

NAME OF OFFEROR OR CONTRACTOR

**XYANT TECHNOLOGY INC**

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	<p>CHANGES FOR DELIVERY LOCATION: A6973DQM Amount changed from \$625,569.40 to \$650,600.97</p> <p>CHANGES FOR ACCOUNTING CODE: 1270800000.2006.5RANBAA000.ACB3600000.25305.61005600.0000000000.0000000000.0000000000.0000000000 .0000000000 Amount changed from \$38,688.50 to \$63,720.07 Percent changed from 7.1169 to 10.10593</p> <p>ALL other provisions of the contract remain unchanged and in full force and effect.</p> <p>***** * This modification (004) supercedes and replaces modification 003 (dated 2/15/06) in its entirety to facilitate correction of an internal administrative/system error. Xyant agreement to the revised TPWS requirements (email dated 01/06/06 from Xyant/R. Vaada) is hereby incorporated by reference. This modification increases funding to support AAM-500 mission requirements as defined in the revised TPWS dated 12/20/2005, and corrects administrative errors in the original order.</p> <p>The acquired services are identified in the Task Performance Work Statement attached herein and the deliverables are defined per project.</p> <p>Alt. COR/CONTR: TOM NESTHUS DISTR; T LIST OF CHANGES:</p> <p>Total Amount obligated for this Modification: \$0.00 New Total Amount for this Award: \$0.00 Discount Terms: STANDARD NET 30 Period of Performance: 07/25/2005 to 07/11/2006 SEE ATTACHED PWS</p>				





CONTINUATION SHEET

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NAME OF OFFEROR OR CONTRACTOR  
XYANT TECHNOLOGY INC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	<p>CHANGES FOR LINE ITEM NUMBER: 001 increased by \$25,031.57 from: \$625,569.00 to: \$650,600.57</p> <p>CHANGES FOR LINE ITEM NUMBER: 002 REMAINS UNCHANGED Obligated amount is \$10,000.00</p> <p>Total obligated amount for this modification: \$25,031.57 New Total obligated Amount for this Award: \$660,600.97</p> <p>CHANGES FOR DELIVERY LOCATION: A6973DQM Amount changed from \$625,569.40 to \$650,600.97</p> <p>CHANGES FOR ACCOUNTING CODE: 1278800000.2006.SR4NBAA000.ACB3600000.25305.61006600.0000000000.0000000000.0000000000 .0000000000 Amount changed from \$38,688.50 to \$63,720.07 Percent changed from 7.1169 to 10.18593</p> <p>All other provisions of the contract remain unchanged and in full force and effect.</p> <p>***** * This modification (004) supercedes and replaces modification 003 (dated 2/15/06) in its' entirety to facilitate correction of an internal administrative/system error. Xyant agreement to the revised TPWS requirements (email dated 01/06/06 from Xyant/R. Vaada) is hereby incorporated by reference. This modification increases funding to support AAM-500 mission requirements as defined in the revised TPWS dated 12/20/2005, and corrects administrative errors in the original order.</p> <p>The acquired services are identified in the Task Performance Work Statement attached herein and the deliverables are defined per project.</p> <p>Alt. COR/COTR: TOM NESTHUS DISTR: T This modification increases funding for line item 0001 Research Technical Support to facilitate the continued services described in the revised PWS dated 4/11/2006 hereby incorporated and attached. The anticipated increase in hours for performance of AAM-510 HRR521 projects (identified in PWS paragraphs 2a, 2b, and 3a) have been estimated as follows:</p> <p>CHANGES FOR LINE ITEM NUMBER: 001 increased by \$25,031.57 Continued ...</p>				

CONTINUATION SHEET

REFERENCE NO. OF DOCUMENT BEING CONTINUED  
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NAME OF OFFEROR OR CONTRACTOR  
KYANT TECHNOLOGY INC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	<p>From: \$625,569.00 to: \$650,600.57</p> <p>CHANGES FOR LINE ITEM NUMBER: 002 REMAINS UNCHANGED Obligated amount is \$10,000.00</p> <p>Total obligated amount for this modification: \$25,031.57 New Total obligated Amount for this Award: \$660,600.97</p> <p>CHANGES FOR DELIVERY LOCATION: A6973DQM Amount changed from \$625,569.40 to \$650,600.97</p> <p>CHANGES FOR ACCOUNTING CODE: 1278800000.2006.SRAN8AA000.ACB3600000.25305.61006600.000000000000.0000000000.0000000000 .0000000000 Amount changed from \$38,688.50 to \$63,720.07 Percent changed from 7.1169 to 10.18593</p> <p>All other provisions of the contract remain unchanged and in full force and effect. Delivery: 07/25/2005 Discount Terms: STANDARD NET 30 FOB: Destination Period of Performance: 07/25/2005 to 07/11/2006 Delivery Location Code: A6973DQM A6973DQM 6973DQ FAA AERO CENTER, AAM-500 HUMAN RES RESEARCH DIV, RM-270 CAMI PO BOX 25082 OKLAHOMA CITY OK 731250082 US</p> <p>SEE ATTACHED PWS</p>				

**TASKED PERFORMANCE WORK STATEMENT**

Revised 4/11/2006 for

Contract No. DTFAAC-05-D-00070

Order 0001

**1. INTRODUCTION:**

This effort requires contract support to provide the CAMI Aerospace Human Factors Research Division with administrative and technical support to assist in the conduct of research necessary to meet mission requirements. The administrative and technical support shall include the conduct and assistance with many tasks associated with database development and administration, software revision and maintenance, survey development, distribution, transcription, scanning paper returns, data analysis, quality control, and report generation, as well as assisting in laboratory and field experiments regarding AAM-500s Human Factors missions requirements. The contract support shall be responsible for management and supervision of all contract personnel (including subject matter experts) who are assigned to complete tasks issued within the scope of the technical requirements of the Division.

**2. APPLICABLE ORDERS, REGULATIONS, FORMS AND MANUALS:**

The applicable documentation is identified

**3. ADMINISTRATION:**

Requiring Office: AAM-500 Human Factors Research Division

Period of Performance: Date of Award through July 11, 2006

Place of Performance: Contract services will be conducted at CAMI Human Factors Research Lab.

COTR for this work will be:

Thomas E. Nesthus  
Human Factors Research Lab, AAM-500  
6500 MacArthur Blvd  
Oklahoma City, OK 73125  
Phone: (405) 954-6297

**4. GOVERNMENT FURNISHED PROPERTY**

All resources for conducting Delivery Order requirements will be provided by the government. Including facilities, office work space, general offices equipment, phones, PCs, etc.

**5. SCOPE OF WORK:** The contractor shall provide quality technical, analytical, planning, and administrative support. The contractor shall furnish and make available all personnel, and services necessary to assist AAM-500 in accomplishing its mission. As directed by the FAA, the contractor may also be required to interface with various FAA and U.S. Government organizations.

**5.1 Technical Support Project Requirements**

The contractor shall provide all of the necessary technical operations and administrative support such as: planning, organizing, managing, coordinating, and tracking (e.g., report management, cost/schedule/performance measurement, risk management, component procurement management, system engineering management, resource management, data management) required to perform all of the project tasks successfully as required in accordance with this SOW.

PROJECT NO.	PROJECT NAME	TTL ESTIMATED HRS	ESTIMATED TRAVEL	SUPPORT PROGRESS & DELIVERABLES
1a, b, c	AAM-520 SURVEYS	7,486		LOE, Draft reports when completed
2a, b (revision No. 2)	AAM-510 SURVEYS	Increase to: 2,145		LOE, Draft reports when completed
3a (revision No. 1)	AAM-510 HFACS	Increase to: 1,711		Analysis & summary reports when completed
4a	AAM-520 ATCARS	425		LOE
5a, b	AAM-510 WX	350		Database & summary reports when completed
6a	AAM-520 Pre-employment Psych/Med data	430		LOE, Database periodically updated as needed
7a, b, c, d, e, f	JANUS	2,318	10,000	LOE, summary reports when completed
8a, b	NATPRO & PERFORMANCE	678		LOE, report writing assistance as required
9a, b, c, d	OE PROJECTS	2,763		LOE, report writing assistance as required
Additional Tasks				
10 a, b, c	ATC Color Vision & Displays	1113		LOE, Experimental support, Draft reports
11 a, b, c, d, e	AAM-500 Pop-up Support	352		LOE, Scanning, photocopying, manuscript transcription, Publication reference database updates

## 5.2 Technical Support Project Requirements by Task Sub number and Subtitle:

5.2.1a. EAS 2006 -Level of Effort (LOE) From date of award through 11 July 2006, Labor not to exceed obligated funding on the Designated Contract Line Item.

The Contractor shall provide personnel to assist with survey development, distribution of survey packages, scanning paper returns, transcribing and sanitizing paper and on-line comments, combining & coding comments, combining response data & QA, developing data aggregation, developing databases, developing report macros & templates, generating draft reports, quality checking reports, and delivering reports, along with supporting documentation associated with those functions.

5.2.1b. OAM Pilot Survey -Level of Effort (LOE) From date of award through 11 July 2006, Labor not to exceed obligated funding on the Designated Contract Line Item.

The Contractor shall provide personnel to assist with survey development, distribution of survey packages, scanning paper returns, transcribing and sanitizing paper and on-line comments, combining & coding comments, combining response data & QA, developing data aggregation, developing databases, developing report macros & templates, generating draft reports, quality checking reports, and delivering reports, along with supporting documentation associated with those functions.

5.2.1c. Separation Survey - Level of Effort (LOE) From date of award through 11 July 2006, Labor not to exceed obligated funding on the Designated Contract Line Item.

The Contractor shall provide personnel to assist with survey revisions, database analyses, drafting comments reports, comments analyses, and summary reports.

5.2.2a. Designated Pilot - Level of Effort (LOE) From date of award through 11 July 2006, Labor not to exceed obligated funding on the Designated Contract Line Item.

A Designated Pilot Examiner survey will be administered to all Designated Pilot Examiners across the United States. There are approximately 1,066 private persons designated as pilot examiners by the FAA Administrator. Contract support will mail all DPEs a survey with a postage-paid return envelope. Returned surveys will be scanned into a database through the use of Teleform software. Summary data reports (i.e., item by item frequency distributions) for each region that has at least eight respondents. **The Contractor shall provide personnel to assist in: distribution of surveys, process and scan survey data, and summarizing results of analysis for development of reports.** The contractor will also provide an overall data summary report.

5.2.2b. National Pilot Survey - Level of Effort (LOE) From date of award through 11 July 2006, Labor not to exceed obligated funding on the Designated Contract Line Item.

Newly certified GA ASEL private pilots from all Flight Standards District Offices (FSDOs) across FAA regions will receive an anonymous and voluntary survey to complete and return by mail. Contract support will mail traditionally registered GA ASEL pilots a survey to their home addresses. In an attempt to maximize response rates, the survey will have an attached cover letter explaining the purpose of the survey asking for their feedback regarding their flight training and testing experiences. **The Contractor shall provide personnel to assist in: distribution of surveys, process and scan survey data, and summarizing results of analysis for development of reports.** The

contractor will scan returned surveys into a database through the use of Teleform software. Summary reports will be created for each region that has at least eight respondents. In addition, an overall report will be created.

#### 5.2.3a Human Factors Accident Classification System (HFACS)

The Contractor shall provide personnel to assist with the downloading of NTSB accident reports, assimilation of the data, hiring and training of pilot subject matter experts, coordination and assimilation of SME analysis reports, drafting summary reports.

For Pilot SMEs: online training/testing of 100 events/coder; online production site of 50 events/coder.

For A&P Mechanic SMEs: online training/testing of 20 events per coder; online production site of 20 events/coder.

Technical support: Data conversion and verification.

5.2.4a ATCARS - Level of Effort (LOE) From date of award through 11 July 2006, Labor not to exceed obligated funding on the Designated Contract Line Item.

The Contractor shall provide personnel to assist with the testing of new ATC simulation scenarios; train and serve as ghost-pilots during simulation participation.

#### 5.2.5a. ASRS Callback

The Contractor shall provide personnel to assist with processing Weather Callback paper returns, transcribing comments, combining & coding comments, combining response data & QA, developing data aggregation, developing databases, developing report macros & templates, generating draft reports, quality checking reports, and delivering reports, along with supporting documentation associated with those functions. A copy of the database will then form the deliverable.

#### 5.2.5b. Pilot Wx Information study

The Contractor shall provide personnel to assist with the recording and scoring of criterion-based information concerning general aviation/flight service station voice communications, development of a scoring tabulation database, generate summary report information regarding these data.

5.2.6a. Pre-employment Psych/Med data input - Level of Effort (LOE) From date of award through 11 July 2006, Labor not to exceed obligated funding on the Designated Contract Line Item.

The Contractor shall provide personnel to assist with the development of a tabulation database, and the inputting of data from the 16-Personality Factor survey.

5.2.7a. ATCT Field Study - Level of Effort (LOE) From date of award through 11 July 2006, Labor not to exceed obligated funding on the Designated Contract Line Item.

The Contractor shall be able to provide personnel to travel to ATC facilities to gather data with ATC personnel or to assist with the data collection in the field, development and management of a specialized database, including maintaining, updating, merging databases, and data verification, e.g., receiving data gathered in the field (by researchers and feedback surveys returned from the facilities),

integrating it with the existing database for that project; periodic directed analysis of these data, and the generation of multiple draft reports based on the data.

Summary of interview notes

Database of casual factors

Database of ATC feedback survey responses

Draft report of methods

Report list of causal factors from database. . . . . September 2006

**5.2.7b. eJANUS** - Level of Effort (LOE) From date of award through 11 July 2006, Labor not to exceed obligated funding on the Designated Contract Line Item.

The Contractor shall provide personnel to assist with the development of a complex Access database, management and maintenance of this specialize database, merging and verifying database elements, directed analysis of these data, imputing JANUS survey feedback data, and draft summary report development.

Merged database of causal factors . . . . . September 2006

Database of survey responses . . . . . September 2006

Draft report . . . . . September 2006

**5.2.7c. OED Training Recommendations** - Level of Effort (LOE) From date of award through 11 July 2006, Labor not to exceed obligated funding on the Designated Contract Line Item.

The Contractor shall provide personnel to assist with the documentation of FACREC fields of a specialized database, organize recommendations from these fields, develop and report facility specific descriptive data and training recommendations for each facility.

Extraction from OE database . . . . . October 2005

Results of Analysis . . . . . November 2005

Draft report of methods . . . . . December 2005

**5.2.7d. Supervisor Training** - Level of Effort (LOE) From date of award through 11 July 2006, Labor not to exceed obligated funding on the Designated Contract Line Item.

The Contractor shall provide personnel to assist with creating, updating, and maintaining a relational database regarding recommendations for ATC supervisory training practices and to develop periodic summary reports.

Database of training packages . . . . . September 2005

Database of supervisory expectations . . . . . October 2005

Discrepancy analysis . . . . . November 2005

Discrepancy report - draft . . . . . December 2005

Database of journal entries . . . . . January 2006

Database of observational codes . . . . . February 2006

Draft report of journal entries . . . . . February 2006

Draft report of observational codes . . . . . March 2006

**5.2.7e. Organization SMS** - Level of Effort (LOE) From date of award through 11 July 2006, Labor not to exceed obligated funding on the Designated Contract Line Item.

The Contractor shall provide personnel to assist with developing a research package for distribution to the pertinent workforce sample, develop a database and conduct directed analyses, and to draft summary reports of the results.

Develop research materials	June 2006
Distribution of materials	August 2006
Collection and coding of responses	October 2006
Database of responses	January 2007
Analyses	February 2007
Draft report of methods	March 2007
Draft Report 1	April 2007

**5.2.7f. JANUS FLT** - Level of Effort (LOE) From date of award through 11 July 2006, Labor not to exceed obligated funding on the Designated Contract Line Item.

The Contractor shall provide personnel to assist with the development and coordination of research materials regarding this JANUS flight project. Also simulator testing and database analysis shall be conducted to develop recommendations for the revision of the research tool. Draft summary reports of the results shall also be required.

Research materials – test 1	October 2006
Database - test 1	December 2006
Analysis and Report – test 1	February 2007
Research materials – test 2	March 2007
Database - test 2.	May 2007
Analysis and Report – test 2	July 2007

**5.2.8a. NATPRO** - Level of Effort (LOE) From date of award through 11 July 2006, Labor not to exceed obligated funding on the Designated Contract Line Item.

The Contractor shall provide personnel to assimilate [7] and coordinate workshop seminar materials, assist in program technical support and testing, periodic database extraction and analysis, and assistance in report writing.  
No specific milestones.

**5.2.8b. Tools for Performance Assessment** - Level of Effort (LOE) From date of award through 11 July 2006, Labor not to exceed obligated funding on the Designated Contract Line Item.

The Contractor shall provide personnel to assist with the development of research materials, database entry, and assistance in report writing.

Research materials	May 2006
Database	August 2007
Draft report of methods	October 2007
Analysis of database	December 2007
Draft report of analyses	February 2008



The Contractor shall provide personnel to assist in running color vision experiments, performing data entry, and report writing.

Running experiments	Feb - May
Report writing	Monthly (Oct, May)

**5.2.10c. Color Vision II** - Level of Effort (LOE) From date of award through 10 July 2006, Labor not to exceed obligated funding on the Designated Contract Line Item.

The Contractor shall provide personnel to assist in running color vision experiments and performing data entry.

Running experiments	Feb - May
Report writing	Feb - May
Scanning reference publications and database updates	

**5.2.11 a. Reproduction of Research Materials** - Level of Effort (LOE) From date of award through 10 July 2006, Labor not to exceed obligated funding on the Designated Contract Line Item.

The Contractor shall provide upon request, hard copies and/or electronic reproductions of books, journal articles, and other customer research materials. These products will be requested and delivered within 2 business days for each item in need of reproduction up to 84,000 unbound pages for photocopying or 6,300 bound pages for scanning or an equivalent combination of bound and unbound pages photocopied and/or scanned.

**5.2.11 b. Shredding of Research Data/Materials** - Level of Effort (LOE) From date of award through 10 July 2006, Labor not to exceed obligated funding on the Designated Contract Line Item.

The Contractor shall provide upon request, the contractor shall deliver up to 20,000 pages of shredded research materials within 2 business days.

**5.2.11 c. Reference Manager Databases** - Level of Effort (LOE) From date of award through 10 July 2006, Labor not to exceed obligated funding on the Designated Contract Line Item.

The Contractor shall provide personnel to assist in the creation of a centralized Reference Manager database. Upon request, the contractor shall provide personnel to conduct literature searches, make additions to the centralized database, extract topic databases, and provide supporting documentation within 10 business days.

**5.2.11 d. Software Testing and Support** - Level of Effort (LOE) From date of award through 10 July 2006, Labor not to exceed obligated funding on the Designated Contract Line Item.

The Contractor shall provide upon request, personnel to assist in writing, setting up, and testing software programs designed for training, data collection, and/or data analysis.

**5.2.11 e. Technical Editing** - Level of Effort (LOE) From date of award through 10 July 2006, Labor not to exceed obligated funding on the Designated Contract Line Item.

The Contractor shall provide upon request, personnel to proofread, edit, and/or co-author 1 technical manuscript.

6.0 **ACCEPTANCE:** Contract progress and deliverables associated with these tasks will be reviewed and accepted/rejected by each CAMI Principle Investigator requesting the contract support and by the COTR in accordance with monthly progress and delivery of pertinent products.



2. AMENDMENT/MODIFICATION NO. 0004	3. EFFECTIVE DATE 02/27/2006	4. REQUISITION/PURCHASE REQ. NO. AC-06-01944	5. PROJECT NO. (If applicable)
6. ISSUED BY AMQ-310 CONTRACTING TEAM FAA AERONAUTICAL CENTER PO BOX 25082 MPB ROOM 380 OKLAHOMA CITY OK 73125	CODE AMQ0310-ARC	7. ADMINISTERED BY (If other than Item 6) AMQ-310 CONTRACTING TEAM FAA AERONAUTICAL CENTER PO BOX 25082 MPB ROOM 380 OKLAHOMA CITY OK 73125	CODE AMQ310-ARC

8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) XYANT TECHNOLOGY INC 2600 VAN BUREN DRIVE STE 2624 NORMAN OK 73072	(x) 9A. AMENDMENT OF SOLICITATION NO.  9B. DATED (SEE ITEM 11)  10A. MODIFICATION OF CONTRACT/ORDER NO. DTFAAC-05-D-00070 0001 10B. DATED (SEE ITEM 13) 07/22/2005
CODE	FACILITY CODE

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

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers  is extended,  is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning \_\_\_\_\_ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment number. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required.)  
See Schedule Net Increase \$81,955.25

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

(s)	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.	<input type="checkbox"/>
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14.	<input type="checkbox"/>
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO THE AUTHORITY OF:	<input type="checkbox"/>
	D. OTHER (Specify type of modification and authority) mutual agreement of both parties (ref. Xyant email dated 01/06/06)	<input checked="" type="checkbox"/>

E. IMPORTANT: Contractor  is not,  is required to sign this document and return \_\_\_\_\_ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)  
This modification (004) supercedes and replaces modification 003 (dated 2/15/06) in its entirety to facilitate correction of an internal administrative/system error. Xyant agreement to the revised TPWS requirements (email dated 01/06/06 From Xyant/R. Vaada) is hereby incorporated by reference. This modification increases funding to support AAM-500 mission requirements as defined in the revised TPWS dated 12/20/2005, and corrects administrative errors in the original order.

The acquired services are identified in the Task Performance Work Statement attached herein and the deliverables are defined per project.  
Continued ...

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

15A. NAME AND TITLE OF SIGNER (Type or print)	16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)
	Avis Franklin
15B. CONTRACTOR/OFFEROR	16B. CONTRACT AUTHORITY
(Signature of person authorized to sign)	
15C. DATE SIGNED	16C. DATE SIGNED
	2/27/2006

CONTINUATION SHEET

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ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	<p>Alt. COR/COTR: TOM NESTHUS DISTR: T</p> <p>FIRST: The following typographical error is corrected as follows: ---- period of performance ending date from 2005-2006</p> <p>SECOND: As a result of incorporating the revised IPWS, this modification increases the task hours for: AA&lt; 510 surveys, adds additional tasks for ATC Color Vision Displays, and AAM-500 Pop-up support. (see revised PWS para. 5.1 project task table).</p> <p>THIRD: As a result of the increase in task hours, the funding obligation is increased as follows:</p> <p>LIST OF CHANGES: Total Amount for this Modification: \$81,955.25 New Total Amount for this Award: \$625,569.40 Obligated Amount for this Modification: \$81,955.25</p> <p>CLIN 002 (Travel) obligation of \$10,000.00 remains unchanged New Total Obligated Amount for this Award: \$635,569.40 Total Estimated Potential Value (TEPV) changed to : \$645,569.00</p> <p>CHANGES FOR LINE ITEM NUMBER: 1 Total Amount changed From \$543,614.15 to \$625,569.40 Obligated Amount for this modification: \$81,955.25</p> <p>CHANGES FOR DELIVERY LOCATION: A6973DQM Amount changed from \$543,614.15 to \$625,569.40</p> <p>NEW ACCOUNTING CODE ADDED: Account code: 1278800000.2006.5R4N8BA000.ACB3600000.25305.61006600.0000000000.0000000000.0000000000.0000000000 .0000000000 FUND 1278800000 BUDGET YEAR 2006 BPAC 5R4N8BA000 ORGANIZATION ACB3600000 Quantity: 0 Amount: \$43,266.75 Percent: 7.95909 Subject To Funding: N Payment Address:</p> <p>NEW ACCOUNTING CODE ADDED: Account code: 1278800000.2006.5R4N8BA000.ACB3600000.25305.61006600.0000000000.0000000000.0000000000.0000000000 .0000000000 FUND 1278800000 Continued ...</p>				

CONTINUATION SHEET

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XYANT TECHNOLOGY INC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	<p>BUDGET YEAR 2006                      BPAC 5R4N8AA000                      ORGANIZATION ACB3600000                      Quantity: 0                      Amount: \$38,688.50                      Percent: 7.1169                      Subject To Funding: N                      Payment Address:</p> <p>FOURTH: All other terms and provisions of the Contract remain unchanged and in full force and effect.                      Delivery: 07/25/2005                      Discount Terms: STANDARD NET 30                      FOB: Destination                      Period of Performance: 07/25/2005 to 07/11/2006                      Delivery Location Code: A6973DQM                      A6973DQM                      6973DQ FAA AERO CENTER, AAM-500                      HUMAN RES RESEARCH DIV, RM-270 CAMI                      PO BOX 25082                      OKLAHOMA CITY OK 731250082 US</p> <p>SEE ATTACHED PWS</p>				

**TASKED PERFORMANCE WORK STATEMENT**  
Revised 12/20/2005 for  
Contract No. DTFAAC-05-D-00070  
Order 0001

**1. INTRODUCTION:**

This effort requires contract support to provide the CAMI Aerospace Human Factors Research Division with administrative and technical support to assist in the conduct of research necessary to meet mission requirements. The administrative and technical support shall include the conduct and assistance with many tasks associated with database development and administration, software revision and maintenance, survey development, distribution, transcription, scanning paper returns, data analysis, quality control, and report generation, as well as assisting in laboratory and field experiments regarding AAM-500s Human Factors missions requirements. The contract support shall be responsible for management and supervision of all contract personnel (including subject matter experts) who are assigned to complete tasks issued within the scope of the technical requirements of the Division.

**2. APPLICABLE ORDERS, REGULATIONS, FORMS AND MANUALS:**

The applicable documentation is identified

**3. ADMINISTRATION:**

Requiring Office: AAM-500 Human Factors Research Division

Period of Performance: Date of Award through July 11, 2006

Place of Performance: Contract services will be conducted at CAMI Human Factors Research Lab.

COTR for this work will be:

Thomas E. Nesthus  
Human Factors Research Lab, AAM-500  
6500 MacArthur Blvd  
Oklahoma City, OK 73125  
Phone: (405) 954-6297

**4. GOVERNMENT FURNISHED PROPERTY**

All resources for conducting Delivery Order requirements will be provided by the government. Including facilities, office work space, general offices equipment, phones, PCs, etc.

**5. SCOPE OF WORK:** The contractor shall provide quality technical, analytical, planning, and administrative support. The contractor shall furnish and make available all personnel, and services necessary to assist AAM-500 in accomplishing its mission. As directed by the FAA, the contractor may also be required to interface with various FAA and U.S. Government organizations.

#### 5.1 Technical Support Project Requirements

The contractor shall provide all of the necessary technical operations and administrative support such as: planning, organizing, managing, coordinating, and tracking (e.g., report management, cost/schedule/performance measurement, risk management, component procurement management, system engineering management, resource management, data management) required to perform all of the project tasks successfully as required in accordance with this SOW.

PROJECT NO.	PROJECT NAME	TTL ESTIMATED HRS	ESTIMATED TRAVEL	SUPPORT PROGRESS & DELIVERABLES
1a, b, c	AAM-520 SURVEYS	7,486		LOE, Draft reports when completed
2a, b (revised)	AAM-510 SURVEYS	Increase to: 1761		LOE, Draft reports when completed
3a	AAM-510 HFACS	1,350		Analysis & summary reports when completed
4a	AAM-520 ATCARS	425		LOE
5a, b	AAM-510 Wx	350		Database & summary reports when completed
6a	AAM-520 Pre-employment Psych/Med data	430		LOE, Database periodically updated as needed
7a, b, c, d, e, f	IANUS	2,318	10,000	LOE, summary reports when completed
8a, b	NATPRO & PERFORMANCE	678		LOE, report writing assistance as required
9a, b, c, d	OE PROJECTS	2,763		LOE, report writing assistance as required
Additional Tasks				
10 a, b, c	ATC Color Vision & Displays	1113		LOE, Experimental support, Draft reports
11 a, b, c, d, e	AAM-500 Pop-up Support	352		LOE, Scanning, photocopying, manuscript transcription, Publication reference database updates

## 5.2 Technical Support Project Requirements by Task Sub number and Subtitle:

5.2.1a. EAS 2006 -Level of Effort (LOE) From date of award through 11 July 2006, Labor not to exceed obligated funding on the Designated Contract Line Item.

The Contractor shall provide personnel to assist with survey development, distribution of survey packages, scanning paper returns, transcribing and sanitizing paper and on-line comments, combining & coding comments, combining response data & QA, developing data aggregation, developing databases, developing report macros & templates, generating draft reports, quality checking reports, and delivering reports, along with supporting documentation associated with those functions.

5.2.1b. OAM Pilot Survey -Level of Effort (LOE) From date of award through 11 July 2006, Labor not to exceed obligated funding on the Designated Contract Line Item.

The Contractor shall provide personnel to assist with survey development, distribution of survey packages, scanning paper returns, transcribing and sanitizing paper and on-line comments, combining & coding comments, combining response data & QA, developing data aggregation, developing databases, developing report macros & templates, generating draft reports, quality checking reports, and delivering reports, along with supporting documentation associated with those functions.

5.2.1c. Separation Survey - Level of Effort (LOE) From date of award through 11 July 2006, Labor not to exceed obligated funding on the Designated Contract Line Item.

The Contractor shall provide personnel to assist with survey revisions, database analyses, drafting comments reports, comments analyses, and summary reports.

5.2.2a. Designated Pilot - Level of Effort (LOE) From date of award through 11 July 2006, Labor not to exceed obligated funding on the Designated Contract Line Item.

A Designated Pilot Examiner survey will be administered to all Designated Pilot Examiners across the United States. There are approximately 1,066 private persons designated as pilot examiners by the FAA Administrator. Contract support will mail all DPEs a survey with a postage-paid return envelope. Returned surveys will be scanned into a database through the use of Teleform software. Summary data reports (i.e., item by item frequency distributions) for each region that has at least eight respondents. **The Contractor shall provide personnel to assist in: distribution of surveys, entry of survey data, and summarizing results of analysis for development of reports.** The contractor will also provide an overall data summary report.

5.2.2b. National Pilot Survey - Level of Effort (LOE) From date of award through 11 July 2006, Labor not to exceed obligated funding on the Designated Contract Line Item.

Newly certified GA ASEL private pilots from all Flight Standards District Offices (FSDOs) across FAA regions will receive an anonymous and voluntary survey to complete and return by mail. Contract support will mail traditionally registered GA ASEL pilots a survey to their home addresses. In an attempt to maximize response rates, the survey will have an attached cover letter explaining the purpose of the survey asking for their feedback regarding their flight training and testing experiences. **The Contractor shall provide personnel to assist in: distribution of surveys, entry of survey**

data, and summarizing results of analysis for development of reports. The contractor will scan returned surveys into a database through the use of Teleform software. Summary reports will be created for each region that has at least eight respondents. In addition, an overall report will be created.

#### 5.2.3a Human Factors Accident Classification System (HFACS)

The Contractor shall provide personnel to assist with the downloading of NTSB accident reports, assimilation of the data, hiring and training of pilot subject matter experts, coordination and assimilation of SME analysis reports, drafting summary reports.

5.2.4a ATCARS - Level of Effort (LOE) From date of award through 11 July 2006, Labor not to exceed obligated funding on the Designated Contract Line Item.

The Contractor shall provide personnel to assist with the testing of new ATC simulation scenarios, train and serve as ghost-pilots during simulation participation.

#### 5.2.5a. ASRS Callback

The Contractor shall provide personnel to assist with processing Weather Callback paper returns, transcribing comments, combining & coding comments, combining response data & QA, developing data aggregation, developing databases, developing report macros & templates, generating draft reports, quality checking reports, and delivering reports, along with supporting documentation associated with those functions. A copy of the database will then form the deliverable.

#### 5.2.5b. Pilot Wx Information study

The Contractor shall provide personnel to assist with the recording and scoring of criterion-based information concerning general aviation/flight service station voice communications, development of a scoring tabulation database, generate summary report information regarding these data.

5.2.6a. Pre-employment Psych/Med data input - Level of Effort (LOE) From date of award through 11 July 2006, Labor not to exceed obligated funding on the Designated Contract Line Item.

The Contractor shall provide personnel to assist with the development of a tabulation database, and the inputting of data from the 16-Personality Factor survey.

5.2.7a. ATCT Field Study - Level of Effort (LOE) From date of award through 11 July 2006, Labor not to exceed obligated funding on the Designated Contract Line Item.

The Contractor shall be able to provide personnel to travel to ATC facilities to gather data with ATC personnel or to assist with the data collection in the field, development and management of a specialized database, including maintaining, updating, merging databases, and data verification, e.g., receiving data gathered in the field (by researchers and feedback surveys returned from the facilities), integrating it with the existing database for that project; periodic directed analysis of these data, and the generation of multiple draft reports based on the data.

Summary of interview notes

Database of casual factors

Database of ATC feedback survey responses

Draft report of methods  
 Report list of causal factors from database. September 2006

5.2.7b. eJANUS - Level of Effort (LOE) From date of award through 11 July 2006, Labor not to exceed obligated funding on the Designated Contract Line Item.

The Contractor shall provide personnel to assist with the development of a complex Access database, management and maintenance of this specialize database, merging and verifying database elements, directed analysis of these data, imputing JANUS survey feedback data, and draft summary report development.

Merged database of causal factors	September 2006
Database of survey responses	September 2006
Draft report	September 2006

5.2.7c. OED Training Recommendations - Level of Effort (LOE) From date of award through 11 July 2006, Labor not to exceed obligated funding on the Designated Contract Line Item.

The Contractor shall provide personnel to assist with the documentation of FACREC fields of a specialized database, organize recommendations from these fields, develop and report facility specific descriptive data and training recommendations for each facility.

Extraction from OE database	October 2005
Results of Analysis	November 2005
Draft report of methods	December 2005

5.2.7d. Supervisor Training - Level of Effort (LOE) From date of award through 11 July 2006, Labor not to exceed obligated funding on the Designated Contract Line Item.

The Contractor shall provide personnel to assist with creating, updating, and maintaining a relational database regarding recommendations for ATC supervisory training practices and to develop periodic summary reports.

Database of training packages	September 2005
Database of supervisory expectations	October 2005
Discrepancy analysis	November 2005
Discrepancy report - draft	December 2005
Database of journal entries	January 2006
Database of observational codes	February 2006
Draft report of journal entries	February 2006
Draft report of observational codes	March 2006

**5.2.7e. Organization SMS** - Level of Effort (LOE) From date of award through 11 July 2006, Labor not to exceed obligated funding on the Designated Contract Line Item.

The Contractor shall provide personnel to assist with developing a research package for distribution to the pertinent workforce sample, develop a database and conduct directed analyses, and to draft summary reports of the results.

Develop research materials	June 2006
Distribution of materials	August 2006
Collection and coding of responses	October 2006
Database of responses	January 2007
Analyses	February 2007
Draft report of methods	March 2007
Draft Report 1	April 2007

**5.2.7f. JANUS FLT** - Level of Effort (LOE) From date of award through 11 July 2006, Labor not to exceed obligated funding on the Designated Contract Line Item.

The Contractor shall provide personnel to assist with the development and coordination of research materials regarding this JANUS flight project. Also simulator testing and database analysis shall be conducted to develop recommendations for the revision of the research tool. Draft summary reports of the results shall also be required.

Research materials – test 1	October 2006
Database - test 1	December 2006
Analysis and Report – test 1	February 2007
Research materials – test 2	March 2007
Database - test 2.	May 2007
Analysis and Report – test 2	July 2007

**5.2.8a. NATPRO** - Level of Effort (LOE) From date of award through 11 July 2006, Labor not to exceed obligated funding on the Designated Contract Line Item.

The Contractor shall provide personnel to assimilate [?] and coordinate workshop seminar materials, assist in program technical support and testing, periodic database extraction and analysis, and assistance in report writing.

No specific milestones.

**5.2.8b. Tools for Performance Assessment** - Level of Effort (LOE) From date of award through 11 July 2006, Labor not to exceed obligated funding on the Designated Contract Line Item.

The Contractor shall provide personnel to assist with the development of research materials, database entry, and assistance in report writing.

Research materials	May 2006
Database	August 2007
Draft report of methods	October 2007
Analysis of database	December 2007
Draft report of analyses	February 2008

5.2.9a. OE Database Application & Mgt - Level of Effort (LOE) From date of award through 11 July 2006, Labor not to exceed obligated funding on the Designated Contract Line Item.

The Contractor shall provide personnel to assist in establishing a relational database of ATC Operational Errors (OE), shall merge and update the database periodically, maintain and verify data entry, create data subset for analysis and report writing.

Update database	Quarterly
Draft report	Quarterly

5.2.9b. Historic 7210-3 Documentation & Database Documentation - Level of Effort (LOE) From date of award through 11 July 2006, Labor not to exceed obligated funding on the Designated Contract Line Item.

The Contractor shall provide personnel to assist in establishing, maintaining, merging, updating and verifying data entry, as well as creating data subsets for analysis and report writing.

Database - fields on historic form	
Database - historical OE data	
Database - cleaned historical OE data	
Report on comparison of form fields	
Report on comparison of historical data	
Summary report of form and data comparisons	December 2005

5.2.9c. Temporal Markers - Level of Effort (LOE) From date of award through 11 July 2006, Labor not to exceed obligated funding on the Designated Contract Line Item.

The Contractor shall provide personnel to assist in ATC voice transcription, coordination of research materials, analysis of data and report writing.

- Transcripts of voice tapes
- Data coding package
- Database of temporal markers
- Report from database.

5.2.9d. OE Reduction During Position Transfer - Level of Effort (LOE) From date of award through 11 July 2006, Labor not to exceed obligated funding on the Designated Contract Line Item.

The Contractor shall provide personnel to assist in ATC voice transcription, coordination of research analysis of ATC-SME observational data.

5.2.10a. Information Complexity in ATC Displays- Level of Effort (LOE) From date of award through 10 July 2006, Labor not to exceed obligated funding on the Designated Contract Line Item.

The Contractor shall provide personnel to assist in running cognitive and visual experiments, performing data entry, and report writing.

Running experiments	Quarterly (Mar, June)
Report writing	Monthly (Dec - Mar)

5.2.10b. ATC Color Vision I- Level of Effort (LOE) From date of award through 10 July 2006, Labor not to exceed obligated funding on the Designated Contract Line Item.

The Contractor shall provide personnel to assist in running color vision experiments, performing data entry, and report writing.

Running experiments	Feb - May
Report writing	Monthly (Oct, May)

5.2.10c. Color Vision II- Level of Effort (LOE) From date of award through 10 July 2006, Labor not to exceed obligated funding on the Designated Contract Line Item.

The Contractor shall provide personnel to assist in running color vision experiments and performing data entry.

Running experiments	Feb - May
Report writing	Feb - May
Scanning reference publications and database updates	

5.2.11 a. Reproduction of Research Materials - Level of Effort (LOE) From date of award through 10 July 2006, Labor not to exceed obligated funding on the Designated Contract Line Item.

The Contractor shall provide upon request, hard copies and/or electronic reproductions of books, journal articles, and other customer research materials. These products will be requested and delivered within 2 business days for each item in need of reproduction up to 84,000 unbound pages for photocopying or 6,300 bound pages for scanning or an equivalent combination of bound and unbound pages photocopied and/or scanned.

5.2.11 b. Shredding of Research Data/Materials - Level of Effort (LOE) From date of award through 10 July 2006, Labor not to exceed obligated funding on the Designated Contract Line Item.

The Contractor shall provide upon request, the contractor shall deliver up to 20,000 pages of shredded research materials within 2 business days.

5.2.11 c. Reference Manager Databases - Level of Effort (LOE) From date of award through 10 July 2006, Labor not to exceed obligated funding on the Designated Contract Line Item.

The Contractor shall provide personnel to assist in the creation of a centralized Reference Manager database. Upon request, the contractor shall provide personnel to conduct literature searches, make additions to the centralized database, extract topic databases, and provide supporting documentation within 10 business days.

5.2.11 d. Software Testing and Support - Level of Effort (LOE) From date of award through 10 July 2006, Labor not to exceed obligated funding on the Designated Contract Line Item.

The Contractor shall provide upon request, personnel to assist in writing, setting up, and testing software programs designed for training, data collection, and/or data analysis.

5.2.11 e. Technical Editing - Level of Effort (LOE) From date of award through 10 July 2006, Labor not to exceed obligated funding on the Designated Contract Line Item.

The Contractor shall provide upon request, personnel to proofread, edit, and/or co-author 1 technical manuscript.

6.0 **ACCEPTANCE:** Contract progress and deliverables associated with these tasks will be reviewed and accepted/rejected by each CAMI Principle Investigator requesting the contract support and by the COTR in accordance with monthly progress and delivery of pertinent products.



AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE	PAGE OF PAGES 1   3
2. AMENDMENT/MODIFICATION NO. 0003	3. EFFECTIVE DATE See Block 16C	4. REQUISITION/PURCHASE REQ. NO. AC-06-01713	5. PROJECT NO. (If applicable)
6. ISSUED BY AMQ-310 CONTRACTING TEAM FAA AERONAUTICAL CENTER PO BOX 25082 MPB ROOM 380 OKLAHOMA CITY OK 73125	CODE AMQ0310-ARC	7. ADMINISTERED BY (If other than Item 6) AMQ-310 CONTRACTING TEAM FAA AERONAUTICAL CENTER PO BOX 25082 MPB ROOM 380 OKLAHOMA CITY OK 73125	CODE AMQ310-ARC
6. NAME AND ADDRESS OF CONTRACTOR (Name, street, county, State and ZIP Code) XYANT TECHNOLOGY INC 2600 VAN BUREN DRIVE STE 2600 NORMAN OK 73072		(x) 9A. AMENDMENT OF SOLICITATION NO.	9B. DATED (SEE ITEM 11)
CODE	FACILITY CODE	x 10A. MODIFICATION OF CONTRACT/ORDER NO. 0001 10B. DATED (SEE ITEM 13) 07/22/2005	

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers  is extended.  is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning \_\_\_\_\_ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegam which includes a reference to the solicitation and amendment number. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegam or letter, provided each telegam or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required.)

Net Increase \$81,955.25

See Schedule

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

<input type="checkbox"/>	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
<input type="checkbox"/>	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14.
<input type="checkbox"/>	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO THE AUTHORITY OF:
<input checked="" type="checkbox"/>	D. OTHER (Specify type of modification and authority) mutual agreement of both parties (ref. Xyant email dated 01/06/06)

ORIGINAL

E. IMPORTANT: Contractor  is not  is required to sign this document and return \_\_\_\_\_ copies to the issuing office.

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

Xyant agreement to the revised TPWS requirements (email dated 01/06/06 from Xyant/R. Vaada) is hereby incorporated by reference. This modification increases funding to support AAM-500 mission requirements as defined in the revised TPWS dated 12/20/2005, and corrects administrative errors in the original order.

This acquired services are identified in the Task Performance Work Statement attached herein and the deliverables are defined per project.

Continued ...

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

15A. NAME AND TITLE OF SIGNER (Type or print)	16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Avis Franklin
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED
(Signature of person authorized to sign)	15D. CONTRACT AUTHORITY 
	15E. DATE SIGNED 2/15/06
	(Signature of Contracting Officer)

CONTINUATION SHEET

REFERENCE NO. OF DOCUMENT BEING CONTINUED  
DTFAAC-05-D-00070/0001/0003

PAGE 2 OF 3

NAME OF OFFEROR OR CONTRACTOR  
XYANT TECHNOLOGY INC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	<p>Alt. COR/CONTRACTOR: TOM NESTHUS DISTRICT: T</p> <p>FIRST: This modification corrects administrative typographical error as follows: ----period of performance ending date, from: 2005 to: 2006.</p> <p>SECOND: As a result of incorporating the revised TPWS, this modification increases the task hours for: AAM 510 surveys, adds additional tasks for ATC Color Vision Displays, and AAM-500 Pop-up support. (see revised PWS para 5.1 project task table).</p> <p>THIRD: As a result of the increase in task hours, the funding obligation is increased as follows:</p> <p>LIST OF CHANGES: Total Amount for this Modification: \$81,955.25 New Total Amount for this Award: \$625,569.40 Obligated Amount for this Modification: \$81,955.25</p> <p>CLIN 002 (Travel) obligation of \$10,000 remains unchanged New Total Obligated Amount for this Award: \$635,569.40 Total Estimated Potential Value (TEPV) changed to : 645569</p> <p>CHANGES FOR LINE ITEM NUMBER: 1 Total Amount changed from \$543,614.15 to \$625,569.40 Obligated Amount for this modification: \$81,955.25</p> <p>CHANGES FOR DELIVERY LOCATION: A6973DQM Amount changed from \$543,614.15 to \$625,569.40</p> <p>CHANGES FOR ACCOUNTING CODE: 1278800000.2005.5R4NBAA000.ACB3600000.25305.61006600.0000000000.0000000000.0000000000 .0000000000 Amount changed from \$60,346.40 to \$99,034.90</p> <p>CHANGES FOR ACCOUNTING CODE: 1278800000.2005.5R4NBAA000.ACB3600000.25305.61006600.0000000000.0000000000.0000000000 .0000000000 Amount changed from \$11,074.40 to \$54,341.15</p> <p>FOURTH: All other terms and provisions of the Contract remain unchanged and in full force and effect. Delivery: 02/15/2006 Discount Terms: STANDARD NET 30 FOB: Destination Period of Performance: 07/25/2005 to 07/11/2006 Delivery Location Code: A6973DQM A6973DQM 6973DQ FAA AERO CENTER, AAM-500 HUMAN RES RESEARCH DIV, RM-270 CAMI PO BOX 25082 OKLAHOMA CITY OK 731250082 US Continued ...</p>				

CONTINUATION SHEET

REFERENCE NO. OF DOCUMENT BEING CONTINUED  
DTFAAC-05-D-00070/0001/0003

PAGE 3 OF 3

NAME OF OFFEROR OR CONTRACTOR  
HYANT TECHNOLOGY INC

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	SEE ATTACHED PWS				

**TASKED PERFORMANCE WORK STATEMENT**  
Revised 12/20/2005 for  
Contract No. DTFAAC-05-D-00070  
Order 0001

**1. INTRODUCTION:**

This effort requires contract support to provide the CAMI Aerospace Human Factors Research Division with administrative and technical support to assist in the conduct of research necessary to meet mission requirements. The administrative and technical support shall include the conduct and assistance with many tasks associated with database development and administration, software revision and maintenance, survey development, distribution, transcription, scanning paper returns, data analysis, quality control, and report generation, as well as assisting in laboratory and field experiments regarding AAM-500s Human Factors missions requirements. The contract support shall be responsible for management and supervision of all contract personnel (including subject matter experts) who are assigned to complete tasks issued within the scope of the technical requirements of the Division.

**2. APPLICABLE ORDERS, REGULATIONS, FORMS AND MANUALS:**

The applicable documentation is identified

**3. ADMINISTRATION:**

Requiring Office: AAM-500 Human Factors Research Division

Period of Performance: Date of Award through July 11, 2006

Place of Performance: Contract services will be conducted at CAMI Human Factors Research Lab.

COTR for this work will be:

Thomas E. Nesthus  
Human Factors Research Lab, AAM-500  
6500 MacArthur Blvd  
Oklahoma City, OK 73125  
Phone: (405) 954-6297

**4. GOVERNMENT FURNISHED PROPERTY**

All resources for conducting Delivery Order requirements will be provided by the government. Including facilities, office work space, general offices equipment, phones, PCs, etc.

**5. SCOPE OF WORK:** The contractor shall provide quality technical, analytical, planning, and administrative support. The contractor shall furnish and make available all personnel, and services necessary to assist AAM-500 in accomplishing its mission. As directed by the FAA, the contractor may also be required to interface with various FAA and U.S. Government organizations.

#### 5.1 Technical Support Project Requirements

The contractor shall provide all of the necessary technical operations and administrative support such as: planning, organizing, managing, coordinating, and tracking (e.g., report management, cost/schedule/performance measurement, risk management, component procurement management, system engineering management, resource management, data management) required to perform all of the project tasks successfully as required in accordance with this SOW.

PROJECT NO.	PROJECT NAME	TTL ESTIMATED HRS	ESTIMATED TRAVEL	SUPPORT PROGRESS & DELIVERABLES
1a, b, c	AAM-520 SURVEYS	7,486		LOE, Draft reports when completed
2a, b (revised)	AAM-510 SURVEYS	Increase to: 1761		LOE, Draft reports when completed
3a	AAM-510 HFACS	1,350		Analysis & summary reports when completed
4a	AAM-520 ATCARS	425		LOE
5a, b	AAM-510 Wx	350		Database & summary reports when completed
6a	AAM-520 Pre-employment Psych/Med data	430		LOE, Database periodically updated as needed
7a, b, c, d, e, f	JANUS	2,318	10,000	LOE, summary reports when completed
8a, b	NATPRO & PERFORMANCE	678		LOE, report writing assistance as required
9a, b, c, d	OE PROJECTS	2,763		LOE, report writing assistance as required
<b>Additional Tasks</b>				
10 a, b, c	ATC Color Vision & Displays	1113		LOE, Experimental support, Draft reports
11 a, b, c, d, e	AAM-500 Pop-up Support	352		LOE, Scanning, photocopying, manuscript transcription, Publication reference database updates

## 5.2 Technical Support Project Requirements by Task Sub number and Subtitle:

**5.2.1a. EAS 2006** –Level of Effort (LOE) From date of award through 11 July 2006, Labor not to exceed obligated funding on the Designated Contract Line Item.

The Contractor shall provide personnel to assist with survey development, distribution of survey packages, scanning paper returns, transcribing and sanitizing paper and on-line comments, combining & coding comments, combining response data & QA, developing data aggregation, developing databases, developing report macros & templates, generating draft reports, quality checking reports, and delivering reports, along with supporting documentation associated with those functions.

**5.2.1b. OAM Pilot Survey** -Level of Effort (LOE) From date of award through 11 July 2006, Labor not to exceed obligated funding on the Designated Contract Line Item.

The Contractor shall provide personnel to assist with survey development, distribution of survey packages, scanning paper returns, transcribing and sanitizing paper and on-line comments, combining & coding comments, combining response data & QA, developing data aggregation, developing databases, developing report macros & templates, generating draft reports, quality checking reports, and delivering reports, along with supporting documentation associated with those functions.

**5.2.1c. Separation Survey** - Level of Effort (LOE) From date of award through 11 July 2006, Labor not to exceed obligated funding on the Designated Contract Line Item.

The Contractor shall provide personnel to assist with survey revisions, database analyses, drafting comments reports, comments analyses, and summary reports.

**5.2.2a. Designated Pilot** - Level of Effort (LOE) From date of award through 11 July 2006, Labor not to exceed obligated funding on the Designated Contract Line Item.

A Designated Pilot Examiner survey will be administered to all Designated Pilot Examiners across the United States. There are approximately 1,066 private persons designated as pilot examiners by the FAA Administrator. Contract support will mail all DPEs a survey with a postage-paid return envelope. Returned surveys will be scanned into a database through the use of Teleform software. Summary data reports (i.e., item by item frequency distributions) for each region that has at least eight respondents. **The Contractor shall provide personnel to assist in: distribution of surveys, entry of survey data, and summarizing results of analysis for development of reports.** The contractor will also provide an overall data summary report.

**5.2.2b. National Pilot Survey** - Level of Effort (LOE) From date of award through 11 July 2006, Labor not to exceed obligated funding on the Designated Contract Line Item.

Newly certified GA ASEL private pilots from all Flight Standards District Offices (FSDOs) across FAA regions will receive an anonymous and voluntary survey to complete and return by mail. Contract support will mail traditionally registered GA ASEL pilots a survey to their home addresses. In an attempt to maximize response rates, the survey will have an attached cover letter explaining the purpose of the survey asking for their feedback regarding their flight training and testing experiences. **The Contractor shall provide personnel to assist in: distribution of surveys, entry of survey**

**data, and summarizing results of analysis for development of reports.** The contractor will scan returned surveys into a database through the use of Teleform software. Summary reports will be created for each region that has at least eight respondents. In addition, an overall report will be created.

#### **5.2.3a Human Factors Accident Classification System (HFACS)**

The Contractor shall provide personnel to assist with the downloading of NTSB accident reports, assimilation of the data, hiring and training of pilot subject matter experts, coordination and assimilation of SME analysis reports, drafting summary reports.

**5.2.4a ATCARS** - Level of Effort (LOE) From date of award through 11 July 2006, Labor not to exceed obligated funding on the Designated Contract Line Item.

The Contractor shall provide personnel to assist with the testing of new ATC simulation scenarios, train and serve as ghost-pilots during simulation participation.

#### **5.2.5a. ASRS Callback**

The Contractor shall provide personnel to assist with processing Weather Callback paper returns, transcribing comments, combining & coding comments, combining response data & QA, developing data aggregation, developing databases, developing report macros & templates, generating draft reports, quality checking reports, and delivering reports, along with supporting documentation associated with those functions. A copy of the database will then form the deliverable.

#### **5.2.5b. Pilot Wx Information study**

The Contractor shall provide personnel to assist with the recording and scoring of criterion-based information concerning general aviation/flight service station voice communications, development of a scoring tabulation database, generate summary report information regarding these data.

**5.2.6a.** Pre-employment Psych/Med data input - Level of Effort (LOE) From date of award through 11 July 2006, Labor not to exceed obligated funding on the Designated Contract Line Item.

The Contractor shall provide personnel to assist with the development of a tabulation database, and the inputting of data from the 16-Personality Factor survey.

**5.2.7a. ATCT Field Study** - Level of Effort (LOE) From date of award through 11 July 2006, Labor not to exceed obligated funding on the Designated Contract Line Item.

The Contractor shall be able to provide personnel to travel to ATC facilities to gather data with ATC personnel or to assist with the data collection in the field, development and management of a specialized database, including maintaining, updating, merging databases, and data verification, e.g., receiving data gathered in the field (by researchers and feedback surveys returned from the facilities), integrating it with the existing database for that project; periodic directed analysis of these data, and the generation of multiple draft reports based on the data.

Summary of interview notes

Database of casual factors

Database of ATC feedback survey responses

Draft report of methods  
 Report list of causal factors from database. September 2006

**5.2.7b. eJANUS** - Level of Effort (LOE) From date of award through 11 July 2006, Labor not to exceed obligated funding on the Designated Contract Line Item.

The Contractor shall provide personnel to assist with the development of a complex Access database, management and maintenance of this specialize database, merging and verifying database elements, directed analysis of these data, imputing JANUS survey feedback data, and draft summary report development.

Merged database of causal factors	September 2006
Database of survey responses	September 2006
Draft report	September 2006

**5.2.7c. OED Training Recommendations** - Level of Effort (LOE) From date of award through 11 July 2006, Labor not to exceed obligated funding on the Designated Contract Line Item.

The Contractor shall provide personnel to assist with the documentation of FACREC fields of a specialized database, organize recommendations from these fields, develop and report facility specific descriptive data and training recommendations for each facility.

Extraction from OE database	October 2005
Results of Analysis	November 2005
Draft report of methods	December 2005

**5.2.7d. Supervisor Training** - Level of Effort (LOE) From date of award through 11 July 2006, Labor not to exceed obligated funding on the Designated Contract Line Item.

The Contractor shall provide personnel to assist with creating, updating, and maintaining a relational database regarding recommendations for ATC supervisory training practices and to develop periodic summary reports.

Database of training packages	September 2005
Database of supervisory expectations	October 2005
Discrepancy analysis	November 2005
Discrepancy report - draft	December 2005
Database of journal entries	January 2006
Database of observational codes	February 2006
Draft report of journal entries	February 2006
Draft report of observational codes	March 2006

**5.2.7e. Organization SMS** - Level of Effort (LOE) From date of award through 11 July 2006, Labor not to exceed obligated funding on the Designated Contract Line Item.

The Contractor shall provide personnel to assist with developing a research package for distribution to the pertinent workforce sample, develop a database and conduct directed analyses, and to draft summary reports of the results.

Develop research materials	June 2006
Distribution of materials	August 2006
Collection and coding of responses	October 2006
Database of responses	January 2007
Analyses	February 2007
Draft report of methods	March 2007
Draft Report 1	April 2007

**5.2.7f. JANUS FLT** - Level of Effort (LOE) From date of award through 11 July 2006, Labor not to exceed obligated funding on the Designated Contract Line Item.

The Contractor shall provide personnel to assist with the development and coordination of research materials regarding this JANUS flight project. Also simulator testing and database analysis shall be conducted to develop recommendations for the revision of the research tool. Draft summary reports of the results shall also be required.

Research materials – test 1	October 2006
Database - test 1	December 2006
Analysis and Report – test 1	February 2007
Research materials – test 2	March 2007
Database - test 2.	May 2007
Analysis and Report – test 2	July 2007

**5.2.8a. NATPRO** - Level of Effort (LOE) From date of award through 11 July 2006, Labor not to exceed obligated funding on the Designated Contract Line Item.

The Contractor shall provide personnel to assimilate [?] and coordinate workshop seminar materials, assist in program technical support and testing, periodic database extraction and analysis, and assistance in report writing.  
No specific milestones.

**5.2.8b. Tools for Performance Assessment** - Level of Effort (LOE) From date of award through 11 July 2006, Labor not to exceed obligated funding on the Designated Contract Line Item.

The Contractor shall provide personnel to assist with the development of research materials, database entry, and assistance in report writing.

Research materials	May 2006
Database	August 2007
Draft report of methods	October 2007
Analysis of database	December 2007
Draft report of analyses	February 2008



**5.2.10b. ATC Color Vision I- Level of Effort (LOE)** From date of award through 10 July 2006, Labor not to exceed obligated funding on the Designated Contract Line Item.

The Contractor shall provide personnel to assist in running color vision experiments, performing data entry, and report writing.

Running experiments	Feb - May
Report writing	Monthly (Oct, May)

**5.2.10c. Color Vision II- Level of Effort (LOE)** From date of award through 10 July 2006, Labor not to exceed obligated funding on the Designated Contract Line Item.

The Contractor shall provide personnel to assist in running color vision experiments and performing data entry.

Running experiments	Feb - May
Report writing	Feb - May
Scanning reference publications and database updates	

**5.2.11 a. Reproduction of Research Materials - Level of Effort (LOE)** From date of award through 10 July 2006, Labor not to exceed obligated funding on the Designated Contract Line Item.

The Contractor shall provide upon request, hard copies and/or electronic reproductions of books, journal articles, and other customer research materials. These products will be requested and delivered within 2 business days for each item in need of reproduction up to 84,000 unbound pages for photocopying or 6,300 bound pages for scanning or an equivalent combination of bound and unbound pages photocopied and/or scanned.

**5.2.11 b. Shredding of Research Data/Materials - Level of Effort (LOE)** From date of award through 10 July 2006, Labor not to exceed obligated funding on the Designated Contract Line Item.

The Contractor shall provide upon request, the contractor shall deliver up to 20,000 pages of shredded research materials within 2 business days.

**5.2.11 c. Reference Manager Databases - Level of Effort (LOE)** From date of award through 10 July 2006, Labor not to exceed obligated funding on the Designated Contract Line Item.

The Contractor shall provide personnel to assist in the creation of a centralized Reference Manager database. Upon request, the contractor shall provide personnel to conduct literature searches, make additions to the centralized database, extract topic databases, and provide supporting documentation within 10 business days.

**5.2.11 d. Software Testing and Support - Level of Effort (LOE)** From date of award through 10 July 2006, Labor not to exceed obligated funding on the Designated Contract Line Item.

The Contractor shall provide upon request, personnel to assist in writing, setting up, and testing software programs designed for training, data collection, and/or data analysis.

**5.2.11 e. Technical Editing - Level of Effort (LOE)** From date of award through 10 July 2006, Labor not to exceed obligated funding on the Designated Contract Line Item.

The Contractor shall provide upon request, personnel to proofread, edit, and/or co-author 1 technical manuscript.

6.0 ACCEPTANCE: Contract progress and deliverables associated with these tasks will be reviewed and accepted/rejected by each CAMI Principle Investigator requesting the contract support and by the COTR in accordance with monthly progress and delivery of pertinent products.



**ORDER FOR SUPPLIES OR SERVICES**

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

1. DATE OF ORDER 07/22/2005		2. CONTRACT NO. (if any) DTFAAC-05-D-00070		6. SHIP TO:	
3. ORDER NO. 0001		4. REQUISITION/REFERENCE NO. See Schedule		a. NAME OF CONSIGNEE A6973DQM	
5. ISSUING OFFICE (Address correspondence to) AMQ-310 CONTRACTING TEAM FAA AERONAUTICAL CENTER PO BOX 25082 MPB ROOM 380 OKLAHOMA CITY OK 73125				b. STREET ADDRESS 6973DQ FAA AERO CENTER, AAM-500 HUMAN RES RESEARCH DIV, RM-270 CAMI PO BOX 25082 OKLAHOMA CITY OK 731250082	
				c. CITY OKLAHOMA CITY	d. STATE OK
				e. ZIP CODE 731250082	
7. TO:				f. SHIP VIA	
a. NAME OF CONTRACTOR XYANT TECHNOLOGY INC				B. TYPE OF ORDER	
b. COMPANY NAME				<input type="checkbox"/> a. PURCHASE	
c. STREET ADDRESS 2600 VAN BUREN DRIVE STE 2600				REFERENCE YOUR:	
				<input checked="" type="checkbox"/> b. DELIVERY	
				Except for billing instructions on the reverse, this delivery order is subject to instructions contained on this side only of this form and is issued subject to the terms and conditions of the above-numbered contract.	
d. CITY NORMAN		e. STATE OK	f. ZIP CODE 73072		
9. ACCOUNTING AND APPROPRIATIONS DATA See Schedule				10. REQUISITIONING OFFICE	

11. BUSINESS CLASSIFICATION (Check appropriate box(es))			
<input type="checkbox"/> a. SMALL	<input type="checkbox"/> b. OTHER THAN SMALL	<input checked="" type="checkbox"/> c. DISADVANTAGED	<input type="checkbox"/> d. WOMEN-OWNED
12. F.O.B. POINT Destination		14. BILL OF LADING NO.	15. DELIVER TO F.O.B. POINT ON OR BEFORE (Date) 07/25/2005
13. PLACE OF		16. DISCOUNT TERMS PROMPT NET 30	
a. INSPECTION Destination	b. ACCEPTANCE Destination		

17. SCHEDULE (See reverse for Rejections)

ITEM NO. (a)	SUPPLIES OR SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
	This delivery order is issued to acquire tasks identified in the Task Performance Work Statement attached herein. The effort and deliverables are defined per project. Alt. COR/COTR: TOM NESTHUS DISTR: T					
	Continued ...					

18. SHIPPING POINT		19. GROSS SHIPPING WEIGHT		20. INVOICE NO.		17(h). TOTAL (Cont. pages)
21. MAIL INVOICE TO:						
b. NAME DOT/FAA AMZ-110				\$553,614.15		17(i). GRAND TOTAL
b. STREET ADDRESS (or P.O. Box) PO BOX 25710 OKLAHOMA CITY OK 73125				\$553,614.15		
c. CITY		d. STATE	e. ZIP CODE			
22. CONTRACTING AUTHORITY BY (Signature)				23. NAME (Typed) Avis Franklin TITLE: CONTRACTING/ORDERING OFFICER		

SEE BILLING INSTRUCTIONS ON REVERSE

ORDER FORM SUPPLIES OR SERVICES  
 SCHEDULE - CONTINUATION

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

DATE OF ORDER 07/22/2005	CONTRACT NO. DTFAAC-05-D-00070	ORDER NO. 0001
-----------------------------	-----------------------------------	-------------------

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY ORDERED (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)	QUANTITY ACCEPTED (G)
	Admin Office: AMQ-310 CONTRACTING TEAM FAA AERONAUTICAL CENTER PO BOX 25082 MPB ROOM 380 OKLAHOMA CITY OK 73125 Delivery Location Code: A6973DQM A6973DQM 6973DQ FAA AERO CENTER, AAM-500 HUMAN RES RESEARCH DIV, RM-270 CAMI PO BOX 25082 OKLAHOMA CITY OK 731250082 US  Period of Performance: 07/25/2005 to 07/11/2006  *****  TOTAL ESTIMATED DOLLARS \$547,125.40					
0001	Research Technical Support as identified in the TPWS requirements provided by attachment (7 pages).  ISO9000: N Requisition No: AC-05-03347  Project Data: 1205AC082110.BHRR524.AV9400.ACB3600000.25305.07/22/2005.1278800000.8BA000 Accounting Info: 1278800000.2005.5R4N8BA000.ACB3600000.25305.61006600.0000000000.0000000000.0000 000000.0000000000 acct1: 1278800000 acct2: 2005 acct3: 5R4N8BA000 acct4: ACB3600000 acct 5: 25305 acct6: 61006600 Funded: \$460,689.80 Project Data: 1205AC082110.BHRR522.AV9200.ACB3600000.25305.07/22/2005.1278800000.8BA000 Accounting Info: 1278800000.2005.5R4N8BA000.ACB3600000.25305.61006600.0000000000.0000000000.0000 000000.0000000000 acct1: 1278800000 acct2: 2005 acct3: 5R4N8BA000 acct4: ACB3600000 acct 5: 25305 acct6: 61006600 Funded: \$11,503.55 Project Data: 1205AC082110.BHRR523.AV9300.ACB3600000.25305.07/22/2005.1278800000.8BA000 Accounting Info: 1278800000.2005.5R4N8BA000.ACB3600000.25305.61006600.0000000000.0000000000.0000 000000.0000000000 acct1: 1278800000 acct2: 2005 acct3: 5R4N8BA000 acct4: Continued ...				543,614.15	

ORDER FOR SUPPLIES OR SERVICES  
 SCHEDULE - CONTINUATION

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

DATE OF ORDER 07/22/2005	CONTRACT NO. DTFAAC-05-D-00070	ORDER NO. 0001
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ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY ORDERED (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)	QUANTITY ACCEPTED (G)
	ACB3600000 acct 5: 25305 acct6: 61006600 Funded: \$11,074.40 Project Data: 1205AC081110.AHRR521.AV9500.ACB3600000.25305.07/22/2005.1278800000.8BA000 Accounting Info: 1278800000.2005.5R4NBAA000.ACB3600000.25305.51006600.0000000000.000000000.0000 000000.0000000000 acct1: 1278800000 acct2: 2005 acct3: 5R4NBAA000 acct4: ACB3600000 acct 5: 25305 acct6: 61006600 Funded: \$60,346.40  Labor Categories-----Est. Hrs.---(\$) Project Supervisor-----1880----- Research Assistant-----3760----- Computer Programmer-----470----- Research Technician-----5640----- General Clerk II-----2820----- Air Traffic Control (SME)-----650----- Pilot (SME)-----650----- Airframe/Power plant mech(SME)--650-----  TOTAL NOT TO EXCEED (NTE) COST \$10,000.00 (ESTIMATED)					
0002	Travel and subsistence costs as defined as allowable in FAA Travel Policy and provisions of the Contract. Request for travel will be requested in advance by the Contracting Officer or delegated representative and authorized by concurrence of estimated funding. ISO9000: N Requisition No: AC-05-03347  Project Data: 1205AC082110.BHRR524.AV9400.ACB3600000.25305.07/22/2005.1278800000.8BA000 Accounting Info: 1278800000.2005.5R4NBAA000.ACB3600000.25305.51006600.0000000000.000000000.0000 000000.0000000000 acct1: 1278800000 acct2: 2005 acct3: 5R4NBAA000 acct4: ACB3600000 acct 5: 25305 acct6: 61006600 Funded: \$10,000.00  The total amount of award: \$553,614.15. The obligation for this award is shown in box 17(i).				10,000.00	

*Exp 4*

## TASKED PERFORMANCE WORK STATEMENT

### 1. INTRODUCTION:

This effort requires contract support to provide the CAMI Aerospace Human Factors Research Division with administrative and technical support to assist in the conduct of research necessary to meet mission requirements. The administrative and technical support shall include the conduct and assistance with many tasks associated with database development and administration, software revision and maintenance, survey development, distribution, transcription, scanning paper returns, data analysis, quality control, and report generation, as well as assisting in laboratory and field experiments regarding AAM-500s Human Factors missions requirements. The contract support shall be responsible for management and supervision of all contract personnel (including subject matter experts) who are assigned to complete tasks issued within the scope of the technical requirements of the Division.

### 2. APPLICABLE ORDERS, REGULATIONS, FORMS AND MANUALS:

The applicable documentation is identified

### 3. ADMINISTRATION:

Requiring Office:

Civil Aerospace Medical Institute (CAMI)  
Aerospace Human Factors Research Division (AAM-500)  
6500 MacArthur Blvd  
Oklahoma City, OK 73125  
Phone: (405) 954-4846  
Fax: (405) 954-4852

Period of Performance: Date of Award through July 11, 2006

Place of Performance: Contract services will be conducted at CAMI Aerospace Human Factors Research Division.

COTR for this work will be:

Thomas E. Nesthus, Ph.D.  
Human Factors Research Lab, AAM-510  
6500 MacArthur Blvd  
Oklahoma City, OK 73125  
Phone: (405) 954-6297  
Fax: (405) 954-4852  
tom.nesthus@faa.gov

### 4. GOVERNMENT FURNISHED PROPERTY

All resources for conducting Delivery Order requirements will be provided by the government. Including facilities, office workspace, general offices equipment, phones, PCs, etc.

**5. SCOPE OF WORK:** The contractor shall provide quality technical, analytical, planning, and administrative support. The contractor shall furnish and make available all personnel, and services

necessary to assist AAM-500 in accomplishing its mission. As directed by the FAA, the contractor may also be required to interface with various FAA and U.S. Government organizations.

### 5.1 Technical Support Project Requirements

The contractor shall provide all of the necessary technical operations and administrative support such as: planning, organizing, managing, coordinating, and tracking (e.g., report management, cost/schedule/performance measurement, risk management, component procurement management, system engineering management, resource management, data management) required to perform all of the project tasks successfully as required in accordance with this SOW.

PROJECT NO.	PROJECT NAME	TTL ESTIMATE D HRS	ESTIMATED TRAVEL	SUPPORT PROGRESS & DELIVERABLES
5.2.1a, b, c	AAM-520 SURVEYS	7,486		LOE, Draft reports when completed
5.2.2a, b	AAM-510 SURVEYS	461		LOE, Draft reports when completed
5.2.3a	AAM-510 HFACS	1,350		Analysis & summary reports when completed
5.2.4a	AAM-520 ATCARS	425		LOE
5.2.5a, b	AAM-510 Wx	350		Database & summary reports when completed
5.2.6a	AAM-520 Pre-employment Psych/Med data	430		LOE, Database periodically updated as needed
5.2.7a, b, c, d, e, f	JANUS	2,318	10,000	LOE, summary reports when completed
5.2.8a, b	NATPRO & PERFORMANCE	678		LOE, report writing assistance as required
5.2.9a, b, c, d	OE PROJECTS	2,763		LOE, report writing assistance as required

## 5.2 Technical Support Project Requirements by Task Sub number and Subtitle:

5.2.1a. EAS 2006 –Level of Effort (LOE) From date of award through 11 July 2006, Labor not to exceed obligated funding on the Designated Contract Line Item.

The Contractor shall provide personnel to assist with survey development, distribution of survey packages, scanning paper returns, transcribing and sanitizing paper and on-line comments, combining & coding comments, combining response data & QA, developing data aggregation, developing databases, developing report macros & templates, generating draft reports, quality checking reports, and delivering reports, along with supporting documentation associated with those functions.

5.2.1b. OAM Pilot Survey -Level of Effort (LOE) From date of award through 11 July 2006, Labor not to exceed obligated funding on the Designated Contract Line Item.

The Contractor shall provide personnel to assist with survey development, distribution of survey packages, scanning paper returns, transcribing and sanitizing paper and on-line comments, combining & coding comments, combining response data & QA, developing data aggregation, developing databases, developing report macros & templates, generating draft reports, quality checking reports, and delivering reports, along with supporting documentation associated with those functions.

5.2.1c. Separation Survey - Level of Effort (LOE) From date of award through 11 July 2006, Labor not to exceed obligated funding on the Designated Contract Line Item.

The Contractor shall provide personnel to assist with survey revisions, database analyses, drafting comments reports, comments analyses, and summary reports.

5.2.2a. Designated Pilot Survey - Level of Effort (LOE) From date of award through 11 July 2006, Labor not to exceed obligated funding on the Designated Contract Line Item.

A Designated Pilot Examiner survey will be administered to all Designated Pilot Examiners across the United States. There are approximately 1,066 private persons designated as pilot examiners by the FAA Administrator. Contract support will mail all DPEs a survey with a postage-paid return envelope. Returned surveys will be scanned into a database through the use of Teleform software. Summary data reports (i.e., item by item frequency distributions) for each region that has at least eight respondents. The contractor will also provide an overall data summary report.

5.2.2b. National Pilot Survey - Level of Effort (LOE) From date of award through 11 July 2006, Labor not to exceed obligated funding on the Designated Contract Line Item.

Newly certified GA ASEL private pilots from all Flight Standards District Offices (FSDOs) across FAA regions will receive an anonymous and voluntary survey to complete and return by mail. Contract support will mail traditionally registered GA ASEL pilots a survey to their home addresses. In an attempt to maximize response rates, the survey will have an attached cover letter explaining the purpose of the survey asking for their feedback regarding their flight training and testing experiences. The contractor will scan returned surveys into a database through the use of Teleform software. Summary reports will be created for each region that has at least eight respondents. In addition, an overall report will be created.

5.2.3a Human Factors Accident Classification System (HFACS)

The Contractor shall provide personnel to assist with the downloading of NTSB accident reports, assimilation of the data, hiring and training of pilot subject matter experts, coordination and assimilation of SME analysis reports, drafting summary reports.

5.2.4a ATCARS - Level of Effort (LOE) From date of award through 11 July 2006, Labor not to exceed obligated funding on the Designated Contract Line Item.

The Contractor shall provide personnel to assist with the testing of new ATC simulation scenarios, train and serve as ghost-pilots during simulation participation.

5.2.5a. ASRS Callback

The Contractor shall provide personnel to assist with processing Weather Callback paper returns, transcribing comments, combining & coding comments, combining response data & QA, developing data aggregation, developing databases, developing report macros & templates, generating draft reports, quality checking reports, and delivering reports, along with supporting documentation associated with those functions. A copy of the database will then form the deliverable.

5.2.5b. Pilot Wx Information study

The Contractor shall provide personnel to assist with the recording and scoring of criterion-based information concerning general aviation/flight service station voice communications, development of a scoring tabulation database, generate summary report information regarding these data.

5.2.6a. Pre-employment Psych/Med data input - Level of Effort (LOE) From date of award through 11 July 2006, Labor not to exceed obligated funding on the Designated Contract Line Item.

The Contractor shall provide personnel to assist with the development of a tabulation database, and the inputting of data from the 16-Personality Factor survey.

5.2.7a. ATCT Field Study - Level of Effort (LOE) From date of award through 11 July 2006, Labor not to exceed obligated funding on the Designated Contract Line Item.

The Contractor shall be able to provide personnel to travel to ATC facilities to gather data with ATC personnel or to assist with the data collection in the field, development and management of a specialized database, including maintaining, updating, merging databases, and data verification, e.g., receiving data gathered in the field (by researchers and feedback surveys returned from the facilities), integrating it with the existing database for that project; periodic directed analysis of these data, and the generation of multiple draft reports based on the data.

Summary of interview notes

Database of casual factors

Database of ATC feedback survey responses

Draft report of methods

Report list of causal factors from database.

September 2006

5.2.7b. eJANUS - Level of Effort (LOE) From date of award through 11 July 2006, Labor not to exceed obligated funding on the Designated Contract Line Item.

The Contractor shall provide personnel to assist with the development of a complex Access database, management and maintenance of this specialize database, merging and verifying database elements,

directed analysis of these data, imputing JANUS survey feedback data, and draft summary report development.

Merged database of causal factors	September 2006
Database of survey responses	September 2006
Draft report	September 2006

**5.2.7c. OED Training Recommendations** - Level of Effort (LOE) From date of award through 11 July 2006, Labor not to exceed obligated funding on the Designated Contract Line Item.

The Contractor shall provide personnel to assist with the documentation of FACREC fields of a specialized database, organize recommendations from these fields, develop and report facility specific descriptive data and training recommendations for each facility.

Extraction from OE database	October 2005
Results of Analysis	November 2005
Draft report of methods	December 2005

**5.2.7d. Supervisor Training** - Level of Effort (LOE) From date of award through 11 July 2006, Labor not to exceed obligated funding on the Designated Contract Line Item.

The Contractor shall provide personnel to assist with creating, updating, and maintaining a relational database regarding recommendations for ATC supervisory training practices and to develop periodic summary reports.

Database of training packages	September 2005
Database of supervisory expectations	October 2005
Discrepancy analysis	November 2005
Discrepancy report - draft	December 2005
Database of journal entries	January 2006
Database of observational codes	February 2006
Draft report of journal entries	February 2006
Draft report of observational codes	March 2006

**5.2.7e. Organization SMS** - Level of Effort (LOE) From date of award through 11 July 2006, Labor not to exceed obligated funding on the Designated Contract Line Item.

The Contractor shall provide personnel to assist with developing a research package for distribution to the pertinent workforce sample, develop a database and conduct directed analyses, and to draft summary reports of the results.

Develop research materials	June 2006
Distribution of materials	August 2006
Collection and coding of responses	October 2006
Database of responses	January 2007
Analyses	February 2007
Draft report of methods	March 2007
Draft Report I	April 2007

**5.2.7f. JANUS FLT** - Level of Effort (LOE) From date of award through 11 July 2006, Labor not to exceed obligated funding on the Designated Contract Line Item.

The Contractor shall provide personnel to assist with the development and coordination of research materials regarding this JANUS flight project. Also simulator testing and database analysis shall be

conducted to develop recommendations for the revision of the research tool. Draft summary reports of the results shall also be required.

Research materials – test 1	October 2006
Database - test 1	December 2006
Analysis and Report – test 1	February 2007
Research materials – test 2	March 2007
Database - test 2.	May 2007
Analysis and Report – test 2	July 2007

**5.2.8a. NATPRO** - Level of Effort (LOE) From date of award through 11 July 2006, Labor not to exceed obligated funding on the Designated Contract Line Item.

The Contractor shall provide personnel to assimilate and consolidate workshop seminar materials, assist in program technical support and testing, periodic database extraction and analysis, and assistance in report writing.  
No specific milestones.

**5.2.8b. Tools for Performance Assessment** - Level of Effort (LOE) From date of award through 11 July 2006, Labor not to exceed obligated funding on the Designated Contract Line Item.

The Contractor shall provide personnel to assist with the development of research materials, database entry, and assistance in report writing.

Research materials	May 2006
Database	August 2007
Draft report of methods	October 2007
Analysis of database	December 2007
Draft report of analyses	February 2008

**5.2.9a. OE Database Application & Mgt** - Level of Effort (LOE) From date of award through 11 July 2006, Labor not to exceed obligated funding on the Designated Contract Line Item.

The Contractor shall provide personnel to assist in establishing a relational database of ATC Operational Errors (OE), shall merge and update the database periodically, maintain and verify data entry, create data subset for analysis and report writing.

Update database	Quarterly (Sept, Dec, Mar, June)
Draft report	Quarterly (Sept, Dec, Mar, June)

**5.2.9b. Historic 7210-3 Documentation & Database Documentation** - Level of Effort (LOE) From date of award through 11 July 2006, Labor not to exceed obligated funding on the Designated Contract Line Item.

The Contractor shall provide personnel to assist in establishing, maintaining, merging, updating and verifying data entry, as well as creating data subsets for analysis and report writing.

Database - fields on historic form	
Database - historical OE data	
Database – cleaned historical OE data	
Report on comparison of form fields	
Report on comparison of historical data	
Summary report of form and data comparisons	December 2005

5.2.9c. Temporal Markers - Level of Effort (LOE) From date of award through 11 July 2006, Labor not to exceed obligated funding on the Designated Contract Line Item.

The Contractor shall provide personnel to assist in ATC voice transcription, coordination of research materials, analysis of data and report writing.

Transcripts of voice tapes

Data coding package

Database of temporal markers

Report from database.

5.2.9d. OE Reduction During Position Transfer - Level of Effort (LOE) From date of award through 11 July 2006, Labor not to exceed obligated funding on the Designated Contract Line Item.

The Contractor shall provide personnel to assist in ATC voice transcription, coordination of research analysis of ATC-SME observational data.

6.0 **ACCEPTANCE:** Contract progress and deliverables associated with these tasks will be reviewed and accepted/rejected by each CAMI Principle Investigator requesting the contract support and by the COTR in accordance with monthly progress and delivery of pertinent products.