

DEPARTMENTAL INPUT
CONTRACT/PROJECT MEASURE ANALYSIS AND RECOMMENDATION

New OTR Sole Source Bid Waiver Emergency

Previous Contract/Project No. _____

Contract
 Re-Bid Other

LIVING WAGE APPLIES: YES NO

Requisition No./Project No.:

rqav1800017

TERM OF CONTRACT

5 YEARS

Requisition /Project Title:

ADS-B TRANSMITTERS

Description:

The County, is contracting with Harris Corporation, for the purchase of fifty (50) Vehicle Movement Area Transmitter (VMAT) units, installation kits, installation services, equipment warranty, and a support service package which includes maintenance. The Contractor will be responsible for obtaining a copy of the most current version of the FAA Advisory Circular, and complying with all the requirements therein on installing, testing, and operating the VMAT units.

Pursuant to the Federal Aviation Administration Advisory Circular 150/5220-26 Change 2 issued April 11, 2016, incorporated herewith as Exhibit A, the Equipment and embedded Software must be fully compliant and certified with the FAA Advisory Circular and all FAA Specifications.

Issuing Department:

Aviation

Contact Person:

Bryan Gorrita

Phone:

305-375-4254

Estimate Cost:

GENERAL

FEDERAL

OTHER

Funding Source:

Proprietary/Federal

ANALYSIS

Commodity Codes:

Contract/Project History of previous purchases three (3) years
Check here if this is a new contract/purchase with no previous history.

EXISTING

2ND YEAR

3RD YEAR

Contractor:

Small Business Enterprise:

Contract Value:

\$613,000

Comments:

Continued on another page (s): Yes No

RECOMMENDATIONS

Set-aside

Sub-contractor goal

Bid preference

Selection factor

SBE

Basis of recommendation:

Signed:

Bryan Gorrita

Date sent to SBD:

6/12/18

Date returned to PMS:

Revised April 2005

Vehicle Movement Area Transmitter Units

THIS AGREEMENT made and entered _____ by and between Harris Corporation, a corporation organized and existing under the laws of the United States of America, having its principal office at 2235 Monroe Street, Herndon Virginia (hereinafter referred to as the "Contractor"), and Miami-Dade County, a political subdivision of the State of Florida, having its principal office at 111 N.W. 1st Street, Miami, Florida 33128 (hereinafter referred to as the "County"),

WITNESSETH:

WHEREAS, the Contractor has offered to provide Vehicle Movement Area Transmitter Units and Installations kits as defined in the Scope of Services (Appendix A);

WHEREAS, the County desires to procure from the Contractor such products and services for the County, in accordance with the terms and conditions of this Agreement;

NOW, THEREFORE, in consideration of the mutual covenants and agreements herein contained, the parties hereto agree as follows:

ARTICLE 1. DEFINITIONS

The following words and expressions used in this Agreement shall be construed as follows, except when it is clear from the context that another meaning is intended:

- a) The words "Contract" or "Agreement" to mean collectively these terms and conditions, Product and Services to be provided, Scope of Work (Appendix A), Price and Payment Schedule (Appendix B), and all other attachments hereto.
- b) The words "Contract Date" to mean the date on which this Agreement is effective.
- c) The words "Contract Manager" to mean Miami-Dade County's Director, Internal Services Department, or the duly authorized representative designated to manage the Contract.
- d) The word "Contractor" to mean Harris Corporation and its permitted successors and assigns.
- e) The word "Days" to mean Calendar Days.
- f) The word "Deliverables" to mean items or services of any nature submitted by the Contractor to the County's Project Manager for review and approval pursuant to the terms of this Agreement.
- g) The words "directed", "required", "permitted", "ordered", "designated", "selected", "prescribed" or words of like import to mean respectively, the direction, requirement, permission, order, designation, selection or prescription of the County's Project Manager; and similarly the words "approved", "acceptable", "satisfactory", "equal", "necessary", or words of like import to mean respectively, approved by, or acceptable or satisfactory to, equal or necessary in the opinion of the County's Project Manager.
- h) The words "Project Manager" to mean the County Mayor or the duly authorized representative designated to manage the Project.
- i) The word "Subcontractor" or "sub-consultant" to mean any person, entity, firm or corporation, other than the employees of the Contractor, who furnishes labor and/or materials, in connection with the Work, whether directly or indirectly, on behalf and/or under the direction of the Contractor and whether or not in privity of Contract with the Contractor.
- j) The terms "hereof", "herein", "hereinafter", "hereby", "herewith", "hereto", and "hereunder" shall be deemed to refer to this Agreement.
- k) The word "VMAT", "Ground Vehicle ADS-B Internal Transmitters", and "Squitters" shall refer to vehicle movement area transmitter units.

ARTICLE 2. ORDER OF PRECEDENCE

If there is a conflict between or among the provisions of this Agreement, the order of precedence is as follows: 1) these Terms and Conditions, 2) the Scope of Services (Appendix A), 3) Price and Payment Schedule (Appendix B), and any associated addenda and attachment thereof mutually agreed upon by the parties.

ARTICLE 3. RULES OF INTERPRETATION

- a) References to a specified Article, section or schedule shall be construed as reference to that specified Article, or section of, or schedule to this Agreement unless otherwise indicated.
- b) Reference to any agreement or other instrument shall be deemed to include such agreement or other instrument as such agreement or other instrument may, from time to time, be modified, amended, supplemented, or restated in accordance with its terms.
- c) The terms "hereof", "herein", "hereinafter", "hereby", "herewith", "hereto", and "hereunder" shall be deemed to refer to this Agreement.
- d) The titles, headings, captions and arrangements used in these Terms and Conditions are for convenience only and shall not be deemed to limit, amplify or modify the terms of this Contract, nor affect the meaning thereof.

ARTICLE 4. NATURE OF THE AGREEMENT

- a) This Agreement incorporates and includes all prior negotiations, correspondence, conversations, agreements, and understandings applicable to the matters contained in this Agreement. The parties agree that there are no commitments, agreements, or understandings concerning the subject matter of this Agreement that are not contained in this Agreement, and that this Agreement contains the entire agreement between the parties as to all matters contained herein. Accordingly, it is agreed that no deviation from the terms hereof shall be predicated upon any prior representations or agreements, whether oral or written. It is further agreed that any oral representations or modifications concerning this Agreement shall be of no force or effect, and that this Agreement may be modified, altered or amended only by a written amendment duly executed by both parties hereto or their authorized representatives.
- b) The Contractor shall provide the services set forth in the Scope of Services, and render full and prompt cooperation with the County in all aspects of the Services performed hereunder.
- c) The Contractor acknowledges that this Agreement requires the provision, installation and testing of fifty (50) VMAT units (Squitters) with magnetic mount antennas in accordance with the requirements stipulated in the FAA Advisory Circular AC 150/5220-26, including installation kits, configuration / programming of VMATs with FAA approved transmit map, installation of VMAT units into the installed kits, and a high level testing. All things not expressly mentioned in this Agreement but necessary to carrying out its intent are required by this Agreement, and the Contractor shall perform the same as though they were specifically mentioned, described and delineated.
- d) The Contractor shall furnish all labor, materials, tools, supplies, and other items required to perform the Work and Services that are necessary for the completion of this Contract. All Work and Services shall be accomplished at the direction of and to the satisfaction of the County's Project Manager.
- e) The Contractor acknowledges that the County shall be responsible for making all policy decisions regarding the Scope of Services. The Contractor agrees to provide input on policy issues in the form of recommendations. The Contractor agrees to implement any and all changes in providing Services hereunder as a result of a policy change implemented by the County. The Contractor agrees to act in an expeditious and fiscally

sound manner in providing the County with input regarding the time and cost to implement said changes and in executing the activities required to implement said changes.

ARTICLE 5. CONTRACT TERM

The Contract shall become effective on the date of the parties execution and shall continue through the County's final acceptance of the equipment and service or until the last day of the last month of the five (5) year term, whichever may be later.

ARTICLE 6. NOTICE REQUIREMENTS

All notices required or permitted under this Agreement shall be in writing and shall be deemed sufficiently served if delivered by Registered or Certified Mail, with return receipt requested; or delivered personally; or delivered via e-mail (if provided below) and followed with delivery of hard copy; and in any case addressed as follows:

(1) To the County

To the Project Manager:

Miami-Dade Aviation Department
E Satellite Building
P.O. Box 025504
Miami, FL 33102
Attention: Dino Leonardi
Phone: (305) 876-7482
E-mail: DLeonardi@miami-airport.com

and,

a) to the Contract Manager:

Miami-Dade County
Internal Services Department,
Procurement Management Division
111 N.W. 1st Street, Suite 2100
Miami, FL 33128-1974
Attention: Basia Pruna
Phone: (305) 375-5018

(2) To the Contractor

a) to the local office:

Harris Corporation
2235 Monroe Street
Herndon, Virginia
Attention: Kathy Taylor
Phone: 703-245-4289
E-mail: ktaylo15@harris.com

Either party may at any time designate a different address and/or contact person by giving notice as provided above to the other party. Such notices shall be deemed given upon receipt by the

addressee.

ARTICLE 7. PRICING

Prices shall remain firm and fixed for the term of the Contract, including any option or extension periods; however, the Contractor may offer incentive discounts to the County at any time during the Contract term, including any renewal or extension thereof.

ARTICLE 8. PRICE AND PAYMENT FOR SERVICES

The County will pay in full for all equipment and installation services for all fifty (50) VMAT Units listed in Appendix B once the hardware and installation services have been approved and accepted by the County. The VMATs Operation and Support Services listed in Appendix B will be payable at completion of the initial Site Acceptance Test (SAT) and annually thereafter on the anniversary of SAT. The Contractor warrants that it has reviewed the County's requirements and has asked such questions and conducted such other inquiries as the Contractor deemed necessary in order to determine the price the Contractor will charge to provide the Services to be performed under this Contract. The compensation for all Services performed under this Contract, including all costs associated with such Services, shall be in accordance with Appendix B – Price and Payment Schedule and shall be in U.S. Dollars with no allowance allowed for fluctuations in foreign exchange for the period of price submittal through final payment of invoice by the County; however, the Contractor may offer incentive discounts to the County at any time during the project. The County shall have no obligation to pay the Contractor any additional sum in excess of these amounts, except for changes and/or modifications to the Contract, which are approved and executed in writing by the County and the Contractor.

All Services undertaken by the Contractor before the County's approval of this Contract shall be at the Contractor's risk and expense.

All invoices shall show the County's contract number, and shall have a unique invoice number assigned by the Contractor. It is the policy of Miami-Dade County that payment for all purchases by County agencies shall be made in a timely manner and that interest payments be made on late payments. In accordance with Florida Statutes, Section 218.74 and Section 2-8.1.4 of the Miami-Dade County Code, the time at which payment shall be due from the County shall be forty-five (45) days from receipt of a proper invoice. All payments due from the County, and not made within the time specified by this section shall bear interest from thirty (30) days after the due date at the rate of one percent (1%) per month on the unpaid balance. Further, proceedings to resolve disputes for payment of obligations shall be concluded by final written decision of the County Mayor, or his or her designee(s), not later than sixty (60) days after the date on which the proper invoice was received by the County.

In accordance with Miami-Dade County Implementing Order 3-9, Accounts Receivable Adjustments, if money is owed by the Contractor to the County, whether under this Contract or for any other purpose, the County reserves the right to retain such amount from payment due by County to the Contractor under this Contract. Such retained amount shall be applied to the amount owed by the Contractor to the County. The Contractor shall have no further claim to such retained amounts which shall be deemed full accord and satisfaction of the amount due by the County to the Contractor for the applicable payment due herein.

Invoices and associated back-up documentation shall be submitted in duplicate by the Contractor to the County as follows:

Miami-Dade Aviation Department

P.O. Box 592624
Miami, FL. 33152-6624
Attention: Accounts Payable
Phone: (305) 876-8498
E-mail: payables@miami-airport.com (Preferred Method)

The County may at any time designate a different address and/or contact person by giving written notice to the Contractor. The County shall only issue payment for invoices approved by a department representative

ARTICLE 9. INDEMNIFICATION AND INSURANCE

Contractor shall indemnify and hold harmless the County and its officers, employees, agents and instrumentalities from any and all liability, losses or damages, including attorneys' fees and costs of defense, which the County or its officers, employees, agents or instrumentalities may incur as a result of claims, demands, suits, causes of actions or proceedings of any kind or nature arising out of, relating to or resulting from the reasonable costs, expenses, losses actually incurred that resulted solely from Contractor's gross negligent performance of this Agreement by the Contractor or its employees, agents, servants, partners, principals or subcontractors. Contractor shall pay all claims and losses in connection therewith and shall investigate and defend all claims, suits or actions of any kind or nature in the name of the County, where applicable, including appellate proceedings, and shall pay all costs, judgments, and attorney's fees which may issue thereon due to gross negligent acts by Contractor. Contractor expressly understands and agrees that any insurance protection required by this Agreement or otherwise provided by Contractor shall in no way limit the responsibility to indemnify, keep and save harmless and defend the County or its officers, employees, agents and instrumentalities as herein provided. Indemnification will not exceed dollar value of contract.

The Contractor shall furnish to the Internal Services Department / Procurement Management Services, 111 NW 1st Street, Suite 1300, Miami, Florida 33128-1989, Certificate(s) of Insurance which indicate that insurance coverage has been obtained which meets the requirements as outlined below:

- A. Worker's Compensation Insurance for all employees of the Contractor as required by Florida Statute 440.
- B. Commercial General Liability Insurance in an amount not less than \$1,000,000 combined single limit per occurrence for bodily injury and property damage. **Miami-Dade County must be shown as an additional insured with respect to this coverage.**
- C. Automobile Liability Insurance covering all owned, non-owned and hired vehicles used in connection with the work, in an amount not less than \$500,000 combined single limit per occurrence for bodily injury and property damage.

***Under no circumstances are Contractors permitted on the Aviation Department, Aircraft Operating Airside (A.O.A) at Miami International Airport without increasing automobile coverage to \$5 million. Only vehicles owned or leased by a company will be authorized. Vehicles owned by individuals will not be authorized. \$1 million limit applies at all other airports.**

All insurance policies required above shall be issued by companies authorized to do business under the laws of the State of Florida, with the following qualifications:

The company must be rated no less than "A" as to management, and no less than "Class VII" as to financial strength, by A.M. Best Company, Oldwick, New Jersey, or its equivalent, subject to the approval of the County Risk Management Division.

or

The company must hold a valid Florida Certificate of Authority as shown in the latest "List of All Insurance Companies Authorized or Approved to Do Business in Florida" issued by the State of Florida Department of Financial Services.

**NOTE CERTIFICATE HOLDER MUST READ: MIAMI-DADE COUNTY
111 NW 1ST STREET
SUITE 2340
MIAMI, FL 33128-1989**

Compliance with the foregoing requirements shall not relieve the Contractor of this liability and obligation under this section or under any other section in this Agreement.

Award of this Contract is contingent upon the receipt of the insurance documents, as required, within ten (10) business days. If the insurance certificate is received within the specified timeframe but not in the manner prescribed in this Agreement, the Contractor shall have an additional five (5) business days to submit a corrected certificate to the County. If the Contractor fails to submit the required insurance documents in the manner prescribed in this Agreement within fifteen (15) business days, the Contractor shall be in default of the contractual terms and conditions and award of the Contract may be rescinded, unless such timeframe for submission has been extended by the County.

The Contractor shall assure that the Certificates of Insurance required in conjunction with this Section remain in full force for the term of the Contract, including any renewal or extension periods that may be exercised by the County. If the Certificate(s) of Insurance is scheduled to expire during the term of the Contract, the Contractor shall submit new or renewed Certificate(s) of Insurance to the County a minimum of ten (10) calendar days before such expiration. In the event that expired Certificates of Insurance are not replaced or renewed to cover the Contract period, the County may suspend the Contract until the new or renewed certificates are received by the County in the manner prescribed herein. If such suspension exceeds thirty (30) calendar days, the County may, at its sole discretion, terminate the Contract for cause and the Contractor shall be responsible for all direct and indirect costs associated with such termination.

ARTICLE 10. MANNER OF PERFORMANCE

- a) The Contractor shall provide the Services described herein in a competent and professional manner satisfactory to the County in accordance with the terms and conditions of this Agreement. The County shall be entitled to a satisfactory performance of all Services described herein and to full and prompt cooperation by the Contractor in all aspects of the Services. At the request of the County, the Contractor shall promptly remove from the project any Contractor's employee, subcontractor, or any other person performing Services hereunder. The Contractor agrees that such removal of any of its

employees does not require the termination or demotion of any employee by the Contractor.

- b) The Contractor agrees to defend, hold harmless and indemnify the County and shall be liable and responsible for any and all claims, suits, actions, damages and costs (including attorney's fees and court costs) made against the County, occurring on account of, arising from or in connection with the removal and replacement of any Contractor's personnel performing services hereunder at the behest of the County. Removal and replacement of any Contractor's personnel as used in this Article shall not require the termination and or demotion of such Contractor's personnel.
- c) The Contractor agrees that at all times it will employ, maintain and assign to the performance of the Services a sufficient number of competent and qualified professionals and other personnel to meet the requirements to which reference is hereinafter made. The Contractor agrees to adjust its personnel staffing levels or to replace any its personnel if so directed upon reasonable request from the County, should the County make a determination, in its sole discretion, that said personnel staffing is inappropriate or that any individual is not performing in a manner consistent with the requirements for such a position.
- d) The Contractor warrants and represents that its personnel have the proper skill, training, background, knowledge, experience, rights, authorizations, integrity, character and licenses as necessary to perform the Services described herein, in a competent and professional manner.
- e) The Contractor shall at all times cooperate with the County and coordinate its respective work efforts to most effectively and efficiently maintain the progress in performing the Services.
- f) The Contractor shall comply with all provisions of all federal, state and local laws, statutes, ordinances, and regulations that are applicable to the performance of this Agreement.

ARTICLE 11. EMPLOYEES OF THE CONTRACTOR

All employees of the Contractor shall be considered to be, at all times, employees of the Contractor under its sole direction and not employees or agents of the County. The Contractor shall supply competent employees. Miami-Dade County may require the Contractor to remove an employee it deems careless, incompetent, insubordinate or otherwise objectionable and whose continued employment on County property is not in the best interest of the County. Each employee shall have and wear proper identification.

ARTICLE 12. INDEPENDENT CONTRACTOR RELATIONSHIP

The Contractor is, and shall be, in the performance of all work services and activities under this Agreement, an independent Contractor, and not an employee, agent or servant of the County. All persons engaged in any of the work or services performed pursuant to this Agreement shall at all times, and in all places, be subject to the Contractor's sole direction, supervision and control. The Contractor shall exercise control over the means and manner in which it and its employees perform the work, and in all respects the Contractor's relationship and the relationship of its employees to the County shall be that of an independent Contractor and not as employees and agents of the County.

The Contractor does not have the power or authority to bind the County in any promise, agreement or representation other than specifically provided for in this Agreement.

ARTICLE 13. AUTHORITY OF THE COUNTY'S PROJECT MANAGER

- a) The Contractor hereby acknowledges that the County's Project Manager will determine in the first instance all questions of any nature whatsoever arising out of, under, or in connection with, or in any way related to or on account of, this Agreement including without limitations: questions as to the value, acceptability and fitness of the Services; questions as to either party's fulfillment of its obligations under the Contract; negligence, fraud or misrepresentation before or subsequent to acceptance of the Contractor's Proposal; questions as to the interpretation of the Scope of Services; and claims for damages, compensation and losses.
- b) The Contractor shall be bound by all determinations or orders and shall promptly comply with every order of the Project Manager, including the withdrawal or modification of any previous order and regardless of whether the Contractor agrees with the Project Manager's determination or order. Where orders are given orally, they will be issued in writing by the Project Manager as soon thereafter as is practicable.
- c) The Contractor must, in the final instance, seek to resolve every difference concerning the Agreement with the Project Manager. In the event that the Contractor and the Project Manager are unable to resolve their difference, the Contractor may initiate a dispute in accordance with the procedures set forth in this Article. Exhaustion of these procedures shall be a condition precedent to any lawsuit permitted hereunder.
- d) In the event of such dispute, the parties to this Agreement authorize the County Mayor or designee, who may not be the Project Manager or anyone associated with this Project, acting personally, to decide all questions arising out of, under, or in connection with, or in any way related to or on account of the Agreement (including but not limited to claims in the nature of breach of contract, fraud or misrepresentation arising either before or subsequent to execution hereof) and the decision of each with respect to matters within the County Mayor's purview as set forth above shall be conclusive, final and binding on parties. Any such dispute shall be brought, if at all, before the County Mayor within 10 days of the occurrence, event or act out of which the dispute arises.
- e) The County Mayor may base this decision on such assistance as may be desirable, including advice of experts, but in any event shall base the decision on an independent and objective determination of whether Contractor's performance or any Deliverable meets the requirements of this Agreement and any specifications with respect thereto set forth herein. The effect of any decision shall not be impaired or waived by any negotiations or settlements or offers made in connection with the dispute, whether or not the County Mayor participated therein, or by any prior decision of others, which prior decision shall be deemed subject to review, or by any termination or cancellation of the Agreement. All such disputes shall be submitted in writing by the Contractor to the County Mayor for a decision, together with all evidence and other pertinent information in regard to such questions, in order that a fair and impartial decision may be made. Whenever the County Mayor is entitled to exercise discretion or judgement or to make a determination or form an opinion pursuant to the provisions of this Article, such action shall be fair and impartial when exercised or taken. The County Mayor, as appropriate, shall render a decision in writing and deliver a copy of the same to the Contractor. Except as such remedies may be limited or waived elsewhere in the Agreement, Contractor reserves the right to pursue any remedies available under law after exhausting the provisions of this Article.

ARTICLE 14. ADDITIONAL ITEMS AND SERVICES

While the County has listed all major items within this Agreement which are expected to be utilized, there may be similar items and/or services that may be purchased by the County during the term of this contract. Under these circumstances, a County representative will contact the Contractor to obtain a price quote for the similar item/service. A supplemental agreement shall be issued by the County for the items and agreed upon pricing.

ARTICLE 15. FINAL ACCEPTANCE OF PRODUCT BY THE COUNTY

The Contractor hereby acknowledges and agrees that all materials supplied by the Contractor shall be new, warranted for their merchantability, and fit for the purpose contracted under this agreement. If a Contractor provided product is determined to not meet the requirements of this contract, either prior acceptance or upon initial inspection, the item will be returned, at Contractor's expense, to the Contractor. At the County's own option, the Contractor shall either provide a direct replacement for the item, or provide a full credit for the returned item. The Contractor shall not assess any additional charge(s) for any conforming action taken by the County under this clause.

ARTICLE 16. MUTUAL OBLIGATIONS

- a) This Agreement, including attachments and appendices to the Agreement, shall constitute the entire Agreement between the parties with respect hereto and supersedes all previous communications and representations or agreements, whether written or oral, with respect to the subject matter hereto unless acknowledged in writing by the duly authorized representatives of both parties.
- b) Nothing in this Agreement shall be construed for the benefit, intended or otherwise, of any third party that is not a parent or subsidiary of a party or otherwise related (by virtue of ownership control or statutory control) to a party.
- c) In those situations where this Agreement imposes an indemnity obligation on the Contractor, the County may, at its expense, elect to participate in the defense if the County should so choose. Furthermore, the County may at its own expense defend or settle any such claims if the Contractor fails to diligently defend such claims, and thereafter seek indemnity for costs from the Contractor.

ARTICLE 17. QUALITY ASSURANCE/QUALITY ASSURANCE RECORD KEEPING

The Contractor shall maintain, and shall require that its subcontractors and suppliers maintain, complete and accurate records to substantiate compliance with the requirements set forth in the Scope of Services. The Contractor and its subcontractors and suppliers, shall retain such records, and all other documents relevant to the Services furnished under this Agreement for a period of three (3) years from the expiration date of this Agreement and any extension thereof.

ARTICLE 18. AUDITS

The County, or its duly authorized representatives and governmental agencies, shall until the expiration of three (3) years after the expiration of this Agreement and any extension thereof, have access to and the right to examine and reproduce any of the Contractor's books, documents, papers and records and of its subcontractors and suppliers which apply to all matters of the County. Such records shall subsequently conform to Generally Accepted Accounting Principles requirements, as applicable, and shall only address those transactions related to this Agreement.

Pursuant to Section 2-481 of the Code of Miami-Dade County, the Contractor will grant access to the Commission Auditor to all financial and performance related records, property, and equipment purchased in whole or in part with government funds. The Contractor agrees to maintain an accounting system that provides accounting records that are supported with adequate documentation, and adequate procedures for determining the allow ability and allow ability of costs.

ARTICLE 19. AIR OPERATIONS AREA (AOA) ACCESS REQUEST

All personnel making deliveries through any Miami-Dade Aviation Department (MDAD) Vehicle Access Gates (VAG) into the AOA must be in possession of an MDAD Delivery ID and /or be vetted in advance of the delivery.

In order to obtain AOA access, request forms must be submitted to MDAD's Airside Operations Division. Personal information is required including full name, date of birth, and last four digits of social security number or MDAD delivery ID badge number. Airside Operations has set up a dedicated e-mail address (aoavetting@miami-airport.com) for submitting the AOA Access Request Form. The Contractor must provide the names, email addresses and copies of the ID badges of the employees authorized to submit the Request Form.

The AOA Access Request Form must be completely filled out and sent to the Airside Operations Administrative Office 24 hours in advance of the delivery and must be submitted Monday thru Friday between 8 a.m. and 4:30 p.m. After hours, holidays, weekends and emergencies will be accommodated by contacting the on duty Sr. Agent at 305-876-7440 or 305-588-7094.

The AOA Request Form can be found on the MIA Website under the "Business" tab followed by "Business Operations" and then the "Airside Operations" link. All procedures related to deliveries, e.g., escorts, product inspection, etc. will remain in effect. Should you have any questions, please contact Roopnarine Nandan, Airside Operations Access Control Supervisor at 305-876-7482 or Lloyd Evans, Airfield Security Supervisor at 305-869-1613.

ARTICLE 20. CONSENT OF THE COUNTY REQUIRED FOR ASSIGNMENT

The Contractor shall not assign, transfer, convey or otherwise dispose of this Agreement, including its rights, title or interest in or to the same or any part thereof without the prior written consent of the County.

ARTICLE 21. SUBCONTRACTUAL RELATIONS

- a) If the Contractor will cause any part of this Agreement to be performed by a Subcontractor, the provisions of this Contract will apply to such Subcontractor and its officers, agents and employees in all respects as if it and they were employees of the Contractor; and the Contractor will not be in any manner thereby discharged from its obligations and liabilities hereunder, but will be liable hereunder for all acts and negligence of the Subcontractor, its officers, agents, and employees, as if they were employees of the Contractor. The services performed by the Subcontractor will be subject to the provisions hereof as if performed directly by the Contractor.
- b) The Contractor, before making any subcontract for any portion of the services, will state in writing to the County the name of the proposed Subcontractor, the portion of the Services which the Subcontractor is to do, the place of business of such Subcontractor, and such other information as the County may require. The County will have the right to require the Contractor not to award any subcontract to a person, firm or corporation

disapproved by the County.

- c) Before entering into any subcontract hereunder, the Contractor will inform the Subcontractor fully and completely of all provisions and requirements of this Agreement relating either directly or indirectly to the Services to be performed. Such Services performed by such Subcontractor will strictly comply with the requirements of this Contract.
- d) In order to qualify as a Subcontractor satisfactory to the County, in addition to the other requirements herein provided, the Subcontractor must be prepared to prove to the satisfaction of the County that it has the necessary facilities, skill and experience, and ample financial resources to perform the Services in a satisfactory manner. To be considered skilled and experienced, the Subcontractor must show to the satisfaction of the County that it has satisfactorily performed services of the same general type which is required to be performed under this Agreement.
- e) The County shall have the right to withdraw its consent to a subcontract if it appears to the County that the subcontract will delay, prevent, or otherwise impair the performance of the Contractor's obligations under this Agreement. All Subcontractors are required to protect the confidentiality of the County's and County's proprietary and confidential information. Contractor shall furnish to the County copies of all subcontracts between Contractor and Subcontractors and suppliers hereunder. Within each such subcontract, there shall be a clause for the benefit of the County in the event the County finds the Contractor in breach of this Contract, permitting the County to request completion by the Subcontractor of its performance obligations under the subcontract. The clause shall include an option for the County to pay the Subcontractor directly for the performance by such Subcontractor. Notwithstanding, the foregoing shall neither convey nor imply any obligation or liability on the part of the County to any subcontractor hereunder as more fully described herein.

ARTICLE 22. ASSUMPTION, PARAMETERS, PROJECTIONS, ESTIMATES AND EXPLANATIONS

The Contractor understands and agrees that any assumptions, parameters, projections, estimates and explanations presented by the County were provided to the Contractor for evaluation purposes only. However, since these assumptions, parameters, projections, estimates and explanations represent predictions of future events the County makes no representations or guarantees; and the County shall not be responsible for the accuracy of the assumptions presented; and the County shall not be responsible for conclusions to be drawn therefrom; and any assumptions, parameters, projections, estimates and explanations shall not form the basis of any claim by the Contractor. The Contractor accepts all risk associated with using this information.

ARTICLE 23. SEVERABILITY

If this Agreement contains any provision found to be unlawful, the same shall be deemed to be of no effect and shall be deemed stricken from this Agreement without affecting the binding force of this Agreement as it shall remain after omitting such provision.

ARTICLE 24. TERMINATION AND SUSPENSION OF WORK

- a) The County may terminate this Agreement if an individual or corporation or other entity attempts to meet its contractual obligation with the County through fraud, misrepresentation or material misstatement.

- b) The County may, as a further sanction, terminate or cancel any other contract(s) that such individual or corporation or other entity has with the County and that such individual, corporation or other entity shall be responsible for all direct and indirect costs associated with such termination or cancellation, including attorney's fees.
- c) The foregoing notwithstanding, any individual, corporation or other entity which attempts to meet its contractual obligations with the County through fraud, misrepresentation or material misstatement may be debarred from County contracting for up to five (5) years in accordance with the County debarment procedures. The Contractor may be subject to debarment for failure to perform and all other reasons set forth in Section 10-38 of the Code of Miami-Dade County.
- d) In addition to cancellation or termination as otherwise provided in this Agreement, the County may at any time, in its sole discretion, with or without cause, terminate this Agreement by written notice to the Contractor.
- e) In the event that the County exercises its right to terminate this Agreement, the Contractor shall, upon receipt of such notice, unless otherwise directed by the County:
 - i. stop work on the date specified in the notice ("the Effective Termination Date");
 - ii. take such action as may be necessary for the protection and preservation of the County's materials and property;
 - iii. cancel orders;
 - iv. assign to the County and deliver to any location designated by the County any non-cancelable orders for Deliverables that are not capable of use except in the performance of this Agreement and has been specifically developed for the sole purpose of this Agreement and not incorporated in the Services;
 - v. take no action which will increase the amounts payable by the County under this Agreement; and
- f) In the event that the County exercises its right to terminate this Agreement, the Contractor will be compensated as stated in the payment Articles herein for the:
 - i. portion of the Services completed in accordance with the Agreement up to the Effective Termination Date; and
 - ii. non-cancelable Deliverables that are not capable of use except in the performance of this Agreement and has been specifically developed for the sole purpose of this Agreement, but not incorporated in the Services.
- g) All compensation pursuant to this Article are subject to audit.

ARTICLE 25. EVENT OF DEFAULT

- a) An Event of Default shall mean a breach of this Agreement by the Contractor. Without limiting the generality of the foregoing, and in addition to those instances referred to herein as a breach, an Event of Default shall include the following:

- i. the Contractor has not delivered Deliverables on a timely basis;
 - ii. the Contractor has refused or failed to supply enough properly skilled staff personnel;
 - iii. the Contractor has failed to make prompt payment to subcontractors or suppliers for any Services;
 - iv. the Contractor has become insolvent (other than as interdicted by the bankruptcy laws), or has assigned the proceeds received for the benefit of the Contractor's creditors, or the Contractor has taken advantage of any insolvency statute or debtor/creditor law or if the Contractor's affairs have been put in the hands of a receiver;
 - v. the Contractor has failed to obtain the approval of the County where required by this Agreement;
 - vi. the Contractor has failed to provide "adequate assurances" as required under subsection b below;
 - vii. the Contractor has failed in the representation of any warranties stated herein.
- b) When, in the opinion of the County, reasonable grounds for uncertainty exist with respect to the Contractor's ability to perform the Services or any portion thereof, the County may request that the Contractor, within the timeframe set forth in the County's request, provide adequate assurances to the County, in writing, of the Contractor's ability to perform in accordance with the terms of this Agreement. Until the County receives such assurances, the County may request an adjustment to the compensation received by the Contractor for portions of the Services which the Contractor has not performed. In the event that the Contractor fails to provide to the County the requested assurances within the prescribed timeframe, the County may:
- i. treat such failure as a repudiation of this Agreement; and
 - ii. resort to any remedy for breach provided herein or at law, including but not limited to, taking over the performance of the Services or any part thereof either by itself or through others.
- b) In the event the County shall terminate this Agreement for default, the County or its designated representatives may immediately take possession of all applicable equipment, materials, products, documentation, reports and data.

ARTICLE 26. NOTICE OF DEFAULT - OPPORTUNITY TO CURE

If an Event of Default occurs in the determination of the County, the County may so notify the Contractor ("Default Notice"), specifying the basis for such default, and advising the Contractor that such default must be cured immediately or this Agreement with the County may be terminated. Notwithstanding, the County may, in its sole discretion, allow the Contractor to rectify the default to the County's reasonable satisfaction within a thirty (30) day period. The County may grant an additional period of such duration as the County shall deem appropriate without waiver of any of the County's rights hereunder, so long as the Contractor has commenced curing such default and is effectuating a cure with diligence and continuity during such thirty (30) day period or any other period which the County prescribes. The default notice shall specify the date the Contractor shall discontinue the Services upon the Termination Date.

ARTICLE 27. REMEDIES IN THE EVENT OF DEFAULT

If an Event of Default occurs, the Contractor shall be liable for all damages resulting from the default, including but not limited to:

- a) lost revenues;
- b) the difference between the cost associated with procuring Services hereunder and the amount actually expended by the County for re-procurement of Services, including procurement and administrative costs; and
- c) such other direct damages.

The Contractor shall also remain liable for any liabilities and claims related to the Contractor's default. The County may also bring any suit or proceeding for specific performance or for an injunction.

ARTICLE 28. PATENT AND COPYRIGHT INDEMNIFICATION

- a) The Contractor shall not infringe on any copyrights, trademarks, service marks, trade secrets, patent rights, other intellectual property rights or any other third party proprietary rights in the performance of the Work.
- b) The Contractor warrants that all Deliverables furnished hereunder, including but not limited to: equipment, programs, documentation, software, analyses, applications, methods, ways, processes, and the like, do not infringe upon or violate any copyrights, trademarks, service marks, trade secrets, patent rights, other intellectual property rights or any other third party proprietary rights.
- c) The Contractor shall be liable and responsible for any and all claims made against the County for infringement of patents, copyrights, service marks, trade secrets or any other third party proprietary rights, by the use or supplying of any programs, documentation, software, analyses, applications, methods, ways, processes, and the like, in the course of performance or completion of, or in any way connected with, the Work, or the County's continued use of the Deliverables furnished hereunder. Accordingly, the Contractor at its own expense, including the payment of attorney's fees, shall indemnify, and hold harmless the County and defend any action brought against the County with respect to any claim, demand, cause of action, debt, or liability.
- d) In the event any Deliverable or anything provided to the County hereunder, or portion thereof is held to constitute an infringement and its use is or may be enjoined, the Contractor shall have the obligation to, at the County's option to (i) modify, or require that the applicable subcontractor or supplier modify, the alleged infringing item(s) at its own expense, without impairing in any respect the functionality or performance of the item(s), or (ii) procure for the County, at the Contractor's expense, the rights provided under this Agreement to use the item(s).
- e) The Contractor shall be solely responsible for determining and informing the County whether a prospective supplier or subcontractor is a party to any litigation involving patent or copyright infringement, service mark, trademark, violation, or proprietary rights claims or is subject to any injunction which may prohibit it from providing any Deliverable hereunder. The Contractor shall enter into agreements with all suppliers and subcontractors at the Contractor's own risk. The County may reject any Deliverable that it believes to be the subject of any such litigation or injunction, or if, in the County's

judgment, use thereof would delay the Work or be unlawful.

ARTICLE 29. CONFIDENTIALITY

- a) All Developed Works and other materials, data, transactions of all forms, financial information, documentation, inventions, designs and methods obtained from the County in connection with the Services performed under this Agreement, made or developed by the Contractor or its subcontractors in the course of the performance of such Services, or the results of such Services, or which the County holds the proprietary rights, constitute Confidential Information and may not, without the prior written consent of the County, be used by the Contractor or its employees, agents, subcontractors or suppliers for any purpose other than for the benefit of the County, unless required by law. In addition to the foregoing, all County employee information and County financial information shall be considered Confidential Information and shall be subject to all the requirements stated herein. Neither the Contractor nor its employees, agents, subcontractors or suppliers may sell, transfer, publish, disclose, display, license or otherwise make available to others any part of such Confidential Information without the prior written consent of the County. Additionally, the Contractor expressly agrees to be bound by and to defend, indemnify and hold harmless the County, and their officers and employees from the breach of any federal, state or local law in regard to the privacy of individuals.
- b) The Contractor shall advise each of its employees, agents, subcontractors and suppliers who may be exposed to such Confidential Information of their obligation to keep such information confidential and shall promptly advise the County in writing if it learns of any unauthorized use or disclosure of the Confidential Information by any of its employees or agents, or subcontractor's or supplier's employees, present or former. In addition, the Contractor agrees to cooperate fully and provide any assistance necessary to ensure the confidentiality of the Confidential Information.
- c) It is understood and agreed that in the event of a breach of this Article damages may not be an adequate remedy and the County shall be entitled to injunctive relief to restrain any such breach or threatened breach. Unless otherwise requested by the County, upon the completion of the Services performed hereunder, the Contractor shall immediately turn over to the County all such Confidential Information existing in tangible form, and no copies thereof shall be retained by the Contractor or its employees, agents, subcontractors or suppliers without the prior written consent of the County. A certificate evidencing compliance with this provision and signed by an officer of the Contractor shall accompany such materials.

ARTICLE 30. PROPRIETARY INFORMATION

As a political subdivision of the State of Florida, Miami-Dade County is subject to the stipulations of Florida's Public Records Law.

The Contractor acknowledges that all computer software in the County's possession may constitute or contain information or materials which the County has agreed to protect as proprietary information from disclosure or unauthorized use and may also constitute or contain information or materials which the County has developed at its own expense, the disclosure of which could harm the County's proprietary interest therein.

During the term of the contract, the Contractor will not use directly or indirectly for itself or for others, or publish or disclose to any third party, or remove from the County's property, any

computer programs, data compilations, or other software which the County has developed, has used or is using, is holding for use, or which are otherwise in the possession of the County (hereinafter "Computer Software"). All third-party license agreements must also be honored by the Contractors and their employees, except as authorized by the County and, if the Computer Software has been leased or purchased by the County, all hired party license agreements must also be honored by the Contractors' employees with the approval of the lessor or Contractors thereof. This includes mainframe, minis, telecommunications, personal computers and any and all information technology software.

The Contractor will report to the County any information discovered or which is disclosed to the Contractor which may relate to the improper use, publication, disclosure or removal from the County's property of any information technology software and hardware and will take such steps as are within the Contractor's authority to prevent improper use, disclosure or removal.

ARTICLE 31. PROPRIETARY RIGHTS

- a) The Contractor hereby acknowledges and agrees that the County retains all rights, title and interests in and to all materials, data, documentation and copies thereof furnished by the County to the Contractor hereunder or furnished by the Contractor to the County and/or created by the Contractor for delivery to the County, even if unfinished or in process, as a result of the Services the Contractor performs in connection with this Agreement, including all copyright and other proprietary rights therein, which the Contractor as well as its employees, agents, subcontractors and suppliers may use only in connection with the performance of Services under this Agreement. The Contractor shall not, without the prior written consent of the County, use such documentation on any other project in which the Contractor or its employees, agents, subcontractors or suppliers are or may become engaged. Submission or distribution by the Contractor to meet official regulatory requirements or for other purposes in connection with the performance of Services under this Agreement shall not be construed as publication in derogation of the County's copyrights or other proprietary rights.
- b) All rights, title and interest in and to certain inventions, ideas, designs and methods, specifications and other documentation related thereto developed by the Contractor and its subcontractors specifically for the County, hereinafter referred to as "Developed Works" shall become the property of the County.
- c) Accordingly, neither the Contractor nor its employees, agents, subcontractors or suppliers shall have any proprietary interest in such Developed Works. The Developed Works may not be utilized, reproduced or distributed by or on behalf of the Contractor, or any employee, agent, subcontractor or supplier thereof, without the prior written consent of the County, except as required for the Contractor's performance hereunder.
- d) Except as otherwise provided in subsections a, b, and c above, or elsewhere herein, the Contractor and its subcontractors and suppliers hereunder shall retain all proprietary rights in and to all Licensed Software provided hereunder, that have not been customized to satisfy the performance criteria set forth in the Scope of Services. Notwithstanding the foregoing, the Contractor hereby grants, and shall require that its subcontractors and suppliers grant, if the County so desires, a perpetual, irrevocable and unrestricted right and license to use, duplicate, disclose and/or permit any other person(s) or entity(ies) to use all such Licensed Software and the associated specifications, technical data and other Documentation for the operations of the County or entities controlling, controlled by, under

common control with, or affiliated with the County, or organizations which may hereafter be formed by or become affiliated with the County. Such license specifically includes, but is not limited to, the right of the County to use and/or disclose, in whole or in part, the technical documentation and Licensed Software, including source code provided hereunder, to any person or entity outside the County for such person's or entity's use in furnishing any and/or all of the Deliverables provided hereunder exclusively for the County or entities controlling, controlled by, under common control with, or affiliated with the County, or organizations which may hereafter be formed by or become affiliated with the County. No such License Software, specifications, data, documentation or related information shall be deemed to have been given in confidence and any statement or legend to the contrary shall be void and of no effect.

ARTICLE 32. VENDOR REGISTRATION/CONFLICT OF INTEREST

a) Vendor Registration

The Contractor shall be a registered vendor with the County – Internal Services Department, Procurement Management Division, for the duration of this Agreement. In becoming a registered vendor with Miami-Dade County, the Contractor confirms its knowledge of and commitment to comply with the following:

1. **Miami-Dade County Ownership Disclosure Affidavit**
(Section 2-8.1 of the Code of Miami-Dade County) (Section 2-8.8 of the Code of Miami-Dade County)
2. **Miami-Dade County Employment Disclosure Affidavit**
(Section 2.8.1(d)(2) of the Code of Miami-Dade County)
3. **Miami-Dade County Employment Drug-free Workplace Certification**
(Section 2-8.1.2(b) of the Code of Miami-Dade County)
4. **Miami-Dade County Disability and Nondiscrimination Affidavit**
(Section 2-8.1.5 of the Code of Miami-Dade County)
5. **Miami-Dade County Debarment Disclosure Affidavit**
(Section 10.38 of the Code of Miami-Dade County)
6. **Miami-Dade County Vendor Obligation to County Affidavit**
(Section 2-8.1 of the Code of Miami-Dade County)
7. **Miami-Dade County Code of Business Ethics Affidavit**
(Sections 2-8.1(i), 2-11.1(b)(1) through (6) and (9), and 2-11.1(c) of the Code of Miami-Dade County)
8. **Miami-Dade County Family Leave Affidavit**
(Article V of Chapter 11 of the Code of Miami-Dade County)
9. **Miami-Dade County Living Wage Affidavit**
(Section 2-8.9 of the Code of Miami-Dade County)
10. **Miami-Dade County Domestic Leave and Reporting Affidavit** (Article VIII, Section 11A-60 - 11A-67 of the Code of Miami-Dade County)
11. **Miami-Dade County E-Verify Affidavit**
(Executive Order 11-116)
12. **Miami-Dade County Pay Parity Affidavit**
(Resolution R-1072-17)
13. **Subcontracting Practices**
14. **Subcontractor/Supplier Listing**
(Section 2-8.1 of the Code of Miami-Dade County)
15. **Form W-9 and 147c Letter**
(as required by the Internal Revenue Service)
16. **FEIN Number or Social Security Number**
In order to establish a file, the Contractor's Federal Employer Identification Number (FEIN) must be provided. If no FEIN exists, the Social Security Number of the owner or individual must be provided. This number becomes Contractor's "County Vendor Number". To comply with Section 119.071(5) of the Florida Statutes relating to the collection of an individual's Social Security Number, be aware that the County requests the Social Security Number for the following purposes:
 - Identification of individual account records
 - To make payments to individual/Contractor for goods and services provided to Miami-Dade County
 - Tax reporting purposes
 - To provide a unique identifier in the vendor database that may be used for searching and sorting departmental records
17. **Office of the Inspector General**
(Section 2-1076 of the Code of Miami-Dade County)
18. **Small Business Enterprises**
The County endeavors to obtain the participation of all small business enterprises pursuant to Sections 2-8.1.1.1.1, 2-8.1.1.1.2 and 2-8.2.2 of the Code of Miami-Dade County and Title 49 of the Code of Federal Regulations.
19. **Antitrust Laws**
By acceptance of any contract, the Contractor agrees to comply with all antitrust laws of the United States and the State of Florida.

b) Conflict of Interest and Code of Ethics

Section 2-11.1(d) of the Code of Miami-Dade County requires that any County employee or any member of the employee's immediate family who has a controlling financial interest, direct or indirect, with Miami-Dade County or any person or agency acting for Miami-Dade County, competing or applying for a contract, must first request a conflict of interest opinion from the County's Ethics Commission prior to their or their immediate family member's entering into any contract or transacting any business through a firm, corporation, partnership or business entity in which the employee or any member of the employee's immediate family has a controlling financial interest, direct or indirect, with Miami-Dade County or any person or agency acting for Miami-Dade County. Any such contract or business engagement entered in violation of this subsection, as amended, shall be rendered voidable. All autonomous personnel, quasi-judicial personnel, advisory personnel, and employees wishing to do business with the County are hereby advised they must comply with the applicable provisions of Section 2-11.1 of the Code of Miami-Dade County relating to Conflict of Interest and Code of Ethics. In accordance with Section 2-11.1 (y), the Miami-Dade County Commission on Ethics and Public Trust (Ethics Commission) shall be empowered to review, interpret, render advisory opinions and letters of instruction and enforce the Conflict of Interest and Code of Ethics Ordinance.

ARTICLE 33. INSPECTOR GENERAL REVIEWS

Independent Private Sector Inspector General Reviews

Pursuant to Miami-Dade County Administrative Order 3-20, the County has the right to retain the services of an Independent Private Sector Inspector General (hereinafter "IPSIG"), whenever the County deems it appropriate to do so. Upon written notice from the County, the Contractor shall make available to the IPSIG retained by the County, all requested records and documentation pertaining to this Agreement for inspection and reproduction. The County shall be responsible for the payment of these IPSIG services, and under no circumstance shall the Contractor's prices and any changes thereto approved by the County, be inclusive of any charges relating to these IPSIG services. The terms of this provision apply to the Contractor, its officers, agents, employees, subcontractors and assignees. Nothing contained in this provision shall impair any independent right of the County to conduct an audit or investigate the operations, activities and performance of the Contractor in connection with this Agreement. The terms of this Article shall not impose any liability on the County by the Contractor or any third party.

Miami-Dade County Inspector General Review

According to Section 2-1076 of the Code of Miami-Dade County, Miami-Dade County has established the Office of the Inspector General which may, on a random basis, perform audits on all County contracts, throughout the duration of said contracts. The cost of the audit for this Contract shall be one quarter (1/4) of one (1) percent of the total contract amount which cost shall be included in the total contract amount. The audit cost will be deducted by the County from progress payments to the Contractor. The audit cost shall also be included in all change orders and all contract renewals and extensions.

Exception: The above application of one quarter (1/4) of one percent fee assessment shall not apply to the following contracts: (a) IPSIG contracts; (b) contracts for legal services; (c) contracts for financial advisory services; (d) auditing contracts; (e) facility rentals and lease agreements; (f) concessions and other rental agreements; (g) insurance contracts; (h) revenue-generating contracts; (i) contracts where an IPSIG is assigned at the time the contract is approved by the Commission; (j) professional service agreements under \$1,000; (k) management agreements; (l) small purchase orders as defined in Miami-Dade County Implementing Order 3-38; (m) federal, state and local government-funded grants; and (n) interlocal agreements. ***Notwithstanding the foregoing, the Miami-Dade County Board of County Commissioners may authorize the***

inclusion of the fee assessment of one quarter (1/4) of one percent in any exempted contract at the time of award.

Nothing contained above shall in any way limit the powers of the Inspector General to perform audits on all County contracts including, but not limited to, those contracts specifically exempted above. The Miami-Dade County Inspector General is authorized and empowered to review past, present and proposed County and Public Health Trust contracts, transactions, accounts, records and programs. In addition, the Inspector General has the power to subpoena witnesses, administer oaths, require the production of records and monitor existing projects and programs. Monitoring of an existing project or program may include a report concerning whether the project is on time, within budget and in conformance with plans, specifications and applicable law. The Inspector General is empowered to analyze the necessity of and reasonableness of proposed change orders to the Contract. The Inspector General shall have the power to audit, investigate, monitor, oversee, inspect and review operations, activities, performance and procurement process, including but not limited to project design, specifications, proposal submittals, activities of the Contractor, its officers, agents and employees, lobbyists, County staff and elected officials to ensure compliance with contract specifications and to detect fraud and corruption.

Upon written notice to the Contractor from the Inspector General or IPSIG retained by the Inspector General, the Contractor shall make all requested records and documents available to the Inspector General or IPSIG for inspection and copying. The Inspector General and IPSIG shall have the right to inspect and copy all documents and records in the Contractor's possession, custody or control which, in the Inspector General's or IPSIG's sole judgment, pertain to performance of the contract, including, but not limited to original estimate files, change order estimate files, worksheets, proposals and agreements form and which successful and unsuccessful subcontractors and suppliers, all project-related correspondence, memoranda, instructions, financial documents, construction documents, proposal and contract documents, back-charge documents, all documents and records which involve cash, trade or volume discounts, insurance proceeds, rebates, or dividends received, payroll and personnel records, and supporting documentation for the aforesaid documents and records.

ARTICLE 34. LOCAL, STATE, AND FEDERAL COMPLIANCE REQUIREMENTS

Contractor agrees to comply, subject to applicable professional standards, with the provisions of any and all applicable Federal, State and the County orders, statutes, ordinances, rules and regulations which may pertain to the Services required under this Agreement, including, but not limited to:

- a) Equal Employment Opportunity (EEO), in compliance with Executive Order 11246 as amended and applicable to this Contract.
- b) Miami-Dade County Small Business Enterprises Development Participation Provisions, as applicable to this Contract.
- c) Environmental Protection Agency (EPA), as applicable to this Contract.
- d) Section 2-11.1 of the Code of Miami-Dade County, "Conflict of Interest and Code of Ethics."
- e) Section 10-38 of the Code of Miami-Dade County, "Debarment of Contractors from County Work."
- f) Section 11A-60 - 11A-67 of the Code of Miami-Dade County, "Domestic Leave."

- g) Section 21-255 of the Code of Miami-Dade County, prohibiting the presentation, maintenance, or prosecution of false or fraudulent claims against Miami-Dade County.
- h) The Equal Pay Act of 1963, as amended (29 U.S.C. 206(d)).
- i) Section 448.07 of the Florida Statutes "Wage Rate Discrimination Based on Sex Prohibited."
- j) Chapter 11A of the Code of Miami-Dade County (§ 11A-1 et seq.) "Discrimination."
- k) Chapter 22 of the Code of Miami-Dade County (§ 22-1 et seq.) "Wage Theft."
- l) Chapter 8A, Article XIX, of the Code of Miami-Dade County (§ 8A-400 et seq.) "Business Regulations."
- m) Any other laws prohibiting wage rate discrimination based on sex.

Pursuant to Resolution R-1072-17, by entering into this Contract, the Contractor is certifying that the Contractor is in compliance with, and will continue to comply with, the provisions of items "h" through "m" above.

The Contractor shall hold all licenses and/or certifications, obtain and pay for all permits and/or inspections, and comply with all laws, ordinances, regulations and building code requirements applicable to the work required herein. Damages, penalties, and/or fines imposed on the County or Contractor for failure to obtain and maintain required licenses, certifications, permits and/or inspections shall be borne by the Contractor. The Project Manager shall verify the certification(s), license(s), permit(s), etc. for the Contractor prior to authorizing work and as needed.

Notwithstanding any other provision of this Agreement, Contractor shall not be required pursuant to this Agreement to take any action or abstain from taking any action if such action or abstention would, in the good faith determination of the Contractor, constitute a violation of any law or regulation to which Contractor is subject, including but not limited to laws and regulations requiring that Contractor conduct its operations in a safe and sound manner.

ARTICLE 35. CONFLICT OF INTEREST

The Contractor represents that:

- a) No officer, director, employee, agent, or other consultant of the County or a member of the immediate family or household of the aforesaid has directly or indirectly received or been promised any form of benefit, payment or compensation, whether tangible or intangible, in connection with the award of this Agreement.
- b) There are no undisclosed persons or entities interested with the Contractor in this Agreement. This Agreement is entered into by the Contractor without any connection with any other entity or person making a proposal for the same purpose, and without collusion, fraud or conflict of interest. No elected or appointed officer or official, director, employee, agent or other consultant of the County, or of the State of Florida (including elected and appointed members of the legislative and executive branches of government), or a member of the immediate family or household of any of the aforesaid:
 - i) is interested on behalf of or through the Contractor directly or indirectly in any manner

whatsoever in the execution or the performance of this Agreement, or in the services, supplies or work, to which this Agreement relates or in any portion of the revenues; or

- ii) is an employee, agent, advisor, or consultant to the Contractor or to the best of the Contractor's knowledge any subcontractor or supplier to the Contractor.
- c) Neither the Contractor nor any officer, director, employee, agency, parent, subsidiary, or affiliate of the Contractor shall have an interest which is in conflict with the Contractor's faithful performance of its obligation under this Agreement; provided that the County, in its sole discretion, may consent in writing to such a relationship, provided the Contractor provides the County with a written notice, in advance, which identifies all the individuals and entities involved and sets forth in detail the nature of the relationship and why it is in the County's best interest to consent to such relationship.
- d) The provisions of this Article are supplemental to, not in lieu of, all applicable laws with respect to conflict of interest. In the event there is a difference between the standards applicable under this Agreement and those provided by statute, the stricter standard shall apply.
- e) In the event Contractor has no prior knowledge of a conflict of interest as set forth above and acquires information which may indicate that there may be an actual or apparent violation of any of the above, Contractor shall promptly bring such information to the attention of the County's Project Manager. Contractor shall thereafter cooperate with the County's review and investigation of such information, and comply with the instructions Contractor receives from the Project Manager in regard to remedying the situation.

ARTICLE 36. PRESS RELEASE OR OTHER PUBLIC COMMUNICATION

Under no circumstances shall the Contractor without the express written consent of the County:

- a) Issue or permit to be issued any press release, advertisement or literature of any kind which refers to the County, or the Work being performed hereunder, unless the Contractor first obtains the written approval of the County. Such approval may be withheld if for any reason the County believes that the publication of such information would be harmful to the public interest or is in any way undesirable; and
- b) Communicate in any way with any Contractor, department, board, agency, commission or other organization or any person whether governmental or private in connection with the Services to be performed hereunder except upon prior written approval and instruction of the County; and
- c) Except as may be required by law, the Contractor and its employees, agents, subcontractors and suppliers will not represent, directly or indirectly, that any product or service provided by the Contractor or such parties has been approved or endorsed by the County.

ARTICLE 37. BANKRUPTCY

The County reserves the right to terminate this contract, if, during the term of any contract the Contractor has with the County, the Contractor becomes involved as a debtor in a bankruptcy proceeding, or becomes involved in a reorganization, dissolution, or liquidation proceeding, or if a trustee or receiver is appointed over all or a substantial portion of the property of the Contractor under federal bankruptcy law or any state insolvency law.

ARTICLE 38. GOVERNING LAW

This Contract, including appendices, and all matters relating to this Contract (whether in contract, statute, tort (such as negligence), or otherwise) shall be governed by, and construed in accordance with, the laws of the State of Florida. Venue shall be Miami-Dade County.

ARTICLE 39. FIRST SOURCE HIRING REFERRAL PROGRAM

Pursuant to Section 2-2113 of the Code of Miami-Dade County, for all contracts for goods and services, the Contractor, prior to hiring to fill each vacancy arising under a County contract shall (1) first notify the South Florida Workforce Investment Board ("SFWIB"), the designated Referral Agency, of the vacancy and list the vacancy with SFWIB according to the Code, and (2) make good faith efforts as determined by the County to fill a minimum of fifty percent (50%) of its employment needs under the County contract through the SFWIB. If no suitable candidates can be employed after a Referral Period of three to five days, the Contractor is free to fill its vacancies from other sources. Contractor will be required to provide quarterly reports to the SFWIB indicating the name and number of employees hired in the previous quarter, or why referred candidates were rejected. Sanctions for non-compliance shall include, but not be limited to: (i) suspension of contract until Contractor performs obligations, if appropriate; (ii) default and/or termination; and (iii) payment of \$1,500/employee, or the value of the wages that would have been earned given the noncompliance, whichever is less. Registration procedures and additional information regarding the FSHRP are available at <https://iapps.careersourcesfl.com/firstsource/>.

ARTICLE 40. PUBLIC RECORDS AND CONTRACTS FOR SERVICES PERFORMED ON BEHALF OF MIAMI-DADE COUNTY

The Contractor shall comply with the Public Records Laws of the State of Florida, including by not limited to, (1) keeping and maintaining all public records that ordinarily and necessarily would be required by the County in order to perform the service; (2) providing the public with access to public records on the same terms and conditions that the County would provide the records and at a cost that does not exceed the cost provided in Chapter 119, F.S., or as otherwise provided by law; (3) ensuring that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law; and (4) meeting all requirements for retaining public records and transferring, at no cost, to the County all public records in possession of the Contractor upon termination of the contract and destroying any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements upon such transfer. In addition, all records stored electronically must be provided to the County in a format that is compatible with the information technology systems of the County. Failure to meet any of these provisions or to comply with Florida's Public Records Laws as applicable shall be a material breach of this Agreement and shall be enforced in accordance with the terms and conditions of the Agreement.

IF THE CONTRACTOR HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE CONTRACTOR'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT (305) 375-5773, ISD-VSS@MIAMIDADE.GOV, 111 NW 1ST STREET, SUITE 1300, MIAMI, FLORIDA 33128

ARTICLE 41. SURVIVAL

The parties acknowledge that any of the obligations in this Agreement will survive the term, termination and cancellation hereof. Accordingly, the respective obligations of the Contractor and the County under this Agreement, which by nature would continue beyond the termination, cancellation or expiration thereof, shall survive termination, cancellation or expiration hereof.

ARTICLE 42. FORCE MAJEURE

Strictly in relation to the obligations of each party to the other under this Agreement and not for any other purpose or for any benefit of a third party, each party shall be excused from the timely performance of their respective obligations or undertakings provided in this Agreement, if the performance of such obligations or undertakings is prevented or delayed, retarded or hindered by: strikes, lockouts, boycotts, actions of labor unions, labor disputes, labor disruptions, acts of nature, work stoppages or slowdowns, civil commotion, fire or other casualty, and other causes beyond the reasonable control of the party obligated to perform.

ARTICLE 43. FAA SPECIAL PROVISIONS**I. Compliance with Nondiscrimination Requirements**

During the performance of this contract, the Contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "Contractor") agrees as follows:

1. Compliance with Regulations: The Contractor (hereinafter includes consultants) will comply with the Title VI List of Pertinent Nondiscrimination Acts And Authorities, as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.

2. Nondiscrimination: The Contractor, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The Contractor will not participate directly or indirectly in the discrimination prohibited by the Nondiscrimination Acts and Authorities, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR part 21.

3. Solicitations for Subcontracts, Including Procurements of Materials and Equipment: In all solicitations, either by competitive bidding, or negotiation made by the Contractor for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by the Contractor of the Contractor's obligations under this contract and the Nondiscrimination Acts And Authorities on the grounds of race, color, or national origin.

4. Information and Reports: The Contractor will provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the sponsor or the Federal Aviation Administration to be pertinent to ascertain compliance with such Nondiscrimination Acts And Authorities and instructions. Where any information required of a Contractor is in the exclusive possession of another who fails or refuses to furnish the information, the Contractor will so certify to the sponsor or the Federal Aviation Administration, as appropriate, and will set forth what efforts it has made to obtain the information.

5. Sanctions for Noncompliance: In the event of a Contractor's noncompliance with the Nondiscrimination provisions of this contract, the sponsor will impose such contract

sanctions as it or the Federal Aviation Administration may determine to be appropriate, including, but not limited to:

- a. Withholding payments to the Contractor under the contract until the Contractor complies; and/or
- b. Cancelling, terminating, or suspending a contract, in whole or in part.

6. Incorporation of Provisions: The Contractor will include the provisions of paragraphs one through six in every subcontract, including procurements of materials and leases of equipment, Required Contract Provisions Issued on January 29, 2016 Page 19 AIP Grants and Obligated Sponsors Airports (ARP) unless exempt by the Acts, the Regulations and directives issued pursuant thereto. The Contractor will take action with respect to any subcontract or procurement as the sponsor or the Federal.

Aviation Administration may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the Contractor becomes involved in, or is threatened with litigation by a subcontractor, or supplier because of such direction, the Contractor may request the sponsor to enter into any litigation to protect the interests of the sponsor. In addition, the Contractor may request the United States to enter into the litigation to protect the interests of the United States.

7. During the performance of this contract, the Contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "Contractor") agrees to comply with the following nondiscrimination statutes and authorities; including but not limited to:

- Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d et seq., 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin);
- 49 CFR part 21 (Nondiscrimination In Federally-Assisted Programs of The Department of Transportation—Effectuation of Title VI of The Civil Rights Act of 1964);
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.S.C. § 4601), (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
- Section 504 of the Rehabilitation Act of 1973, (29 U.S.C. § 794 et seq.), as amended, (prohibits discrimination on the basis of disability); and 49 CFR part 27;
- The Age Discrimination Act of 1975, as amended, (42 U.S.C. § 6101 et seq.), (prohibits discrimination on the basis of age);
- Airport and Airway Improvement Act of 1982, (49 USC § 471, Section 47123), as amended, (prohibits discrimination based on race, creed, color, national origin, or sex);

- The Civil Rights Restoration Act of 1987, (PL 100-209), (Broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, The Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms “programs or activities” to include all of the programs or activities of the Federal-aid recipients, subrecipients and Contractors, whether such programs or activities are Federally funded or not);
- Titles II and III of the Americans with Disabilities Act of 1990, which prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 U.S.C. §§ 12131 – 12189) as implemented by Department of Transportation regulations at 49 CFR parts 37 and 38;
- The Federal Aviation Administration’s Nondiscrimination statute (49 U.S.C. § 47123 (prohibits discrimination on the basis of race, color, national origin, and sex));
- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures nondiscrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations;
- Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100);
- Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 U.S.C. 1681 et seq).

ii) All contracts and subcontracts that result from this solicitation incorporate by reference the provisions of 29 CFR part 201, the Federal Fair Labor Standards Act (FLSA), with the same force and effect as if given in full text. The FLSA sets minimum wage, overtime pay, recordkeeping, and child labor standards for full and part time workers.

The [Contractor | consultant] has full responsibility to monitor compliance to the referenced statute or regulation. The [Contractor | consultant] must address any claims or disputes that arise from this requirement directly with the U.S. Department of Labor – Wage and Hour Division

iii) All contracts and subcontracts that result from this solicitation incorporate by reference the requirements of 29 CFR Part 1910 with the same force and effect as if given in full text. Contractor must provide a work environment that is free from recognized hazards that may cause death or serious physical harm to the employee. The Contractor retains full responsibility to monitor its compliance and their subcontractor’s compliance with the

applicable requirements of the Occupational Safety and Health Act of 1970 (20 CFR Part 1910). Contractor must address any claims or disputes that pertain to a referenced requirement directly with the U.S. Department of Labor – Occupational Safety and Health Administration.

IN WITNESS WHEREOF, the parties have executed this Agreement effective as of the contract date herein above set forth.

Contractor

Miami-Dade County

By: _____

By: _____

Name: _____

Name: Carlos A. Gimenez

Title: _____

Title: Mayor

Date: _____

Date: _____

Attest: _____

Attest: _____

Corporate Secretary/Notary Public

Clerk of the Board

Corporate Seal/Notary Seal

Approved as to form
and legal sufficiency

Assistant County Attorney

APPENDIX A: Scope of Services

Background

The County, is contracting with Harris Corporation, for the purchase of fifty (50) Vehicle Movement Area Transmitter (VMAT) units, installation kits, installation services, equipment warranty, and a support service package which includes maintenance. The Contractor will be responsible for obtaining a copy of the most current version of the FAA Advisory Circular, and complying with all the requirements therein on installing, testing, and operating the VMAT units.

Pursuant to the Federal Aviation Administration Advisory Circular 150/5220-26 Change 2 issued April 11, 2016, incorporated herewith as Exhibit A, the Equipment and embedded Software must be fully compliant and certified with the FAA Advisory Circular and all FAA Specifications.

Pre-Installation

The Contractor shall conduct a kick-off teleconference to discuss the overall process, introduce key personnel, and begin planning and coordinating. During this meeting, County personnel and the Contractor will coordinate how data collection will be conducted. The County shall provide the Contractor with the following information for each vehicle that is to be outfitted with a VMAT unit:

- Vehicle description, type, tag, ID and length/width (in meters)
- Emitter Category

Shipping/Delivery

The Contractor shall at no additional cost, deliver the VMAT Units and Installation Kits to the County within 60 calendar days after the Notice to Proceed is issued. All deliveries will be made to the address(es) provided by the Project Manager.

The Contractor must notify the County, in writing, of any unforeseen delays or issues that may arise.

Equipment

The Contractor shall deliver to MIA the following items at the rates defined in the Price and Payment Schedule (Attachment B), inclusive of all costs to shipping, freight, or forwarding costs.

- Fifty (50) VMAT Units, Model Number: FDL-978-GTX/E. ADS-B data link: 978 MHz Universal Access Transceiver. The VMAT units shall consist of a single, integrated equipment package containing both the GPS receiver and ADS-B Transmitter.
- Fifty (50) Magnetic Mount Antenna Installation Kits. The kit contains the VMAT mounting bracket, antennas & cabling to connect to the VMAT units, Part Number 87632-00/85509-00.

Installation

a. Installation Kits

The Contractor shall complete the installation of the fifty (50) installation kits within 30 days of receipt of the installation kits. This will be scheduled and coordinated with Airport personnel.

b. VMAT Units

Installation of the VMAT units occurs once the installation kits have been installed, and the VMAT units have been configured by the Contractor. The Contractor will coordinate with the Airport, Control Tower, FAA and FAA Spectrum Office to retrieve transit map information. Final approval of transit map will be provided by the FAA. Once the transmit map approval process has been completed, the Contractor shall provide onsite programming and installation of the VMATS to the County within 30 calendar days. The device installation consists of mounting the units in the mounting bracket and connecting the power, UAT antenna, and GPS antenna cabling.

c. Multiple VMAT Installation Phases

The County may requests for the Contractor to support multiple installation phases to allow installation and operational use of a set or "lot" of VMAT units in some vehicles while pre-installation activities continue on other vehicles. If the County desires more than one installation phase, Contractor personnel will conduct basic operational testing and work with the FAA to grant a provisional acceptance to allow the County to utilize the VMATS while subsequent installation activities continue. A provisional acceptance will be granted by the FAA to allow operational use of the current lot of VMAT units for up to six (6) months while the subsequent lot continues with installation activities. Should this option be considered, the Contractor shall provide the County with an estimated cost for approval. Final invoicing shall not exceed 10% of the estimate submitted to the County by the Contractor. The hourly rate listed as part of the estimate shall not exceed the rate listed under the Optional Services Section, Additional Services item (Appendix B).

Configuration Matrix

Once installation is complete, the Contractor will update and complete the configuration matrix based on information provided by the County for the units installed and confirm that the correct VMAT units are deployed in the intended vehicles through a review of the configuration label on the front of the unit.

At a minimum, the following information will be tracked as part of the configuration matrix:

- Vehicle description, tag, ID and length/width(in meters)
- VMAT Serial Number
- ICAO Address
- Link Frequency
- Airport VMAT Transmit Map Date and Checksum
- Emitter Category
- Configure Date/Initials
- Installation Date/Initials
- SAT Verification Date/Initials

Dated copies of the updated configuration matrix will be provided to the FAA and the County as changes are made. This information will be kept on-line in the Contractor support database for reference. The Contractor will provide the FAA with copies of the validated matrix according to the site acceptance procedures.

Training

The Contractor shall train County Personnel on how to properly install the installations kits. The Contractor will demonstrate how to install a minimum of five (5) kits. In addition, the Contractor will provide adequate documentation to enable County personnel to install the components independently of Contractor oversight.

Configuration Management Services

The Contractor shall configure/program each VMAT unit based on serial number, provisioned ICAO address, vehicle designator, and vehicle tag. These details will be tracked using the configuration matrix.

- **ICAO Address Provisioning**

The Contractor will work with the County to request the necessary International Civil Aviation Organization (ICAO) addresses for each of the VMAT units and will send a letter indicating the following:

- a. Request for airport ground vehicle ADS-B equipment
- b. Number of 24-bit ICAO codes required

- **Transmit Map Provisioning**

The VMAT transmit map for the airport surface will be used to control the VMAT on/off function of each vehicle unit. The Contractor will provide the installation team and the County with copies of the .kml formatted map received from the FAA. The map will be loaded on the VMAT units by the Contractor during the configuration phase per the Advisory Circular. Copies of the map will be kept under configuration management.

- **Pre-Configuration**

Once all relevant vehicle configuration data is collected, authorizations received, maps finalized, and ICAO addresses provisioned, the Contractor will program the VMAT units onsite using the software configuration interface. The programming will occur after the County has verified the recipient vehicle data for each unit to be delivered.

- **FCC/NTIAA Transmit Authorization**

Prior to initiating any transmission from the units, the County must receive Federal Communications Commission (FCC) approval. The Contractor will work with the County to receive a transmit license by:

- a. Coordinating first with the FAA Service Area Frequency Management Office (FMO)
- b. Obtaining a Non-Government (NG) Transmit Number (NG Txxxxxx) from the FAA Service Area/Regional Office FMO
- c. Applying to the FCC for a license to transmit

Site Acceptance Testing (SAT)

Once all VMAT units have been installed, a SAT must take place in accordance with FAA Advisory Circular No. 150/5220-26. The Contractor shall conduct this testing on County property. Once all units have been validated, a SAT report will be submitted by the Contractor to the FAA's Quality Reliability Officer (QRO) for approval.

Final Acceptance Testing

Once all units have been installed and the County is ready to proceed with final acceptance, the Contractor will return to the site to perform the final SAT. This will include a more complete testing of approximately 10% of the total installed units. Using the configuration matrix, the units required for random testing will be selected. These units will be retested by the Contractor, and if desired, by the FAA or one of their representatives. Each selected unit will have its configuration revalidated and items 001 through 013 of the INCO/SAT Checklist re-confirmed. Once all units have been validated, a final SAT report will be submitted to the FAA's Quality Reliability Officer (QRO) or the QRO's representative for approval.

The FAA will then determine if any corrective actions are required or approve the units for operation.

Validation Transmit Map Functionality

The County will provide the Contractor vehicles with installed and configured VMAT units. The Contractor will test such vehicles to ensure VMAT ability to transmit in accordance with INCO/SAT checklist items. The units will be selected for their ability to practically travel to the various regions defined in the map required for testing. The units will be configured with the current FAA provided .kml map. These units will be used to perform the INCO/SAT items: 010, 011, 012, and 013. The results of this test will be used to satisfy these requirements for all other VMAT units with the same part number and who have had loaded the same map. The .kml airport VMAT transmit maps will be considered the same if they have the identical checksum, date, and number of zones. The Contractor will use in-house applications and experienced on-site airport vehicle operators to verify performance.

Warranty

The Contractor shall warrant all Fifty (50) VMAT units against faulty labor and/or defective material for a minimum period of two (2) years, after completion of the Final Acceptance Test. This warranty requirement shall remain in force; regardless of whether the Contractor is under contract with the County at the time of defect. Any payment by the County on behalf of the goods and/or services received from the Contractor does not constitute a waiver of these warranty provisions.

The Contractor shall be responsible for promptly correcting any deficiency and/or replacing any damaged part(s), at no cost to the County, within ten (10) calendar days after the County notifies the Contractor of such deficiency in writing. Failure to correct its deficiencies within ten (10) calendar days may result in either a formal non-performance report being issued or the County may, at its discretion, default the Contractor. Sanctions may also be applied as defined in Article 43.

VMATs Operation and Support Services

The Operational and Support (O&S) period begins after final acceptance. To enable the County to meet the mandatory requirements of the FAA Advisory Circular 150/5220-26, the Contractor will provide the following services for all VMAT unit purchased at the annual price listed in the Price and Payment Schedule (Appendix B).

- a. Serving as primary point of contact to the FAA for VMAT program compliance issues and remedies;
- b. Providing VMAT Configuration Management, including: tracking of unit configuration and relevant installation and maintenance documents (certifications, licenses, and Configuration Matrix);
- c. Providing VMAT Software Configuration Matrix updates in support of seasonal vehicle VMAT swaps;
- d. Providing Onsite System Performance Testing and Compliance Monitoring twice a year;
- e. Providing ten (10) MobileVue Licenses (one for each block of 5 VMATs purchased) on an annual subscription basis;
- f. Providing onsite support services for any required FAA updates to Transmit Map and VMAT Firmware. This shall be scheduled and coordinated with MDAD personnel within 24 hours of their request or less;
- g. Providing 24x7 Technical Support Desk and Trouble Ticketing Management System; and 25% Discount on Symphony® OpsVue licenses purchased by the Airport

APPENDIX B: PRICE AND PAYMENT SCHEDULE

Quantity	Description	Unit Cost	Total Cost
50	VMATs Units	\$6,200	\$310,000.00
50	Installation Kits, including Magnetic Mount Antennas	\$500	\$25,000.00
50	Training Services	\$0	Included
	2 Year Warranty	\$0	Included
50	Installation Services	\$1,530	\$76,500.00
5 years	VMATs Operation and Support Services	\$40,300 Yearly	\$201,500.00
		Total	\$613,000.00

Optional Services The following Optional Items may be purchased during the five (5) year Operations and Support (O&S) period for use by the County.

Item/Description	Comments	Price per Unit / License
VMAT Unit (Squitters)Hardware with Magnetic Mount Antenna Installation Kits	The County may purchase additional VMAT units from the original 50 units requested the price shall include the VMATs, the installation kits, and a two-year hardware warranty.	\$6,700
VMAT Installation	VMAT install includes the installation activities performed by Harris as defined within the Scope of Services.	\$1,000
Prime Package Support per VMAT Unit	Annual Price	\$806
Magnetic Mount Antenna Installation Kit	Kit contains VMAT Mounting bracket, Antennas & Cabling to connect to the VMAT units.	\$1,900
Extended Hardware Warranty per Unit	Covers three (3) years of operation beyond the basic 2-year warranty, priced for each unit	\$2,000
Additional Services	Hourly T&M Rate for any activities that fall out of the scope of this contract	\$150
Symphony MobileVue Licenses	Additional licenses available for stated annual per license fee (Discounted from \$2,000 base price due to Prime Support being ordered)	\$1,500
Symphony OpsVue Licenses	Additional licenses available for stated annual per license fee (Discounted from \$20,000 base price due to Prime Support being ordered)	\$15,000

EXHIBIT A



U.S. Department of
Transportation
**Federal Aviation
Administration**

Advisory Circular

Consolidated to include Change 2

Subject: Airport Ground Vehicle Automatic
Dependent Surveillance - Broadcast (ADS-B)
Out Squitter Equipment

Date: 11/14/2011
Initiated by: AAS-1

AC No: 150/5220-26
Change:

1. Purpose of the Advisory Circular.

This Advisory Circular (AC) provides guidance on the development, installation, testing, approval, and maintenance of Automatic Dependent Surveillance – Broadcast (ADS-B) Out squitter units for airport ground vehicles. Using this AC, airports will be able to acquire approved and authorized airport ground vehicle ADS-B squitter units that are compliant with Title 14 Code of Federal Regulations (CFR), Part 91, Automatic Dependent Surveillance-Broadcast (ADS-B) Out Performance Requirements to Support Air Traffic Control (ATC) Service, as well as the initial set of ADS-B applications. Please note that the technical specifications for manufacturing ADS-B squitter units for airport ground vehicles are published in the FAA’s document, FAA-E-3032, Vehicle Automatic Dependent Surveillance - Broadcast (ADS-B) Specification, published January 7, 2015.

2. To Whom this AC Applies.

- a. All airport ground vehicle ADS-B squitter units must meet the requirements stated in FAA-E-3032, Airport Ground Vehicle ADS-B Specification, January 7, 2015.
- b. Airport and vehicle operators should follow the operational guidance in this AC to ensure proper operation of airport ground vehicle ADS-B units. While such units are not currently required, the FAA strongly encourages airport operators to voluntarily equip appropriate vehicles with airport ground vehicle ADS-B squitter units.
- c. In general, use of this AC is not mandatory. However, use of this AC is mandatory for all Part 139 certificated airports using this equipment, as well as projects funded with federal grant monies through the Airport Improvement Program (AIP) and with revenue from the Passenger Facility Charge (PFC) Program. See Grant Assurance No. 34, Policies, Standards, and Specifications, and PFC Assurance No.9, Standards and Specifications.
- d. The AC is required for vendors developing, installing, testing, and seeking approval of ADS-B units in airport ground vehicles.
- e. It is also recommended for vendors, airport operators, and other personnel who will implement, monitor, and use the airport ground vehicle ADS-B squitter units on the

airport. ADS-B squitter units used must meet the technical specifications of this AC. The FAA will issue a separate AC on operational use of ground vehicles equipped with ADS-B squitter units in the future.

f. The primary locations for installation of ADS-B squitters on vehicles are the 35 airports equipped with ASDE-X and the nine airports scheduled to receive ASSC upgrades to their ASDE-3 systems. ASDE-X and ASSC systems are needed to receive the ADS-B squitter signals for use on ATC displays. Airport Operators at these 44 airports (as shown in Appendix A) are encouraged, but not required, to equip their vehicles with ADS-B squitters in order to enhance safety and situational awareness. In the future, FAA may deploy ASSC or ADS-B surface surveillance volumes to additional airports that could then be appropriate sites for equipping of vehicles with ADS-B squitters. Information on grant funding eligibility is addressed in FAA Order 5100-38, the Airport Improvement Program Handbook, (http://www.faa.gov/airports/aip/aip_handbook/media/aip-handbook-order-5100-38d.pdf).

g. Airports without FAA deployed surface surveillance may choose to equip their vehicles with ADS-B squitters. Aircraft equipped with ADS-B in avionics and Cockpit Display of Traffic Information (CDTI) will enable pilots to see ADS-B equipped vehicles location on in cockpit moving maps. This equipage is expected to become more widespread in future years. Airports without FAA deployed surface surveillance should consider current and near-term equipage of the aircraft using their airport when deciding on investments in ADS-B vehicle squitters.

3. Background.

Every year, there are incidents and accidents involving aircraft and vehicles at airports that have potentially serious consequences. Many of these events occur in periods of reduced visibility, which can result in a loss of situational awareness for flight crews and air traffic controllers. The FAA is in the process of deploying several systems and technologies to help reduce the number and severity of these incidents. Automatic Dependent Surveillance – Broadcast (ADS-B) has been identified as a cornerstone technology in the FAA’s Next Generation Air Transportation System (NextGen) initiative to modernize the safety, efficiency, and capacity of the National Airspace System.

ADS-B will provide improved surveillance in the terminal, en route, and on surface environments, and will provide equipped aircraft with shared situational awareness via a cockpit display of proximate traffic. In order to achieve the benefits of ADS-B on the airport surface, surface vehicles and aircraft should be equipped with the ability to transmit ADS-B messages.

At airports with no surface surveillance, ADS-B can serve as a means to improve situational awareness for both air traffic control and aircraft operators equipped with the ability to receive and display ADS-B messages. This capability provides for a high level of safety. The inclusion of airport vehicles into the surface surveillance picture gives air traffic controllers and operators one more way to identify traffic issues, understand the most

efficient way to proceed on the airport surface, and avoid incursions.

At airports already equipped with surface surveillance, such as Airport Surface Detection Equipment – Model X (ASDE-X), ADS-B will provide pilots with improved communication with air traffic control and efficiency of operations. ASDE-X information is fed into the Traffic Information Service-Broadcast (TIS-B) service and could provide pilots with a complete surface picture. This situational awareness can be employed to provide supplemental benefits to existing surface surveillance and provide an additional resource for future applications of ADS-B in the surface environment.

a. ASDE-X and ASSC. The FAA has deployed the ASDE-X to 35 airports. The FAA is also upgrading existing Airport Surveillance Detection Equipment-Model 3 (ASDE-3) sites at 9 airports with multi-lateration (MLAT) capability to produce an Airport Surface Surveillance Capability (ASSC). This will give air traffic control the ability to maintain surveillance of ground targets. The ASDE-X system was designed to support safe ground operations at an airport by providing reliable and accurate information on the location of aircraft and ground vehicles. It does this through a combination of technologies, including airport surface movement radar (SMR), airport surveillance radar (ASR), MLAT, and ADS-B. ASSC provides this capability using MLAT and ADS-B.

Due to the inherent problems associated with radio frequency and radar transmissions, a single sensor surveillance system may not provide a complete and accurate depiction of a target to the controller. The ASDE-X system mitigates this problem by fusing the data from several different sources, primary and secondary radar including MLAT and ADS-B, to provide the most accurate target information as compared to single sensor systems. The ASDE-X system receives the ADS-B position report, the radar return, and MLAT position report and “fuses” them into a single accurate target report. Data fusion provides the most complete and accurate picture of the intended target’s position and motion. For example, fused data, combining data from the SMR, MLAT, and ADS-B, would provide controllers with the aircraft’s size, identification, and position whereas each data source alone could only provide a piece of this information. These systems also can alert controllers to potential conflicts so they can take appropriate action to prevent surface incidents.

The radar component of the ASDE-X system can detect aircraft and vehicles in and around the airport operational area without the use of airport ground vehicle ADS-B squitter units. However, during periods of heavy and sustained precipitation, the precipitation may attenuate the radar, thus reducing the probability of vehicle detection. In these cases, vehicles equipped with airport ground vehicle ADS-B squitter units can be tracked by two additional sources of position data, ADS-B and MLAT, thus increasing the accuracy and probability of detection. Additionally, the ADS-B message set provides identification data that is not available from the ASDE-X or ASSC systems.

ADS-B differs from MLAT in the method in which position data is computed. An MLAT system depends on a series of receivers on the surface calculating the difference in the time of arrival of a signal from targets to determine position. At least four sensors are necessary to provide position information that is both accurate and has a high level of integrity. ADS-

B transmits a signal, much like a transponder, but the position information is satellite based, such as those in the Global Positioning System (GPS) constellation. The position and identification information derived from the ADS-B is transmitted to air traffic control and fused with ASDE-X surveillance sources. ADS-B can serve to supplement existing MLAT surveillance for air traffic control, and MLAT can be used as an input to the TIS-B service to provide a more complete traffic picture to operators who have equipped with the ability to display ADS-B.

b. ADS-B. The ADS-B system is an advanced surveillance technology that combines a satellite positioning service, aircraft avionics, and ground infrastructure to enable transmission of more accurate information between aircraft and air traffic control. The system enables equipped aircraft and ground vehicles to continually broadcast information, such as identification, current position, altitude, and velocity. ADS-B uses information from a position service, e.g. GPS, to determine the aircraft/vehicles location, thereby making this information more timely and accurate than the information provided by a conventional radar system. ADS-B also can provide the platform for aircraft to receive various types of information, including ADS-B transmissions from other equipped aircraft or vehicles. ADS-B is automatic because no external interrogation is required, but is “dependent” because it relies on onboard position sources and onboard broadcast transmission systems to provide surveillance information to air traffic control and ultimately to other airport users.

The capability of transmitting ADS-B information is referred to as “ADS-B Out”. ADS-B Out can provide a more accurate and timely position report that includes identity and other information, but it does not provide operators with any new services or information. Operators can voluntarily equip with the equipment necessary to receive ADS-B messages and other broadcast services, such as TIS-B, and display that information in the cockpit. The receive function of ADS-B is referred to as “ADS-B In”; ADS-B In is not required by the final rule but can provide significant benefits.

The ADS-B system provides aircraft/vehicle position information using data provided by the unit’s GPS navigation system and transmitted via Mode S Extended Squitter (ES) or Universal Access Transceiver (UAT). ADS-B equipment receives highly accurate GPS signals and uses them to determine the precise location of the aircraft/vehicles on the airport surface. The system converts that position into a unique digital code and transmits it, along with a unique identification code, to locate and identify the exact aircraft/vehicle. The broadcast of the ADS-B position provides a signal for MLAT, providing two separate sources of position data. This precise data also enables other ADS-B applications, including Airport Traffic Situation Awareness (ATSA with Indications and Alerts). Airport Traffic Situation Awareness involves the use of a cockpit display that depicts the runway environment and displays traffic from the surface up to approximately 1,000 feet above ground level on final approach and is used by the flight crew to help determine runway occupancy. This application also is designed to reduce the potential for deviations, errors, and collisions by increasing flight crew situational awareness while operating an aircraft on the airport. This application also provides an alerting function to assist in the identification of conflicts and/or the avoidance of runway incursions. Flight crews will use a cockpit

display and possible aural notifications to increase awareness of other traffic positions in the squitter area.

The vehicle ADS-B squitter units will support the following ADS-B applications:

- Air Traffic Control (ATC) Surveillance for Airport Situation Awareness;
- Airport Traffic Situation Awareness; and
- Airport Traffic Situation Awareness with Indications and Alerts.

Airport ground vehicle ADS-B squitter units are being deployed to further enhance the ability to reduce the risk of runway incursions and conflict between aircraft and vehicles operating in the airport. The airport ground vehicle ADS-B squitter units utilize an ADS-B transmitter to broadcast a highly accurate position (GPS based), which is received by various ground stations and aircraft on or near the airport and presented on a display. Additionally, the ADS-B system provides a mechanism for the delivery and display of an integrated surface picture to airport operators through an additional display capability. While ATC surveillance benefits are only applicable to airports that currently have ASDE-X or ASSC, airport ground vehicle squitter units may be deployed at any airport. These airports could still derive benefit from airport ground vehicle squitter units through ADS-B cockpit applications and through airport operator displays.

The airport ground vehicle ADS-B squitter unit will utilize a sensor navigation source capable of providing highly accurate position data as outlined in the specification. The airport ground vehicle ADS-B squitter units can operate on either the 1090 ES link or the 978 MHz/UAT link; however, due to the 1090 MHz spectrum congestion and use by numerous other systems, the FAA strongly prefers the use of the 978 MHz/UAT link. The existing terminal radar secondary surveillance system, many aircraft transponders, and several other systems currently use the 1090 MHz frequency. The extensive use of the 1090 MHz frequency has the potential to cause numerous degradations to any system using 1090 MHz.

Whether the unit is capable of transmitting on just one link or both (1090 and 978 MHz), the unit must only transmit on one link at any given time. The airport ground vehicle ADS-B squitter transmissions will only be active when the vehicle position is within the defined squitter transmit area. The ADS-B equipment will contain a transmit map that will control the unit on/off function based on position of the vehicle on the airport.

The FAA will authorize the airport operator and potentially other entities to deploy the airport ground vehicle ADS-B squitter units. The vehicles equipped with the ADS-B squitter units will include airport vehicles, fire and rescue vehicles, other vehicles authorized by the airport operator, and FAA vehicles.

c. Airports Eligible for Early Implementation. The Federal Communication Commission (FCC) is pursuing a rulemaking to allow vehicles to transmit on 1090 MHz. The FCC approved the waiver request on February 12, 2010 in DA 10-259. The use of 978 MHz is already approved for use on vehicles.

Table 1. Airports with Existing or Planned FAA Surveillance Systems.

The future use of vehicle units at airports other than those equipped with FAA surveillance systems is not yet defined. Below is a table of airports currently equipped or planned to be equipped with FAA surveillance systems by 2017.

Identifier	Airport
ASDE-X equipped airports	
BWI	Baltimore-Washington International Thurgood Marshall Airport
BOS	Boston Logan International Airport
BDL	Bradley International Airport
MDW	Chicago Midway Airport
ORD	Chicago O'Hare International Airport
CLT	Charlotte Douglas International Airport
DFW	Dallas-Ft. Worth International Airport
DEN	Denver International Airport
DTW	Detroit Metro Wayne County Airport
FLL	Ft. Lauderdale/Hollywood Airport
MKE	General Mitchell International Airport
IAH	George Bush Intercontinental Airport
ATL	Hartsfield-Jackson Atlanta International Airport
HNL	Honolulu International –Hickam Air Force Base Airport
JFK	John F. Kennedy International Airport
SNA	John Wayne-Orange County Airport
LGA	LaGuardia Airport
STL	Lambert-St. Louis International Airport
LAS	Las Vegas McCarran International Airport
LAX	Los Angeles International Airport
SDF	Louisville International Airport-Standiford Field
MEM	Memphis International Airport
MIA	Miami International Airport
MSP	Minneapolis St. Paul International Airport
EWR	Newark International Airport
MCO	Orlando International Airport
PHL	Philadelphia International Airport
PHX	Phoenix Sky Harbor International Airport
DCA	Ronald Reagan Washington National Airport
SAN	San Diego International Airport
SLC	Salt Lake City International Airport
SEA	Seattle-Tacoma International Airport
PVD	Theodore Francis Green State Airport
IAD	Washington Dulles International Airport
HOU	William P. Hobby Airport
Airports to be equipped with ASSC (2014-2017 timeframe)	
SFO	San Francisco International Airport
CLE	Cleveland/Hopkins International Airport
PIT	Pittsburgh International Airport
PDX	Portland International Airport

ADW	Andrews Air Force Base
ANC	Anchorage International Airport
CVG	Cincinnati/Northern Kentucky International Airport
MSY	Louis Armstrong New Orleans International Airport
MCI	Kansas City International Airport

d. Definitions. In this AC, the words “must”, “should”, and “may” are used to define different levels of requirements:

- (1) **Must:** Conveys a requirement.
- (2) **Should:** Describes a recommendation.
- (3) **May:** Denotes a permissible practice or action, but not a requirement.
- (4) **Airport Ground Vehicle ADS-B Equipment:** The navigation source, processing, and ADS-B transmission equipment that determines the position of the surface vehicle in which it resides and broadcasts that information on one of the two ADS-B data links (978 MHz UAT or 1090 MHz ES).
- (5) **Squitter:** Output pulses from an airport ground vehicle ADS-B squitter unit generated by an internal triggering system rather than by external interrogation pulses.
- (6) **Squitter Transmit Map for Airport Surface:** The squitter maps of the airport surface will define where the squitter unit will be active by controlling the squitter transmit out. The FAA will generate the squitter transmit maps and post them online for download. All airports with ASDE-X will have a Squitter Transmit Map available for download on the website for no charge. Squitter Transmit Maps for Airport Surface will be derived from ASDE-X maps.

4. Developing Equipment to Specification.

a. Airport Ground Vehicle ADS-B Process Diagram. The following process flow diagram (Figure 1) provides an overview of the steps and processes necessary to complete the vehicle ADS-B project.

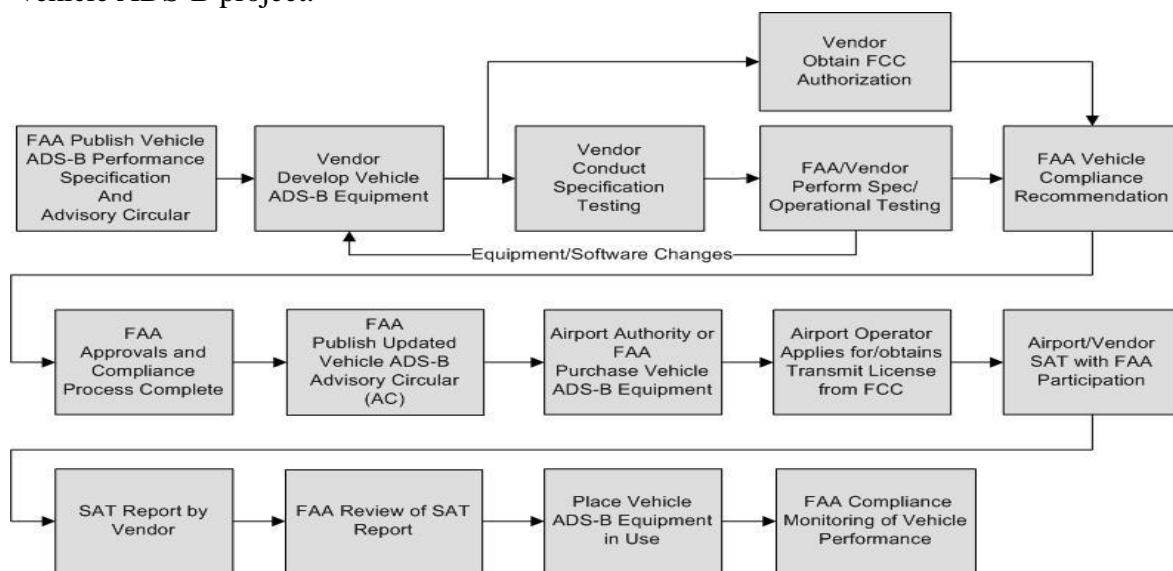


Figure 1. Vehicle ADS-B Process Diagram

b. Airport Ground Vehicle ADS-B Specification. The vehicle ADS-B squitter specification document details requirements for the vehicle units residing in airport surface vehicles, which are necessary to determine the position of the surface vehicle in which it resides and broadcast that information on one of the two ADS-B data links. This document provides the requirements for both 978 MHz UAT and 1090 MHz ES transmissions. Vendors producing equipment for surface vehicles must adhere to the requirements stated in the document.

The document addresses the broadcast of ADS-B only (the reception and display of ADS-B data in the vehicle is not addressed). Additionally, the document addresses testing and compliance of the airport ground vehicle ADS-B squitter units and includes guidelines for verification.

c. FAA Specification Testing. The airport ground vehicle ADS-B Factory Acceptance Test (FAT) plan and Site Acceptance Test (SAT) plan will outline the test procedures and processes necessary for the vehicle units to demonstrate compliance with the specification document. The airport ground vehicle ADS-B squitter units will be tested to verify they meet the functional and performance requirements. Testing includes the bench tests and environmental tests outlined in the specification document. Requirements for unit level testing are described for both 1090 MHz ES and 978 MHz UAT equipment. These tests are performed at the vendor's facilities as approved by the FAA. Integration testing of the airport ground vehicle ADS-B unit, including the navigation system and the ADS-B transmitting system, is conducted to verify system performance. The vendor submits test documentation to the FAA verifying successful completion of the specified tests. The FAA reserves the right to witness specific test procedures at the vendor's facility.

d. Subsequent to obtaining approval for the bench and environmental test results, the vendor will make a unit available to the FAA for additional testing at the FAA Technical Center. The FAA will conduct additional testing of the unit for an operational equivalent to a first article test. This testing will consist of limited bench testing of key requirements to verify performance. The FAA may require the vendor to provide test tool support similar to the capabilities that the vendor may have used for the factory bench testing to enable specific tests or provide access to internal test points for verification. Also, the unit will be subjected to testing at a specified test facility that verifies the operation at an airport location. The FAA will provide information to the vendor to generate a squitter transmit map for the airport surface to support the testing. The equipment will be tested to verify the squitter transmit map for the airport surface requirements within and outside of the squitter area. This test will consist of operating the equipment and subjecting the equipment to scenarios similar to those that would be encountered at the airport within which the vehicle is intended to operate.

The FAA Technical Center has developed test plans, which will reference the testing requirements in the specification document, additional equipment-level tests that may be required at the FAA facility, and a Site Acceptance Testing (SAT) Checklist that will provide a detailed description of the SAT procedures that are required to demonstrate vehicle unit compliance.

Additionally, equipment manufacturers shall provide the FAA Technical Center evidence of a

quality control program for production of their airport ground vehicle ADS-B units when submitting the factory test report.

If the FAA authorizes the equipment, the FAA will update this AC to list the manufacturers whose vehicle units are authorized to operate on the airport surface.

5. Equipment Testing.

a. Vendor Site Acceptance Testing (SAT). The vendor will conduct Site Acceptance Testing (SAT) with assistance from the airport at each airport that implements the airport ground vehicle ADS-B units. The FAA will verify SAT compliance of the units for any airport installing and utilizing the vehicle units. Subsequent SAT events at the same airport may be approved via post-SAT report submittals. This operational testing will require manufacturers to validate that the airport ground vehicle ADS-B squitter units are installed properly, updated squitter transmit maps are in all equipment units, all squitter airport map boundaries are correct, International Civil Aviation Organization (ICAO) codes are properly entered, and the airport ground vehicle ADS-B units operate properly. Successful completion of this phase of testing will verify compliance of the equipment.

Upon completion of the SAT report, the vendor must submit a copy of the report to the FAA for review.

b. FAA Airport Ground Vehicle ADS-B Validation of SAT. All units must undergo SAT. The vendor must submit the SAT report to the FAA, who will evaluate the submitted report and associated data for any deficiencies to determine whether the airport ground vehicle ADS-B units at the airport are ready for operation. The FAA may participate in each airport's SAT upon delivery of the airport ground vehicle ADS-B squitter units or choose to evaluate the vendor-provided SAT report only.

If deficiencies are found during SAT, the FAA will notify the vendor, which must take corrective actions to make the units compliant with the SAT. The vendor must submit a follow-up SAT report to the FAA, who will decide whether the system has passed the SAT and can be put into operation.

6. Requirements to Operate Equipment.

a. FCC Equipment Authorization. Vendors are required to obtain FCC Equipment Authorization in accordance with 47 CFR Part 2, Subpart J. FCC form 731 must be filed for each unique product identifier and a unique FCC identifier is required on the product label. Product documentation must accompany the application, fees must be submitted, and descriptions of the required test data must be provided. Paragraph 2.1033(c) lists the requirements for equipment types other than those operating under Part 15 or Part 18 of the FCC rules.

Test requirements for equipment types other than those operating under Part 15 or Part 18 are described in the paragraphs listed in paragraph 2.1041. Paragraph 2.947 outlines the measurement procedure. The following paragraphs list measurement data requirements:

- 2.1046 – RF power output
- 2.1047 – Modulation Characteristics
- 2.1049 – Occupied Bandwidth
- 2.1051 – spurious emissions at antenna terminals
- 2.1053 – Field strength of spurious radiation (substitution method)
- 2.1055 – Frequency stability
- 2.1057 – Frequency spectrum to be investigated
- 2.1091 – RF radiation exposure evaluation: mobile devices
- 2.1093 - RF radiation exposure evaluation: portable devices

Applications for equipment authorization must be submitted electronically and the required exhibits must be in one of the following electronic file types : Adobe Acrobat (pdf), JPEG, Microsoft Excel, Microsoft Word, WordPerfect, or plain text. FCC requires up to 13 different exhibit types:

1. Identification label and location information
2. Attestation statements
3. External photos
4. Block diagrams
5. Schematics
6. Test Report
7. Test setup photos
8. User's manual
9. Internal photos
10. Parts list and tune-up information
11. RF exposure information
12. Operational description
13. Cover letters

All applications can be submitted to FCC via its OET Laboratory Division electronic filing site at <https://fjalfoss.fcc.gov/oetcf/eas/>. The application begins with the form 731 after which attachments are submitted. The web site automatically provides a fee form 159. Fees can be paid on-line via credit card or by mail using a hard copy of the form. Reviews take 5–10 weeks to complete.

b. FCC Transmit Authorization. Airport authorities or entities approved by the FAA to use Ground Vehicle ADS-B Out Squitter Equipment are required to obtain a license to transmit prior to operating. Title 47 CFR Part 87 governs the licensing and operation of equipment transmitting within aviation frequency bands. The applicable parts of 47 CFR Part 87 and references contained within shall be followed.

Applications for a transmit license can be filed through the FCC's Universal Licensing System (ULS). The ULS can be accessed at <http://wireless.fcc.gov/ULS/index.htm?job=home>. Airport authorities or entities approved by the FAA can apply to operate up to 200 vehicle squitters under a single application. A waiver adopted by the FCC on February 12, 2010 under DA 10-259 governs the use of 1090 MHz extended squitter on vehicles. Applications for a transmit licenses

shall be filed under the station class MOU for Aeronautical Utility Mobile Stations.

Prior to filing with the FCC, the applicant is required to coordinate with the applicable FAA Regional Frequency Management Office (FMO). The Regional FMO will provide a coordination number that should be included in the application to the FCC. Contact information and geographic areas of responsibility can be found at http://www.ntia.doc.gov/files/ntia/publications/d_5_11.pdf

7. Airport Ground Vehicle ADS-B Operational Guidance.

a. Compliance Monitoring/Airport Ground Vehicle ADS-B Performance Compliance. The FAA will perform compliance monitoring throughout the life cycle of the airport ground vehicle ADS-B squitter units.

FAA will perform compliance monitoring of the units at airports where airport ground vehicle ADS-B units are installed. If system performance is degraded such that repair/replacement is required, the QRO will be notified. The airport operator will be notified to cease operating the nonfunctional airport ground vehicle ADS-B unit until the unit is operating within the specified requirements.

b. Airport Requirements. At airports implementing airport ground vehicle ADS-B squitter units, certain limitations will be imposed to maximize the benefits of this system. These limitations include the following:

(1) The FAA will only authorize the use of ADS-B squitter units by airport Operator or entities approved by the FAA and coordinated with the FCC and FAA Spectrum Office.

(2) The FAA will authorize a maximum of 200 total (1090 ES and UAT) airport ground vehicle ADS-B squitter units per location to ensure the performance of other FAA surveillance systems operating on the 1090 MHz frequency is not degraded. While any combination of 200 total units per airport is allowed, the FAA encourages airports to use the UAT units rather than the 1090 ES units due to potential congestion of the 1090 MHz spectrum.

(3) Vehicles equipped with the airport ground vehicle ADS-B squitter units must meet the requirements outlined in FAA-E-3032, Airport Ground Vehicle ADS-B Specification, January 7, 2015.

(4) The operation of aircraft ground vehicle ADS-B squitter units is confined to the airport movement area. For vehicles equipped with 978 MHz UAT squitter units, this includes operations in transit to the movement area. Use of the proper Squitter Transmit Map will ensure compliance with this requirement.

c. Airport Ground Vehicle ADS-B Squitter Unit Maintenance. The FAA will monitor compliance of the airport ground vehicle ADS-B squitter unit with the specification

document through the SBS Compliance Monitor system. Any failures to comply will result in maintenance/replacement of the unit. Any observed issues with the airport ground vehicle ADS-B squitter units at the airport should be reported to FAA, who will in turn report the deficient unit to the local airport operator. The airport operator is responsible for coordinating with the vendor to ensure the airport ground vehicle ADS-B squitter units are repaired or replaced.

d. Obtaining Current Airport Maps. The vendor-supplied user interface software will upload an airport ground vehicle ADS-B squitter transmit map for the airport surface to the airport ground vehicle ADS-B unit. The FAA must supply the vendor and airport with the current squitter transmit map for the airport surface in a .kml format from which the vehicle squitter transmit map for the airport surface should be created and uploaded to the airport ground vehicle ADS-B unit. The squitter transmit map for the airport surface must be used to control the airport ground vehicle ADS-B squitter on/off function of the vehicle unit.

The FAA will provide a website where the current squitter transmit map for the airport surfaces can be downloaded. If there is an updated squitter transmit map for the airport surface, the FAA will notify the airport operator.

e. Radio Call Sign Assignment. The airport ground vehicle ADS-B squitter units will be programmed with the vehicle radio call signs. The radio call signs are used in Air Traffic Control communications and will also be displayed on the ASDE-X display. A call sign is limited to a maximum of eight (8) characters. An example of possible call sign designators are as follows:

- CTYxxx is a city vehicle (xxx is number)
- ARFxxx is the aircraft rescue and fire fighting department vehicle
- FAAxxx is an FAA vehicle
- APTxxx is an airport operator vehicle

f. Vehicle 24-Bit ICAO Code Assignment. Each vehicle that is equipped with an airport ground vehicle ADS-B squitter unit must be uniquely identifiable. This will be accomplished by programming and storing the appropriate 24-bit ICAO identification and vehicle identification information into the unit in accordance with instructions provided by the manufacturer. Airport operators may request a block of 200 24-bit ICAO identification codes from the FAA Aircraft Registration Branch.

The block of 200 ICAO identification codes will enforce the limit of 200 airport ground vehicle ADS-B devices (total of 1090 ES and UAT) per airport.

To obtain the 24-bit ICAO identification codes, approved airport authorities must send a signed and dated letter that indicates the following:

- Request is for airport ground vehicle ADS-B equipment
- Number of 24-bit ICAO codes required
- Point of contact

- Name and address of the airport where equipment will operate

Airports should send their requests to the following addresses:

Via U.S. Postal Service:

Aircraft Registration Branch, AFS-750 PO Box 25504
Oklahoma City OK 73125

Via express courier:

Aircraft Registration Branch, AFS-750 6425 South Denning Ave
Registry Building
Oklahoma City OK 73169
866-762-9434

g. Training. The airport ground vehicle ADS-B equipment manufacturer must provide a detailed training manual as part of the FAA specification compliance process. The FAA will review the training material to ensure all training plans and materials are properly developed for use by the FAA and airports that purchase the equipment.

8. Obtaining FAA and Other Publications.

a. RTCA Documents. Obtain RTCA documents from RTCA, Inc., 1828 L Street NW, Suite 805, Washington DC 20036, (202) 833-9339, or from the RTCA website at <http://www.rtca.org>.

(1) RTCA/DO-260B, Minimum Operational Performance Standards for 1090 MHz Extended Squitter Automatic Dependent Surveillance Broadcast (ADS-B) and Traffic Information Services - Broadcast (TIS-B), December 2, 2009.

(2) RTCA/DO-282B, Minimum Operational Performance Standards for Universal Access Transceiver Automatic Dependent Surveillance - Broadcast Revision B, December 2, 2009.

b. Title 14 of the Code of Federal Regulations (14 CFR), Aeronautics and Space. Obtain copies of 14 CFR Parts 21, 23, 25, 27, 29, 43, and 91 from the Superintendent of Documents, Government Printing Office, PO Box 979050, St. Louis MO 63197. For general information, call 202-512-1800, fax 202-512-2250, or visit <http://www.gpo.gov/fdsys/> (select "Code of Federal Regulations").

(1) 14 CFR Part 91, Automatic Dependent Surveillance-Broadcast (ADS-B) Out Performance Requirements to Support Air Traffic Control (ATC) Service, Final Rule, May 28, 2010, <http://www.gpo.gov/fdsys/pkg/FR-2010-05-28/pdf/2010-12645.pdf>.

c. FAA Advisory Circulars. Access copies of ACs on the FAA website at http://www.faa.gov/regulations_policies/advisory_circulars/.

d. FAA Technical Standard Orders (TSO). Find a current list of technical standard orders at <http://www.airweb.faa.gov/rgl>. You will also find the TSO Index of Articles at the same location.

e. ARINC, Inc. Obtain copies of ARINC documents from ARINC, Inc., 2551 Riva Road, Annapolis MD 21401, 800-633-6882 (telephone), 410-956-5465 (fax), or at <http://www.arinc.com>.

f. SAE International. Order SAE documents from SAE International, 400 Commonwealth Drive, Warrendale PA 15096-0001, 724-776-4970 (telephone), 724-776-0790 (fax) or at <http://www.sae.org>.



Michael J. O'Donnell
Director of Airport Safety and Standards

APPENDIX A. QUALIFIED PRODUCTS

FAA Approved Model Number: FDL-978-GTX/E
Name: V-MAT (Vehicle Movement Area Transmitter)
ADS-B data link: 978 MHz Universal Access Transceiver
Vendor: Harris Corporation
Manufacturer: FreeFlight Systems
Contact: Harris Corporation
(855) 890-5137
CAS@Harris.com
www.symphonycdm.com

FAA Approved Model Number: FDL-978-GTX/A
Name: External Mount VMAT (Vehicle Movement Area Transmitter)
ADS-B data link: 978 MHz Universal Access Transceiver
Manufacturer: FreeFlight Systems
Contact: FreeFlight Systems
(800) 487-4662
info@freeflightsystems.com
www.freeflightsystems.com

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