AWARD/CONTRACT

1. THIS CONTRACT IS A RATED ORDER UNDER DPAS (15 CFR 700)	RATING	PAGE OF PAGES
		1 | 95

2. CONTRACT (Proc. Inst. Ident.) NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQUEST/PROJECT NO.
DTRT57-12-D-30001	See Block 20C	DTRT-RVT-71-1158

5. ISSUED BY	CODE	6. ADMINISTERED BY (If other than Item 5)	CODE
USDOT/RITA/Volpe Center Contracts & Program Support Service 55 Broadway RVP-31 Cambridge MA 02142-1001	RVP-31	U.S.DOT/RITA/Volpe Center 55 Broadway RVP-31 Cambridge MA 02142-1001	RVP-31

7. NAME AND ADDRESS OF CONTRACTOR (No., Street, City, Country, State and ZIP Code)	8. DELIVERY	9. DISCOUNT FOR PROMPT PAYMENT
The Boeing Company 7755 East Marginal Way South Seattle WA 98108-4002	☐ FOB ORIGIN ☒ OTHER (See below)	Net 30

10. SUBMIT INVOICES (4 copies unless otherwise specified) TO THE ADDRESS SHOWN IN	ITEM

CODE	FACILITY CODE

11. SHIP TO/MARK FOR	CODE	12. PAYMENT WILL BE MADE BY	CODE
See Individual Task Order Awards	VNTSC	DOT/FAA Enterprise Services Center Volpeinvoices@faa.gov	VOLPE PAYMENT OFFIC

13. AUTHORITY FOR USING OTHER THAN FULL AND OPEN COMPETITION:	14. ACCOUNTING AND APPROPRIATION DATA
☐ 10 U.S.C. 2304 (c) ( ) ☐ 41 U.S.C. 253 (c) ( )	51YK859 G257B 25205V $2,500.00

15A. ITEM NO	15B. SUPPLIES/SERVICES	15C. QUANTITY	15D. UNIT	15E. UNIT PRICE	15F. AMOUNT
	Continued				

15G. TOTAL AMOUNT OF CONTRACT ▶ $450,000,000.00

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CONTRACTING OFFICER WILL COMPLETE ITEM 17 OR 18 AS APPLICABLE

17. ☒ CONTRACTOR'S NEGOTIATED AGREEMENT (*Contractor is required to sign this document and return* 1 *copies to issuing office.*) Contractor agrees to furnish and deliver all items or perform all the services set forth or otherwise identified above and on any continuation sheets for the consideration stated herein. The rights and obligations of the parties to this contract shall be subject to and governed by the following documents: (a) this award/contract, (b) the solicitation, if any, and (c) such provisions, representations, certifications, and specifications, as are attached or incorporated by reference herein. *(Attachments are listed herein.)*

18. ☐ AWARD (*Contractor is not required to sign this document.*) Your offer on Solicitation Number _____, including the additions or changes made by you which additions or changes are set forth in full above, is hereby accepted as to the items listed above and on any condition sheets. This award consummates the contract which consists of the following documents: (a) the Government's solicitation and your offer, and (b) this award/contract. No further contractual document is necessary.

19A. NAME AND TITLE OF SIGNER (Type or print)	20A. NAME OF CONTRACTING OFFICER
Elizabeth Marinescu, Contracts Management	Robert P. Robinson

19B. NAME OF CONTRACTOR	19C. DATE SIGNED	20B. UNITED STATES OF AMERICA	20C. DATE SIGNED
BY Elizabeth Marinescu (Signature of person authorized to sign)	12/2/11	BY (Signature of the Contracting Officer)	12/8/11

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Prescribed by GSA
FAR (48 CFR) 53.214(a)

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SECTION B - SUPPLIES OR SERVICES AND PRICES/COSTS

B.1 CONTRACT TYPE (FEB 2011)

A. This is an indefinite delivery/indefinite quantity (IDIQ) task order contract. Work will be placed under this contract through the issuance of task orders.

B. Task orders may be issued on a Firm-Fixed-Price (FFP) basis in accordance with FAR 16.202. Task orders may also be issued on a Cost-Plus-Award-Fee (CPAF), Cost-Plus-Fixed-Fee (CPFF) completion, or CPFF term basis in accordance with FAR 16.305 and 16.306 (d). Task order type shall be determined and issued at the Contracting Officer's discretion consistent with the guidelines provided in Part 16 of the Federal Acquisition Regulations. Performance-based task orders will be used to the maximum extent practicable.

C. The Contract Line Item Number (CLIN) structure provided in Subsection B.4 below establishes a CLIN for the four contract type/pricing methods available for use under this contract. Because using a particular contract type/pricing methodology requires terms and conditions specific to that use, this contract includes terms and conditions covering FFP, CPAF, CPFF completion, and CPFF term tasks. In general, these terms and conditions are clear on their face with regard to applicability.

B.2 CONTRACT LIMITATIONS (FEB 2011)

A. Multiple Contract Awards: Six (6) contracts have been awarded under the Volpe Center Solicitation DTRT57-11-R-20009.

B. Maximum Contract Value: The value of all task orders placed under all contracts awarded shall not exceed Four Hundred Fifty Million ($450,000,000.00). As a task order is issued to one Contractor, its value is subtracted from the total value available to all Contractors.

C. Minimum Guarantee: The guaranteed minimum is $2,500 for each contract.

B.3 CONTRACT SCOPE (FEB 2011)

The Contractor, acting as an independent Contractor and not as an agent of the Government, shall furnish all personnel, supplies, facilities, materials, and management necessary to provide the services required under this contract**.** The scope of this effort is defined in the Statement of Work (SOW) (see Section C). Specific work requirements will be stated in individual task orders.

B.4 CONTRACT LINE ITEMS (FEB 2011)

ITEM NO.	SERVICES
0001	The Contractor shall furnish all personnel, supplies, facilities, materials, and management necessary to provide the services in accordance with the SOW (see Section C) entitled Traffic Management Infrastructure Systems (TMIS) and other terms and conditions of this contract and within one or more of the contract types set forth below:
0001AA	FIRM-FIXED-PRICE TYPE*
0001AB	COST-PLUS-AWARD-FEE TYPE*
0001AC	COST-PLUS-FIXED-FEE (COMPLETION TYPE)*
0001AD	COST-PLUS-FIXED-FEE (TERM TYPE)

* Performance-based task orders will be used to the maximum extent practicable.

SECTION C - DESCRIPTION/SPECIFICATION/STATEMENT OF WORK

TRAFFIC MANAGEMENT INFRASTRUCTURE SYSTEMS (TMIS)

C.1 BACKGROUND

The John A. Volpe National Transportation Systems Center (Volpe Center) is a Federal fee-for-service organization within the Research and Innovative Technology Administration (RITA) of the United States Department of Transportation (USDOT). The Volpe Center's mission is to improve the nation's transportation systems. In partnership with sponsoring agencies, the Volpe Center provides technical research and analysis services to the USDOT, other Federal agencies, state agencies, and other organizations in connection with the transportation-related components of their missions.

The Volpe Center's focus is research and innovation in all areas of transportation to improve the transportation system for the future. The Volpe Center is an active partner with several agencies in defining and implementing the future transportation system. For example, the Joint Planning and Development Office (JPDO) has developed an interagency framework in which several executive agencies of the U.S. Government, including the USDOT, are participating in developing the future aviation system. Within the USDOT, the Federal Aviation Administration (FAA) is leading the future aviation system activities. Another agency the Volpe Center is supporting is the Federal Railroad Administration in the area of High Speed Rail (HSR) research and safety.

The Volpe Center is supporting the FAA and other modal agencies in future aviation system plans/developments as well as future plans in other transportation modes. The Volpe Center utilizes a combination of Federal and Contractor personnel to marshal the broad range and quantity of skills needed to support sponsoring agencies' projects. By establishing a "pool" of professional technical/scientific resources, the Volpe Center can respond to uncertain, long-range requirements of its technical program in a timely and effective manner. The Contractor will constitute an important part of the Volpe Center's resources and will provide high-technology capabilities and skills targeted to the Volpe Center's programmatic requirements in the area of Traffic Management Infrastructure Systems (TMIS).

C.2 SCOPE OF WORK

The Volpe Center's programmatic activities for TMIS fall primarily in the area of transportation infrastructure, the foundation of facilities, equipment, and related services needed for the safe and secure movement of goods and people. The Contractor must possess the primary skills required for TMIS, which are in the engineering and physical science disciplines (see below) as they relate to the specification, design, development, testing and operation of traffic management systems. The primary skill requirements for this contract may include, but are not limited to:

- Systems Engineering and Integration
- Electronic Engineering
- Electrical Engineering
- Aeronautical Engineering
- Mechanical Engineering
- Marine Engineering
- Operations Research
- Industrial Engineering

- Environmental Test Engineering
- Civil Engineering
- Railroad Engineering
- Safety Engineering
- Physics
- Chemistry
- Meteorology

In addition, the Volpe Center requires skills in a wide spectrum of other disciplines, including economics, program management, earned value management, financial management, emergency response as related to transportation, man-machine interface analysis and development, risk management, and information systems. Work under this contract may address all transportation modes — air, surface, marine, and potentially space. Current indications are that the largest volume of tasking will be in the aviation area, specifically in support of the Next Generation Air Transportation System (NextGen) which will leverage new technologies to transform the National Air System (NAS) into a safer, more secure system while improving the capacity of air transportation systems. There may also be tasking in the area of surface transportation, including, but not limited to, motor vehicle crash avoidance technologies and transit/ traffic management systems. Representative work areas under this contract are described in Section C.3

The Contractor may be required to provide administrative and logistic services that are an integral and interconnected part of TMIS work performed. These support services may include business and technical writing, development of presentations, graphic arts design and production (demonstrations); and organizing, and/or participating in conferences, meetings, or symposia.

Work area requirements include:

- Strategic Planning and Architecture Analysis
- Air Traffic Management (ATM) Systems
- Position, Navigation and Timing (PNT) Systems
- Surveillance Systems / Automatic Dependent Surveillance – Broadcast (ADS-B)
- Communication Systems
- System Engineering
- System Innovative Technologies

C.3 AREAS OF WORK

C.3.1 Strategic Planning and Architecture Analysis

This work area covers, but is not limited to, the need, conceptualization, definition and planning of traffic management systems. Work will take into account transportation needs, present and/or planned systems, current and emerging technologies, policy guidance concerning future directions provided by the sponsoring organization and national commissions such as the JPDO, and economic, environmental, legal, and management factors. In general, the products of the work performed in this area will provide support to Government officials in making its decisions concerning proposed TMIS programs, and may address all modes of transportation, including air, surface, marine and potentially space.

TMIS programs identified as transformational include ADS-B, System Wide Information Management (SWIM), Data Communications, NextGen Network Enabled Weather (NNEW), and, relative to surface transportation, IntelliDrive^{SM} (see http://www.intellidriveusa.org). Other

TMIS programs identified as enabling the NextGen include: Cockpit Display of Traffic Information (CDTI), En Route Automation Modernization (ERAM), Integrated Terminal Weather System (ITWS), Ground-based Augmentation System (GBAS), Terminal Automation Modernization Replacement (TAMR), Tower Flight Data Management (TFDM), Traffic Flow Management – Modernization (TFM-M);, and Traffic Management Advisor (TMA) enhancements. Although many of these programs are underway at the FAA, it is anticipated that work in this area may include definition of future segments and enhancements. Other TMIS programs could include technologies such as HSR.

In this work area, the Contractor may be required to perform, but not be limited to:

- Formulate strategic plans and develop the concept of operations for a new capability (e.g., an airports surface traffic management system).
- Provide recommendations for research and development programs in support of new initiatives and programs (e.g., an auto/truck traffic management system using in-vehicle transponders or, similarly, rail or marine vehicle/vessels to other management systems).
- Conduct research in support of formulating goals and objectives for new capabilities (e.g., trajectory-based aircraft traffic management).
- Provide comprehensive system analyses and syntheses for a new capability (e.g., networked surface traffic sensors).
- Develop or refine enterprise architectures describing national-level systems and support in the decomposition of architectures into functional components and program products (e.g., new paradigms for a vessel traffic management system).
- Develop the frameworks and/or strategic plans for dealing with the non-technical factors, such as the institutional, financial, and legal aspects of traffic management systems at the federal level (e.g., a civil-only satellite-based navigation system).
- Evaluate technical feasibility of a proposed new traffic management system (e.g., a new general airport surveillance radar utilizing a low-cost electronic phased-array technology).
- Develop cost estimates, analyze benefits, and perform trade-off studies to support the economic feasibility of proposed traffic management systems and solutions (e.g., the NextGen super-density concept).
- Develop environmental studies, including impacts such as noise, fuel consumption, and emissions, for proposed traffic management systems and solutions. These studies can use existing environmental analysis tools, potentially augmented with supplemental tools and methods.
- Construct proof-of-concept models, prototypes, and/or initial capabilities of NextGen or other transportation traffic management systems (e.g., a specific trajectory-based TM scheme).
- Provide support for TMIS global harmonization standards and specifications development through participation in committees, meetings and workgroups.
- Develop system architectures to achieve improved management and control of vehicles (surface, marine, and air) in the efficient and safe movement from their origin to their destinations. These architectures will account for all systematic, demand-driven, atmospheric, environmental, interoperative capabilities, safety systems and human performance constraints placed upon the systems. Services may include development of concepts for the system solutions and/or analysis of the operations. Systems may require human-in-the-loop (HITL) and automation control of vehicle spacing to achieve optimal throughputs without compromising safety.
- Ensure that the systems architecture encompasses the optimal man-machine interfaces necessary to meet the system-wide goals.

- Devise system architecture techniques, methodologies, and algorithms that allow the synthesizing of various navigation, surveillance, communication, and control data inputs to aid in decision making.
- Provide support for the development of roadmaps that enhance and facilitate automation systems that predict the desired routes of vehicles and their future positions with respect to time and location from past positions, velocities, acceleration, and vehicle intent.

C.3.2 Air Traffic Management (ATM) Systems

This work area covers ATM systems. The International Civil Aviation Organization (ICAO) defines ATM as "the aggregation of the airborne functions and ground-based functions (air traffic services, airspace management, and air traffic flow management) required to ensure the safe and efficient movement of aircraft during all phases of operations." Activities in this work area relate to systems at various stages in their development, including initial research, design feasibility studies, design and development testing, implementation, and continued operation and maintenance.

Given that the FAA is a major sponsor of the Volpe Center's work in ATM systems, understanding the FAA's approach to ATM within NextGen is essential to understanding the nature of the Volpe Center's future efforts in this work area. The data requirements for ATM system operation and validation require the use of several commercially available data resources, including the Performance Data Analysis and Reporting System (PDARS) and Terminal Area Route Generation, Evaluation, and Traffic Simulation (TARGETS).

FAA activities leading to NextGen operational improvements are planned and categorized by the solutions that they support. The FAA's solution portfolio is organized into seven solution sets, each focusing on a series of related operational capabilities. The seven solution sets are:

- Initiate Trajectory Based Operations
- Increase Arrivals/Departures at High Density Airports
- Increase Flexibility in the Terminal Environment
- Improve Collaborative Air Traffic Management
- Reduce Weather Impact
- Improve Safety, Security, and Environmental Performance
- Transform Facilities

In addition, other new programs that directly support the transformation to NextGen in the NAS include: ERAM; ITWS; Terminal Data Distribution System (TDDS); NNEW; SWIM; TAMR - Phases 1, 2, and 3; TFDM; TFM-M; and enhancements to the TMA. This list is not inclusive of all ATM programs that may be supported under this work area as there are interdependencies with other programs to transform the NAS that are primarily covered by other communication, navigation, and/or surveillance task areas. There are also existing ATM programs that may require support in the future; e.g., the Enhanced Traffic Management System (ETMS) and Collaborative Decision Making (CDM) initiatives.

Supporting the achievement of capabilities defined within the NextGen solution sets is expected to be a major aspect of this work area. Activities defined in the solution sets are intended to be representative of actual work that may be performed under this contract. These support activities are heavily focused on, but not limited to, the design, development, deployment, and integration of future NextGen systems, capabilities, and concepts. A wide array of datasets will need to be

accessed and analyzed as part of this work area; major among them is the commercially available PDARS data.

C.3.2.1 Initiate Trajectory Based Operation (TBO)

Trajectory based operations are a shift from clearance based to trajectory based control. Aircraft will fly negotiated trajectories, and air traffic control will transition to management by trajectory; the traditional role of the pilots/controller will evolve due to the increase in automation, support, and integration.

The "Initiate Trajectory Based Operations" solution set focuses primarily on high-altitude cruise operations in en route airspace, although its effects will impact all phases of flight. It is dependent on: data communications, ADS-B, CDTI, SWIM, ERAM, TFM-M, Required Navigation Performance (RNP), Area Navigation (RNAV), Oceanic Avionics, 4-Dimensional (4-D) trajectories, NAS Voice Switch, flight object, Flight Management System (FMS) Auto Load, training, procedures, airspace redesign, and automation enhancements, including those to meet more stringent safety requirements.

ATM work related to TBO may include, but is not limited to: assessing flexible airspace and dynamic resource management using TBO and its impact on TFM; creating trajectory based reroute modeling and development of detailed specifications and a near-term implementation approach; ensuring that TBO is supported by the flight object through participation in the SWIM Flight and Flow Community of Interest (COI); evaluating the flight object as a trajectory based interface between (1) ERAM and TFM, and (2) NAS users (commercial, general aviation, state, and military) and the FAA and its NextGen capabilities/systems; performing point-in-space metering; integrating air-ground man-machine interface assessment of TBO; and developing or refining TMA enhancements.

C.3.2.2 Increase Arrivals/Departures at High Density Airports (HD)

The "Increase Arrivals/Departures at High Density Airports" solution set involves increasing operations at airports where there is potential for airspace or approach interference from other airports in close proximity, high demand for the runway capacity, or multiple runways with both airspace and taxiing interactions. This solution set is dependent on: data communications, terminal automation platform enhancements, RNP/RNAV, ADS-B, SWIM, TFM-M, flight object, data communications, NAS Voice Switch, FMS Auto Load, 4-D trajectories, training, Safety Management System (SMS) processes, and airspace redesign. It also depends and expands on the capabilities of the "Flexible Terminals and Airports" solution set described in section C.3.2.3.

ATM work in this area may include, but is not limited to: supporting the implementation of TMA and Time-Based Flow Management (TBFM); assessment of en route time-based metering (TBM) procedures; assessing integrated arrival/departure management in major metropolitan areas; supporting the definition and development of TDDS in connection with SWIM; and assessing TBM using RNP/RNAV route assignments.

C.3.2.3 Increase Flexibility in the Terminal Environment (FLEX)

The "Increase Flexibility in the Terminal Environment" solution set will provide the enhanced capabilities necessary to manage the separation of aircraft at and around all airports. Flexible terminal operations include a mix of Instrument Flight Rules/Visual Flight Rules (IFR/VFR) traffic with aircraft types ranging from scheduled airline operations to the recreational pilot. FLEX is dependent on: ADS-B, CDTI, SWIM, RNP/RNAV, 4-D trajectories, NAS Voice

Switch, data communications, GBAS, SMS processes, and terminal automation platform enhancements.

ATM work in this area may include, but is not limited to: providing surface situational awareness information to aircraft operators and other users of ATM information; evaluating the impacts, benefits, and costs of continuous descent arrival procedures on noise, emissions, and fuel burn; defining wake vortex procedures; supporting the development of standard approach and departure procedures; conducting concept engineering analysis and support vis-à-vis Required Time of Arrival (RTA); and assessing the benefits and impacts of new approach and departure procedures in the traffic flow environment.

C.3.2.4 Improve Collaborative Air Traffic Management (CATM)

The "Improve Collaborative Air Traffic Management" solution set includes flow programs as well as collaboration on procedures that will establish balance by shifting demand to alternate resources (e.g., routings, altitudes, and times). CATM will bring together NAS status information (from multiple automation systems) into a common electronic format to enable improved flight planning. CATM will enable advanced methodologies to determine routing options as well as dynamic airspace sector boundaries and configurations to grant more flexibility in managing traffic. CATM is dependent on ADS-B, SWIM, data communications, SMS processes, airspace redesign, ERAM, TFM-M, flight object, and NAS Voice Switch.

ATM work in this area may include, but is not limited to:

- Providing support to Airspace Flow Programs (AFPs) in the current CATM tools environment
- Developing reroute impact assessment (reroute modeling) and other decision support tools that allow traffic management specialists to automatically predict and examine the impacts of proposed Traffic Management Initiatives (TMI)
- Exchanging flow strategies with air traffic control
- Evaluating trajectory flight data management techniques, including flight object
- Developing a common geospatial reference system encompassing appropriate aeronautical and meteorological information to facilitate increased levels of collaboration and common situational awareness across traditional geographic and organizational boundaries
- Developing enhancements to TFM capabilities and probabilistic tools to improve the management of uncertainty
- Supporting the integration of weather into TFM capabilities
- Developing a unified approach to flight planning
- Developing a TFM capabilities roadmap
- Conducting HITL and Fast-Time Simulations (FTS) in support of the Multi-Sector Planner (MSP) and other Advanced Methods (AM) concepts
- Supporting transition activities between ETMS and TFM-M
- Supporting the SWIM program and SWIM COIs

C.3.2.5 Reduce Weather Impact (RWI)

The "Reduce Weather Impact" solution set includes enhancements to weather information and its use to improve safety, capacity, and efficiency. RWI is dependent on: integration of weather processing and forecasting via NNEW, ADS-B, SWIM, ERAM, advanced surface automation, terminal automation platform enhancements, TFM-M, weather sensors, airspace redesign, SMS processes, and 4-D Trajectories.

ATM work in this area may include, but is not limited to: deployment of ITWS capabilities, prototyping of NextGen weather impact translators, and supporting the NAS Enterprise Architecture for dissemination of weather information to interests outside the SWIM Weather COI.

C.3.2.6 Improve Safety, Security, and Environmental Performance (SSE)

The "Improve Safety, Security, and Environmental Performance" solution set involves activities directly related to ensuring that NextGen systems contribute to steadily reducing risks to safety and information security while mitigating adverse effects on the environment and ensuring environmental protection that allows sustained aviation growth. SSE analysis activities may derive from or correlate with any of the support requirements defined within each of the five prior solution sets.

Work in this area may include, but is not limited to: design, development, and deployment of the Security Integrated Tool Set (SITS) system; performance of information system security engineering tasks, including development and execution of Information System Security Plans (ISSP), Certification and Authorization packages, and System Certification and Authorization Packages (SCAP); environmental impact and risk analyses of NextGen systems and components as the systems and components relate to fuel consumption, noise, local air quality, and global emissions; evaluation of preliminary engineering candidate concepts and systems, refinements of operation concepts and requirements; investment analysis; trade-off analysis of routing and scheduling optimization against safety, environment, and cost considerations; and analyses of the impacts of air traffic on the environment. Similarly, corresponding security activities may be required relative to motor vehicle electronic control systems and corresponding environmental activities may be required relative to IntelliDrive Applications for the Environment: Real-Time Information Synthesis program (AERIS (www.its.dot.gov/factsheets/pdf/JPO-024%20AERIS%20V5.5.1%20F.pdf)).

C.3.2.7 Transform Facilities

The Transform Facilities solution set focuses on capabilities that enable a network of integrated facilities designed to support the delivery of safer and more efficient operations system-wide. It enables a facilities infrastructure that supports NextGen and other transportation related facilities (i.e., rail, HSR, ground, and marine) capabilities as they are integrated into the current system and as they mature over time. Business continuity is built into the system and provides for a more resilient infrastructure, better contingency operations, and a higher degree of service. This solution set includes multi-discipline laboratories and test beds to support NextGen or other transportation mode requirements development and risk-mitigation efforts.

Work in this area may include future facilities investment planning that may involve conducting the detailed engineering necessary to develop comprehensive facility requirements for future transportation facilities; integration, development ,and operational analysis that may involve prototyping and assessing the transition to NextGen or other transportation capabilities and conducting man machine interface simulations; and test bed demonstration that may involve, but not be limited to, testing of operational improvements during all phases of flight that will allow the integration of new and emerging technologies or applications into existing or planned NAS or other transportation infrastructure enhancements.

C.3.3 Position, Navigation and Timing (PNT) Systems

This work area addresses the planning, development, and utilization of PNT systems for solutions to present and future transportation needs. Work in this area includes, but is not limited to, assessing PNT requirements for transportation systems, making recommendations for navigation technology to fulfill previously established requirements, performing analyses of the capabilities of current and future PNT systems, and performing technical and cost-benefit analyses on present and proposed navigation systems and concepts.

The Contractor may be required to provide support for the following operating or developing GNSS:

- The NAVSTAR Global Positioning System (GPS), the Galileo satellite navigation system, and the Global Navigation Satellite System (GLONASS), Space-based augmentation systems to GNSSs, including the Wide Area Augmentation System (WAAS), the European Geostationary Navigation Overlay Service (EGNOS), the Multifunctional Transport Satellite (MTSAT), and the GPS and Geo-Augmented Navigation (GAGAN) system
- Ground-based augmentation systems to GNSSs, including the Local Area Augmentation System (LAAS)
- Existing U.S. air transportation system: transition to the NextGen Air Transportation System
  - Very High Frequency Omni Directional Range (VOR)/Distance Measuring Equipment (DME)/Tactical Air Navigation System (TACAN)
  - Inertial Navigation System (INS) - gimbaled, strap down and space-stable mechanizations
  - Radio beacons - unmodulated and modulated with GNSS corrections in various formats
  - Instrument Landing System (ILS)
  - Microwave Landing System (MLS)
  - Electronic map or chart databases

The Contractor may be required to support activities that address:

- GPS modernization reflected in the Block IIR-M and IIF satellites
- Delayed implementation of GPS L2C and L5 signals, constellation replenishment, schedules, and onset of increased solar activity
- Selecting a future radio navigation systems mix
- Harmonizing the evolving civil and military requirements and policies for GPS
- Current gaps in GPS PNT service; e.g., hostile jamming or spoofing environments, continuing to meet civil and military signal integrity requirements (in addition to current system improvements such as a new military signal on L1 and L2 and flexible power for PPS L1 and L2)

The Contractor may also be required to perform assessments that involve collection of laboratory and field test data, review reports with technical experts, and build prototype systems. This may involve, for example, supporting FAA studies currently underway to determine whether LAAS meets the requirements for Category II and III precision approach operations.

The Contractor may be required to conduct performance analyses and evaluation of current operational systems and to assess the need for new PNT systems and/or analyze proposed PNT

systems to determine whether the proposed systems can be expected to satisfy projected needs/requirements developed by the Government (e.g., Nationwide Differential GPS). In performing these studies and evaluations, the Contractor may be required to perform simulation, modeling, and/or theoretical analyses; develop prototype hardware and software; and perform field testing. Additionally, the Contractor may be required to perform trade-off studies and to evaluate transition strategies, including the phasing-in/-out of existing systems and the scheduling of changeovers. Examples of proposed systems that the Contractor may be required to assess include:

- Hybrid combinations of GNSS and INS
- Obtaining GNSS augmentation signals via a commercial terrestrial transmitter or geostationary satellite
- Satellite-based systems versus ground-based systems
- Use of GPS in National Aeronautics and Space Administration's (NASA) outer space projects and operations
- Laboratory, field, and flight tests of radio frequency (RF) interference location systems
- Radio wave propagation (for frequencies from 10 KHz through 2 GHz covering Loran through GPS) to determine statistics for the PNT system availability, accuracy, and integrity

Research continues at NASA on using GPS signals for science observations and applications requiring high precision. Examples include:

- Using signals for atmospheric research using occultation measurements through the Earth's atmosphere
- Observations of signals reflected off the Earth's surface
- Measurements used in geodetic applications

C.3.3.1 Geodetic Reference Frame

NASA has undertaken the task of coordinating efforts among Federal agencies to identify the geodetic requirements to meet future PNT requirements. The Department of Defense (DoD) is currently assessing Satellite Laser Retro-reflectors (SLR) as a potential payload on GPS III-B and evaluating any integration/compatibility risks as well as identifying cost and schedule impacts.

The Contractor may be required to:

- Support activities involving the GPS Continuously Operating Reference Stations (CORS), which provides land surface centimeter-level positioning capability in the U.S. The CORS network contains about 1,300 stations
- Support Maritime Domain Awareness (MDA) activities such as the Automatic Identification System (AIS) used for vessel traffic control around busy seaways
- Develop GPS Radiofrequency Interference (RFI) mitigation techniques

The primary method of interference mitigation is provided by coordinated Government enforcement response to interference reports and information distribution (e.g., United States Coast Guard Navigation Center, FAA NAS Operational Control Center, United States Strategic Command GPS Operation Center). Outage risks can be mitigated in part if the user makes a correct assessment of requirements and implementation of appropriate backup systems or procedures for each individual application.

C.3.4 Surveillance Systems/Automatic Dependent Surveillance-Broadcast (ADS-B)

This work area covers, but is not limited to, the planning, development, and utilization of surveillance sensors and systems for solutions to present and future transportation needs and challenges. The Contractor may be required to provide support to transportation activities associated with concept initiation, analysis, design, development, testing, integration, and evaluation of surveillance sensors and systems for all modes of transportation — air, surface, marine, and potentially space. Surveillance in this context refers to both:

- Monitoring a set of characteristics (e.g., identification, location, velocity, size, orientation, and intent) of a vehicle (e.g., aircraft, ships, or cars/trucks) conveying passengers and/or cargo from a location other than on-board the vehicle being monitored
- Monitoring a set of characteristics of non-vehicle entities that may affect and, particularly, may constitute a hazard or impediment to the safe and efficient transportation of passengers and cargo, including weather phenomena, emissions, and flow wakes from other vehicles, terrain, man-made objects fixed to the ground, debris, and vapors/particulate matter (e.g., volcanic ash).

This work area is divided into sub areas addressing non-ADS-B and ADS-B activities.

C.3.4.1 Non-ADS-B Activities

This work area covers the planning, development, and utilization of surveillance sensors and systems for solutions to present and future transportation needs excluding aviation ADS-B. Surveillance sensors and/or systems addressed within this work area may in the case of vehicles be either non-cooperative or cooperative, depending upon whether or not equipment must be installed on the vehicle being monitored. Non-cooperative surveillance technologies may be either active (e.g., requiring transmission of energy by the surveiller) or passive (e.g., relying on energy or matter naturally emitted or disturbed by the entity under surveillance. Non-cooperative surveillance may utilize (a) energy in any of many forms, including acoustic (frequencies from infrasonic to ultrasonic), electromagnetic (EM) radiofrequencies, EM microwave frequencies, infrared light, visible light, or ultraviolet light or (b) matter in any of several forms, including fluid flow and particulates in the ambient environment or emitted by a vehicle.

Examples of work that may be required are:

- Feasibility analyses of new or significantly improved surveillance sensor and/or system concepts — i.e., low-cost X-band radar for detecting convective weather activity near medium-size airports and radar or detection systems for rail vehicle to wayside activities
- Cost-benefit analyses and Cost & Operational Effectiveness Analysis (COEA) on new surveillance sensors/systems; e.g., sensor for detecting cloud-to-cloud lightning before lightning ground-strikes occur
- Requirements analyses, concept definition, and design and development of prototype systems; e.g., snowfall detector for interstate highways
- Specification development and refinement ; e.g., low-cost radar for Foreign Objects and Debris (FOD) on the airport surface
- Performance analyses of Airport Terminal Area and Airport Surface Surveillance systems
- Performance analyses of automated weather observing systems and vortex and wind shear sensors and systems
- Field or flight test evaluation of sensors and systems; e.g., Runway Visual Range (RVR) sensor based on new emitter and/or detector technology

- Installation, test, and evaluation of systems in an operational environment (sensor/tracking/ communications, etc.); i.e., airports, shipboard wayside, rail, and roadway systems
- Design and development of data reduction and analysis software
- Sensor and system simulation
- Integration of various ground-based sensor and tracking systems, including data fusion techniques, data management, and methods of portraying information
- Requirements analysis for interfacing surveillance sensors with communications and automation systems
- Risk and/or threat assessment of proposed or existing surveillance systems.

C.3.4.2 ADS-B Activities

The Volpe Center supports the nationwide implementation of ADS-B and related Traffic/Flight Information Systems – Broadcast (TIS-B/FIS-B). The Initial Operating Capability (IOC) of Surveillance Services has been obtained for the key sites of Louisville, the Gulf of Mexico, Philadelphia and Juneau. The Final Rule requiring ADS-B avionics to operate in certain airspace by 2020 was published in May 2010. Each key site was chosen because it utilized a different air traffic control automation platform with which ADS-B must be integrated. The key sites and corresponding automation platforms are the Common Automated Radar Terminal System (CARTS) in Louisville, the Host automation system in Houston supporting the Gulf of Mexico, the Standard Terminal Automation Replacement System (STARS) in Philadelphia, and the Microprocessor En Route Automated Tracking System (MEARTS) in Juneau. The FAA achieved the In Service Decision (ISD) to use ADS-B for Air Traffic Control (ATC) separation services (also known as "critical services") in September 2010. ISD authorizes deployment of a solution into the operational environment. The ISD consists of the Operational Test Reports, Independent Operational Test Reports (IOT&E), ISD checklist, safety risk management document and system safety assessment reports, information security certification and authorization, and the ISD action plan. The Contractor may be required to support the Volpe Center and the FAA in updating the reports and completing the action plans.

The Contractor may be required to provide support to the Volpe Center and the FAA to achieve full implementation of ADS-B in the NAS. This work may include implementation of ground stations, equipage of commercial aircraft, and integration with other air traffic control automation platforms. Prior to ISD, IOT&E was conducted at each key site to identify and assess any operational and safety risks. The Contractor may be required to provide support to the Volpe Center and the FAA to continue to address these issues/risks, implement any required fixes to the system, conduct further tests, and develop action plans for unresolved issues.

The Contractor may be required to provide support to the Volpe Center and the FAA to collect and analyze more data to support terminal ADS-B separation services. It is not possible to cover every permutation of ADS-B and automation platform at this time. The Contractor may be required to provide technical support to address additional ADS-B capabilities/functionalities through the use of ISD action plans as defined by the FAA at the time of ISD. The ISD action plans shall address:

- Terminal separation services prior to first production sites (ADS-B to ADS-B and ADS-B to Radar)
- En Route Separation with ADS-B integrated into ERAM

- En Route Separation with ADS-B integrated into Advanced Technologies and Oceanic Procedures (ATOP)
- Investigation of potential alternatives to provide terminal separation services with ADS-B integrated into MEARTS

Each action plan shall at a minimum contain a Safety Risk Management Document (SRMD); a plan for operational testing including flight checks; and strict configuration management through the use of NAS Change Proposals (NCPs).

Support for implementation of ground stations, aircraft equipage, and integration with other air traffic control automation platforms that the Contractor may be required to perform includes, but is not limited to:

- System Engineering, including specifying, assessing and validating ADS-B/TIS-B/FIS-B performance in regard to integration with the automation platforms, and support for Ground-based Interval Management (GIM)
- Field engineering services, including planning for and monitoring the full implementation of ADS-B/TIS-B/FIS-B ground stations
- Risk Management, updating SRMDs; identifying, monitoring, assessing and mitigating technical, cost, and schedule risks
- Data and Performance Monitoring to support terminal ADS-B separation services
- Operations Support for integration with other ATC automation platforms
- Program management support, including, but not limited to, support for communications with the users and other Government entities, schedule development, financial management, and earned value management.

C.3.5 Communication Systems

This work area covers the planning, development, and utilization of communications systems for solutions to present and future transportation needs and challenges. The Contractor may be required to support a broad range of network and/or communication programs and applications, including ground-based networks, terrestrial radio systems, satellite communications systems, and other communication systems. Work in this area may include, but not be limited to, management; planning; system design/engineering; and system certification, test, and evaluation of communication systems. In terms of radio communications, Contractor support may be required for digital fixed, mobile (including 5.9GHz Dedicated Short Range Communications (DSRC)), and aeronautical communication systems and technologies.

C.3.5.1 Network Management

The Contractor may be required to support specific investigations pertaining to network management. For purposes of this contract, network management is defined as policy considerations, security and emergency response, development of tools for network management and planning, administration, budgetary analysis and projections, and related training. Examples of work required include, but are not limited to:

- Planning, design, engineering integration, implementation, test, and support for computer networks and all associated Information Technology (IT) infrastructure
- Analysis of policy for network management, planning, and configuration control
- Budget analysis, review, and forecasting, including cost tracking and impact assessments
- Specification and dissemination of network standards and protocols

- Preparation and maintenance of technical specifications, orders, and directives related to the operation and management of IT infrastructure components
- Definition, development, and implementation of contingency plans and procedures
- Identification and assessment of current network technologies as well as future network trends
- Assessment and monitoring of network performance, reliability, and security
- IT transactional analysis methodology and troubleshooting
- Information System Security assessments, testing, and documentation
- Training in network management

C.3.5.2 Network Planning and System Engineering

The Contractor may be required to support the Volpe Center in conducting network planning and system engineering. These activities include technical and management analysis; studies; design and operational support for information systems and software engineering, including architectures, data management strategies, and development; requirements analysis; alternatives analysis; feasibility studies; cost/benefit analysis; operational plans; performance measurement and operational capability support; strategy development; implementation; integration; testing; and maintenance. Examples of work required include, but are not limited to:

- Requirements and specifications gathering, resource ordering, developing implementation and integration plans, and installing and configuring services
- Network system engineering tasks ranging from functional and technical system requirements and specifications to overall system design, acquisition, service, implementation, integration, test, evaluation, and troubleshooting
- Specification and development of criteria and methodologies for measuring and assessing network and system performance
- Design and development of tools and automation aids for network and system design, monitoring, configuration, and management
- Analytical and discrete event modeling of computer network traffic loads
- Technical performance, reliability and risk trade-offs, cost-benefit studies, and economic risk analyses for networks and candidate technologies
- Technology forecasting and cost estimates
- Modeling and computer simulation of network, system, and application performance analysis
- Developing policies, procedures, and test methods to ensure network infrastructure reliability and accessibility as well as to prevent and defend against unauthorized access to networks, systems, and data
- Information System Security training

C.3.5.3 Terrestrial and Satellite Radio Communications

The work in this area covers the planning, development, and utilization of terrestrial and satellite analog and digital radio equipment and systems for solutions to present and future transportation needs. The Contractor may be required to provide technical support to facilitate development of advanced radio communications systems for fixed point-to-point, fixed point-to-multipoint, fixed to land/marine mobile, and fixed to aeronautical services. Contractor work may include requirements analysis; concept development; feasibility and trade-off studies; spectrum utilization and cost-benefit studies; system engineering and design; interface analysis; hardware and software specification as well as evaluation; technology assessments; test planning and implementation; and data collection, reduction, and evaluation. For example, the work may include, but not be limited to:

- Concept definition and planning for a pilot-controller communications system utilizing the current Very High Frequency (VHF) aeronautical communications band that has sufficient capacity for a factor-of-three traffic growth while improving on current signal-to-interference levels
- Concept definition and planning for a rate (e.g., 1 Mb/sec) air-ground data link that provides for ATC communications, airline (e.g., pilot-dispatcher) communications, and passenger communications with a dynamic prioritization scheme
- Data link requirements for GPS/GNSS applications, such as distribution of Differential GPS integrity and correction data for a space-based or ground-based augmentation scheme
- Concept definition and planning for an airport-based wide area network that utilizes the 5091-5150 MHz band currently allocated to the MLS
- Assessment of satellite technologies and trends
- Recommendation of modulation and coding schemes for communication applications; e.g., analog and digital voice, "next generation" ADS-B
- Prediction of fielded and planned communication system performance (with frequencies ranging from 100 MHz to 5.9 GHz) in terms of availability and reliability, signal-to-noise ratio, and message error rate
- Survey and recommend a commercial communications service provider based on Government-provided requirements for tracking and control of off-shore marine vessels and aircraft in oceanic airspace
- Impact of international/domestic satellite systems regulation and institutional arrangements on service procurement and operations
- Cost-benefit analysis of satellite radio versus terrestrial radio versus landline telecommunication services for specific applications; e.g., networking surface traffic monitoring/control sites in a large metropolitan area
- Support for implementation of ground stations in the continental United States and DoD facilities outside the continental United States, aircraft equipage, and integration with other air traffic control automation platforms.

C.3.5.4 Frequency Spectrum Engineering

The work in this area covers radio spectrum engineering activities associated with implementation of new traffic management systems and the maintenance of existing capabilities. The Contractor may be required to provide support in resolving the challenges that arise as new technologies such as ADS-B are deployed as the electromagnetic spectrum required for this new system has the potential to degrade the performance of currently deployed systems, particularly during the transition period when both generations of systems must operate simultaneously. For example, the work may include:

- Determination of optimal frequency band(s) in which to locate new systems
- Identification of system spectrum requirements and constraints
- Analysis and selection of communication techniques necessary to implement systems within spectrum constraints
- Simulation of the system spectrum environment in order to check for spectrum-related concerns such as co-channel and adjacent-channel interference, inter-modulation products produced by various nearby emitters, industrial machinery-generated noise, and similar issues

- Simulation of system components such as aircraft receivers or transportation-related emergency response equipment in order to verify their spectrum-related performance and to investigate and validate observed problems
- Performance of laboratory and field tests necessary to validate the analyses and simulations

C.3.5.5 System Wide Information Management (SWIM)

The work in this area covers the information exchange between systems based on the principles of a Service Oriented Architecture (SOA). The Contractor may be required to engineer, design, implement, integrate, test, and analyze the open, flexible, and secure IT infrastructures for NAS systems to share information, increase operability, and encourage reusability of information and services. Additionally, the Contractor may be required to develop conceptual and requirements documents. The following work may be required:

- Establishment of engineering processes to monitor, control, and oversee engineering activities.
  - Examples of work that may be required include, but are not limited to, designing and developing engineering processes to support programmatic and technical activities
  - Support the implementation, institutionalization, and adoption of engineering processes
  - Assess, implement, deploy, and administer automated tools that facilitate engineering activities

- NAS integration engineering and analysis, including but not limited to:
  - Integration support to SWIM Implementing Programs (SIPs)
  - Defining/registering an individual SWIM service with the FAA's NAS Service Registry/Suppository (NSRR), enabling the design-time discovery of NAS services
  - Interface definitions and application integration mechanisms
  - Transition issue identification and resolution

- Engineering and analysis associated with design and implementation of the SWIM infrastructure and SWIM core services

- Concept and requirements development, validation, analysis, and documentation, including but not limited to:
  - Core capabilities concepts and requirements, segment capability concepts research, and development
  - Conduct technical reviews; provide support for development of and provide analysis, comments, updates, and recommendations for documentation involving concepts of use, concepts of operations, system requirements, service specifications, SIP engineering artifacts, interface controls, interface requirements, and core services standards

- Functional, physical, data, and enterprise architecture analysis and development for all SWIM segments, including but not limited to:
  - Architectural element definition (e.g., conceptual data models, taxonomies, SOA technologies and standards, and architecture views required by the Office of Management and Budget (OMB)
  - SWIM NAS Enterprise Architecture Views

- NAS/NextGen Enterprise Architecture impact analyses and studies
- Operational Improvement Roadmap analysis
- Telecommunications Considerations

C.3.5.6 Data Communications (Data Comm)

The FAA has established an operational plan for the ATM system of the twenty-first century under the NextGen program. Data Comm is a key element of the transition from the current analog voice-only air-to-ground communications system to a system in which digital communications becomes an alternate and eventually predominant mode of communication. The NAS Concept of Operations and Vision for the Future of Aviation and the JPDO concepts of use require communication of complex trajectory clearances, weather information, and air traffic advisories. In the future ATM environment, it will no longer be possible to rely exclusively on voice messages for the exchange of information. Transition from voice for pilot-controller communication to a mixture of voice and data communication has been identified as a key goal for ATC.

Data communications will provide an additional means for two-way exchange between controllers and flight crews for ATC clearances, instructions, advisories, flight crew requests, and reports. Information will be uplinked to the cockpit allowing for better route and altitude planning. As experience is gained, routine communication will be increasingly handled by data communications for appropriately equipped users.

The underlying concepts for the data communications services are described in the *Communications Operating Concept and Requirements (COCR) for the Future Radio System,* COCR Version 1.0. The addition of data communications will support improvements in airspace use and capacity. Data communications will:

- Provide for a more efficient air/ground (A/G) information exchange mechanism
- Provide an additional means of communication between pilots and controllers
- Reduce congestion on the voice channels
- Reduce operational errors and pilot deviations resulting from misunderstood instructions and read back errors
- Enable trajectory based operations

Data communications in the NAS is envisioned to be implemented in three segments to meet the mission shortfalls in a practical, evolutionary approach.

- Segment 1 will facilitate data communications deployment and introduce initial 4-D (latitude, longitude, altitude, and time) routes
- Segment 2 will introduce conformance management and initial 4-D agreements
- Segment 3 will expand 4-D agreements and provide an operational environment that allows the transfer of some separation assurance tasks from the ground to the air

The Contractor may be required to provide support in the following areas:

- Planning, scheduling, project control, risk management and earned value management expertise to support lifecycle program management
- Systems and requirements engineering, safety engineering, operational integration, aviation data communications analysis, and air-to-ground Data Comm system analysis

- Aircraft avionics development oversight
- System definitions, architectures, requirements baselines, functional baselines, system and subsystem specification documents, interfaces, and program requirements documents
- Internal and external communications; outreach and information dissemination to airspace users and the flying public; and coordination and education activities such as the development of trial plans, procedures, implementation, and fielding, including the development of training syllabuses and materials for associated trial and demonstration training
- Development of test plans, test procedures, test cases, and required tools to evaluate system and subsystem performance in order to assure successful introduction of A/G Data Comm into the NAS

In addition, the Contractor may be required to:

- Provide input to the Government for the development of regulatory material to permit safe and secure introduction of Data Comm Avionics into the NAS
- Provide input to the Government for the development of international standards that specify aviation safety, performance, and interoperability requirements

C.3.6 System Engineering

The existing systems and methodologies of the NAS and other transportation modes have proven to be extremely safe and reliable but are nearing their performance limitations due to a new set of systems, methodologies, and procedures that utilize different technologies and paradigms, yet hold the promise of higher levels of safety and efficiency. Thus, the transition from the existing NAS system to NextGen technologies and operational concepts and from existing transportation systems to updated modal transportation technology will require a wide array of system engineering skills. These skills include architecture definition, performance modeling, environmental impact modeling, alternatives and gap analyses, cost-benefit analysis, safety assessment, test planning, and test data analyses.

In support of this task, the Contractor shall perform, but not be limited to, the following System Engineering activities for transportation systems:

- Provide comprehensive system engineering to support identification of the most beneficial operational capabilities for near- to-mid term implementation
- Support planning activities for NextGen geared at prioritizing operational capabilities and implementation
- Provide recommendations for concept demonstration programs in support of NextGen initiatives
- Support for the development of proof-of-concept models, prototypes, and/or initial capabilities of NextGen or other types of transportation systems
- Review and analyze technical and integration issues of proposed system architectures and operations
- Evaluate cost estimates and analyze benefits to support the economic feasibility of proposed NextGen systems and solutions
- Conduct analysis of system engineering workforce needs
- Provide support for design and implementation of CNS systems
- Conduct analysis for determination of best practices for implementation of complex enterprise architectures
- Develop NextGen knowledge management framework

- Develop NextGen performance management framework
- Develop system concepts of operation
- Support in the functional analysis, feasibility analyses, and configuration and requirements management of NextGen traffic management systems
- Develop functional architecture definition and perform system requirements allocation and control
- Develop, analyze, and track Technical Performance Measures and other system and service metrics
- Develop and maintain environmental impact modeling tools for air, rail, and roadway transportation noise and emissions impact analyses, including the FAA Aviation Environmental Design Tool (AEDT), the Aviation environmental Portfolio Management Tool (APMT), and the Federal Highway Administration (FHWA) Traffic Noise Model (TNM)
- Perform environmental impact modeling and analysis, including air, rail, and roadway transportation noise and emissions impact analyses and cost/benefit analyses, at every stage throughout the transportation system
- Develop alternatives that mitigate the environmental impact of air, rail, and roadway transportation noise and emissions
- Perform definition, analysis, modeling, validation, verification, and management of system requirements
- Develop system test requirements
- Conduct feasibility tests
- Perform separation standards modeling, analysis, and testing
- Identify and assess system risks and develop plans to effectively mitigate these risks
- Perform interference modeling, simulation, and analysis
- Define and evaluate alternative solutions/methods of achieving the defined objective and desired performance of the system; conduct trade studies to analyze their relative strengths and weaknesses of each alternative
- Develop White Papers on FAA cross-agency NextGen issues
- Provide technical information and data for the development of NextGen Implementation and Integrations plans and briefings
- Evaluate the vulnerability of the system to unauthorized access and use or susceptibility to sabotage; assess the ability of the system to survive a security threat in the expected operational environment
- Provide support for design and implementation of systems to protect and defend against unauthorized access to transportation and traffic management systems (not to include security personnel)
- Support for implementation of communication, navigation, and surveillance ground stations in the continental United States and DoD facilities outside the continental United States (not to include construction)

The Contractor may be required to support Safety Engineering activities that include:

- Program Safety Plans (PSPs) which describes the project's plan for addressing system safety and ensuring compliance with Air Traffic Organization (ATO) SMS provisions.
- All hazards assessments, including full systems approach, and plan development
- SRMDs that describe the change to the NAS associated with each demonstration program related system safety hazards and hazard tracking and risk resolution plans
- Operational Safety Assessments (OSAs) from the Concept of Operations documents

- Recommendations of safety risk mitigations with the affected program elements, including program management, implementation strategy and planning, and requirements development
- Coordination of responses to ATO System Safety Work Group (SSWG) comments on safety plans and SRMDs submitted for ATO SSWG review and approval
- Correlation and analysis of safety data/information for NextGen Integrated Safety Plan development

Successful execution of the NextGen program and other transportation activities requires that the economic impact be identified and estimated accurately and in a consistent manner. The costs and benefits to both the service provider (FAA or any other Government agency) and user organization (e.g., airline, air taxi operator or the traveling public) must be addressed by the responsible agency. In support of these initiatives, the Contractor may be required to perform the following economic analysis activities:

- Analyze and model the life-cycle cost and benefits of transportation programs and their component projects, both collectively and individually
- Estimate the variations of life-cycle costs and benefits due to changes in technical, design, configuration, schedule, support, interface, and implementation parameters
- Develop and document cost-benefit estimates and risk mitigation strategies to create a business case for NextGen initiatives

C.3.7 Innovative Technologies

The work in this area covers the planning, development, and utilization of innovative technologies (sensors, systems, networks, engineering, fuels, testing, software, policies, and procedures) for solutions to present and future transportation needs and challenges. The Contractor shall provide support to transportation activities associated with concept initiation, analysis, design, development, testing, integration, and evaluation of innovative technologies for all modes of transportation — air, surface, marine, and potentially space. This work area includes, but is not limited to, the following areas:

- Optical, command, control, and communications (OC^3) telemetry tracking systems. This work primarily covers application of OC^3 systems such as a verification and validation tool for air, surface, and marine vehicles under developmental and operational testing. The vehicles include manned, unmanned, and hybrids.
- Neural Networks & Pattern Recognition Systems. This work covers the application of neural networks and pattern recognition technology as a means for surface (road, runway, taxi-way, etc.) deformation and possible FOD detection.
- Morphing Wing and Corona Airflow Control Technology. This work covers the investigation of morphing wing and/or corona airflow control technology and its application to wake turbulence mitigation and fuel savings. Other experimental or innovative airframe technologies such as winglet innovations may be researched, developed, and tested.
- Alternative fuel technologies. These may include those being researched by the FAA (e.g., Continuous Lower Energy, Emissions and Noise [CLEEN] and Commercial Alternative Aviation Fuel Initiative [CAAFI] programs) or other Federal agencies or commercial groups. Work may include development, research, and test.
- Central Data Warehouse. For Surveillance Information Design, populate and maintain a relational database of decoded surveillance data; e.g., Airport Surface Detection Equipment model X (ASDE-X), All-purpose Structured Euro-control Radar Information

(ASTERIX) category 10 or 11, WireShark CAP, CARTS, STARS, Common Digitizer Mode 2 (CD2), CDR, etc., to facilitate the rapid, accurate, complete, and comprehensive retrieval, organization, and reporting of such data collected under TMIS programs. Work items would include (1) defining table schema, (2) standardizing import/export requirements, (3) establishing and maintaining an SQL library of standard queries, and (4) maintaining storage efficiencies.

- Meta-analysis Software Development. Coordinate with the Volpe Center and the sponsoring agency to define requirements and specifications. Write and maintain analytical and reporting software for meta-analyses of previous TMIS studies to report aggregate results. Work items may include (1) gathering related study results in standardized form, (2) implementing meta-analysis analytical methods, and (3) documentation of capabilities.
- Real-time Large-Scale Simulation Models. Coordinate with the Volpe Center and the sponsoring agency to define model requirements and specifications. Write infrastructure code for and implement and maintain real-time large-scale TMIS simulation models for NAS operations and services. Work items would include (1) tracking and maintaining RTI requirements and specifications, (2) software implementation of Run Time Infrastructure (RTI) models, (3) performance of simulation studies, and (4) reporting and interpreting simulation results.
- Embedded Hardware Surveillance Data Analysis Systems. The development of embedded hardware, including Application Specific Integrated Circuits (ASIC), for use in aviation technologies so real-time data collection, analysis, and reporting may be used in traffic management control systems.

C.4 GENERAL REQUIREMENTS

All electronic and information technology (EIT) deliverables rendered under this contract must comply with Section 508 of the Rehabilitation Act and the Access Board Standards available for viewing at http://www.section508.gov.

C.5 ACRONYM LIST FOR STATEMENT OF WORK

4-D	4-Dimensional
A/G	Air/Ground
ADS-B	Automatic Dependent Surveillance- Broadcast
AEDT	Aviation Environmental Design Tool
AERIS	Applications for the Environment: Real-Time Information Synthesis
AFPs	Airspace Flow Programs
AIS	Automatic Identification System
AM	Advanced Methods
APMT	Aviation Environmental Portfolio Management Tool
ASDE-X	Airport Surface Detection Equipment model X or -X Band
ASIC	Applications Specific Integrated Circuit
ASTERIX	All-purpose Structured Euro-control Radar Information
ATC	Air Traffic Control
ATM	Air Traffic Management
ATO	Air Traffic Organization

ATOP	Advanced Technologies and Oceanic Procedures
CAAFI	Commercial Alternative Aviation Fuel Initiative
CARTS	Common Automated Radar Terminal System
CATM	Collaborative Air Traffic Management
CD2	Common Digitizer Mode 2
CDM	Collaborative Decision Making
CDTI	Cockpit Display of Traffic Information
CLEEN	Continuous Lower Energy, Emissions, and Noise
CNS	Communication, Navigation and Surveillance
COCR	Communications Operating Concept and Requirements
COEA	Cost & Operational Effectiveness Analysis
COI	Community of Interest
CORS	Continuously Operating Reference Stations
Data Comm	Data Communications
DME	Distance Measuring Equipment
DoD	Department of Defense
DSRC	Dedicated Short Range Communications
EGNOS	European Geostationary Navigation Overlay Service
EIT	Electronic and Information Technology
EM	Electromagnetic
ERAM	En-Route Automation Modernization
ETMS	Enhanced Traffic Management System
FAA	Federal Aviation Administration
FIS-B	Flight Information System Broadcast
FLEX	Flexibility in the Terminal Environment
FHWA	Federal Highway Administration
FMS	Flight Management System
FOD	Foreign Objects & Debris
FTS	Fast-Time Simulations
GAGAN	GPS and Geo-Augmented Navigation
GBAS	Ground-Based Augmentation System
GIM	Ground-based Interval Management
GLONASS	Russian-developed Global Navigation Satellite System
GNSS	Global Navigation Satellite System
GPS	Global Positioning Systems
HD	High Density
HITL	Human-in-the-Loop
HSR	High Speed Rail
ICAO	International Civil Aviation Organization
IFR	Instrument Flight Rules
ILS	Instrument Landing System
INS	Inertial Navigation System
IOC	Initial Operating Capability

IOS	Initial Operating Capability
IOT&E	Independent Operational Test and Evaluation
ISD	In Service Decision
ISSP	Information System Security Plans
IT	Information Technology
ITWS	Integrated Terminal Weather System
JPDO	Joint Planning and Development Office
LAAS	Local Area Augmentation System
MDA	Maritime Domain Awareness
MEARTS	Microprocessor En Route Automated Tracking System
MLS	Microwave Landing System
MSP	Multi-Sector Planner
MTSAT	Multifunctional Transport Satellite
NAS	National Air System
NASA	National Aeronautics and Space Administration
NCPs	NAS Change Proposals
NextGen	Next Generation Air Transportation System
NNEW	NextGen Network – Enabled Weather
NSRR	NAS Service Registry/Suppository
OC^3	Optical, Command, Control, and Communications
OMB	Office of Management and Budget
OSAs	Operational Safety Assessments
PDARS	Performance Data Analysis and Reporting System
PNT	Position, Navigation and Timing
PPS	Precise Positioning Service
PSPs	Program Safety Plans
RF	Radio Frequency
RFI	Radiofrequency Interference
RITA	Research and Innovation Technology Administration
RNAV	Area Navigation
RNP	Required Navigation Performance
RTA	Required Time of Arrival
RTI	Run Time Infrastructure
RVR	Runway Visual Range
RWI	Reduce Weather Impact
SBS	Surveillance Broadcast Services
SCAP	System Certification and Acceptance Package
SIPs	SWIM Implementing Programs
SITS	Security Integrated Tool Set
SLR	Satellite Laser Retroreflectors
SMS	Safety Management System
SOA	Service Oriented Architecture
SRMD	Safety Risk Management Document

SSE	Safety, Security and Environmental performance
SSWG	System Safety Work Group
STARS	Standard Terminal Automation Replacement System
SWIM	System Wide Information Management
TACAN	Tactical Air Navigation System
TAMR	Terminal Automation Modernization Replacement
TARGETS	Terminal Area Route Generation, Evaluation, and Traffic Simulation
TBFM	Time-Based Flow Management
TBM	Time-Based Metering
TBO	Trajectory Based Operation
TDDS	Terminal Data Distribution System
TFDM	Tower Flight Data Management
TFM-M	Traffic Flow Management-Modernization
TIS-B	Traffic Information System Broadcast
TM	Traffic Management
TMA	Traffic Management Advisor
TMI	Traffic Management Initiatives
TMIS	Traffic Management Infrastructure Systems
TNM	Traffic Noise Model
USCG	U.S. Coast Guard
USDOT	United States Department of Transportation
VFR	Visual Flight Rules
VHF	Very High Frequency (spectral bands for radio communications)
Volpe Center	John A. Volpe National Transportation Systems Center
VOR	Very High Frequency Omni Directional Range
WAAS	Wide Area Augmentation System

SECTION D - PACKAGING AND MARKING

D.1 PACKAGING (MAY 1999)

The Contractor shall ensure that all items are preserved, packaged, packed, and marked in accordance with best commercial practices to meet the packing requirements of the carrier and ensure safe delivery at destination.

D.2 MARKING (MAY 1999)

All items submitted to the Government shall be clearly marked as follows:

a. Name of Contractor;

b. Contract number;

c. Task order number; (if applicable)

d. Description of items contained therein;

e. Consignee's name and address; and

f. If applicable, packages containing software or other magnetic media shall be marked on external containers with a notice reading substantially as follows: "CAUTION: SOFTWARE/MAGNETIC MEDIA ENCLOSED. DO NOT EXPOSE TO HEAT OR MAGNETIC FIELDS."

SECTION E - INSPECTION AND ACCEPTANCE

E.1 FAR 52.252-2 CLAUSES INCORPORATED BY REFERENCE (FEB 1998)

This contract incorporates one or more clauses, by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. Also, the full text of a clause may be accessed electronically at this /these address(es):

https://www.acquisition.gov/far/index.html (FAR)
http://www.dot.gov/ost/m60/tamtar/tar.htm (TAR)
http://www.dot.gov/ost/m60/earl/tamcomplete.htm (TAM)

FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1) CLAUSES

NUMBER	TITLE	DATE
52.246-2	INSPECTION OF SUPPLIES - FIXED-PRICE	AUG 1996
52.246-3	INSPECTION OF SUPPLIES - COST-REIMBURSEMENT	MAY 2001
52.246-4	INSPECTION OF SERVICES - FIXED-PRICE	AUG 1996
52.246-5	INSPECTION OF SERVICES - COST-REIMBURSEMENT	APR 1984
52.246-16	RESPONSIBILITY FOR SUPPLIES	APR 1984

E.2 GOVERNMENT REVIEW AND ACCEPTANCE (JAN 2008)

A. Technical inspection and acceptance of all work, performance, reports, and other deliverables under this contract shall be performed at the location specified in the individual task order. The task order shall also designate the individual responsible for inspection and acceptance as well as the basis for acceptance. Task order deliverable items rejected shall be corrected in accordance with the applicable clauses.

B. Unless otherwise stated in the individual task order, the Government requires a period not to exceed thirty (30) calendar days after receipt of the final deliverable item(s) for inspection and acceptance or rejection. Final acceptance rests with the Contracting Officer or designee.

C. Inspection and acceptance of supplies/services for performance-based task orders (i.e., FFP, CPAF, and CPFF - completion) shall have identifiable performance measures and metric/quality acceptable levels that will form the basis of the inspection and acceptance criteria. For each performance-based task order, the Government will develop a quality assurance plan for use in monitoring Contractor performance against the performance measures and metric/quality acceptable levels that shall be clearly defined. The quality assurance plans will be developed at the task order level.

D. The Government has the right to inspect all supplies and services required by the individual task orders, to the extent practicable, at any and all places and times and in all circumstances or event before acceptance.

SECTION F - DELIVERIES OR PERFORMANCE

F.1 FAR 52.252-2 CLAUSES INCORPORATED BY REFERENCE (FEB 1998)

This contract incorporates one or more clauses, by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. Also, the full text of a clause may be accessed electronically at this/these address(es):

https://www.acquisition.gov/far/index.html (FAR)
http://www.dot.gov/ost/m60/tamtar/tar.htm (TAR)
http://www.dot.gov/ost/m60/earl/tamcomplete.htm (TAM)

NUMBER	TITLE	DATE
52.242-15	STOP WORK ORDER (applies to FFP task orders)	AUG 1989
52.242-15	STOP WORK ORDER ALTERNATE I (applies to CPFF, CPAF task orders)	APR 1984
52-247-34	F.O.B. DESTINATION	NOV 1991
52.247-55	F.O.B. POINT FOR DELIVERY OF GOVERNMENT-FURNISHED PROPERTY	JUN 2003

F.2 CONTRACT PERIOD OF PERFORMANCE (FEB 2011)

This contract shall become effective on the date the Contracting Officer (CO) signs the contract. The ordering period and performance period will begin on the date of contract award. The ordering period will continue for 5 years thereafter (i.e., term of the contract). Also see Section I.1 entitled Ordering (FAR 52.216-18).

The performance period will continue until the time specified in the clause in Section I.1 entitled Indefinite Quantity (FAR 52.216-22).

F.3 DELIVERIES (NOV 2007)

Delivery of supplies, services, and written documents [e.g. reports, briefings, presentations, etc.) (including required formats and delivery locations)] will be in accordance with the task order requirements. All correspondence and reports related to each task order shall be delivered to the CO, designated Administrative Contracting Officer (ACO) and/or Contract Specialist, and/or designated CO's Technical Representative (COTR) as specified in the task order.

F.4 CONTRACT PROGRESS REPORT (NOV 2007)

A Contractor who has been awarded one or more task orders shall provide a monthly overall contract progress report. The contract progress report shall be provided to the CO or designee not later than the 15th of each month. The Government requires submission of reports electronically in a Microsoft Office compatible format.

The monthly progress report shall address all activity under the contract through the last day

of the previous month. The monthly contract progress report shall contain, at a minimum, the following information:

1. A listing of all new task orders accepted for the preceding month, including for each:

    a) Task order number and date of issuance;
    b) Brief description of work covered by task order, including estimated hardware/software amounts (if applicable);
    c) Amount obligated under task order;
    d) Total number of hours ordered by the Contracting Officer, if applicable; total number of hours incurred by the Contractor by labor category; and total number of hours incurred by labor category regardless of task order type;
    e) Key milestones (including date of deliverables);
    f) Subcontractor information, if applicable, including name(s), classification of subcontractor (i.e., small, disadvantaged, large, etc.), type of effort being performed, estimated amount/percentage of work to be done by subcontractor(s), and success in meeting Subcontracting Plan goals;
    g) Type of task order (i.e., FFP, CPFF, CPAF, Performance Based); and
    h) Key personnel assigned to each task order, including Prime Contractor contact point and phone number for each task order.

2. A listing of all ongoing task orders (excluding those from Paragraph 1 above), including:

a) Task order number and date of issuance;
b) Any modifications to the task order;
c) Summary of dollars expended to date per task order;
d) Estimated percentage of work yet to be completed on the task order; and
e) Progress in meeting subcontracting goals and performance measures under the task order (if applicable).

3. A listing of all completed task orders, including:

    a) Task order number and date of issuance;
    b) Number and value of modifications issued for the task order;
    c) Completion date of task order and whether or not inspection and acceptance has been performed by Government;
    d) Total dollar amount of task order, including modifications;
    e) Success/failure in meeting subcontracting goals and performance measures under the task order (if applicable); and
    f) Status of performance evaluation comments.

4. Significant findings, problems, delays, events, and trends during the reporting period which result from or affect the performance of any task order and any perceived problems.

Any data submitted in the contract progress reports, along with other relevant information, may be included in a past performance database developed and maintained by the Government.

F.5 MONTHLY TASK ORDER PROGRESS REPORTS (NOV 2007)

A monthly progress report shall be submitted for each task order. The Volpe Center requires that the task order progress report be submitted electronically in a Microsoft Office compatible format. If a Contractor has been awarded more than one task order monthly progress reports will be submitted separately. Unless otherwise prescribed in the task order, the report will cover the following items:

1. The work performed during the previous month.

2. Significant findings, problems, delays, events, trends, etc. during the reporting period which result from or affect the performance of the task order.

3. Detailed technical description of the work planned for the next reporting period.

4. Specific action requested of the Government to assist in the resolution of a problem or to effect the timely progression of the task order.

5. An up-to-date schedule of the work performed and work to be performed under the task order. A chart shall be presented reflecting planned project accomplishments versus actual accomplishments in terms of time.

6. Report on accomplishments against any identified performance metrics if applicable.

F.6 MONTHLY TASK ORDER COST REPORTS (FEB 2011)

Monthly cost reports will be submitted by the Contractor, except for fixed-price task orders, setting forth monthly and cumulative (1) direct labor hours by categories as set forth in the task, including subcontract hours,(2) elements of cost by direct loaded dollars, funding code, subcontracts, and other direct costs, etc. that have been incurred and/or committed; (3) breakdown by funding code and summary, and (4) projected monthly spending plan table to include: obligations, monthly actual costs, cumulative actual costs, monthly projected costs, cumulative projected costs. Proprietary rate information should not be discussed. The costs that have been committed but are unpaid to date will be noted. Where cumulative amounts on the monthly reports differ from the aggregate amounts contained in the request(s) for contract financing payments covering the same period, the Contractor must provide a reconciliation of the difference as part of the monthly report. In these reports, the Contractor shall also make its current assessment of completing the remaining work within the remaining funds. The Contractor shall prepare a graph using the vertical axis for dollars and the horizontal axis for time that shows actual and projected rates of expenditures for the task order. Within thirty (30) calendar days after completion of work under the task order, the Contractor shall include in its monthly report its estimate of the total allowable cost incurred under the task order, and in the case of a cost under run, the amount by which the estimated cost of the task may be reduced to recover excess funds pending final closeout of the task order. **The submission of these reports does not relieve the Contractor of its responsibility under the limitation of costs or funds clauses applicable to each task order and identified in Section I of this contract.** The Volpe Center requires that the report be submitted electronically in a Microsoft Office compatible format (See Attachment J.1 - MONTHLY TASK ORDER COST REPORT FORMAT).

F.7 TECHNICAL REPORTS – TASK ORDER CONTRACTS (DEC 2003)

Task orders that identify technical reports as a deliverable will culminate in one of two types: letter type or technical. The letter type will be used primarily for smaller tasks such as data validation, field support, task planning documents, literature searches, analysis plans, conference planning documents, and schedules. A formal technical report(s) may be used for major tasks and may include earlier letter-type reports as subsections. The task order will specify the type of reports as well as the formatting and the number of copies required. The reports submitted shall be subject to review and approval by the Volpe Center COTR or Task Order COTR and, if necessary, will be modified and resubmitted. The Contractor shall submit a final report incorporating the COTR's and/or Task Order COTR's comments on the draft final report. The number and delivery schedule will be specified in each task order. Most final reports shall be submitted on disks and in hard copy in a format specified in the task order.

F.8 REPORTS OF WORK - REPORT DISTRIBUTION (DEC 2003)

Nothing set forth herein regarding number of copies shall be construed as authority to disregard the provisions of the clause of this contract (see Section H.2. – "GPO Printing Requirement").

A. Contract Progress Report:

1 copy CO or designee
1 copy COTR

B. Monthly Task Order Progress Reports:

1 copy CO or designee
1 copy COTR
1 copy Task Order COTR (TOCOTR)

C. Monthly Task Order Cost Reports:

1 copy CO or designee
1 copy COTR
1 copy TOCOTR

D. Technical Reports

The number of copies and recipients will be determined in each task order. The Contractor shall provide a copy of the cover letter transmitting final submission of technical deliverables to the CO or designee.

F.9 DOCUMENTATION OF COMPUTER PROGRAMS (MAY 1999)

The Contractor shall fully document all computer programs first produced in performance of this contract. Unless otherwise specifically agreed to by the CO in writing, the Contractor shall deliver the final codes in executable form accompanied by the source and object codes and appropriate support documentation.

F.10 RIGHTS IN DATA (DEC 2007)

All data first produced in the performance of this contract, including software, shall be delivered with unlimited Government rights, unless otherwise agreed to in writing by the CO when granting permission claim to copyright as required by FAR 52.227-14(c).

F.11 WARRANTIES (MAY 1999)

With respect to equipment or supplies acquired under this contract, title of which will pass to the Government, the Contractor shall ensure that any warranties, together with rights to replacement, service, or technical assistance, shall run to or automatically be assigned to the Government.

F.12 LICENSES (MAY 1999)

With respect to any computer software, databases, or other licensed product acquired for use by the Government, the Contractor shall ensure that the license, together with any associated rights, shall run to or automatically be assigned to the Government.

F.13 PLACE OF CONTRACT PERFORMANCE (JAN 2008)

The Government anticipates that the preponderance of work will be performed at the Contractor's facility. Some task orders, however, require performance at a Government facility, and authorization will be provided in writing by the Contracting Officer at Task Order award.

SECTION G - CONTRACT AND ADMINISTRATION DATA

G.1 TAR 1252. 242-73 CONTRACTING OFFICER'S TECHNICAL REPRESENTATIVE (1994)

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

B. The CO cannot authorize the COTR or any other representative to sign documents (i.e., contracts, contract modifications, etc.) that require the signature of the CO.

G.2 RESPONSIBILITY FOR CONTRACT ADMINISTRATION (FEB 2011)

Contracting Officer: The Contracting Officer (CO) has the overall responsibility for this contract. The CO alone, without delegation, is authorized to take actions on behalf of the Government to amend, modify, or deviate from the contract terms, conditions, requirements, specifications, details and/or delivery schedules. However, the CO may delegate certain other responsibilities to his/her authorized representatives.

Administrative Contracting Officer: An Administrative CO (ACO) may be designated by the CO. The duties of an ACO include but are not limited to issuing task orders, analyzing and making recommendations on the Contractor's proposals, offers, or quotations upon request of the CO, signing task orders, and approving Contractor's invoices in accordance with the terms of the contract.

Contracting Officer's Technical Representative: A Contracting Officer's Technical Representative (COTR) will be designated by the CO. The responsibilities of the COTR include but are not limited to inspecting and monitoring the Contractor's work, determining the adequacy of performance by the Contractor in accordance with the terms and conditions of this contract, acting as the Government's representative in charge of work at the site to ensure compliance with contract requirements in so far as the work is concerned, and advising the CO of any factors which may cause delay in performance of the work. The COTR does not have the authority to make new assignments of work or to issue directions that cause an increase or decrease in the price of this contract or otherwise affect any other contract terms.

Task Order Contracting Officer's Technical Representative: The CO may designate a Task Order Contracting Officer's Technical Representative (TOCOTR). The TOCOTR will perform the duties of the COTR in connection with the technical oversight of an individual task order. The TOCOTR does not have the authority to make new assignments of work or to issue directions that cause an increase or decrease in the price of this contract or on a task order or otherwise affect any other contract or task order terms.

G.3 ORDERING (FEB 2011)

A. During the period of performance of the contract, the CO or the ACO may issue task orders in accordance with Section I.1. (FAR 52.216-18 and 52.216-22)

B. The Government will order any supplies and services to be furnished under this contract by issuing task orders on Optional Form 347 by mail, facsimile, or electronically. In addition to the CO, the following individuals are authorized ordering officers: Designated ACOs.

C. The performance period of the contract is not synonymous with the performance period of any task order issued under the contract. The period of performance for a given task order shall be specified in that task order.

D. A Standard Form 30 will be used to modify task orders.

E. A representative authorized by the Contractor shall acknowledge receipt of each task order within three (3) business days of receipt.

F. Each task order issued may incorporate the Contractor's technical and/or cost proposals and will include an estimated cost and fixed fee or award fee or a total fixed price set forth as a ceiling price. If the task order is incrementally funded, the amount available for payment and allotted to the task will also be specified. The Limitation of Funds and/or the Limitation of Cost clauses will control notification requirements when the Contractor has reason to believe it will experience an overrun of the estimated cost or allocated funds specified in a cost reimbursable type task order.

Under no circumstances will the Contractor start work prior to the issue date of the task order unless specifically authorized to do so, in writing, by the CO or designee.

G.4 TASK ORDERS ISSUED UNDER MULTIPLE AWARD CONTRACTS (FEB 2011)

A. All Contractors shall be provided a fair opportunity to be considered pursuant to the procedures set below for each task order to be issued unless:

1. The Government's need for the services ordered is of such unusual urgency that providing such opportunity to all Contractors would result in unacceptable delays in fulfilling that need;

2. Only one Contractor is capable of providing the services required at the level of quality required because the services ordered are unique or highly specialized;

3. The task order should be issued on a sole source basis in the interest of economy and efficiency because it is a logical follow-on to a task order already issued under this contract, provided that all awardees were given a fair opportunity to be considered for the original order;

4. It is necessary to place the order with a particular Contractor in order to satisfy a minimum order; or

5. It is necessary to limit competition to meet preference program goals identified in

FAR Part 19.

B. The Government's objective is to keep the task order procedures simple and inexpensive for all parties to the contract. Unless the procedures in Paragraph A are used for awarding individual orders, multiple award Contractors will be provided a fair opportunity to be considered for each order using the following procedures:

1. The Government will examine existing information already in the Government's possession such as an awardees' original proposal and proposals in response to Task Order Requests for Proposal (TORFP) (labor rates, indirect rates, technical/management approaches, etc.) and current past performance report records. The Government's examination of existing information will be conducted in light of the functional and/or technical areas of the requirement and used to determine which awardees will be requested to submit a proposal for the requirement. Brief surveys may also be conducted to determine which awardees have interest and capability in a particular requirement.

2. Once the Government determines which awardees will be asked to submit a proposal for the requirement, the CO may contact Contractors to identify resource availability and price/cost for well-defined tasks. The CO may issue written requests to the Contractors requesting the submission of written and/or oral technical offers for complex tasks where a technical approach, as well as resource availability and price/cost, need to be considered.

3. A written cost proposal will be required for all task orders to be issued under this contract. The cost proposal shall include detailed cost/price information for all resources required to accomplish the task (i.e., labor hours, rates, travel, equipment, etc.). Proposals submitted for cost-type task orders will be based on average category rates or current salary rates (whichever method the Contractor customarily uses), as indicated by the Contractor's or the subcontractor's current payroll data, and the current provisional indirect rates, as indicated by the latest indirect rate negotiation from the cognizant auditor of the Contractor. Offerors shall provide current, up-to-date copies of the negotiated provisional indirect rates for the Contractor and any subcontractors with their offers for individual task orders unless this information has previously been provided to the CO. Offerors shall also provide an explanation of any significant difference (10 percent or more) between any labor rate proposed and the rate proposed under the base contract. Any significant difference between the ratio of administrative hours to professional hours proposed for the task order versus the ratio of administrative hours proposed to professional hours for the master contract must be explained. Any significant inconsistency between the type and amount of other direct costs (ODCs) proposed for the task and the type and ODCs proposed under the master contract must also be justified.

4. Offerors shall submit an amended Small Business Subcontracting Plan for each task order equal to or exceeding $650,000. Subcontracting information relating to the particular task order will be required. This subcontract information shall be incorporated into the amended subcontracting plan, and shall also be submitted with the Offerors task order proposal. The amended Subcontracting Plan submitted must be acceptable to the CO in order for a Contractor to be considered for award of a task.

5. Each TORFP will include the following: (a) the Statement of Work (SOW); (b) the evaluation criteria that will be used to evaluate the offers; (c) the components of the offer (technical and/or price/cost or other factors) to be submitted; (d) the format for submission;

(e) the timeframe for submission of the offer; (f) any other relevant instructions to the Contractor.

6. Upon receipt of a TORFP, the Contractor may submit an offer to the CO that must include the technical, cost, and any other information requested. The proposal must be submitted by the time specified in the request.

7. The method of evaluation and selection of an awardee for a task order will be identified in the TORFP.

8. The Government shall have the right to select the Contractor based on initial offers without discussions, but the Government reserves the right to hold discussions after evaluation of initial offers.

9. If the Government determines that certain personnel are key to successful completion of a task order, they shall be designated as Key Personnel for the task order pursuant to TAR 1252.215-70, Section I.

10. Upon request, the Government will debrief unsuccessful Offerors on a TORFP. Requests must be made within five (5) days of the notice of award for a specific task order.

G.5 TASK ORDER OMBUDSMAN (FEB 2011)

Contractors with any complaint regarding award of individual task orders shall submit such complaint(s) to the Volpe Center Competition Advocate, U.S. Department of Transportation/Research and Innovative Technology Administration/Volpe National Transportation Systems Center, 55 Broadway, Cambridge, MA 02142, Attn: David S. Ishihara; fax: (617) 494-3062; e-mail: David.Ishihara@dot.gov. It should be noted that in accordance with FAR 16.505(a)(9), no protest is authorized in connection with the issuance of a task order except for a protest on the grounds that the task order increases the scope, period of performance, or maximum value of the contract.

G.6 TECHNICAL DIRECTION (FEB 2011)

Performance of the work hereunder shall be under the technical direction of the COTR and TOCOTR on a specific task order. As used herein, "technical direction" is limited to directions to the Contractor that fill in details or otherwise complete the specific description of work set forth in the task order. This direction may not include new assignments of work, or may not be of such a nature as to cause an increase or decrease in the estimated cost of the contract or task order, or otherwise affect any other provision of this contract. The Contractor may not begin work without obligated funding and written technical direction.

G.7 ACCOUNTING AND APPROPRIATION DATA (MAY 1999)

Each individual task order shall specify the accounting and appropriation data from which payment shall be made.

G.8 PAYMENT AND CONSIDERATION (DEC 2003)

Contract clauses regarding payment processes and consideration will differ depending on the contract type/pricing methodology used in the task order. Specific clauses to be used in each case are provided below:

A. The following clause is applicable to fixed-price task orders:

CONSIDERATION - FIXED PRICE

Upon delivery and acceptance of the required services, the Contractor shall be paid at the fixed price specified on the face of the task order.

B. The following clauses are applicable to Cost-Plus-Fixed-Fee task orders:

CONSIDERATION - COST-PLUS-FIXED-FEE

(1) Subject to the clauses Limitation of Cost (FAR 52.232-20), Allowable Cost and Payment (FAR 52.216-7), and Fixed Fee (52.216-8), the total allowable cost of this task shall not exceed $(TO BE COMPLETED AT TIME OF AWARD OF TASK), which is the total estimated cost of the Contractor's performance hereunder exclusive of fixed fee. In addition, the Government shall pay the Contractor a fixed fee of $(TO BE COMPLETED AT TIME OF AWARD OF TASK) for the performance of this task.

(2) The Contractor shall be provisionally reimbursed indirect expenses on the basis of billing rates approved by the Cognizant Federal Agency (CFA) pending establishment of final indirect rates.

(3) The final indirect expense rate pertaining to the contract shall be those determined for the appropriate fiscal year in accordance with FAR 42.705 and FAR 52.216-7.

C. The following clauses are applicable to Cost-Plus-Award-Fee task orders:

CONSIDERATION - COST-PLUS-AWARD-FEE

(1) Subject to the clauses Limitation of Cost (FAR 52.232-20) and Allowable Cost and Payment (FAR 52.216-7), the total allowable cost of this task shall not exceed $ (TO BE COMPLETED AT TIME OF AWARD OF TASK), which is the total estimated cost of the Contractor's performance hereunder exclusive of base fee. In addition, the Government shall pay the Contractor a base fee of $ (TO BE COMPLETED AT TIME OF AWARD OF TASK) for the performance of this task.

(2) The Contractor shall be provisionally reimbursed indirect expenses on the basis of billing rates approved by the Cognizant Federal Agency (CFA) pending establishment of final indirect rates.

(3) The final indirect expense rate pertaining to the contract shall be those determined for the appropriate fiscal year in accordance with FAR 42.705 and FAR 52.216-7.

(4) The award fee provided for in this task order is $ (TO BE COMPLETED AT TIME OF AWARD OF TASK) and is subject to the terms of the "Determination of Award Fee"

AND “Distribution of Award Fee” clauses (see Section I). The estimated cost, base fee, and available award fee are as follows:

Estimated Cost:	$ (TO BE COMPLETED)
Base Fee:	$ 0
Available Award Fee:	$ (TO BE COMPLETED)
Maximum Available CPAF:	$ (TO BE COMPLETED)

(5) The amount of the award fee shall be based on a subjective evaluation by the Government of the quality of the Contractor's performance judged in light of the nature of the work involved and any other factors that are considered relevant to the determination in accordance with the “Performance Plan” clause (see Section I). This evaluation will be based on the past performance evaluation conducted on all tasks using the Contractor Performance Report (see Attachment J.2.). The following criteria apply to each of the five performance ratings below; the figures in parentheses represent the percentage of the award fee to be paid for the equivalent ratings.

(a) EXCEPTIONAL PERFORMANCE (100 Percent)

The Contractor's contribution in the performance of the task is absolutely essential to the overall effort and far exceeds the contribution normally expected. Most importantly, within the scope and cost of the task order, the work is performed so expertly and thoroughly that a new dimension is added to the original requirement. Resulting deliverables are always provided on time or ahead of schedule, on or under cost estimates, and are of such superior technical quality that additional effort is not required. Substantial expert and innovative effort and interaction is provided. Overall cost and personnel management is handled in a totally proficient and effective manner so as to maximize both the Government's return on investment and the Contractor's own technical capabilities. Subcontracting goals are met and exceeded in all categories. The Contractor displays quality management, including identification of and statistical process control for critical processes and subcontractor involvement in continuous process improvement.

(b) GOOD PERFORMANCE (85 Percent)

The Contractor's contribution in the performance of the task is a great asset to the overall effort and often exceeds the contribution normally expected. Within the scope and cost of the task order, work is performed with great technical skill and meets or occasionally exceeds the requirements of the task. The resulting deliverables are always of high quality, provided on or occasionally ahead of schedule, and within cost estimates. Substantial innovative thought and interaction between tasks is often evident. Subcontracting goals are met in all categories and exceeded in some of those categories.

(c) SATISFACTORY PERFORMANCE (70 Percent)

The Contractor's contribution in the performance of the task is a solid asset to the overall effort and is commensurate with the amount of contribution expected. Work is performed in a professional and thorough manner, and deliverables meet all contract requirements. Some deliverables may be delivered ahead of schedule while others may experience slight delays; however, overall, the contract schedule is met. Some creativity and innovative thought is demonstrated in the delivery of work. Cost and personnel performance are fully acceptable and any deviations are within what would be expected of an effective and professional

execution of a technical support effort. Subcontracting goals are met in all categories.

(d) MINIMALLY ACCEPTABLE PERFORMANCE (40 Percent)

The Contractor's contribution in the performance of the task, although evident in the execution of the overall effort, is below that contribution normally expected for such an effort. Work is completed; however, additional Government assistance and direction is required to ensure completion. The resulting deliverables are often provided on schedule; however, some delays are experienced, and deliverables occasionally require correction or resubmission prior to acceptance. Some cost deviations of significant proportions may have occurred in conjunction with the re-submissions and delays. Subcontracting goals are not met. Overall, management of technical effort and personnel is less than what would be expected of a completely satisfactory effort.

(e) UNSATISFACTORY (0 Percent)

Performance failed to satisfy the minimum contract or task requirements, technical or otherwise.

G.9 PAYMENTS UNDER COST REIMBURSEMENT CONTRACTS (FEB 2011)

NOTE: Under no circumstances can funds obligated under one task be used to pay costs incurred or fee earned under another task.

The invoicing and payment office for all contract actions issued by the DOT/RITA/Volpe National Transportation Systems Center is located at the Enterprise Services Center (ESC), Office of Financial Operations, Federal Aviation Administration (FAA) in Oklahoma City, Oklahoma.

The Contractor must submit separate cost and fee invoices. All invoices, including supporting documentation, shall be submitted **electronically** (e.g., PDF format) to the ESC at FAA in Oklahoma City by **e-mail** at the following address: volpeinvoices@faa.gov (all lower case). A cover email must accompany each invoice and provide the applicable information in the fields listed below.

Invoice Date:
Supplier Name:
Invoice Amount:
Invoice Number:
Contract No. /Purchase Order No.:
Task:
Modification No.:
Terms/Discount:
Performance Period:
Notes:

However, all interim payment requests for tasks under the contract must be submitted concurrently. The Contractor shall submit a last interim invoice for each task order. This shall include a complete list of invoices previously tendered under the task order. The last interim invoice shall consist of the completion invoice (clearly identified in accordance with

FAR 52.216-7 prior to the establishment of final annual indirect rates. The last interim invoice shall be submitted within six (6) months of the task order's physical completion. If changes to this invoice become necessary as a result of Government review, the Contractor shall submit a corrected last interim invoice. The Contractor shall submit this invoice, along with the Contractor's release form, DOT F 4220.4, to the Contracting Officer, following the final adjustment of its annual indirect rates per FAR 52.216-7.

In addition to the information required by FAR 52.216-7 and FAR 52.232-25 incorporated by reference in Section I, an invoice or contract financing payment request must meet the following requirements:

(1) Consecutively number each interim payment request beginning with No. 1 for each task.

(1a) The Contractor **must specify** the appropriate cost per funding source(s) in which ESC should make payment on the SF 1034. If this information cannot be entered on the SF 1034 the Contractor must **clearly state** where the information can be found in the voucher package on the SF 1034. The same procedures shall be followed for fee invoices. In addition, the Contractor must indicate if the voucher is a cost voucher or a fee voucher on the SF 1034. Cost and Fee vouchers must continue to be billed separately and must be clearly marked in the title so ESC at FAA may make distinction.

(2) The voucher shall include current and cumulative charges by major cost elements such as direct labor, overhead, subcontracts, and other direct costs. Cite direct labor hours incurred by the Prime Contractor and each subcontractor. Other direct costs must be identified, e.g., travel, per diem, material, and equipment.

(3) Requests for contract financing or invoices must clearly indicate the period of performance for which payment is requested and the Volpe Center accounting information necessary to process payments. When contracts or task orders contain multiple lines of accounting data, charges that cannot be assigned to a single line of accounting information should be allocated based on the percentage of total dollars unless otherwise specified.

(4) When the Contractor submits vouchers on a monthly basis, the period covered by invoices or requests for contract financing payments must be the same as the period for monthly progress reports reported under the contract or tasks. If, in accordance with FAR 52.216-7, the Contractor submits requests for invoices or contract financing payments more frequently than monthly, one payment request per month must have the same ending date as the monthly progress report.

(5) Pending settlement of the final indirect rates for any period, the Contractor shall be reimbursed at billing rates approved by the Cognizant Federal Agency (CFA). The Contractor shall ensure that any change in the identity of the CFA responsible for establishment of its indirect rate factors is made known to the Volpe Center ACO. These rates are subject to appropriate adjustments when revised by mutual agreement or when the final indirect rates are settled either by mutual agreement or unilateral determination by the CFA (see FAR 42.704). In accordance with FAR 52.216-7, the Contractor shall submit to the CFA a proposal for final indirect rates based on the Contractor's actual costs for the period, together with all supporting data. In addition, Contractors are required by the CFA to submit billing rate proposals, usually no later than thirty (30) days

after the close of its fiscal year for the ensuing fiscal year to the CFA. Copies of the cover letter submitting the proposal must be provided to the Volpe Center ACO. The Contractor's failure to provide the rate proposal in a timely manner may impact payment of financing request and could ultimately result in suspension of the indirect expense portion. The Contractor shall provide copies of all rates established by the CFA to the Volpe Center ACO. It is imperative that the ACO be provided signed copies of all rate agreements since these rate agreements must be in the possession of the Volpe Center before any rates contained therein can be used by the Contractor for cost reimbursement. The Contractor should note that absence of a final rates determination does not relieve the Contractor of its responsibility under the Limitation of Funds or Limitation of Costs clauses to report in a timely manner to the CO when it has reason to believe its costs may exceed the total estimated cost or funds allotted to the task order.

G.10 PAYMENT OF FEE - COST-PLUS-FIXED-FEE (FEB 2011)

The Government will issue task orders which will include one of two methods by which the Contractor can earn total fixed fee. Requests for provisional fee payment must be based on and be consistent with the information stated in the contract or task financing request. However, the request must be submitted separately.

For **term-type task orders**, a portion of any fixed fee specified in the task order will be paid on a provisional basis. The amount of such payments will be based upon a percentage of costs expended during performance of the task order. Final amount may be determined at contract closeout as Contractor maintains the right to invoice for costs expended on completed task orders up until that time.

In accordance with FAR 52.216-8, the Government will withhold 15% of the earned fixed fee per invoice, per task order, until $100,000 is withheld on that particular task order. At that time, full payment of fee may invoiced through remainder of task order performance period. On Task Orders in excess of $10,000,000 the CO reserves the right to withhold amount determined sufficient. The withheld funds may be invoiced during closeout of the Master Contract.

On a **completion-type task order**, if performance is considered satisfactory, the Government may make provisional fee payments subject to FAR 52.216-8 on the basis of percentage of work completed, as determined by the CO. The Contractor shall be required to complete the specified end product (e.g., a final report or working system) within the estimated cost as a condition for payment of the entire fixed fee. In the event the work cannot be completed within the estimated cost, the Government may require more effort without any increase in fee, provided the Government increases the estimated cost. If the Government chooses not to increase the estimated cost, the fixed fee payable will based on the CO's determination of the percentage of completion of the specified end product(s).

Provisional payment of fee will be subject to other relevant clauses of the contract including retainage.

G.11 PERFORMANCE EVALUATIONS (FEB 2011)

Performance evaluations shall be completed for each completed task order over $100,000 and for selected tasks for lower amounts as determined by the CO. Performance evaluations shall

also be completed at least annually for task orders that have a performance period in excess of one year. The Government uses the Contractor Performance Assessment Review System (CPARS) as the primary method to complete evaluations. Completed performance evaluations may be accessed in the Past Performance Information Retrieval System (PPIRS).

The Contractor is required to register in CPARS and shall have thirty (30) calendar days in which to respond to Government comments. The Government will consider any comments provided by the Contractor before finalizing a Performance Evaluation Report and the Contractor's comments will be attached to the Report.

G.12 VOUCHER REVIEW (MAR 2003)

The Government may at its sole discretion utilize a Contractor to review vouchers and supporting data submitted for payment under the provisions of this contract. The Contractor reviewing vouchers and supporting data will perform this function in accordance with contract provisions which prohibit disclosure of proprietary financial data or use of such data for any purpose other than to perform accounts payable services.

G.13 COST ACCOUNTING SYSTEMS (FEB 2011)

Cost Accounting System

The Contractor shall maintain a job order cost accounting system that will accumulate costs incurred for each task order separately. The Contractor shall invoice the Government only in accordance with its approved accounting system.

Administrative Labor

Only those labor categories and functions identified and priced out in the Cost and Business Proposal are billable as direct labor during performance without prior Contracting Officer approval. This also applies to subcontractors. The Administrative Labor categories included in the Contractors Cost and Business Proposal are hereby incorporated into the contract.

Other Direct Costs

In addition to travel and equipment costs estimated by the Government in Schedule 2, only those costs identified and priced out in the proposal by the Offeror (or subcontractor) are billable without prior Contracting Officer approval. Elements of other direct cost identified in the Contractor's Cost and Business Proposal are hereby incorporated into the contract.

Task Order Proposal Preparation Cost

Submission of proposals in response to task order RFPs is not mandatory. Bid and proposal expenses incurred in connection with the preparation of task order proposals will be reimbursed in accordance with established practices; however, bid and proposal costs will not be reimbursed as direct costs.

Uncompensated Overtime

(The term "contract proposals" as used in this clause refers to proposals which may result in

initial contract award. "Task order proposals" refers to proposals received in response to task order RFPs.)

Uncompensated overtime is defined as hours worked by Fair Labor Standards Act exempt employees in excess of 40 hours per week for which no compensation is paid in excess of normal weekly salary. A Contractor/subcontractor may include uncompensated overtime in its cost proposal only if the practice is consistent with its established accounting practices.

The Contractor/subcontractor's accounting system must record all direct and indirect hours worked, including uncompensated overtime.

Only those Contractors/subcontractors who included uncompensated effort in their contract proposals may use this accounting practice in a task order proposal or during performance. Similarly, task order proposals must include uncompensated effort consistent with contract cost proposals. Task order proposals which deviate from contract proposals must include an explanation for the deviation for the CO's consideration.

The following clause will be included in each task order when the awardee or subcontractors included uncompensated overtime in their task order proposals:

This task order is based upon the Contractor's task order proposal dated TBD in which, of the total TBD hours required, TBD hours are estimated to be uncompensated as shown below.

Prime Contractor Workweek

Prime Contractor: (TO BE DETERMINED)

Division: (TO BE DETERMINED)

Task Order Labor Category	Total Hours	Compensated Hours	Uncompensated Hours
	TBD	TBD	TBD

Subcontractor Workweek

Subcontractor Name: (TO BE DETERMINED)

Division: (TO BE DETERMINED)

Task Order Labor Category	Total Hours	Compensated Hours	Uncompensated Hours
	TBD	TBD	TBD

During performance, the Contractor must provide compensated and uncompensated hours in at least the same ratio as shown in the above schedule by labor category. If the Contractor anticipates that the ratio will not be achieved by the completion of the task order, the Contractor shall notify the CO in writing, identifying the expected shortfall. The Contractor must offer to furnish the total level-of-effort included in the task order at no additional cost or fee. The notice

shall be provided sufficiently in advance of the completion of the task order to allow the performance of all such hours within the task order term and within the total estimated cost and fixed fee for the task order. If the Contractor fails to provide such notice sufficiently in advance, the CO at his/her sole discretion shall have the option of:

(1) Extending the term of the task order and requiring that the Contractor provide the total level-of-effort at no extra cost to the Government, or

(2) Reducing the cost to be reimbursed by an amount calculated by multiplying the number of hours of unworked, uncompensated overtime by the average burdened labor rate for those labor categories and reducing the fixed-fee proportionately. The Contractor shall indicate on its invoices and on any contract data items for cost/schedule status all hours worked, both compensated and uncompensated.

G.14 INCREMENTAL FUNDING OF TASK ORDERS (DEC 2003)

Pursuant to FAR 52.232-22, Limitation of Funds (APR 1984), incorporated by reference herein, task orders issued under this contract may be incrementally funded.

A. When a **term-type task order** is incrementally funded, the following clause will be set forth in full in the task order modification:

LIMITATION OF LIABILITY - INCREMENTAL FUNDING (TERM FORM)

(1) The amount available for payment for this incrementally funded task order is hereby increased from $__TBD__ by $__TBD_ to $___TBD__. The amount allotted to the estimated cost is increased from $__TBD_ by $__TBD__ to $__TBD_. The amount obligated for the fixed fee/award fee is increased from $_TBD___ to $__TBD___. This modification involves no change in the total level-of-effort, estimated costs or fixed fee/award fee of this contract, unless otherwise specified herein. The Limitation of Funds clause, FAR 52.232-22, applies to the amount allotted to cover the estimated costs only. The fixed-fee will be payable in accordance with other clauses of the contract.

(2) The estimated level-of-effort applicable to the incremental funding provided herein is_____ professional labor-hours.

(3) The incremental funding provided herein is estimated to be adequate for services performed through _____.

(4) The funding must be tracked and billed accordingly. The funds obligated in block 12 of the SF 30 are available only for work performed on or after the effective date of this modification.

B. When a **completion-type task order** is incrementally funded, the following clause will be set forth in full in the task order modification:

LIMITATION OF LIABILITY - INCREMENTAL FUNDING (COMPLETION FORM)

(1) The amount available for payment for this incrementally funded task order is hereby

increased from $__TBD__ by $__TBD___ to $__TBD__. The amount allotted to the estimated cost is increased from $_TBD__ by $_TBD__ to $__TBD_. The amount obligated for the fixed fee/award fee is increased from $__TBD__ to $__TBD__. This modification involves no change in the total level-of-effort, estimated costs or fixed fee/award fee of this contract, unless otherwise specified herein. The Limitation of Funds clause, FAR 52.232-22, applies to the amount allotted to cover the estimated costs only. The fixed-fee will be payable in accordance with other clauses of the contract

(2) The incremental funding provided herein is applicable to the tasks and deliverables specified in ___TBD_____.

(3) The funding must be tracked and billed accordingly. The funds obligated in block 12 of the SF 30 are available only for work performed on or after the effective date of this modification.

G.15 TRAVEL AND PER DIEM (FEB 2011)

All travel performed under this contract shall be performed in accordance with Federal Travel Regulations (FTR) and must be approved in writing in advance of travel taking place. The actual costs for lodging, meals, and incidentals will be considered reasonable and allowable if they do not exceed the maximum per diem rates in effect at the time of travel as set forth in the FTR. In accordance with FAR Subpart 31.205-46, a written justification must be provided for higher amounts in special or unusual circumstances. Under cost-type task orders, travel will be reimbursed at actual costs (with a copy of the receipts for expenses) in the following categories:

1.) Airline Tickets (commercial rate economy seating).
2.) Hotel Expenses (Government rates unless concurred in advance by the COTR/TOCOTR).
3.) All Other Modes of Transportation (Taxi receipts are not required if less than $75.00).

Under cost-type task orders, food and other miscellaneous expenses will be reimbursed at the prevailing FTR reimbursement rates. The COTR/TOCOTR reserves the right to modify procedures on a Task Order level if there are extensive travel requirements.

G.16 SUBCONTRACTING REPORT (JULY 2000)

Pursuant to FAR 52.219-14, Limitation on Subcontracting, small businesses receiving task orders as a result of a task order set aside (or directed task order) may not subcontract greater than 50 percent of contract performance incurred for personnel under this contract on a cumulative basis (i.e., although individual task orders may have greater than 50 percent subcontracting, the total cumulative subcontracting under all task orders may not exceed 50 percent). Small businesses shall submit an annual report to the Contracting Officer on October 31 of each year, detailing the subcontracting percentage under these task orders performed during the previous Government fiscal year. The report shall show the subcontracting percentage for the year under each individual task order, the cumulative total for the reporting period under the contract, and the cumulative total for the life of the contract. The Government reserves the right to limit awards at any time to a small business not in compliance with this FAR clause.

G.17 ALLOTMENT (FEB 2011)

Pursuant to Clauses B.2 – "Contract Limitations," and FAR 52.216-22 – "Indefinite Quantity," the amount presently available for payment and allotted to this contract to provide for the contract minimum is $2,500. This allotted amount will be applied, as appropriate, to one or more individual task orders issued under this contract. Additional funding will be allotted and obligated as necessary, only on individual task orders.

The accounting and appropriation amount currently allotted is as follows:

PR Number	Accounting Code	Amount Obligated
DTRT-RVT-71-1158	51YK859 G257B	$2,500

SECTION H - SPECIAL CONTRACT REQUIREMENTS

H.1 NON-PERSONAL SERVICES (DEC 1998)

No personal services as defined in Part 37 of the FAR shall be performed under this contract. No Contractor employee will be directly supervised by the Government. All individual employee assignments and daily work direction shall be given by the Contractor's supervisor. If the Contractor believes any Government action or communication has been given that would create a personal services relationship between the Government and any Contractor employee, the Contractor shall promptly notify the Contracting Officer of this communication or action.

The Contractor shall not perform any inherently Governmental functions under this contract. No Contractor employee shall hold him or herself out to be a Government employee, agent, or representative. In all communications with third parties in connection with this contract, Contractor employees shall identify themselves as Contractor employees and specify the name of the company for which they work. In all communications with other Government Contractors in connection with this contract, the Contractor employee shall state that they have no authority to in any way change the contract and that if the other Contractor believes this communication to be a direction to change their contract, they should notify the Contracting Officer for that contract and not carry out the direction until a clarification has been issued by the Contracting Officer.

The Contractor shall ensure that all of its employees working on this contract are informed of the substance of this clause. Nothing in this clause shall limit the Government's rights in any way under any other provision of the contract, including those related to the Government's right to inspect and accept the services to be performed under this contract. The substance of this clause shall be included in all subcontracts at any tier.

H.2 GPO PRINTING REQUIREMENT (DEC 1998)

All printing funded by this contract will be accomplished in conformance with Title 44, United States Code, regulations of Joint Committee on Printing, applicable provisions of appropriation acts, and applicable regulations issued by the Government Printing Office and the Department of Transportation.

H.3 CONTRACTOR RESPONSIBILITY (DEC 1998)

The Contractor shall without additional expense to the Government, be responsible for all damage to persons or property that occur as a result of its fault or negligence in connection with the prosecution of the work, and shall be responsible for the proper care and protection of the work performed. Breakage or loss of office equipment or other property including that of a Government employee, which may occur in or about the building as a result of a fault or negligence in the Contractor's operations or fault or negligence in the actions of the Contractor's agent, subcontractors or its employees shall be made good by the Contractor at its own expense.

H.4 SALES TAX EXEMPTION (MAY 1999)

The Volpe National Transportation Systems Center, as part of the Department of Transportation, an agency of the United States, is an exempt purchaser. Accordingly, all

purchases of personal property by this organization are exempt from state and local taxation.

The Contractor will be provided with tax exemption certificates for the purpose of obtaining an exemption under this procurement for materials and equipment purchased under this procurement (see each individual task order). Notwithstanding the terms of the Federal, State, and Local Taxes clause, the Contractor shall state separately on its vouchers the amount of state sales tax, and the Government agrees to either pay the amount of the tax to the Contractor or, where the amount of the tax exceeds $250.00, to provide evidence necessary to sustain the exemption.

H.5 LEVEL-OF-EFFORT NOTIFICATION (FEB 2011)

The Contractor shall notify the CO or designee immediately in writing whenever it has reason to believe that:

(1) The level-of-effort that the Contractor expects to incur under any term-type task in the next thirty days, when added to the level-of-effort previously expended in the performance of that task order, will exceed 75 percent of the level obligated for that task order;

(2) If obligations are from multiple funding sources, notification is required to be fund source specific in addition to the overall task order.

(3) The level-of-effort required to perform a particular task order will be greater than the level-of-effort established for the task order.

Either the "Limitation of Cost" or the "Limitation of Funds" clause, depending on whether the task order is fully funded or not, applies independently to each task order under this contract and nothing in this clause amends the rights or responsibilities of the parties hereto under either of these two clauses. The notifications required by this clause are separate and distinct from any specified in the "Limitation of Cost" or "Limitation of Funds" clause.

H.6 HANDLING OF DATA (MAY 2007)

The Contractor and any of its subcontractors in performance of this contract may have need for access to and use of various types of data and information in the possession of the Government which the Government obtained under conditions that restrict the Government's right to use and disclose the data and information, or which may be of such a nature that its dissemination or use other than in the performance of this contract would be adverse to the interests of the Government or other parties. Therefore, the Contractor and its subcontractors agree to abide by any restrictive use conditions on such data and not to:

(1) Knowingly disclose such data and information to others without written authorization from the CO, unless the Government has made the data and information available to the public; nor

(2) Use for any purpose other than the performance of this contract that data which bears a restrictive marking or legend.

In the event the work required to be performed under this contract requires access to proprietary data of other companies, the Contractor shall obtain agreements from such other companies for such use unless such data is provided or made available to the Contractor by

the Government. Two copies of such company-to-company agreements shall be furnished promptly to the CO for information only. These agreements shall prescribe the scope of authorized use or disclosure, and other terms and conditions to be agreed upon between the parties. It is agreed by the Contractor that any such data, whether obtained by the Contractor pursuant to the aforesaid agreement or from the Government, shall be protected from unauthorized use or disclosure to any individual, corporation, or organization so long as it remains proprietary.

Through formal training in company policy and procedures, the Contractor agrees to make employees aware of the absolute necessity to maintain the confidentiality of data and information, as required above, and, further, to be made aware of the sanctions which may be imposed for divulging either the proprietary data of other companies or data that is obtained from the Government to anyone except as authorized. The Contractor shall obtain from each employee engaged in any effort connected with this contract an agreement in writing that shall in substance provide that such employee will not during his/her employment by the Contractor, or thereafter, disclose to others or use for his/her own benefit or the future benefit of any individual any trade secrets, confidential information, or proprietary/restricted data (to include Government "For Official Use Only") received in connection with the work under this contract. The Contractor shall furnish a sample form of this agreement to the CO promptly after award.

The Contractor agrees to hold the Government harmless and indemnify the Government against any cost/loss resulting from the unauthorized use of disclosure of third party data or software by the Contractor, its employees, subcontractors, or agents.

The Contractor agrees to include the substance of this provision in all subcontracts awarded under this contract. The CO will consider case-by-case exceptions from this requirement for individual subcontracts in the event that:

(1) The Contractor considers the application of the prohibitions of this provision to be inappropriate and unnecessary in the case of a particular subcontractor;

(2) The subcontractor provides a written statement affirming absolute unwillingness to perform absent some relief from the substance of this prohibition;

(3) Use of an alternate subcontract source would reasonably detract from the quality of effort; and

(4) The Contractor provides the CO timely written advance notice of these and any other extenuating circumstances.

If the CO denies the exception, the Contractor and its subcontractors shall not have access to the data and information for which the Contractor and any of its subcontractors took exception, unless the Contractor agrees to include the substance of this provision in all subcontracts awarded under this contract. If the CO approves an exception, the CO shall provide the approval and its specific parameters (including duration), in writing, to the Contractor before the Contractor or any of its subcontractor is granted access to the restricted data (including, but limited to, any trade secrets, confidential information, or proprietary/restricted data as well as Government "For Official Use Only" for use in connection with the work under this contract).

The Contractor and its subcontractors agree to abide by all data and information markings. When transferring or sharing such data for work under this contract, before such transfer or sharing, the Contractor and its subcontractors shall ensure the markings are included or remain on the data and information as the markings were received from the Government or another company.

Except as the CO specifically authorizes in writing, upon completion of all work under this contract, the Contractor shall return all such data and information obtained from the Government, including all copies, modifications, adaptations, or combinations thereof, to the CO. Data obtained from another company shall be disposed of in accordance with the Contractor's agreement with that company, or, if the agreement makes no provision for disposition, shall be returned to that company. The Contractor shall further certify in writing to the CO that all copies, modifications, adaptations, or combinations of such data or information which cannot reasonably be returned to the CO (or to a company) be deleted from the Contractor's (and any subcontractor's) records and destroyed.

These restrictions do not limit the Contractor's (or subcontractor's) right to use and disclose any data and information obtained from another source without restriction.

As used herein, the term "data" generally has the meaning set forth in Federal Acquisition Regulations (FAR), Clause 52.227-14, "Rights in Data - General" (JUN 1987), Alternate I, II, III (JUN 1987), and includes, but is not limited to, computer software, as also defined in FAR Clause 52.227-14. In regards to other companies' information that the Government may receive with restrictions or pursuant to a Non-disclosure agreement, "data" may also mean any information pertaining to that company without limitation, and including "information incidental to contract administration, such as financial, administrative, cost or pricing, or management information," regardless of the form or the media on which the information may be recorded or in which the information may be transmitted to the Government.

H.7 TECHNOLOGY UPGRADES/REFRESHMENTS (DEC 1998)

After issuance of a task order, the Government may solicit, and the Contractor is encouraged to propose independently, technology improvements to the hardware, software, specifications, or other requirements of the task order. These improvements may be proposed to save money, to improve performance, to save energy, to satisfy increased data processing requirements, or for any other purpose which presents a technological advantage to the Government. As part of the proposed changes, the Contractor shall submit a price or cost proposal to the CO for evaluation. Those proposed technology improvements that are acceptable to the Government will be processed as modifications to the task order. As a minimum, the following information shall be submitted by the Contractor with each proposal:

(1) A description of the difference between the existing contract requirement and the proposed change, and the comparative advantages and disadvantages of each;

(2) Itemized requirements of the task order which must be changed if the proposal is adopted, and the proposed revision to the contract for each such change;

(3) An estimate of the changes in performance and price or cost, if any, that will result from adoption of the proposal;

(4) An evaluation of the effects the proposed changes would have on collateral costs to the

Government, such as Government-furnished property costs, costs of related items, and costs of maintenance, operation and conversion (including Government application software);

(5) A statement of the time by which the task order modification adopting the proposal must be issued so as to obtain the maximum benefits of the changes during the remainder of the task order including supporting rationale; and

(6) Any effect on the task order completion time or delivery schedule shall be identified.

The Government will not be liable for proposal preparation costs or any delay in acting upon any proposal submitted pursuant to this clause. The Contractor has a right to withdraw, in whole or in part, any proposal not accepted by the Government within the period specified in the proposal. The decision of the CO as to the acceptance of any such proposal under this contract is final and not subject to the "Disputes" clause of this contract.

If the Government wishes to test and evaluate any item(s) proposed, the CO will issue written directions to the Contractor specifying what item(s) will be tested, where and when the item(s) will be tested, to whom the item(s) is to be delivered, and the number of days (not to exceed 90 calendar days) that the item will be tested.

The CO may accept any proposal submitted pursuant to this clause by giving the Contractor written notice thereof. This written notice will be given by issuance of a modification to the task order. Unless and until a modification is executed to incorporate a proposal under this contract, the Contractor shall remain obligated to perform in accordance with the requirements, terms and conditions of the existing task order.
If a proposal submitted pursuant to this clause is accepted and applied to this contract, the equitable adjustment increasing or decreasing the price, Cost-Plus-Fixed-Fee, or Cost-Plus-Award-Fee shall be in accordance with the procedures of the applicable "Changes" clause. The resulting task order modification will state that it is made pursuant to this clause.

H.8 INSURANCE (MAR 2003)

See Section I - Contract Clause FAR 52.228-7, "Insurance-Liability to Third Persons (MAR 1996)."

The Contractor shall secure, pay the premiums for and keep in force until the expiration of this contract, and any renewal thereof, adequate insurance as provided below, such insurance to specifically include liability assumed by the Contractor under this contract.

(1) Workman's compensation insurance as required by law of the State.

(2) Comprehensive bodily injury liability insurance with limits of not less than $500,000 for each accident.

(3) Property damage liability with a limit of not less than $100,000 for each accident.

(4) Automotive bodily injury liability insurance with limits of not less than $200,000 for each person and $500,000 for each accident, and property damage liability insurance, with a limit of not less than $40,000 for each accident.

Each policy of insurance shall contain an endorsement that any cancellation or material change

in the coverage adversely affecting the Government's interest shall not be effective unless the insurer or the Contractor gives written notice of cancellation or change to the CO at least thirty (30) calendar days prior to the aforementioned actions. When the coverage is provided by self-insurance, the Contractor shall not change or decrease the coverage without the CO's prior approval.

A certificate of each policy of insurance shall be furnished to the CO within ten (10) days after notice of award certifying, among other things, that the policy contains the aforesaid endorsement. The insurance companies providing the above insurance shall be satisfactory to the Government. Notices of policy changes shall be furnished to the CO.

H.9 MAXIMUM FEE/PROFIT (FEB 2011)

Contractors shall propose an appropriate rate of fixed fee depending on the risk associated with a **cost-plus-fixed-fee** contractual arrangement and the nature of the work in the task order. However, the proposed task order fixed fee cannot exceed an amount that is the sum of (1) __8__ percent of the subcontracts, equipment, travel costs, Offeror-estimated ODCs, and RFP-stipulated ODCs, and (2) ___8_ percent of all other costs. In accordance with Paragraph, G.10, Payment of Fee – Cost-Plus Fixed Fee, fee will be determined as a percentage of costs expended.)

Contractors shall propose an appropriate rate of available award fee depending on the risk associated with a **cost-plus-award-fee** contractual arrangement and the nature of the work in the task order. In accordance with Paragraph G.8, Payment and Consideration, the base fee shall be 0 percent. The proposed award fee available under the task order cannot exceed an amount that is the sum of (1) ___10__ percent of the subcontracts, equipment, travel costs, Offeror-estimated ODCs, and RFP-stipulated ODCs, and (2) _10__ percent of all other costs.

For task orders issued on **firm-fixed-price** basis, Contractors shall propose an appropriate profit based on the risk associated with that contract type and the nature of the work in the task order. The proposed profit included in the firm-fixed-price cannot exceed an amount that is the sum of (1) _13__ percent of the subcontracts, equipment, travel costs, Offeror-estimated ODCs, and RFP-stipulated ODCs, and (2) __13_ percent of all other costs.

H.10 SUBCONTRACT APPROVAL (NOV 2011)

The Contractor's Subcontracting Plan dated **August 8, 2011** in support of this contract is hereby approved and incorporated herein. Since this is an indefinite delivery/indefinite quantity (IDIQ) contract, most subcontracts for professional labor shall also be placed on an IDIQ basis. Only first-tier subcontractors are allowed unless the Contractor can provide a strong technical rationale for inclusion of a second-tier subcontract and demonstrate what steps have been taken to prevent layering of costs and profit.

The Contractor shall follow the procedures specified in Part 44 of the FAR and FAR Clauses 52-244-2, and 52.244-5 when providing advance notification or requesting consent to new subcontracts. New subcontracts may be necessary for professional labor in cases where it is clearly evident to the CO that the proposed new subcontract will provide a capability that is both required to perform work described in the contract and is not available from any of the Contractor's existing team of subcontractors. If a subcontractor’s accounting system has been approved by a cognizant audit agency, usually the Defense Contract Audit Agency (DCAA),

the subcontractor's proposal **must** be submitted as a Cost-Plus-Fixed-Fee type subcontract.

In order to add a new subcontractor the Contractor must submit a written technical rationale describing the need for the new subcontractor to the CO for approval. Upon approval, a cost proposal including contract type with detailed cost information must be submitted for CO approval. The approved subcontract value shall be the subcontract ceiling on the Master Contract level. Prior to using a subcontractor the Contractor must propose the subcontractor on a specific task order and identify a cost ceiling for approval. This task order proposal requires a separate cost proposal. The Contractor is required to monitor this cost and shall not exceed the approved cost ceilings on a Master contract level for each subcontractor.

During Task Order solicitations Contractors shall obtain approval of all new subcontractors prior to submission of its task order proposal. In such cases, task order proposals must include at least 75 percent (labor hours) of the Contractor's current team (the Prime and previously authorized subcontracts). The remaining 25 percent may include new subcontracts which have not been previously consented to. Task order proposals failing to comply with this minimum will be rejected.

H.11 SECURITY AND POSITION SENSITIVITY DESIGNATIONS (FEB 2011)

Portions of the work under Section C may require contract personnel with security clearances at Confidential or Secret levels, and in some instances, Top Secret. Cleared personnel, if required, must be available at the transition of the contract or task order. Some task orders may require access to classified information. The requirement for a Secret or Top Secret Facility clearance for individual task orders will be determined at the time a task order is issued and whether or not the clearance will apply to the prime and/or any of its subcontractors.

If a Top Secret Facilities Clearance is required, the Contractor shall follow procedures in accordance with the Industrial Security Regulation (DOD 5220.22R) for the receipt, generation, and storage of classified material. The Contractor shall be responsible for obtaining appropriate security clearance from the Defense Security Service and for ensuring compliance by its employees and subcontractors(s) with the security regulations of the Government installation or Contractor (or subcontractor) facility where work is to be performed (See Attachment J.3 – DOD CONTRACT SECURITY CLASSIFICATION SPECIFICATION, DD-FORM 254).

The Contractor shall comply with the following Position Sensitivity Designations as defined under DOT Order 1630.2B, Personnel Security Management.

Labor Category	**Sensitivity Level**
[To Be Filled in upon issuance of TORFP]	[insert number]
[To Be Filled in upon issuance of TORFP]	[insert number]
[To Be Filled in upon issuance of TORFP]	[insert number]

The Contractor must possess and maintain a Secret Facility Security Clearance in accordance with the Industrial Security Regulation (DOD 5220.22R) for the receipt, generation, and storage of classified material. The Contractor must possess the clearance at time of task order award.

The Contractor shall be responsible for ensuring compliance by its employees and subcontractors with the security regulations of the Government installation or other facility where work is to be performed.

H.12 REQUESTS TO ACQUIRE EQUIPMENT (MAR 2003)

It may be necessary under this contract for the CO to allow the Contractor to acquire or lease equipment to perform certain tasks under the contract. The Contractor is required to submit requests to acquire equipment to the CO for approval. The request shall include at least the following information: (1) why the Contractor cannot provide the equipment from its own inventory, (2) the Contractor's cost analysis considering whether to lease or purchase the equipment (See FAR 7.401), and (3) the Contractor's analysis shall explain the competitive pricing and the fair and reasonable pricing determination for the subject equipment. The Contractor shall track the Contractor acquired equipment as Government Property in accordance with Government Property clauses incorporated elsewhere within this contract.

H.13 SECURITY MEASURES ON THE VOLPE CENTER PREMISES (JAN 2008)

Any work under this contract which is performed on site at the Volpe Center is subject to all provisions of this contract governing the work and the security requirements in place at the Center. The Contractor shall coordinate compliance with the CO and COTR.

(1) The Contractor is responsible for ensuring that personnel follow the security requirements and regulations of the Volpe Center Security Operations Office.

(2) The Contractor is responsible for obtaining a copy of the Center's security requirements/regulations, VNTSC Selected Directive 1600.3, Admittance to Volpe Center Buildings.

(3) All items of Government Property are subject to the Center's security regulations.

(4) In order to obtain items such as room keys, parking gate keys, and Identification Badges, the Contractor shall:

(a) Submit a written request for these items of property to the CO and COTR, who will make arrangements with the Volpe Center Security Operations Office for obtaining these items.

(b) The Contractor shall submit, within ten (10) calendar days of contract award, a list of its on-site employees to the Volpe Center CO and COTR. Once the list is submitted, the Contractor will notify the CO and COTR of any staff changes when they occur, and shall update the list of on-site employees every six (6) months thereafter.

(c) When an employee resigns, or is terminated or reassigned, the Contractor shall provide written evidence to the CO and COTR of the return of the items of Government Property noted in (4) above. The return of these items of property shall be coordinated with the Volpe Center Security Operations Office.

H.14 PERFORMANCE OF WORK AND SAFETY PROVISIONS ON GOVERNMENT PREMISES (APR 2003)

(a) Any work under this contract which is performed by the Contractor or any of its subcontractors on premises that are under direct control of the Government, is subject to the following provisions:

(1) Performance of work on Government premises shall be confined to the area(s) specified by the CO or designee. In performance of this work, the Contractor shall: (a) conform to all safety rules and requirements as in effect during the term of the contract; and (b) take such additional precautions as the contracting officer may reasonably require for safety and accident prevention purposes.

(2) The Contractor shall designate to the CO or designee, in writing, an on-the-premises representative to serve as point of contact.

(3) Any violation of applicable safety rules and requirements shall be promptly corrected as directed by the CO.

H.15 DOT INFORMATION SECURITY REQUIREMENTS (JAN 2010)

1. Access to Sensitive Information.

a. Work under this contract may involve access to sensitive information as described in paragraph d. below that shall not be disclosed by the Contractor unless authorized by the CO or designee. To protect sensitive information, the Contractor shall provide training to any Contractor employee authorized access to sensitive information and, upon request of the Government, provide information as to an individual's suitability to have such authorization. Contractor employees found by the Government to be unsuitable or whose employment is deemed contrary to the public interest or inconsistent with the best interest of national security may be prevented from performing work under the particular contract when requested by the CO or designee.

b. The Contractor shall ensure that Contractor employees are: (1) citizens of the United States of America or an alien who has been lawfully admitted for permanent residence or employment (indicated by immigration status) as evidenced by U.S. Citizenship and Immigration Services documentation; and (2) have background investigations in accordance with DOT Order 1630.2B, Personnel Security Management, and corresponding policy updates.

c. The Contractor shall include the above requirements in any subcontract awarded involving access to Government facilities, sensitive information, and/or resources.

d. Sensitive Information is proprietary data or other information that, if subject to unauthorized access, modification, loss, or misuse, could adversely affect national interest, conduct of Federal programs, or privacy of individuals specified in the Privacy Act but has not been specifically authorized to be kept secret in the interest of national defense or foreign policy under an Executive Order or Act of Congress.

2. IT Services.

a. The Contractor shall be responsible for IT security for all systems operated by or connected to a DOT network, regardless of location. This includes any IT resources or services through which the Contractor has physical or electronic access to the DOT's sensitive information that directly supports the mission of the DOT (e.g., hosting the DOT's e-Government sites or other IT operations). If necessary, the Government shall have access to Contractor and any subcontractor facilities, systems/networks operated on behalf of the DOT, documentation, databases, and personnel to carry out a program of IT inspection (to include vulnerability scanning), investigation, and audit to safeguard against threats and hazards to DOT data or IT systems.

b. Within 30 calendar days after any task order award, the Contractor shall develop and provide to the Government for approval an IT Security Plan that describes the processes and procedures the Contractor will follow in performance of this contract to ensure the appropriate security of IT resources developed, processed, or used under this contract. This plan shall be written and implemented in accordance with applicable Federal laws, including the FISMA of 2002, the Computer Security Act of 1987 (40 U.S.C. 1441 et seq.), the Clinger-Cohen Act of 1996, and the Government Information Security Reform Act (GISRA) of 2000, and meet Government IT security requirements, including Office of Management and Budget (OMB) Circular A-130, Management of Federal Information Resources, Appendix 111, Security of Federal Automated Information Resources; NIST Guidelines; the Federal Desktop Core Configuration (FDCC); the DOT's CIOP and associated guidelines, and DOT Order 1630.2B, Personnel Security Management, and corresponding policy updates.

c. The Contractor shall screen its personnel requiring privileged access or limited privileged access to systems operated by the Contractor for DOT or interconnected to a DOT network in accordance with DOT Order 1630.2B, Personnel Security Management, and ensure Contractor employees are trained annually in accordance with OMB Circular A-130, FISMA, and NIST requirements with a specific emphasis on the Volpe Center's Information Systems Rules of Behavior.

d. The Contractor shall immediately notify the CO and the COTR when an employee with access to DOT information systems is terminated.

e. The Contractor shall include the above requirements in any subcontract awarded for IT services.

f. IT means any equipment or interconnected system or subsystem of equipment used in the automatic acquisition, storage, manipulation, management, movement, control, display, switching, interchange, transmission, or reception of data or information and as further defined in OMB Circular A-130 and the FAR Part 2.

H.16 ACCOUNTING SYSTEM (DEC 2003)

A Prime Contractor **is ineligible** to receive a Cost-Plus-Fixed-Fee or Cost-Plus-Award-Fee task order unless it has an accounting system approved by a Federal Government agency. Also, **consent will not be given** for a Cost-Plus-Fixed-Fee or Cost-Plus-Award-Fee subcontract unless that particular subcontractor has an accounting system approved by a Federal Government agency.

H.17 CONSENT TO RELEASE GOVERNMENT-ORDERED ITEMS (JAN 2004)

The Contractor shall neither publish nor disclose in any manner without the written consent of the Contracting Officer the following items that may be ordered through the contract: materials, patterns, designs, sketches, drawings, and plans.

H.18 CONFLICTS OF INTEREST DISCLOSURE (MAR 2008)

(a) The Offeror shall provide a statement in its proposal which describes in a concise manner all past, present or planned organizational, financial, contractual or other interest(s) with an organization regulated by DOT, or with an organization whose interests may be substantially affected by Departmental activities, and which is related to the work under this solicitation. The interest(s) described shall include those of the proposer, its affiliates, proposed consultants, proposed subcontractors and key personnel of any of the above. Past interest shall be limited to within one year of the date of the Offeror's Technical Proposal. Key personnel shall include any person owning more than 20% interest in the Offeror, and the Offeror's corporate officers, its senior managers and any employee who is responsible for making a decision or taking an action on this contract where the decision or action can have an economic or other impact on the interests of a regulated or affected organization.

(b) The Offeror shall describe in detail why it believes, in light of the interest(s) identified in (a) above, that performance of the proposed contract can be accomplished in an impartial and objective manner.

(c) In the absence of any relevant interest identified in (a) above, the Offeror shall submit in its proposal a statement certifying that to its best knowledge and belief no affiliation exists relevant to possible conflicts of interest. The Offeror must obtain the same information from potential subcontractors prior to award of a subcontract.

(d) The Contracting Officer will review the statement submitted and may require additional relevant information from the Offeror. All such information, and any other relevant information known to DOT, will be used to determine whether an award to the Offeror may create a conflict of interest. If any such conflict of interest is found to exist, the Contracting Officer may

    (1) disqualify the Offeror, or

    (2) determine that it is otherwise in the best interest of the United States to contract with the Offeror and include appropriate provisions to mitigate or avoid such conflict in the contract awarded.

(e) The refusal to provide the disclosure or representation, or any additional information required, may result in disqualification of the Offeror for award. If nondisclosure or misrepresentation is discovered after award, the resulting contract may be terminated. If after award the Contractor discovers a conflict of interest with respect to the contract awarded as a result of this solicitation, which could not reasonably have been know prior to award, an immediate and full disclosure shall be made in writing to the Contracting Officer. The disclosure shall include a full description of the conflict, a description of the action the Contractor has taken, or proposes to take, to avoid or mitigate such conflict. The Contracting Officer may, however, terminate the contract for convenience if he or she deems that termination is in the best interest of the Government.

H.19 DOT CONTRACTOR PERSONNEL SECURITY AND AGENCY ACCESS (NOV 2011)

The following definitions are provided:

"Agency Access" means access to DOT facilities, sensitive information, information systems or other DOT resources.

"Applicant" is a contractor employee for whom the contractor submits an application for a DOT identification card.

"Contractor Employee" means prime contractor and subcontractor employees who require agency access to perform work under a DOT contract.

"Identification Card" (or "ID card"} means a government issued or accepted identification card such as a Personal Identity Verification {PIV} card, a PIV-Interoperable (PIV-1} card from an authorized PIV-1 issuer, or a non-PIV card issued by DOT, or a non- PIV card issued by another Federal agency and approved by DOT. PIV and PIV-1 cards have physical and electronic attributes that other (non-PIV} ID cards do not have.

"Issuing Office" means the DOT entity that issues identification cards to contractor employees.

"Local Security Servicing Organization" means the DOT entity that provides security services to the DOT organization sponsoring the contract.

1. Risk and Sensitivity Level Designations- For contracts requiring access to DOT facilities, sensitive information, information systems or other DOT resources, the contractor employees will be required to complete background investigations, identity proofing, and government identification card application procedures to determine suitability for access. DOT will assign a risk and sensitivity level designation to the overall contract and/or to contractor employee positions by category, group or individual. The risk and sensitivity *level* designations will be the basis for determining the *level* of personnel security processing required for contractor employees.

IF THE DESIGNATED RISK IS:	THE BACKGROUND INVESTIGATION IS:
Low	National Agency Check with Written Inquiries (NACI)
Moderate	Minimum Background Investigation (MBI)
High	Background Investigation (BI)

Contractor employees may also be required to obtain security clearances (i.e., Confidential, Secret, or Top Secret). National Security work designated "special sensitive," "critical sensitive," or "non-critical sensitive" will determine the *level* of clearance required for contractor employees. Personnel security clearances for national security contracts in DOT will be processed according to the Department of Defense National Industrial Security Program Operating Manual (NISPOM).

2. Pre-screening of Contractor Employees- The contractor must pre-screen individuals designated for employment under any DOT contract by verifying minimal suitability requirements to ensure that only quality candidates are considered for contract employment, and to mitigate the burden on the Government of conducting background investigations on objectionable applicants. The contractor must exercise due diligence in pre-screening all employees prior to submission to DOT for agency access. DOT may decline to grant agency access to a contractor employee for reasons including, but not limited to:

a) Conviction of a felony, a crime of violence, or a misdemeanor involving moral turpitude.

b) Falsification of information entered on forms or of other documents submitted.

c) Improper conduct including criminal, infamous, dishonest, immoral, or notoriously disgraceful conduct or other conduct adverse to the Government regardless of whether the conduct is directly related to the contract.

d) Any behavior judged to pose a potential threat to DOT facilities, sensitive information, information systems or other resources.

3. Citizenship and Alien Status- The contractor must monitor an alien's continued authorization for employment in the United States. The contractor must provide documentation to the Contracting Officer or the Contracting Officer's Technical Representative during the background investigation process that validates that the E-Verify requirement has been met for each contractor employee.

4. Background Investigation and Adjudication- The contractor employee must have a favorable adjudication of background investigation before DOT will issue an ID card to the contractor employee granting access to DOT facilities, sensitive information, information systems or other DOT resources. DOT may accept favorable adjudications of background investigations from other Federal agencies when applicants have held PIV cards issued by those agencies with no break in service. DOT may also accept PIV-1 (interoperable) cards issued by an authorized PIV-1 issuer as evidence of identity. A favorable adjudication does not preclude DOT from initiating a new investigation when deemed necessary. At a minimum, the FBI National Criminal History Check (fingerprint check) must be favorably completed before a DOT identification card can be issued. Each contractor must use the Office of Personnel Management's (OPM) e-QIP system to complete any required investigative forms. Instructions for obtaining fingerprints will be provided by the COTR or CO. The DOT Office of Security, M-40, or a DOT organization delegated authority by M-40, is responsible for adjudicating the suitability of contractor employees.

5. Agency Access Denied- Upon contract award, DOT will initiate the agency access procedure for all contractor employees requiring access to DOT facilities, sensitive information, information systems and other DOT resources for contract performance. DOT may deny agency access to any individual about whom an adverse suitability determination is made. Failure to submit the required security information or to truthfully answer all questions shall constitute grounds for denial of access. The contractor must not provide agency access to contractor employees until the COTR or CO provides notice of approval, which is authorized only by the DOT Office of Security (M-40) or a DOT organization delegated authority by M-40. Where a

proposed contractor's employees are denied agency access by the Government or, if for any reason proposed applications are withdrawn by the contractor during the agency access process, the additional costs and administrative burden for conducting additional background investigations caused by a lack of effective pre- screening or planning on the part of the contractor may be considered as part of the contractor's overall performance evaluation.

6. Identification Card Application Process- the COTR will be the DOT ID card Sponsor and point of contact for the contractor's application for a DOT ID card. The COTR shall review and approve the DOT ID card application before an ID card is issued to the applicant.

An applicant may be issued either a Personal Identity Verification (PIV) card that meets the standards of Homeland Presidential Security Directive (HSPD-12), or an applicant may be issued a non-PIV card. Generally, a non-PIV card will be issued for contracts that expire in six months or less, including option periods. The COTR may request the issuing office to waive the six month eligibility requirement when it is in DOT's interest for contract performance.

The applicant must complete a DOT on-line application for a PIV card. For a non-PIV card, the applicant must complete and submit a hard copy of Form 1681to the COTR/Sponsor. Regardless of the type of card to be issued (PIV or non-PIV), the applicant must appear in- person to provide two forms of identity source documents in original form to DOT. The identity source documents must come from the list of acceptable documents included in *Form I-9, OMB No. 1115-0136, Employment Eligibility Verification*. At least one document must be a valid State or Federal government-issued picture identification. For a PIV card, the applicant may be required to appear in-person a second time for enrollment and activation.

7. Identification Card Custody and Control- The contractor is responsible for the custody and control of all forms of government identification issued by DOT to contractor employees for access to DOT facilities, sensitive information, information systems and other DOT resources. The contractor must immediately notify the COTR or, if the COTR is unavailable, the CO when a contractor employee no longer requires agency access due to transfer, completion of a project, retirement, removal from work on the contract, or termination of employment.

The contractor is responsible for maintaining and safeguarding the DOT ID card upon issuance to the contractor employee. The contractor must ensure that contractor employees comply with DOT requirements concerning the renewal, loss, theft, or damage of an ID card. The contractor must immediately notify the COTR or, if the COTR is unavailable, the CO when an ID card is lost, stolen or damaged.

Failure to comply with the requirements for custody and control of DOT ID cards may result in withholding final payment or contract termination based on the potential for serious harm caused by inappropriate access to DOT facilities, sensitive information, information systems or other DOT resources.

a) Renewal: A contractor employee's DOT issued ID card is valid for a maximum of three years or until the contract expiration date (including option periods), whichever occurs first. The renewal process should begin six weeks before the PIV card expiration

date. If a PIV card is not renewed before it expires, the contractor employee will be required to sign-in daily for facility access and may have limited access to information systems and other resources.

b) Lost/Stolen: Immediately upon detection, the contractor or contractor employee must report a lost or stolen DOT ID card to the COTR, or if the COTR is unavailable, the CO, the issuing office, or the local servicing security organization. The contractor must submit an incident report within 48 hours, through the COTR or, if the COTR is unavailable, the CO, the issuing office, or the local security servicing organization describing the circumstances of the loss or theft. The contractor must also report a lost or stolen PIV card through the DOT on-line registration system. If the loss or theft is reported by the contractor to the local police, a copy of the police report must be provided to the COTR or CO. From the date of notification to DOT, the contractor must wait three days before getting a replacement ID card. During the 3- day wait period, the contractor employee must sign in daily for facility access.

c) Replacement: An ID card will be replaced if it is damaged, contains incorrect data, or is lost or stolen for more than 3 days, provided there is a continuing need for agency access to perform work under the contract.

8. Surrender of ID Cards- Upon notification that routine access to DOT facilities, sensitive information, information systems or other DOT resources is no longer required, the contractor must surrender the DOT issued ID card to the COTR, or if the COTR is unavailable, the CO, the issuing office, or the local security servicing organization in accordance with agency procedures.

9. Use of This Clause- The contractor is required to include these clauses in any subcontracts that require the subcontractor or subcontractor's employees to have access to DOT facilities, sensitive information, information systems or other resources.

SECTION I - CONTRACT CLAUSES

I.1 FAR 52.252-2 CLAUSES INCORPORATED BY REFERENCE (FEB 1998)

This contract incorporates one or more clauses, by reference, with the same force and effect as if they were given in full text. Upon request, the CO will make their full text available. Also, the full text of a clause may be accessed electronically at this/these address(es):

https://www.acquisition.gov/far/index.html (FAR)
http://www.dot.gov/ost/m60/tamtar/tar.htm (TAR)
http://www.dot.gov/ost/m60/earl/tamcomplete.htm (TAM)

I. FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1) CLAUSES

NUMBER	TITLE	DATE
52.202-1	DEFINITIONS	JUL 2004
52.203-3	GRATUITIES	APR 1984
52.203-5	COVENANT AGAINST CONTINGENT FEES	APR 1984
52.203-6	RESTRICTIONS ON SUBCONTRACTOR SALES TO THE GOVERNMENT	SEP 2006
52.203-7	ANTI-KICKBACK PROCEDURES	OCT 2010
52.203-8	CANCELLATION, RESCISSION, AND RECOVERY OF FUNDS FOR ILLEGAL OR IMPROPER ACTIVITY	JAN 1997
52.203-10	PRICE OR FEE ADJUSTMENT FOR ILLEGAL OR IMPROPER ACTIVITY	JAN 1997
52.203-12	LIMITATION ON PAYMENTS TO INFLUENCE CERTAIN FEDERAL TRANSACTIONS	OCT 2010
52.203-13	CONTRACTOR CODE OF BUSINESS ETHICS AND CONDUCT	APR 2010
52.203-15	WHISTLEBLOWER PROTECTIONS UNDER THE AMERICAN RECOVERY AND REINVESTMENT ACT OF 2009	JUN 2010
52.204-2	SECURITY REQUIREMENTS	AUG 1996
52.204-4	PRINTED OR COPIED DOUBLE-SIDED ON RECYCLED PAPER	AUG 2000
52.204-7	CENTRAL CONTRACTOR REGISTRATION	APR 2008
52.204-9	PERSONAL IDENTITY VERIFICATION OF CONTRACTOR PERSONNEL	SEP 2007
52.204-10	REPORTING EXECUTIVE COMPENSATION AND FIRST-TIER SUBCONTRACT AWARDS.	JUL 2010
52.209-6	PROTECTING THE GOVERNMENT'S INTEREST WHEN SUBCONTRACTING WITH CONTRACTORS DEBARRED, SUSPENDED, OR PROPOSED FOR DEBARMENT	DEC 2010
52.215-2	AUDIT AND RECORDS-NEGOTIATION	OCT 2010
2.215-8	ORDER OF PRECEDENCE - UNIFORM CONTRACT FORMAT	OCT 1997
52.215-10	PRICE REDUCTION FOR DEFECTIVE	OCT 2010

	CERTIFIED COST OR PRICING DATA	
52.215-11	PRICE REDUCTION FOR DEFECTIVE CERTIFIED COST OR PRICING DATA-MODIFICATIONS	OCT 2010
52.215-12	SUBCONTRACTOR CERTIFIED COST OR PRICING DATA	OCT 2010
52.215-13	SUBCONTRACTOR CERTIFIED COST OR PRICING DATA—MODIFICATIONS	OCT 2010
52.215-14	INTEGRITY OF UNIT PRICES	OCT 2010
52.215-15	PENSION ADJUSTMENTS AND ASSET REVERSIONS	OCT 2010
52.215-16	FACILITIES CAPITAL COST OF MONEY	JUN 2003
52.215-18	REVERSION OR ADJUSTMENT OF PLANS FOR POSTRETIREMENT BENEFITS (PRB) OTHER THAN PENSIONS	JUL 2005
52.215-19	NOTIFICATION OF OWNERSHIP CHANGES	OCT 1997
52.215-21	REQUIREMENTS FOR CERTIFIED COST OR PRICING DATA AND DATA OTHER THAN CERTIFIED COST OR PRICING DATA – MODIFICATIONS	OCT 2010
52.215-23	LIMITATIONS ON PASS-THROUGH CHARGES	OCT 2009
	ALTERNATE I	OCT 2009
52.216-7	ALLOWABLE COST AND PAYMENT	DEC 2002
52.216-8	FIXED FEE	MAR 1997
52.216-18	ORDERING	OCT 1995
	For the purposes of this clause the blank(s) are completed as follows: (a) from date of contract award through five years)	
52.216-19	ORDER LIMITATIONS	OCT 1995
	For the purposes of this clause the blank(s) are completed as follows: (a) $2,500 (b)(1) $50,000,000 (b)(2) $50,000,000 (b)(3) three calendar days (d) (3) three calendar days	
52.216-22	INDEFINITE QUANTITY	OCT 1995
	For the purpose of this clause the blank(s) are completed as follows: (d) Contractor shall not be required to make any deliveries under this contract 12 months after the contract ordering period expires.	
52.217-8	OPTION TO EXTEND SERVICES	NOV 1999
	For the purpose of this clause the blank is completed as follows: 30 calendar days before expiration of the contract performance period.	
52.219-4	NOTICE OF PRICE EVALUATION PREFERENCE FOR HUBZONE SMALL BUSINESS CONCERNS	JAN 2011
52.219-8	UTILIZATION OF SMALL BUSINESS CONCERNS	JAN 2011
52.219-9	SMALL BUSINESS SUBCONTRACTING PLAN	JAN 2011
	ALTERNATE II	OCT 2001
52.219-14	LIMITATIONS ON SUBCONTRACTING	DEC 1996
52.219-16	LIQUIDATED DAMAGES-- SUBCONTRACTING PLAN	JAN 1999
52.219-25	SMALL DISADVANTAGED BUSINESS PARTICIPATION PROGRAM - DISADVANTAGED STATUS AND REPORTING	DEC 2010

52.222-1	NOTICE TO THE GOVERNMENT OF LABOR DISPUTES	FEB 1997
52.222-2	PAYMENT FOR OVERTIME PREMIUMS For the purpose of this clause the blank is completed as follows: (a) zero	JUL 1990
52.222-3	CONVICT LABOR	JUNE 2003
52.222-21	PROHIBITION OF SEGREGATED FACILITIES	FEB 1999
52.222-26	EQUAL OPPORTUNITY	MAR 2007
52.222-35	EQUAL OPPORTUNITY FOR VETERANS	SEP 2010
52.222-36	AFFIRMATIVE ACTION FOR WORKERS WITH DISABILITIES	OCT 2010
52.222-37	EMPLOYMENT REPORTS VETERANS	SEP 2010
52.222-40	NOTIFICATION OF EMPLOYEE RIGHTS UNDER THE NATIONAL LABOR RELATIONS ACT	DEC 2010
52.222-50	COMBATING TRAFFICKING IN PERSONS	FEB 2009
52.222-54	EMPLOYMENT ELIGIBILITY VERIFICATION	JAN 2009
52.223-5	POLLUTION PREVENTION AND RIGHT-TO-KNOW INFORMATION	AUG 2003
52.223-6	DRUG-FREE WORKPLACE	MAY 2001
52.223-14	TOXIC CHEMICAL RELEASE REPORTING	AUG 2003
52.223-15	ENERGY EFFICIENCY IN ENERGY-CONSUMING PRODUCTS	DEC 2007
52.223.16	IEEE 1680 STANDARD FOR THE ENVIRONMENTAL ASSESSMENT OF PERSONAL COMPUTER PRODUCTS	DEC 2007
52.223-18	CONTRACTOR POLICY TO BAN TEXT MESSAGING WHILE DRIVING	SEP 2010
52.224-1	PRIVACY ACT NOTIFICATION	APR 1984
52.224-2	PRIVACY ACT	APR 1984
52.225-1	BUY AMERICAN ACT - SUPPLIES	FEB 2009
52.225-13	RESTRICTIONS ON CERTAIN FOREIGN PURCHASES	JUN 2008
52.227-1	AUTHORIZATION AND CONSENT	DEC 2007
52.227-2	NOTICE AND ASSISTANCE REGARDING PATENT AND COPYRIGHT INFRINGEMENT	DEC 2007
52.227-3	PATENT INDEMNITY	APR 1984
52.227-11	PATENT RIGHTS-OWNERSHIP BY THE CONTRACTOR	DEC 2007
52.227-14	RIGHTS IN DATA GENERAL ALTERNATES I, II, AND III	DEC 2007 DEC 2007
52.227-16	ADDITIONAL DATA REQUIREMENTS	JUN 1987
52.227-19	COMMERCIAL COMPUTER SOFTWARE-LICENSE	DEC 2007
52.228-5	INSURANCE – WORK ON A GOVERNMENT INSTALLATION	JAN 1997
52.228-7	INSURANCE - LIABILITY TO THIRD PERSONS	MAR 1996
52.229-3	FEDERAL, STATE AND LOCAL TAXES	APR 2003
52.230-2	COST ACCOUNTING STANDARDS	OCT 2010
52.230-3	DISCLOSURE AND CONSISTENCY OF COST ACCOUNTING PRACTICES	OCT 2008
52.230-6	ADMINISTRATION OF COST ACCOUNTING STANDARDS	JUN 2010
52.232-1	PAYMENTS	APR 1984

52.232-9	LIMITATION ON WITHHOLDING OF PAYMENTS	APR 1984
52.232-11	EXTRAS	APR 1984
52.232-17	INTEREST	OCT 2010
52.232-18	AVAILABILITY OF FUNDS	APR 1984
52.232-20	LIMITATION OF COST "task order" is to be substituted for "Schedule" wherever that word appears in the clause.	APR 1984
52.232-22	LIMITATION OF FUNDS "task order" is to be substituted for "Schedule" wherever that word appears in the clause.	APR 1984
52.232-23	ASSIGNMENT OF CLAIMS	JAN 1986
52.232-25	PROMPT PAYMENT	OCT 2008
52.232-33	PAYMENT BY ELECTRONIC FUNDS TRANSFER CENTRAL CONTRACTOR REGISTRATION	OCT 2003
52.233-1	DISPUTES	JUL 2002
	ALTERNATE I	DEC 1991
52.233-3	PROTEST AFTER AWARD	AUG 1996
	ALTERNATE I	JUN 1985
52.233-4	APPLICABLE LAW FOR BREACH OF CONTRACT CLAIM	OCT 2004
52.237-2	PROTECTION OF GOVERNMENT BUILDINGS, EQUIPMENT, AND VEGETATION	APR 1984
52.239-1	PRIVACY OR SECURITY SAFEGUARDS	AUG 1996
52.242-1	NOTICE OF INTENT TO DISALLOW COSTS	APR 1984
52.242-3	PENALTIES FOR UNALLOWABLE COSTS	MAY 2001
52.242-4	CERTIFICATION OF FINAL INDIRECT COSTS	JAN 1997
52.242-13	BANKRUPTCY	JUL 1995
52.243-1	CHANGES-FIXED PRICE	AUG 1987
	ALTERNATES I and II	APR 1984
52.243-2	CHANGES - COST-REIMBURSEMENT	AUG 1987
	ALTERNATE II	APR 1984
52.244-2	SUBCONTRACTS	OCT 2010
	ALTERNATE I	JUN 2007
52.244-5	COMPETITION IN SUBCONTRACTING	DEC 1996
52.244-6	SUBCONTRACTS FOR COMMERCIAL ITEMS	DEC 2010
	ALTERNATE I	JUN 2010
52.245-1	GOVERNMENT PROPERTY	AUG 2010
52.246-25	LIMITATION OF LIABILITY - SERVICES	FEB 1997
52.247-63	PREFERENCE FOR U.S.-FLAG AIR CARRIERS	JUN 2003
52.247-64	PREFERENCE FOR PRIVATELY OWNED U.S.-FLAG COMMERCIAL VESSELS	FEB 2006
52.249-2	TERMINATION FOR THE CONVENIENCE OF OF THE GOVERNMENT (FIXED PRICE)	MAY 2004
52.249-6	TERMINATION (COST-REIMBURSEMENT)	MAY 2004
52.249-8	DEFAULT (FIXED PRICE SUPPLY AND SERVICE)	APR 1984
52.249-9	DEFAULT (FIXED PRICE RESEARCH AND DEVELOPMENT)	APR 1984
52.249-14	EXCUSABLE DELAYS	APR 1984
52.251-1	GOVERNMENT SUPPLY SOURCES	AUG 2010
52.253-1	COMPUTER GENERATED FORMS	JAN 1991

II. TRANSPORTATION ACQUISITION REGULATION (48 CFR CHAPTER 12) CLAUSES

NUMBER	TITLE	DATE
1252.222-70	STRIKES OR PICKETING AFFECTING TIMELY COMPLETION OF THE CONTRACT WORK	OCT 1994
1525.222-71	STRIKES OR PICKETING AFFECTING ACCESS TO A DOT FACILITY	OCT 1994
1252.223-71	ACCIDENT AND FIRE REPORTING	APR 2005
1252.223-73	SEAT BELT USE POLICIES AND PROGRAMS	APR 2005
1252.237-70	QUALIFICATIONS OF CONTRACTOR EMPLOYEES	APR 2005
1252.239-70	SECURITY REQUIREMENTS FOR UNCLASSIFIED INFORMATION TECHNOLOGY RESOURCES	APR 2005
1252.242-72	DISSEMINATION OF CONTRACT INFORMATION	OCT 1994
1252.245-70	GOVERNMENT PROPERTY REPORTS	OCT 1994

I.2 FAR 52.204-1 APPROVAL OF CONTRACT (DEC 1989)

This contract is subject to the written approval of the Chief of the Contracting Office, and shall not be binding until so approved.

I.3 FAR 52.209-9 UPDATES OF PUBLICLY AVAILABLE INFORMATION REGARDING RESPONSIBILITY MATTERS (JAN 2011) ALTERNATE I (JAN 2011)

(a) The Contractor shall update the information in the Federal Awardee Performance and Integrity Information System (FAPIIS) on a semi-annual basis, throughout the life of the contract, by posting the required information in the Central Contractor Registration database at http://www.ccr.gov.

(b)(1) The Contractor will receive notification when the Government posts new information to the Contractor's record.

(2) The Contractor will have an opportunity to post comments regarding information that has been posted by the Government. The comments will be retained as long as the associated information is retained, *i.e.*, for a total period of 6 years. Contractor comments will remain a part of the record unless the Contractor revises them.

(3)(i) Public requests for system information posted prior to April 15, 2011, will be handled under Freedom of Information Act procedures, including, where appropriate, procedures promulgated under E.O. 12600.

(ii) As required by section 3010 of Public Law 111-212, all information posted in FAPIIS on or after April 15, 2011, except past performance reviews, will be publicly available.

Alternate I (Jan 2011). As prescribed in 9.104-7(c)(2), redesignate paragraph (a) of the basic clause as paragraph (a)(1) and add the following paragraph (a)(2):

(2) At the first semi-annual update on or after April 15, 2011, the Contractor shall post again any required information that the Contractor posted prior to April 15, 2011.

II. TRANSPORTATION ACQUISITION REGULATION (48 CFR CHAPTER 12) CLAUSES

I.4 TAR 1252.237-73 KEY PERSONNEL (APR 2005)

(a) The personnel as specified below are considered essential to the work being performed under this contract and may, with the consent of the contracting parties, be changed from time to time during the course of the contract by adding or deleting personnel, as appropriate.

(b) Before removing, replacing, or diverting any of the specified individuals, the Contractor shall notify the contracting officer, in writing, before the change becomes effective. The Contractor shall submit information to support the proposed action to enable the contracting officer to evaluate the potential impact of the change on the contract. The Contractor shall not remove or replace personnel under this contract until the Contracting Officer approves the change. An individual may be named more than once to satisfy the requirements.

The Key Personnel under this Contract are:

(1) Program Manager: Chip Meserole
(2) Task Area 1 Manager: Greg Carr
Task Area 2 Manager: Dave Rinehart
Task Area 3 Manager: Pete Brodie
Task Area 4 Manager: Ed Valovage
Task Area 5 Manager: Andrew Onken
Task Area 6 Manager: Kenneth Montry
Task Area 7 Manager: Brian Tillotson
(3) Contract Administrator/Contracting Officer: Elizabeth Marinescu
(4) To be specified under individual task orders

THE FOLLOWING CLAUSES, I.5, I.6, AND I.7, APPLY TO AWARD FEE TASK ORDERS ONLY:

I.5 TAR 1252.216-71 DETERMINATION OF AWARD FEE (APR 2005)

(a) The Government shall evaluate Contractor performance at the end of each specified evaluation period to determine the amount of award. The Contractor agrees that the amount of award and the award fee methodology are unilateral decisions to be made at the sole discretion of the Government.

(b) Contractor performance shall be evaluated according to a Performance Evaluation Plan. The Contractor shall be periodically informed of the quality of its performance and areas in which improvements are expected.

(c) The Contractor shall be promptly advised, in writing, of the determination and reasons why the award fee was or was not earned. The Contractor may submit a performance self-evaluation for each evaluation period. The amount of award is at the sole discretion of the Government but any self-evaluation received within __*___ *(insert number)* days after the end of the current

evaluation period will be given such consideration, as may be deemed appropriate by the Government.

(d) The amount of award fee which can be awarded in each evaluation period is limited to the amounts set forth at (* *identify location of award fee amounts*). Award fee which is not earned in an evaluation period cannot be reallocated to future evaluation periods.

* To be Determined (TBD) at Task Order Level

I.6 TAR 1252.216-72 PERFORMANCE EVALUATION PLAN (OCT 1994)

NOTE: The term "task order" shall be substituted for the word "contract" in the following clause:

(a) A Performance Evaluation Plan shall be unilaterally established by the Government based on the criteria stated in the contract and used for the determination of award fee. This plan shall include the criteria used to evaluate each area and the percentage of award fee (if any) available for each area. A copy of the plan shall be provided to the Contractor __*_____ *(insert number)* calendar days prior to the start of the first evaluation period.

(b) The criteria contained within the Performance Evaluation Plan may relate to: (1) Technical (including schedule) requirements, if appropriate; (2) Management; and (3) Cost.

(c) The Performance Evaluation Plan may, consistent with the contract, be revised unilaterally by the Government at any time during the period of performance. Notification of such changes shall be provided to the Contractor____*_____ *(insert number)* calendar days prior to the start of the evaluation period to which the change will apply.

* To be Determined (TBD) at Task Order Level

I.7 TAR 1252.216-73 DISTRIBUTION OF AWARD FEE (APR 2005)

(a) The total amount of award fee available under this contract is assigned according to the following evaluation periods and amounts:

Evaluation Period: *

Available Award Fee: *

(b) After the Contractor has been paid 85 percent of the base fee and potential award fee, the Government may withhold further payment of the base fee and award fee until a reserve is set aside in an amount that the Government considers necessary to protect its interest. This reserve shall not exceed 15 percent of the total base fee and potential award fee or $100,000, whichever is less. Thereafter, base fee and award fee payments may continue.

(c) In the event of contract termination, either in whole or in part, the amount of award fee available shall represent a prorata distribution associated with evaluation period activities or events as determined by the Government.

(d) The Government will promptly make payment of any award fee upon the submission by the Contractor to the contracting officer's authorized representative, of a public voucher or invoice in the amount of the total fee earned for the period evaluated. Payment may be made without using a contract modification.

* To be Determined (TBD) at Task Order Level

SECTION J - ATTACHMENTS

ATTACHMENT J.1 - MONTHLY TASK ORDER COST REPORT FORMAT

ATTACHMENT J.2 - LABOR CATEGORY QUALIFICATIONS

ATTACHMENT J.3 - DOD CONTRACT SECURITY CLASSIFICATION SPECIFICATION, DD-FORM 254

ATTACHMENT J.4 – SMALL BUSINESS SUBCONTRACTING PLAN

ATTACHMENT J.1 - MONTHLY TASK ORDER COST REPORT FORMAT

MONTHLY TASK ORDER COST REPORT FOR PRIME CONTRACTOR											
Contractor: ABC Company											
Task Order #		Title									
Task Order Start Date:			Task Order Value				Funding Obligated to Date				
Period of Performance:			Cost	$-			Cost	$-	$-		
Reporting Period:			Fee	$-			Fee	$-	$-		
			CPFF	$-			CPFF	$-	$-		
	TOTAL TASK										
CATEGORY	*ORDER VALUE*		*PRIOR PERIOD*		*CURRENT PERIOD*		*CUMULATIVE AMOUNT*			*PERCENT TO DATE*	
Labor Hours	*Hours*	*Dollars*	*Hours*	*Dollars*	*Hours*	*Dollars*	*Hours*	*Dollars*		*Hours*	*Dollars*
Senior Staff	0.00	$-	0.00	$-	0.00	$-	0.00	$-			
Middle Staff	0.00	$-	0.00	$-	0.00	$-	0.00	$-			
Staff	0.00	$-	0.00	$-	0.00	$-	0.00	$-			
Junior Staff	0.00	$-	0.00	$-	0.00	$-	0.00	$-			
Senior Technician	0.00	$-	0.00	$-	0.00	$-	0.00	$-			
Technician	0.00	$-	0.00	$-	0.00	$-	0.00	$-			
Subtotal Professional	*0.00*	*$-*	0.00	*$-*	*0.00*	*$-*	*0.00*	*$-*			
Administrative	0.00	$-	0.00	$-	0.00	$-	0.00	$-			
Total all Labor	*0.00*	*$-*	*0.00*	*$-*	*0.00*	*$-*	*0.00*	*$-*			
Estimated Labor Cost											
Direct Labor + Fringe		$-		$-		$-		$-			
Indirects (O/H, G&A, etc.)		$-		$-		$-		$-			
Travel		$-		$-		$-		$-			
Subcontractors		$-		$-		$-		$-			
Subcontract Admin.		$-		$-		$-		$-			
Purchases - ODCs		$-		$-		$-		$-			
Total Estimated Cost											

MONTHLY TASK ORDER COST REPORT FOR SUBCONTRACTOR											
Subcontractor: XYZ Company											
Task Order #		Title									
Task Order Start Date:			Funding Obligated to Date								
Period of Performance:			Cost	$-							
Reporting Period:			Fee	$-							
			CPFF	$-							
	TOTAL TASK ORDER										
CATEGORY	*ALLOCATED VALUE*		*PRIOR PERIOD*		*CURRENT PERIOD*		*CUMULATIVE AMOUNT*			*PERCENT TO DATE*	
Labor Hours	*Hours*	*Dollars*	*Hours*	*Dollars*	*Hours*	*Dollars*	*Hours*	*Dollars*		*Hours*	*Dollars*
Senior Staff	0.00	$-	0.00	$-	0.00	$-	0.00	$-			
Middle Staff	0.00	$-	0.00	$-	0.00	$-	0.00	$-			
Staff	0.00	$-	0.00	$-	0.00	$-	0.00	$-			
Junior Staff	0.00	$-	0.00	$-	0.00	$-	0.00	$-			
Sr Technician	0.00	$-	0.00	$-	0.00	$-	0.00	$-			
Technician	0.00	$-	0.00	$-	0.00	$-	0.00	$-			
Subtotal Professional	*0.00*	*$-*	0.00	*$-*	*0.00*	*$-*	*0.00*	*$-*			
Administrative	0.00	$-	0.00	$-	0.00	$-	0.00	$-			
Total all Labor	*0.00*	*$-*	*0.00*	*$-*	*0.00*	*$-*	*0.00*	*$-*			
Estimated Labor Cost											
Other Direct Costs		$-		$-		$-		$-			
ODC		$-		$-		$-		$-			
Travel		$-		$-		$-		$-			
Total Est Cost											

ATTACHMENT J.2 - LABOR CATEGORY QUALIFICATIONS

TRAFFIC MANAGEMENT INFRASTRUCTURE SYSTEMS

SENIOR STAFF - to perform successfully in this capacity, the individual must have a combination of education and experience totaling twenty (20) years in a technical area directly related to the Statement of Work (SOW).

MIDDLE STAFF - to perform successfully in this capacity, the individual must have a combination of education and experience totaling sixteen (16) years in a technical area directly related to the SOW.

STAFF - to perform successfully in this capacity, the individual must have a combination of education and experience totaling twelve (12) years in a technical area directly related to the SOW.

JUNIOR STAFF - to perform successfully in this capacity, the individual must have a combination of education and experience totaling eight (8) years in a technical area directly related to the SOW.

SENIOR TECHNICIAN - to perform successfully in this capacity, the individual must have a combination of education and experience totaling (10) years in a technical area directly related to the SOW.

TECHNICIAN - to perform successfully in this capacity, the individual must have a combination of education and experience totaling (2) years in a technical area directly related to the SOW.

CONTRACT ADMINISTRATOR/CONTRACTING OFFICER - to perform successfully in this capacity, the individual must have a combination of education and experience totaling (10) years in a position directly related in the field of contract administration.

The aforementioned annual experience totals may be achieved by following the below Summary Table. For purposes of this table, excluding Contracts Administrator, please note the following.

- A Ph.D. degree in a directly related discipline to the SOW is equivalent to sixteen (16) years of professional experience.
- A Masters degree in a directly related discipline to the SOW is equivalent to twelve (12) years of professional experience.
- A Bachelors degree in a directly related discipline to the SOW is equivalent to eight (8) years of professional experience.
- An individual with no undergraduate or post-graduate degree must possess the full amount of required yearly work experience in a field directly related to the SOW to qualify for the appropriate labor category.

SUMMARY TABLE OF LABOR CATEGORY QUALIFICATIONS

Labor Category	Years of Experience	Degree
Senior Staff	4	Ph.D.
	8	MS/MA/MBA
	12	BS
	20	None
Middle Staff	0	Ph.D.
	4	MS/MA/MBA
	8	BS
	16	None
Staff	0	Ph.D.
	0	MS/MS.MBA
	4	BS
	12	None
Junior Staff	0	Ph.D.
	0	MS/MA/MBA
	0	BS
	8	None
Senior Technician	0	Ph.D.
	0	MS/MA/MBA
	2	BS
	10	None
Technician	0	Ph.D.
	0	MS/MA/MBA
	0	BS
	2	None
Contract Administrator/ Contracting Officer	4	MS/MA/MBA
	6	BS
	8	Associates
	10	None

NOTE: The Government may, at the task order level and on a case-by-case basis, require certain degrees or certifications. In addition, the Contractor may, at the task order level and on a case-by-case basis, offer to the Contracting Officer a candidate with special or market-scarce skills/qualifications for consideration in any of the labor categories cited above.

ATTACHMENT J.3 – DOD CONTRACT SECURITY CLASSIFICATION SPECIFICATION, DD-FORM 254

DEPARTMENT OF DEFENSE

CONTRACT SECURITY CLASSIFICATION SPECIFICATION

(*The requirements of the DoD Industrial Security Manual apply to all security aspects of this effort.)*

1. CLEARANCE AND SAFEGUARDING

a. FACILITY CLEARANCE REQUIRED

b. LEVEL OF SAFEGUARDING REQUIRED

2. THIS SPECIFICATION IS FOR: (*x and complete as applicable)*

☐	a. PRIME CONTRACT NUMBER
☐	b. SUBCONTRACT NUMBER
☐	c. SOLICITATION OR OTHER NUMBER DUE DATE *(YYMMDD)*

3. THIS SPECIFICATION IS: (*x and complete as applicable*)

☐	a. ORIGINAL (Complete date in all cases)		DATE (*YYMMDD)*
☐	b. REVISED (Supersedes all previous specs)	Revision No.	DATE *(YYMMDD)*
☐	c. FINAL (Complete Item 5 in all cases)		DATE *(YYMMDD)*

4. THIS IS A FOLLOW-ON CONTRACT? ☐ **YES** ☐ **NO. If Yes, complete the following:**

Classified material received or generated under _(*Preceding Contract Number*) is transferred to this follow-on contract.

5. IS THIS A FINAL DD FORM 254? ☐ **YES** ☐ **NO. If Yes, complete the following:**

In response to the contractor's request dated retention of the identified classified material is authorized for the period of _____

6. CONTRACTOR (*Include Commercial and Government Entity (CAGE) Code)*

a. NAME, ADDRESS, AND ZIP CODE	b. CAGE CODE	c. .COGNIZANT SECURITY OFFICE *(Name, Address, and Zip Code)*

7. SUBCONTRACTOR

NAME, ADDRESS, AND ZIP CODE	b. CAGE CODE	c. COGNIZANT SECURITY OFFICE *(Name, Address, and Zip code)*

8. ACTUAL PERFORMANCE

a. LOCATION	b. CAGE CODE	c. COGNIZANT SECURITY OFFICE*(Name, Address, and Zip Code)*

9. GENERAL IDENTIFICATION OF THIS PROCUREMENT

DD FORM 254, DEC 1999 PREVIOUS EDITION IS OBSOLETE.

10. THIS CONTRACT WILL REQUIRE ACCESS TO:	YES	NO	11. IN PERFORMING THIS CONTRACT, THE CONTRACTOR WILL:	YES	NO
a. COMMUNICATIONS SECURITY (COMSEC) INFORMATION	☐	☐	a. HAVE ACCESS TO CLASSIFIED INFORMATION ONLY AT ANOTHER CONTRACTOR'S FACILITY OR A GOVERNMENT ACTIVITY	☐	☐
b. RESTRICTED DATA	☐	☐	b. RECEIVE CLASSIFIED DOCUMENTS ONLY	☐	☐
c. CRITICAL NUCLEAR WEAPON DESIGN INFORMATION	☐	☐	c. RECEIVE AND GENERATE CLASSIFIED MATERIAL	☐	☐
d. FORMERLY RESTRICTED DATA	☐	☐	d. FABRICATE, MODIFY, OR STORE CLASSIFIED HARDWARE	☐	☐
e. INTELLIGENCE INFORMATION:	☐	☐	e. PERFORM SERVICES ONLY	☐	☐
(1) Sensitive Compartmented information (SCI)	☐	☐	f. HAVE ACCESS TO U.S. CLASSIFIED INFORMATION OUTSIDE THE U.S., PUERTO RICO, U.S. POSSESSIONS AND TRUST TERRITORIES	☐	☐
(2) Non-SCI	☐	☐	g. BE AUTHORIZED TO USE THE SERVICES OF DEFENSE TECHNICAL INFORMATION CENTER (DTIC) OR OTHER SECONDARY DISTRIBUTION CENTER	☐	☐
f. SPECIAL ACCESS INFORMATION	☐	☐	h. REQUIRE A COMSEC ACCOUNT	☐	☐
g. NATO INFORMATION	☐	☐	i. HAVE TEMPEST REQUIREMENTS	☐	☐
h. FOREIGN GOVERNMENT INFORMATION	☐	☐	j. HAVE OPERATIONS SECURITY (OPSEC) REQUIREMENTS	☐	☐
i. LIMITED DISSEMINATION INFORMATION	☐	☐	k. BE AUTHORIZED TO USE THE DEFENSE COURIER SERVICE	☐	☐
j. FOR OFFICIAL USE ONLY INFORMATION	☐	☐	l. OTHER *(Specify)*	☐	☐
k. OTHER *(Specify)*	☐	☐			

12. PUBLIC RELEASE. Any information *(classified or unclassified)* pertaining to this contract shall not be released for public dissemination except as pro
Industrial Security Manual unless it has been approved for public release by appropriate U.S. Government authority.
Proposed public releases shall be submitted for approval prior to release

☐ Direct ☐ Through *(Specify):*

the individual indicated in block 16e to the Directorate for Freedom of Information and Security Review, Office of the Assistant Secretary of Defense (Public Affairs)* for review. In the case of non-DoD Sponsoring agencies, requests for disclosure shall be submitted to that agency.

13. SECURITY GUIDANCE. The security classification guidance needed for this classified effort is identified below. If any difficulty is encountered in applying this guidance or if any other contributing factor indicates a need for changes in this guidance, the contractor is authorized and encouraged to provide recommended changes; to challenge the guidance or the classification assigned to any information or material furnished or generated under this contract; and to submit any questions for interpretation of this guidance to the official identified below. Pending final decision, the information involved shall be handled and protected at the highest level of classification assigned or recommended. *(Fill in as appropriate for the classified effort. Attach, or forward under separate correspondence, any documents/guides/extracts referenced herein. Add additional pages as needed to provide complete guidance.)*

Specific and complete classification guidance will be provided by Volpe Center Sponsoring agencies if and when services requiring clearance are performed.

14. ADDITIONAL SECURITY REQUIREMENTS. Requirements, in addition to ISM requirements, are established for this contract.
(If Yes, identify the pertinent contractual clauses in the contract document itself, or provide any appropriate statement which identifies the additional requirements. Provide a copy of the requirements to the cognizant security office. Use Item 13 if additional space is needed.)
☐ Yes ☐ No

15. INSPECTIONS. Elements of this contract are outside the inspection responsibility of the cognizant security office.
(If Yes, explain and identify specific areas or elements carved out and the activity responsible for inspections. Use Item 13 if additional space is needed.) ☐ Yes ☐ No

16. CERTIFICATION AND SIGNATURE. Security requirements stated herein are complete and adequate for safeguarding the classified information to be released or generated under this classified effort. All questions shall be referred to the official named below.

a. TYPED NAME OF CERTIFYING OFFICIAL	b. TITLE	c. TELEPHONE *(Include Area Code)*
d. ADDRESS *(Include Zip Code)*	**17. REQUIRED DISTRIBUTION** ☐ a. CONTRACTOR ☐ b. SUBCONTRACTOR ☐ c. COGNIZANT SECURITY OFFICE FOR PRIME AND SUBCONTRACTO ☐ d. U.S. ACTIVITY RESPONSIBLE FOR OVERSEAS SECURITY ADMINISTRATION ☐ e. ADMINISTRATIVE CONTRACTING OFFICER ☐ f. OTHERS AS NECESSARY	
e. SIGNATURE		

DD FORM 254 (BACK), DEC 1999

ATTACHMENT J.4 – SMALL BUSINESS SUBCONTRACTING PLAN

Individual Small Business Subcontracting Plan

Traffic Management Infrastructure Systems (TMIS)

(Solicitation # DTRT57-11-R-20009)

Submitted to: **Volpe Center**

REV.	DESCRIPTION	PUB. DATE
-	Initial Release of the Small Business Plan	8/8/11

Table of Contents

Overview

The Boeing Team has assembled a diverse group of highly qualified Small Business subcontractors and given them important roles within the scope of Volpe's TMIS contract
■ Plan to meet Volpe's SB goals each category ■ Bring additional small business participation ■ SBs with proven success in TMIS programs

Boeing is committed to a meaningful Small Business/Small Disadvantaged Business (SB/SDB) program in which identification, development, and maximum utilization of all types of SBs is central to the Volpe TMIS contract's success.

As two-time recipient of the Small Business Administration's Dwight D. Eisenhower Award for Excellence in Small Business Socioeconomic Excellence and hundreds of other national and regional supplier diversity awards, Boeing has a clear record of meeting and exceeding its supplier diversity commitments.

At Boeing, Supplier Diversity is not goal driven; it is a business imperative. With our executive leadership, and across our business enterprise, we are committed to exceeding the program goals; however, more importantly we are committed to building lasting supplier relationships that deliver real value for our customers.

Boeing was one of the few major companies to voluntarily establish SB/SDB programs shortly after World War II and has been a leader in promoting SB/SDB bidding opportunities for years. Today, we still firmly believe in identifying, developing, employing, and rewarding SB/SDBs who can make significant contributions to new technology, product/service quality, and customer satisfaction.

Boeing Procedure 5181 (PRO-5181) provides direction for the entire Boeing Company in the development, implementation, and management of initiatives designed to enhance opportunities for diverse suppliers. Diverse suppliers are considered in all activities and initiatives that affect the supply chain and are given the maximum practicable opportunity to participate in Boeing contract performance. Supplier diversity initiatives have been established to identify ways to assist diverse suppliers who demonstrate the capability to become viable providers of goods and services to all company segments. Supplier diversity goals are established for each business unit and included in the annual performance plans. Performance against such goals is considered in the overall evaluation of business unit performance. Supplier diversity programs are established at the business unit and/or division level to ensure effective implementation of supplier diversity, to ensure the active participation of appropriate management, and to document supplier diversity performance. Business unit/division supplier diversity programs must comply with all applicable laws, regulations, internal and external policies and procedures, and contractual requirements. For Government prime contracts, the appropriate/applicable small

business subcontracting plan is developed to meet the contract requirements and is coordinated with the Program Manager for approval and implementation. Figure 1 describes the relationship of small business diversity under Boeing Global Technology and its support to the Program Manager.

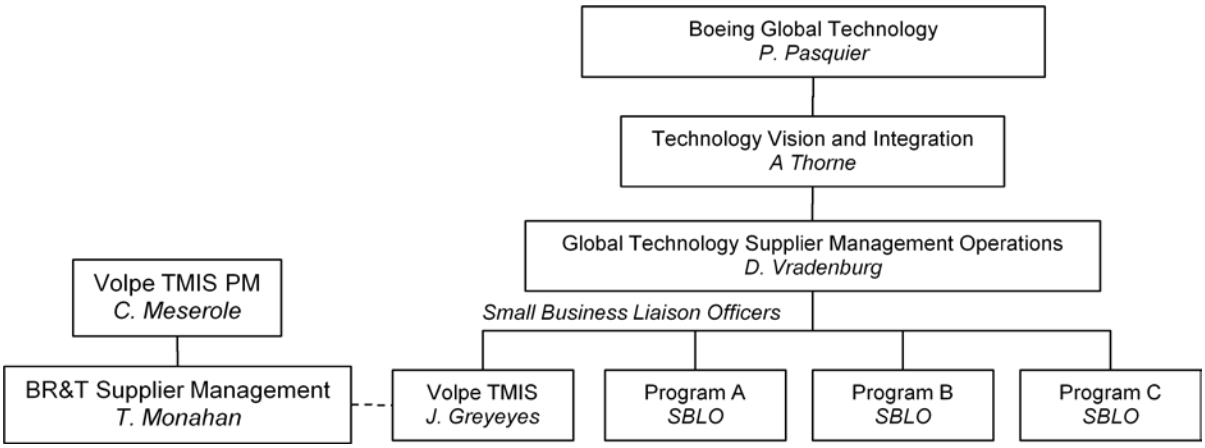

Figure 1. Boeing Small Business Management Relationship to the TMIS Program

Boeing has selected small business subcontractors that bring TMIS expertise and DOT/FAA contract experience to our team. Boeing provides a SB Subcontracting Plan to Volpe that not only commits to exceeding the minimal goals, but also fully supports the Volpe's Small Business (SB) Program including Small Disadvantaged Business (SDB), Woman Owned Small Business (WOSB), Historically Underutilized Business Zone (HUBZone), and Service Disabled Veteran-owned Small Business (SDVOSB).

Throughout this plan we refer to the Boeing's commitment to Volpe's TMIS contract Small Business requirements as our Small Business Goals. Additionally, the SDB category encompasses the following SBA business classifications: SB, SDB, WOSB, HUBZone, and SDVOSB. In sections 3.0 & 3.4, we describe our approach to identifying potential SBs that would qualify to work on Volpe's TMIS contract in order to fulfill Task Order requirements that may not have been foreseen in the original proposal.

Introduction

This Individual Small Business Subcontracting Plan has been prepared for John A. Volpe National Transportation Systems Center in response to Solicitation #DTRT57-11-R-20009. In submitting this Small Business Subcontracting Plan, The Boeing Company is committed to meet or exceed the Small Business (SB), Small Disadvantaged Business (SDB), Woman Owned Small Business (WOSB), Historically Underutilized Business Zone (HUBZone), Veteran-owned Small Business (VOSB), and Service Disabled Veteran-owned Small Business

(SDVOSB) goals. In this plan the term “Small Business” refers to all of the aforementioned categories, unless otherwise stated.

Authority for such plans is contained in FAR 52.219-9, “Small Business Subcontracting Plan” and describes the Small Business goals, which are measured against the estimated subcontracting value and reported on the Individual Subcontracting Report (ISR). This contract, the cumulative value of the basic contract and all options are included.

Establishment of Subcontracting Goals

Under this plan, goals have been established pursuant to the RFP, and to satisfy Small Business FAR subcontracting requirements, which describe Small Business goals, measured against the value of Boeing’s subcontracting dollars.

The solicitation identified the following agency targets for this proposal.

Subcontract Awards	% of Dollars Awarded
Small Businesses	37%
Small Disadvantaged Businesses	13%
Women-Owned Businesses	5%
HUBZone Businesses	3%
Service-Disabled Veteran-Owned Businesses	3%

Boeing has taken into account the Government subcontracting goals, as well as company policy regarding the inclusion of small businesses in this proposal. The current Boeing team includes members who, regardless of the size of the company, bring particular knowledge, skills and solutions to the task areas identified in the Request for Proposal (RFP). We have taken into consideration the complexity of managing a team of subcontractors with the skill set required to meet the requirements of the RFP, and have sought to minimize that complexity by including fewer small companies with technical breadth and depth, rather than choosing numerous small niche companies that facilitate meeting small business goals artificially. Thus, our team is a compromise that we feel best meets the letter and spirit of the subcontracting goals. In the event that there are skill areas where the team may prove deficient for a given TO assignment, we are prepared to include small businesses that could fill such needs.

In order to increase our flexibility and ability to meet both small business goals and technical performance, we will decompose the requirements for each task order and determine the best solution that also drives the goals of this subcontracting plan into our process of defining work share. As described in Section 3.1, below, Boeing has screened and qualified small businesses for work in various task areas. As small diverse businesses normally have particular areas of expertise, it is more effective and efficient to engage them for specific tasks related to their performance strengths. This approach minimizes the issues associated with having to manage an unnecessarily large number of

subcontractors while providing flexibility to include small businesses that strengthen the construct of the team.

In advance of contract award, Boeing performed an initial survey of the small business community to identify potential candidates with supplies and services relevant to TMIS. Boeing used a variety of information sources including its own small business databases, FAA and SBA repositories. Table 1 summarizes the result of that survey.

Table 1. Summary of Small Businesses Pre-Screening

Task Area	Small Disadvantaged Business	Women-Owned Business	HUBZone Businesses	Veteran-Owned / Service-Disabled Veteran-Owned Business
1	6	2	5	2
2	2	1		2
3	1	1	2	4
4	2	3	1	2
5	1	3	4	2
6	2	3	3	
7	2	3		3

Throughout the life-cycle of this contract we will continue to refine this list by sending out and evaluating requests for information (RFIs) to determine whether there are other businesses that may be qualified to meet the technical needs of the TMIS task areas. Once the evaluations are completed and it is determined that a business qualifies, Boeing will update its database of the qualified small business vendors in preparation of receiving task orders. Shortly after contract award Boeing will identify a pool of qualified and capable small diverse businesses which can be available immediately to begin performance on Volpe task orders.

Table 2 shows a summary of the small business content based on the allocation amongst the core team of the 620,000 hours defined in the solicitation. The small business content by task order and for the contract as a whole is dependent upon subsequent task order definition and authorization as well as the small businesses available to fulfill portions of those task order work statements. Note that the initial distribution of the 620,000 hours of work across the core team indicates that achieving the Volpe goals are reasonable and achievable.

Table 2. Small Business Goals and Proposed Performance (based on 620,000 hours Allocation Requested in the Solicitation)

	TMIS		VOLPE
Business Size	**Dollar Goal**	**Percent**	**Goal**
Small	$38,351,417	51.1%	37.0%
Large	$ 36,673,835	48.9%	
Total Subcontract	$ 75,025,252	100.0%	
SDB	$ 7,595,267	10.1%	13.0%
WOSB	$ 1,283,698	1.7%	5.0%
HUBZone	$ -	0.0%	3.0%
VOSB	$ 2,049,253	2.7%	3.0%
SDVOSB	$ -	0.0%	3.0%

Individual Small Business Subcontract Plan

Boeing has an excellent world-class record regarding the utilization of Small and Small Disadvantaged Businesses and will utilize the capabilities of Small Diverse Businesses in all phases of the Volpe TMIS contract. The commitment to utilize Small and Small Disadvantaged Businesses to the highest degree practical originates from the CEO of Boeing, and is exemplified through the implementation of Boeing PRO-5181, described in the Overview above. Boeing understands that the execution of a "world class" Supplier Diversity program focuses on the front end of the program. Boeing's strategy includes identifying, developing, employing, and rewarding SB/SDBs who can make significant contributions to new technology, product/service quality, and Customer satisfaction.

These SB/SDBs are the businesses that consistently demonstrate:

- Ability – to provide requisite skills, knowledge, resources and experience
- Integrity – to supply high quality products/services at fair prices
- Performance – to manufacture and deliver superior quality products or perform a noteworthy service on schedule and within budget
- Team Spirit – to work with prime contractors and in a team environment
- Customer Satisfaction – to constantly look for opportunities to outperform minimum contractual requirements, including better or more efficient ways to do things, for the prime contractor and the ultimate customer.

In return, Boeing offers these SB/SDB subcontractors:

- Mentoring – training, guidance, and continuous feedback necessary to help SB/SDBs become, and continue, as important contributors

- Participation – An opportunity to be part of a team, not just a direct subcontractor, and grow in both degree of involvement and business success
- Motivation – recognition for a job well done and appropriate corrective action or incentives to continuously improve quality
- Ethical Treatment – fair business dealings and equal opportunity to compete for work they are qualified to perform.

Small Business Subcontracting Process

Figure 2 illustrates our two-phase process to identify and utilize small businesses in our subcontracting activities. Phase 1 involves: a) the identification of services and supplies that candidate small businesses might effectively provide in support of the TMIS contract, b) the identification of candidate small businesses to provide those services and supplies, c) issuing a request for information to those candidates and the evaluation of their responses, and d) the entry of selected candidates into our TMIS Program Small Business Database. Phase 1 is repeated periodically to identify both new small businesses that provide needed services and supplies, and small businesses with new capabilities to provide needed services and supplies.

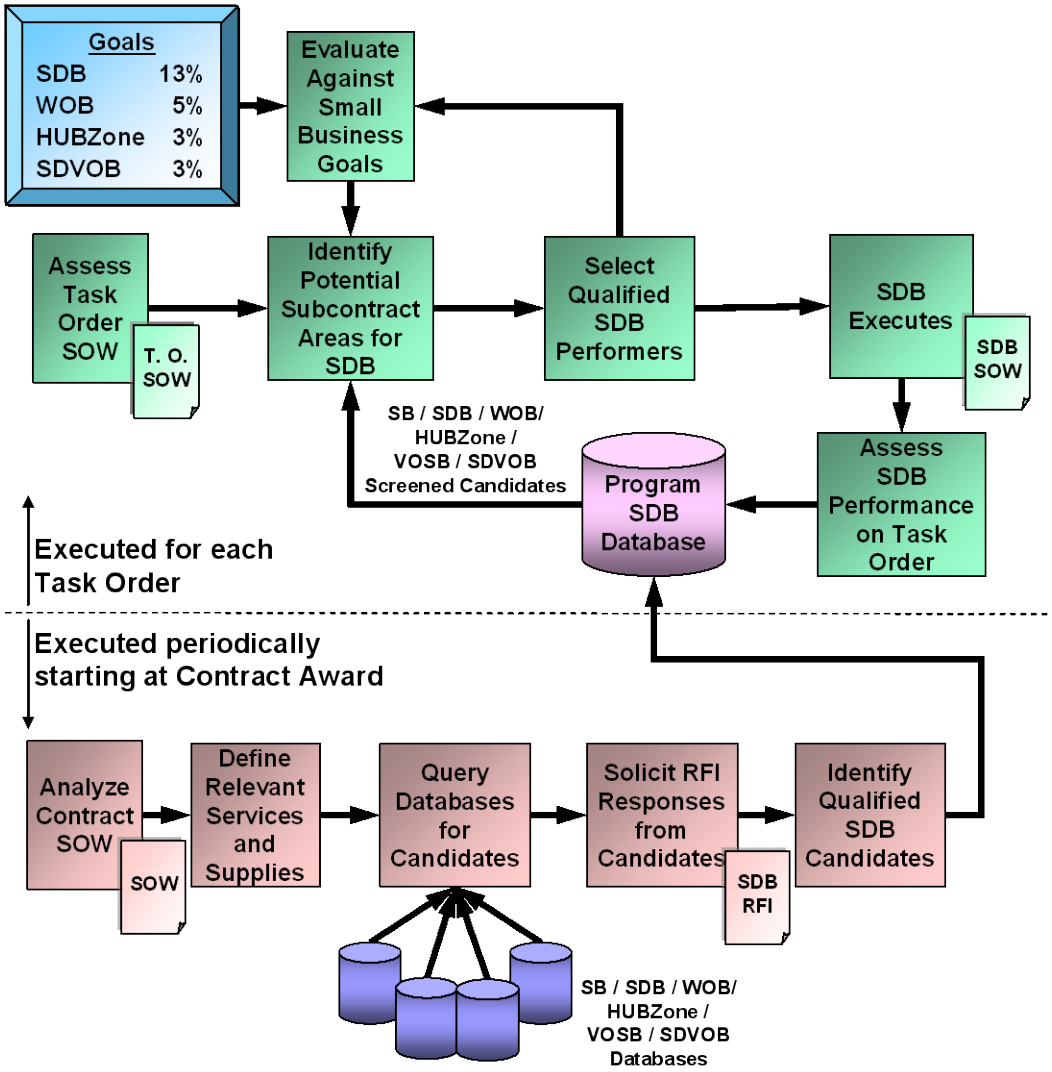

Figure 2. SB/SDB Identification, Selection and Implementation to Goals

Phase 2 is executed for each Task Order opportunity. As Boeing evaluates a Task Order opportunity, tasks are identified for utilizing SB/SDB resources. The Program Small Business Database will be used to match SB/SDB candidates to the identified tasks. Subcontracts will be implemented following standard Boeing Supplier Management (SM) processes and procedures. The results of the subcontracting efforts will be reported and tracked against the SB/SDB goals of the program. SB/SDB supplier performance will be recorded in the Program Small Business Database as well as in the SM database.

This closed loop management process ensures that qualified candidate SB/SDB suppliers are identified, selected and implemented in support of the small business subcontracting goals of the program. The process uses existing SM procedures, databases and reports to provide the needed tools and visibility for an effective and efficient system that fully supports the technical, programmatic and supplier diversity goals of the program.

Administration of the Small Business Subcontracting Program

The executives and managers responsible for oversight of the diversity program for the Volpe TMIS contract will be Chip Meserole – Boeing TMIS Program Manager, Terry Monahan - Boeing Research & Technology Supplier Management Manager, and Jon GreyEyes - Boeing Small Business Liaison Officer (SBLO).

The Boeing TMIS Program Manager is responsible for the overall execution of the Small Business Plan. In those duties the Program Manager ensures the vision and initiatives are provided adequate resources for successful program execution. Supplier Management works in coordination with the Boeing SBLO to negotiate and execute contracts with Small Businesses.

Under Boeing Procedure PRO-5181, Supplier Diversity, the Boeing SBLO is responsible for the administration of the subcontracting plan. Those duties are to coordinate and expand the utilization of Small Businesses through various outreach efforts; to prepare and submit periodic reports to the Government customers and to Boeing management; to assist buyers, engineers, and requirements personnel in locating Small Business partners; and to monitor the overall performance of the Supplier Diversity program.

Method Used to Develop Subcontracting Goals

The planning process for setting SB/SDB goals typically focuses attention on the front end of the business, when critical decisions are made regarding acquisition strategy, design and development.

Method Used to Identify Potential Sources for Solicitation Purposes

Boeing has exerted a targeted effort in identifying and matching qualified high potential Small Businesses with applicable work content. Boeing will continuously refine our potential list as we:

- Evaluate existing and prospective candidates through a pre-qualification process, including, but not limited to; technical and quality competency, along with financial stability requirements
- Ensure issuance of Requests for Proposals/Quotations/Request for Information (RFP/RFQ/RFI) to qualified subcontractors, as well as suppliers currently identified as Boeing's Protégés.
- Continue the practice of utilizing internal communications whereby supplier diversity specialists routinely share information with one another as well as with procurement agents to promote capable Small Business suppliers.

The current RFIs that were pushed out to the list of SBs were developed using internal and external sources as depicted below:

Internal sources include:

- FAA's Small Business Database – Source-Net
- SBA's ProNet Small Business Database
- Aerospace Industries Association (AIA) SDB Database System
- Minority Business Resource Advisory Committee (MBRAC)
- National Directory of Woman-Owned Manufacturing Firms
- Boeing – Enterprise Diversity Select Database
- Federal and State Suppliers Guide
- Boeing's network of numerous Suppler Diversity Program Administrators and procurement managers
- Minority owned High-Tech Businesses, Business Research Services, Inc
- Try Us (annual) SDB Directory.

External Sources include:

- FAA Small Business Liaison Representatives
- High Tech SBIR (Small Business Innovation & Research) conferences sponsored by Federal Agencies
- National Minority Material Council Vendor Information Service
- National / regional Minority Supplier Development Councils (NMSDC)
- Procurement Technical Assistance Centers (PTAC) nation-wide
- Local, regional and national SB and SDB opportunity trade fairs
- Congressional procurement opportunity conferences
- Small Business Administration Regional/District offices.

Description of Allocated Indirect Cost

Indirect costs for the program are not included within this plan. Indirect costs for the program are allocated based on a percentage of the total direct dollars. Boeing has identified the major types of equipment and services to be procured by category, both for direct and indirect purchases.

Commitment to Providing Equitable Opportunity for Small Businesses to Compete for Subcontracts

The Boeing Company's Supplier Diversity Program is designed to maximize utilization of Small Business suppliers through a series of proven best practices and initiatives cited below.

- Provide training to program personnel regarding supplier diversity programs
- Participate in nationwide conferences to introduce Boeing opportunities to small business participants
- Involvement with and participation in national and local Small Business Administration (SBA) events
- Utilize national, regional and local small business associations for referrals and recommendation of highly qualified Small Business suppliers
- Utilize the U.S. Government's Central Contractor Registration (CCR) at www.ccr.gov to identify SB, SDB, WOSB, HBZSB, VOSB, SDVOSB, and to provide sourcing support to Procurement Agents
- Utilize the Enterprise Select Database that contains SBA and selected Small Business suppliers
- Advise/counsel Program Managers and SM Managers, as decision-makers in the procurement process, for Small Business suppliers to present and showcase their products and services.
- Counsel representatives of suppliers on "doing business with Boeing" and discuss subcontracting opportunities with Small Business suppliers
- Provide notice to subcontractors concerning penalties and remedies for misrepresentations of business status as a Small Business concern, for the purpose of obtaining a subcontract
- Conduct Boeing Small Business forums to assist in the introduction of Small Businesses to various Boeing organizations.
- Create Small Business "only" competitions in those commodity groups in which there are a sufficient number of qualified businesses to ensure adequate competition
- Identify, develop and evaluate Small Business bidding possibilities, during the product development and make/buy planning phases

Subcontracting Plan Flowdown

Boeing will ensure that Small Business subcontracting requirements are imposed on each of our large business Subcontractors through the provisions of the purchase contract. This includes FAR 52.219-8, Utilization of Small Business Concerns, and FAR 52.219-9, Small Business Subcontracting Plan, for subcontracts over $650K, (except small business concerns over $1,500,000 for

construction of public facilities). Qualifying subcontractors are required to prepare a plan and flow-down goals similar to Boeing's plan that complies with the requirements of FAR 52.219-8 and 52.219-9 clauses. Boeing requires its large business subcontractors to report Small Business subcontracting dollars on a semi-annual basis.

Performance Reports

The Boeing Company agrees to:

- Cooperate in studies and surveys as required.
- Submit periodic reports so that the Government can determine the extent of compliance by Boeing, operating under an Individual Small Business Subcontract plan.
- Submit Individual Subcontract Report (ISR) following the instructions on the forms or as provided in agency regulation.
- Ensure that our subcontractors agree to submit ISRs.

Types of Records That Will Be Maintained

Boeing will maintain the following records:

- Source lists, guides, and other data that identify SB, SDB, WOSB, HUBZone, SDVOSB.
- Organizations contacted in an attempt to locate sources that are diverse concerns.
- Records of each subcontract solicitation resulting in an award of more than $100,000 which indicates whether or not a Small Business was solicited, and why each Small Business category was or was not solicited. These records are included in the subcontracts documentation as subcontracts are awarded.
- Records of any outreach efforts to contact trade associations, business development organizations, conferences and trade fair participation to locate Small Businesses
- Records to support internal guidance and encouragement provided to buyers through workshops, seminars, training, incentives, etc.; and monitoring performance to evaluate compliance with program requirements.

Mentoring

We understand the importance, and the long-term benefits of what a successful mentor can bring to help develop expertise and skill sets in Small Businesses. Boeing currently mentors several SB, SDB, WOSB, HUBZone, and SDVOSBs.

Listed in Table 4 is an example of just some of these businesses that Boeing has mentored.

Table 4. Boeing Subcontractors that have been mentored

Current Boeing Protégés	Products/Service
Metron Aviation	Program Management Practices
Embedded Plus	Software
All Points Logistics	IT/Technical Services
JCM Engineering	High Speed Machining
Daca Tool and Machine	High Speed Machining
Kenco Tool	High Speed Machining
D&D Machine	Raw Material Management
Cimmaron	Software