

ACITS3 TASK ORDER FORM

PART I - TASK ORDER INFORMATION - CIVIL SERVANT

Contract No.: NNA13AB88C		Contract Title: Ames Consolidated Information Technology Services (ACITS3) Contract		
Task Title: TH Aeronautics Simulation Research, Development, and Support			Start Date: October 1, 2014	End Date: August 31, 2015
Task Order No. T13	Task Mod No. Original	Service Request No.	Customer Code Code TH	SOW Reference C.3.1.5
TASK REQUESTER EMAIL: (b) (6)		NAME: Trent Thrush		PHONE: (b) (6)
FINANCIAL MANAGER EMAIL: (b) (6)		NAME: Janette Rocha		PHONE: (b) (6)
COMPUTER SECURITY OFFICER EMAIL: (b) (6)		NAME: Jeffrey McCandless		PHONE: (b) (6)
TASK PREVIOUSLY COVERED BY ANOTHER CONTRACT OTHER THAN PREDECESSOR TO INCUMBENT? (If YES, provide in SOW) NO				
DOES THE TASK REQUIRE ACCESS TO GOVERNMENT DATABASES? (If YES, indicate in SOW) NO				

SECTION 508, ELECTRONIC AND INFORMATION TECHNOLOGY ACCESSIBILITY COMPLIANCE (EITAC)

DOES THE TASK INCLUDE EIT ITEMS (Please review the EITAC documentation) No, the task does not include EITAC items.

Upon receipt of this task order request, the contractor shall review the task requirement(s) and inform the Government, as part of its task order/modification response, any discrepancies between standards initially cited and those the contractor proposes to deliver to the Government. Examples of discrepancies include ODCs for which some other standard might be or become applicable and, as a result, require citation in the task order, as well as any cited standards that the contractor believes is not applicable (provide rationale). Note: If, by mistake, the task, including and ODC of the task, should not meet an applicable standard not cited by the requester, it is the requester, not the contractor who is a fault; and the requester must find a way (e.g., by modifying the task request) to bring the task into compliance. In such cases, the requester shall complete a revised ARC form 789 (or equivalent) before the task order/modification is approved.

GOVERNMENT FURNISHED EQUIPMENT (GFE)

Government will provide all appropriate equipment and software necessary for the performance of this task unless otherwise noted in this task order. The contractor in accordance with the contract can acquire equipment not presently available as GFE. Equipment identified as task unique will be expensed to the task in accordance with ACITS3 accounting policy, and will be defined as GFE in the Government inventory. All other equipment purchases will be depreciated and be contractor property. The contractor shall follow NASA Ames rules regarding movement and assignment of government owned equipment and ODIN supplied equipment and provide information upon request for the following: Property Assignments, Property Location, and Unused Equipment.

AFFIRMATIVE PROCUREMENT (See <http://www.epa.gov/cpg/products.htm>)

The item(s) being purchased are NOT on any of the EPA's Comprehensive Procurement Guideline lists. - AND -
They meet the minimum recycled/recovered content.

TASK DESCRIPTION - STATEMENT OF WORK - REQUIREMENTS

Please enter this information on pages 2, 3, and 4.

COTR SIGNATURE: KIRSTEN NAGEL	CO SIGNATURE: ANJENNETTE CONTRERAS-RODRIGUEZ
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PART 2 - TASK ORDER PLAN PROPOSAL - CONTRACTOR

CATEGORIES	CURRENT REQUEST	PRIOR CUMULATIVE ESTIMATE WITHOUT CURRENT REQUEST	TOTAL CUMULATIVE TASK ESTIMATE
Labor Hours:	(b) (4)		
Labor:			
ODC Subcontracting:			
ODC Material:			
ODC Travel:			
ODC Training:			
Program Mgt Cost:			
Fee:			
Totals:			

PART 3 - APPROVAL SUMMARY - BOTH

APPROVED BY	SIGNATURE AND DATE	EMAIL ADDRESS	PHONE
1. TECH AREA MGR.:	(b) (4), (b) (6) 08/21/2014	(b) (4), (b) (6)	(b) (4), (b) (6)
2. BUSINESS MGR.:	08/21/2014		
3. PROGRAM MGR.:	08/21/2014		
4. TASK REQUESTER:	Trent Thrush 08/25/2014	(b) (6)	(b) (6)
5. DIVISION LEVEL:	Trent Thrush 08/25/2014		
6. COTR:	KIRSTEN NAGEL 08/27/2014		
7. CO:	ANJENNETTE CONTRERAS-RODRIGUEZ 08/28/2014		

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PRICING Cost Plus Fixed Fee		FUNDING LEVEL CHARGE POINT LEVEL		
<p>TASK DESCRIPTION - STATEMENT OF WORK REQUIREMENTS</p> <p>This task encompasses support for four aeronautical research projects:</p> <ul style="list-style-type: none"> • Human Centered Systems Laboratory (HCSL) Support • Flight Deck Display Research Laboratory (FDDRL) Support • UAS Integration • Airspace Operations Laboratory (AOL) Support <p>A. HUMAN CENTERED SYSTEMS LABORATORY SUPPORT</p> <p>This project supports NASA's Next Generation Air traffic System (NGATS) research, Aviation Safety Program (AvSAFE), and other NASA or FAA programs. Support will include the planning and conducting of simulation studies, the analysis and summarization of the data collected during the studies and the preparation of presentation materials to describe the results of the studies. Also included in the task are the design, development and support of hardware systems and computer programs required to conduct said studies, and to provide aeronautical flight simulation expertise and pilot domain expertise.</p> <p>Specific requirements include:</p> <ol style="list-style-type: none"> 1. Software Support includes: all phases of software development, maintenance of existing baseline (legacy or extant) software, integration developed/modified software, user support, and documentation. Included is enhancement of out-the-window graphics databases, Route Traffic Manager (RTM) simulation software, upgrade of FMS software, and the new SARDA-integration project to include closed loop studies. 2. Hardware support includes: design, installation and integration of audio and video equipment, custom fabrication of research hardware, and support for any other hardware associated with the above laboratories (HUD, joysticks, etc.) ATC displays, VDRs etc. Hardware engineering support includes design, integration and testing for the any upgrades of the ATAS flight simulator. 3. Experiment support includes: assistance with pre-experiment specification, scenario development, domain expertise (pilot) for scenario evaluation, and support during actual experimental runs (as required by experimental schedule). 4. Data Analysis support includes: pre-experiment consultation, evaluation of data collection methods, verification of data collection methodology by means of pre-experiment sampling, data reduction, data analysis, and assistance with technical problems (as required by experimental schedule). <p>B. FLIGHT DECK DISPLAY RESEARCH LABORATORY SUPPORT</p> <p>This project supports the Flight Deck Display Research (FDDRL) Laboratory under the Human Systems Integration Division, Code TH, at NASA Ames Research Center.</p> <p>Specific requirements include:</p> <ol style="list-style-type: none"> 1. Provide support for the development of: <ul style="list-style-type: none"> • The cockpit situational display (CSD) part-task simulator. • Air-Ground simulation experiments • Statistical analysis of data collected from the above experiments. 2. Support the development of weather related research. 3. Support integration of the SPO flight deck tools into the Laboratory's 777 simulator and desktop simulators 4. Develop enhanced SPO ground stations to support controlling multiple a/c 5. Support enhancement and extension of existing FDDRL weather-related capabilities: <ul style="list-style-type: none"> • Integrate predicted weather displays and tools into baseline CSD • Enhance the existing Weather Scenario Generator with new capabilities, including wind data, synthesizing predicted radar, and importing/exporting MACS weather files. • Extend a 3D interactive weather scenario editor to allow visualization and manipulation of location, orientation and values of weather products. 6. Develop implementation of UAS ground station based on MUSIM, and integrate it into the FDDRL's simulation infrastructure. Additional requirements are to implement the extension of FDDRL's distributed simulation environment to include the UAS laboratory at NASA Dryden. 				

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<p>7. Extend distributed simulation architecture to support SPO research</p> <p>8. Support Airspace Operations and Safety Program</p> <ul style="list-style-type: none">• Safe Autonomous Systems Operation Project• Unmanned Traffic Management Project <p>C. UAS INTEGRATION SUPPORT</p> <p>This project will provide support for the UAS Integration into the NAS. Specific requirements include: software development/integration/enhancement/testing, hardware integration, and data collection for simulation experiments.</p> <p>D. AIRSPACE OPERATIONS LABORATORY SUPPORT</p> <p>This project will provide support for the Airspace Operations Laboratory (AOL) under the Human Systems Integration Division, Code TH, at NASA Ames Research Center.</p> <p>Specific requirements include: provide software development/integration/enhancement/testing, hardware integration, data collection and database management for the development of:</p> <ul style="list-style-type: none">• Airspace Operations Laboratory (AOL)• Enhancements to the Multi-Aircraft Control Simulator (MACS)• Air-Ground simulation experiments• Statistical analysis of data collected from the above experiments• Aircraft Modeling in MACS• Route construction/analysis and fast-time aircraft simulation• Systems engineering (support of servers, software developer tools, libraries, applications, systems builds and configurations)• Develop and provide enhancements to the MACS 4-D trajectory planner and guidance system• Provide general support for AOL experiments as needed• STARS integration with Ames simulation software• Provide ATC domain expertise and pilot domain expertise• Provide enhancements to the Aeronautical Data link and Radar Simulator (ADRS)				

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SPECIFIC DELIVERABLES AND DELIVERABLE DATES

No.	Type of Deliverable	Description of Deliverable	Date Required	Row Controls
1	Performance	HCSL: Provide ongoing laboratory support for hardware and software – facility will be available and equipped for 90% of the time that research studies are scheduled		
2	Performance	HCSL: Provide new development, modification, and support of Generic Data Reduction Program to meet requirements		
3	Performance	HCSL: Provide new development, modification, and support of enhancements to the existing KDFW and new CLT databases to meet requirements		
4	Performance	HCSL: Integrate new hardware into simulation (examples: video, eye tracker)		
5	Performance	FDDRL: Develop and deliver enhancements and extensions to the existing FDDRL weather-related capabilities. Requirements as provided by the Task Requester		
6	Performance	FDDRL: Develop and deliver enhancements to UAS Ground Station as received by the Task Requester		
7	Performance	FDDRL: Provide enhancements and support for SPO study		
8	Performance	AOL: Provide ongoing software support to maintain the AOL laboratory – facility will be available and equipped for 90% of the time that research studies are scheduled		
9	Performance	AOL: Delivery of technical enhancements and testing of MACS software to meet requirements as set by the Task Requester		
10	Performance	AOL: Complete and deliver scheduled improvements on application servers, compiler tools, systems configuration and integration		
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TRAVEL, TRAINING AND MATERIALS REQUIREMENTS

No.	Type of Requirement	Description	Date Required	Row Controls
1	Travel	Task related travel to support requirements	TBD	
2	Training	Task related training to enhance skills and utilize new technologies into the task	TBD	
3	Material	Upgrades to software tools such as new compilers and Microsoft office and Adobe products are needed. Purchase of statistical packages such as Matlab, SPSS and Datadesk. Purchase of Mathematical Programming Optimizer such as CPLEX. Purchase of web development software such as Adobe Photoshop and Adobe Illustrator.		

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No.	Type of Requirement	Description	Date Required	Row Controls
4	Material	Simulation equipment to maintain or upgrade simulation capabilities (aircraft chairs, cockpit displays, etc)		
5	Material	Materials as required for the simulation capabilities (to include computers, displays/monitors, monitor stands, servers, server racks, disks, projectors, USB hard drives, large and regular format printers, external raid enclosures, and any peripheral devices necessary to support work on this task.		
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IT SECURITY REQUIREMENTS

Consistent with NPG 2810.1, the specific IT Security requirements to be delegated to the contractor, under this ACITS3 task are as follows:
(Please address the following topics/questions, if applicable, concerning the intended task).

a. This Task's activities have been identified as being covered under an organizational IT Security Plan. This Task does not support applications that have been designated as a "Special Management Attention" applications. If "Special Management Attention" applications do exist please describe:

b. Periodic reviews of IT Security measures are necessary. What is the role of the ACITS3 contractor under this ACITS3 Task in areas such as review of user accounts, account management, data backup and restoration, use of warning banner, use of encryption, vulnerability scanning, and security tools?
Please describe as appropriate:

All IT security measures for this task are provided by the TH Division Systems Group Task.

c. Typically, the Task will not be involved with activities that require compliance with NASA's NPG 2810.1 and Ames' APG 2410.1 that define the requirements for reuse, reassignment or accessing of IT assets and/or their release for repair; if such an activity does occur, the Task Requester will be contacted to identify the civil servant who will have oversight and approval for reuse, reassignment or accessing of IT assets and/or their release for repair associated with this task.

d. The Task personnel are trained in NASA's and Ames' policies and procedures relating to IT Security and will participate in the required annually IT security training to maintain proficiency. There are no specialized security training requirements associated with this task.

If appropriate, specialized training requirements are described as follows:

e. Is a security clearance needed for any personnel on this task? If so, what level of clearance is required?
No security clearance is required for this Task.

f. There are no other IT Security requirements associated with this ACITS3 Task.

If appropriate they are described as follows:

g. There are no specific IT Security Deliverables associated with this ACITS3 Task.

If appropriate they are as follows:

- ☐ IT Risk Assessment
- ☐ IT Security Plan
- ☐ IT Contingency Plan
- ☐ IT Security Vulnerability Test Results
- ☐ Results of periodic IT Security Reviews
- ☐ Other documentation as follows:
Report of status of IT Security Plan, Contingency Plan, and Risk Assessment of critical services provided by Code I

h. In the event of an IT Security Incident associated with systems and data under this Task, the Ames Chief Information Security Official, the Security Operations Center (SOC), and the Task Requester will be notified immediately by the contractor. In order to ensure full coordination, the following individuals will also be notified in the event of an IT Security Incident:

System Owner (Responsible for the applicable IT Security Plan)

Name: Trent Thrush

Phone: (b) (6)

Organization's Computer Security Official

Name: Jeffrey McCandless

Phone:

Alternate System Owner

Name:

Phone:

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Note Creator		Note Title			Date Created
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