisdiction coordination, and will provide security for the NG-ADS during the duration of the test. The Contractor will be responsible for the security of the NG-ADS enclosure (i.e., locked door to access interior of system). The jurisdiction department [REDACTED] will be used during the installation and baseline testing.

The detector baseline calibration will begin four (4) months after receipt of order and will last up to one (1) month in duration. Prior to the installation, the contractor will provide
Material Safety Data Sheets (MSDS), as necessary, for common consumable items used by their biodetection systems for each consumable subject to spilling (i.e., each liquid), as well as any other common items which may generate disposal/environmental concern, such as batteries. The MSDS will be provided not later than two (2) months after receipt of order.

Detector Baseline Calibration and Review Period Support Details:

- (b) (4)
- The Government will operate a TOC that will provide personnel 24/7 for timely site access coordination and escort, observation, and data collection. Unless otherwise required by the site manager, a Government escort will not be required to access the site whenever required by the Contractor.
- All system maintenance will be performed by the Contractor. DHS and other parties will not attempt maintenance on the units without NGSS involvement.

The Contractor will provide site visit log information to DHS on a weekly basis during Baseline Calibration in an electronic format, which will capture the site arrival and departure times, Contractor personnel visiting site, and site visit activity.

1.2.2.4 Operational Environment Field Testing

The Contractor will support the operations and maintenance of the twelve (12) ready-to-test NG-ADS units in support of the Government’s test objectives. The NG-ADS units will be split between indoor and outdoor locations based upon a deployment plan that will be developed by the Government. (b) (4)

The Contractor will provide test labor for operational environment field testing of twelve (12) instruments in the contractual jurisdiction beginning within one (1) week of the completion of Baseline Calibration for up to ten (10) continuous weeks. This includes weekly Preventive Maintenance (PM) and as-needed Corrective Maintenance (CM).

Operational Environment Field Maintenance Support Details:

- (b) (4)
- The Government will operate a TOC that will provide personnel 24/7 for timely site access coordination and escort, observation, and data collection.
• All system maintenance will be performed by the Contractor. DHS and other parties will not attempt maintenance on the units without NGSS involvement.

At the conclusion of the field test there will be a post-test recovery period of approximately two (2) weeks at which time the contractor will de-install eight (8) biodetector units from field sites and restore the sites to the condition which they were in when installation started, except for modifications made by DHS or at DHS’ direction as part of site prep. The Contractor will remove all equipment and materials originally provided by the Contractor at each site, observing all applicable safety and hazardous materials management regulations and good operating practices. A minority of the eight (8) un-installed NG-ADS units will be kept and the remaining units will be returned to [b](4) [b](7)[F]

The Contractor will provide site visit log information to DHS on a weekly basis during the two week post-test period in an electronic format, which will capture the site arrival and departure times, Contractor personnel visiting site, and site visit activity.

1.2.2.5 RAM-T Data Collection

The goal of the RAM-T Data Collection effort is to gather RAM-T data on the NG-ADS in an applicable operational environment. This effort will be conducted in applicable operational environments (i.e., indoor environment, outdoor environment) to evaluate and validate overall supportability of the system.

1.2.2.6 IT Signal Processing V&V and Report Generation

The goal of this activity is to conduct verification and validation on the proposed information technology (IT) system and gather data from the [b](4) [b](7)(E) to support independent Verification and Validation (V&V) of signal processing and report generation functions. The Contractor will provide equipment for signal receipt to up to eight (8) local public health and DHS personnel for this task (same personnel as identified and trained per paragraph 1.2.2.2). This equipment will include [b](4) [b](7)(E) used to monitor system test results. [b](4)

The Contractor will provide DHS with information regarding how the IT system functions in order to establish a baseline of its current implementation. The Contractor will collaborate with DHS to develop the procedures that will be used by DHS to capture and
validate the data generated by the system. Agreed-upon test data/reports will be generated in accordance with these procedures during the last two (2) weeks of Baseline Calibration and during the Operational Environment Field Testing. The Contractor will also participate with DHS in the selection of appropriate standards and conventions that will be applied to the V&V activities. Any findings or discrepancies between these agreed-upon standards and conventions and the existing IT system implementation will be documented and addressed in later phases of the program as appropriate.

1.2.2.7 Field Test Extension Options

Prior to the start of field testing, the Government may exercise an option(s) to extend field testing beyond the initial ten (10) weeks for 30 to 60 days. These optional efforts shall be exercised before, or during, the 1-month Baseline Calibration effort of Section 1.2.2.3 of this PWS. The option(s) will be exercised via a funded modification to this Task Order.

If the field test is extended, the contractor shall provide the same level of base support as provided in the initial 10 weeks for Option 1 (a 30-day extension) and Option 2 (a 2nd 30-day extension). The contractor shall provide all consumables and technical support required to repair, maintain and operate the twelve (12) biodetector units 24 hours a day, 7 days a week (24/7) for the extension period. The contractor shall also be responsible for collecting and reporting reliability, availability, maintainability and testability data for the duration of the extension period.

1.2.2.8 Limited Operational Test Extension

At the conclusion of the Operational Environment Field Test, the Contractor shall continue to operate four (4) NG-ADS units in the field to gather additional reliability data for a period of not more than nine (9) months. During this period, the Contractor will continue to monitor component failures. Failure data will be collected and reported on a bi-weekly basis. The bi-weekly Failure Reports will include all observed component failures by fielded instrument, the sub-system at fault, and the required corrective maintenance action needed to repair the problem and restore the system /subsystem. The bi-weekly reports will be delivered ten (10) days after the completion of each two week reporting period.

The NG-ADS units will be supported using a combination of the [b](4) and the [b](7)(F). The Contractor will provide all required consumables, spares and other support equipment necessary to support this operation. The Contractor will provide technical support required to repair, maintain and operate the biodetector units during this period.

1.3 Other Requirements

06/22/2011
1.3.1 Program Reviews

(b) (4)

1.3.2 Management Information

The Contractor shall submit Monthly Project Status Reports (MPSR) no later than the fifteenth workday after the reporting calendar month. Reports will include breakouts by Task Order and SOO Test Events. The Contractor shall provide an MPSR that includes the following elements:

- Project Cost by Task Order:
  - Budget at Completion (BAC)
  - Actual Cost (AC)
  - Accrued Cost (estimates)
  - Cost Variance (CV) - Actuals vs. Budget
- Estimate at Complete (EAC)
  - Estimate to Completion (ETC)
  - Cost Funds Status
- Performance/Schedule by Task Order and Test Event:
  - Project Schedule
  - Overall Technical Performance Evaluation
  - Completion percentage of the Milestones and/or Deliverables
  - Schedule Variance (SV)
  - Variance at Completion (VAC)
- Risk Management by Task Order and Test Event:
  - Risk Reporting Matrix
  - Risk Mitigation Worksheet

Current period values and cumulative values for data, variances, and forecasts will be provided in numerical format showing values and in graphical format showing trends. Any schedule variance on the critical path will be identified and its impact on subsequent milestones and the project cost and schedule quantified.

The Contractor shall also deliver a draft Program Management Plan and final Program Management Plan. The draft Project Management Plan will be submitted 15 days after a task order is received, with a final submittal reflecting Government input due 30 days after the task order is received. The Project Management Plan shall provide a detailed schedule, including a critical path analysis, along with a narrative discussing the salient
issues affecting task execution in terms of needed technical inputs and analysis to meet cost, schedule, and performance in the task execution.

1.3.3 Technology Readiness Assessment

The Contractor shall provide adequate information to permit the Government to determine the TRL level of the NG-ADS technology throughout the course of the program.

1.3.4 Configuration Management

Minor modifications and adjustments to the NG-ADS equipment or manufacturing processes may be required as a result of characterization and field testing. To ensure that the Government is fully engaged and informed about the NG-ADS and the various options for improving them, the Contractor shall maintain a robust configuration management system. The Contractor shall submit proposed changes/modifications that result from the characterization or field testing to the Government for approval.

Once units are delivered for testing, all changes will be reviewed and approved by DHS before they are implemented during Operational Environment Field Testing.

If the program implements modifications or changes that require additional characterization and system tests, the Contractor will provide the consumables and technical support for this effort. These changes will be subject to a contract modification in accordance with the contract’s changes clause (FAR 52.243-2).

The Contractor shall implement drawing configuration management consistent with Task Order 1.

1.3.5 Occupational Health and Safety

Prior to delivery of the ready-to-test NG-ADS units, the Contractor shall self-certify that the units being delivered are safe to operate and that all known occupational safety and health concerns are appropriately mitigated.
1.3.6 Technical Exchange Meetings

The Contractor shall prepare for and support technical exchange meetings (TEM) as required to discuss technical issues and agree on an appropriate path forward.

1.4 Deliverables

The Contractor shall deliver the equipment, documentation and training listed in Table 1, Table 2, and Table 3, below. Inspection and acceptance of each NG-ADS unit will take place after the installation and activation at each of the operational testing sites in accordance with FAR 52.246-3, Inspection of Supplies - Cost Reimbursement. This inspection will be done during the Contractor's activities that are necessary to install the units and acceptance will be based upon the successful completion and review of the Contractor's installation checklist. DHS will provide acceptance or comments within 2 calendar weeks of submittal of all data deliverables. Comments and changes will be incorporated once into a single, final submittal. Final coordination of the training deliverables outlined in Table 3 will occur upon completion of the equipment deliverables outlined in Table 2.

Table 1 Program Deliverables

<table>
<thead>
<tr>
<th>Description</th>
<th>Due</th>
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</thead>
<tbody>
<tr>
<td>Monthly Project Status Report (MPSR)</td>
<td>NLT 15th of each month</td>
</tr>
<tr>
<td>Technical Exchange Meetings</td>
<td>1st TEM NLT 30 days ARO</td>
</tr>
<tr>
<td></td>
<td>Subsequent meetings as required, not to exceed 1 meeting per month</td>
</tr>
<tr>
<td>Updated Project Management Plan</td>
<td>Draft 15 days ARO</td>
</tr>
<tr>
<td></td>
<td>Final 30 days ARO</td>
</tr>
<tr>
<td>Trip Reports</td>
<td>As needed</td>
</tr>
<tr>
<td>Summary Subcontract Report</td>
<td>Oct 30 for period 10/1-9/30</td>
</tr>
<tr>
<td>FRACAS summary report</td>
<td>At 14 day intervals, commencing 10 days after start of Operational Environment Field Test and ending 1 month after completion of Operational Environment Field Test; NOTE: During Field Testing, reports will be submitted to the Gen-3 OTA, not the Program Office.</td>
</tr>
<tr>
<td>Complete FRACAS data set</td>
<td>With final FRACAS summary report</td>
</tr>
</tbody>
</table>

06/22/2011
<table>
<thead>
<tr>
<th>Description</th>
<th>Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maintenance and Operator manual(s)</td>
<td>30 days prior to start of Operational Environment Field Test</td>
</tr>
<tr>
<td>Site log, 1 for each system, during pre-test (Baseline Calibration) and</td>
<td>Delivered weekly during pre-test and post-test periods</td>
</tr>
<tr>
<td>post-test periods</td>
<td></td>
</tr>
<tr>
<td>Failure Reports during the Limited Operational Test Extension</td>
<td>At 14 day intervals, beginning ten (10) days after the completion of the first two (2)</td>
</tr>
<tr>
<td></td>
<td>week reporting period</td>
</tr>
</tbody>
</table>

**Table 2 Equipment Deliverables**

<table>
<thead>
<tr>
<th>Description</th>
<th>Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>Twelve (12) NG-ADS Units for Detector Baseline Calibration, Operational</td>
<td>ARO</td>
</tr>
<tr>
<td>Environment Field Testing, and Limited Operational Test Extension</td>
<td>ARO</td>
</tr>
<tr>
<td>Equipment for signal receipt at jurisdiction</td>
<td>Concurrent with the associated training class</td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

**Table 3 Training Deliverables**

<table>
<thead>
<tr>
<th>Description</th>
<th>Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>User Interface Training in the Field Testing Jurisdiction</td>
<td>60 days (4) after start of Detector Baseline Calibration</td>
</tr>
<tr>
<td>Technical Orientation Training support materials</td>
<td>60 days (4) after receipt of order</td>
</tr>
<tr>
<td>Archive Retrieval Training and associated materials</td>
<td>Prior to the start of Detector Baseline Calibration</td>
</tr>
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</table>
Attachment 1 - Task Order 2 Spares List

Baseline Scope Spares List

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Title/Description</th>
<th>QTY</th>
</tr>
</thead>
</table>

(b)(4) (b)(7)(E)
<table>
<thead>
<tr>
<th>Part Number</th>
<th>Title/Description</th>
<th>QTY</th>
</tr>
</thead>
<tbody>
<tr>
<td>(b)(4)</td>
<td>(b)(7)(E)</td>
<td></td>
</tr>
<tr>
<td>Part Number</td>
<td>Title/Description</td>
<td>QTY</td>
</tr>
<tr>
<td>-------------</td>
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<td>-----</td>
</tr>
<tr>
<td>(b)(4)</td>
<td>(b)(7)(E)</td>
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</table>
Option 1 Spares List

<table>
<thead>
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<th>Part Number</th>
<th>Title/Description</th>
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<td>(b)(7)</td>
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<td>(E)</td>
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Option 2 Spares List

<table>
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<tr>
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<th>Title/Description</th>
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</thead>
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</tr>
<tr>
<td></td>
<td>(E)</td>
<td></td>
</tr>
<tr>
<td>Part Number</td>
<td>Title/Description</td>
<td>QTY</td>
</tr>
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<td>-------------</td>
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<tr>
<td>(b)(4)</td>
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<td>(b)(7)</td>
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<td></td>
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<tr>
<td>(E)</td>
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</tr>
</tbody>
</table>

NOTE: Baselines Scope Spares not utilized/consumed in support of Task Order 2 Field Test activities shall be available for utilization/consumption for Option 1 and Option 2 Field Test Extensions, and the Limited Operational Test Extension test period.
### Attachment 2 - DHS SPD Program Schedule

<table>
<thead>
<tr>
<th>Task Order #1 - Assay Validation and Characterization Testing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contract Award (TO1)</td>
</tr>
<tr>
<td>Task Order #1 - Assay Validation and Characterization Testing</td>
</tr>
<tr>
<td>Assay Testing - Vendor Delivers Units per PWS</td>
</tr>
<tr>
<td>Assay Testing - Train/Certify Lab Personnel</td>
</tr>
<tr>
<td>Assay Testing (50% Utilization per PWS)</td>
</tr>
<tr>
<td>Aerosol Collection Subsystem Test - Vendor Delivers units per PWS</td>
</tr>
<tr>
<td>Aerosol Collection Subsystem Test - Vendor Trains ECIC per.</td>
</tr>
<tr>
<td>Aerosol Collection Subsystem Test</td>
</tr>
<tr>
<td>Analytical Subsystem Tests - Vendor Delivers units per PWS</td>
</tr>
<tr>
<td>Analytical Subsystem Test - Vendor Trains DPG personnel</td>
</tr>
<tr>
<td>Analytical Subsystem Test 2.a. - Limit of Detection</td>
</tr>
<tr>
<td>Milestone #1</td>
</tr>
<tr>
<td>Analytical Subsystem Test 2.b. - Probability of Detection</td>
</tr>
<tr>
<td>System Level Test - Vendor Delivers units per PWS to DPG</td>
</tr>
<tr>
<td>System Level Test</td>
</tr>
<tr>
<td>Milestone #2</td>
</tr>
<tr>
<td>MTI for Attack Detection</td>
</tr>
<tr>
<td>Contract Award (TO2)</td>
</tr>
<tr>
<td>Task Order #2 - Field Test</td>
</tr>
<tr>
<td>Vendor Delivers units per PWS</td>
</tr>
<tr>
<td>Biodefector baseline calibration</td>
</tr>
<tr>
<td>Field test/RAM-T/JT verification and validation</td>
</tr>
<tr>
<td>Option 1: 30-Day Field Test Extension</td>
</tr>
<tr>
<td>Option 2: Additional 30-Day Field Test Extension</td>
</tr>
<tr>
<td>Decommission, Transport, and Unload at the Government Site</td>
</tr>
<tr>
<td>Data compilation/report</td>
</tr>
<tr>
<td>Milestone #3</td>
</tr>
<tr>
<td>Future Task Orders (Unpriced)</td>
</tr>
<tr>
<td>Engineering Design Changes</td>
</tr>
<tr>
<td>Regression Testing of Design Changes</td>
</tr>
<tr>
<td>Extended Field Testing</td>
</tr>
</tbody>
</table>

**06/22/2011**
22 June 2011

Letter Number: 2011-06-22 SPD-Biowatch-0121

U.S. Dept. of Homeland Security
Office of Procurement Operations
OHA Acquisition Division
245 Murray Lane, SW
Building 410
Washington DC 20528

Attention: Ms. Carla Davis- Contracting Officer

Reference: (1) HSHQDC-10-D-00003 Final Contract
(2) HSHQDC-10-J-00455 Executed Task Order 2
(3) "BioWatch Task Order 2 Request for Proposal", From C. Davis Dated 16 June 2011

Attachments: BioWatch Gen 3 SPD Task Order 2, Updated PWS, 22 June 2011

Subject: BioWatch Program Task Order 2 Proposal Response

Dear Ms. Davis:

Northrop Grumman submits the following proposal in response to the email entitled "BioWatch Task Order 2 Request for Proposal" (Reference 3). This proposal consists of a Task Order 2 [redacted]. This proposal also contains [redacted].

<table>
<thead>
<tr>
<th>Task</th>
<th>Cost</th>
<th>Fee</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>(b)(4)</td>
<td>(b)(7)(F)</td>
<td>(b)(4)</td>
<td>(b)(7)(F)</td>
</tr>
</tbody>
</table>

Additionally, Northrop Grumman submits an updated Task Order 2 Performance Work Specification (Attachment 1) that reflects the PWS changes [redacted]
Should you have any questions about this matter, please contact the undersigned.

Sincerely,
Northrop Grumman Security Systems, LLC

Contracts Representative
Phone: (b)(6)
Fax: (b)(6)
Email: (b)(6)
The purpose of this modification is to authorize the Contractor to relocate three (3) NG-APS units and all associated spare parts [Redacted] for continued testing as further described in the revised Performance Work Statement dated June 29, 2011 incorporated herein in full text (attached, 20 pages).

The estimated cost for the relocation and continued testing of the 3 units is [Redacted] and there is sufficient funding already obligated on this task order to relocate the units and continued ...
continue the required testing through the current end date of performance, September 26, 2011. As such the relocation and continued testing shall be provided at no additional cost to the Government.

This modification also incorporates an optional 30 day extension to the testing of the 3 units to be relocated to the [REDACTED], at a not-to-exceed cost of [REDACTED] with a fixed fee of [REDACTED] for a total price of [REDACTED]. The Government recognizes that due to program efficiencies, this option price is reliant on the execution of the optional extension under the limited operational test proposal referenced in MOD P00007 to the task order.

For purposes of relocation of the 3 units to the [REDACTED], and for travel to the location of these units in the field, the restrictions on the reimbursement of local travel in section 6.6 of the contract are waived and local travel for these purposes will be reimbursable. Contractor commuting expenses and other local travel not required for these purposes are not eligible for reimbursement.

Additionally, the contractor agrees to store the remaining equipment and spares transported from the currently [REDACTED] at no cost to the Government until the date of the final close-out of this task order (reference MOD P00007, block 14, subsection 1 which authorized transport of equipment and spares to the alternate NGSS facility).

The total task order obligated amount of $9,310,359 remains unchanged and notwithstanding any of the terms of this modification FAR clause 52.232-20, Limitation of Cost, remains in full effect.

All other Task Order terms remain unchanged.
AAP Number: 64418 DO/DPAS Rating: NGNE
Period of Performance: 09/27/2010 to 09/26/2011
Performance Work Statement – Task Order 2

1 Objectives and Goals

Under the Phase I Systems Performance Demonstration (SPD) contract, the Contractor will provide Next-Gen Automated Detection Systems (NG-ADS) and all technical and operational support to enable the Government to test in an operationally relevant field environment in Task Order 2 to determine the adequacy of the NG-ADS for future procurement and deployment. The Government may also issue additional task orders for engineering enhancements to correct and validate issues identified during testing activities described below.

The objective of this effort is to demonstrate that the NG-ADS:
- Conforms to the Gen-3 performance specification,
- Has a system performance with associated technologies that meet a minimum Technology Readiness Level (TRL) of 7, and
- Contains acceptable assays and uses reagents produced with adequate quality control procedures.

In support of these objectives, the Contactor shall provide ready-to-test NG-ADS units and the full range of support to include consumables, data management, operations and maintenance (O&M) support, and technical personnel to support the test activities described below. In particular, the Contractor shall:
- Manufacture and deliver ready-to-test NG-ADS units required for all testing. The NG-ADS units’ configuration will be baselined at the Task Order 1 configuration, unless otherwise approved by DHS, and remain under configuration control by the Contractor. All NG-ADS units will be of the same configuration and from the same assembly line, except as otherwise noted herein. The number of spares required to support the testing activities is shown in Attachment 1 – List of Spare Parts.
- Operate NG-ADS units in support of the tests, including replenishment of consumables and maintenance of the systems when necessary (unless noted otherwise).
- Establish a capability within the independent testing organization and operational test jurisdiction (specifically BioWatch Lab personnel and BioWatch Action Committee) to receive, interpret, and monitor the NG-ADS test results to evaluate the performance of the equipment.
- Collect data and provide reports (Reliability, Availability, Maintainability and Testability (RAM-T) and IT performance data.
- Provide engineering and configuration support.
- Ensure intellectual property and licensing rights are obtained, as appropriate, for commercial-off-the-shelf (COTS) products to allow DHS to operate the NG-ADS units during this Task Order.

1.1 Program Plan
The Contractor has developed a program schedule that meets DHS’ Milestone requirements and schedule objectives (Attachment 2).

The Contractor shall meet the Task Order 2 technical Milestones as follows:

- Milestone #3 – Successful completion of the Field Testing activities under Task Order 2 within the scheduled time frame.

1.2 Task Order 2

In support of the Task Order 2 field testing activities, the Contractor will provide twelve (12) ready-to-test NG-ADS units plus spares, which will be placed in a depot and associated information technology to support the field test, reliability, availability, maintainability, and testability (RAM-T) testing, and IT verification and validation. The Contractor will be responsible for providing equipment and technical support, including the O&M of the NG-ADS units during the course of the field test. This support will include supplying/replenishing all consumables, providing any required preventative maintenance, and corrective maintenance (fixing the system) should it break down during the course of the testing.

Tight configuration control will be used to ensure that all units will be of the same configuration for this testing. All the NG-ADS units will be manufactured on the same assembly line.

The Contractor will support the Task Order 2 efforts as described below. This will include providing the necessary NG-ADS units for each test, consumables, spare parts, training, test support, and maintenance support.

1.2.1 Resources

The Contractor shall consumables and other supplies necessary to support the Task Order 2 testing. The Contractor will also setup to perform local repairs and store equipment, spares, and consumables during field testing. Since all testing will take place in Government designated field sites, the Contractor’s support will be focused on providing the necessary NG-ADS units, spares, consumables, and personnel to conduct each test. The NG-ADS units will be prepared for the testing in the and shipped from this facility and the

1.2.2 Task Order 2 Subtasks
1.2.2.1 Task Order 2 Equipment Procurement and Fabrication

In preparation for Task Order 2 field testing, the Contractor will provide all necessary NG-ADS units, reagents, spare parts, tools, associated information technology, and support plans. This preparation will include the ordering of all material for the fabrication and checkout of the NG-ADS units, all reagents and consumables required to operate the units, and all spares and other support equipment required, including the use and maintenance of the

The Contractor will also establish one or more depot facilities

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to support the installation, baseline calibration, operational field testing, RAM-T testing, IT verification and validation, and limited operational test extension. The Contractor will establish a means of transportation between the depot and the instrument sites (public transportation may be used if it is deemed to be the most cost effective).

The Contractor will procure all material and fabricate twelve (12) NG-ADS units plus spares (same configuration as described for Task Order 1) to support Task Order 2 field test activities. All NG-ADS units delivered for testing under the Phase I SPD contract will be manufactured on the same assembly line.

The Contractor will maintain supplies, consumables, and personnel adequate to keep the NG-ADS units operational 24/7 during Operational Environment Field Testing (not including down-time for maintenance, calibration, etc.) and to assist in providing failure analysis data as part of the field test. The Contractor will implement a Failure Reporting, Analysis and Corrective Actions System (FRACAS) to facilitate the capture of failure data during Baseline Calibration and the Operational Environment Field Testing. Failure analysis data will identify all observed problems by test unit / instrument, the sub-system at fault, the total time the system / sub-system was down and the required corrective maintenance action needed to repair the problem and restore the system /subsystem. The categories for subsystem at fault and associated subsystems will be agreed to prior to the start of testing. If the FRACAS data is maintained in a proprietary format, the FRACAS application must be provided, or the data must be converted to a common useable format such as Microsoft Excel.

The Contractor will procure all consumables required for testing activities performed under Task Order 2. The Contractor’s plan for quality control of the reagents is described in the Quality Assurance Surveillance Plan (QASP) contained in Volume II—Management Proposal.

The Contractor will provide all spare components that are necessary to support Task Order 2 activities. The assessment of spare parts required to support Task Order 2 is provided in Attachment 1.

1.2.2.2 Jurisdictional Training and Coordination

The Contractor will provide eight (8) sets of equipment for signal receipt for use by various users to be specified by the Government. This equipment will be in the form of used to monitor system operational status and test results as well as system and logistical management.

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(b) (4)
• (b) (4)
• (b) (4)
• (b) (4)

(b) (4)
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(b) (4)
• (b) (4)
• (b) (4)
• (b) (4)
The Contractor will provide the Government will access to an electronic copy of a maintenance and operator manual(s) (draft or preliminary version acceptable) not later than 30 days before the start of Operational Environment Field Testing.

1.2.2.3 Detector Baseline Calibration for Field Test Start

After delivery of the twelve (12) NG-ADS units to the jurisdiction for Field Testing, the Contractor will be given not less than one (1) month to install, set-up and baseline the units at the operational testing sites identified by DHS. Inspection and acceptance of each NG-ADS unit will take place after the installation and activation at each of the operational testing sites in accordance with FAR 52.246-3. Inspection of Supplies-Cost Reimbursement. This inspection will be done during the Contractor’s activities that are necessary to install the units and acceptance will be based upon the successful completion and review of the Contractor’s installation checklist.

At the end of the set up/baseline period, a review period lasting not longer than 1 week will occur. The Field Test will commence immediately following the review period. The NG-ADS units may continue to operate and be supported during the review period, as mutually agreed upon. Each NG-ADS will be co-located with other competitive autonomous biodetectors and a [b](4) [b](7) in both indoor and outdoor test environments. The Government will identify the site(s) two (2) months prior to unit delivery (a preliminary list of site(s) will be provided within 2 weeks after receipt of order), provide site prep prior to unit delivery (in accordance with the Contractor’s specifications), provide jurisdiction coordination, and will provide security for the NG-ADS during the duration of the test. The Contractor will be responsible for the security of the NG-ADS enclosure (i.e., locked door to access interior of system). The jurisdiction depot [b](4) [b](7) will be used during the installation and baseline testing.

The detector baseline calibration will begin four (4) months after receipt of order and will last up to one (1) month in duration. Prior to the installation, the contractor will provide
Material Safety Data Sheets (MSDS), as necessary, for common consumable items used by their bioterrorism systems for each consumable subject to spilling (i.e., each liquid), as well as any other common items which may generate disposal/environmental concern, such as batteries. The MSDS will be provided not later than two (2) months after receipt of order.

Detector Baseline Calibration and Review Period Support Details:

- (b) (4)

- The Government will operate a TOC that will provide personnel 24/7 for timely site access coordination and escort, observation, and data collection. Unless otherwise required by the site manager, a Government escort will not be required to access the site whenever required by the Contractor.
- All system maintenance will be performed by the Contractor. DHS and other parties will not attempt maintenance on the units without NGSS involvement.

The Contractor will provide site visit log information to DHS on a weekly basis during Baseline Calibration in an electronic format, which will capture the site arrival and departure times, Contractor personnel visiting site, and site visit activity.

1.2.2.4 Operational Environment Field Testing

The Contractor will support the operations and maintenance of the twelve (12) ready-to-test NG-ADS units in support of the Government’s test objectives. The NG-ADS units will be split between indoor and outdoor locations based upon a deployment plan that will be developed by the Government.(b) (4) (b) (4)

The Contractor will provide test labor for operational environment field testing of twelve (12) instruments in the jurisdiction beginning within one (1) week of the completion of Baseline Calibration for up to ten (10) continuous weeks. This includes weekly Preventive Maintenance (PM) and as-needed Corrective Maintenance (CM).

Operational Environment Field Maintenance Support Details:

- (b) (4)

- The Government will operate a TOC that will provide personnel 24/7 for timely site access coordination and escort, observation, and data collection.
• All system maintenance will be performed by the Contractor. DHS and other parties will not attempt maintenance on the units without NGSS involvement.
• \[(b) (4)\]

At the conclusion of the field test there will be a post-test recovery period of approximately two (2) weeks at which time the contractor will de-install eight (8) biodetector units from field sites and restore the sites to the condition which they were in when installation started, except for modifications made by DHS or at DHS' direction as part of site prep. The Contractor will remove all equipment and materials originally provided by the Contractor at each site, observing all applicable safety and hazardous materials management regulations and good operating practices. A minority of the eight (8) un-installed NG-ADS units will be kept at [redacted] and the remaining units will be returned to [redacted].

The Contractor will provide site visit log information to DHS on a weekly basis during the two week post-test period in an electronic format, which will capture the site arrival and departure times, Contractor personnel visiting site, and site visit activity.

1.2.2.5 RAM-T Data Collection

The goal of the RAM-T Data Collection effort is to gather RAM-T data on the NG-ADS in an applicable operational environment. This effort will be conducted in applicable operational environments (i.e., indoor environment, outdoor environment) to evaluate and validate overall supportability of the system.

\[(b) (4)\]

1.2.2.6 IT Signal Processing V&V and Report Generation

The goal of this activity is to conduct verification and validation on the proposed information technology (IT) system and gather data from the [redacted] to support independent Verification and Validation (V&V) of signal processing and report generation functions. The Contractor will provide equipment for signal receipt to up to eight (8) local public health and DHS personnel for this task (same personnel as identified and trained per paragraph 1.2.2.2). This equipment will include [redacted] used to monitor system test results.

\[(b) (4)\]

The Contractor will provide DHS with information regarding how the IT system functions in order to establish a baseline of its current implementation. The Contractor will collaborate with DHS to develop the procedures that will be used by DHS to capture and
validate the data generated by the system. Agreed-upon test data/reports will be generated in accordance with these procedures during the last two (2) weeks of Baseline Calibration and during the Operational Environment Field Testing. The Contractor will also participate with DHS in the selection of appropriate standards and conventions that will be applied to the V&V activities. Any findings or discrepancies between these agreed-upon standards and conventions and the existing IT system implementation will be documented and addressed in later phases of the program as appropriate.

1.2.2.7 Field Test Extension Options

Prior to the start of field testing, the Government may exercise an option(s) to extend field testing beyond the initial ten (10) weeks for 30 to 60 days. These optional efforts shall be exercised before, or during, the 1-month Baseline Calibration effort of Section 1.2.2.3 of this PWS. The option(s) will be exercised via a funded modification to this Task Order.

If the field test is extended, the contractor shall provide the same level of base support as provided in the initial 10 weeks for Option 1 (a 30-day extension) and Option 2 (a 2nd 30-day extension). The contractor shall provide all consumables and technical support required to repair, maintain and operate the twelve (12) biodetector units 24 hours a day, 7 days a week (24/7) for the extension period. The contractor shall also be responsible for collecting and reporting reliability, availability, maintainability and testability data for the duration of the extension period.

1.2.2.8 Limited Operational Test Extension

At the conclusion of the Operational Environment Field Test, the Contractor shall continue to operate four (4) NG-ADS units in the field to gather additional reliability data for a period of not more than nine (9) months. During this period, the Contractor will continue to monitor component failures. Failure data will be collected and reported on a bi-weekly basis. The bi-weekly Failure Reports will include all observed component failures by fielded instrument, the sub-system at fault, and the required corrective maintenance action needed to repair the problem and restore the system/subsystem. The bi-weekly reports will be delivered ten (10) days after the completion of each two week reporting period.

(b) (4)

The NG-ADS units will be supported using a combination of the [b](4) (b)(7)(F) and the [b](4) (b)(7)(F). The Contractor will provide all required consumables, spares and other support equipment necessary to support this operation. The Contractor will provide technical support required to repair, maintain and operate the biodetector units during this period.

1.2.2.9 Operational Demonstration Option

After the conclusion of the Operational Environment Field Testing, the Government may exercise an option for the Contractor to conduct an Operational Demonstration of the
candidate Gen-3 technology at three (3) sites located at (b)(4) (b)(7)(F).

Three (3) of the NG-ADS units tested in (b)(4) (b)(7)(F) will be relocated to
(b)(4) designated by the Government. (b)(4)
(b)(4) All site preparation will be completed by DHS prior to equipment
installation. The units will be operated during a baseline period of 20 calendar days,
followed by an Operational Demonstration lasting 30 calendar days, with an additional
30 calendar days of operation available as an option. At the completion of the
Operational Demonstration, the units will be removed by the contractor and returned to
(b)(4) (b)(7)(F)

During the Operational Demonstration test period, the Contractor will monitor component
failures. Failure data will be collected and reported every 15 calendar days. The Failure
Reports will include all observed component failures by fielded instrument, the sub-
system at fault, and the required corrective maintenance action needed to repair the
problem and restore the system /subsystem. The reports will be delivered ten (10) days
after the completion of each 15 day reporting period.

The NG-ADS units’ operation will be supported using the (b)(4) (b)(7)(F)
(b)(4)
The Contractor will provide all required consumables, spares and other support
equipment necessary to support this operation. The Contractor will provide technical
support required to repair, maintain and operate the biodetector units during this period.
The Contractor’s maintenance staff will perform maintenance work (PM / CM) for no
more than a 10 hour continuous period each day, Monday – Friday. (b)(4)

1.2.2.9.1 Operational Demonstration Alternate Location

In the event that an Operational Demonstration at (b)(4) (b)(7)(F) becomes unfeasible, the
Contractor will alternately install and operate the three (3) NG-ADS units at three
outdoor sites at (b)(4) (b)(7)(F). The timing and duration of the activities
will be the same as described above in 1.2.2.9.
1.3 Other Requirements

1.3.1 Program Reviews

(b) (4)

1.3.2 Management Information

The Contractor shall submit Monthly Project Status Reports (MPSR) no later than the fifteenth workday after the reporting calendar month. Reports will include breakouts by Task Order and SOO Test Events. The Contractor shall provide an MPSR that includes the following elements:

- Project Cost by Task Order:
  - Budget at Completion (BAC)
  - Actual Cost (AC)
  - Accrued Cost (estimates)
  - Cost Variance (CV) - Actuals vs. Budget
- Estimate at Complete (EAC)
  - Estimate to Completion (ETC)
  - Cost Funds Status
- Performance/Schedule by Task Order and Test Event:
  - Project Schedule
  - Overall Technical Performance Evaluation
  - Completion percentage of the Milestones and/or Deliverables
  - Schedule Variance (SV)
  - Variance at Completion (VAC)
- Risk Management by Task Order and Test Event:
  - Risk Reporting Matrix
  - Risk Mitigation Worksheet

Current period values and cumulative values for data, variances, and forecasts will be provided in numerical format showing values and in graphical format showing trends. Any schedule variance on the critical path will be identified and its impact on subsequent milestones and the project cost and schedule quantified.

The Contractor shall also deliver a draft Program Management Plan and final Program Management Plan. The draft Project Management Plan will be submitted 15 days after a task order is received, with a final submittal reflecting Government input due 30 days.
after the task order is received. The Project Management Plan shall provide a detailed schedule, including a critical path analysis, along with a narrative discussing the salient issues affecting task execution in terms of needed technical inputs and analysis to meet cost, schedule, and performance in the task execution.

1.3.3 Technology Readiness Assessment

The Contractor shall provide adequate information to permit the Government to determine the TRL level of the NG-ADS technology throughout the course of the program.

1.3.4 Configuration Management

Minor modifications and adjustments to the NG-ADS equipment or manufacturing processes may be required as a result of characterization and field testing. To ensure that the Government is fully engaged and informed about the NG-ADS and the various options for improving them, the Contractor shall maintain a robust configuration management system. The Contractor shall submit proposed changes/modifications that result from the characterization or field testing to the Government for approval.

Once units are delivered for testing, all changes will be reviewed and approved by DHS before they are implemented during Operational Environment Field Testing.

If the program implements modifications or changes that require additional characterization and system tests, the Contractor will provide the consumables and technical support for this effort. These changes will be subject to a contract modification in accordance with the contract’s changes clause (FAR 52.243-2).

The Contractor shall implement drawing configuration management consistent with Task Order 1.

1.3.5 Occupational Health and Safety

Prior to delivery of the ready-to-test NG-ADS units, the Contractor shall self-certify that the units being delivered are safe to operate and that all known occupational safety and health concerns are appropriately mitigated.
1.3.6 Technical Exchange Meetings

The Contractor shall prepare for and support technical exchange meetings (TEM) as required to discuss technical issues and agree on an appropriate path forward.

1.4 Deliverables

The Contractor shall deliver the equipment, documentation and training listed in Table 1, Table 2, and Table 3, below. Inspection and acceptance of each NG-ADS unit will take place after the installation and activation at each of the operational testing sites in accordance with FAR 52.246-3, Inspection of Supplies - Cost Reimbursement. This inspection will be done during the Contractor's activities that are necessary to install the units and acceptance will be based upon the successful completion and review of the Contractor's installation checklist. DHS will provide acceptance or comments within 2 calendar weeks of submittal of all data deliverables. Comments and changes will be incorporated once into a single, final submittal. Final coordination of the training deliverables outlined in Table 3 will occur upon completion of the equipment deliverables outlined in Table 2.

Table 1 Program Deliverables

<table>
<thead>
<tr>
<th>Description</th>
<th>Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monthly Project Status Report (MPSR)</td>
<td>NLT 15th of each month</td>
</tr>
<tr>
<td>Technical Exchange Meetings</td>
<td>1st TEM NLT 30 days ARO</td>
</tr>
<tr>
<td></td>
<td>Subsequent meetings as required, not to exceed 1 meeting per month</td>
</tr>
<tr>
<td>Updated Project Management Plan</td>
<td>Draft 15 days ARO</td>
</tr>
<tr>
<td></td>
<td>Final 30 days ARO</td>
</tr>
<tr>
<td>Trip Reports</td>
<td>As needed</td>
</tr>
<tr>
<td>Summary Subcontract Report</td>
<td>Oct 30 for period 10/1-9/30</td>
</tr>
<tr>
<td>(b) (4)</td>
<td>(b) (4)</td>
</tr>
<tr>
<td>RAM-T - IT Signal Processing V&amp;V Report Generation</td>
<td>Upon the completion of IT V&amp;V Testing</td>
</tr>
<tr>
<td>Safety Assessment Report</td>
<td>Prior to delivery of NG ADS units</td>
</tr>
<tr>
<td>Material Safety Data Sheets (MSDS)</td>
<td>2 months ARO</td>
</tr>
<tr>
<td>Technology Readiness Assessment support materials</td>
<td>Concurrent with final report</td>
</tr>
<tr>
<td>FRACAS summary report</td>
<td>At 14 day intervals, commencing 10 days after start of Operational Environment Field Test and ending 1 month after completion of Operational Environment Field Test; NOTE: During Field Testing, reports will be submitted to the Gen-3 OTA, not the Program</td>
</tr>
</tbody>
</table>

06/29/2011
<table>
<thead>
<tr>
<th>Description</th>
<th>Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete FRACAS data set</td>
<td>With final FRACAS summary report</td>
</tr>
<tr>
<td>Maintenance and Operator manual(s)</td>
<td>30 days prior to start of Operational Environment Field Test</td>
</tr>
<tr>
<td>Site log, 1 for each system, during pre-test (Baseline Calibration) and post-test periods</td>
<td>Delivered weekly during pre-test and post-test periods</td>
</tr>
<tr>
<td>Failure Reports during the Limited Operational Test Extension</td>
<td>At 14 day intervals, beginning ten (10) days after the completion of the first two (2) week reporting period.</td>
</tr>
<tr>
<td>Failure Reports during the Operational Demonstration</td>
<td>At 15 day intervals, beginning ten (10) days after the completion of the first 15 day reporting period.</td>
</tr>
</tbody>
</table>

**Table 2 Equipment Deliverables**

<table>
<thead>
<tr>
<th>Description</th>
<th>Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>Twelve (12) NG-ADS Units for Detector Baseline Calibration, Operational Environment Field Testing, Limited Operational Test Extension, and Operational Demonstration</td>
<td>NLT 4 months ARO</td>
</tr>
<tr>
<td>Spares and consumables in support of Detector Baseline Calibration, Operational Environment Field Testing, Limited Operational Test Extension, and Operational Demonstration</td>
<td>First delivery NLT 4 months ARO; certain consumables and spares may be delivered in multiple, time-staggered deliveries after the first delivery</td>
</tr>
<tr>
<td>Equipment for signal receipt at jurisdiction</td>
<td>Concurrent with the associated training class</td>
</tr>
</tbody>
</table>

**Table 3 Training Deliverables**

<table>
<thead>
<tr>
<th>Description</th>
<th>Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>User Interface Training in the Field Testing Jurisdiction and Technical Orientation Training support materials</td>
<td>(b) (4) after start of Detector Baseline Calibration</td>
</tr>
<tr>
<td>Archive Retrieval Training and associated materials</td>
<td>(b) (4) after receipt of order</td>
</tr>
<tr>
<td>User interface training for up to 3 personnel as part of the Operational Demonstration</td>
<td>Prior to the start of Detector Baseline Calibration</td>
</tr>
<tr>
<td>Refresher training on user interface as part of the Operational Demonstration</td>
<td>(b)(4) (b)(7)(E) user interface training session</td>
</tr>
</tbody>
</table>

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Attachment 1 - Task Order 2 Spares List

Baseline Scope Spares List

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Title/Description</th>
<th>QTY</th>
</tr>
</thead>
<tbody>
<tr>
<td>(b)(4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(b)(7)(E)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

06/29/2011
<table>
<thead>
<tr>
<th>Part Number</th>
<th>Title/Description</th>
<th>QTY</th>
</tr>
</thead>
<tbody>
<tr>
<td>(b)(4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(b)(7)(E)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Option 1 Spares List

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Title/Description</th>
<th>QTY</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(b)(4) (b)(7)(E)</td>
<td></td>
</tr>
</tbody>
</table>

### Option 2 Spares List

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Title/Description</th>
<th>QTY</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(b)(4) (b)(7)(E)</td>
<td></td>
</tr>
<tr>
<td>Part Number</td>
<td>Title/Description</td>
<td>QTY</td>
</tr>
<tr>
<td>-------------</td>
<td>-------------------</td>
<td>-----</td>
</tr>
<tr>
<td>(b)(4)</td>
<td>(b)(7)(E)</td>
<td></td>
</tr>
</tbody>
</table>

NOTE: Baselines Scope Spares not utilized/consumed in support of Task Order 2 Field Test activities shall be available for utilization/consumption for Option 1 and Option 2 Field Test Extensions, the Limited Operational Test Extension test period, and the Operational Demonstration.
## Attachment 2 – DHS SPD Program Schedule

<table>
<thead>
<tr>
<th>Task</th>
<th>Duration (Work Days)</th>
<th>Start Month</th>
<th>Finish Month</th>
<th>Months After Receipt of Order</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Contract Award (TO1)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Task Order #1 - Assay Validation and Characterization Testing</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assay Testing - Vendor Delivers Units per PWS</td>
<td>0</td>
<td>2.25</td>
<td>2.25</td>
<td></td>
</tr>
<tr>
<td>Assay Testing - Train/Certify Lab Personnel</td>
<td>10</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Assay Testing (50% Utilization per PWS)</td>
<td>120</td>
<td>4</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>Aerosol Collection Subsystem Test - Vendor Delivers units per PWS</td>
<td>0</td>
<td>4</td>
<td>4</td>
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</tr>
<tr>
<td>Aerosol Collection Subsystem Test - Vendor Trains ECBC per</td>
<td>5</td>
<td>5</td>
<td>5</td>
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</tr>
<tr>
<td>Aerosol Collection Subsystem Test</td>
<td>20</td>
<td>5</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Analytical Subsystem Tests - Vendor Delivers units per PWS</td>
<td>0</td>
<td>4</td>
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<tr>
<td>Analytical Subsystem Test - Vendor Trains DPG personnel</td>
<td>5</td>
<td>5</td>
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<tr>
<td>Analytical Subsystem Test 2.a. - Limit of Detection</td>
<td>20</td>
<td>5</td>
<td>6</td>
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</tr>
<tr>
<td><strong>Milestone #1</strong></td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>Analytical Subsystem Test 2.b. - Probability of Detection</td>
<td>68</td>
<td>6</td>
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<tr>
<td>System Level Test - Vendor Delivers units per PWS to DPG</td>
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<tr>
<td>System Level Test</td>
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<td><strong>Milestone #2</strong></td>
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<td><strong>Contract Award (TO2)</strong></td>
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<td><strong>Task Order #2 - Field Test</strong></td>
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<tr>
<td>Vendor Delivers units per PWS to DPG</td>
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<td>12</td>
<td>12</td>
<td></td>
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<tr>
<td>Biodefense baseline calibration</td>
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<td>13</td>
<td></td>
</tr>
<tr>
<td>Field test/RAM-T/IT Verification and Validation</td>
<td>70</td>
<td>13</td>
<td>16</td>
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<tr>
<td>Option 1: 30-Day Field Test Extension</td>
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<td><strong>Option 2: Additional 30-Day Field Test Extension</strong></td>
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<td>Decommission, Transport, and Unload at the Government Stc</td>
<td>14</td>
<td>16</td>
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<tr>
<td>Data compilation/report</td>
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<td>16</td>
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<tr>
<td><strong>Milestone #3</strong></td>
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<tr>
<td>Future Task Orders (Unpriced)</td>
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<td>Engineering Design Changes</td>
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<td>Regression Testing of Design Changes</td>
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<td>Extended Field Testing</td>
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06/29/2011
### AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

<table>
<thead>
<tr>
<th>2. AMENDMENT/MODIFICATION NO.</th>
<th>1. CONTRACT ID CODE</th>
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<tr>
<td>P00009</td>
<td>1046382050000</td>
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<table>
<thead>
<tr>
<th>3. EFFECTIVE DATE</th>
<th>4. REQUISITION/PURCHASE REQ. NO.</th>
<th>5. PROJECT NO. (If applicable)</th>
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<tbody>
<tr>
<td>08/11/2011</td>
<td>ROHA-11-00204</td>
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<tr>
<th>6. ISSUED BY CODE</th>
<th>7. ADMINISTERED BY (If other than Item 6) CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>DHS/OPO/OHA</td>
<td>DHS/OPO/OHA</td>
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<table>
<thead>
<tr>
<th>U.S. Dept. of Homeland Security Office of Procurement Operations OHA Acquisition Division 245 Murray Lane, SW Building 410 Washington DC 20528</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and Zip Code)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NORTHROP GRUMMAN SECURITY SYSTEMS LLC 1580 B WEST NURSERY RD LINTHICUM HEIGHTS MD 210900000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>9A. AMENDMENT OF SOLICITATION NO.</th>
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<table>
<thead>
<tr>
<th>9B. DATED (SEE ITEM 11)</th>
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</thead>
<tbody>
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<table>
<thead>
<tr>
<th>10A. MODIFICATION OF CONTRACT/OORDER NO.</th>
</tr>
</thead>
<tbody>
<tr>
<td>HSHQDC-10-D-00003</td>
</tr>
<tr>
<td>HSHQDC-10-J-00455</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>10B. DATED (SEE ITEM 19)</th>
</tr>
</thead>
<tbody>
<tr>
<td>09/27/2010</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of offers is extended. ☐ is not extended.</td>
</tr>
</tbody>
</table>

Offers 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 B 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 ACKNOWLEDGEMENT 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.

<table>
<thead>
<tr>
<th>12. ACCOUNTING AND APPROPRIATION DATA (If required)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net Increase: $14,225.10</td>
</tr>
</tbody>
</table>

See Schedule

<table>
<thead>
<tr>
<th>13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/OORDERS. IT MODIFIES THE CONTRACT/OORDER NO. AS DESCRIBED IN ITEM 14.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHECK ONE</td>
</tr>
<tr>
<td>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.</td>
</tr>
<tr>
<td>B. THE ABOVE NUMBERED CONTRACT/OORDER 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).</td>
</tr>
<tr>
<td>X. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: 52.243-2 Changes - Cost-Reimbursement</td>
</tr>
<tr>
<td>D. OTHER (Specify type of modification and authority)</td>
</tr>
</tbody>
</table>

| E. IMPORTANT: Contractor ☐ is not ☒ is required to sign this document and return 1 copies to the issuing office. |

<table>
<thead>
<tr>
<th>14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DUNS Number: 104638205+0000</td>
</tr>
<tr>
<td>The purpose of this modification is to order additional reagents and consumables in support of Phase I testing.</td>
</tr>
<tr>
<td>Task Order estimated cost has increased from $9,310,359.00, by $14,225.10, to $9,324,584.10.</td>
</tr>
</tbody>
</table>

All other Task Order terms remain unchanged.

| AAF Number: 64418 DO/DFAS Rating: NONE |
| Delivery: 90 Days After Award |
| Continued ... |

Except as provided here, all terms and conditions of the document referenced in Item 9A or 10A, as hereof before changed, remains unchanged and in full force and effect.

<table>
<thead>
<tr>
<th>16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carla Davis</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>16B. UNITED STATES OF AMERICA</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>16C. DATE SIGNED</th>
</tr>
</thead>
<tbody>
<tr>
<td>9/1/11</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(Signature of Contracting Officer)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>STANDARD FORM 30 (REV. 10-83)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prescribed by GSA</td>
</tr>
<tr>
<td>FAR (48 CFR) 53.243</td>
</tr>
</tbody>
</table>
Discount Terms:
Net 30
Delivery Location Code: DHS
Department of Homeland Security
245 Murray Lane
Bldg. 410
Washington DC 20528

FOB: Destination
Period of Performance: 09/27/2010 to 09/26/2011

Change Item 0001 to read as follows (amount shown is the obligated amount):

<table>
<thead>
<tr>
<th>ITEM NO. (A)</th>
<th>SUPPLIES/SERVICES (B)</th>
<th>QUANTITY (C)</th>
<th>UNIT (D)</th>
<th>UNIT PRICE (E)</th>
<th>AMOUNT (F)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0001</td>
<td>Additional reagents and consumables for Phase I testing.</td>
<td></td>
<td></td>
<td></td>
<td>14,225.10</td>
</tr>
</tbody>
</table>

Estimated Cost: [B](4)
Fixed Fee: [B](4)
Total Cost: $14,225.10

See attached RFP for itemized list of materials.
Total Line Item Value $9,324,584.10

Accounting Info:
WMDU010-000-H9-13-50-02-000-05-00-0000-00-00-00-00
-GE-0E-25-76-000000
Funded: $0.00
Accounting Info:
WMDC010-000-H0-13-50-02-000-05-00-0000-00-00-00-00
-GE-0E-25-76-000000
Funded: $0.00
Accounting Info:
WMDC010-000-H0-13-50-02-000-05-00-0000-00-00-00-00
-GE-0E-25-76-000000
Funded: $0.00
Accounting Info:
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-GE-0E-25-76-000000
Funded: $0.00
Accounting Info:
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-GE-0E-25-76-000000
Funded: $0.00
Accounting Info:
WMD0311-000-H1-13-50-00-00
05-00-0000-00-00-00 GE-0E-25-11-000000
Continued ...
<table>
<thead>
<tr>
<th>ITEM NO. (A)</th>
<th>SUPPLIES/SERVICES (B)</th>
<th>QUANTITY (C)</th>
<th>UNIT (D)</th>
<th>UNIT PRICE (E)</th>
<th>AMOUNT (F)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Funded: $14,225.10</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The BioWatch program office requires additional consumables to be ordered under Task Order 2. Please provide a price quote for the items listed below no later than 2PM EST, Tuesday, August 1.

Please consider this e-mail as authorization to place the order for these additional items along with that of the original consumables request.

<table>
<thead>
<tr>
<th>Reagent/Consumable</th>
<th>Quantity Needed</th>
</tr>
</thead>
<tbody>
<tr>
<td>(b)(4)</td>
<td>(b)(7)(E)</td>
</tr>
</tbody>
</table>

Thank you,

CARLA DAVIS
Contracting Officer
Department of Homeland Security
Office of Health Affairs Acquisition Division

P:  
F:  
E:  
BB:
03 August 2011

Letter Number: 2011-08-03 SPD-Biowatch-0133

U.S. Dept. of Homeland Security
Office of Procurement Operations
OHA Acquisition Division
245 Murray Lane, SW
Building 410
Washington DC 20528

Attention: Ms. Carla Davis- Contracting Officer

Reference: (1) HSHQDC-10-D-00003 Final Contract
(2) HSHQDC-10-J-00455 Executed Task Order 2
(3) “Task Order 2 RFP and Authorization to Place Order” email from C. Davis dated 28 July 2011

Subject: BioWatch Program Task Order 2 Additional Consumables RFP Response

Dear Ms. Davis:

Northrop Grumman submits this response to the Request for Proposal email dated 28 July 2011 (Reference 3). The total price of the additional consumables as requested by the Government is (b)(4). Please see the table below for a complete breakout of this price.

<table>
<thead>
<tr>
<th>Cost</th>
<th>(b) (4)</th>
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</thead>
<tbody>
<tr>
<td>Fee</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
</tr>
</tbody>
</table>

Should you have any questions about this matter, please contact the undersigned.

Sincerely,
Northrop Grumman Security Systems, LLC

Contracts Representative
Phone: (b) (6)
Fax: (b) (6)
Email: (b) (8)
AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

2. AMENDMENT/MODIFICATION NO. P00010
3. EFFECTIVE DATE 09/08/2011
6. Issuer/RV CONF DIS/CPG/ODA
7. ADMINISTERED BY (if other than Item 6) U.S. Dept. of Homeland Security
Office of Procurement Operations
OHA Acquisition Division
245 Murray Lane, SW
Building 410
Washington DC 20528
8. NAME AND ADDRESS OF CONTRACTOR (No. street, county, State and ZIP Code) NORTHROP GRUMMAN SECURITY SYSTEMS LLC
1580 B WEST NURSERY RD
LINTHICUM HEIGHTS MD 210900000

1. CONTRACT ID CODE 1046382050000
FACILITY CODE

10. A. AMENDMENT OF SOLICITATION NO.

10A. MODIFICATION OF CONTRACT/ORDER NO.
HSHQDC-10-D-00003
HSHQDC-10-J-00455

10B. DATED (SEE ITEM 11) 09/27/2010

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 offers is extended. ☐ is not extended.
Offers 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 ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE:

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: 52.243-2 Changes - Cost-Reimbursement

D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor ☐ 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.)

DUNS Number: 104638205+0000

The purpose of this modification is to extend the Task Order period of performance to December 31, 2011 at additional estimated costs and fixed fees totaling 458,691.51 inclusive of the following efforts:

a) Additional field testing of NG-ADS units located throughout the [b](4) [b](7)[(F)] and the 3 NG-ADS units recently relocated to [b](4) [b](7)[(F)] and:

b) All costs related to the packaging, shipping and receiving of the materials itemized on the attached Dugway Proving Ground Material Return List.

Continued ...

Except as provided herein, all terms and conditions of the document reference 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) Carla Davis

16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Carla Davis

15B. DATE SIGNED 09/13/2011
16B. UNITED STATES OF AMERICA

16C. DATE SIGNED 09/13/2011

STANDARD FORM 30 (REV. 11-83)
Prescribed by GSA
FAR (48 CFR) 53.243
The Government will not be exercising the proposed 30-day option period extending the performance period to October 26, 2011 that was referenced in P00008 of this Task Order.

This additional funding of $458,691.51 will be provided to the Contractor in a subsequent modification to this Task Order.

The Contractor is hereby authorized to continue performance through October 14, 2011 at the current funding level of $9,342,584.10. As this Task Order is not fully funded, any costs overages incurred prior to October 14, 2011 shall be incurred at the Contractor's risk in accordance with FAR 52.232-22 Limitation Of Funds.

All other Task Order terms and conditions remain unchanged.

AAP Number: 64418 DO/DPAS Rating: NONE
Period of Performance: 09/27/2010 to 12/31/2011
Performance Work Statement – Task Order 2

1 Objectives and Goals

Under the Phase I Systems Performance Demonstration (SPD) contract, the Contractor will provide Next-Gen Automated Detection Systems (NG-ADS) and all technical and operational support to enable the Government to test in an operationally relevant field environment in Task Order 2 to determine the adequacy of the NG-ADS for future procurement and deployment. The Government may also issue additional task orders for engineering enhancements to correct and validate issues identified during testing activities described below.

The objective of this effort is to demonstrate that the NG-ADS:
- Conforms to the Gen-3 performance specification,
- Has a system performance with associated technologies that meet a minimum Technology Readiness Level (TRL) of 7, and
- Contains acceptable assays and uses reagents produced with adequate quality control procedures.

In support of these objectives, the Contactor shall provide ready-to-test NG-ADS units and the full range of support to include consumables, data management, operations and maintenance (O&M) support, and technical personnel to support the test activities described below. In particular, the Contractor shall:
- Manufacture and deliver ready-to-test NG-ADS units required for all testing. The NG-ADS units’ configuration will be baselined at the Task Order 1 configuration, unless otherwise approved by DHS, and remain under configuration control by the Contractor. All NG-ADS units will be of the same configuration and from the same assembly line, except as otherwise noted herein. The number of spares required to support the testing activities is shown in Attachment 1 – List of Spare Parts.
  
  (b) (4)

- Operate NG-ADS units in support of the tests, including replenishment of consumables and maintenance of the systems when necessary (unless noted otherwise).
- Establish a capability within the independent testing organization and operational test jurisdiction (specifically BioWatch Lab personnel and BioWatch Action Committee) to receive, interpret, and monitor the NG-ADS test results to evaluate the performance of the equipment.
- Collect data and provide reports (Reliability, Availability, Maintainability and Testability (RAM-T) and IT performance data).
- Provide engineering and configuration support.
- Ensure intellectual property and licensing rights are obtained, as appropriate, for commercial-off-the-shelf (COTS) products to allow DHS to operate the NG-ADS units during this Task Order.

1.1 Program Plan

| 08/28/2011 | 1 |
The Contractor has developed a program schedule that meets DHS' Milestone requirements and schedule objectives (Attachment 2).

The Contractor shall meet the Task Order 2 technical Milestones as follows:

- Milestone #3 – Successful completion of the Field Testing activities under Task Order 2 within the scheduled time frame.

1.2 Task Order 2

In support of the Task Order 2 field testing activities, the Contractor will provide twelve (12) ready-to-test NG-ADS units plus spares, which will be placed in service and associated information technology (IT) to support the field test, reliability, availability, maintainability, and testability (RAM-T) testing, and IT verification and validation. The Contractor will be responsible for providing equipment and technical support, including the O&M of the NG-ADS units during the course of the field test. This support will include supplying/replenishing all consumables, providing any required preventative maintenance, and corrective maintenance (fixing the system) should it break down during the course of the testing.

Tight configuration control will be used to ensure that all units will be of the same configuration for this testing. All NG-ADS units will be manufactured on the same assembly line.

The Contractor will support the Task Order 2 efforts as described below. This will include providing the necessary NG-ADS units for each test, consumables, spare parts, training, test support, and maintenance support.

1.2.1 Resources

The Contractor shall consumables and other supplies necessary to support the Task Order 2 testing. The Contractor will also setup to perform local repairs and store equipment, spares, and consumables during field testing. Since all testing will take place in Government designated field sites, the Contractor's support will be focused on providing the necessary NG-ADS units, spares, consumables, and personnel to conduct each test. The NG-ADS units will be prepared for the testing in the field.

The spare parts and consumables necessary to support the testing will also be stored and shipped from this facility.

1.2.2 Task Order 2 Subtasks

1.2.2.1 Task Order 2 Equipment Procurement and Fabrication

In preparation for Task Order 2 field testing, the Contractor will provide all necessary NG-ADS units, reagents, spare parts, tools, associated information technology, and support plans. This preparation will include the ordering of all material for the fabrication and checkout of the NG-ADS units, all reagents and consumables required to operate the units, all spares and other support equipment required, including the use and maintenance of the equipment. The Contractor will also establish one or more depot facilities.
to support the installation, baseline calibration, operational field testing, RAM-T testing, IT verification and validation, and limited operational test extension. The

The Contractor will procure all material and fabricate twelve (12) NG-ADS units plus spaces (same configuration as described for Task Order 1) to support Task Order 2 field test activities. All NG-ADS units delivered for testing under the Phase I SPD contract will be manufactured on the same assembly line.

The Contractor will maintain supplies, consumables, and personnel adequate to keep the NG-ADS units operational 24/7 during Operational Environment Field Testing (not including down-time for maintenance, calibration, etc.) and to assist in providing failure analysis data as part of the field test. The Contractor will implement a Failure Reporting, Analysis and Corrective Actions System (FRACAS) to facilitate the capture of failure data during Baseline Calibration and the Operational Environment Field Testing. Failure analysis data will identify all observed problems by test unit / instrument, the sub-system at fault, the total time the system / sub-system was down and the required corrective maintenance action needed to repair the problem and restore the system / subsystem. The categories for subsystem at fault and associated subsystems will be agreed to prior to the start of testing. If the FRACAS data is maintained in a proprietary format, the FRACAS application must be provided, or the data must be converted to a common useable format such as Microsoft Excel.

The Contractor will procure all consumables required for testing activities performed under Task Order 2. The Contractor’s plan for quality control of the reagents is described in the Quality Assurance Surveillance Plan (QASP) contained in Volume II - Management Proposal.

The Contractor will provide all spare components that are necessary to support Task Order 2 activities. The assessment of spare parts required to support Task Order 2 is provided in Attachment 1.

1.2.2.2 Jurisdictional Training and Coordination

The Contractor will provide eight (8) sets of equipment for signal receipt for use by various users to be specified by the Government. This equipment will be in the form of monitors used to monitor system operational status and test results as well as system and logistical management.

08/18/2011
The Contractor will provide the Government with access to an electronic copy of a maintenance and operator manual(s) (draft or preliminary version acceptable) not later than 30 days before the start of Operational Environment Field Testing.

1.2.2.3 Detector Baseline Calibration for Field Test Start

After delivery of the twelve (12) NG-ADS units to the jurisdiction for Field Testing, the Contractor will be given not less than one (1) month to install, set-up and baseline the units at the operational testing sites identified by DHS. Inspection and acceptance of each NG-ADS unit will take place after the installation and activation at each of the operational testing sites in accordance with FAR 52.246-3, Inspection of Supplies-Cost Reimbursement. This inspection will be done during the Contractor’s activities that are necessary to install the units and acceptance will be based upon the successful completion and review of the Contractor’s installation checklist.

At the end of the set up/baseline period, a review period lasting not longer than 1 week will occur. The Field Test will commence immediately following the review period. The NG-ADS units may continue to operate and be supported during the review period, as mutually agreed upon. Each NG-ADS will be co-located with other competitive autonomous biodetectors and a control unit in both indoor and outdoor test environments. The Government will identify the site(s) two (2) months prior to unit delivery (a preliminary list of site(s) will be provided within 2 weeks after receipt of order), provide site prep prior to unit delivery (in accordance with the Contractor’s specifications), provide jurisdiction coordination, and will provide security for the NG-ADS during the duration of the test. The Contractor will be responsible for the security of the NG-ADS enclosure (i.e., locked door to access interior of system). The jurisdiction depot will be used during the installation and baseline testing.

The detector baseline calibration will begin four (4) months after receipt of order and will last up to one (1) month in duration. Prior to the installation, the contractor will provide...
Material Safety Data Sheets (MSDS), as necessary, for common consumable items used by their biodetection systems for each consumable subject to spilling (i.e., each liquid), as well as any other common items which may generate disposal/environmental concern, such as batteries. The MSDS will be provided not later than two (2) months after receipt of order.

Detector Baseline Calibration and Review Period Support Details:

- The Government will operate a TOC that will provide personnel 24/7 for timely site access coordination and escort, observation, and data collection. Unless otherwise required by the site manager, a Government escort will not be required to access the site whenever required by the Contractor.
- All system maintenance will be performed by the Contractor. DHS and other parties will not attempt maintenance on the units without NGSS involvement.

The Contractor will provide site visit log information to DHS on a weekly basis during Baseline Calibration in an electronic format, which will capture the site arrival and departure times, Contractor personnel visiting site, and site visit activity.

1.2.2.4 Operational Environment Field Testing

The Contractor will support the operations and maintenance of the twelve (12) ready-to-test NG-ADS units in support of the Government's test objectives. The NG-ADS units will be split between indoor and outdoor locations based upon a deployment plan that will be developed by the Government. The NG-ADS units will continue to be operated in the 'controls only' mode described above for the duration of the Operational Environment Field Testing.

The Contractor will provide test labor for operational environment field testing of twelve (12) instruments in the jurisdiction beginning within one (1) week of the completion of Baseline Calibration for up to ten (10) continuous weeks. This includes weekly Preventive Maintenance (PM) and as-needed Corrective Maintenance (CM).

Operational Environment Field Maintenance Support Details:

- The Government will operate a TOC that will provide personnel 24/7 for timely site access coordination and escort, observation, and data collection.
• All system maintenance will be performed by the Contractor. DHS and other parties will not attempt maintenance on the units without NGSS involvement.

At the conclusion of the field test there will be a post-test recovery period of approximately two (2) weeks at which time the contractor will de-install eight (8) biodetector units from field sites and restore the sites to the condition which they were in when installation started, except for modifications made by DHS or at DHS’ direction as part of site prep. The Contractor will remove all equipment and materials originally provided by the Contractor at each site, observing all applicable safety and hazardous materials management regulations and good operating practices. A minority of the eight (8) un-installed NG-ADS units will be kept at DHS for testing and the remaining units will be returned to the Contractor.

The Contractor will provide site visit log information to DHS on a weekly basis during the two week post-test period in an electronic format, which will capture the site arrival and departure times, Contractor personnel visiting site, and site visit activity.

1.2.2.5 RAM-T Data Collection

The goal of the RAM-T Data Collection effort is to gather RAM-T data on the NG-ADS in an applicable operational environment. This effort will be conducted in applicable operational environments (i.e., indoor environment, outdoor environment) to evaluate and validate overall supportability of the system.

1.2.2.6 IT Signal Processing V&V and Report Generation

The goal of this activity is to conduct verification and validation on the proposed information technology (IT) system and gather data from the system to support independent Verification and Validation (V&V) of signal processing and report generation functions. The Contractor will provide equipment for signal receipt to up to eight (8) local public health and DHS personnel for this task (same personnel as identified and trained per paragraph 1.2.2.2). This equipment will include the IT system used to monitor system test results.

The Contractor will provide DHS with information regarding how the IT system functions in order to establish a baseline of its current implementation. The Contractor will collaborate with DHS to develop the procedures that will be used by DHS to capture and
validate the data generated by the system. Agreed-upon test data/reports will be generated in accordance with these procedures during the last two (2) weeks of Baseline Calibration and during the Operational Environment Field Testing. The Contractor will also participate with DHS in the selection of appropriate standards and conventions that will be applied to the V&V activities. Any findings or discrepancies between these agreed-upon standards and conventions and the existing IT system implementation will be documented and addressed in later phases of the program as appropriate.

1.2.2.7 Field Test Extension Options

Prior to the start of field testing, the Government may exercise an option(s) to extend field testing beyond the initial ten (10) weeks for 30 to 60 days. These optional efforts shall be exercised before, or during, the 1-month Baseline Calibration effort of Section 1.2.2.3 of this PWS. The option(s) will be exercised via a funded modification to this Task Order.

If the field test is extended, the contractor shall provide the same level of base support as provided in the initial 10 weeks for Option 1 (a 30-day extension) and Option 2 (a 2nd 30-day extension). The contractor shall provide all consumables and technical support required to repair, maintain and operate the twelve (12) biodetector units 24 hours a day, 7 days a week (24/7) for the extension period. The contractor shall also be responsible for collecting and reporting reliability, availability, maintainability and testability data for the duration of the extension period.

1.2.2.8 Limited Operational Test Extension

At the conclusion of the Operational Environment Field Test, the Contractor shall continue to operate four (4) NG-ADS units in the field to gather additional reliability data for a period of six (6) months. During this period, the Contractor will continue to monitor component failures. Failure data will be collected and reported on a bi-weekly basis. The bi-weekly Failure Reports will include all observed component failures by fielded instrument, the sub-system at fault, and the required corrective maintenance action needed to repair the problem and restore the system/subsystem. The bi-weekly reports will be delivered ten (10) days after the completion of each two week reporting period.

(b)(4)

The NG-ADS units will be supported using a combination of (b)(4) consumables, spares and other support equipment necessary to support this operation. The Contractor will provide all required consumables, spares and other support equipment necessary to support this operation. The Contractor will provide technical support required to repair, maintain and operate the biodetector units during this period. At the completion of the Limited Operational Test Extension, there will be a post-test recovery period of approximately one (1) week at which time the contractor will de-install, clean, remove and return the four (4) units to

(b)(4)

1.2.2.9 Operational Demonstration Option

08/13/2011
After the conclusion of the Operational Environment Field Testing, the Contractor will conduct an Operational Demonstration of the candidate Gen-3 technology at three (3) sites located at _______. Three (3) of the NG-ADS units tested in the demonstration will be relocated to sites designated by the Government. (b)(4) (b)(4) (b)(4) (b)(4) (b)(4) (b)(4) All site preparation will be completed by DHS prior to equipment installation. The units will be operated during a baseline period of three (3) weeks after all necessary operational policies and procedures have been established, followed by an Operational Demonstration lasting until twenty one (21) weeks after award. At the completion of the Operational Demonstration, there will be a post-test recovery period of approximately one (1) week at which time the contractor will de-install, clean, remove, and return the three (3) units to (b)(4) (b)(4) for storage.

During the Operational Demonstration test period, the Contractor will monitor component failures. Failure data will be collected and reported every two (2) weeks. The Failure Reports will include all observed component failures by fielded instrument, the subsystem at fault, and the required corrective maintenance action needed to repair the problem and restore the system/subsystem. The reports will be delivered ten (10) days after the completion of each two week reporting period.

The NG-ADS units will be operated in the 'controls only' mode described above in 1.2.2.3, and (b)(4) (b)(4) will be co-located with each NG-ADS for the duration of the demonstration.

The Contractor will provide all required consumables, spares and other support equipment necessary to support this operation. (b)(4) (b)(4) (b)(4) (b)(4) (b)(4)

1.2.2.9.1 Operational Demonstration Alternate Location

In the event that an Operational Demonstration at _______ becomes unfeasible, the
Contractor will alternately install and operate the three (3) NG-ADS units at three outdoor sites at [REDACTED]. The timing and duration of the activities will be the same as described above in 1.2.2.9.

1.3 Other Requirements

1.3.1 Program Reviews

1.3.2 Management Information

The Contractor shall submit Monthly Project Status Reports (MPSR) no later than the fifteenth workday after the reporting calendar month. Reports will include breakouts by Task Order and SOO Test Events. The Contractor shall provide an MPSR that includes the following elements:

- Project Cost by Task Order:
  - Budget at Completion (BAC)
  - Actual Cost (AC)
  - Accrued Cost (estimates)
  - Cost Variance (CV) - Actuals vs. Budget
- Estimate at Complete (EAC)
  - Estimate to Completion (ETC)
  - Cost Funds Status
- Performance/Schedule by Task Order and Test Event:
  - Project Schedule
  - Overall Technical Performance Evaluation
  - Completion percentage of the Milestones and/or Deliverables
  - Schedule Variance (SV)
  - Variance at Completion (VAC)
- Risk Management by Task Order and Test Event:
  - Risk Reporting Matrix
  - Risk Mitigation Worksheet

Current period values and cumulative values for data, variances, and forecasts will be provided in numerical format showing values and in graphical format showing trends. Any schedule variance on the critical path will be identified and its impact on subsequent...
milestones and the project cost and schedule quantified.

The Contractor shall also deliver a draft Program Management Plan and final Program Management Plan. The draft Project Management Plan will be submitted 15 days after a task order is received, with a final submittal reflecting Government input due 30 days after the task order is received. The Project Management Plan shall provide a detailed schedule, including a critical path analysis, along with a narrative discussing the salient issues affecting task execution in terms of needed technical inputs and analysis to meet cost schedule, and performance in the task execution.

1.3.3 Technology Readiness Assessment

The Contractor shall provide adequate information to permit the Government to determine the TRL level of the NG-ADS technology throughout the course of the program.

1.3.4 Configuration Management

Minor modifications and adjustments to the NG-ADS equipment or manufacturing processes may be required as a result of characterization and field testing. To ensure that the Government is fully engaged and informed about the NG-ADS and the various options for improving them, the Contractor shall maintain a robust configuration management system. The Contractor shall submit proposed changes/modifications that result from the characterization or field testing to the Government for approval.

Once units are delivered for testing, all changes will be reviewed and approved by DHS before they are implemented during Operational Environment Field Testing.

If the program implements modifications or changes that require additional characterization and system tests, the Contractor will provide the consumables and technical support for this effort. These changes will be subject to a contract modification in accordance with the contract’s changes clause (FAR 52.243-2).

The Contractor shall implement drawing configuration management consistent with Task Order 1.

1.3.5 Occupational Health and Safety

Prior to delivery of the ready-to-test NG-ADS units, the Contractor shall self-certify that the units being delivered are safe to operate and that all known occupational safety and health concerns are appropriately mitigated.
1.3.6 Technical Exchange Meetings

The Contractor shall prepare for and support technical exchange meetings (TEM) as required to discuss technical issues and agree on an appropriate path forward.

1.4 Deliverables

The Contractor shall deliver the equipment, documentation and training listed in Table 1, Table 2, and Table 3, below. Inspection and acceptance of each NG-ADS unit will take place after the installation and activation at each of the operational testing sites in accordance with FAR 52.246-3, Inspection of Supplies - Cost Reimbursement. This inspection will be done during the Contractor's activities that are necessary to install the units and acceptance will be based upon the successful completion and review of the Contractor's installation checklist. DHS will provide acceptance or comments within 2 calendar weeks of submittal of all data deliverables. Comments and changes will be incorporated once into a single, final submittal. Final coordination of the training deliverables outlined in Table 3 will occur upon completion of the equipment deliverables outlined in Table 2.

### Table 1 Program Deliverables

<table>
<thead>
<tr>
<th>Description</th>
<th>Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monthly Project Status Report (MPSR)</td>
<td>NLT 15th of each month</td>
</tr>
<tr>
<td>Technical Exchange Meetings</td>
<td>1st TEM NLT 30 days ARO</td>
</tr>
<tr>
<td></td>
<td>Subsequent meetings as required, not to exceed 1 meeting per month</td>
</tr>
<tr>
<td>Updated Project Management Plan</td>
<td>Draft 15 days ARO</td>
</tr>
<tr>
<td></td>
<td>Final 30 days ARO</td>
</tr>
<tr>
<td>Trip Reports</td>
<td>As needed</td>
</tr>
<tr>
<td>Summary Subcontract Report</td>
<td>Oct 30 for period 10/1-9/30</td>
</tr>
<tr>
<td>[b] (4)</td>
<td>[b] (4)</td>
</tr>
<tr>
<td>RAM-T - IT Signal Processing V&amp;V Report Generation</td>
<td>Upon the completion of IT V&amp;V Testing</td>
</tr>
<tr>
<td>Safety Assessment Report</td>
<td>Prior to delivery of NG ADS units</td>
</tr>
<tr>
<td>Material Safety Data Sheets (MSDS)</td>
<td>2 months ARO</td>
</tr>
<tr>
<td>Technology Readiness Assessment support materials</td>
<td>Concurrent with final report</td>
</tr>
<tr>
<td>FRACAS summary report</td>
<td>At 14 day intervals, commencing 10 days after start of Operational</td>
</tr>
<tr>
<td>Description</td>
<td>Due</td>
</tr>
<tr>
<td>----------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>Environment Field Test and ending 1 month after completion of Operational Environment Field Test</td>
<td>NOTE: During Field Testing, reports will be submitted to the Gen-3 OTA, not the Program Office.</td>
</tr>
<tr>
<td>Complete FRACAS data set</td>
<td>With final FRACAS summary report</td>
</tr>
<tr>
<td>Maintenance and Operator manual(s)</td>
<td>30 days prior to start of Operational Environment Field Test</td>
</tr>
<tr>
<td>Site log, 1 for each system, during pre-test (Baseline Calibration) and post-test periods</td>
<td>Delivered weekly during pre-test and post-test periods</td>
</tr>
<tr>
<td>Failure Reports during the Limited Operational Test Extension</td>
<td>At 14 day intervals, beginning ten (10) days after the completion of the first two (2) week reporting period.</td>
</tr>
<tr>
<td>Failure Reports during the Operational Demonstration</td>
<td>At 14 day intervals, beginning ten (10) days after the completion of the first two (2) week reporting period.</td>
</tr>
</tbody>
</table>

**Table 2 Equipment Deliverables**

<table>
<thead>
<tr>
<th>Description</th>
<th>Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>Twelve (12) NG-ADS Units for Detector Calibration and Enhanced Operations</td>
<td>NLT 4 months ARO</td>
</tr>
<tr>
<td>Spares and consumables in support of Detector Baseline Calibration, Operational Environment Field Testing, Limited Operational Test Extension, and Operational Demonstration</td>
<td>First delivery NLT 4 months ARO; certain consumables and spares may be delivered in multiple, time-staggered deliveries after the first delivery</td>
</tr>
<tr>
<td>Equipment for signal receipt at jurisdiction</td>
<td>Concurrent with the associated training class</td>
</tr>
</tbody>
</table>

**Table 3 Training Deliverables**

<table>
<thead>
<tr>
<th>Description</th>
<th>Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>User Interface Training in the Field Testing Jurisdiction</td>
<td>(c) (4) after start of Detector Baseline Calibration</td>
</tr>
<tr>
<td>Technical Orientation Training support materials</td>
<td>(b) (4) after receipt of order</td>
</tr>
<tr>
<td>Archive Retrieval Training and associated materials</td>
<td>Prior to the start of Detector Baseline Calibration</td>
</tr>
<tr>
<td>User interface training for up to 3 personnel as part of the Operational Demonstration</td>
<td>(b) (4) after the completion of installation of units for the Operational Demonstration</td>
</tr>
<tr>
<td>Refresher training on installation of units for the Operational Demonstration</td>
<td>(c) (7) after the initial training</td>
</tr>
</tbody>
</table>

 Deleted: 15  Deleted: 15 day

Deleted: 06  Deleted: 29

08/18/2011
| interface as part of the Operational Demonstration | user interface training session |
### Attachment 1 - Task Order 2 Spares List

**Baseline Scope Spares List**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Title/Description</th>
<th>QTY</th>
</tr>
</thead>
</table>

(b)(4)  (b)(7)(E)

---

Date: 08/18/2011

Deleted: 06

Deleted: 29
<table>
<thead>
<tr>
<th>Part Number</th>
<th>Title/Description</th>
<th>QTY</th>
</tr>
</thead>
<tbody>
<tr>
<td>(b)(4)</td>
<td>(b)(7)(E)</td>
<td></td>
</tr>
</tbody>
</table>
**Option 1 Spares List**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Title/Description</th>
<th>QTY</th>
</tr>
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<tbody>
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<td></td>
<td></td>
</tr>
<tr>
<td>(b)(7)(E)</td>
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<td></td>
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</tbody>
</table>

**Option 2 Spares List**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Title/Description</th>
<th>QTY</th>
</tr>
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</tr>
<tr>
<td>(b)(7)(E)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Part Number</td>
<td>Title/Description</td>
<td>QTY</td>
</tr>
<tr>
<td>-------------</td>
<td>-------------------</td>
<td>-----</td>
</tr>
</tbody>
</table>

NOTE: Baselines Scope Spares not utilized/consumed in support of Task Order 2 Field Test activities shall be available for utilization/consumption for Option 1 and Option 2 Field Test Extensions, the Limited Operational Test Extension test period, and the Operational Demonstration.
# Attachment 2 – DHS SPD Program Schedule

<table>
<thead>
<tr>
<th>Contract Award (TO1)</th>
<th>0</th>
<th>N/A</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Task Order #1 - Assay Validation and Characterization Testing</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assay Testing - Vendor Delivers Units per PWS</td>
<td>0</td>
<td>2.25</td>
<td>2.25</td>
</tr>
<tr>
<td>Assay Testing - Train/Verify Lab Personnel</td>
<td>10</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Assay Testing (50% Utilization per PWS)</td>
<td>120</td>
<td>4</td>
<td>9</td>
</tr>
<tr>
<td>Aerosol Collection Subsystem Test - Vendor Delivers units per PWS</td>
<td>0</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Aerosol Collection Subsystem Test - Vendor Train ECBC per PWS</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Aerosol Collection Subsystem Test</td>
<td>20</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Analytical Subsystem Test - Vendor Delivers units per PWS</td>
<td>0</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Analytical Subsystem Test - VendorTrains ECBC personnel</td>
<td>5</td>
<td>5</td>
<td>5</td>
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<tr>
<td>Analytical Subsystem Test 2.a. - Limit of Detection</td>
<td>20</td>
<td>5</td>
<td>6</td>
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<tr>
<td>Milestone #1</td>
<td>0</td>
<td>6</td>
<td>6</td>
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<tr>
<td>Analytical Subsystem Test 2.b. - Probability of Detection</td>
<td>68</td>
<td>6</td>
<td>9</td>
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<tr>
<td>System Level Test - Vendor Delivers units per PWS to DPO</td>
<td>0</td>
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<tr>
<td>System Level Test</td>
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<td>9</td>
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<tr>
<td>Milestone #2</td>
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<th>Contract Award (TO2)</th>
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<tbody>
<tr>
<td><strong>Task Order #2 - Field Test</strong></td>
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<tr>
<td>Vendor Delivers units per PWS</td>
<td>0</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>Biodetector baseline calibration</td>
<td>30</td>
<td>12</td>
<td>15</td>
</tr>
<tr>
<td>Field test/MAK/27/IT Verification and Validation</td>
<td>70</td>
<td>13</td>
<td>16</td>
</tr>
<tr>
<td>Option 1: 30-Day Field Test Extension</td>
<td>30</td>
<td>15</td>
<td>17</td>
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<tr>
<td>Option 2: Additional 30-Day Field Test Extension</td>
<td>30</td>
<td>17</td>
<td>18</td>
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<tr>
<td>Decommission, Transport, and Unload at the Government Site</td>
<td>14</td>
<td>16</td>
<td>16</td>
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<tr>
<td>Data compilation/report</td>
<td>25</td>
<td>16</td>
<td>17</td>
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<tr>
<td>Milestone #3</td>
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<table>
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<tr>
<th>Future Task Orders (Unpriced)</th>
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<tr>
<td>Engineering Design Changes</td>
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<td></td>
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<tr>
<td>Regression Testing of Design Changes</td>
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<tr>
<td>Extended Field Testing</td>
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AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

2. AMENDMENT/MODIFICATION NO.: P00001
3. EFFECTIVE DATE: See Block 16C
4. REQUISITION/PURCHASE REG. NO.: See Schedule
5. PROJECT NO. (If applicable): Code
6. ISSUED BY: U.S. Dept. of Homeland Security
   Code: DHS/OPO/CHA
   Office of Procurement Operations
   OHA Acquisition Division
   245 Murray Lane, SW
   Building 410
   Washington DC 20528
7. ADMINISTERED BY (If other than Item 6): Code: DHS/OPO/CHA
   U.S. Dept. of Homeland Security
   Office of Procurement Operations
   OHA Acquisition Division
   245 Murray Lane, SW
   Building 410
   Washington DC 20528
8. NAME AND ADDRESS OF CONTRACTOR (No. street, county, State and Zip Code): NORTHROP GRUMMAN SECURITY SYSTEMS LLC
   1580 E WEST NURSEY RD
   LINTHICUM HEIGHTS MD 210900000

9A. AMENDMENT OF SOLICITATION NO.: Code 1046382050000
9B. DATED (See Item 11): 09/27/2010
X 10A. MODIFICATION OF CONTRACT ORDER NO.: HSHQDC-10-D-00003
   HSHQDC-10-D-00455
10B. DATED (See Item 13): 09/27/2010

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 offers
   is extended. is not extended.
   Offers 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 retaining
   (b) By submitting a separate letter or telegram which includes a reference to the solicitation and amendment numbers.
   FAILURE OF YOUR ACKNOWLEDGE 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 the amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required): Net Increase: $458,691.51
   See Schedule

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACT/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 OR:
      In accordance with revised FWS dated September 18, 2011.
   D. OTHER (Specify type of modification and authority):

E. IMPORTANT: Contractor is not. is required to sign this document and return 1 copy to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by DEF section headings, including solicitation/contract subject matter where feasible.)
   DUNS Number: 1046382050000
   The purpose of this modification is to fully fund the Task Order period of performance through December 31, 2011 in the amount of $458,691.51, as established in P00010.
   Task Order estimated cost has increased from $9,724,584.10 by (b) (4) to $9,783,275.61.
   Task Order Fixed Fee has increased from $361,400.00 by (b) (4) to (b) (4)
   Total Task Order cost has increased from $9,724,584.10 by $458,691.51 to $9,783,275.61.
   This Task Order is now fully funded and not withstanding any of the terms of this
   modification FAR 52.232-20, Limitation of Cost, remains in full effect.

   Continued ...

Excerpts from the document indicate:

(C) (6)

(b) (6)

15A. NAME AND TITLE OF SIGNER (Type or print): Carla Davis
   CONTRACTS REPRESENTATIVE
   15C. DATE SIGNED: 9/20/11

16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print): Carla Davis
   16B. UNITED STATES OF AMERICA
   16C. DATE SIGNED: 9/21/2011

STANDARD FORM 30 (REV. 1/83)
Prepared by GSA
FAR (48 CFR) 03.243

Previous edition unchangeable.
REFERENCENO. OF DOCUMENT BEING CONTINUED
HSHQDC-10-D-00003/HSHQDC-10-J-00455/P00011

CONTINUATION SHEET

NAME OF OFFEROR OR CONTRACTOR
NORTHROP GRUMMAN SECURITY SYSTEMS LLC

ITEM NO. (A) | SUPPLIES/SERVICES (B) | QUANTITY (C) | UNIT (D) | UNIT PRICE (E) | AMOUNT (F)
---|---|---|---|---|---

All other Task Order terms and conditions remain unchanged.
AAP Number: 64418 DO/DPAS Rating: NONE
Discount Terms: Net 30
FOB: Destination
Period of Performance: 09/27/2010 to 12/31/2011

Change Item 0001 to read as follows (amount shown is the obligated amount):

0001
Fully funding extension through December 31, 2011 in the amount of $458,691.51.
Total Line Item Value: $9,783,275.61
Requisition No: ROHA-11-00094, ROHA-11-00204, ROHA-11-00230

Accounting Info:
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Funded: $0.00
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Funded: $0.00
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Funded: $0.00
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-GE-OE-25-76-000000
Funded: $0.00
Accounting Info:
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Funded: $0.00
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Funded: $281,576.90
Accounting Info:
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Funded: $177,114.61
AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

2. AMENDMENT/MODIFICATION NO.
   P00012

3. EFFECTIVE DATE
   See Block 16C

4. REQUISITION/PURCHASE REQ. NO.
   ROHA-12-00029

5. PROJECT NO. (If applicable)
   CODE

6. ISSUED BY
   U.S. Dept. of Homeland Security
   Office of Procurement Operations
   OHA Acquisition Division
   245 Murray Lane, SW
   Building 410
   Washington DC 20528
   CODE
   DHS/OPO/OHA

7. ADMINISTRATIVE (If other than Item 6)
   NAME AND ADDRESS OF CONTRACTOR (As., street, county, State and Zip Code)
   NORTHROP GRUMMAN SECURITY SYSTEMS LLC
   1580 B WEST NURSERY RD
   LINTHICUM HEIGHTS MD 210900000
   CODE
   1046382050000
   FACILITY CODE

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 Offers
   ☐ is extended. ☐ is not extended.
   Offers 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 9 and 15, and waiving 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 ACHNOWLEDGEMENT 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 ONLY APPLIES TO MODIFICATION OF CONTRACT/ORDER. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

   CHECK ONE
   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
      In accordance with revised PWS dated December 9, 2011.

   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.)
   DUNS Number: 1046382050000
   This Task Order is being modified at no additional cost to the Government to revise the following:

   1). Update the Performance Work Statement (PWS) (attached, 21 pages) sections 1.2.2.8 and 1.2.2.9 with instructions to ship the biodetector units to
   (b)(4) (b)(7)(F)
   at the conclusion of field testing,
   and;

   2) Change the period of performance end date to January 31, 2011 with shut-down and
decommission of the (b)(6) units beginning on January 17, 2012.
   Continued...

   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.

16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)
   Carla Davis

16C. DATE SIGNED
   12/10/11

16B. UNITED STATES OF AMERICA
   Carla Davis
   (Signature of Contracting Officer)
   12/13/2011

STANDARD FORM 30 (REV. 10-83)
Prescribed by GSA
FAR (48 CFR) 3.243

Previous edition unusable
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<td>All other Task Order terms and conditions remain unchanged. AAP Number: 64418 DO/DPAS Rating: NONE Delivery: 90 Days After Award Discount Terms: Net 30 Delivery Location Code: DHS Department of Homeland Security 245 Murray Lane Bldg. 410 Washington DC 20528 FOB: Destination Period of Performance: 09/27/2010 to 01/31/2012 Change Item 0001 to read as follows (amount shown is the obligated amount): 0001 Changed PoP end date to January 31, 2012 at no additional cost to the Government. Total Line Item Value $9,783,275.61</td>
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NSN 7540-01-152-0007
OPTIONAL FORM 336 (4-88)
Sponsored by DSS
FAR/AFR CFR 52.110
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Performance Work Statement – Task Order 2

1 Objectives and Goals

Under the Phase I Systems Performance Demonstration (SPD) contract, the Contractor will provide Next-Gen Automated Detection Systems (NG-ADS) and all technical and operational support to enable the Government to test in an operationally relevant field environment in Task Order 2 to determine the adequacy of the NG-ADS for future procurement and deployment. The Government may also issue additional task orders for engineering enhancements to correct and validate issues identified during testing activities described below.

The objective of this effort is to demonstrate that the NG-ADS:
- Conforms to the Gen-3 performance specification,
- Has a system performance with associated technologies that meet a minimum Technology Readiness Level (TRL) of 7, and
- Contains acceptable assays and uses reagents produced with adequate quality control procedures.

In support of these objectives, the Contractor shall provide ready-to-test NG-ADS units and the full range of support to include consumables, data management, operations and maintenance (O&M) support, and technical personnel to support the test activities described below. In particular, the Contractor shall:
- Manufacture and deliver ready-to-test NG-ADS units required for all testing. The NG-ADS units' configuration will be baselined at the Task Order 1 configuration, unless otherwise approved by DHS, and remain under configuration control by the Contractor. All NG-ADS units will be of the same configuration and from the same assembly line, except as otherwise noted herein. The number of spares required to support the testing activities is shown in Attachment 1 – List of Spare Parts.
- Operate NG-ADS units in support of the tests, including replenishment of consumables and maintenance of the systems when necessary (unless noted otherwise).
- Establish a capability within the independent testing organization and operational test jurisdiction (specifically BioWatch Lab personnel and BioWatch Action Committee) to receive, interpret, and monitor the NG-ADS test results to evaluate the performance of the equipment.
- Collect data and provide reports (Reliability, Availability, Maintainability and Testability (RAM-T) and IT performance data.
- Provide engineering and configuration support.
- Ensure intellectual property and licensing rights are obtained, as appropriate, for commercial-off-the-shelf (COTS) products to allow DHS to operate the NG-ADS units during this Task Order.

1.1 Program Plan
The Contractor has developed a program schedule that meets DHS’ Milestone requirements and schedule objectives (Attachment 2).

The Contractor shall meet the Task Order 2 technical Milestones as follows:
- Milestone #3 – Successful completion of the Field Testing activities under Task Order 2 within the scheduled time frame.

1.2 Task Order 2

In support of the Task Order 2 field testing activities, the Contractor will provide twelve (12) ready-to-test NG-ADS units plus spares, which will be placed in the associated information technology to support the field test, reliability, availability, maintainability, and testability (RAM-T) testing, and IT verification and validation. The Contractor will be responsible for providing equipment and technical support, including the O&M of the NG-ADS units during the course of the field test. This support will include supplying/replenishing all consumables, providing any required preventative maintenance, and corrective maintenance (fixing the system) should it break down during the course of the testing.

Tight configuration control will be used to ensure that all units will be of the same configuration for this testing. All the NG-ADS units will be manufactured on the same assembly line.

The Contractor will support the Task Order 2 efforts as described below. This will include providing the necessary NG-ADS units for each test, consumables, spare parts, training, test support, and maintenance support.

1.2.1 Resources

The Contractor shall provide all consumables and other supplies necessary to support the Task Order 2 testing. The Contractor will also establish a site to perform local repairs and store equipment, spares, and consumables during field testing. Since all testing will take place in Government designated field sites, the Contractor’s support will be focused on providing the necessary NG-ADS units, spares, consumables, and personnel to conduct each test. The NG-ADS units will be prepared for the testing in the same manner as described above.

The spare parts and consumables necessary to support the testing will also be stored and shipped from this facility and

1.2.2 Task Order 2 Subtasks

1.2.2.1 Task Order 2 Equipment Procurement and Fabrication

In preparation for Task Order 2 field testing, the Contractor will provide all necessary NG-ADS units, reagents, spare parts, tools, associated information technology, and support plans. This preparation will include the ordering of all material for the fabrication and checkout of the NG-ADS units, all reagents and consumables required to operate the units, and all spare parts and other support equipment required, including the use and maintenance of the equipment and

12/09/2011 2
The Contractor will procure all material and fabricate twelve (12) NG-ADS units plus spares (same configuration as described for Task Order 1) to support Task Order 2 field test activities. All NG-ADS units delivered for testing under the Phase I SPD contract will be manufactured on the same assembly line.

The Contractor will maintain supplies, consumables, and personnel adequate to keep the NG-ADS units operational 24/7 during Operational Environment Field Testing (not including down-time for maintenance, calibration, etc.) and to assist in providing failure analysis data as part of the field test. The Contractor will implement a Failure Reporting, Analysis and Corrective Actions System (FRACAS) to facilitate the capture of failure data during Baseline Calibration and the Operational Environment Field Testing. Failure analysis data will identify all observed problems by test unit / instrument, the sub-system at fault, the total time the system / sub-system was down and the required corrective maintenance action needed to repair the problem and restore the system /subsystem. The categories for subsystem at fault and associated subsystems will be agreed to prior to the start of testing. If the FRACAS data is maintained in a proprietary format, the FRACAS application must be provided, or the data must be converted to a common useable format such as Microsoft Excel.

The Contractor will procure all consumables required for testing activities performed under Task Order 2. The Contractor’s plan for quality control of the reagents is described in the Quality Assurance Surveillance Plan (QASP) contained in Volume II–Management Proposal.

The Contractor will provide all spare components that are necessary to support Task Order 2 activities. The assessment of spare parts required to support Task Order 2 is provided in Attachment 1.

1.2.2.2 Jurisdictional Training and Coordination

The Contractor will provide eight (8) sets of equipment for signal receipt for use by various users to be specified by the Government. This equipment will be in the form of used to monitor system operational status and test results as well as system and logistical management.
The Contractor will provide the Government with access to an electronic copy of a maintenance and operator manual(s) (draft or preliminary version acceptable) not later than 30 days before the start of Operational Environment Field Testing.

1.2.2.3 Detector Baseline Calibration for Field Test Start

After delivery of the twelve (12) NG-ADS units to the jurisdiction for Field Testing, the Contractor will be given not less than one (1) month to install, set-up and baseline the units at the operational testing sites identified by DHS. Inspection and acceptance of each NG-ADS unit will take place after the installation and activation at each of the operational testing sites in accordance with FAR 52.246-3, Inspection of Supplies-Cost Reimbursement. This inspection will be done during the Contractor's activities that are necessary to install the units and acceptance will be based upon the successful completion and review of the Contractor's installation checklist.

At the end of the set up/baseline period, a review period lasting not longer than 1 week will occur. The Field Test will commence immediately following the review period. The NG-ADS units may continue to operate and be supported during the review period, as mutually agreed upon. Each NG-ADS will be co-located with other competitive autonomous biodetectors and a in both indoor and outdoor test environments. The Government will identify the site(s) two (2) months prior to unit delivery (a preliminary list of site(s) will be provided within 2 weeks after receipt of order), provide site prep prior to unit delivery (in accordance with the Contractor's specifications), provide jurisdiction coordination, and will provide security for the NG-ADS during the duration of the test. The Contractor will be responsible for the security of the NG-ADS enclosure (i.e., locked door to access interior of system). The jurisdiction depot will be used during the installation and baseline testing.

The detector baseline calibration will begin four (4) months after receipt of order and will last up to one (1) month in duration. Prior to the installation, the contractor will provide...
Material Safety Data Sheets (MSDS), as necessary, for common consumable items used by their biodetection systems for each consumable subject to spilling (i.e., each liquid), as well as any other common items which may generate disposal/environmental concern, such as batteries. The MSDS will be provided not later than two (2) months after receipt of order.

Detector Baseline Calibration and Review Period Support Details:

- The Government will operate a TOC that will provide personnel 24/7 for timely site access coordination and escort, observation, and data collection. Unless otherwise required by the site manager, a Government escort will not be required to access the site whenever required by the Contractor.
- All system maintenance will be performed by the Contractor. DHS and other parties will not attempt maintenance on the units without NGSS involvement.

The Contractor will provide site visit log information to DHS on a weekly basis during Baseline Calibration in an electronic format, which will capture the site arrival and departure times, Contractor personnel visiting site, and site visit activity.

1.2.2.4 Operational Environment Field Testing

The Contractor will support the operations and maintenance of the twelve (12) ready-to-test NG-ADS units in support of the Government’s test objectives. The NG-ADS units will be split between indoor and outdoor locations based upon a deployment plan that will be developed by the Government.

The Contractor will provide test labor for operational environment field testing of twelve (12) instruments in the jurisdiction beginning within one (1) week of the completion of Baseline Calibration for up to ten (10) continuous weeks. This includes weekly Preventive Maintenance (PM) and as-needed Corrective Maintenance (CM).

Operational Environment Field Maintenance Support Details:

- The Government will operate a TOC that will provide personnel 24/7 for timely site access coordination and escort, observation, and data collection.
All system maintenance will be performed by the Contractor. DHS and other parties will not attempt maintenance on the units without NGSS involvement.

At the conclusion of the field test there will be a post-test recovery period of approximately two (2) weeks at which time the contractor will de-install eight (8) biodetector units from field sites and restore the sites to the condition which they were in when installation started, except for modifications made by DHS or at DHS' direction as part of site prep. The Contractor will remove all equipment and materials originally provided by the Contractor at each site, observing all applicable safety and hazardous materials management regulations and good operating practices. A minority of the eight (8) un-installed NG-ADS units will be kept at and the remaining units will be returned to.

The Contractor will provide site visit log information to DHS on a weekly basis during the two week post-test period in an electronic format, which will capture the site arrival and departure times, Contractor personnel visiting site, and site visit activity.

1.2.2.5 RAM-T Data Collection

The goal of the RAM-T Data Collection effort is to gather RAM-T data on the NG-ADS in an applicable operational environment. This effort will be conducted in applicable operational environments (i.e., indoor environment, outdoor environment) to evaluate and validate overall supportability of the system.

1.2.2.6 IT Signal Processing V&V and Report Generation

The goal of this activity is to conduct verification and validation on the proposed information technology (IT) system and gather data from the independent Verification and Validation (V&V) of signal processing and report generation functions. The Contractor will provide equipment for signal receipt to up to eight (8) local public health and DHS personnel for this task (same personnel as identified and trained per paragraph 1.2.2.2). This equipment will include used to monitor system test results.

The Contractor will provide DHS with information regarding how the IT system functions in order to establish a baseline of its current implementation. The Contractor will collaborate with DHS to develop the procedures that will be used by DHS to capture and
validate the data generated by the system. Agreed-upon test data/reports will be
generated in accordance with these procedures during the last two (2) weeks of
Baseline Calibration and during the Operational Environment Field Testing. The
Contractor will also participate with DHS in the selection of appropriate standards and
conventions that will be applied to the V&V activities. Any findings or discrepancies
between these agreed-upon standards and conventions and the existing IT system
implementation will be documented and addressed in later phases of the program as
appropriate.

1.2.2.7 Field Test Extension Options

Prior to the start of field testing, the Government may exercise an option(s) to extend
field testing beyond the initial ten (10) weeks for 30 to 60 days. These optional efforts
shall be exercised before, or during, the 1-month Baseline Calibration effort of Section
1.2.2.3 of this PWS. The option(s) will be exercised via a funded modification to this
Task Order.

If the field test is extended, the contractor shall provide the same level of base support
as provided in the initial 10 weeks for Option 1 (a 30-day extension) and Option 2 (a 2nd
30-day extension). The contractor shall provide all consumables and technical support
required to repair, maintain and operate the twelve (12) biodetector units 24 hours a day,
7 days a week (24/7) for the extension period. The contractor shall also be responsible
for collecting and reporting reliability, availability, maintainability and testability data for
the duration of the extension period.

1.2.2.8 Limited Operational Test Extension

At the conclusion of the Operational Environment Field Test, the Contractor shall
continue to operate four (4) NG-ADS units in the field to gather additional reliability data,
Unit operation will continue until 2 weeks prior to the end of the LAST MONTH of
operations (currently January 2012). During this period, the Contractor will continue to
monitor component failures. Failure data will be collected and reported on a bi-weekly
basis. The bi-weekly Failure Reports will include all observed component failures by
fielded instrument, the sub-system at fault, and the required corrective maintenance
action needed to repair the problem and restore the system /subsystem. The bi-weekly
reports will be delivered ten (10) days after the completion of each two week reporting
period.

The NG-ADS units will be supported using a combination of...transport the four (4)
eight (8) units...return...clean, remove, and...prepared for long term...
1.2.2.9 Operational Demonstration Option

After the conclusion of the Operational Environment Field Testing, the Contractor will conduct an Operational Demonstration of the candidate Gen-3 technology at three (3) sites located at designated by the Government. Three (3) of the NG-ADS units tested in field testing will be relocated to sites at designated by the Government. All site preparation will be completed by DHS prior to equipment installation. The units will be operated during a baseline period of three (3) weeks after all necessary operational policies and procedures have been established, followed by an Operational Demonstration lasting until twenty one (21) weeks after award. At the completion of the Operational Demonstration, there will be a post-test recovery period of approximately one (1) week at which time the contractor will de-install and return the three (3) units to the Government. These units, along with other units located at the currently six (6) units in total, which includes one (1) unit from Task Order 1, will be prepared for long term storage. The contractor will, if directed by the Government, then transport the units to the Edgewood Chemical Biological Center (ECBC) in Aberdeen Proving Ground, MD for storage on a date coordinated with ECBC and the Government.

During the Operational Demonstration test period, the Contractor will monitor component failures. Failure data will be collected and reported every two (2) weeks. The Failure Reports will include all observed component failures by fielded instrument, the subsystem at fault, and the required corrective maintenance action needed to repair the problem and restore the system/subsystem. The reports will be delivered ten (10) days after the completion of each two week reporting period.

The NG-ADS units’ operation will be supported using The Contractor will provide all required consumables, spares and other support equipment necessary to support this operation. The Contractor will provide technical support required to repair, maintain and operate the biodetector units during this period.

12/09/2011
1.2.2.9.1 Operational Demonstration Alternate Location

In the event that an Operational Demonstration at [redacted] becomes unfeasible, the Contractor will alternately install and operate the three (3) NG-ADS units at three outdoor sites [redacted]. The timing and duration of the activities will be the same as described above in 1.2.2.9.

1.3 Other Requirements

1.3.1 Program Reviews

1.3.2 Management Information

The Contractor shall submit Monthly Project Status Reports (MPSR) no later than the fifteenth workday after the reporting calendar month. Reports will include breakouts by Task Order and SOO Test Events. The Contractor shall provide an MPSR that includes the following elements:

- Project Cost by Task Order:
  - Budget at Completion (BAC)
  - Actual Cost (AC)
  - Accrued Cost (estimates)
  - Cost Variance (CV) - Actuals vs. Budget
- Estimate at Complete (EAC)
  - Estimate to Completion (ETC)
  - Cost Funds Status
- Performance/Schedule by Task Order and Test Event:
• Project Schedule
• Overall Technical Performance Evaluation
• Completion percentage of the Milestones and/or Deliverables
• Schedule Variance (SV)
• Variance at Completion (VAC)

• Risk Management by Task Order and Test Event:
  o Risk Reporting Matrix
  o Risk Mitigation Worksheet

Current period values and cumulative values for data, variances, and forecasts will be provided in numerical format showing values and in graphical format showing trends. Any schedule variance on the critical path will be identified and its impact on subsequent milestones and the project cost and schedule quantified.

The Contractor shall also deliver a draft Program Management Plan and final Program Management Plan. The draft Project Management Plan will be submitted 15 days after a task order is received, with a final submittal reflecting Government input due 30 days after the task order is received. The Project Management Plan shall provide a detailed schedule, including a critical path analysis, along with a narrative discussing the salient issues affecting task execution in terms of needed technical inputs and analysis to meet cost, schedule, and performance in the task execution.

1.3.3 Technology Readiness Assessment

The Contractor shall provide adequate information to permit the Government to determine the TRL level of the NG-ADS technology throughout the course of the program.

1.3.4 Configuration Management

Minor modifications and adjustments to the NG-ADS equipment or manufacturing processes may be required as a result of characterization and field testing. To ensure that the Government is fully engaged and informed about the NG-ADS and the various options for improving them, the Contractor shall maintain a robust configuration management system. The Contractor shall submit proposed changes/modifications that result from the characterization or field testing to the Government for approval. Once units are delivered for testing, all changes will be reviewed and approved by DHS before they are implemented during Operational Environment Field Testing.

If the program implements modifications or changes that require additional characterization and system tests, the Contractor will provide the consumables and technical support for this effort. These changes will be subject to a contract modification...
in accordance with the contract’s changes clause (FAR 52.243-2).

The Contractor shall implement drawing configuration management consistent with Task Order 1.

### 1.3.5 Occupational Health and Safety

Prior to delivery of the ready-to-test NG-ADS units, the Contractor shall self-certify that the units being delivered are safe to operate and that all known occupational safety and health concerns are appropriately mitigated.

### 1.3.6 Technical Exchange Meetings

The Contractor shall prepare for and support technical exchange meetings (TEM) as required to discuss technical issues and agree on an appropriate path forward.

### 1.4 Deliverables

The Contractor shall deliver the equipment, documentation and training listed in Table 1, Table 2, and Table 3, below. Inspection and acceptance of each NG-ADS unit will take place after the installation and activation at each of the operational testing sites in accordance with FAR 52.246-3, Inspection of Supplies - Cost Reimbursement. This inspection will be done during the Contractor’s activities that are necessary to install the units and acceptance will be based upon the successful completion and review of the Contractor’s installation checklist. DHS will provide acceptance or comments within 2 calendar weeks of submittal of all data deliverables. Comments and changes will be incorporated once into a single, final submittal. Final coordination of the training deliverables outlined in Table 3 will occur upon completion of the equipment deliverables outlined in Table 2.

#### Table 1 Program Deliverables

<table>
<thead>
<tr>
<th>Description</th>
<th>Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monthly Project Status Report (MPSR)</td>
<td>NLT 15th of each month</td>
</tr>
<tr>
<td>Technical Exchange Meetings</td>
<td>1st TEM NLT 30 days ARO</td>
</tr>
<tr>
<td></td>
<td>Subsequent meetings as required, not to exceed 1 meeting per month</td>
</tr>
<tr>
<td>Updated Project Management Plan</td>
<td>Draft 15 days ARO</td>
</tr>
<tr>
<td></td>
<td>Final 30 days ARO</td>
</tr>
<tr>
<td>Description</td>
<td>Due</td>
</tr>
<tr>
<td>---------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>Trip Reports</td>
<td>As needed</td>
</tr>
<tr>
<td>Summary Subcontract Report</td>
<td>Oct 30 for period 10/1-9/30</td>
</tr>
<tr>
<td>RAM-T - IT Signal Processing V&amp;V Report Generation</td>
<td>Upon the completion of IT V&amp;V Testing</td>
</tr>
<tr>
<td>Safety Assessment Report</td>
<td>Prior to delivery of NG ADS units</td>
</tr>
<tr>
<td>Material Safety Data Sheets (MSDS)</td>
<td>2 months ARO</td>
</tr>
<tr>
<td>Technology Readiness Assessment support materials</td>
<td>Concurrent with final report</td>
</tr>
<tr>
<td>FRACAS summary report</td>
<td>At 14 day intervals, commencing 10 days after start of Operational Environment Field Test and ending 1 month after completion of Operational Environment Field Test; NOTE: During Field Testing, reports will be submitted to the Gen-3 OTA, not the Program Office.</td>
</tr>
<tr>
<td>Complete FRACAS data set</td>
<td>With final FRACAS summary report</td>
</tr>
<tr>
<td>Maintenance and Operator manual(s)</td>
<td>30 days prior to start of Operational Environment Field Test</td>
</tr>
<tr>
<td>Site log, 1 for each system, during pre-test (Baseline Calibration) and post-test periods</td>
<td>Delivered weekly during pre-test and post-test periods</td>
</tr>
<tr>
<td>Failure Reports during the Limited Operational Test Extension</td>
<td>At 14 day intervals, beginning ten (10) days after the completion of the first two (2) week reporting period.</td>
</tr>
<tr>
<td>Failure Reports during the Operational Demonstration</td>
<td>At 14 day intervals, beginning ten (10) days after the completion of the first two (2) week reporting period.</td>
</tr>
</tbody>
</table>

**Table 2 Equipment Deliverables**

<table>
<thead>
<tr>
<th>Description</th>
<th>Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>Twelve (12) NG-ADS Units for Operational Environment Field Test and baseline calibration</td>
<td>NLT 4 months ARO</td>
</tr>
<tr>
<td>Spares and consumables in support of Detector Baseline Calibration, Operational Environment Field Testing, Limited Operational Test Extension, and Operational Demonstration</td>
<td>First delivery NLT 4 months ARO; certain consumables and spares may be delivered in multiple, time-staggered deliveries after the first delivery</td>
</tr>
<tr>
<td>Equipment for signal receipt at jurisdiction</td>
<td>Concurrent with the associated training class</td>
</tr>
</tbody>
</table>

**Table 3 Training Deliverables**
<table>
<thead>
<tr>
<th>Description</th>
<th>Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>User Interface Training in the Field Testing Jurisdiction</td>
<td>08/19 after start of Detector Baseline Calibration</td>
</tr>
<tr>
<td>Technical Orientation Training support materials</td>
<td>08/19 receipt of order</td>
</tr>
<tr>
<td>Archive Retrieval Training and associated materials</td>
<td>Prior to the start of Detector Baseline Calibration</td>
</tr>
<tr>
<td>(b)(4) (b)(7)(E) user interface training for up to 3 personnel as part of the Operational Demonstration</td>
<td>08/19 the completion of installation of units for the Operational Demonstration</td>
</tr>
<tr>
<td>Refresher training on (b)(4) (b)(7)(E) user interface as part of the Operational Demonstration</td>
<td>08/19 the initial (b)(4) (b)(7)(E) user interface training session</td>
</tr>
</tbody>
</table>
Attachment 1 – Task Order 2 Spares List
Baseline Scope Spares List

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Title/Description</th>
<th>QTY</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(b)(4) (b)(7)(E)</td>
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<tr>
<th>Part Number</th>
<th>Title/Description</th>
<th>QTY</th>
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<tbody>
<tr>
<td>(b)(4) (b)(7)(E)</td>
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<tr>
<td>Part Number</td>
<td>Title/Description</td>
<td>QTY</td>
</tr>
<tr>
<td>-------------</td>
<td>-------------------</td>
<td>------</td>
</tr>
<tr>
<td>(b)(4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(b)(7)(E)</td>
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### Option 1 Spares List

<table>
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<tr>
<th>Part Number</th>
<th>Title/Description</th>
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<tbody>
<tr>
<td>(b)(4)</td>
<td>(b)(7)(E)</td>
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</table>

### Option 2 Spares List

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Title/Description</th>
<th>QTY</th>
</tr>
</thead>
<tbody>
<tr>
<td>(b)(4)</td>
<td>(b)(7)(E)</td>
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<table>
<thead>
<tr>
<th>Part Number</th>
<th>Title/Description</th>
<th>QTY</th>
</tr>
</thead>
</table>

NOTE: Baselines Scope Spares not utilized/consumed in support of Task Order 2 Field Test activities shall be available for utilization/consumption for Option 1 and Option 2 Field Test Extensions, the Limited Operational Test Extension test period, and the Operational Demonstration.
### Attachment 2 – DHS SPD Program Schedule

<table>
<thead>
<tr>
<th>Task</th>
<th>Duration (Work Days)</th>
<th>Start Month</th>
<th>Finish Month</th>
<th>Months After Receipt of Order</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Contract Award (TO1)</strong></td>
<td>0</td>
<td>N/A</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td><strong>Task Order #1 - Assay Validation and Characterization Testing</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assay Testing - Vendor Delivers Units per PWS</td>
<td>0</td>
<td></td>
<td>2.25 2.25</td>
<td></td>
</tr>
<tr>
<td>Assay Testing - Train/Certify Lab Personnel</td>
<td>10</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Assay Testing (50% Utilization per PWS)</td>
<td>120</td>
<td>4</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>Aerosol Collection Subsystem Test - Vendor Delivers units per PWS</td>
<td>0</td>
<td>4</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Aerosol Collection Subsystem Test - Vendor Trains ECBC per PWS</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Aerosol Collection Subsystem Test</td>
<td>20</td>
<td>5</td>
<td>6</td>
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</tr>
<tr>
<td>Analytical Subsystem Tests - Vendor Delivers units per PWS</td>
<td>0</td>
<td>4</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Analytical Subsystem Test - Vendor Trains DPG personnel</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Analytical Subsystem Test 2 a - Limit of Detection</td>
<td>20</td>
<td>5</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Analytical Subsystem Test 2 b - Probability of Detection</td>
<td>68</td>
<td>6</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>System Level Test - Vendor Delivers units per PWS to DPG</td>
<td>0</td>
<td>4</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>System Level Test</td>
<td>30</td>
<td>7</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td><strong>Milestone #1</strong></td>
<td></td>
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<tr>
<td><strong>Milestone #2</strong></td>
<td>0</td>
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</table>

<table>
<thead>
<tr>
<th>Task</th>
<th>Duration (Work Days)</th>
<th>Start Month</th>
<th>Finish Month</th>
<th>Months After Receipt of Order</th>
</tr>
</thead>
<tbody>
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<td>12</td>
<td>12</td>
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<tr>
<td><strong>Task Order #2 - Field Test</strong></td>
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<td></td>
</tr>
<tr>
<td>Vendor Delivers units per PWS to <strong>DELETED</strong></td>
<td>0</td>
<td>12</td>
<td>12</td>
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</tr>
<tr>
<td>Biodetector baseline calibration</td>
<td>30</td>
<td>12</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>Field test/RAM-T/JIT Verification and Validation</td>
<td>70</td>
<td>13</td>
<td>16</td>
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<tr>
<td>Option 1: 30-Day Field Test Extension</td>
<td>30</td>
<td>16</td>
<td>17</td>
<td></td>
</tr>
<tr>
<td>Option 2: Additional 30-Day Field Test Extension</td>
<td>30</td>
<td>17</td>
<td>18</td>
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</tr>
<tr>
<td>Decommission, Transport, and Unload at the Government Site</td>
<td>14</td>
<td>16</td>
<td>16</td>
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</tr>
<tr>
<td>Data compilation/report</td>
<td>25</td>
<td>16</td>
<td>17</td>
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<tr>
<td><strong>Milestone #3</strong></td>
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<td>17</td>
<td>17</td>
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<table>
<thead>
<tr>
<th>Task</th>
<th>Duration (Work Days)</th>
<th>Start Month</th>
<th>Finish Month</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Future Task Orders (Unpriced)</strong></td>
<td>TBD</td>
<td>18</td>
<td>TBD</td>
</tr>
<tr>
<td>Engineering Design Changes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regression Testing of Design Changes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Extended Field Testing</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

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AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

2. AMENDMENT/MODIFICATION NO.  P00013
3. EFFECTIVE DATE See Block 16C
4. REQUISITION/PURCHASE REQ. NO. ROHA-12-00058
5. PROJECT NO. (If applicable) Code
6. ISSUED BY U.S. Dept. of Homeland Security
   Code DHS/OPO/OHA
   OHA Acquisition Division
   245 Murray Lane, SW
   Building 410
   Washington DC 20528
7. ADMINISTERED BY (If other than Item 6) Code DHS/OPO/OHA
   U.S. Dept. of Homeland Security
   Code
   OHA Acquisition Division
   245 Murray Lane, SW
   Building 410
   Washington DC 20528
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)
   NORTHROP GRUMMAN SECURITY SYSTEMS LLC
   1580 B WEST NURSERY RD
   LINTHICUM HEIGHTS MD 210900000

CODE 1046382050000 FACILITY CODE

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 offers is extended, □ is not extended.

Offers 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 ACKNOWLEDGEMENT 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 ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE

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:
   Revised Performance Work Statement

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.)
   DUNS Number: 104638205+0000
   The purpose of this modification is to extend the period of performance end date from January 31, 2012 to March 15, 2012 at no additional cost to the Government.

   All other Task Order terms and conditions remain unchanged.
   AAP Number: 64418 DO/DPAS Rating: NONE
   Delivery: 03/15/2012
   Discount Terms: Net 30
   Delivery Location Code: DHS
   Department of Homeland Security
   Continued...

   Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remain unchanged and in full force and effect.

15A. NAME AND TITLE OF REPRESENTATIVE (Type or print)

   Carla Davis

16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)

   Carla Davis
   (Signature of Contracting Officer)

15C. DATE SIGNED 1/30/12
16B. UNITED STATES OF AMERICA
16C. DATE SIGNED 1/27/2012

STANDARD FORM 30 (REV. 10-83)
Prepared by GSA
FAR (48 CFR) 53.243
REFERENCE NO. OF DOCUMENT BEING CONTINUED
HSHQDC-10-D-00003/HSHQDC-10-J-00455/P00013

NAME OF OFFEROR OR CONTRACTOR
NORTHROP GRUMMAN SECURITY SYSTEMS LLC

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<th>ITEM NO. (A)</th>
<th>SUPPLIES/SERVICES (B)</th>
<th>QUANTITY (C)</th>
<th>UNIT (D)</th>
<th>UNIT PRICE (E)</th>
<th>AMOUNT (F)</th>
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| 245 Murray Lane
Bldg. 410
Washington DC 20528

FOB: Destination
Period of Performance: 09/27/2010 to 03/15/2012
Change Item 0001 to read as follows (amount shown is the obligated amount):

0001 Extend PoP end date from January 31, 2012 to March 15, 2012 at no additional cost to the Government.
Total Line Item Value $9,783,275.61

Accounting Info:
WMD0010-000-H9-13-50-02-00-05-00-0000-00-00-00-00-00
-GE-0E-25-76-000000
Funded: $0.00
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WMD0010-000-H0-13-50-02-00-05-00-0000-00-00-00-00-00
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-GE-0E-25-76-000000
Funded: $0.00
Accounting Info:
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05-00-0000-00-00-00-00 GE-0E-25-11-000000
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Accounting Info:
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Funded: $0.00

Award Distribution:
OHAprocurements@dhs.gov

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<td>Department of Homeland Security</td>
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<td>Attn: Office of Health Affairs (OHA)</td>
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<td>Fax (802-288-7658)</td>
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<td>E-mail: <a href="mailto:OHA.invoice.consolidation@dhs.gov">OHA.invoice.consolidation@dhs.gov</a></td>
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