VI. Additional Tasks for CLIN 4

1. Violent Intent Modeling and Simulation (VIMS) Management (Task 1)

1.1 Overview and Vision for VIMS

The Human Factors/Behavioral Sciences Division (HFD) of the Science and Technology Directorate within the U.S. Department of Homeland Security (DHS) is executing a research and development program with the Institute for Homeland Security Solutions (IHSS) to develop the Violent Intent Modeling and Simulation (VIMS) program. Recommendations from work completed during the course of contract line item number two (CLIN 2) (July 7, 2008–July 6, 2009), in close collaboration with the HFD, highlighted the need for VIMS to leverage social science modeling to analyze extant data combined with open-source data for decision support among analysts in the intelligence communities within DHS (including federal, state, and local intelligence or counterterrorism analysis teams). The work to date has focused on developing and applying sophisticated tools and modeling procedures, yet the end product needs to meet the demands of the end-user population within DHS. Additionally, the VIMS development process needs to tap the state of the science in social science research by facilitating a dialogue among the social science researchers, end-user organizations, IHSS, and DHS. This work plan describes how the IHSS team will meet these goals.

The development of VIMS was initiated with Pacific Northwest National Laboratory (PNNL) and is now being conducted by IHSS. Additionally, there are several release versions of VIMS. For common reference, we highlight and define the five versions of the VIMS:

- VIMS 1.0—the version of the VIMS software and all supporting work (e.g., modeling, subject matter expert [SME] reviews, testing, literature searches) developed by PNNL that was delivered to IHSS on the HFD demonstration laptop in 2008.
- VIMS 1.1—the version of the VIMS software and all supporting work (e.g., modeling, SME reviews, testing, literature searches) that were delivered to HFD by PNNL on January 6, 2009.
- VIMS 1.2—any updates to the VIMS software and all supporting work that will be delivered by HFD and PNNL in July 2009.
VIMS 2.0—any updates to the VIMS software and all supporting work (e.g., modeling, SME reviews, testing, literature searches) that will be completed by the HISS team during the course of CLIN 4.

VIMS 3.0—any updates to the VIMS software and all supporting work (e.g., modeling, SME reviews, testing, and literature searches) that will be completed by the HISS team in future CLINS.

The evaluation of VIMS 1.0 and 1.1 code, models, and research literature will be completed in July, 2009. PNNL is scheduled to complete its work on VIMS 1.2, and this new VIMS code will be evaluated as part of the no-cost time extension for CLIN 2. Work proposed under CLIN 4 represents the VIMS 2.0 prototype.

The vision for VIMS 2.0 (to be completed in CLIN 4) is to accelerate the influence of the end user on system design, analytic products, and information for decision support. This comes at a cost—while useful, modeling approaches such as agent-based and Bayesian modeling will need to be decelerated during the CLIN 4 period of performance to allow end-user organizations to influence the system development process.

The government's not-to-exceed value for CLIN 4 is $[3][4]$. The first increment of CLIN 4 funding was received on April 21, 2009, in the amount of $[3][4]$. For HFD planning purposes, the first increment of CLIN 4 funding will be fully expended by November 15, 2009, during the middle of the first quarter of fiscal year (FY) 2010.

Development of the VIMS 2.0 prototype system will use the state of the science in social science research, modeling, and analytic processes to

- fit within the typical work flow of an intelligence analyst at both the novice and expert levels.
- use social science models for comparing alternate hypotheses,
- extract and code qualitative (i.e., unstructured) data to capture emergent world events that would affect violent intent,
- generate statistical models in real time, and
- display results that are easy to understand and actionable for resource allocation purposes.

The VIMS 2.0 prototype will be designed to be modular and scalable so that as operational end-user organizations are identified, VIMS 2.0 can be expanded and customized as needed.

### Table 1. Key Milestones and Deliverables

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<th>#</th>
<th>Task</th>
<th>Milestone</th>
<th>Due Date</th>
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<td>1</td>
<td>Development of a master database of group violence</td>
<td>10/16/09</td>
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HSHQDC-08-C-00100

Distribution is authorized to U.S. government agencies only. Contains information that may be exempt from public release under the Freedom of Information Act. Before this SOW is released to the public, approval is required by the Department of Homeland Security Directorate of Science and Technology.
2. **Data Sources and Acquisition (Task 2)**

In VIMS 1.0 and 1.1, the IHSS team developed a preliminary assessment of the known data sets that have been created for the purpose of analyzing terrorist events, organizations, and individuals who have or could engage in politically motivated violent activities. More specifically, the IHSS team developed a summarized list of the data sets that were likely to provide the most value to VIMS based on their robustness and comprehensiveness (e.g., number of relevant variables), as well as privacy considerations pertaining to the use of data characterizing U.S. groups and individuals.

In CLIN-4, we will work with researchers at the National Consortium for the Study of Terrorism and Responses to Terrorism (START) on a series of more complex analyses of current and potential future data sources to

- assess the quality and relative usefulness of existing sources,
- analyze the most significant past models that utilized START and other data deemed as high quality,
- categorize the types of data that are currently unavailable (e.g., more historical or environmental information on groups or more data from certain countries or regions) and would be of most use to VIMS, and
- identify new data sources and data needs for future model development.

The IHSS team has developed a series of subtasks to ensure that these overall task goals are achieved effectively and efficiently.

### 2.1 Subtasks

1. **Conduct an assessment of available data sources.** The IHSS team will use the list generated during CLIN 2 and conversations with START to decide upon between 5 and 10 data sets that should be rigorously studied for breadth, depth, and quality, among other measures.

2. **Identify promising new variables.** Leveraging work completed by IHSS under CLIN 2, this subtask will involve identifying new organizational, individual, societal, or governmental characteristics that have not been studied.
as they pertain to violence. Additional countries, regions, or groups may also be identified during this task.

3. **Serve as a liaison between the IHSS team and data providers.** This subtask will facilitate effective communication among the relevant VIMS task leaders—working on the user interface, modeling and simulation, group violence analysis tools, and programming, respectively—and organizations that collect, aggregate, and store relevant data. The IHSS team will attend weekly and other meetings with task leaders as needed to provide information on data type, quality, quantity, and location based on needs.

4. **Provide database improvement recommendations.** The team will recommend to IIFD whether any low-cost changes to ongoing data collection or archiving efforts would increase their utility to VIMS or other DHS applications.

5. **Identify the best data sets to be used and new data sets to be created in subsequent phases of VIMS development.** Based on our more comprehensive analysis of available data sets, our analysis of new variables of interest, and the modeling task efforts, the IHSS team will identify the best data to be utilized moving forward.

3. **Modeling (Task 3)**

The purpose of the task is to develop models that would be useful for the analysts and could become a part of the VIMS prototype. The models will be based on the existing public data, and their demonstrated utility will be translatable to the proprietary data sets used by the analysts. We expect that three types of production models will be part of VIMS. Specifically,

- (b)(4) that will collectively analyze the source data to generate criteria values (which are also model input values) and supporting evidence;
- (b)(4) that will calculate criteria ratings given sets of evidence for that criterion; and
- (b)(4) that will use the values of the criteria, as well as other information (e.g., government actions), and (b)(4)

The modeling task will only deal with these three production models: (b)(4) the most promising models and our research methodology will be documented in the year-end reports. Future research and development of VIMS should leverage advancements in statistical modeling techniques and may include (b)(4)

We propose working with a modeling consultant(s), to be identified at a later date depending on the specific technical skills required, to provide technical assistance, guidance, and feedback on our
methodology and modeling results. The modeling consultant(s) could be used to provide feedback on as well as a modeling approach that may emerge at the request of HFD. In our proposed CI/IX + budget, we propose the upper bound of support required for a modeling consultant(s).

3.1 Subtasks

1. provide a translation of the wealth of available structured (e.g., databases) and unstructured (e.g., news articles) information into a selected set of criteria indicators, a set of criteria with algorithms and/or instructions about how to measure them and which data to use.

2. The purpose of the corresponding to each type of potentially violent group such that these criteria are clearly measurable and their value (grade) will interpretably contribute to the profile of the group. Given the sets of evidence, the models will calculate criteria ratings and account for the reliability and biases of the supporting evidence in setting ratings.

VIMS system.

3. and methods capable of predicting group increase or decrease in violent intent and violent activity based on the criteria and additional information (e.g., the Minorities at Risk Organizational Behavior database [MAROB]). The models will show the predictive power beyond common sense, "naïve" expectations and will show the utility of being translatable to other data sets and group definitions. Subtask will be the specification for the tools, as well as a set of indicators and other independent variables that will be delivered to the programmers for porting into the VIMS system.

4. Literature Review (Task 4)

The purpose of this task is to update and maintain the literature pertaining to relevant social science theories that will add value to VIMS, as well as suggest specific factors or indicators that lead groups to violence. We will continue to conduct rigorous literature searches in a number of academic areas...
(e.g., psychology, sociology, criminal justice, economics, political science, anthropology) to determine if there are additional theories or concepts that add value to the predictive nature of VIMS. Each of these theories will then be deconstructed to determine whether specific predictive indicators can be extracted from them. If so, they will then be retained and later added into VIMS. Information from the literature reviews will be provided to VIMS task leaders and posted on the VIMS community of practice portal (COPP) that will be completed under the CLIN 2 no-cost time extension.

4.1 Indicators of Interest
The literature review team continues its mission to develop a framework and criteria for examining groups of interests. In particular, we will continue to examine theories within social science that could provide analysts with specific criteria to look for when incoming intelligence on a group does not require additional specialized knowledge about that group. Additionally, we will maintain our examination of how specific variables influence group development and the move to violence.

We anticipate that literature searches in the social sciences will uncover additional indicators beyond those listed above for further study.

4.2 Groups of Interest
In addition to examining indicators of interest, we will examine any information uncovered in the literature review that pertains to factors that are important to a group's turning to violence at all stages in the group's life (e.g., factors that contribute to a group's turning to violence for the first time, after several violent events, or after a 10-year period of inactivity).

4.3 Subtask
1. Update wiki. Over the next 2 years, four separate assessments and updates of existing literature and subsequent updates will be made to the COPP wiki.

5. Job Analysis and Usability (Task 5)
If VIMS is to be accepted by the DHS intelligence community, it should reflect the job demands and work flow of intelligence analysts. An analysis and validation of existing the job task analysis (JTA)
of analyst functions is needed to ensure that VIMS can serve as a useful job aid. In particular, the JTA validation is needed to support an effective allocation of knowledge, skills, and aptitudes (KSA) to the intelligence analyst and to VIMS. For example, VIMS should have a working knowledge of the process that the intelligence analyst is using, what data are available at that stage of the process, and what deliverables are required from the intelligence analyst at that point in the process. Also, a sizing and timing analysis of the intelligence analyst job is required, because the visualization methods that VIMS employs have to scale to the quantities of data and sources that the intelligence analyst will encounter while on the job.

5.1 Subtasks

1. **Establish working relationships with user organizations.** In accordance with guidance from DHS, the VIMS team will identify potential client organizations that have a need for a tool like VIMS and can support the task analysis process. From these potential client organizations, the VIMS team will work with the DHS project officer to select two organizations for the on-site task analysis. The VIMS team will work with these two organizations and collaboratively develop a memorandum of understanding (MOU) to guide the analysis. The VIMS team will also submit and obtain approval from the RTI Institutional Review Board for the interviews and task analysis.

2. **Develop the job task analysis methodology design.** The VIMS team will obtain existing task descriptions from the client organizations to use as the baseline. The VIMS team will also obtain sizing estimates for the data sources used by the organizations. From the existing task descriptions, the VIMS team will design the surveys to be completed by the users and will design the observation checklists for data collection.

3. **Perform task analysis.** The VIMS team will conduct the site surveys at two locations. During these surveys, the VIMS team will interview users and observe their operations. These site surveys will be conducted in accordance with the MOU developed with the site agencies. We expect that each site survey will require no more than 3 days.

4. **Conduct analysis and reporting.** The VIMS team will analyze the data resulting from the site surveys and produce a report for this subtask. The final report will provide guidance for the design of VIMS in order to ensure that VIMS supports the intelligence analysis processes of the user communities. The final report will include sizing information relative to the expected VIMS database that can be used as a guide for design of the user interface. The purpose of the sizing information is to provide guidance on visualization of available data and guidance on the forms of interaction and data review appropriate given the volume of data and the required response times that the users face.
6. **Group Violence SME Panel Coordination (Task 6)**

6.1 **Group Violence SME Panels**

In coordination with HFD, IHSS identified leading experts on the study, analysis, and modeling of group violence, including social and behavioral modeling, as they relate to the VIMS project. They met in March 2009 for a panel discussion on VIMS 1.0 and 1.1.

The second group violence SME panel is slated to meet in March 2010, with a third panel meeting in March 2011. The March 2010 panel will include the same experts and assess the changes and improvements IHSS made to VIMS based on the previous meeting’s findings and recommendations. Once again, IHSS will document the discussion in minutes and prepare draft and final reports for HFD. SME panel members will continue to assist task leaders on specific elements of their tasks. The extent to which the SME panel members will be engaged in these tasks will be described in separate task plans written by the task leaders and approved by HFD.

### 6.1.1 Subtasks

1. **Recruit participants.** IHSS will contact SMEs from the March 2009 group violence panel for availability to serve on the follow-up panel. The panel’s focus will be on eliciting feedback on VIMS 2.0 and generating recommendations for moving forward.

2. **Schedule and organize the full group violence SME panel.** Present at this meeting will be representatives from HFD and the relevant members of the IHSS team. These meetings are scheduled to take place in mid-March 2010 and 2011.

3. **Produce the panel report.** The panel report will detail the full panel proceedings and recommendations. For each panel meeting, the draft of the report will be produced no later than 21 days after the panel meeting. HFD will have 10 days in which to return comments on the report. IHSS will produce a final panel report within 12 days of receiving the HFD comments.

6.2 **Modeling SME Panels**

In coordination with HFD, IHSS will identify leading experts on modeling tasks related to the VIMS project. These experts will come from RTI, the IHSS partnering universities, other universities, public-sector organizations, or the private sector, as appropriate. IHSS will prepare a SME recruitment letter to be distributed by IHSS or HFD. IHSS will distribute the background materials to the SMEs and host a panel discussion. The SME panel members will be asked to:

- review the different kinds of models under development by the IHSS team (e.g., agent-based models, Bayesian models),
- provide critical analysis of the methodology and analytic techniques employed in the design of the models.
- comment on HHSS' interpretation of the findings, and
- make recommendations for revisions to HHSS' approach.

6.2.1 Subtasks

1. **Conduct logistics planning.** Unlike the group violence panel mentioned above, this will be the first time the modeling panel will be convened. A target date (or several possibilities) and location for the meeting will be determined in accordance with the schedules of HHSS and HFD. A list of potential SME panelists will be developed and discussed with HFD; a final list of 5 to 10 panelists will be generated. Background materials for SME review will be compiled.

2. **Recruit participants.** Selected SME panelists will be contacted through the SME recruitment letter. Once confirmed, background materials will be distributed to them.

3. **Schedule and organize the modeling SME panel.** Present at this meeting will be representatives from HFD and the relevant members of the HHSS team. Detailed notes will be taken at the meeting.

4. **Produce the panel report.** A report detailing the full panel proceedings and recommendations will be drafted. The draft of the report will be produced no later than 21 days after the panel meeting. HFD will have 10 days in which to return comments on the report. HHSS will produce a final panel report within 12 days of receiving the HFD comments.

7. Programming (Task 7)

After reviewing work completed by the PNNL and interviewing potential end-user organizations, we determined that a user-centric design approach is warranted for VIMS 2.0. In Year 1 of CLIN 4, project members will gather job task analysis and usability requirements. In this task, we will work from the VIMS System Requirements Specifications and design and develop a prototype version of VIMS 2.0.

7.1 Development of VIMS 2.0 Prototype

The scope of this project includes creation of a prototype software application for VIMS 2.0. It will retain the same basic user interface elements present in the earlier VIMS demonstration version. It will implement the functions described in Section 3.1 of the VIMS Year-End Report, although, in some cases at a very minimal level, the purpose of the prototype is not to provide a complete and operational system but to demonstrate that the concepts are sound and the workflow is useful to users.

The goal of the prototype is to be a base for future development. To that end, it will be designed for future expansion. It is the intent of the VIMS architecture to allow for the use of multiple text analysis components and multiple models and model types. However, the prototype will provide a simplified text analysis capability and fewer models. Where features planned for the production VIMS version cannot be included in the prototype, stub code...
(placeholders) will be inserted. The VIMS 2.0 prototype will be demonstrated to HFD during the last VIMS Quarterly Meeting of CLIN 4 in June, 2011.

7.1.1 Subtasks

Development of the VIMS 2.0 prototype will entail five different subtasks, as well as integration between the subtasks. For the prototype, in some cases, the level of integration between subtasks may require users to perform some manual steps. The five subtasks are as follows:

1. **Develop a repository.** The repository subtask will implement the primary functions of the repository component as described in Section 3.1.6 of the VIMS System Requirements Specifications report. Due to the limitations of the prototype, the query definitions, models, and model inputs may exist in a simplified form.

2. **Prepare the user interface.** The purpose of the user interface subtask will be to transform the visually complete VIMS demonstration version into a software version that is functional and can be integrated with the other VIMS components. The user interface will possess the same basic functions as the demonstration versions, but some screens will differ because of limitations of the prototype. The user interface will be extended to include at least one alternative presentation of measurement models besides heat charts.

3. **Conduct data analysis.** This subtask will develop the software components to analyze source data and generate criteria values and supporting evidence. The analysis will include three stages:

   i. **Search:** Analysts will be able to do a basic keyword search to select a subset of articles about groups of interest.

   ii. **Extraction:** The prototype will incorporate a series of extraction models (one for each criterion) that extract text likely to support or contradict criteria values. A minimum of 10 criteria will be supported.

   iii. **Criteria rating:** The prototype will calculate criteria ratings given sets of evidence for that criterion. The models will account for the reliability and biases of the supporting evidence in setting ratings. Input ratings will include measures of uncertainty, in addition to an expected rating value.

   The interface will be designed to allow new types of search, extraction, and criteria rating models to be added over time.

4. **Develop assessment models.** Assessment models developed as part of this subtask will be implemented in such a manner that several models may be run in parallel and new models to be added as they become available, as described in Section 3.2.7 of the VIMS System Requirements Specifications report. Model types to be developed will include predictive models and
clustering models; at least one of which will support both trending and comparative model runs. All assessment models will include means of aggregating uncertainties associated with input data and produce uncertainty measures in the output.

5. Generate reports. The report generation module created in this subtask will create standardized text from model results that can be copied into analytic reports. Report templates will be used to make the generated output as flexible as possible and easily customized to the requirements of specific users. For the VIMS 2.0 prototype, text will include

- expected level of threat from groups of interest,
- comparisons in threat levels across groups,
- changes in threat levels over time,
- uncertainties in the threat levels,
- criteria values most responsible for threat predictions (both expected values and uncertainties), and
- pieces of evidence (extracts) most responsible for threat predictions (both expected values and uncertainties).

The module will be designed to allow new report templates to be added easily as they are needed.

7.2 VIMS 2.0 Data Security
Because multiple subcontractors and other HSS partners outside of RTI will be involved in the VIMS 2.0 development effort and data and documents will need to be exchanged, the issue of security takes on additional immediacy. The VIMS 2.0 effort will include the creation of a standard operating procedure to establish project policy regarding the handling, storage, and transmission of project data, documents, and custom and purchased software. All personnel who have contact with project assets will be required to follow the policies set out in the standard operating procedures.

7.3 Community of Practice Portal
The COPP designed and implemented during the CLIN 2 extension will be completed in this project. As the portal is transitioned under CLIN 4, all literature reviews performed under CLIN 2 should already be posted, and an initial group of users should be accessing the site. Work performed under CLIN 4 will include mandatory steps such as data security compliance testing and remediation and Section 508 testing and remediation. New literature reviews will be posted on the portal as they are available, and the portal will be properly maintained.
VII. Other Contract Details

1. Period of Performance. The period of performance for this SOW remains unchanged on Contract HSIQDC-08-C-00100 and will not alter the current Period of Performance.

2. Travel. Travel may be required in the performance of the duties listed herein. The DHS S&T Technical Representative must approve all travel other than that supporting liaison among RTI consortium members. All travel and other direct costs associated with the execution of the tasks indicated in this SOW will be reimbursed in accordance with the limits set forth in the Federal Travel Regulations (FTR), provided the performer provides appropriate supporting documentation.

3. DHS-Furnished Information.
   a. DHS will provide certain DHS information, materials, and forms unique to DHS to RTI to support certain tasks under this SOW.
   b. The DHS S&T Technical Representative identified in this SOW will be the POC for identification of any required information to be supplied by DHS.

4. Place of Performance. RTI shall perform the work under this SOW at RTI’s facility.

5. DHS-Furnished Property. DHS property will not be provided to RTI.

6. Deliverables. RTI shall provide all deliverables identified in this SOW directly to the DHS S&T Technical Representative.

7. Security Requirements.
   a. All work performed under this SOW is unclassified unless otherwise specified by DHS.
   b. If classified work is required under this SOW, DHS will provide specific guidance to RTI as to which work will be conducted in a classified manner and at which classification level. RTI shall also adhere to other applicable Government orders, guides, and directives pertaining to classified or confidential work.

8. Publications and Communications Concerning Work Performed Under This SOW. All public communication referencing the work performed under this SOW shall be coordinated between RTI and the S&T Technical Representative. RTI will route technical communication products such as reports, journal articles, presentations, and white papers and public communication products such as brochures and fliers through RTI’s information review and release process before providing the deliverable to S&T for review and approval 30 days before any release to an external audience.
Public and technical communications shall contain the following:

**Acknowledgement**

DHS is acknowledged as the sponsor of this work.

9. **Program Status Report.** RTI will deliver a monthly status report containing accomplishments, upcoming events, risks encountered and mitigation measures taken, and financial information (amount in reserve, amount committed, amount obligated, amount expended, and available balance) to the S&T Technical Representative and Financial Analyst by two weeks following the first day of March, June, September, and December of each year.

10. **Funding Requirements.** DHS will provide funding in accordance with DHS’s appropriations and available funds.

**VIII. Points of Contact**

The RTI POCs are as follows:

- [b](6)

  RTI International  
  3040 Cornwallis Road  
  P.O. Box 12194  
  Research Triangle Park, NC 27709-2194

RTI may change the individual designated as a POC upon notice to S&T of such change.

The DHS POCs are as follows:

- **Technical Representative**  
  Ji Sun Lee  
  U.S. Department of Homeland Security  
  Science and Technology Directorate  
  Washington, DC 20528

- **DHS Contracting Officer**  
  Joseph Wolfsinger  
  U.S. Department of Homeland Security  
  Science and Technology Directorate  
  Washington, DC 20528
Financial Analyst
Michael Kim
Contractor in the Support of
Office of the Chief Financial Officer
DHS Science and Technology Directorate

S&T may change the individual designated as a POC upon notice to RTI of such change.
AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

The terms and conditions stated in Item 11 herein are not intended to affect or modify the terms and conditions of any existing contract or order. This amendment is not intended to be binding upon the United States Government unless and until it is accepted in writing by the contracting officer. The contracting officer retains the right to modify or reject this amendment at any time prior to the effective date.

12. ACCOUNTING AND APPROPRIATION DATA (If required)
H.4 DISCLOSURE OF INFORMATION is deleted in its entirety and replaced with the following:

(a) The Contractor shall limit release of any DHS provided sensitive but unclassified information (SBU), regardless of medium (e.g., film, tape, document), to those individuals who have signed the DHS Non-Disclosure Agreement (NDA). Release of SBU to an individual that has not executed a DHS NDA is to only occur when:

1) The Contracting Officer has given prior written approval; or
2) The information is otherwise in the public domain before the date of the release.

(b) Requests for approval shall identify the specific information to be released, the medium to be used, and the purpose for the release. Contractor shall submit its request to the Contracting Officer at least 55 days before the proposed date for release. Within 40 days of the proposed date for release, the Contracting Officer will either provide his approval or identify what changes are needed to obtain approval. Contractor may then resubmit a modified request.

(c) The Contractor agrees to include a similar requirement in each lower-tier subcontract under this contract. Subcontractors shall submit requests for authorization to release through the prime contractor to the Contracting Officer.

(d) The Contractor and its subcontractors shall be allowed to publically disclose the existence of the contract and the general description of the congressionally mandated work (such as described in Section C.1.1).

(e) To prevent the inadvertent release of DHS-provided SBU information, Contractor will comply with the provisions (a) through (d) of this Article. The Contractor shall be free to publish, permit to be published, or distribute for public consumption, any information, oral or written, concerning the results or conclusions made pursuant to performance of the contract; provided, however, that it shall provide copies of any such publication or release of information to the DHS Program Manager for review and comment at least forty-five (45) days prior to any such release. If the DHS Program Manager determines that any DHS provided SBU information is included in the proposed publication, Contractor shall remove such SBU information prior to publication.

H.6 SECURITY CLEARANCE REQUIREMENTS is deleted in its entirety and replaced with the following:

(a) The Department of Homeland Security (DHS) has determined that performance of this contract does not require the Contractor, subcontractor(s), vendor(s), etc. (hereafter included in the term Contractor), to have access to classified National Security Information (herein known as classified information) and sensitive but unclassified (SBU) information. Information under this contract is on an "Official Use Only" basis. Contractor personnel are not required to have a security clearance.

(b) If during the performance of this contract, the Contractor is required to have access to, and is required to receive and store Sensitive But Unclassified (SBU) information, DHS shall clearly designate such information as SBU at time of transmittal.

(c) All personnel associated with this contract with a need to access SBU information are required to sign a Non-Disclosure Agreement (NDA) after having completed the DHS NDA training to ensure protection of any SBU information for unauthorized release. Only individuals who are U.S. citizens or are U.S. permanent legal residents (defined by DHS MD 11055) will be granted access to DHS SBU information. Additionally, the contractor is required to safeguard all information labeled as proprietary.
**AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT**

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<th>Item</th>
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<tr>
<td>6A</td>
<td>AMENDMENT OF SOLICITATION NO.</td>
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<td>6B</td>
<td>DATED (SEE ITEM 16)</td>
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<tr>
<td>6C</td>
<td>MODIFICATION OF CONTRACT/ORDER NO.</td>
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<td>6D</td>
<td>DATED (SEE ITEM 16)</td>
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**Important Note:**
- This item only applies to modifications of contracts/orders if the modification modifies the contract/order no. as described in item 14.

**Accounting and Appropriation Data:**
- New Contract

**Check One:**
- This change order is issued pursuant to (specify authority): The changes set forth in item 14 are made in the contract order no. 14.
- The above numbered contract/cover modified to reflect the administrative changes as changes in paying office.
- This supplemental agreement is entered into pursuant to authority of the party
- Other (specify modification and authority)

**Description of Amendment/Modification:**
- (Organized by IC/section headings, including all subcontractor subject matter where feasible)

**Applicable to Other Sections (2A):**
- Budget Authority: (A) Audited

**Solicitation/Order:**
- Date signed

**Signatures:**
- (A) Authorized signature of contracting officer

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**Notes:**
- This is a contract modification, and all terms and conditions of the document referenced in item 14, and/or 15, remain unchanged and in full force and effect.
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<th>ITEM NO. (A)</th>
<th>SUPPLIES/SERVICES (B)</th>
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This action obligates a total of [b](4)...

All other aspects of this agreement, including但不限于, period of performance, and terms and conditions, are contained in the aforementioned amendments, attached to this contract.

Certification: 12/07/2009 by [b](4)

[Signature]...
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The purpose of this modification is to clarify that CMM, #0032, is to be performed at the Commodity Command project site and shall be funded by an additional $150,000. This additional funding is to be used to expand the project to include the development of an additional 15 organizations and 10 total interviews conducted. In addition, this additional funding adds a total of $150,000 to the Community Workshopsubsequent to this project.

The estimated value for CMM #0031, Task B, is hereby increased from the previous total of $[B](4) to a new total of $[B](4) consisting of $[B](4) estimated cost and a fixed fee of $[B](4). The estimated cost and a fixed fee of $[B](4) to a new total of $[B](4).

The amount value for CMM #0031 is hereby increased from the previous total of $[B](4) consisting of $[B](4) estimated cost and $[B](4) in fixed fee, to a new total of $[B](4) consisting of $[B](4) in estimated cost and $[B](4) in fixed fee.

At a rate to this increase in CMM #0031, the total funding amount value increased from $[B](4) to a new total of $[B](4).

Total estimated a total of $[B](4) to a new total of $[B](4)
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Statement of Work for Institute for Homeland Security Solutions

U.S. Department of Homeland Security
Science and Technology Directorate
Human Factors Division
PR # RSHF-10-00062
Modification P00011 to HSHQDC-08-C-00100

I. Background

The U.S. Department of Homeland Security (DHS) is committed to using cutting-edge technologies and scientific talent in its quest to make America safer. The DHS Science and Technology Directorate (S&T) is tasked with researching and organizing the scientific, engineering, and technological resources of the United States and leveraging these existing resources into technological tools to help protect the homeland. The Human Factors Division (HFD) within S&T applies the social and behavioral sciences to improve the detection, analysis, and understanding of threats posed by individuals, groups, and radical movements; supports the preparedness, response, and recovery of communities impacted by catastrophic events; and advances homeland security by integrating human factors technologies. The Human Factors Division (HFD) within S&T applies the social and behavioral sciences to improve the detection, analysis, and understanding of threats posed by individuals, groups, and radical movements; supports the preparedness, response, and recovery of communities impacted by catastrophic events; and advances homeland security by integrating human factors technologies. Formation of the Institute for Homeland Security Solutions (IHSS) supports the Human Factors Division by establishing a resource for foundational and applied research in the sociological, physiological, and psychological dimensions of homeland security; in modeling and simulation relevant to hazard and risk analysis, decision analysis and training; and in human systems development to support federal, state and local execution of homeland security missions.

IHSS is a Congressionally-mandated center to be established under the Research Triangle Institute of North Carolina (RTI) and is dedicated to conducting applied technological and social science research with universities, other federal agencies, state and local security agencies and the private sector.

II. Scope of Work

RTI proposes to provide an environment that allows the public and the research community to share information that stimulates self-directed research and facilitates future research relevant to the DHS community on a variety of topics. The Security Research Web Portal (SRWP) will promote collaboration and communication among the research community on topics related to the human factor aspects of homeland security. This work will promote innovation in research design and concept generation. RTI anticipates that the SRWP will host up to four Web sites, or content areas, and that each content area will have a content champion to stimulate discussion, solicit comments, and encourage participation.