

ADD-ON

Agenda Item #: 6J-1

PALM BEACH COUNTY
BOARD OF COUNTY COMMISSIONERS
AGENDA ITEM SUMMARY

Meeting Date: 3/23/10 Consent Regular
 Ordinance Public Hearing

Department
Submitted By: Information Systems Services
Submitted For: Countywide GIS

I. EXECUTIVE BRIEF

Motion and Title: Staff recommends motion to approve:

- A) Acceptance of Grant Award No. G10AC00135 from the U.S. Geological Survey (USGS) for \$249,865.58 for grant funds to provide digital ortho mapping by June 30, 2011 under the American Recovery and Reinvestment Act (ARRA) of 2009; and,

- B) A Budget Amendment of \$249,866 in the Information Technology Capital Improvement fund to establish grant budget, contingent upon the grant award.

Summary:

Palm Beach Countywide GIS was approved for ARRA grant monies in the amount of \$249,865.58 under the USGS digital ortho imagery mapping program. A proposal was submitted December 1, 2009 outlining how the Countywide GIS mapping program met grant requirements for USGS priority areas, and Hazard and Ecosystem priority interests. Included with our grant application were letters of support from local public entities that participate in Palm Beach County geographic data sharing partnerships. Grant matching requirements were met through in-kind staff services with no cash match involved. Digital ortho imagery mapping will be completed by Surdex Corporation currently under contract with Palm Beach County. The award documents have been received and must be executed and returned by March 31, 2010. Countywide (PK)

Background and Justification:

On December 1, 2009 a proposal for USGS grant monies was submitted. The grant project period extends through June 30, 2011. In November, 2006, a contract was established with Surdex Corporation to provide mapping services including digital ortho photography which is aerial photos rectified to match the earth's surface location. All Task Orders in excess of \$100,000 must be approved by the Board. The second of three one-year renewal options was approved by the Board of County Commissioners on November 17, 2009. Aerial photographs are updated approximately every two years. This grant will enable Countywide GIS to obtain updated photos without seeking additional funds for this purpose from the Board of County Commissioners during the FY 2011 budget cycle.

Attachments:

- 1. Three (3) Original ARRA Assistance Award documents
- 2. Budget Amendment

Recommended By: Steve Bordelon 3/18/2010
 Department Director Date

Approved By: [Signature] 3/23/10
 County Administrator Date

II. FISCAL IMPACT ANALYSIS

A. Five Year Summary of Fiscal Impact:

Fiscal Years	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>
Capital Expenditures	\$ 249,866	-0-	\$-0-	\$-0-	\$-0-
Operating Costs	-0-	-0-	-0-	-0-	-0-
External Revenues	(\$ 249,866)	-0-	-0-	-0-	-0-
Program Income (County)	-0-	-0-	-0-	-0-	-0-
In-Kind Match (County)	-0-	-0-	-0-	-0-	-0-
NET FISCAL IMPACT	-0-	-0-	-0-	-0-	-0-
#ADDITIONAL FTE POSITIONS (Cumulative)	-0-	-0-	-0-	-0-	-0-

Is Item Included In Current Budget? Yes ___ No X

Budget Account No.: Fund Agency Org. Object

Program Code: _____

B. Recommended Sources of Funds/Historical Summary:

Federal funds through the U.S. Geological Survey

Surdex Task Orders

Task Order #1 \$220,000 (\$110,000 from Property Appraiser)



Task Order #2 \$ 95,600 (from Env. Res. Mgmt. Coastal Monitoring Project)

Total \$315,600

C. Departmental Fiscal Review _____

III. REVIEW COMMENTS

A. OFMB Fiscal and/or Contract Administration Comments:


 _____ OFMB 3/17/10

 _____ Contract Administration 3/19/10
 EJP ne 3/19/10

B. Legal Sufficiency:


 _____ 3/17/10
 Assistant County Attorney

C. Other Department Review:

 Department Director

This summary is not to be used as a basis for payment.

**U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY
ARRA ASSISTANCE AWARD**



1	AWARD TYPE Grant <input checked="" type="checkbox"/> Cooperative Agreement	2	AWARD NUMBER G10AC00135	3	REQUISITION NUMBER 10-RA03-C012 Proposal No. NM-ARRA-0043 ATN: ARRA-NM0004E
4	RECIPIENT Name & Address: Palm Beach County 301 N. Olive Avenue West Palm Beach, CA 33401-4705 Kelly Ratchinsky kratchin@pbcgov.org 561-581-3958 HHS PMS Subaccount Code: G10AC00135		5	ISSUED BY Name & Address: U.S. Geological Survey Office of Acquisition & Grants 12201 Sunrise Valley Drive, MS 205 Reston, VA 20192 Margaret Eastman, Contracting Officer Phone: 703/648-7366 Fax: 703/648-7901 E-Mail: mrussell@usgs.gov	
6	APPLICATION TITLE & DATE <i>Palm Beach County Orthoimagery Mapping, dated December 1, 2009, revised February 8, 2010</i>				
7	AWARD PERIODS Budget Period: 10/01/10 through 06/30/2011 Total Project Period: 10/01/10 through 06/30/2011 Effective Date: 10/01/10		8	FISCAL DATA Federal Share: \$249,865.58 Non-Federal Share: \$0.00 Total Project Cost: \$249,865.58 Appropriation/Object Class: Obligated: 2009/2010-RA03-00I01 SARAD 411C \$249,865.58 DCN: G10AC00135	
9	PRINCIPAL INVESTIGATOR Kelly Ratchinsky kratchin@pbcgov.org Palm Beach County 301 N. Olive Avenue West Palm Beach, CA 33401-4705 561-581-3958		10	USGS PROGRAM OFFICE Teresa Dean tdean@usgs.gov U.S. Geological Survey National Mapping Program 12201 Sunrise Valley Drive, MS511 Reston, VA 20192 (703) 648-4825	
11	ADMINISTRATIVE DATA CFDA Number: 15.817 Program: National Map - ARRA Legislative Authority: 43 USC 36d and the American Recovery and Reinvestment Act of 2009		12	FAADS DATA City Code: 76600 County Code: 099 State Code: 12 Congressional District: 16	
13	AUTHORIZED SIGNATURES				
_____ Recipient's Signature		_____ Date		_____ Contracting Officer's Signature	
_____ TYPED NAME AND TITLE				Margaret Eastman, Contracting Officer TYPED NAME AND TITLE	

APPROVED AS TO FORM
AND LEGAL SUFFICIENCY

Paul F. J.
COUNTY ATTORNEY

APPROVED AS TO TERMS AND CONDITIONS
BY *Steve Bordelon*
ISG DIRECTOR

Cooperative Agreement No. G10AC00135

14. SPECIAL TERMS AND CONDITIONS

A. The recipient's application, being the title and date shown in block 6, is hereby incorporated by reference.

B. This award supports the budget project period as specified in block 7.

C. This award shall be administered in accordance with Attachment A, Special Terms and Conditions, Attachment B General Provisions, and Attachment C, Base Orthoimagery Specification

Special Terms and Conditions

1. Method of Payment

A. Until APRIL 1, 2010 (or until notified by the Contracting Officer), the U. S. Geological Survey (USGS) will use the Department of Health and Human Services (HHS) Payment Management System (PMS) to provide electronic invoicing and payment for assistance award recipients.

(1) The Recipient agrees that it has established or will establish an account with PMS. With the award of each grant/cooperative agreement, a sub-account will be set up from which the Recipient can draw down funds.

(2) Instructions for obtaining payments will be provided to the recipients by HHS. Inquiries regarding payment should be directed to:

Division of Payment Management
 Department of Health and Human Services
 P. O. Box 6021
 Rockville, MD 20852
www.dpm.psc.gov
 Raynette Robinson (301) 443-9180

B. On and after APRIL 1, 2010 (or as notified by the Contracting Officer), the USGS will be using the Department of the Treasury Automated Standard Application for Payments (ASAP) to provide electronic invoicing and payment for assistance award recipients.

(1) The Recipient agrees that it has established or will establish an account with ASAP. With the award of each grant/cooperative agreement, a sub-account will be set up from which the Recipient can draw down funds.

(2) Instructions for obtaining payments will be provided to the recipients by ASAP. Inquiries regarding payment should be directed to: www.asap.gov

Regional Financial Center	Time Zone	Phone Number	Business Hours	Mailing Address
Philadelphia	Eastern	(215) 516-8021	7:30 a.m - 4:00 p.m.	P.O. Box 51317 Philadelphia, PA 19115-6317
Kansas City	Central	(816) 414-2100	7:30 a.m - 4:00 p.m.	P.O. Box 12599-0599 Kansas City, MO 64116-0599
San Francisco	Mountain or Pacific	(510) 594-7182	7:30 a.m - 4:00 p.m.	P.O. Box 24700 Oakland, CA 94623-1700

Payments may be drawn in advance only as needed to meet immediate cash disbursement needs. All payments must be drawn down by September 15, 2011.

2. Definitions

A. Grant Agreement

A grant agreement is the legal instrument reflecting a relationship between the Federal Government and a State or local government or other recipient whenever:

- (1) the principal purpose of the relationship is the transfer of money, property, services, or anything of value to the State or local government or other recipient in order to accomplish a public purpose of support or stimulation authorized by Federal statute, rather than acquisition, by purchase, lease, or barter, of property or services for the direct benefit or use of the Federal Government; and
- (2) no substantial involvement is anticipated between the executive agency, acting for the Federal Government, and the State or local government or other recipient during performance of the contemplated activity.

B. Cooperative Agreement

A cooperative agreement is the legal instrument reflecting a relationship between the Federal Government and a State or local government or other recipient whenever:

- (1) the principal purpose of the relationship is the transfer of money, property, services, or anything of value to the State or local government or other recipient to accomplish a public purpose of support, or stimulation authorized by Federal statute, rather than acquisition, by purchase, lease, or barter, of property or services for the direct benefit or use of the Federal Government; and
- (2) substantial involvement is anticipated between the executive agency, acting for the Federal Government, and State or local government or other recipient during performance of the activity.

C. Grantee/Cooperator

Grantee or cooperator means the nonprofit corporation or other legal entity to which a grant or cooperative agreement is awarded and which is accountable to the Federal Government for the use of the funds provided. The grantee or cooperator is the entire legal entity even if only a particular component of the entity is designated in the award document. For example, a grant or cooperative agreement award document may name as the grantee one school or campus of a university. In this case, the granting agency usually intends, or actually requires, that the named component assume primary or sole responsibility for administering the grant-assisted project or program. Nevertheless, the naming of a component of a legal entity as the grantee or cooperator in a grant or cooperative agreement award document shall not be construed as relieving the whole legal entity from accountability to the Federal Government for the use of the funds provided.

The term "grantee" or "cooperator" does not include secondary recipients such as sub grantees, contractors, etc., who may receive funds from a grantee pursuant to a grant.

D. Recipient

Recipient means grantee or cooperator.

E. Principal Investigator

The Principal Investigator (PI) is the individual designated by the Recipient (and approved by the USGS) who is responsible for the technical direction of the research project. The Principal Investigator cannot be changed or become substantially less involved than was indicated in the Recipient's proposal, without the prior written approval of the Contracting Officer.

F. Grants Program Manager

- (1) The Grants Program Manager will work closely with the Principal Investigator to ensure that all technical requirements are being met. The Grants Program Manager's responsibilities include, but are not limited to, providing technical advice on the accomplishment of the proposal's objectives; reviewing the technical content of reports and the other information delivered to the USGS; determining the adequacy of technical reports; and conducting site visits, in coordination with the Contracting Officer, as frequently as practicable.
- (2) The Grants Program Manager is Teresa Dean, U.S. Geological Survey, MS 511, 12201 Sunrise Valley Drive, Reston, VA 20192. The Program Manager does not have the authority to issue any technical direction which constitutes an assignment of additional work outside the scope of the award; in any manner cause a change in the total cost or the time required for performance of the award; or change any of the terms, conditions, or general provisions of the award.

G. USGS Geospatial Liaison

- (1) A USGS Geospatial Liaison will work closely with the Grants Program Manager and the Principal Investigator to ensure coordination for overall conformance with USGS program goals and objectives. The USGS Geospatial Liaison Network consists of USGS Geospatial Liaisons located in Partnership Offices across the nation. These liaisons and offices perform numerous partnership related functions in support of *The National Map*. They represent and coordinate NGP initiatives in state, local, and other federal agencies, cultivate and maintain long-term relationships, and develop partnerships and supporting agreements. The USGS Geospatial Liaison Network is the "local face" of the NGP. The Liaison's responsibilities include, but are not limited to, providing technical advice on the accomplishment of the proposal's objectives; reviewing the technical content of reports and other information delivered to the USGS; determining the adequacy of the technical reports; and conducting site visits, in coordination with the Grants Program Manager and the Contracting Officer, as frequently as practicable.
- (2) The USGS Geospatial Liaison does not have the authority to issue any technical direction which constitutes an assignment of additional work outside the scope of the award; in any manner causes a change in the total cost or the time required for performance of the award; or changes any of the terms, conditions, or general

provisions of the award.

H. Contracting Officer (CO)

Contracting officers are individuals who have been delegated in writing by the USGS Office of Acquisition and Grants as the sole authority designated to obligate Federal funds and create terms and conditions of awards. They are the only individuals who have authority to negotiate, enter into, and administer awards resulting for this program. Contracting officers have responsibility to ensure the effective use of Federal funds.

Functions of the contracting officer include but are not limited to:

- (1) Issuing the grant program announcement in coordination with the grants program manager.
- (2) Receiving grant proposals and related documents in response to a grant program announcement. The contracting officer as receiving official shall mark all proposals with a control number and the date officially received. He shall notify each applicant of the receipt of its proposal.
- (3) Approving the grant program manager's Technical Evaluation Plan, which describes in detail the evaluation process for a competitive grant/cooperative agreement program. The contracting officer shall ensure the openness and fairness of the evaluation and selection process.
- (4) Serving in an advisory capacity at peer review panel meetings. He shall interpret grant management policies to panel members.
- (5) Notifying grant program applicants whether or not they were selected for funding or of any other disposition of their application.
- (6) Negotiating, as necessary, the final grant/cooperative agreement budget.
- (7) Issuing grant/cooperative agreement awards and revisions to awards.
- (8) Approving invoice payments.
- (9) Receiving all requests for changes to an award. The contracting officer shall serve as the mandatory control point for all official communications with the grantee which may result in changing the amount of the grant/cooperative agreement, the grant/cooperative agreement budget, or any other terms and conditions of the grant.
- (10) Receiving financial reports required by the terms and conditions of the award.
- (11) Closing out grant/cooperative agreement awards when all applicable award requirements have been complied with.

3. Reporting Requirements and Dissemination of Results

Data generated as a part of work funded under this program must be made readily available; there is no provision for PIs to have exclusive access to data for a proprietary period of time.

The USGS reserves a royalty-free, nonexclusive and irrevocable license to reproduce, publish, or otherwise use, and to authorize others to use, the data for Government purposes.

USGS will be substantially involved with the PI(s) and other institution staff throughout the course of the project. It is expected that there will be frequent contact between the USGS Geospatial Liaison and the PI to discuss project progress and issues. Additional USGS staff will be involved in collaborative discussions regarding data specifications and validation, cost estimates, monitoring ARRA reporting, and data delivery schedules. USGS will perform quality control, data processing into national databases, data dissemination and archive of the final product. Teleconferences will be held on a monthly basis to discuss and review project status. Quarterly reports and a final report at the end of the project are required.

-- Continued on Next Page --

A. **Required reports/documents.** The Principal Investigator or Director, Sponsored Research Office is required to submit the following reports or documents:

Report/Document	No. of Copies and Method of Transmittal	Submit To	When Due
(1) ARRA* Reporting	See Section 3.B(1)	See Section 3.B(1)	See Section 3.B(1)
(2) Final Technical Report	Send Adobe Acrobat PDF file as an email attachment; Maximum size: 10 MB	Grants Program Manager	Within 90 calendar days after the end of each 12-month budget period. See details of formatting in section B(2) below.
(3) SF 272 Federal Cash Transactions Report (or its successor SF 425, Federal Financial Report)	Electronic submission	USGS via PMS Electronic 272 System [see Section 3.B(3)]	See Section 3.B(3)
(4) SF 425 Financial Status Report	See Section 3.B(4)	See Section 3.B(4)	See Section 3.B(4)
(5) Final SF 425 Financial Status Report	See Section 3.B(5)	See Section 3.B(5)	See Section 3.B(5)
(6) Quarterly Status Reports	Send Adobe Acrobat PDF file as an email attachment	Grants Program Manager	Within 7 days of the beginning of each quarter.
(7) Elevation Data and Documentation**	Forwarded with final collected and processed data. See Attachment A, Base Lidar Specification: Item C. Products	Grants Program Manager or designated POC per Grants Program Manager	Within 90 days of data collection and processing.
(8) Orthoimagery Data and Documentation**	Forwarded with final collected and processed data. See Attachment B, Base Orthoimagery Specification: Section VI. Products	Grants Program Manager or designated POC per Grants Program Manager	Within 90 days of data collection and processing

* ARRA – American Recovery and Reinvestment Act

** The Not Applicable item will be struck out at time of award, i.e. elevation or orthoimagery.

B. **Report preparation instructions.** The Recipient shall prepare the reports/documents in accordance with the following instructions:

(1) *American Recovery and Reinvestment Act (ARRA) Recipient Reporting*

Recipients of Federal financial awards from funds authorized under ARRA must comply with all requirements specified in ARRA (Public Law 111-005), including reporting requirements outlined in Section 1512 of the Act. The prime recipient is ultimately responsible for the reporting of all data required. Prime recipients may delegate certain reporting requirements to sub-recipients. Vendors are not awarded funds by the same means as sub-recipients and are not subject to the terms and conditions of the Federal financial assistance award.

Not later than ten (10) days after the end of each calendar quarter, starting with the quarter ending September 30, 2009 and reporting by October 10, 2009, the recipient must submit a report to the ARRA central reporting solution at www.FederalReporting.gov containing the following detailed information:

- (a) Total amount of funds received; and of that, the amount spent on projects and activities;
- (b) A list of those projects and activities funded by name to include:
 - o Description
 - o Completion status
 - o Estimates on jobs created or retained;

For infrastructure investments made by State and local governments, the purpose, total costs, rationale for the infrastructure project and contact information of an individual must be provided.

- (c) Detailed information on any sub-awards to include the data elements required to comply with the Federal Funding Accountability and Transparency Act of 2006 (Public Law 109-282). For any sub-awards equal to or larger than \$25,000, the following information:

- o Sub-recipient DUNS
- o Sub-recipient CCR information
- o Sub-recipient type
- o Amount received by sub-recipient
- o Amount awarded to sub-recipient
- o Sub-award date
- o Sub-award period
- o Sub-recipient place of performance
- o Sub-recipient place of benefit
- o Sub-recipient officer names and compensation (Top 5)

- (d) All sub-awards less than \$25,000 or to individuals may be reported in the aggregate, as prescribed by the Department of the Interior.

- (e) Any vendors receiving funds from the prime recipient or sub-recipients for payments greater than \$25,000 must report three additional data elements:
 - DUNS or the Name and zip code of the vendor's headquarters
 - Expenditure amount
 - Expenditure description
- (f) Recipients must account for each ARRA award and sub-award separately. Recipients will draw down funds on an ARRA award by ARRA award basis. Pooling or commingling of ARRA award funds with other funds for drawdown or other purposes is not permitted.
- (g) Recipients must account for each ARRA award by referencing the assigned CFDA number for each award.

The definition of terms and data elements, as well as any specific instructions for reporting, including required formats, are included in the data dictionary contained in the *Recipient Reporting Data Model* available at http://www.whitehouse.gov/omb/assets/memoranda_fy2009/m09-21-sup2.pdf

(2) *Final Technical Report.* The final technical report shall document and summarize the results of the work. Such reports shall contain a comparison of actual accomplishments to the goals established for the period; reasons why established goals were not met, if applicable; and other pertinent information. The final report shall be submitted within 90 calendar days of the end of the project period.

(a) Submit the Final Technical Report electronically as an Adobe Acrobat PDF file e-mail attachment to: XXXX at e-mail (to be completed at time of award), with a copy of the transmittal sent to Margaret Eastman at mrussell@usgs.gov.

(b) Final Technical reports shall consist of the following sections:

- (i) Cover page with the following information:
 - Award Number
 - Title
 - Author and Affiliation with Address and zip code
 - Author's Telephone numbers, fax numbers and E-mail addresses
 - Term covered by the award (start and end dates)
 - Submittal Date of Final Technical Report
- (ii) Abstract
- (iii) Main body of the report shall be single-spaced in 8 1/2" x 11" format. The main body of the report shall be formatted double-sided, including figures and bibliography. Oversized pages should be used only if they are critical to convey data or conclusions. Electronic versions of oversized illustrations are also required to be sent with the electronic version of reports.

(3) *Standard Form 272, Federal Cash Transaction Report* (or its successor SF 425, Federal Financial Report) is required quarterly for each PMS/ASAP subaccount.

Quarterly reports are due 45 days after the end of each fiscal quarter until the final Federal Financial Report is submitted. Instructions for submitting SF 272/SF 425 can be found at the PMS website:

http://www.dpm.psc.gov/grant_recipient/psc_272_reports/psc_272_reports.aspx?explorer.event=true

On and after APRIL 1, 2010 (or as notified by the Contracting Officer), the SF 425 Federal Financial Report must be submitted by mail to <insert contact name and address>.

If after 45 days, recipient has not submitted a report, the account will be placed in a manual review status. Funds may be withheld for accounts with delinquent reports.

(4) *SF425, Federal Financial Report (original)* is required annually and is due 90 calendar days after the end of the annual budget period. Reports will be submitted to the Contracting Officer at the address shown in Block 5 of the award form.

(5) *Final Federal Financial Report*

A. The recipient will liquidate all obligations incurred under the award and submit a final STANDARD FORM 425, FEDERAL FINANCIAL REPORT (which replaces the current SF 269, Financial Status Report) no later than 90 calendar days after the grant/cooperative agreement completion date. Recipient will promptly return any unexpended federal cash advances or will complete a final draw from PMS/ASAP to obtain any remaining amounts due. Once 120 days has passed since the grant/agreement completion date, the PMS/ASAP subaccount for this award may be closed by USGS at any time.

B. Subsequent revision to the final SF 425 will be considered only as follows -

(1) When the revision results in a balance due to the Government, the recipient must submit a revised final Federal Financial Report (SF 425) and refund the excess payment whenever the overcharge is discovered, no matter how long the lapse of time since the original due date of the report.

(2) When the revision represents additional reimbursable costs claimed by the recipient, a revised final SF 425 may be submitted to the Contracting Officer with an explanation. If approved, the USGS will either request and pay a final invoice or reestablish the PMS/ASAP subaccount to permit the recipient to make a revised final draw. Any revised final report representing additional reimbursable amounts must be submitted no later than 1 year from the due date of the original report, i.e., 15 months following the agreement completion date. USGS will not accept any revised SF 425 covering additional expenditures after that date and will return any late request for additional payment to the recipient.

(6) *Quarterly Status Reports:* This is a quarterly status report to the Grants Program Manager. Within 7 days of the beginning of each quarter, a report is to be submitted summarizing the previous quarter's progress. Unless there are significant issues to explain, this report should fit on no more than two pages and outline significant accomplishments. Content should include:

1. *Brief narrative of accomplishments*
2. *Status of contracts with dates (rfp, proposal reviews, award, etc.)*
3. *Percentage of data collection complete*
4. *Percentage of data processing complete*
5. *Work anticipated in following quarter*
6. *Deliveries*
7. *Issues/Difficulties*

(7) *Data and Documentation for Elevation.* ** (Attachment A: Base Lidar Specification)

- (a) No later than 90 days after the collection and processing of the data, the recipient shall submit to the Grants Program Manager or designated POC, the data and all accompanying reports per the specification above as described in Section IV entitled "Products", including the following:

- (1) Metadata
- (2) Raw Point Cloud
- (3) Classified Point Cloud
- (4) Bare Earth Surface (Raster DEM)
- (5) Breaklines
- (6) All reports pertaining to the collection and quality assurance of the data, e.g. final area flown

** The Not Applicable item will be struck out at time of award, i.e. elevation or orthoimagery.

(8) *Data and Documentation for Orthoimagery.* ** (Attachment B: Base Orthoimagery Specification)

- (a) No later than 90 days after the collection and processing of the data, the recipient shall submit to the Grants Program Manager or designated POC, the data and all accompanying reports per the specification above as described in Section VI, Products which includes the following:

- (1) Digital orthorectified imagery and source film if acquired
- (2) Metadata
- (3) Aerotriangulation data
- (4) Elevation data
- (5) Source reports: calibration, camera station control, supplemental ground control, flight diagram, and photography supplemental report

** The Not Applicable item will be struck out at time of award, i.e. elevation or orthoimagery.

C. **Adherence to reporting requirements. A Recipient's failure to submit the required Final Technical Report and final financial report, generally within 6 months of the end date of the award, will likely result in delay or non-issuance of new awards. Failure to submit a Progress Report for multi-year awards will likely result in delayed renewal of funds.**

4. **Adherence to Original Research Objective and Budget Estimate**

A. Any commitments or expenditures incurred by the Recipient in excess of the funds provided by this award shall be the responsibility of the Recipient. Expenditures incurred prior to the effective date of this award cannot be charged against award funds.

B. The following requests for change **require advance written approval by the Contracting Officer shown on your award. Your request must be submitted to the Contracting Officer at least 45 calendar days prior to the requested effective date of the change:**

- (1) Changes in the scope, objective, or key personnel referenced in the Recipient's proposal.
- (2) Request for supplemental funds.
- (3) Transfer of funds between direct cost categories when the cumulative amount of transfers during the project period exceeds 10 percent of the total award.
- (4) Foreign travel not approved at time of award.
- (5) Acquisition of nonexpendable personal property (equipment) not approved at time of award.
- (6) Creation of any direct cost line item not approved at time of award.
- (7) Any other significant change to the award.
- (8) **No-cost Extensions to the Project Period. No-cost extensions are discouraged.** The National Geospatial Program awards cooperative agreements for data collection that extends, supplements, or improves The National Map (TNM) elevation and imagery data holdings within the USGS. The timely conduct of funded projects is of great importance to the achievement of ARRA and TNM goals. Applicants should consider their time commitments at the time of application for a grant. Requests for no-cost extensions will be considered on a case-by-case basis. The USGS reserves the right to limit the length of time and number of no-cost extensions. Please note that no-cost extensions are not intended to be used merely for the purpose of expending unobligated balances. Applicants must supply documentation supporting their request for an extension.

The Recipient **shall include** in the request:

- the cause of the needed extension,
- a description of the remaining work to be completed,
- the proposed new end date, and
- the amount of funds remaining.

A request for an extension that is received by the Contracting Officer after the expiration date shall **not** be honored. Requests for no-cost extensions shall be submitted to the Contracting Officer **at least 45 days** before the grant end date.

C. The Contracting Officer will notify the Recipient in writing within 30 calendar days after receipt of the request for revision or adjustment whether the request has been approved.

5. **Nonexpendable Personal Property**

The recipient shall comply with 2 CFR Part 215, Section 215.34. Title to nonexpendable personal property acquired wholly or in part with Federal funds shall be vested in the Recipient unless otherwise specified in the award document. The Recipient shall retain control and maintain a property inventory of such property as long as there is a need for such property to accomplish the purpose of the project, whether or not the project continues to be supported by Federal funds. When there is no longer a need for such property to accomplish the purpose of the project, the Recipient shall use the property in connection with other Federal awards the Recipient has received. Under no circumstances shall title to such property be vested in a sub-tier recipient. Disposal of nonexpendable personal property shall be in accordance with the applicable OMB circular.

The following equipment shall be vested: Not Applicable

6. **Record Retention Period**

Unless a longer period is requested by the award, a Recipient shall retain all records for 3 years after the end of the project period for which it uses USGS award funds.

7. **Pre-agreement Costs**

Pre-agreement costs are not authorized under this program. Costs must be obligated during the project period.

8. **Site Visits**

Site visits may be made by USGS representatives to review program accomplishments and management control systems and to provide technical assistance, as required.

9. **Metric Conversion (43CFR Sec 12.915)**

All progress and final reports, other reports, or publications produced under this award shall employ the metric system of measurements to the maximum extent practicable. Both metric and inch-pound unit (dual units) may be used if necessary during any transition period(s). However, the recipient may use non-metric measurements to the extent the recipient has supporting documentation that the use of metric measurements is impracticable or is likely to cause significant inefficiencies or loss of markets to the recipient, such as when foreign competitors are producing competing products in non-metric units.

10. **Violation of Award Terms**

If a Recipient materially fails to comply with the terms of the award, the Contracting Officer may suspend, terminate, or take such other remedies as may be legally available and appropriate in the circumstances.

11. Award Closeout

Awards will be closed out once all requirements have been met. Technical and financial reports must be submitted on time as specified in section 3, above. Failure to adhere to the reporting requirements may result in no future awards.

12. Partnership with Grantees/Cooperators

The USGS, through its federal grant/cooperative agreement awards, will collaborate with universities, federal state, local and tribal governments, and private organizations and businesses to provide relevant, timely, objective knowledge and information on natural resources, hazards, and the environment.

13. Buy American Act Notice (43 CFR Sec. 12.710(c))

Pursuant to Section 307(b) of the Department of the Interior (DOI) and Related Agencies Appropriations Act, FY 2000, Public Law 106-113, please be advised on the following:

“In the case of any equipment or product that may be authorized to be purchased with financial assistance provided using funds made available in this Act, it is the sense of the Congress that entities receiving the assistance should, in expending the assistance, purchase only American-made equipment and products.”

14. Buy American - Use of American Iron, Steel, and Manufactured Goods (ARRA Term)

Recipients may not use any funds obligated under this award for the construction, alteration, maintenance, or repair of a public building or public work unless all of the iron, steel, and manufactured goods used in the project are produced in the United States unless the Department of the Interior waives the application of this provision. (ARRA Sec. 1605)

15. Anti-Lobbying (43 CFR Part 18)

The Recipient shall not use any part of the appropriated funds from the Department of the Interior for any activity or the publication or distribution of literature that in any way tends to promote public support or opposition to any legislative proposal on which Congressional action is not complete.

16. Seat Belt Provision (43 CFR Sec. 12.2(e))

Recipients of grants/cooperative agreements and/or sub-awards are encouraged to adopt and enforce on-the-job seat belt use policies and programs for their employees when operating company-owned, rented, or personally owned vehicles. These measures include, but are not limited to, conducting education, awareness, and other appropriated programs for their employees about the importance of wearing seat belts and the consequences of not wearing them.

17. Whistleblower Protection (ARRA Term)

Each recipient or sub-recipient awarded funds made available under the ARRA shall promptly refer to the Department of the Interior, Office of Inspector General any credible evidence that a principal, employee, agent, contractor, sub-recipient, subcontractor, or other

person has submitted a false claim under the False Claims Act or has committed a criminal or civil violation of laws pertaining to fraud, conflict of interest, bribery, gratuity, or similar misconduct involving those funds. (ARRA Sec. 1553) The Department of the Interior, Office of Inspector General can be reached at 1-800-424-5081 or via e-mail at <http://www.oig.Department.gov/fraud/hotline/>

18. No Endorsement Provision (43 CFR 12.2(d))

[Paragraph (B) applies to all awards. The remainder of this provision applies only when:

(1) the principal purpose of the agreement is a partnership where the recipient/partner contributes resources to promote agency programs or publicize agency activities, assists in fundraising, or provides assistance to the agency; and

(2) the agreement authorizes joint dissemination of information and promotion of activities being supported; and

(3) the recipient is not a State government, a local government, or a Federally-recognized Indian tribal government.]

(A) Recipient shall not publicize or otherwise circulate, promotional material (such as advertisements, sales brochures, press releases, speeches, still and motion pictures, articles, manuscripts or other publications) which states or implies governmental, Departmental, bureau, or government employee endorsement of a product, service, or position which the recipient represents. No release of information relating to this award may state or imply that the Government approves of the recipient's work products, or considers the recipient's work product to be superior to other products or services.

(B) All information submitted for publication or other public releases of information regarding this project shall carry the following disclaimer:

The views and conclusions contained in this document are those of the authors and should not be interpreted as representing the opinions or policies of the U.S. Government. Mention of trade names or commercial products does not constitute their endorsement by the U.S. Government.

(C) Recipient must obtain prior Government approval for any public information releases concerning this award which refer to the Department of the Interior or any bureau or employee (by name or title). The specific text, layout photographs, etc. of the proposed release must be submitted with the request for approval.

(D) A recipient further agrees to include this provision in a sub-award to any sub-recipient, except for a sub-award to a State government, a local government, or to a Federally-recognized Indian tribal government.

19. Use of U.S. Flag Air Carriers

Any air transportation to, from, between or within a country other than the U.S. of persons or property, the expense of which will be paid in whole or in part by U.S Government funding, must be performed by, or under a code-sharing arrangement with, a U.S. flag air carrier if service provided by such a carrier is "available" (49 U.S.C. 40118, commonly referred to as

the Fly America Act). Tickets (or documentation for electronic tickets) must identify the U.S. flag air carrier's designator code and flight number. See the Federal Travel Regulation §301-10.131 - §301-10.143 for definitions, exceptions, and documentation requirements. (See also Comp. Gen. Decision B-240956, dated September 25, 1991.)

20. DUNS/CCR (ARRA Term)

Recipients must require that first tier sub-recipients begin planning activities, including obtaining a DUNS number (or updating the existing DUNS record), and registering with the Central Contractor Registration (CCR) no later than the first time ARRA data requirements are due.

21. Activities on Private and Other Non-Federal Lands

[Paragraph B applies to all awards. The remainder of this provision applies only when the award involves funds appropriated to the biological research activity of the USGS.]

A. Funds provided for the biological research activity in USGS annual appropriations may not be used to conduct surveys on private property, unless specifically authorized in writing by the property owner.

(i) Accordingly, the recipient shall not enter non-Federal real property for the purpose of collecting information regarding the property, unless the owner of the property has –

- consented in writing to the entry;
- been provided notice of that entry; and
- been notified that any raw data collected from the property must be made available at no costs, if requested by the land owner.

(ii) In this provision, the term “recipient” includes any person that is an officer, employee, or agent of the recipient, including a person acting pursuant to a contract or sub-agreement.

B. The recipient shall comply with applicable State, local, and Tribal government laws, including laws relating to private property rights.

The Recipient shall comply with applicable State, local, and Tribal government laws, including laws relating to private property rights.

22. National Environmental Policy Act (NEPA) Requirements

The USGS has determined that the work to be performed under this grant qualifies for a categorical exclusion under the National Environmental Policy Act (NEPA). However, if the project requires any field work, such as the installation of a ground control station, the work must avoid all sensitive natural resource and unique geographic features such as historic or cultural resources; properties listed, or eligible for listing, on the National Register of Historic Places; park, recreation or refuge lands; wilderness areas; wild or scenic rivers; national natural landmarks; sole or principal drinking water aquifers; prime farmlands; wetlands (Executive Order 11990); floodplains (Executive Order 11988); national monuments; migratory birds; species listed, or proposed to be listed, on the List of Endangered or Threatened Species or have significant impacts on designated Critical Habitat

for these species; and other ecologically significant or critical areas. If sensitive natural resource and unique geographic features cannot be avoided, the applicant shall notify the USGS Grants Program Manager before taking any action.

23. Access to Research Data

A. By regulation (43 CFR 12.936), recipients that are institutions of higher education, hospitals, or non-profit organizations are required to release research data first produced in a project supported with Federal funds that are cited publicly and officially by a Federal agency in support of an action that has the force and effect of law (e.g., regulations and administrative orders). "Research data" is defined as the recorded factual material commonly accepted in the scientific community as necessary to validate research findings. It does not include preliminary analyses; drafts of scientific papers; plans for future research; peer reviews; communications with colleagues; physical objects (e.g., laboratory samples, audio or video tapes); trade secrets; commercial information; materials necessary to be held confidential by a researcher until publication in a peer-reviewed journal; information that is protected under the law (e.g., intellectual property); personnel and medical files and similar files, the disclosure of which would constitute an unwarranted invasion of personal privacy; or information that could be used to identify a particular person in a research study.

B. These requirements do not apply to commercial organizations or to research data produced by State or local governments. However, if a State or local governmental grantee contracts with an educational institution, hospital, or non-profit organization, and the contract results in covered research data, those data are subject to these disclosure requirements.

C. Requests for the release of research data subject to this policy are required to be made to USGS, which will handle them as FOIA requests under 43 CFR 2.25. If the data are publicly available, the requestor will be directed to the public source. Otherwise, the USGS Contracting Officer/Grants Officer, in consultation with the affected recipient and the PI, will handle the request. This policy also provides for assessment of a reasonable fee to cover recipient costs as well as (separately) the USGS costs of responding.

24. Trafficking in Persons (22 U.S.C. § 7104(g))

A. Provisions applicable to a recipient that is a private entity.

(i) You as the recipient, your employees, sub-recipients under this award, and sub-recipients' employees may not--

(a) Engage in severe forms of trafficking in persons during the period of time that the award is in effect;

(b) Procure a commercial sex act during the period of time that the award is in effect; or

(c) Use forced labor in the performance of the award or sub-awards under the award.

(ii) We as the Federal awarding agency may unilaterally terminate this award, without penalty, if you or a sub-recipient that is a private entity --

(a) Is determined to have violated a prohibition in paragraph a.1 of this award term; or

(b) Has an employee who is determined by the agency official authorized to terminate the award to have violated a prohibition in paragraph a.1 of this award term through conduct that is either—

1. Associated with performance under this award; or
2. Imputed to you or the sub-recipient using the standards and due process for imputing the conduct of an individual to an organization that are provided in 2 CFR part 180, “OMB Guidelines to Agencies on Government-wide Debarment and Suspension (Non-procurement),” as implemented by our agency at 43 CFR Part 42.

B. Provisions applicable to a recipient other than a private entity. We as the Federal awarding agency may unilaterally terminate this award, without penalty, if a sub-recipient that is a private entity --

(i) Is determined to have violated a prohibition in paragraph a.1 of this award term; or

(ii) Has an employee who is determined by the agency official authorized to terminate the award to have violated a prohibition in paragraph a.1 of this award term through conduct that is either—

- (a) Associated with performance under this award; or
- (b) Imputed to you or the sub-recipient using the standards and due process for imputing the conduct of an individual to an organization that are provided in 2 CFR part 180, “OMB Guidelines to Agencies on Government-wide Debarment and Suspension (Non-procurement),” as implemented by our agency at 43 CFR Part 42.

C. Provisions applicable to any recipient.

(i) You must inform us immediately of any information you receive from any source alleging a violation of a prohibition in paragraph a.1 of this award term.

(ii) Our right to terminate unilaterally that is described in paragraph a.2 or b of this section:

- (a) Implements section 106(g) of the Trafficking Victims Protection Act of 2000 (TVPA), as amended (22 U.S.C. 7104(g)), and
- (b) Is in addition to all other remedies for noncompliance that are available to us under this award.

(iii) You must include the requirements of paragraph a.1 of this award term in any sub-award you make to a private entity.

D. Definitions. For purposes of this award term:

(i) “Employee” means either:

- (a) An individual employed by you or a sub-recipient who is engaged in the performance of the project or program under this award; or
- (b) Another person engaged in the performance of the project or program under this award and not compensated by you including, but not limited to, a volunteer or individual whose services are contributed by a third party as an in-kind contribution toward cost sharing or matching requirements.

(ii) “Forced labor” means labor obtained by any of the following methods: the recruitment, harboring, transportation, provision, or obtaining of a person for labor or services, through the use of force, fraud, or coercion for the purpose of subjection to involuntary servitude, peonage, debt bondage, or slavery.

(iii) "Private entity":

(a) Means any entity other than a State, local government, Indian tribe, or foreign public entity, as those terms are defined in 2 CFR 175.25.

(b) Includes:

1. A nonprofit organization, including any nonprofit institution of higher education, hospital, or tribal organization other than one included in the definition of Indian tribe at 2 CFR 175.25(b).
2. A for-profit organization.

(iv) Severe forms of trafficking in persons," "commercial sex act," and "coercion" have the meanings given at section 103 of the TVPA, as amended (22 U.S.C. 7102).

25. Research Integrity

A. USGS requires that all grant or cooperative agreement recipient organizations adhere to the Federal Policy on Research Misconduct, Office of Science and Technology Policy, December 6, 2001, 65 Federal Register (FR) 76260, http://www.ostp.gov/html/001207_3.html. The Federal Policy on Research Misconduct outlines requirements for addressing allegations of research misconduct, including the investigation, adjudication, and appeal of allegations of research misconduct and the implementation of appropriate administrative actions.

B. The recipient must promptly notify the USGS Project Office when research misconduct that warrants an investigation pursuant to the Federal Policy on Research Misconduct is alleged.

26. Fiscal Integrity

The recipient will notify the USGS Contracting Officer/Grants officer of any significant problems relating to the administrative or financial aspects of the award, such as misappropriation of Federal funds.

27. Program Income

A. The recipient will have no obligation to the Federal Government for program income earned from license fees and royalties for copyrighted material, in accordance with 43 CFR 12.924(h) (for A-110 recipients) or 43 CFR 12.65(e) (for A-102 recipients).

B. If a purpose of this award is to support a conference, symposium, or similar event, income related to that event will be deducted from total allowable costs to determine the net allowable costs before calculating the Government's share of reimbursable costs, as provided in 3 CFR 12.65(g)(1) (for A-102 recipients) or 43 CFR 12.924(b)(3) (for A-110 recipients).

C. If the recipient is an educational institution or nonprofit research organization, any other program income will be added to funds committed to the project by the Federal awarding agency and recipient and be used to further eligible project or program objectives, as described in 43 CFR 12.924(b)(1).

D. For all other types of recipients, any other program income will be deducted from total allowable costs to determine the net allowable costs before calculating the Government's share of reimbursable costs, as provided in 3 CFR 12.65(g)(1) (for A-102 recipients) or 43 CFR 12.924(b)(3) (for A-110 recipients).

28. Wage Rate Requirements (ARRA Term)

Subject to further clarification issued by the Office of Management and Budget and notwithstanding any other provision of law and in a manner consistent with other provisions of ARRA, all laborers and mechanics employed by contractors and subcontractors on projects funded directly by or assisted in whole or in part by and through the Federal Government pursuant to this award shall be paid wages at rates not less than those prevailing on projects of a character similar in the locality as determined by the Secretary of Labor in accordance with subchapter IV of chapter 31 of title 40, United States Code. With respect to the labor standards specified in this section, the Secretary of Labor shall have the authority and functions set forth in Reorganization Plan Numbered 14 of 1950 (64 Stat. 1267; 5 U.S.C. App.) and section 3145 of title 40, United States Code. (ARRA Sec. 1606)

29. Schedule of Expenditures of Federal Awards (ARRA Term)

Recipients agree to separately identify the expenditures for each grant award funded under ARRA on the Schedule of Expenditures of Federal Awards (SEFA) and the Data Collection Form (SF-SAC) required by Office of Management and Budget Circular A-133, "Audits of States, Local Governments, and Non-Profit Organizations." This identification on the SEFA and SF-SAC shall include the Federal award number, the Catalog of Federal Domestic Assistance (CFDA) number, and amount such that separate accountability and disclosure is provided for ARRA funds by Federal award number consistent with the recipient reports required by ARRA Section 1512(c).

30. Responsibilities for Informing Sub-recipients (ARRA Term)

Recipients agree to separately identify to each sub-recipient, and document at the time of sub-award and at the time of disbursement of funds, the Federal award number, CFDA number, and amount of ARRA funds.

31. 2 CFR §176.50 Award term--Reporting and Registration Requirements under Section 1512 of the American Recovery and Reinvestment Act, Public Law 111-5

(a) This award requires the recipient to complete projects or activities which are funded under the American Recovery and Reinvestment Act of 2009 ("Recovery Act") and to report on use of Recovery Act funds provided through this award. Information from these reports will be made available to the public.

(b) The reports are due no later than ten calendar days after each calendar quarter in which the recipient receives the assistance award funded in whole or in part by the Recovery Act.

(c) Recipients and their first-tier recipients must maintain current registrations in the Central Contractor Registration (www.ccr.gov) at all times during which they have active federal awards funded with Recovery Act funds. A Dun and Bradstreet Data Universal Numbering System (DUNS) Number (www.dnb.com) is one of the requirements for registration in the Central Contractor Registration.

(d) The recipient shall report the information described in section 1512(c) using the reporting instructions and data elements that will be provided online at www.FederalReporting.gov and ensure that any information that is pre-filled is corrected or updated as needed.

32. 2 CFR §176.140 Award term- Required Use of American Iron, Steel, and Manufactured Goods—Section 1605 of the American Recovery and Reinvestment Act of 2009

(a) **Definitions.** As used in this award term and condition—

“Manufactured good” means a good brought to the construction site for incorporation into the building or work that has been--

(1) Processed into a specific form and shape; or

(2) Combined with other raw material to create a material that has different properties than the properties of the individual raw materials.

“Public building” and “public work” means a public building of, and a public work of, a governmental entity (the United States; the District of Columbia; commonwealths, territories, and minor outlying islands of the United States; State and local governments; and multi-State, regional, or interstate entities which have governmental functions). These buildings and works may include, without limitation, bridges, dams, plants, highways, parkways, streets, subways, tunnels, sewers, mains, power lines, pumping stations, heavy generators, railways, airports, terminals, docks, piers, wharves, ways, lighthouses, buoys, jetties, breakwaters, levees, and canals, and the construction, alteration, maintenance, or repair of such buildings and works.

“Steel” means an alloy that includes at least 50 percent iron, between .02 and 2 percent carbon, and may include other elements.

(b) *Domestic preference.*

(1) This award term and condition implements Section 1605 of the American Recovery and Reinvestment Act of 2009 (Recovery Act)(Pub. L. 111-5), by requiring that all iron, steel, and manufactured goods used in the project are produced in the United States except as provided in paragraph (b)(3) and (b)(4) of this term and condition.

(2) This requirement does not apply to the material listed by the Federal Government as follows: none.

(3) The award official may add other iron, steel, and/or manufactured goods to the list in paragraph (b)(2) of this term and condition if the Federal government determines that—

(i) The cost of the domestic iron, steel, and/or manufactured goods would be unreasonable. The cost of domestic iron, steel, or manufactured goods used in the project is unreasonable when the cumulative cost of such material will increase the cost of the overall project by more than 25 percent;

(ii) The iron, steel, and/or manufactured good is not produced, or manufactured in the United States in sufficient and reasonably available quantities and of a satisfactory quality; or

(iii) The application of the restriction of section 1605 of the Recovery Act would be inconsistent with the public interest.

(c) *Request for determination of inapplicability of Section 1605 of the Recovery Act.*

(1)(i) Any recipient request to use foreign iron, steel, and/or manufactured goods in accordance with paragraph (b)(3) of this term and condition shall include adequate information for Federal Government evaluation of the request, including—

- (A) A description of the foreign and domestic iron, steel, and/or manufactured goods;
 - (B) Unit of measure;
 - (C) Quantity;
 - (D) Cost;
 - (E) Time of delivery or availability;
 - (F) Location of the project;
 - (G) Name and address of the proposed supplier; and
 - (H) A detailed justification of the reason for use of foreign iron, steel, and/or manufactured goods cited in accordance with paragraph (b)(3) of this term and condition.
- (ii) A request based on unreasonable cost shall include a reasonable survey of the market and a completed cost comparison table in the format in paragraph (d) of this term and condition.
- (iii) The cost of iron, steel, and/or manufactured goods material shall include all delivery costs to the construction site and any applicable duty.
- (iv) Any recipient request for a determination submitted after Recovery Act funds have been obligated for a project for construction, alteration, maintenance, or repair shall explain why the recipient could not reasonably foresee the need for such determination and could not have requested the determination before the funds were obligated. If the recipient does not submit a satisfactory explanation, the award official need not make a determination.

(2) If the Federal government determines after funds have been obligated for a project for construction, alteration, maintenance, or repair that an exception to section 1605 of the Recovery Act applies, the award official will amend the award to allow use of the foreign iron, steel, and/or relevant manufactured goods. When the basis for the exception is non-availability or public interest, the amended award shall reflect adjustment of the award amount, redistribution of budgeted funds, and/or other actions taken to cover costs associated with acquiring or using the foreign iron, steel, and/or relevant manufactured goods. When the basis for the exception is the unreasonable cost of the domestic iron, steel, or manufactured goods, the award official shall adjust the award amount or redistribute budgeted funds by at least the differential established in 2 CFR 176.110(a).

(3) Unless the Federal Government determines that an exception to section 1605 of the Recovery Act applies, use of foreign iron, steel, and/or manufactured goods is noncompliant with section 1605 of the American Recovery and Reinvestment Act.

(d) Data. To permit evaluation of requests under paragraph (b) of this term and condition based on unreasonable cost, the Recipient shall include the following information and any applicable supporting data based on the survey of suppliers: FOREIGN AND DOMESTIC ITEMS COST COMPARISON			
Description	Unit of Measure	Quantity	Cost (Dollars)*
Item 1:			
Foreign steel, iron, or manufactured good	_____	_____	_____

33. 2 CFR §176.160 Award term- Required Use of American Iron, Steel, and Manufactured Goods (covered under International Agreements)—Section 1605 of the American Recovery and Reinvestment Act of 2009

(a) **Definitions.** As used in this award term and condition—

“Designated country” --

(1) A World Trade Organization Government Procurement Agreement country (Aruba, Austria, Belgium, Bulgaria, Canada, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hong Kong, Hungary, Iceland, Ireland, Israel, Italy, Japan, Korea (Republic of), Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Singapore, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, and United Kingdom);

(2) A Free Trade Agreement (FTA) country (Australia, Bahrain, Canada, Chile, Costa Rica, Dominican Republic, El Salvador, Guatemala, Honduras, Israel, Mexico, Morocco, Nicaragua, Oman, Peru, or Singapore); or

(3) A United States-European Communities Exchange of Letters (May 15, 1995) country: Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovak Republic, Slovenia, Spain, Sweden, and United Kingdom.

“Designated country iron, steel, and/or manufactured goods” --

(1) Is wholly the growth, product, or manufacture of a designated country; or

(2) In the case of a manufactured good that consist in whole or in part of materials from another country, has been substantially transformed in a designated country into a new and different manufactured good distinct from the materials from which it was transformed.

"Domestic iron, steel, and/or manufactured good" --

(1) Is wholly the growth, product, or manufacture of the United States; or

(2) In the case of a manufactured good that consists in whole or in part of materials from another country, has been substantially transformed in the United States into a new and different manufactured good distinct from the materials from which it was transformed. There is no requirement with regard to the origin of components or subcomponents in manufactured goods or products, as long as the manufacture of the goods occurs in the United States.

“Foreign iron, steel, and/or manufactured good” means iron, steel and/or manufactured good that is not domestic or designated country iron, steel, and/or manufactured good.

“Manufactured good” means a good brought to the construction site for incorporation into the building or work that has been--

(1) Processed into a specific form and shape; or

(2) Combined with other raw material to create a material that has different properties than the properties of the individual raw materials.

“Public building” and “public work” means a public building of, and a public work of, a governmental entity (the United States; the District of Columbia; commonwealths, territories, and minor outlying islands of the United States; State and local governments; and multi-State, regional, or interstate entities which have governmental functions). These buildings and works may include, without limitation, bridges, dams, plants, highways, parkways, streets, subways, tunnels, sewers, mains, power lines, pumping stations, heavy generators, railways, airports,

terminals, docks, piers, wharves, ways, lighthouses, buoys, jetties, breakwaters, levees, and canals, and the construction, alteration, maintenance, or repair of such buildings and works. "Steel" means an alloy that includes at least 50 percent iron, between .02 and 2 percent carbon, and may include other elements.

(b) *Iron, steel, and manufactured goods.*

(1) This award term and condition implements

(i) Section 1605(a) of the American Recovery and Reinvestment Act of 2009 (Pub. L. 111-5) (Recovery Act), by requiring that all iron, steel, and manufactured goods used in the project are produced in the United States; and

(ii) Section 1605(d), which requires application of the Buy American requirement in a manner consistent with U.S. obligations under international agreements. The restrictions of section 1605 of the Recovery Act do not apply to designated country iron, steel, and/or manufactured goods. The Buy American requirement in section 1605 shall not be applied where the iron, steel or manufactured goods used in the project are from a Party to an international agreement that obligates the recipient to treat the goods and services of that Party the same as domestic goods and services. This obligation shall only apply to projects with an estimated value of \$7,443,000 or more.

(2) The recipient shall use only domestic or designated country iron, steel, and manufactured goods in performing the work funded in whole or part with this award, except as provided in paragraphs (b)(3) and (b)(4) of this term and condition.

(3) The requirement in paragraph (b)(2) of this term and condition does not apply to the iron, steel, and manufactured goods listed by the Federal Government as follows: none.

(4) The award official may add other iron, steel, and manufactured goods to the list in paragraph (b)(3) of this award term and condition if the Federal government determines that—

(i) The cost of domestic iron, steel, and/or manufactured goods would be unreasonable. The cost of domestic iron, steel, and/or manufactured goods used in the project is unreasonable when the cumulative cost of such material will increase the overall cost of the project by more than 25 percent;

(ii) The iron, steel, and/or manufactured goods is not produced, or manufactured in the United States in sufficient and reasonably available commercial quantities of a satisfactory quality; or

(iii) The application of the restriction of section 1605 of the Recovery Act would be inconsistent with the public interest.

(c) *Request for determination of inapplicability of section 1605 of the Recovery Act or the Buy American Act.*

(1)(i) Any recipient request to use foreign iron, steel, and/or manufactured goods in accordance with paragraph(b)(4) of this term and condition shall include adequate information for Federal Government evaluation of the request, including—

- (A) A description of the foreign and domestic iron, steel, and/or manufactured goods;
- (B) Unit of measure;
- (C) Quantity;
- (D) Cost;

- (E) Time of delivery or availability;
 - (F) Location of the project;
 - (G) Name and address of the proposed supplier; and
 - (H) A detailed justification of the reason for use of foreign iron, steel, and/or manufactured goods cited in accordance with paragraph (b)(4) of this term and condition.
- (ii) A request based on unreasonable cost shall include a reasonable survey of the market and a completed cost comparison table in the format in paragraph (d) of this term and condition.
- (iii) The cost of iron, steel, or manufactured goods shall include all delivery costs to the construction site and any applicable duty.
- (iv) Any recipient request for a determination submitted after Recovery Act funds have been obligated for a project for construction, alteration, maintenance, or repair shall explain why the recipient could not reasonably foresee the need for such determination and could not have requested the determination before the funds were obligated. If the recipient does not submit a satisfactory explanation, the award official need not make a determination.

(2) If the Federal government determines after funds have been obligated for a project for construction, alteration, maintenance, or repair that an exception to section 1605 of the Recovery Act applies, the award official will amend the award to allow use of the foreign iron, steel, and/or relevant manufactured goods. When the basis for the exception is nonavailability or public interest, the amended award shall reflect adjustment of the award amount, redistribution of budgeted funds, and/or other appropriate actions taken to cover costs associated with acquiring or using the foreign iron, steel, and/or relevant manufactured goods.. When the basis for the exception is the unreasonable cost of the domestic iron, steel, or manufactured goods, the award official shall adjust the award amount or redistribute budgeted funds, as appropriate, by at least the differential established in 2 CFR 176.110(a).

(3) Unless the Federal Government determines that an exception to the section 1605 of the Recovery Act applies, use of foreign iron, steel, and/or manufactured goods other than designated country iron, steel, and/or manufactured goods is noncompliant with the applicable Act.

(d) Data. To permit evaluation of requests under paragraph (b) of this term and condition based on unreasonable cost, the applicant shall include the following information and any applicable supporting data based on the survey of suppliers: FOREIGN AND DOMESTIC ITEMS COST COMPARISON			
Description	Unit of Measure	Quantity	Cost (Dollars)*
Item 1:			
Foreign steel, iron, or manufactured good			
Domestic steel, iron, or manufactured good			
Item 2:			
Foreign steel, iron, or manufactured good			
Domestic steel, iron, or manufactured good			
[List name, address, telephone number, email address, and contact for suppliers surveyed. Attach copy of response; if oral, attach summary.]			
[Include other applicable supporting information.]			
[* Include all delivery costs to the construction site.]			

34. 2 CFR §176.190 Award term- Wage Rate Requirements under Section 1606 of the Recovery Act

(a) Section 1606 of the Recovery Act requires that all laborers and mechanics employed by contractors and subcontractors on projects funded directly by or assisted in whole or in part by

and through the Federal Government pursuant to the Recovery Act shall be paid wages at rates not less than those prevailing on projects of a character similar in the locality as determined by the Secretary of Labor in accordance with subchapter IV of chapter 31 of title 40, United States Code.

Pursuant to Reorganization Plan No. 14 and the Copeland Act, 40 U.S.C. 3145, the Department of Labor has issued regulations at 29 CFR Parts 1, 3, and 5 to implement the Davis-Bacon and related Acts. Regulations in 29 CFR 5.5 instruct agencies concerning application of the standard Davis-Bacon contract clauses set forth in that section. Federal agencies providing grants, cooperative agreements, and loans under the Recovery Act shall ensure that the standard Davis-Bacon contract clauses found in 29 CFR 5.5(a) are incorporated in any resultant covered contracts that are in excess of \$2,000 for construction, alteration or repair (including painting and decorating).

(b) For additional guidance on the wage rate requirements of section 1606, contact your awarding agency. Recipients of grants, cooperative agreements and loans should direct their initial inquiries concerning the application of Davis-Bacon requirements to a particular federally assisted project to the Federal agency funding the project. The Secretary of Labor retains final coverage authority under Reorganization Plan Number 14.

35. 2 CFR §176.210 Award term- Recovery Act Transactions listed in Schedule of Expenditures of Federal Awards and Recipient Responsibilities for Informing Sub-recipients

(a) To maximize the transparency and accountability of funds authorized under the American Recovery and Reinvestment Act of 2009 (Public Law 111-5)(Recovery Act) as required by Congress and in accordance with 2 CFR 215, subpart __. 21 "Uniform Administrative Requirements for Grants and Agreements" and OMB A-102 Common Rules provisions, recipients agree to maintain records that identify adequately the source and application of Recovery Act funds.

(b) For recipients covered by the Single Audit Act Amendments of 1996 and OMB Circular A-133, "Audits of States, Local Governments, and Non-Profit Organizations," recipients agree to separately identify the expenditures for Federal awards under the Recovery Act on the Schedule of Expenditures of Federal Awards (SEFA) and the Data Collection Form (SF-SAC) required by OMB Circular A-133. This shall be accomplished by identifying expenditures for Federal awards made under Recovery Act separately on the SEFA, and as separate rows under Item 9 of Part III on the SF-SAC by CFDA number, and inclusion of the prefix "ARRA-" in identifying the name of the Federal program on the SEFA and as the first characters in Item 9d of Part III on the SF-SAC.

(c) Recipients agree to separately identify to each sub-recipient, and document at the time of sub-award and at the time of disbursement of funds, the Federal award number, CFDA number, and amount of Recovery Act funds. When a recipient awards Recovery Act funds for an existing program, the information furnished to sub-recipients shall distinguish the sub-awards of incremental Recovery Act funds from regular sub-awards under the existing program.

(d) Recipients agree to require their sub-recipients to include on their SEFA information to specifically identify Recovery Act funding similar to the requirements for the recipient SEFA described above. This information is needed to allow the recipient to properly monitor sub-

recipient expenditure of ARRA funds as well as oversight by the Federal awarding agencies, Offices of Inspector General and the Government Accountability Office.

36. Prohibition on Text Messaging and Using Electronic Equipment Supplied by the Government while Driving

Executive Order 13513, Federal Leadership On Reducing Text Messaging While Driving, was signed by President Barack Obama on October 1, 2009 (ref.:<http://edocket.access.gpo.gov/2009/pdf/E9-24203.pdf>). This executive order introduces a Federal Government-wide prohibition on the use of text messaging while driving on official business or while using Government-supplied equipment. Additional guidance enforcing the ban will be issued at a later date. In the meantime, please adopt and enforce policies that immediately ban text messaging while driving company-owned or rented vehicles or GOV, or while driving POV when on official Government business or when performing any work for or on behalf of the Government.

37. Other Standard Terms and Conditions

All other grant policy terms and conditions contained in applicable Department of the Interior Grant Policy Statements apply unless they conflict or are superseded by the following terms and conditions implementing the American Recovery and Reinvestment Act of 2009 (ARRA) requirements below. Recipients are responsible for contacting their grant managers for any needed clarifications. Sub-awards include sub-grants and sub-contracts issued from this award.

Attachment B

COST PRINCIPLES, AUDIT, AND ADMINISTRATIVE REQUIREMENTS

The Recipient shall be subject to the following OMB circulars and regulations, which are incorporated herein by reference. Copies of these Circulars can be obtained from the Internet at:

<http://www.whitehouse.gov/omb/circulars/index.html>.

I. OMB Circulars and Regulations

A. Educational Institutions

- 2 CFR 220, Cost Principles for Educational Institutions (OMB Circular No. A-21)
- OMB Circular No. A-110, Uniform Administrative Requirements for Grants and Other Agreements with Institutions of Higher Education, hospitals, and Other Non-profit Organizations, as implemented in 2 CFR 215 and 43 CFR Part 12, Subpart F.
- OMB Circular No. A-133, Audits of States, Local Governments and Non-Profit Organizations, as implemented in 43 CFR Part 12, Subpart A: Administrative and Audit Requirements and Cost Principles for Assistance Programs

B. State and Local Governments

- 2 CFR 225, Cost Principles for State, Local, and Indian Tribal Governments (OMB Circular A-87)
- OMB Circular A-102, Grants and Cooperative Agreements with State and Local Governments; as implemented in 43 CFR Part 12, Subpart C
- OMB Circular No. A-133, Audits of States, Local Governments and Non-Profit Organizations, as implemented in 43 CFR Part 12, Subpart A: Administrative and Audit Requirements and Cost Principles for Assistance Programs

II. ADDITIONAL REGULATIONS: This award is subject to the following additional Government-wide regulations:

- (1) 2 CFR 180, Government Debarment and Suspension (Non-procurement)
- (2) 2 CFR 1400, Department of the Interior Non-procurement Debarment and Suspension

This award is subject to the following additional regulations of the U.S. Department of the Interior:

- (3) 43 CFR Part 12, Subpart E: Buy American Requirements for Assistance Programs
- (4) 43 CFR Part 17, Subpart A: Nondiscrimination on the Basis of Race, Color, or National Origin
- (5) 43 CFR Part 17, Subpart B: Nondiscrimination on the Basis of Handicap
- (6) 43 CFR Part 17, Subpart C: Nondiscrimination on the Basis of Age
- (7) 43 CFR Part 17, Subpart E: Enforcement of Nondiscrimination on the Basis of Handicap in Programs or Activities Conducted by the Department of the Interior
- (8) 43 CFR Part 18, New Restrictions on Lobbying
- (9) 43 CFR Part 41, Nondiscrimination on the basis of sex in education programs or activities receiving Federal financial assistance [*Applies only if this award provides assistance to an education program or student(s).*]
- (10) 43 CFR Part 43, Government-wide Requirements for Drug Free Workplace

Base Orthoimagery Specification
For projects funded under the
American Recovery and Reinvestment Act of 2009
U.S. Geological Survey Program Announcement
10HQPA0014

This set of specifications for 30-centimeter, high-resolution orthoimagery is based on a draft high-resolution imagery specification under development at the U.S. Geological Survey. It is being used for the collection of orthoimagery funded by the American Recovery and Reinvestment Act of 2009 programs to insure consistency and usability by a wide range of orthoimagery data users.

Many Federal, State, and local programs use high-resolution orthoimagery for various applications including critical infrastructure management, vector data updates, land use analysis, natural resource inventory, and extraction of data by means of photogrammetric measurements. The complex nature of large-area orthoimagery datasets, combined with the broad interest in orthoimagery which is of consistent quality and spatial accuracy, requires high-resolution orthoimagery to meet or exceed format and content outlined in this specification.

The following specifications, guidelines, and requirements are minimum parameters.

It is expected that local conditions in any given project area, specialized applications for the data, or the preferences of cooperators, may mandate more stringent requirements. The USGS encourages the collection of more detailed, accurate, or value-added data. A list of common options beyond the base specification is provided as Attachment C-4 for those areas and projects which require more stringent specifications.

I. General

1. **Geographic Extent:** Each high-resolution *project* shall cover the assigned area with a minimum 300 (± 30) meter buffer on all sides exterior project edges. Extents shall be computed by projecting the geographic corners and side midpoints to the appropriate projection, then adding the buffer on each side of the resulting minimum bounding rectangle (or polygon, if the project has an irregular shape). If a project contains multiple, non-contiguous polygons, the 300 meter buffer will apply to each polygon in the project. The orthoimagery shall be divided into ~~smaller areas or~~ 1500m by 1500m tiles. The tile extent and grid shall be approved per project area.
2. **Non-image data:** Orthoimagery tiles shall not contain any non-image data. Non-image data includes photographic frame borders, fiducial marks, artifacts, and titling.
3. **Datums and Coordinates:** All high-resolution orthoimagery shall be projected in the North American Datum of 1983 (NAD83), using the corresponding native Universal Transverse Mercator (UTM) zone representing the predominance of the project area (see Figure B- 1, UTM Zones) with coordinates in meters, adjustment to be specified on a project by project basis. The vertical datum for **the supporting elevation data used to create** high-resolution digital orthoimagery shall be North American Vertical Datum of 1988 (NAVD88). The project will

be controlled using the latest available NGS control adjustment of the project area, unless another adjustment is specifically requested and described by the customer.

4. **Image Mosaicking:** Orthoimagery may be created using multiple digital images (“chips”) to produce the final product. Specular reflections and other artifacts should be minimized, especially in developed areas, by patching the area using chips from other imagery.

1. **Radiometry Balance.** When a mosaic of two or more chips is made, the brightness and color values of the other chips will be adjusted to match that of the principal chip. The seamlines between the overlapping chips will be chosen to minimize tonal variations. Localized adjustment of the brightness and color values will be done to reduce radiometric differences between join areas. Changes in color balance across the project, if they exist, shall be gradual. Abrupt tonal variations between tiles are not acceptable.
2. **Edge-Matching.** Excessive horizontal displacement along seamlines or at tile boundaries is not allowed. The maximum allowable mis-join between transportation features or other well defined linear features is ± 3 pixels.

II. Sensor & Acquisition: The following specifications are for the collection and provision of the required high-resolution natural-color aerial imagery. All USGS collections will be digital images. Other users of this specification may, at their discretion, request either film-based photographs or digital images. If film is selected, requirements in section IIA (below) should be observed.

- A. **Film:** If imagery is captured on aerial film, Kodak 2444 Aerocolor III film or equivalent, or AGFA X100 film or equivalent shall be used. Data providers may choose a film that processes to either a negative or positive image.

B. Special Collection Conditions:

1. **Acceptable Window:** The acceptable window for the data collection shall be specific to the project areas based on geographic location and project requirements.
2. **Time of Day and Year:** Imagery shall be collected during minimal shadow conditions. Image collection shall occur when the sun angle is greater than 30-degrees. In urban areas containing many high-rise structures, the sun angle should be sufficiently high to minimize shadows.
3. **Collection Conditions:** Imagery shall be collected under conditions free from clouds and cloud shadows, smoke, haze, light streaks, snow, foliage, flooding, and excessive soil moisture. Leaf-off imagery is preferred but leaf-on projects will be considered on a project-by-project basis.
4. **Image Coverage:** The extent of image coverage over the project area shall be sufficient to ensure void areas do not exist in resulting 1500 meter x 1500 meter orthophoto tiles. Full image tiles that meet or exceed the 300 meter buffer specified in section I.A., above, are required. Partial tiles are not considered acceptable.
5. **Calibration:** Aerial Sensors/Camera(s) used to collect project imagery shall have current USGS certification, or in the case of digital sensors a current USGS digital aerial sensor type certification.

C. Camera Station Control:

1. **Airborne GPS:** Camera position (latitude, longitude, and elevation) shall be recorded at the instant of exposure with airborne GPS. Airborne GPS data shall be differentially corrected and organized as individual data sets grouped by corresponding film roll or flight line. Differentially corrected Airborne GPS positional data shall be stored on portable media, in a nonproprietary format acceptable to each organization. The horizontal root-mean-square error (RMSE) of the airborne GPS control data shall not exceed 20cm. The vertical RMSE of the Airborne GPS control shall not exceed 30cm.
 2. **Inertial Measurement unit (IMU) Exterior Orientation Data (Optional):** If IMU is included as a component of the camera station control; the contractor shall record the camera attitude at the instant of exposure. The IMU data shall be adjusted and organized as individual data sets grouped by corresponding film roll. The RMSE of the adjusted IMU data shall not exceed 30 cm.
- D. Supplemental Ground Control:** Differentially corrected GPS ground control, or conventionally surveyed first-order ground control, used to supplement the Airborne GPS positional adjustment shall be stored on portable media, in a non-proprietary format mutually agreeable to the USGS and the cooperator. The data provider shall publish and submit a Supplemental Ground Control report that contains narrative, computations and field notes/photos for all points used in the supplemental ground control solution.
- E. Photography Supplemental Report:** The report shall show the flight line numbers and exposure station or strip numbers. The USGS Aerial Photography Supplemental Report form shall be used for this purpose. An example of this form is included in Attachment C-2 of this document.
- F. Titling:** If film is used, each exposure shall be clearly titled along the north edge (if flown north-south) or west edge (if flown east-west) of the photography. Each exposure shall be marked clearly with a numerical abbreviation of the month, day and year of exposure, the number of the roll, the number of the exposure on the roll, the photo scale expressed as a ratio, and the three letter designator, e.g. **BOS07** for rolls of film used on Boston MA project shall be numbered consecutively, beginning with number 1; and the exposures on each roll shall be numbered consecutively, beginning with the number 1. Coarse Airborne GPS position shall be included in the title as encoded in the camera data chamber. For cameras that do not have camera station positional encoders, the data provider shall manually add the coarse camera position on the opposite edge of the film from the roll exposure designator. An example of a diagram for the titling is included in Attachment C-3 of this document.
- G. Resolution and Accuracy:** The natural color source imagery shall be of sufficient resolution to support production of digital orthorectified images to a ground pixel resolution of 30 centimeters and to the specifications contained in Section III, A through K, below.

III. Digital Orthophoto Production: Shall be produced consistent with the following requirements:

- A. **Aerotriangulation data:** Aerotriangulation (AT) data, if used in the orthorectification process, shall consist of a minimum of refined image coordinates and adjusted ground coordinates. If Aerotriangulation is performed, the data provider shall provide a comprehensive AT report.

B. **Digital Orthorectified Image Datum:** Digital Orthorectified images shall be referenced to North American Datum 1983, Universal Transverse Mercator (UTM) meters. If a subset adjustment of NAD83 is desired, it must be specified.

C. **Digital Orthorectified Image Color:** Images shall be natural color.

D. **Spatial Resolution:** The spatial resolution will be 30 centimeter ground sample distance (GSD). Orthoimagery produced under this specification shall not be resampled from the original image, original scan or original capture, with resolution greater or less than the following numbers:

Ground Sample Distance (GSD)	Original Image Resolution	
	Maximum	Minimum
30 centimeters	15 centimeters	32 centimeters

E. **Horizontal Accuracy:** All orthoimagery shall have 95% (NSSDA Confidence Interval) of all well-defined points tested fall within the specified distance listed below of true ground:

Ground Sample Distance (GSD)	Horizontal Accuracy
30 centimeters	5.19 meters

1. **Product Accuracy Information Reporting.** Product accuracy information shall be reported according to NSSDA guidelines which are available at: <http://www.fgdc.gov/standards/projects/FGDC-standards-projects/accuracy/part3/index.html>
2. At a minimum, statements concerning source materials and production processes used must be provided at the project level sufficient to meet the requirement of section III.E of the guidelines.

F. **Digital Orthorectified Image Format:** Images shall be submitted in uncompressed, untiled, ArcGIS readable, GeoTIFF file format, Version 1.8.2, (<http://www.remotesensing.org/geotiff/spec/geotiffhome.html>) with no internal tiling or overviews. Data shall not be compressed during ANY PHASE of the production process. Presence of compression artifacts will be cause for rejection. GeoTIFF files shall include (as a minimum) the following GeoTIFF tags and keys:

- ModelTiepointTag
 - ModelPixelScaleTag
- OR
- ModelTransformation Tag

AND

- GTModelTypeGeoKey
- GTRasterTypeGeoKey
- ProjectedCSTypeGeoKey

G. **Digital Orthorectified Image Tile Size:** Orthorectified GeoTIFF files shall represent “tiles” 1500 meters X 1500 meters cut at even 1500 meter grid lines with no tile overedge. Corner coordinates will be based on the UTM Grid and shall be evenly divisible by 1500 meters. Tiles shall be accompanied by an index sheet and shape file suitable for loading into ArcGIS. Index sheet shall include tile boundary and filename. The Index sheet collar shall include Latitude/Longitude reference coordinates.

H. **Digital Orthorectified Image Characteristics:** Relative join (misalignment) of transportation features between adjacent image chips/tiles shall not exceed 3 pixels. Orthophotos shall be tonally balanced to produce a uniform contrast and tone across the image tiles of the entire project. Changes in color balance across the project, if they exist, shall be gradual. Abrupt tonal variations between tiles are not acceptable. Building tilt shall be corrected to the extent that transportation features are not obscured. Ground features appearing in the orthophoto imagery, such as building roof tops, water towers, and radio towers, shall not be clipped at seamlines or between individual tiles. Image artifacts introduced during the scanning process and appearing in the final orthophotos are unacceptable, except for very minimal artifacts falling in noncritical coverage areas, e.g., a small piece of lint appearing in a timbered area.

I. **Radiometric Resolution**

1. Color Imagery. All color imagery shall be an 8-bit RGB image accordance with Section 6, RGB Full Color Images, of the TIFF Specification, Revision 6 (<http://www.remotesensing.org/geotiff/spec/geotiffhome.html>).

2. Color Infrared Imagery. All color infrared imagery shall be an 8-bit Near-IR, RG image in accordance with Section 6, RGB Full Color Images, of the TIFF Specification.

3. 4-Band Imagery. All imagery that contains both natural color and near-IR shall meet the same requirements as color imagery specified in the paragraph above and shall have the bands saved in the following order: Red, Green, Blue, and Infrared.

4. Imagery with greater than 8 bits per pixel is allowed providing that the following TIFF tags are included in the image header::

- a. SampleFormat,
- b. MinSampleValue,
- c. MaxSampleValue.

J. **File Naming Convention:** The 1500 x 1500 ortho tile file name shall be derived from the southwest corner of each tile and shall be based on the U.S. National Grid. File names will include Grid Zone Designation (GZD), 100,000 meter block designator and X and Y grid coordinates truncated to 100 meters. Supplemental instructions for naming Digital Orthorectified Image tiles can be accessed at <http://www.fgdc.gov/usng>.

K. **Elevation data:** The elevation data created for use in the orthorectification process shall be submitted in a common or non-proprietary format.

IV. **Metadata:** Project and tile metadata describing the orthophoto production process shall be submitted as a product.

Federal Geographic Data Committee (FGDC) compliant metadata shall be provided in extensible markup language (.xml) format for each 1500-meter x 1500-meter orthorectified tile.

FGDC compliant metadata for orthoimage tiles shall be delivered on portable media.

This site contains the files that define and support production of FGDC compliant metadata: Download the following files from <ftp://ftpext.usgs.gov/pub/cr/mo/rolla/release/xmlinput/>

- A. **XMLInput1_64.zip**: Contains an application (XMLInput) for creating and editing .xml metadata files. It is not mandatory that this software be used; it is merely available if needed. When the zip file is unzipped, it also contains a template (**133UAtemplate.xml**) and a dtd (**csdgm2.dtd**) to help with FGDC compliance. The **XMLInput.jar** is the executable.
- B. **Help.pdf and XMLInput123.doc**: User's guide for XML Input. Use this guide to install and use XMLInput.
- C. **metadata_overview.doc**: Additional information

V. **Use and Distribution Rights**: All imagery and data produced under this agreement shall become the property of the United States Government. All data and documentation shall be free from restrictions regarding use and distribution. Data and documentation shall be freely distributable by government agencies.

VI. Products:

A. Source Imagery:

1. **Natural Color Film**: If film is used, the original natural color film acquired for the project shall be provided. The standard USGS Film Can Label form is included in Attachment C-2.
2. **Calibration Reports**: Camera Calibration Report(s) for Aerial Camera(s), or in the case of digital sensors, a current Product Characterization Report of the instrument used shall be included as a product.
3. **Camera Station Control**:
 - i. **Airborne GPS**: Positional data and a statistical summary report shall be submitted on portable media, in a non-proprietary format mutually agreeable to the Government and the producer. In addition, the producer shall produce a statistical report summarizing the results of the airborne GPS adjustment.
IMU Data: If IMU exterior orientation data are part of the Contractors Technical Proposal, the sensor orientation data and a statistical summary report shall be submitted on portable media, in a nonproprietary format mutually agreeable to the Government and the producer. The producer shall also produce a statistical report summarizing the overall accuracy of the adjusted IMU data.
4. **Supplemental Ground Control**: Differentially corrected GPS Ground Control used to supplement the Airborne GPS positional data shall be provided on portable media, in a non-proprietary format mutually agreeable to the Government and the Contractor.
5. **Flight Diagram**: A Flight Diagram that illustrates the project area outline, the location of the flight lines and, if relevant, the approximate location of image centers shall be

included as a product. This diagram shall be provided in hardcopy and softcopy in shape file format suitable for loading into ArcGIS.

6. **Photography and Supplemental Report(s):** A Photography Supplemental Report of all the imagery flown shall be produced for the project. The report shall show the flight line numbers and exposure station or strip numbers. The provider shall use the USGS Aerial Photography Supplemental Report form. An example of this form is included in Attachment C-2 of this document.

B. Digital Orthophoto Production:

1. **Aerotriangulation data:** Aerotriangulation data, if used in the orthorectification process, consisting of a minimum of refined plate coordinates, adjusted ground coordinates, and statistical summary report shall be submitted to the Government in both hardcopy and softcopy format.
2. **Elevation data:** Elevation data created or modified for use in the orthorectification process shall be submitted in a non proprietary format on portable media.
3. **Delivery Medium and Format:** Digital Orthorectified Images, in GeoTIFF format, shall be submitted on portable media. Image tiles shall be accompanied by an index sheet and shape file suitable for loading into ArcGIS.
4. **Metadata:** Metadata shall be delivered as described in Section IV.

VII. Quality Assurance:

- A Quality Assurance** shall be performed to ensure that all processes and procedures used, and metadata produced by the data provider were adequate to meet all specifications cited.

1. Visual inspection of the data will be performed for the following
 - a Completeness of data to cover the specified geographic extent, with no omissions or corrupt data.
 - b Tonal balancing problems across the block.
 - c Ground Sample Distance to ensure that it meets the specified resolution.
 - d Mis-joins between linear features greater than 3 pixels
 - e Cloud cover, smoke/haze, corrupt data, and void areas.
 - f Extreme tonal or color variation across seamlines.
 - g Excessive horizontal displacement along seamlines in images (more than ± 3 pixels along transportation features, unless project specifications specifically state otherwise).
 - h Excessive tilt in bridges, buildings, and other raised features.
 - i Transportation features obstructed by buildings or shadows.
 - j Clipping of features (e.g. radio towers, water tanks, buildings) at tile boundaries.
 - k Building/structure warp that may indicate bad elevation data.
 - l Smearing.
 - m Evidence of oversaturation or undersaturation as a result of image processing or histogram manipulation.
 - n Evidence of image compression.

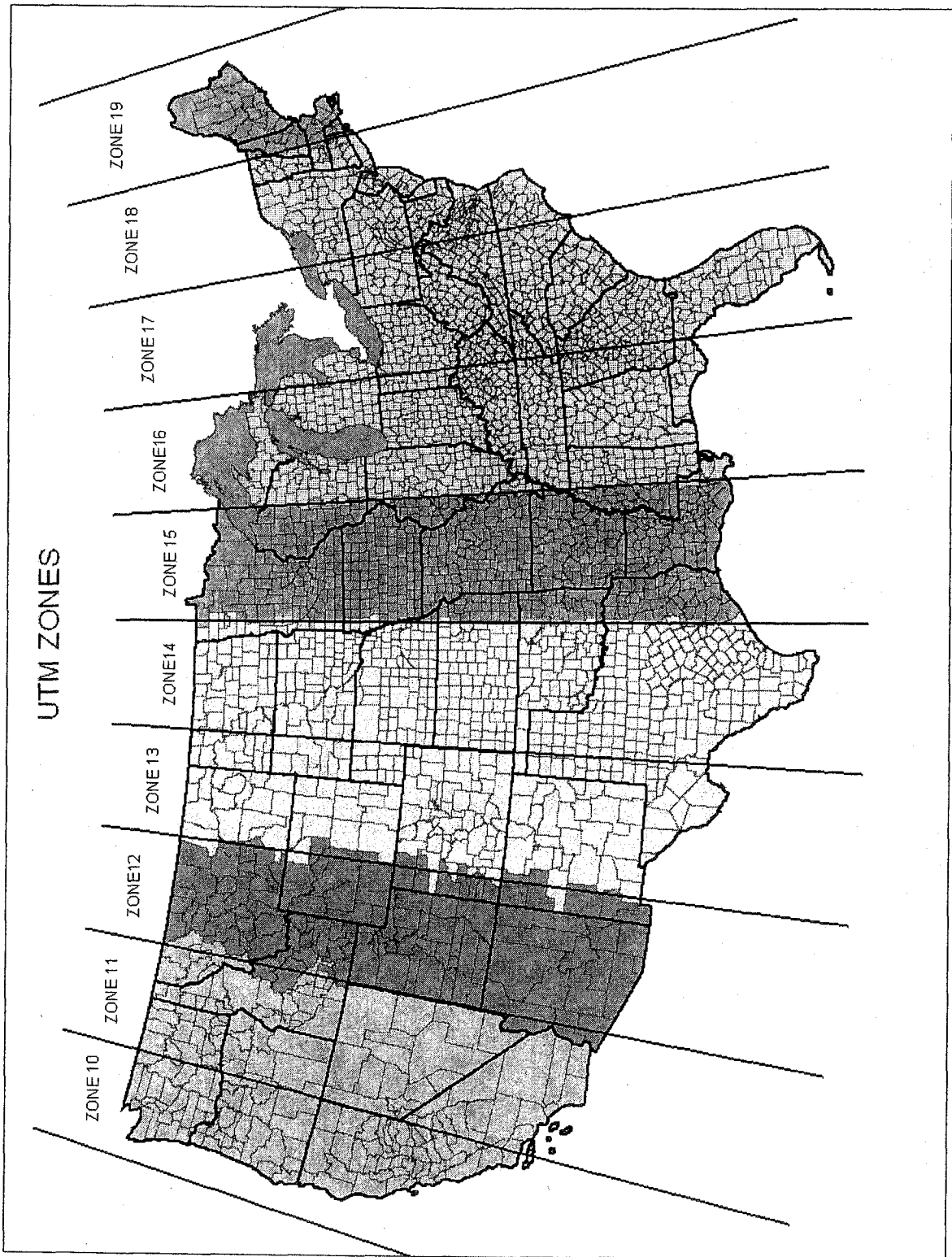
2. Horizontal Accuracy Testing

Testing is performed if suitable test-point control is furnished as part of the data product. Test-point control must be completely independent of control used during data production.

3. Verification of Metadata


Verify that accompanying metadata is complete as defined by FGDC metadata standards (<http://www.fgdc.gov/metadata>).

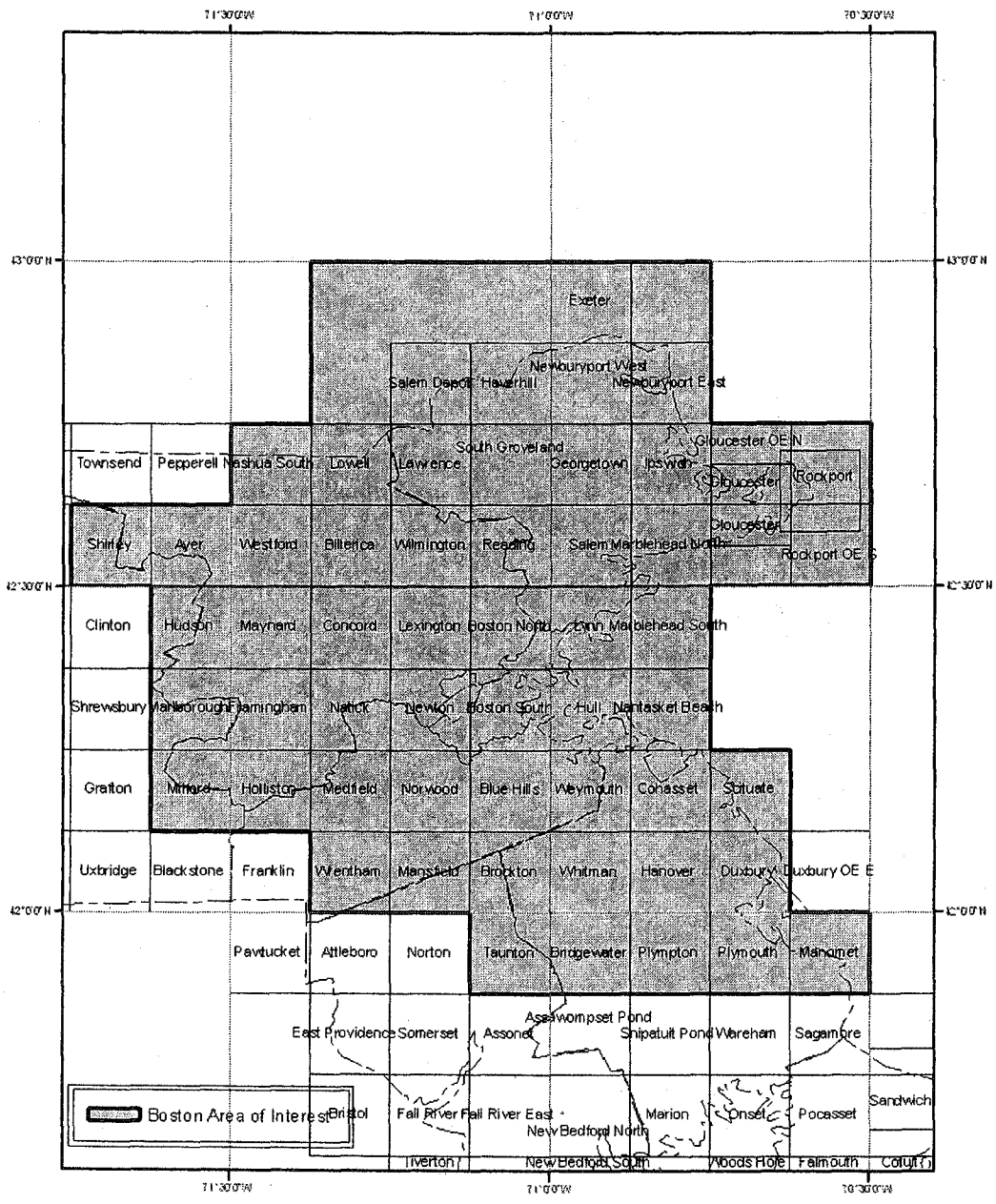
Figure B-1. UTM Zones



Example of Project Diagram

Boston MA, 133UA Ortho - Project Diagram

 ATTACHMENT 'A'
Boston, MA 133 UA
PROJECT DIAGRAM



Attachment C-2

Example of Supplemental Forms List

Boston MA, 133UA Ortho

Attached Supplementary Forms.PDF

USGS Film Can
USGS Aerial Photography Supplemental Report
USGS Aerial Camera Specifications

Example of Project Titling

Boston MA, 133UA Ortho

Sample Photograph Titling

(north or west edge)

MO/DY/YR	1:SCALE	ROLL-PHOTO#	CITY ABR.
COARSE AGPS POSITION*			

(9X9 FILM)

*For cameras that have camera station position encoders the coarse AGPS position can be along the edge where placed by the camera.

Common Options beyond Base Specifications

The following are considered to be options beyond the minimum requirements for one-foot orthoimagery for the ARRA funded projects:

- color-infrared
- panchromatic
- four-band
- increased footprint
- better horizontal accuracy
- increased resolution (ex. – 6-in)
- reduced resolution (requires resampling)
- better elevation resolution

10 - 0457

BUDGET AMENDMENT
BOARD OF COUNTY COMMISSIONERS
PALM BEACH COUNTY, FLORIDA

Advantage Document Numbers:
 BGRV 490-0316100000000000251
 BGEX 490-03161000000000000970

Fund 3901 Information Technology Capital Improvements

Use this form to provide budget for items not anticipated in the budget.

ACCT.NUMBER	ACCOUNT NAME	ADOPTED BUDGET	CURRENT BUDGET	INCREASE	DECREASE	ADJUSTED BUDGET	EXPENDED/ ENCUMBERED AS OF 3/16/10	REMAINING BALANCE
Revenues								
491-M010-3101	Fed Grant Capital-General Government	0	0	249,866	0	249,866	0	249,866
	Total Receipts and Balances	<u>0</u>	<u>0</u>	<u>249,866</u>	<u>0</u>	<u>249,866</u>		
Expenditures								
491-M010-3401	Other Contractual Services	31,224	31,224	249,866	0	281,090	4,896	276,194
	Total Appropriations & Expenditures	<u>12,225,161</u>	<u>8,898,477</u>	<u>249,866</u>	<u>0</u>	<u>9,148,343</u>		

	Signatures	Date	By Board of County Commissioners
ISS			At Meeting of March 23, 2010
INITIATING DEPARTMENT/DIVISION	<u>Steve Bordelon</u>	<u>3/18/2010</u>	
Administration/Budget Department Approval	<u>[Signature]</u>	<u>3-18-2010</u>	Deputy Clerk to the Board of County Commissioners
OFMB Department - Posted			

(110)
3/18/2010