

duties that are listed herein. It is expected that the Vendor will reimburse non- government participants for those travel expenses that they might incur.

3. DHS-Furnished Information.
 - a. DHS will provide certain DHS information, materials, and forms unique to DHS to the vendor to support certain tasks under this SOW.
 - b. The DHS S&T Contracting Officer's Representative, identified in this SOW, will be the point of contact (POC) for the identification of any required information to be supplied by DHS.
 - c. The Vendor will prepare any documentation according to the guidelines provided by DHS.
4. Place of Performance.
 - a. The Vendor will perform the work under this SOW at their place of business and the workshop location.
5. DHS-Furnished Property. DHS property will not be provided to the Vendor.
6. Deliverables. The Vendor will provide all deliverables identified in this SOW directly to the task-specific DHS S&T Technical Representatives and to the S&T Contracting Officer.
7. Program Status Report. The Vendor will deliver monthly program status reports. The reports will be submitted on the 15th day of the month. The reports shall include the following:
 - a. Summary of progress during the reporting period (including any significant technical information).
 - b. Unanticipated technical or management problems of significance.
 - c. Problems anticipated in future reporting periods.
 - d. Summary of important meetings, briefings, trips and conferences during the period of the report and those planned in the following period.

All reports shall be submitted to the task-specific CORs and to the DHS S&T Contracting Officer electronically.

8. Funding Requirements. DHS will provide funding that is outlined in the Task Order, at the discretion of the Government, subject to the availability of funds.
9. 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 the Vendor as to which work will be conducted in a classified manner and at which classification level. The Vendor will also adhere to other applicable Government orders, guides, and directives pertaining to classified work. This SOW may require access to information at the unclassified level.
 - c. The Contractor shall not publish, permit to be published, or distribute for public consumption, any information, oral or written, concerning the results or conclusions made pursuant to the performance of this Task Order, without the prior written consent of the Contracting Officer. An electronic or printed copy of any material proposed to be published or distributed shall be submitted to the Contracting Officer.

VII. Points of Contact

Contracting Officer:

Duane Schatz

Science and Technology Acquisitions Division

Office of Procurement Operations Department of Homeland Security Washington, DC 20582

(b)(6)

Contracting Officer's Representative (COR):

Richard Legault, Ph.D.

Resilient Systems Division

Science and Technology Directorate Department of Homeland Security Washington, DC 20582

(b)(6)

DHS S&T Invoicing:

U.S. DHS, ICE

Attn: S&T RSD Invoice

Burlington Finance Center

P.O. Box 1000

Williston, VT 05495-1000

invoicesat.consolidation@ice.dhs.gov

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE	PAGE OF PAGES 1 14
2. AMENDMENT/MODIFICATION NO. P00007	3. EFFECTIVE DATE See Block 16C	4. REQUISITION/PURCHASE REQ. NO. RSRS-14-00100	5. PROJECT NO (if applicable)
6. ISSUED BY U.S. Dept. of Homeland Security Office of Procurement Operations S&T Acquisition Division 245 Murray Lane, SW, #0115 Washington DC 20528-0115	CODE DHS/ODP/S&T/EXBOR	7. ADMINISTERED BY (if other than Item 6)	CODE
8. NAME AND ADDRESS OF CONTRACTOR (No. street, county, State and ZIP Code) RESEARCH TRIANGLE INSTITUTE ATTN: (b)(6) PO BOX 12194 RESEARCH TRIANGLE PARK NC 27709-2194		(x) 9A. AMENDMENT OF SOLICITATION NO.	9B. DATED (SEE ITEM 11)
CODE 0048681050030 FACILITY CODE		x 10A. MODIFICATION OF CONTRACT/ORDER NO. GS-10F-0037L HSEQDC-11-F-00087	10B. DATED (SEE ITEM 13) 09/14/2011

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)
x	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF FAR 52.243-1 Changes-Fixed Price.
	D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor is not, x 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: 004868105-0030
Division/PRA: Human Factors/Behavioral Sciences Division
Thrust: Personal Identification Systems
Program: Biometrics
Project: Biometrics
Performer: Research Triangle Institute (RTI)
Project Manager: (b)(6) (b)(6)

ALC: /0-08-1e13

The purpose of this task order modification is to add and realign subtasks 1.0a, 1.2b, and
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.

15A. NAME AND TITLE OF SIGNER (Type or print) (b)(6)	16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Dunne J. Schatz
15B. CONTRACTING OFFICER (b)(6)	15C. DATE SIGNED 9/26/14
	16C. DATE SIGNED 9/29/2014

CONTINUATION SHEET

REFERENCE NO. OF DOCUMENT BEING CONTINUED
 GS-10F-0097L/HSHQDC-11-F-00087/P00007

PAGE 2 OF 14

NAME OF OFFEROR OR CONTRACTOR
 RESEARCH TRIANGLE INSTITUTE

ITEM NO (A)	SUPPLIER/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	<p>1.2c at no additional cost to the Government, in accordance with the attached Statement of Work (SOW) (12 pages). The total value of this task order is now (b)(4) which is inclusive of the unfunded Optional Task 1.11.</p> <p>All other terms and conditions remain unchanged. AAP Number: N/A DO/CPAS Rating: NONE Period of Performance: 09/14/2011 to 09/13/2015</p>				

Statement of Work for Program Evaluations

U.S. Department of Homeland Security Science & Technology Directorate Resilient Systems Division Biometrics

**Task Order HSHQDC-11-F-00087
Modification P00007
PR No. RSRS-14-00100**

This Statement of Work (SOW) outlines the activities that are involved in acquiring technical and consulting services in the social, behavioral, and economic sciences. These services will be responsible for addressing the methods, models and technologies to conduct program evaluations on biometric technologies within the Resilient Systems Division (RSD) of the Science & Technology Directorate (S&T).

I. BACKGROUND

The U.S. Department of Homeland Security (DHS) is committed to using cutting-edge science and technology in its quest to make America safer. The DHS S&T is tasked with advancing the scientific, engineering, and technological resources of the United States and leveraging these resources into tools to help protect the homeland. The Resilient Systems Division (RSD) applies the social and behavioral sciences in order to improve the detection, analysis, and understanding of threats posed by individuals, groups, and radical movements; to support the preparedness, response and recovery of communities impacted by catastrophic events; and to advance national security by integrating human factors into homeland security science and technologies.

The Quadrennial Homeland Security Review (2010) has identified Maturing and Strengthening the Homeland Security Enterprise (HSE) as a key DHS programmatic goal. DHS S&T provides those technologies, processes and expertise to the HSE in order to assist them in fulfilling their missions. However, DHS S&T has no formal, scientifically sound, program evaluation process to ensure that the mission is being met in a meaningful and efficient manner. Current S&T evaluation programs only test and consider the quality of the technology to be transitioned. A program evaluation approach that places a technology or other innovation within an operational context, and thus enables decision makers to assess the entire operational approach in which the technology or innovation is embedded, ultimately improving technology transition to the customer component agencies.

This SOW summarizes the work that is planned for program evaluations in DHS S&T. This work will be conducted through engaging the technology stakeholders, focusing the evaluation design on the technology and the purpose of the overall operational program, gathering and analyzing evidence, and producing a final report that will result in an improved program. Those lessons learned will help inform future DHS S&T program conceptualization and execution, and will lead to improvement in the quality and effectiveness of programs transitioned to customer component agencies.

II. SCOPE OF WORK

During the base period of performance, the Vendor will conduct program evaluations on the following DHS S&T programs: DHS Biometric Exit Pilots and the Rapid DNA project. In addition, there is an option for an evaluation of the Mobile Biometrics Project, an option for the evaluation of search capabilities for the Transportation Security Administration and an option for an evidence-based evaluation of Chemical, Biological, Radiological, Nuclear and Explosives (CBRNE) Standards for First Responders. The Vendor will develop and utilize a scientifically sound method to perform the following tasks:

- Identify and engage stakeholders;
- Determine evaluation needs;
- Develop measures of activities and outcomes;
- Identify, assess and gather data;
- Analyze the data;
- Reach operationally relevant conclusions; and
- Ensure the use and sharing of lessons learned.

Under this effort, the Vendor will be responsible for performing the following activities:

- Development of measures of progress;
- Assessment of the impact and effectiveness of the technology, performance, or innovation in the operational environment and identification of areas of improvement;
- Development of a baseline assessment of the operational program to inform the creation of an evaluation framework that is specifically tailored to the program, personnel performance or the technology being evaluated and;
- Preparation of a final report identifying lessons learned and provides both S&T and the operating agency with a road map for building on the evaluation's results. The report will be provided to the program managers of the component agency, RSD, and other DHS stakeholders.

III. SPECIFIC TASKS

The specific tasks that are involved in the evaluation of DHS S&T technologies are provided in the following paragraphs:

Identify and Engage Stakeholders

In consultation with RSD, the Vendor will identify and engage relevant stakeholders. These include those involved in program operations, those served or affected by the program, and the primary users of the evaluation (those in a position to make decisions about the program). Stakeholders will be systematically identified in conjunction with RSD. Stakeholders will have the purpose of the program evaluation explained to them, and how their participation in the process fits into the evaluation as a whole.

Description of the Program

The Vendor, in consultation with RSD, will specifically identify the purpose of the project and the research questions that it intends to address, with necessary special emphasis on the in-practice implications of the technology, performance, or innovation on programmatic goals and objectives. The Vendor will then conduct a baseline assessment on the current program implementation or previously conducted pilots.

Focus Evaluation Design

The Vendor will then tailor the evaluation to the specific program and purpose of the evaluation. The Vendor will need to clarify who will use the evaluation results, and how those results will be used. The Vendor will also consider the context of the program in order to determine the appropriate evaluation strategy that is best suited for the specific program. Where feasible and cost effective, the developed field experimental methods will be used by the Vendor, unless RSD approves another approach.

Identify, Assess, and Gather Data

As part of the design stage, the Vendor will be responsible for the assessment of data needs and availability along with obstacles to and the necessary costs of data acquisition. The normal expectation from the Government is that both quantitative and qualitative data may be relevant to the conduct of an evaluation. Data of only one type will be used and collected if explained to the satisfaction of RSD. To keep costs low, data gathering by the Vendor will utilize existing program data to the extent feasible. To the extent that privacy and other rules permit, the data will be stored in a form that will allow the agency or S&T to reuse it in any follow-on or future work as appropriate without the payment of license or other fees.

Analyze Data and Reach Conclusions

After the data have been gathered, the Vendor will analyze the data using appropriate statistical and qualitative methods in order to assess program performance and to identify any gaps or weaknesses in or strengths of the technology as operationally applied. The Vendor will also be responsible for tying any conclusions to program standards of performance and to the extent there are weaknesses in the operational application of the technology or innovation, the Vendor will propose mitigation strategies.

Final Report

The Vendor will generate a final written report and provide any accompanying presentation slides, that sets forth the research goals, explains the research strategies, describes the research design as implemented and the data used with a discussion of their strengths and limitations, reports the methods and results of the analysis, including, where appropriate, tables, key statistical outputs or other information summaries and recommendations for actions in the form of a final report. The report will also include a brief executive summary and, if appropriate, statistical tables, summaries of the qualitative data or other appendices. The copyright for the report will be held by DHS.

This report will be made available to the program manager(s) of the component agency and to RSD. Any additional dissemination of the report will be made at the discretion of RSD. The basis for the recommendations, their rationales and the data behind them will be explained by the Vendor to the responsible program manager(s) and any relevant stakeholders or other potential users that have been identified by the program manager. Up to five such briefings of up to 90 minutes in length may be requested by RSD.

Projects to be Evaluated

Base Period of the Task Order -- the Vendor will focus on the Rapid DNA Project (Task 1) and DHS Biometric Exit Pilots (Task 2). Option Period 1-- the Vendor will design the evaluation framework of the Mobile Biometrics Project (Task 3), upon option exercise. Option Period 2— the Vendor will design the evaluation framework of the TSA Personnel Evaluation Project (Task 4), upon option exercise. Optional Task 5 – the Vendor will design the evaluation framework of the CBRNE Standards for First Responders project (Task 5). All projects are described in additional detail below:

SOW Task 1.0 until 1.11: Program Evaluation for Rapid DNA Project (Base Period-- Task 1)

United States Citizenship and Immigration Service (USCIS) currently uses fingerprints to check for any criminal history or immigration violations on benefit applicants, but these biometrics do not determine if persons are related to one another. However, DNA (deoxyribonucleic acid) does allow for the determination of family relationships since children receives half of their DNA from each parent. Until recently, however, it required a laboratory full of equipment and a highly trained forensic analyst to interpret the results. Sending a sample to a lab and waiting for it to be processed could take weeks to months at the cost of \$300 to \$400 per sample. Rapid and low-cost DNA processing permits efficiencies in the processing of valid applicants, reduces the costs associated with processing, deters fraud in applications, and ultimately increases the number of legal immigrants admitted into the country.

Rapid and low-cost DNA processing may also prevent fraud and illegal profiteering with regard to kinship benefits. USCIS has identified the need for accurate DNA analysis to test kinship that would take less than one hour at a cost of under \$100. This testing needs to be done in field locations, rather than at external labs, on a desktop-size device which is easy for the adjudicator to operate.

In 2008, a DNA screening pilot program that tested DNA for kinship of hundreds of cases involving family reunification in East Africa found that a considerable number of kinship claims were contradicted by DNA testing. Currently, DNA analysis to determine identity and kinship is not widely feasible because of cost and time considerations. With document fraud an increasing concern for USCIS adjudicators, a technology that could provide validation of family relationship rapidly and accurately while in the field would help ensure the efficacy of the process. The primary objective is to verify family relationships (kinship), but Rapid-DNA will also allow the identification of known criminals among those seeking asylum or immigration, verify relationships in overseas adoptions, and provide for family reunification in mass-casualty situations. The initial target customer is USCIS Refugee, Asylum and International Operations Directorate

In 2012, the Rapid DNA program identified additional objectives to broaden the potential uses associated with the Rapid DNA system in the Homeland Security Enterprise. In order to better understand the implications of additional uses of the Rapid DNA project, it will be necessary to develop additional use-cases; understand public and organizational opinions, acceptance, and knowledge about the Rapid DNA system; and conduct an Institutional Review Board for Human Subjects Research to support the field testing of the Rapid DNA Prototypes.

*SOW Task 2.0 until/2.2: Program Evaluation for DHS Biometric Exit Pilots
(Base Period-- Task 2)*

The future of U.S. immigration policy has been an issue of long discussion by officials in several Administrations, in the media, on Capitol Hill, and among the general public. Much of this discussion has focused on "overstays," i.e. individuals who enter the United States lawfully, but who stay longer than their authorized period of admission. One of the most common reasons for denial of a U.S. visa is that the visa applicant fails to convince the U.S. consular officer that he or she will adhere to the admission period.

Establishing an effective Validated Exit program would allow DHS to meet its mission goals to protect the American public and enforce immigration laws. DHS currently faces a difficult decision for a Validated Exit system. Exit data collection is necessary to ensure that the Department knows who has not left on time, but there are varying opinions on how to best collect and track this information. Statutory mandates require DHS to implement a *biometric* exit program, however, it is unclear if previously conducted pilots and studies have answered questions necessary to formulate a long-term path forward regarding biometric exit and subsequently Validated Exit.

The objective of this effort is to work with DHS and contractor staff to aggregate all previous DHS evaluations of operational concepts for biometric exit, analyze available requirements, lead a methodological review to assess the validity of previous studies, and lead the design of research and pilot activities for candidate technologies to answer research questions necessary to inform a formulate a long-term path forward regarding biometric exit and subsequently Validated Exit. The initial target customer is senior DHS leadership.

*SOW Task 3.0 until/3.3: Mobile Biometrics Project
(Option Period 1-- Task 3 -- 12 Months)*

The Homeland Security Act of 2002 (Public Law 107-296) states that DHS S&T will "support basic and applied homeland security research to promote revolutionary changes in technologies; advance the development, testing and evaluation, and deployment of critical homeland security technologies; and accelerate the prototyping and deployment of technologies that would address homeland security vulnerabilities." Pursuant to this mission, the Resilient Systems Division (RSD) of the Department of Homeland Security (DHS) Science and Technology Directorate recognizes the need for commercially available hand-held biometric acquisition devices that can effectively collect data samples from subjects under a variety of conditions. The DHS is responsible for the biometric identification of persons to achieve the statutory and regulatory missions of the components. To accomplish these tasks, DHS components require the ability to positively identify/screen individuals in a secure, efficient, accurate, and timely manner. This ability encompasses the collection, storage, transmission, and receipt of biometric and biographic data to support the component missions. The capability must

be portable and operable in a wide variety of areas regardless of existing infrastructure (i.e. offshore, foreign and remote locations, ports of entry, detention centers... etc) and conditions (i.e. day/night, arid/humid climates, hot/cold temperature extremes). The capability must also accommodate operators with varying levels of technical ability and subjects with varying levels of physical ability.

The output from these mobile acquisition devices must be usable for searches of large-scale biometric databases (1 to many) and/or verification against a previously taken biometric sample (1 to 1). In order to assure maximum interoperability and efficiency of operation, DHS requires that the data output from these acquisition devices conform to pre-established standards. This program focuses on the integration of various biometric modules into a single hand-held device or system. Modules may include but are not limited to: a four finger slap module for fingerprints, visible wavelength camera (with optional flash/illuminator) for face acquisition, and a near-infrared, dual iris capture camera. Additional biometric modules such as for voice and other technologies, such as card readers, etc. may be included in the final hand-held system. Multiple mobile devices currently are being piloted in the field among various component agencies as well as police departments throughout the country. Several police departments have conducted independent evaluation prior to this SOW and will provide additional input into this evaluation process. The Vendor should be familiar with the U.S. National Institute of Standards and Technology (NIST) Mobile ID Device Best Practices Recommendation, Sept 2008 report and should design a plan for evaluating the implementation of this device in the field. The plan should describe how the data capture methods, signal processing (image normalization, segmentation, feature extraction, quality assessment, template creation, output record formatting...), matching algorithms for each modality, decision for match/no-match and the accuracy of displayed results function when the device is operationally deployed and should assess how the device users employ the device and interpret the information it provides to what effect. The design should provide for the assessment of the strengths and weaknesses of the device as operated in the field and to the extent possible should determine the degree to which the availability of the new multimodal biometric tool improves on prior identification technologies.

SOW Task 4.0 until 4.6: TSA Personnel Evaluation
(Option Period 2-- Task 4 -- 12 Months)

The goal of this work is to enhance TSA OSO's existing Officer Performance Studies project in three areas through evaluation. These areas will improve aviation security, improve the efficiency and effectiveness of TSA's officer performance studies, improve TSA's officer training programs, and improve TSA's standard operating procedures at airport checkpoints. First, examine possible benefits of remote screening – having TSA X-ray operators perform searches away from the terminal (There are current conversations and debates with DHS and TSA about the cost and benefits of having TSA Officers work remotely. This task will examine whether performance is better or worse when conducted remotely). Second, enhance the assessment and training of specific search strategies employed by TSA Officers when conducting X-ray screening (This task will assess search strategies used by different TSOs to see if some styles are more effective than others and will determine whether effective strategies can be trained). Thirdly, determine the impact on threat detection performance of specific Intel or briefing information provided by Superiors (This task will help determine on how best to inform TSA Officers of newly discovered threats so as to improve overall performance).

SOW Task 5.0 until 5.6: CBRNE Standards for First Responders
(Optional Task 5 - 18 Months)

The goal of this task is to develop a method to track the operational health of the first responder community on CBRNE standards. The operational health of first responders with regard to CBRNE standards includes (1) the understanding of current CBRNE standards in existence, (2) the use and practical application of CBRNE standards, (3) gaps in and the practical need for CBRNE standards, and (4) prioritization of CBRNE standards development. The system should be based loosely on established, survey-based surveillance systems used for the ongoing collection, interpretation, and dissemination of public health data. Development of the system should occur in two phases. In the first phase, the Vendor will conduct a literature review, engage the stakeholders, develop the questionnaire, develop the sample frame and conduct a pilot test of up to nine respondents. In the second phase (which are possible future tasks), the first national wave of data collection, analysis and dissemination will occur. Phase II will provide baseline data for the system. In subsequent years ("waves"), the survey can be re-administered for the tracking of trends related to CBRNE standards.

RTI, in consultation with S&T, will clarify and focus the project research questions, with necessary special emphasis on the in-practice implications of the goals and objectives of the National Strategy for CBRNE Standards. RTI will then review and summarize available literature and completed studies on the current state of each of the six main goals of the National Strategy. Those goals are:

1. Establish an interagency group for CBRNE standards to promote the coordination of these standards among Federal, state, local, and tribal communities.
2. Coordinate and facilitate the development of CBRNE equipment performance standards and promote the use of standards for Federal, state, local, and tribal communities.
3. Coordinate and facilitate the development and adoption of interoperability standards for CBRNE equipment.
4. Promote enduring CBRNE standard operating procedures for Federal, State, local, and tribal use to improve National preparedness and response.
5. Establish voluntary CBRNE training and certification standards for the Federal, State, local, and tribal communities and promote policies that foster their adoption.
6. Establish a comprehensive CBRNE equipment testing and evaluation (T&E) infrastructure and capability to support conformity assessment standards.

RTI will include in the review print materials, official documents, media reports and other sources, as appropriate. S&T will assist with the identification and obtaining of documents. RTI will deliver a document briefly summarizing the literature review to S&T.

IV. STAFFING

See Attachment 2- HSAR 3052.215-70 Key Personnel or Facilities (DEC 2003), which identifies Project Manager and Chief Technical Representative as Key Personnel.

V. DELIVERABLES-MILESTONE PAYMENT SCHEDULE

Deliverables				
SOW Task	Deliverable	Description	Due Date	Payment
1.0	Project Management Plan	A project management plan that will accomplish the program's objectives as outlined by RSD personnel. The final version requires approval by the RSD Program Manager.	7 months from Date of Award Base Period Task 1 Submitted and paid	(b)(4)
1.0a	PMP Revisior	Revise PMP to reflect changes from work with USCIS to USC BP. The final version requires approval by the RSD Program Manager.	14 months from date of award of base period (Oct 20, 2014)	(b)(4)
1.1	Draft of Data Collection Instruments	Draft of all data collection instruments. Final version requires approval by the RSD Program Manager.	1 month from award	(b)(4)
1.1a	Final version of Data Collection Instruments	Final versions of all data collection instruments. Final version requires approval by the RSD Program Manager.	16.5 months from award (Jun 5, 2015)	(b)(4)
1.2	Draft of Evaluation Framework for Rapid DNA Project	A path forward for the program evaluation that is specifically tailored to the DHS program and technology being evaluated. Final version requires approval by the RSD Program Manager.	1 month from award	(b)(4)
1.2a	Final Evaluation Framework for Rapid DNA Project	A path forward for the program evaluation that is specifically tailored to the DHS program and technology being evaluated. Final version requires approval by the RSD Program Manager.	12 months from award	(b)(4)
1.2b	Draft of Evaluation Framework for Rapid DNA Project with US Customs and Border Protection	A path forward for the program evaluation that is specifically tailored to the DHS program and technology being evaluated. Final version requires approval by the RSD Program Manager.	15.5 months from date of award of base period (Dec 5, 2014)	(b)(4)
1.2c	Final Version of Evaluation Framework for Rapid DNA Project with US Customs and Border Protection	A path forward for the program evaluation that is specifically tailored to the DHS program and technology being evaluated. Final version requires approval by the RSD Program Manager.	18 months from date of award of base period (Feb 20, 2015)	(b)(4)
1.3	Summary of Data Collection Activities	A summary report of data collection activities and observations	18.25 months from award (May 20, 2015)	(b)(4)
1.4	Institutional Review Board for Human Subjects Research	An IRB review will be conducted for the field test of the Rapid DNA project.	6 months from award	(b)(4)
1.5	Update Project Management Plan	Update PMP to reflect additional sub-tasks. The final version requires approval by the RSD Program Manager.	5 months from date of award	(b)(4)

1.6	Review of public / organizational acceptance literature	A review of relevant literature in area of public and organizational opinions, acceptance, and knowledge about the Rapid DNA system. The final version requires approval by the RSD Program Manager.	3 months from award	(b)(4)
1.7	Draft of Survey Instruments	A draft of all survey instruments for public and organizational acceptance of Rapid DNA technology. Final version requires approval by the RSD Program Manager.	10 months from date of award.	(b)(4)
1.8	Develop Sampling Scheme	Develop sampling plan for relevant respondents (public and organizational). The target population, sampling frame, and final sampling scheme require approval by the RSD Program Manager.	14 months from award	(b)(4)
1.9	Administration Survey Instruments	A draft of all survey instruments for public and organizational acceptance of Rapid DNA technology. Final version requires approval by the RSD Program Manager.	12 months from date of award.	(b)(4)
1.10	Analysis of results from all acceptance evaluation	Conduct analysis of all data developed under the subtasks 1.5-1.9 of this task.	18 months from date of award.	(b)(4)
Optional Task 1.11	Final Report for Rapid DNA Project if funded (b)(4)	A formal report that communicates the evaluation procedures and findings to relevant audiences to include all tasks. The length of the final report is anticipated to about 45 pages, including an executive summary of no more than two pages but excluding appendices, if any. The final version requires approval by the RSD Program Manager.	09/12/2015	(b)(4)
2.0	Baseline Assessment for Biometric Exit Pilots	A summary of the previously conducted pilots as it stands. The Vendor will work with RSD to aggregate all previous DHS evaluations of operational concepts for biometric exit, and analyze available requirements.	3 months from Date of Award Base Period Task 2	(b)(4)
2.1	Evaluation Framework for Biometric Exit Pilots	A methodological review to assess the validity of previous studies in answering research questions necessary to inform a DHS strategy for biometric exit	5 months from Date of Award Base Period Task 2	(b)(4)
2.2	Final Report for Biometric Exit Pilots	A formal report that communicates a long-term path forward for the program evaluation that is specifically tailored to inform senior DHS leadership decisions. The length of the final report is anticipated to about 25 pages, including an executive summary of no more than two pages but excluding appendices, if any. The final version requires approval by the RSD Program Manager.	6 months from Date of Award Base Period Task 2	(b)(4)
3.0	Baseline Assessment for Mobile Biometrics Project	A summary of the program as it stands. Final version requires approval by the RSD Program Manager	4 months from exercising Option Period Option Period Task 5	(b)(4)
3.1	Evaluation Framework for Mobile Biometrics	A path forward for the program evaluation that is specifically tailored to the program and technology being evaluated. Final version requires approval by the RSD Program Manager.	6 months from exercising Option Period Option Period Task 3	(b)(4)
3.2	Monitoring and Evaluation of Mobile Biometrics Project	Implementation and monitoring of the evaluation framework.	4 to 5 months from exercising Option Period Option Period Task 3	(b)(4)
3.3	Final Report for Mobile Biometrics Project	A formal report that communicates the evaluation procedures and findings to relevant audiences. The length of the final report is anticipated to about 25 pages, including an executive summary of no more than two pages. The final version requires approval by the RSD Program Manager.	12 months from exercising Option Period Option Period Task 5	(b)(4)

4.0	Project Management Plan	A project management plan that will accomplish the program's objectives as outlined by RSD personnel. The final version requires approval by the RSD Program Manager.	1 month from exercising Option Period. Option Period Task 4	(b)(4)
4.1	Prepare Experiments	A path forward for the personnel performance evaluation that is specifically tailored to the areas being evaluated. Final version requires approval by the RSD Program Manager.	3 months from exercising Option Period. Option Period Task 4	-
4.2	Test Subjects	Implementation and monitoring of the evaluation framework. Collect and analyze data.	11 months from exercising Option Period. Option Period Task 4	-
4.3	Prepare manuscripts/presentations	Manuscripts and publications for both scientific audiences (where appropriate) and TSA stakeholders that communicates the evaluation procedures and findings to relevant audiences. The final versions require approval by the RSD Program Manager.	12 months from exercising Option Period. Option Period Task 4	-
4.4	Quarterly Reports	Quarterly report formats will be approved as part of the PMP (Task 4.0) but will, at a minimum, include budget expenditure and task progress.	3, 6, & 9 months from exercising Option Period. Option Period Task 4	(b)(4) per each quarterly report)
4.5	Draft Final Reports	A draft version of a final report that communicates the evaluation procedures and findings to relevant audiences.	15 months from exercising Option Period. Option Period Task 4	-
4.6	Final Reports	A formal report that communicates the evaluation procedures and findings to relevant audiences. The final version requires approval by the RSD Program Manager.	16 months from exercising Option Period. Option Period Task 4	(b)(4)
5.0	Project Management Plan	A project management plan that will accomplish the program's objectives as outlined by RSD personnel. The final version requires approval by the RSD Program Manager.	1 month from exercising Option. Optional Task 5	(b)(4)
5.1	Review of Literature	A review of relevant literature in the area of First Responder acquisition, training, and use of CBRNE Equipment.	3 months from exercising Option. Optional Task 5	-
5.2	Quarterly Reports	Quarterly report formats will be approved as part of the PMP (Task 5.0) but will, at a minimum, include budget expenditure and task progress.	3, 6, 9, 12 & 15 months from exercising Option. Optional Task 5	(b)(4) each quarterly report)
5.3	Draft Survey Instrument	Draft of all data collection instruments. Final version requires approval by the RSD Program Manager.	6 months from exercising Option. Optional Task 5	-
5.4	Summary of Data Collection Activities	A summary report of Phase I data collection activities and observations.	9 months from exercising Option. Optional Task 5	-
5.5	Draft Final Report	A draft formal report that communicates the evaluation procedures and findings to relevant audiences. The length of the final report is anticipated to be about 25 pages, including an executive summary of no more than two pages but excluding appendices, if any. The draft final version requires approval by the RSD Program Manager.	16 months from exercising Option. Optional Task 5	(b)(4)

5.6	Final Report	A formal report that communicates the evaluation procedures and findings to relevant audiences. The length of the final report is anticipated to be about 25 pages, including an executive summary of no more than two pages but excluding appendices, if any. The final version requires approval by the RSD Program Manager.	18 months from exercising Option, Optional Task 5	(b)(4)
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*Due to rounding, grand total at Firm Fixed Price is (b)(4) which is inclusive of the unfunded Optional Task 1.11.

* COR shall determine, at his discretion, how long after receipt of the draft deliverable RTI has to deliver the final version and how long the Government will review the draft, before providing comments.

VI. Other Task Order Details

1. Period of Performance. The task order period of performance is from 14 September 2011 through 13 September 2015.
2. Travel. Domestic travel on the part of the Vendor's staff may be required in the performance of the duties that are listed herein. It is expected that the Vendor will reimburse non- government participants for those travel expenses that they might incur.
3. DHS-Furnished Information.
 - a. DHS will provide certain DHS information, materials, and forms unique to DHS to the vendor to support certain tasks under this SOW.
 - b. The DHS S&T Contracting Officer's Representative, identified in this SOW, will be the point of contact (POC) for the identification of any required information to be supplied by DHS.
 - c. The Vendor will prepare any documentation according to the guidelines provided by DHS.
4. Place of Performance.
 - a. The Vendor will perform the work under this SOW at their place of business and the workshop location.
5. DHS-Furnished Property. DHS property will not be provided to the Vendor.
6. Deliverables. The Vendor will provide all deliverables identified in this SOW directly to the task-specific DHS S&T Technical Representatives and to the S&T Contracting Officer.
7. Program Status Report. The Vendor will deliver monthly program status reports. The reports will be submitted on the 15th day of the month. The reports shall include the following:
 - a. Summary of progress during the reporting period (including any significant technical information).
 - b. Unanticipated technical or management problems of significance.
 - c. Problems anticipated in future reporting periods.
 - d. Summary of important meetings, briefings, trips and conferences during the period of the report and those planned in the following period.

All reports shall be submitted to the task-specific CORs and to the DHS S&T Contracting Officer electronically.

8. Funding Requirements. DHS will provide funding that is outlined in the Task Order, at the discretion of the Government, subject to the availability of funds.
9. 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 the Vendor as to which work will be conducted in a classified manner and at which classification level. The Vendor will also adhere to other applicable Government orders, guides, and directives pertaining to classified work. This SOW may require access to information at the unclassified level.
 - c. The Contractor shall not publish, permit to be published, or distribute for public consumption, any information, oral or written, concerning the results or conclusions made pursuant to the performance of this Task Order, without the prior written consent of the Contracting Officer. An electronic or printed copy of any material proposed to be published or distributed shall be submitted to the Contracting Officer.

VII. Points of Contact

Contracting Officer:

Duane Schatz

Science and Technology Acquisitions Division

Office of Procurement Operations Department of Homeland Security Washington, DC 20582

(b)(6)

Contracting Officer's Representative (COR):

Richard Legault, Ph.D.

Resilient Systems Division

Science and Technology Directorate Department of Homeland Security Washington, DC 20582

(b)(6)

DHS S&T Invoicing:

U.S. DHS, ICE

Attn: S&T RSD Invoice

Burlington Finance Center

P.O. Box 1000

Williston, VT 05495-1000

invoicesat.consolidation@ice.dhs.gov

ORDER FOR SUPPLIES OR SERVICES

PAGE OF PAGES

1 4

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

1 DATE OF ORDER 09/14/2011		2 CONTRACT NO. (If any) GS-10F-0097L		6 SHIP TO.	
3 ORDER NO. HSHQDC-11-F-00087		4 REQUISITION/REFERENCE NO See Schedule		a NAME OF CONSIGNEE Multiple Destinations	
5 ISSUING OFFICE (Address correspondence to) Department of Homeland Security MGMT/OPO S&T/Mailstop 0115 245 Murray Lane SW Washington DC 20528-0115				b. STREET ADDRESS	
				c CITY	d STATE
				e ZIP CODE	
7 TO				f SHIP VIA	
a NAME OF CONTRACTOR RESEARCH TRIANGLE INSTITUTE				8 TYPE OF ORDER	
b. COMPANY NAME				<input type="checkbox"/> a PURCHASE	
c STREET ADDRESS PO BOX 12194				REFERENCE YOUR	
d CITY RESEARCH TRIANGLE PARK				e STATE NC	
				f ZIP CODE 277092194	
9 ACCOUNTING AND APPROPRIATION DATA See Schedule				10 REQUISITIONING OFFICE	

11 BUSINESS CLASSIFICATION (Check appropriate box(es))				12 F.O.B. POINT Destination	
<input type="checkbox"/> a SMALL	<input type="checkbox"/> b OTHER THAN SMALL	<input type="checkbox"/> c DISADVANTAGED	<input type="checkbox"/> g SERVICE-DISABLED VETERAN-OWNED		
<input type="checkbox"/> d WOMEN-OWNED	<input type="checkbox"/> e HUBZone	<input type="checkbox"/> f EMERGING SMALL BUSINESS			
13 PLACE OF			14 GOVERNMENT BIL NO.	15 DELIVER TO F.O.B. POINT ON OR BEFORE (Date) Multiple	16 DISCOUNT TERMS Net 30
a INSPECTION Destination	b ACCEPTANCE Destination				

17. SCHEDULE (See reverse for Rejections)

ITEM NO. (a)	SUPPLIES OR SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
	DUNS Number: 004868105+0000 Division/PFA: Human Factors/Behavioral Sciences Division Thrust: Personal Identification Systems Program: Biometrics Project: Biometrics Continued ...					

18 SHIPPING POINT		19 GROSS SHIPPING WEIGHT		20 INVOICE NO		17(h) TOTAL (Cont pages)
21. MAIL INVOICE TO:						
a NAME DHS ICE				\$905,586.00		17(i) GRAND TOTAL
b STREET ADDRESS (or P.O. Box) Burlington Finance Center PO BOX 1000 Attn: S&T Division SAT.Invoice.Consolidation@dhs.gov				\$905,586.00		
c CITY Williston		d STATE (b)(6)	e ZIP CODE 05495-1000			

22. UNITED STATES OF AMERICA BY (Signature)		23 NAME (Typed) Kristian Jovanovic TITLE CONTRACTING/ORDERING OFFICER	
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**ORDER FOR SUPPLIES OR SERVICES
SCHEDULE CONTINUATION**

PAGE NO

2

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

DATE OF ORDER
09/14/2011

CONTRACT NO
GS-109-00971

ORDER NO
HS11QDC-11-F-00887

ITEM NO (a)	SUPPLIES/SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
0001	<p>Performer: RFI International Project Manager: Ji Sun Lee Appropriation Year: RM & FY11 (13) Budget Authority: Multi-Year Reimbursable Funds and Three-Year Funds</p> <p>ALC: 70-08-1513 APPS: 70XC800/70130890</p> <p>Description: Provide Program Evaluations to Department of Homeland Security (DHS) Science and Technology (S&T) Directorate, in accordance with the attached Statement of Work (SOW), FAR Clauses, and DHS Clauses, via Firm Fixed Price (FFP) Task Order.</p> <p>Grand total amount of award, including all options, which are subject to the availability of funds and at the discretion of the Government: (b)(4)</p> <p>AAP Number: N/A DO/DPAS Rating: NONE Admin Office: Department of Homeland Security MGMT/OPO S&T/Mailstop 0115 245 Murray Lane SW Washington DC 20528-0115</p> <p>Period of Performance: 09/14/2011 to 03/13/2014</p> <p>Base Period -- Task 1 -- Rapid DNA Project</p> <p>Period of Performance: 03/14/2012 to 03/13/2013</p> <p>Product/Service Code: A414 Product/Service Description: DEV Requisition No: RSCS-11-00257</p> <p>Delivery: 03/13/2013 Delivery Location Code: DHS Department of Homeland Security MGMT/OPO S&T/Mailstop 0115 245 Murray Lane SW Washington DC 20528-0115 Amount: (b)(4) Continued ...</p>				(b)(4)	
TOTAL CARRIED FORWARD TO 1ST PAGE (ITEM 17(H))					(b)(4)	

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**ORDER FOR SUPPLIES OR SERVICES
SCHEDULE CONTINUATION**

PAGE NO

3

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

DATE OF ORDER 09/14/2011	CONTRACT NO G8-109-0097L	ORDER NO HSHQDC-11-F-00087
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ITEM NO (a)	SUPPLIES/SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)	
0002	<p>Accounting Info: NONE000-000-13-31-02-01-004-01-00-0000 -00-00-00-00-GE-OE-25-50-000000 Funded: (b)(4)</p> <p>Accounting Info: RE11154-000-RM-70-00-00-000-01-00-0000 -00-00-00-00-GE-OE-25-50-000000 Funded: (b)(4)</p> <p>Base Period -- Task 2 -- Biometric Exit Project</p> <p>Period of Performance: 09/14/2011 to 03/13/2012</p> <p>Product/Service Code: AZ14 Product/Service Description: DEV Requisition No: RSCB-11-00257, RSHF-11-00048</p> <p>Delivery: 03/13/2012 Delivery Location Code: DHS Department of Homeland Security MGMT/OPO SXT/Mailstop 0115 245 Murray Lane SW Washington DC 20528-0115 Amount: (b)(4)</p> <p>Accounting Info: RE11154-000-RM-70-00-00-000-01-00-0000 -00-00-00-00-GE-OE-25-50-000000 Funded: (b)(4)</p> <p>Accounting Info: NONE000-000-13-33-06-04-009-01-00-0000 -00-00-00-00-GE-OE-41-02-000000 Funded: (b)(4)</p>					(b)(4)	
1003	<p>Option Period -- Task 3 -- Mobile Biometrics Project</p> <p>Period of Performance: 03/14/2013 to 03/13/2014</p> <p>Amount: (b)(4) (Option Line Item)</p> <p>Product/Service Code: AZ14 Product/Service Description: DEV</p> <p>Continued ...</p>					(b)(4)	
TOTAL CARRIED FORWARD TO 1ST PAGE (ITEM 17)(1))					(b)(4)		

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**ORDER FOR SUPPLIES OR SERVICES
SCHEDULE - CONTINUATION**

PAGE NO

4

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

DATE OF ORDER	CONTRACT NO	ORDER NO
09/14/2011	GS-10F 0097L	HSR09C-11-F-00097

ITEM NO (a)	SUPPLIES/SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
	Delivery Location Code: DHS Department of Homeland Security MGMT/CFO S&T/Mailstop 0115 245 Murray Lane SW Washington DC 20528 Amount: (b)(4)					
	The total amount of award: (b)(4) The obligation for this award is shown in box 17(i).					
TOTAL CARRIED FORWARD TO 1ST PAGE (ITEM 17(H))						(b)(4)

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OPTIONAL FORM 348 (Rev. 4-2005)
Prescribed by GSA FPMR (41 CFR) 101-11.6

Statement of Work for Program Evaluations

U.S. Department of Homeland Security Science & Technology Directorate Human Factors/Behavioral Sciences Division

This Statement of Work (SOW) outlines the activities that are involved in acquiring technical and consulting services in the social, behavioral, and economic sciences. These services will be responsible for addressing the methods, models and technologies to conduct program evaluations on biometric technologies within the Human Factors/Behavioral Sciences Division (HFD) of the Science & Technology Directorate (S&T).

I. BACKGROUND

The U.S. Department of Homeland Security (DHS) is committed to using cutting-edge science and technology in its quest to make America safer. The DHS S&T is tasked with advancing the scientific, engineering, and technological resources of the United States and leveraging these resources into tools to help protect the homeland. The Human Factors/Behavioral Sciences Division (HFD) applies the social and behavioral sciences in order to improve the detection, analysis, and understanding of threats posed by individuals, groups, and radical movements: to support the preparedness, response and recovery of communities impacted by catastrophic events; and to advance national security by integrating human factors into homeland security science and technologies.

The Quadrennial Homeland Security Review (2010) has identified Maturing and Strengthening the Homeland Security Enterprise (HSE) as a key DHS programmatic goal. DHS S&T provides those technologies, processes and expertise to the HSE in order to assist them in fulfilling their missions. However, DHS S&T has no formal, scientifically sound, program evaluation process to ensure that the mission is being met in a meaningful and efficient manner. Current S&T evaluation programs only test and consider the quality of the technology to be transitioned. A program evaluation approach that places a technology or other innovation within an operational context, and thus enables decision makers to assess the entire operational approach in which the technology or innovation is embedded, ultimately improving technology transition to the customer component agencies.

This SOW summarizes the work that is planned for program evaluations in DHS S&T. This work will be conducted through engaging the technology stakeholders, focusing the evaluation design on the technology and the purpose of the overall operational program, gathering and analyzing evidence, and producing a final report that will result in an improved program. Those lessons learned will help inform future DHS S&T program conceptualization and execution, and will lead to improvement in the quality and effectiveness of programs transitioned to customer component agencies.

II. SCOPE OF WORK

The Vendor, will conduct program evaluations on DHS S&T programs. In Fiscal Year (FY) 2011, there will be an evaluation of DIIS Biometric Exit Pilots and the Rapid DNA project. For FY 2012, there is an option for an evaluation of the Mobile Biometrics Project. The Vendor will develop and utilize a scientifically sound method to perform the following tasks:

- ❖ Identify and engage stakeholders;
- ❖ Determine evaluation needs;
- ❖ Develop measures of activities and outcomes;
- ❖ Identify, assess and gather data;
- ❖ Analyze the data;
- ❖ Reach operationally relevant conclusions; and
- ❖ Ensure the use and sharing of lessons learned.

Under this effort, the Vendor will be responsible for performing the following activities:

- ❖ Development of measures of progress;
- ❖ Assessment of the impact and effectiveness of the technology or innovation in the operational environment and identification of areas of improvement;
- ❖ Development of a baseline assessment of the operational program to inform the creation of an evaluation framework that is specifically tailored to the program and the technology being evaluated and;
- ❖ Preparation of a final report identifying lessons learned and provides both S&T and the operating agency with a road map for building on the evaluation's results. The report will be provided to the program managers of the component agency, IIFD, and other DHS stakeholders.

III. SPECIFIC TASKS

The specific tasks that are involved in the evaluation of DIIS S&T technologies are provided in the following paragraphs:

Identify and Engage Stakeholders

In consultation with IIFD, the Vendor will identify and engage relevant stakeholders. These include those involved in program operations, those served or affected by the program, and the primary users of the evaluation (those in a position to make decisions about the program). Stakeholders will be systematically identified in conjunction with IIFD. Stakeholders will have the purpose of the program evaluation explained to them, and how their participation in the process fits into the evaluation as a whole.

Description of the Program

The Vendor, in consultation with IIFD, will specifically identify the purpose of the project and the research questions that it intends to address, with necessary special emphasis on the in-

practice implications of the technology or innovation on programmatic goals and objectives. The Vendor will then conduct a baseline assessment on the current program implementation or previously conducted pilots.

Focus Evaluation Design

The Vendor will then tailor the evaluation to the specific program and purpose of the evaluation. The Vendor will need to clarify who will use the evaluation results, and how those results will be used. The Vendor will also consider the context of the program in order to determine the appropriate evaluation strategy that is best suited for the specific program. Where feasible and cost effective, the developed field experimental methods will be used by the Vendor, unless HFD approves another approach.

Identify, Assess, and Gather Data

As part of the design stage, the Vendor will responsible for the assessment of data needs and availability along with obstacles to and the necessary costs of data acquisition. The normal expectation from the Government is that both quantitative and qualitative data will be relevant to the conduct of an evaluation. Data of only one type will be used and collected if explained to the satisfaction of HFD. To keep costs low, data gathering by the Vendor will utilize existing program data to the extent feasible. To the extent that privacy and other rules permit, the data will be stored in a form that will allow the agency or S&T to reuse it in any follow-on or future work as appropriate without the payment of license or other fees.

Analyze Data and Reach Conclusions

After the data have been gathered, the Vendor will analyze the data using appropriate statistical and qualitative methods in order to assess program performance and to identify any gaps or weaknesses in or strengths of the technology as operationally applied. The Vendor will also be responsible for tying any conclusions to program standards of performance and to the extent there are weaknesses in the operational application of the technology or innovation, the Vendor will propose mitigation strategies.

Final Report

The Vendor will generate a final written report and provide any accompanying presentation slides, that sets forth the research goals, explains the research strategies, describes the research design as implemented and the data used with a discussion of their strengths and limitations, reports the methods and results of the analysis, including, where appropriate, tables, key statistical outputs or other information summaries and recommendations for actions in the form of a final report. The report will also include a brief executive summary and, if appropriate, statistical tables, summaries of the qualitative data or other appendices. The copyright for the report will held by DHS

This report will be made available to the program manager(s) of the component agency and to HFD. Any additional dissemination of the report will be made at the discretion of HFD. The

basis for the recommendations, their rationales and the data behind them will be explained by the Vendor to the responsible program manager(s) and any relevant stakeholders or other potential users that have been identified by the program manager. Up to five such briefings of up to 90 minutes in length may be requested by HFD.

Projects to be Evaluated

In FY 2011 -- Base Periods of the Task Order -- the Vendor will focus on the Rapid DNA Project (Task 1) and DHS Biometric Exit Pilots (Task 2). In FY 2012 -- Option Period 2 -- the Vendor will design the evaluation framework of the Mobile Biometrics Project (Task 3), upon option exercise. All projects are described in additional detail below:

SOW Task 1.0 until 1.4: Program Evaluation for Rapid DNA Project (Base Period -- Task 1 -- 12 Months)

United States Citizenship and Immigration Service (USCIS) currently uses fingerprints to check for any criminal history or immigration violations on benefit applicants, but these biometrics do not determine if persons are related to one another. However, DNA (deoxyribonucleic acid) does allow for the determination of family relationships since children receives half of their DNA from each parent. Until recently, however, it required a laboratory full of equipment and a highly trained forensic analyst to interpret the results. Sending a sample to a lab and waiting for it to be processed could take weeks to months at the cost of \$300 to \$400 per sample. Rapid and low-cost DNA processing permits efficiencies in the processing of valid applicants, reduces the costs associated with processing, deters fraud in applications, and ultimately increases the number of legal immigrants admitted into the country.

Rapid and low-cost DNA processing may also prevent fraud and illegal profiteering with regard to kinship benefits. USCIS has identified the need for accurate DNA analysis to test kinship that would take less than one hour at a cost of under \$100. This testing needs to be done in field locations, rather than at external labs, on a desktop-size device which is easy for the adjudicator to operate.

In 2008, a DNA screening pilot program that tested DNA for kinship of hundreds of cases involving family reunification in East Africa found that a considerable number of kinship claims were contradicted by DNA testing. Currently, DNA analysis to determine identity and kinship is not widely feasible because of cost and time considerations. With document fraud an increasing concern for USCIS adjudicators, a technology that could provide validation of family relationship rapidly and accurately while in the field would help ensure the efficacy of the process. The primary objective is to verify family relationships (kinship), but Rapid-DNA will also allow the identification of known criminals among those seeking asylum or immigration, verify relationships in overseas adoptions, and provide for family reunification in mass-casualty situations. The initial target customer is USCIS Refugee, Asylum and International Operations Directorate.

***SOW Task 2.0 until 2.2: Program Evaluation for DHS Biometric Exit Pilots
(Base Period -- Task 2 -- 6 Months)***

The future of U.S. immigration policy has been an issue of long discussion by officials in several Administrations, in the media, on Capitol Hill, and among the general public. Much of this discussion has focused on "overstays," i.e. individuals who enter the United States lawfully, but who stay longer than their authorized period of admission. One of the most common reasons for denial of a U.S. visa is that the visa applicant fails to convince the U.S. consular officer that he or she will adhere to the admission period.

Establishing an effective Validated Exit program would allow DHS to meet its mission goals to protect the American public and enforce immigration laws. DHS currently faces a difficult decision for a Validated Exit system. Exit data collection is necessary to ensure that the Department knows who has not left on time, but there are varying opinions on how to best collect and track this information. Statutory mandates require DHS to implement a *biometric* exit program, however, it is unclear if previously conducted pilots and studies have answered questions necessary to formulate a long-term path forward regarding biometric exit and subsequently Validated Exit.

The objective of this effort is to work with DHS and contractor staff to aggregate all previous DHS evaluations of operational concepts for biometric exit, analyze available requirements, lead a methodological review to assess the validity of previous studies, and lead the design of research and pilot activities for candidate technologies to answer research questions necessary to inform a formulate a long-term path forward regarding biometric exit and subsequently Validated Exit. The initial target customer is senior DHS leadership.

***SOW Task 3.0 until 3.3: Mobile Biometrics Project
(Option Period -- Task 3 -- 12 Months)***

The Homeland Security Act of 2002 (Public Law 107-296) states that DHS S&T will "support basic and applied homeland security research to promote revolutionary changes in technologies; advance the development, testing and evaluation, and deployment of critical homeland security technologies; and accelerate the prototyping and deployment of technologies that would address homeland security vulnerabilities." Pursuant to this mission, the Human Factors Division (HFD) of the Department of Homeland Security (DHS) Science and Technology Directorate recognizes the need for commercially available hand-held biometric acquisition devices that can effectively collect data samples from subjects under a variety of conditions. The DHS is responsible for the biometric identification of persons to achieve the statutory and regulatory missions of the components. To accomplish these tasks, DHS components require the ability to positively identify/screen individuals in a secure, efficient, accurate, and timely manner. This ability encompasses the collection, storage, transmission, and receipt of biometric and biographic data to support the component missions. The capability must be portable and operable in a wide variety of areas regardless of existing infrastructure (i.e. offshore, foreign and remote locations, ports of entry, detention centers... etc) and conditions (i.e. day/night, arid/humid climates, hot/cold temperature extremes). The capability must also accommodate operators with varying levels of technical ability and subjects with varying levels of physical ability.

The output from these mobile acquisition devices must be usable for searches of large-scale biometric databases (1 to many) and/or verification against a previously taken biometric sample (1 to 1). In order to assure maximum interoperability and efficiency of operation, DHS requires that the data output from these acquisition devices conform to pre-established standards. This program focuses on the integration of various biometric modules into a single hand-held device or system. Modules may include but are not limited to: a four finger slap module for fingerprints, visible wavelength camera (with optional flash/illuminator) for face acquisition, and a near-infrared, dual iris capture camera. Additional biometric modules such as for voice and other technologies, such as card readers, etc. may be included in the final hand-held system. Multiple mobile devices currently are being piloted in the field among various component agencies as well as police departments throughout the country. Several police departments have conducted independent evaluation prior to this SOW and will provide additional input into this evaluation process. The Vendor should be familiar with the U.S. National Institute of Standards and Technology (NIST) *Mobile ID Device Best Practices Recommendation*, Sept 2008 report and should design a plan for evaluating the implementation of this device in the field. The plan should describe how the data capture methods, signal processing (image normalization, segmentation, feature extraction, quality assessment, template creation, output record formatting...), matching algorithms for each modality, decision for match/no-match and the accuracy of displayed results function when the device is operationally deployed and should assess how the device users employ the device and interpret the information it provides to what effect. The design should provide for the assessment of the strengths and weaknesses of the device as operated in the field and to the extent possible should determine the degree to which the availability of the new multimodal biometric tool improves on prior identification technologies.

IV. STAFFING

See Attachment 2 HSAR 3052.215-70 Key Personnel or Facilities (DEC 2003), which identifies Project Manager and Chief Technical Representative as Key Personnel.

V. DELIVERABLES/MILESTONE PAYMENT SCHEDULE

Deliverables				(b)(4)
SOW Task	Deliverable	Description	Due Date	
1.0	Project Management Plan	A project management plan that will accomplish the program's objectives as outlined by HFD personnel. The final version requires approval by the HFD Program Manager.	7 months from Date of Award Base Period Task 1	
1.1	Baseline Assessment for Rapid DNA Project	A summary of the program as it stands. Final version requires approval by the HFD Program Manager.	9 to 10 months from Date of Award Base Period Task 1	
1.2	Evaluation Framework for Rapid DNA Project	A path forward for the program evaluation that is specifically tailored to the USCIS program and technology being evaluated. Final version requires approval by the HFD Program Manager.	11 months from Date of Award Base Period Task 1	
1.3	Monitoring and Evaluation of Rapid DNA Project	Implementation and monitoring of the evaluation framework.	11 months from Date of Award Base Period Task 1	
1.4	Final Report for Rapid DNA Project	A formal report that communicates the evaluation procedures and findings to relevant audiences. The length of the final report is anticipated to about 25 pages, including an executive summary of no more than two pages but excluding appendices, if any. The final version requires approval by the HFD Program Manager.	18 months from Date of Award Base Period Task 1	
2.0	Baseline Assessment for Biometric Exit Pilots	A summary of the previously conducted pilots as it stands. The Vendor will work with HFD to aggregate all previous DHS evaluations of operational concepts for biometric exit, and analyze available requirements.	3 months from Date of Award Base Period Task 2	
2.1	Evaluation Framework for Biometric Exit Pilots	A methodological review to assess the validity of previous studies in answering research questions necessary to inform a DHS strategy for biometric exit.	5 months from Date of Award Base Period Task 2	
2.2	Final Report for Biometric Exit Pilots	A formal report that communicates a long-term path forward for the program evaluation that is specifically tailored to inform senior DHS leadership decisions. The length of the final report is anticipated to about 25 pages, including an executive summary of no more than two pages but excluding appendices, if any. The final version requires approval by the HFD Program Manager.	6 months from Date of Award Base Period Task 2	
3.0	Baseline Assessment for Mobile Biometrics Project	A summary of the program as it stands. Final version requires approval by the HFD Program Manager.	4 months from exercising Option Period Option Period Task 3	
3.1	Evaluation Framework for Mobile Biometrics	A path forward for the program evaluation that is specifically tailored to the program and technology being evaluated. Final version requires approval by the HFD Program Manager.	6 months from exercising Option Period Option Period Task 3	
3.2	Monitoring and Evaluation of Mobile Biometrics Project	Implementation and monitoring of the evaluation framework.	4 to 5 months from exercising Option Period Option Period Task 3	
3.3	Final Report for Mobile Biometrics Project	A formal report that communicates the evaluation procedures and findings to relevant audiences. The length of the final report is anticipated to about 25 pages, including an executive summary of no more than two pages. The final version requires approval by the HFD Program Manager.	12 months from exercising Option Period Option Period Task 3	

* Due to rounding, grand total at Firm Fixed Price is (b)(4)

* COTR shall determine, at her discretion, how long after receipt of the draft deliverable RTI has to deliver the final version and how long the Government will review the draft, before providing comments.

VI. Other Task Order Details

1. Period of Performance.

The aggregate period of performance for this SOW is 30 months from time of award, with the following breakdown:

SOW Task	Term of Task Order	Relevant Tasks	Period of Performance
1.0 until 1.4 (Task 1)	Base Period – Task 1	Rapid DNA Project: Baseline, Evaluation Framework, Implementation, and Final Report	12 months
2.0 until 2.2 (Task 2)	Base Period – Task 2	Biometric Exit Project: Baseline and Evaluation Framework	6 months
3.0 until 3.3 (Task 3)	Option Period – Task 3	Mobile Biometrics Project: Baseline, and Evaluation Framework	12 months

2. **Travel.** Domestic travel on the part of the Vendor's staff may be required in the performance of the duties that are listed herein. It is expected that the Vendor will reimburse non-government participants for those travel expenses that they might incur.

3. DHS-Furnished Information.

- a. DHS will provide certain DHS information, materials, and forms unique to DHS to the Vendor to support certain tasks under this SOW.
- b. The DHS S&T Contracting Officer's Technical Representative, identified in this SOW, will be the point of contact (POC) for the identification of any required information to be supplied by DHS.
- c. The Vendor will prepare any documentation according to the guidelines provided by DHS.

4. **Place of Performance.** The Vendor will perform the work under this SOW at their place of business and the workshop location.

5. **DHS-Furnished Property.** DHS property will not be provided to the Vendor.

6. **Deliverables.** The Vendor will provide all deliverables identified in this SOW directly to the task-specific DHS S&T Technical Representatives and to the S&T Contracting Officer.

7. **Program Status Report.** The Vendor will deliver monthly program status reports. The reports will be submitted on the 15th day of the month. The reports shall include the following:

- a. Summary of progress during the reporting period (including any significant technical information).
- b. Unanticipated technical or management problems of significance.
- c. Problems anticipated in future reporting periods.
- d. Summary of important meetings, briefings, trips and conferences during the period of the report and those planned in the following period.

All reports shall be submitted to the task-specific COTRs and to the DHS S&T Contracting Officer electronically.

8. **Funding Requirements.** DHS will provide funding that is outlined in the Task Order, at the discretion of the Government, subject to the availability of funds.

9. **Security Requirements.**

- a. All work performed under this SOW is unclassified unless otherwise specified by DIIS.
- b. If classified work is required under this SOW, DHS will provide specific guidance to the Vendor as to which work will be conducted in a classified manner and at which classification level. The Vendor will also adhere to other applicable Government orders, guides, and directives pertaining to classified or confidential work. This SOW may require access to information at the unclassified level.
- c. The Contractor shall not publish, permit to be published, or distribute for public consumption, any information, oral or written, concerning the results or conclusions made pursuant to the performance of this Task Order, without the prior written consent of the Contracting Officer. An electronic or printed copy of any material proposed to be published or distributed shall be submitted to the Contracting Officer.

VII. Points of Contact

Contracting Officer
Kristian Jovanovic
Office of Procurement Operations
Science and Technology Directorate
Department of Homeland Security
Washington, DC 20582

(b)(4)

Contracting Officer's Technical Representative (COTR)
Ji Sun Lee
Director Community Preparedness and Resilience Program

Technology Acceptance and Integration Program
Science and Technology Directorate
Department of Homeland Security
Washington, DC 20582

(b)(4)



ATTACHMENT 2 -- CLAUSES

I. DEPARTMENT OF HOMELAND SECURITY CLAUSES

The following DHS Clauses are hereby incorporated. All terms and conditions incorporated under the awarded GSA MOBIS Schedule will remain unchanged and in full force and effect.

HSAR 3052.204-71 CONTRACTOR EMPLOYEE ACCESS (JUN 2006) AND ALTERNATE I & ALTERNATE II (JUN 2006)

(a) Sensitive Information, as used in this Chapter, means any information, the loss, misuse, disclosure, or unauthorized access to or modification of which could adversely affect the national or homeland security interest, or the conduct of Federal programs, or the privacy to which individuals are entitled under section 552a of title 5, United States Code (the Privacy Act), but which has not been specifically authorized under criteria established by an Executive Order or an Act of Congress to be kept secret in the interest of national defense, homeland security or foreign policy. This definition includes the following categories of information:

(1) Protected Critical Infrastructure Information (PCII) as set out in the Critical Infrastructure Information Act of 2002 (Title II, Subtitle B, of the Homeland Security Act, Public Law 107-296, 196 Stat. 2135), as amended, the implementing regulations thereto (Title 6, Code of Federal Regulations, Part 29) as amended, the applicable PCII Procedures Manual, as amended, and any supplementary guidance officially communicated by an authorized official of the Department of Homeland Security (including the PCII Program Manager or his/her designee);

(2) Sensitive Security Information (SSI), as defined in Title 49, Code of Federal Regulations, Part 1520, as amended, "Policies and Procedures of Safeguarding and Control of SSI," as amended, and any supplementary guidance officially communicated by an authorized official of the Department of Homeland Security (including the Assistant Secretary for the Transportation Security Administration or his/her designee);

(3) Information designated as "For Official Use Only," which is unclassified information of a sensitive nature and the unauthorized disclosure of which could adversely impact a person's privacy or welfare, the conduct of Federal programs, or other programs or operations essential to the national or homeland security interest; and (4) Any information that is designated "sensitive" or subject to other controls, safeguards or protections in accordance with subsequently adopted homeland security information handling procedures.

(b) "Information Technology Resources" include, but are not limited to, computer equipment, networking equipment, telecommunications equipment, cabling, network drives, computer drives, network software, computer software, software programs, intranet sites, and internet sites.

(c) Contractor employees working on this contract must complete such forms as may be necessary for security or other reasons, including the conduct of background investigations to determine suitability. Completed forms shall be submitted as directed by the Contracting Officer. Upon the Contracting Officer's request, the Contractor's employees shall be fingerprinted, or subject to other investigations as required. All contractor employees requiring recurring access to Government facilities or access to sensitive information or IT resources are required to have a favorably adjudicated background investigation prior to commencing work on this contract unless this requirement is waived under Departmental procedures.

(d) The Contracting Officer may require the contractor to prohibit individuals from working on the contract if the government deems their initial or continued employment contrary to the public interest for any reason, including, but not limited to, carelessness, insubordination, incompetence, or security concerns.

(e) Work under this contract may involve access to sensitive information. Therefore, the Contractor shall not disclose, orally or in writing, any sensitive information to any person unless authorized in writing by the Contracting Officer. For those contractor employees authorized access to sensitive information, the contractor shall ensure that these persons receive training concerning the protection and disclosure of sensitive information both during and after contract performance.

(f) The Contractor shall include the substance of this clause in all subcontracts at any tier where the subcontractor may have access to Government facilities, sensitive information, or resources.

ALTERNATE I (JUN 2006)

When the contract will require contractor employees to have access to Information Technology (IT) resources, add the following paragraphs:

(g) Before receiving access to IT resources under this contract the individual must receive a security briefing, which the Contracting Officer's Technical Representative (COTR) will arrange, and complete any nondisclosure agreement furnished by DHS.

(h) The contractor shall have access only to those areas of DHS information technology resources explicitly stated in this contract or approved by the COTR in writing as necessary for performance of the work under this contract. Any attempts by contractor personnel to gain access to any information technology resources not expressly authorized by the statement of work, other terms and conditions in this contract, or as approved in writing by the COTR, is strictly prohibited. In the event of violation of this provision, DHS will take appropriate actions with regard to the contract and the individual(s) involved.

(i) Contractor access to DHS networks from a remote location is a temporary privilege for mutual convenience while the contractor performs business for the DHS Component. It is not a right, a guarantee of access, a condition of the contract, or Government Furnished Equipment (GFE).

(j) Contractor access will be terminated for unauthorized use. The contractor agrees to hold and save DHS harmless from any unauthorized use and agrees not to request additional time or money under the contract for any delays resulting from unauthorized use or access.

(k) Non-U.S. citizens shall not be authorized to access or assist in the development, operation, management or maintenance of Department IT systems under the contract, unless a waiver has been granted by the Head of the Component or designee, with the concurrence of both the Department's Chief Security Officer (CSO) and the Chief Information Officer (CIO) or their designees. Within DHS Headquarters, the waiver may be granted only with the approval of both the CSO and the CIO or their designees. In order for a waiver to be granted:

- (1) The individual must be a legal permanent resident of the U. S. or a citizen of Ireland, Israel, the Republic of the Philippines, or any nation on the Allied Nations List maintained by the Department of State;
- (2) There must be a compelling reason for using this individual as opposed to a U. S. citizen; and
- (3) The waiver must be in the best interest of the Government.

(l) Contractors shall identify in their proposals the names and citizenship of all non-U.S. citizens proposed to work under the contract. Any additions or deletions of non-U.S. citizens after contract award shall also be reported to the contracting officer.

ALTERNATE II (JUN 2006)

When the Department has determined contract employee access to sensitive information or Government facilities must be limited to U.S. citizens and lawful permanent residents, but the contract will not require access to IT resources, add the following paragraphs:

(g) Each individual employed under the contract shall be a citizen of the United States of America, or an alien who has been lawfully admitted for permanent residence as evidenced by a Permanent Resident Card (USCIS I-551). Any exceptions must be approved by the Department's Chief Security Officer or designee.

(h) Contractors shall identify in their proposals, the names and citizenship of all non-U.S. citizens proposed to work under the contract. Any additions or deletions of non-U.S. citizens after contract award shall also be reported to the contracting officer.

HSAR 3052.209-72 ORGANIZATIONAL CONFLICT OF INTEREST (JUN 2006)

(a) Determination. The Government has determined that this effort may result in an actual or potential conflict of interest, or may provide one or more offerors with the potential to attain an unfair competitive advantage. The offeror must provide a statement that no past, present or planned organizational, financial, contractual, or other interests with an organization whose