

REQUEST FOR PROPOSAL

SOLICITATION NUMBER: USDA-APFO-10-06

USDA AERIAL PHOTOGRAPHY FIELD OFFICE (APFO) 2006 INDEX SCANNING PROJECT



U.S. DEPARTMENT OF AGRICULTURE
FARM SERVICE AGENCY
AERIAL PHOTOGRAPHY FIELD OFFICE

NOTICE TO OFFEROR

Any proposal submitted for this RFP must be identified with the following information labeled on the outside of the mailing package:

SOL.NO: USDA-APFO-10-06
DUE DATE: 4-AUG-2006, 4:30 PM
RECEIVING OFFICE: CONTRACTING

Mail To: AERIAL PHOTOGRAPHY FIELD OFFICE
CONTRACTING OFFICER
2222 WEST 2300 SOUTH
SALT LAKE CITY UTAH 84119-2020

NOTICE TO PROSPECTIVE OFFERORS :

This RFP is for a firm fixed-price service contract. The contract is for one year with an option to extend the term. This RFP has one (1) Optional Award Item.

Any proposal submitted in response to this solicitation must be presented in two parts, a pricing proposal and a technical proposal. See Section L for proposal preparation instructions.

This procurement is for preservation of APFO's photo index collection in digital format.

The Government's obligation under this RFP is contingent upon the availability of funds from which payment for contract purposes can be made. No legal liability on the part of the Government for any payment may arise until funds are made available to the Contracting Officer.

This solicitation is totally set-aside for small business concerns. See Far Clause 52.219-06, Notice of Total Small Business Set-Aside (July 1996).

The complete text of any or all clauses referenced herein may be obtained by submitting a request, identifying this solicitation number, to the Contracting Officer, USDA, FSA, Aerial Photography Field Office, 2222 West 2300 South, Salt Lake City, Utah 84119-2020. Complete copies of the FAR in loose-leaf or CFR form may be purchased from the Superintendent of Documents, U.S. Government Printing Office, Washington D.C. 20402.



SOLICITATION, OFFER AND AWARD		1. THIS CONTRACT IS A RATED ORDER UNDER DPAS (15 CFR 700)		RATING	PAGE 1 OF 70 PAGES
2. CONTRACT NUMBER	3. SOLICITATION NUMBER USDA-APFO-10-06	4. TYPE OF SOLICITATION <input type="checkbox"/> SEALED BID (IFB) <input checked="" type="checkbox"/> NEGOTIATED (RFP)	5. DATE ISSUED 07/05/06	6. REQUISITION/PURCHASE NUMBER	
7. ISSUED BY USDA-FSA-Aerial Photography Field Office 2222 West 2300 South Salt Lake City, Utah 84119-2020		8. ADDRESS OFFER TO (If other than Item 7) Contracting Officer, USDA-FSA-APFO 2222 West 2300 South Salt Lake City, UT 84119-2020			

NOTE: In sealed bid solicitations "offer" and "offeror" mean "bid" and "bidder".

SOLICITATION

9. Sealed offers in original and 0 copies for furnishing the supplies or services in the Schedule will be received at the place specified in Item 8, or if handcarried, in the depository located in Rm. 10, Aerial Photography Field Office until 16:30 local time 08/04/06
(Hour) (Date)

CAUTION - LATE Submissions, Modifications, and Withdrawals: See Section L, Provision No. 52.214-7 or 52.215-1. All offers are subject to all terms and conditions contained in this solicitation.

10. FOR INFORMATION CALL:	A. NAME Jacque La Croix	B. TELEPHONE (NO COLLECT CALLS)			C. E-MAIL ADDRESS jacque.lacroix@slc.usda.gov
		AREA CODE 801	NUMBER 975-3500	EXT. 277	

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OFFER (Must be fully completed by offeror)

NOTE: Item 12 does not apply if the solicitation includes the provisions at 52.214-16, Minimum Bid Acceptance Period.

12. In compliance with the above, the undersigned agrees, if this offer is accepted within _____ calendar days (60 calendar days unless a different period is inserted by the offeror) from the date for receipt of offers specified above, to furnish any or all items upon which prices are offered at the price set opposite each item, delivered at the designated point(s), within the time specified in the schedule.

13. DISCOUNT FOR PROMPT PAYMENT (See Section I, Clause No. 52.232-8)	<input type="checkbox"/> 10 CALENDAR DAYS (%)	<input type="checkbox"/> 20 CALENDAR DAYS (%)	<input type="checkbox"/> 30 CALENDAR DAYS (%)	<input type="checkbox"/> CALENDAR DAYS (%)
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14. ACKNOWLEDGMENT OF AMENDMENTS (The offeror acknowledges receipt of amendments to the SOLICITATION for offerors and related documents numbered and dated):	AMENDMENT NO.	DATE	AMENDMENT NO.	DATE

15A. NAME AND ADDRESS OF OFFEROR	CODE	FACILITY	16. NAME AND TITLE OF PERSON AUTHORIZED TO SIGN OFFER (Type or print)
15B. TELEPHONE NUMBER	AREA CODE	NUMBER	EXT.
15C. CHECK IF REMITTANCE ADDRESS IS DIFFERENT FROM ABOVE - ENTER SUCH ADDRESS IN SCHEDULE.			17. SIGNATURE
			18. OFFER DATE

AWARD (To be completed by Government)

19. ACCEPTED AS TO ITEMS NUMBERED	20. AMOUNT	21. ACCOUNTING AND APPROPRIATION
22. AUTHORITY FOR USING OTHER THAN FULL AND OPEN COMPETITION: <input type="checkbox"/> 10 U.S.C. 2304(c)) <input type="checkbox"/> 41 U.S.C. 253(c) ()		23. SUBMIT INVOICES TO ADDRESS SHOWN IN (4 copies unless otherwise specified)
24. ADMINISTERED BY (If other than Item 7)	CODE	25. PAYMENT WILL BE MADE BY
26. NAME OF CONTRACTING OFFICER (Type or print)		27. UNITED STATES OF AMERICA
		(Signature of Contracting Officer)
		28. AWARD DATE

PART I - THE SCHEDULE

SECTION B - SUPPLIES OR SERVICES AND PRICES/COSTS

B-1 IMAGERY SCANNING AND RELATED SERVICES

Furnish imagery scanning and georeferencing services and related supplies in accordance with the requirements, specifications, terms, conditions, clauses, and provisions specified herein.

1.1 Contract Pricing Proposal

AERIAL PHOTOGRAPHY FIELD OFFICE VAULT 2006 INDEX SCANNING PROJECT			
COMPANY NAME:		AUTHORIZED SIGNATURE:	
MEDIA TYPE AND QUANTITY	UNIT	UNIT PRICE	TOTAL AMOUNT
HIGH DENSITY FILM NEGATIVE PHOTO INDEXES QUANTITY - 55,283	SCAN	\$	\$
FILM NEGATIVE, MYLAR, AND PAPER LINE/SPOT/ PHOTO INDEXES QUANTITY - 15,972	SCAN	\$	\$
SCANNED TIFF INDEX MAPS ON CD-ROM/DVD-ROM QUANTITY - 105	GEO- REFERENCED IMAGE	\$	\$
<p>General Notes on all Indexes:</p> <ol style="list-style-type: none"> 1. In some cases microfiche scans may be required in place of Photo Indexes that are missing or damaged beyond what is feasible to be scanned. Fiche will <i>not</i> be scanned if data on fiche duplicates data found on Photo Indexes that <i>are</i> in scannable condition. In other words, no scanning of true duplicate data shall be allowed, where duplicate is defined as “the exact same data/exposure from the same date reproduced on hard copy media more than once”. However, scanning of data from the same location, but different years, is required. 2. Some Indexes from the table above are of varying sizes and media. Sizes range from widths of 12” to 49” and lengths of 13” to 65”. The largest of these indexes may approach 49” in width by 65” in length. However, the majority of these indexes are between 17” and 30” in width. 			

1.2 Contract Performance Periods

- (a) The contract performance period for the acquisition and delivery of scanned and georeferenced imagery is: **Date of Award through August 31, 2007.**
- (b) The Government reserves the right to exercise the option to extend the term of the contract based on the evaluation of contractor performance on the project and unanticipated challenges that may develop during the contract performance period. (See Section F, Paragraph 5.3)

1.3 Intended Use of Scanned Imagery

The primary purpose of this project is to accomplish the scanning of specified photo, line, and point index reference maps in their varied formats for purposes of preservation. Through this preservation effort, greater visibility of, and access to, historical imagery products will result. The secondary purpose is to provide basic georeferencing of the indexes to facilitate their retrieval in a Geographic Information System (GIS.)

1.4 Contract Deliverables

- (a) Original scan index reference maps in TIFF format.
- (b) Georeferenced index maps in GeoTIFF format.
- (c) Fully attributed shapefiles for georeferenced index maps.
- (d) Project summary and recommendations for future large scale scanning projects.

B-2 SCAN PROJECT TYPE DESCRIPTIONS

2.1 High Density Film Negative Photo Indexes

USDA Farm Service Agency (FSA), formerly the Agricultural Stabilization and Conservation Service (ASCS), utilized county based indexes archived in the form of 20" X 24" high density film negatives until approximately 1980. Other agencies also used this format for their programs. There may be from one (1) to several sheets (negatives) associated with any one (1) county. These indexes shall be scanned from their native negative format to a positive image.

2.2 Film Negative, Mylar, and Paper Line/Spot/Photo Indexes

This collection of indexes is the most varied as to media used, program type, and size. The majority of these are Mylar line indexes, positive images, and approximately 17" to 30" in width. There are, however, indexes of varying sizes and media types. Size ranges vary from widths of 12" to 49" and heights of 13" to 65". The largest of these indexes may approach 49" in width by 65" in height. The media for these indexes may also be either film negatives or positives, Mylar, or paper. The largest of these indexes have been produced for both Forest Service and entire State coverage projects.

2.3 Scanned Tiff Index Maps on CD-ROM and/or DVD-ROM Media.

These are more recent indexes developed for the APFO Resource Imagery Program. These consist of .tiff index images that have been delivered as part of a selection of projects, mostly Forest Service, when the Mylar index material was phased out and became

unavailable. The deliverables are the same as other media with the exception that the scanning process and associated scan support file are not needed.

2.4 Microfiche

Microfiche copies of indexes are in two basic formats. One format is referred to as an aperture card, a light weight cardboard border with a segment of microfilm mounted in the center. The card dimensions are 3 1/4" x 7 3/8" with a microfilm size of 1 1/2" x 2". The other format is flat microfiche. The dimensions of the flat microfiche are 4" x 6" with an image size of 1 1/4" x 1 3/4". There may be more than one image per flat fiche. Microfiche records will only be scanned where Photo Indexes are missing or damaged beyond what is feasible to be scanned.

B-3 GENERAL CONTRACT REQUIREMENTS

3.1 Original Scan Index Reference Maps:

- (a) The general requirement for scanning is approximately 300 dots per inch (DPI) or equivalent in microns, samples per inch (SPI) or pixels per inch (PPI).
- (b) The indexes shall be scanned at eight (8) bit grayscale.
- (c) The scans are to be delivered as Tagged Image Format File(s) (.tif(s)). Refer to Section C-6.3, File Format, for specifications.
- (d) An original scan support file shall be provided for each scan. This support file provides information about the scanning resolution, the scanner, time and date of scan, the media type scanned, and other pertinent support information. Refer to Section C-6.5, Scan Support File for specific requirements.
- (e) Microfiche scans, where needed, shall be at a resolution found to produce a final image with detail comparable to that of the full size photo index scans.
- (f) A scanning priority list shall be provided as Government Furnished Material. Refer to Section J, Exhibit 1, Index Scanning Priority List. Generally, the high density film negative 20"x 24" indexes will be scanned first, and scanning of these documents will be prioritized by geographic region.

3.2 Georeferenced Scanned Index Reference Maps:

- (a) The general requirement is four (4) point georeferencing of the Original Scan Index Reference Maps.
- (b) First order polynomial (affine) transformation shall be applied.
- (c) Recommended source data for georeferencing (in order of preference):
 - (1) USGS 7.5" Digital Raster Graphics (DRG).
 - (2) Compressed County Mosaics (NAIP or MDOQ)
- (d) The file format shall be GeoTIFF meeting the specification provided in ATTACHMENT A, USDA GeoTIFF DESCRIPTION AND SPECIFICATIONS.
- (e) A tab delimited text file (.txt) of the selected control points shall be provided for each GeoTIFF. Refer to Exhibit 2, Control Point File.
- (f) Federal Geographic Data Committee (FGDC) compliant metadata per the FGDC-STD-001-1998 specification shall be provided for each georeferenced index map using the metadata template provided by the Government.
- (g) Refer to Section C-7, Georeferenced Scanned Index Reference Maps, for additional requirements.

3.3 Shapefile Requirement:

- (a) A polygon shapefile, correctly projected for each georeferenced index map is required. Each shapefile shall be in the same projection as the associated georeferenced scanned image. Each shapefile shall contain a single polygon representing the extents of the data on the image.
- (b) The bounding coordinates of each shapefile shall match the bounding coordinates of the georeferenced image.
- (c) The shapefiles shall use the standard extensions (i.e., .shp, .shx, .sbn, .sbx, .dbf, and .prj) and the metadata for the shapefiles shall use a “.txt” extension.
- (d) Federal Geographic Data Committee (FGDC) compliant metadata per the FGDC-STD-001-1998 specification shall be provided for each shapefile, using the metadata template provided by the Government.
- (e) Refer to Section C-7.2, Assignment of Coordinate System Information and Section C-8, Shapefiles with Populated Attribute Fields, for additional requirements.

3.4 Project Summary and Recommendations:

Provide a project summary report and recommendations including, but not limited to, the following:

- (a) Project summary.
- (b) Successes, setbacks, and lessons learned.
- (c) Recommendations for future large scale aerial film scanning projects.

3.5 Evaluation Samples:

The government requires that contractors provide sample scans from representative products to allow evaluation of the proposed scanning equipment and techniques. These samples may be delivered on either CD-ROM or DVD-ROM media. Delivery of the samples shall be at the time of proposal submission.

3.6 Space and Equipment Requirements:

The government requires that work be performed primarily on site. On site is defined as within the walled confines of the USDA FSA Aerial Photography Field Office, 2222 West 2300 South, Salt Lake City, Utah, 84119-2020. Remote work (e.g. Contractor Offices) will occur on an as needed basis only. Scanned data in electronic format will be permitted to leave the facility for the purposes of further data processing (e.g. metadata development, georeferencing activities). No hard copy indexes shall leave the APFO facility at any time unless requested in writing and authorized by the Contracting Officer.

The Contractor shall provide an estimate of space requirements for the contractor furnished scanning equipment and personnel as part of the proposal.

4.0 GOVERNMENT FURNISHED MATERIAL

The government will provide the following as government furnished material:

- (a) Contractor work space and equipment appropriate to the project, to include but not limited to, private office space, scanning equipment space and associated floor work space, network access (if necessary), electrical outlets, phones, and computer work

- stations.
- (b) Access to APFO facility and identification badges. See Section H-2, Security Requirements.
- (c) Universal Transverse Mercator (UTM) Designation and Federal Information Processing Standards (FIPS) lists will be provided at the time of award.
- (d) Metadata Templates: The Contractor will be furnished upon award two (2) data text files (.txt) containing Federal Geographic Data Committee (FGDC) compliant metadata templates to be used when creating the GeoTIFF and shapefile metadata.
- (e) USDA GeoTIFF Description and Specification. Refer to ATTACHMENT A.
- (f) Delivery and Performance Review Schedule: At the time of award a Delivery and Performance review schedule will be provided to indicate project milestone timeframes.
- (g) Directory and File Naming Conventions. Refer to Section J, Exhibit 4.
- (h) Scanning priority order listing. Refer to Section J, Exhibit 1, Index Scanning Priority List.

5.1 OPTIONAL AWARD ITEM:

Please Note: Prices offered for any option item are in addition to the price offered for the basic requirement indicated in Section B-1, Paragraph 1.1, Contract Pricing Proposal.

OPTIONAL AWARD ITEM 1: ENHANCED SHAPEFILES WHICH INCLUDE POLYGONS FOR ALL EXPOSURES REPRESENTED ON INDEXES			
DESCRIPTION & ESTIMATED QUANTITY	UNIT	UNIT PRICE	TOTAL PRICE
SHAPEFILE WHICH INCLUDES POLYGONS FOR EACH EXPOSURE REPRESENTED ON INDEX QUANTITY: 71,360	SHAPEFILE	\$	\$

- (a) In addition to the georeferenced scanned index map shapefiles requested in B-3.3, USDA prefers an enhancement to the shapefile that includes polygons for each exposure represented on an index. These polygons shall **approximate** the extent of each exposure. Contractors desiring to offer this option are required to submit samples following the file format, attribute population requirements, and metadata requirements described in Section C-8.
- (b) This Item 1 is an optional award item and may or may not be awarded. Offers on this item may be considered in conjunction with offers on the basic requirement, B 1.1 Contract Pricing Proposal, or may be considered independent of the basic requirement.
- (c) The Government will evaluate offers for award purposes by including **only** the price for the basic requirement; i.e., options will not be included in the evaluation of the B 1.1 Contract Pricing Proposal for award purposes. Offers submitted for this enhanced

shapefile service independent of the basic requirement may be considered for separate contract award.

5.2 ENHANCED SHAPEFILE REQUIREMENTS

In addition to the shapefile requirements identified in Section C-8, SHAPEFILES WITH POPULATED ATTRIBUTE FIELDS, following are the specifications for the enhanced shapefiles:

- (a) Create a polygon shapefile, correctly projected, for each Georeferenced Scanned Index Reference Map. Each shapefile shall be in the same projection as the associated georeferenced scanned image.
- (b) A polygon shall be created for each **exposure** represented on a given scan. This polygon shall be **a close approximation of the extents of each exposure**.
- (c) The following attribute fields shall be populated based upon the textual data resident on each georeferenced image and shall be in the format as identified. **Data fields may be left null only in cases where data to populate fields is not present on the scanned hardcopy original or when data on the original is illegible or otherwise obscured.**

Field Name	Field Type & Size	Field Description
SOLICIT_NO	String (20)	Solicitation/Invitation Number
CNTRCT_YR	Number (4)	Contract Year
LOOKUP_SYM	String (15)	Project/Lookup Symbol
PHOTO_PGM	String (6)	Agency/Photo Program
FILM_TYPE	String (4)	Film Type
FILM_SCALE	Number (6)	Scale
ROLL_NUM	String (5)	Roll Number
EXP_NUM	Number (4)	Exposure Number
EXP_DATE	Date (YYYYMMDD)(8)	Exposure Date

EXAMPLE:

Field Name	Field Type & Size
SOLICIT_NO	CSS-2-55-DC
CNTRCT_YR	1955
LOOKUP_SYM	27123
PHOTO_PGM	USDA0
FILM_TYPE	SBNI
FILM_SCALE	20000
ROLL_NUM	280
EXP_NUM	49
EXP_DATE	19550415

- (d) Valid values for the population of the PHOTO_PGM and FILM_TYPE fields are shown in Exhibit 5, Valid Field Values for PHOTO_PGM and FILM_TYPE.
- (e) The shapefiles shall use the standard extensions (i.e., .shp, .shx, .sbn, .sbx, .dbf, and .prj) and the metadata for the shapefiles shall use a “.txt” extension.
- (f) Provide Federal Geographic Data Committee (FGDC) compliant metadata per the FGDC-STD-001-1998 specification for each shapefile, using the metadata template provided by the Government. The metadata must parse cleanly through the USGS metadata parser “mp” version 2.8.10 (or later version) without errors.
- (g) Shapefiles shall be viewable and editable in ESRI ArcView 3.x or newer versions of ArcGIS software.

6.0 OPTION FOR INCREASED QUANTITIES

The Government may increase the quantity of scans called for in the Schedule, Section B-1.1 Contract Pricing Proposal, at the unit price specified. The Contracting Officer may exercise the option by written notice to the Contractor at any time within the performance period. Delivery of the added items shall continue at the same rate as the like items called for under the contract, unless the parties otherwise agree. Refer to the FAR, Section 52.217-6, Option for Increased Quantities (March 1989).

PART I - THE SCHEDULE

SECTION C - DESCRIPTION/SPECIFICATIONS/WORK STATEMENT

C-1 SCOPE OF CONTRACT

The general scope of this contract is to procure scanned and georeferenced GeoTIFF imagery from index reference maps currently stored in the Aerial Photography Field Office vault for preservation purposes. The digital imagery will be used by USDA agencies for interpretative analysis and extraction of data by means of photo interpretation and Geographic Information Systems (GIS) technologies. The index collection includes high density photo negative indexes, Mylar and paper spot indexes, scanned indexes (not georeferenced), and indexes on microfiche. These indexes cover a variety of aerial photo projects from single county coverage to national forests, and full state coverage to many unique agency projects. The majority of indexes cover the years 1955 to the present.

1.1 Introduction

The contractor is responsible for furnishing scanned and georeferenced digital imagery and related deliverables in accordance with the requirements, specifications, terms, and conditions specified herein.

(a) Technical Requirements and Specifications.

The technical requirements and specifications of this contract are described in Section C, which defines the essential elements in securing a high quality digital product. Any deviation from the specifications stated herein may cause increased time and effort in using the product as intended.

(b) Delivery and Performance.

The delivery and performance requirements are described in Section F. All materials shall be shipped within the time limits and to the place of delivery specified herein. Performance of the contract shall be authorized and monitored by the Contracting Officer and/or the Contracting Officer's Representative (COR). The COR will: 1) Monitor work progress for the duration of the contract to ensure that irreplaceable Government assets are not being mishandled or damaged during the scanning process; 2) The COR will be responsible for pulling all indexes to be scanned, monitoring scanning activities, refiling all indexes, and such other tasks as are assigned by the Contracting Officer. The Contractor shall not access the drawers or storage units containing the index maps at any time.

(c) Quality Control.

Quality control shall be exercised by the Contractor continuously throughout the performance of the contract. Procedures shall be established to assure that all materials are delivered in accordance with the delivery schedule and at the required level of accuracy and quality. The Contractor shall inspect and constantly monitor all production and development activities, and undertake any rework that is required where the deliverable fails to meet minimum requirements of the contract specifications. USDA inspection and acceptance procedures are described in Section E.

1.2 Location of Work

Work will be performed primarily on site. On site is defined as within the walled confines of the USDA FSA Aerial Photography Field Office, 2222 West 2300 South, Salt Lake City, Utah, 84119-2020. Remote work (e.g. Contractor Offices) will occur on an as needed basis only. Scanned data in electronic format will be permitted to leave the facility for the purposes of further data processing (e.g. metadata development, georeferencing activities). No hard copy (unscanned) indexes shall leave the APFO facility at any time unless requested in writing and authorized by the Contracting Officer.

1.3 Labor and Materials

The Contractor shall furnish all materials, equipment, transportation, superintendence, and labor as required herein. The Contractor shall execute and finish the scanning services for the project specified and shall deliver to the USDA all materials called for in Section F-1, Materials to be Delivered.

1.4 Size of Original Index Maps

The High Density Film Negative Photo Indexes identified in Section B-1, 1.1 are 20”(51 cm) X 24”(61 cm) in size. Film Negative, Mylar, and paper line, spot, and or photo indexes identified in Section B-1, 1.1 are of varying sizes and media. These sizes range from widths of 12”(30 cm) to 49”(124 cm) and lengths of 13”(33 cm) to 65”(165 cm). The largest of these indexes may approach 49”(124 cm) in width by 65”(165 cm) in length. The majority of these indexes are between 17”(43 cm) and 30”(76 cm) in width.

C-2 EQUIPMENT REQUIREMENTS

Any equipment proposed to be used by the Contractor shall be approved for use by the Contracting Officer. If the scanning equipment proposed for use is not owned by the Contractor, a written statement of availability from the owner of the equipment shall be furnished to the Contracting Officer.

C-3 STORAGE AND HANDLING

All film negative, paper, Mylar, and other hard copy products shall be handled with the utmost care so as not to add chemicals, stains, tears, scratches, abrasions, water marks, finger marks, lint, dirt, and other physical defects to those already present. Hard copy products shall not be folded, or in any way stretched, buckled, distorted, spliced, cut, taped, torn, or exposed to adverse environmental conditions.

C-4 SOFTWARE

The Contractor shall provide the necessary software to manage scanning operations for the purpose of completing their work. Deliverable products shall not require APFO to utilize or purchase any software in addition to what is already on APFO systems for the purpose of data management and viewing. All TIFF, GeoTIFF or Shapefile deliverables must be viewable through ESRI ArcView 3.x, ArcGIS 8.3, or newer versions of the software. All other deliverables must be viewable by the Microsoft Suite of software. All deliverables shall be readable and modifiable by the government.

C-5 APPLICABLE DOCUMENTS

The following documents are considered requirements and specifications under the resulting contract, and are applicable to the Contractor's technical proposal:

- (a) Federal Geographic Data Committee (FGDC) Specification, FGDC-STD-001-1998 ("Content Standard for Digital Geospatial Metadata")
- (b) GeoTIFF Revision 1.0 Specification, dated December 28, 2000 (Version 1.8.2)
- (c) TIFF Specification Revision 6 dated June 3, 1992 (Adobe Systems Inc.)

C-6 ORIGINAL SCAN INDEX REFERENCE MAPS

All scanned index reference maps shall meet the following requirements and specifications:

6.1 Image Quality

- (a) The scanned imagery shall be of such quality and detail as to reveal all index information present in the original.
- (b) Care shall be taken to prevent the addition of extraneous dirt, finger prints, scratches or debris to the scanned image. It is recognized that there exists a variety of damage in the hard copy originals. The intent of this requirement is that no further damage be introduced by the scanning process.

6.2 Physical Properties

The indexes shall be scanned at 300 dots per inch (DPI) or equivalent in microns, samples per inch (SPI) or pixels per inch (PPI). Microfiche, where needed, shall be scanned at a resolution found to produce a final image with detail comparable to that of the full size photo index scans.

6.3 File Format

Tagged Image Format Files (TIFF). Scanned files shall be submitted in accordance with the Baseline TIFF 6.0 file format as defined in the TIFF 6.0 Specifications (TIFF Specification Revision 6 dated June 3, 1992 (Adobe Systems Inc.) All baseline TIFF 6.0 files shall store data as eight (8) bits per sample grayscale images as defined in the specification using the "little-endian" byte order and shall only contain one image file directory (IFD). All TIFF files submitted shall be readable by older applications that assume TIFF 5.0 or an earlier version of the specification. TIFFs that use designated "Extended TIFF 6.0 file" features shall not be acceptable. Features designated as "not recommended for general data interchange" are considered extensions to the Baseline TIFF 6.0 specification, and will not be acceptable. This includes TIFFs that use one of the major new extensions such as "tiled images". In the TIFF 6.0 specification, the term "tag" refers only to the identifying number, the term "field" refers to the entire field, including the value. Tags that are defined by the TIFF specification are called public tags and shall not be modified outside of the parameters given in the latest TIFF specification. Tags numbered 32768 or higher, sometimes called private tags, are reserved and shall not be acceptable. Enumeration constants numbered 32768 or higher are reserved and shall not be acceptable. Do not choose your own tag numbers; use only those specified in the Baseline TIFF 6.0 Specification for eight (8) bits per sample grayscale. Tags numbered in the "reusable" 65000-65535 range shall not be acceptable.

6.4 Delivery Media

- (a) Media: The delivery media for the Original Scan Index Reference Maps shall be External Combo USB2.0/IEEE1394 (Firewire) Hard Drives. All external hard drives shall be “Combo” style drives, capable of both USB2.0 and IEEE1394 (Firewire) connections. The drives shall be formatted using Microsoft’s NTFS file system. The drives shall become property of the USDA and shall not be returned to the contractor. Each drive shall have a label attached identifying the State(s) and Index types contained on the drive in accordance with Section J, Exhibit 3, External Combo USB2.0/IEEE1394 (Firewire) Hard Drive Label.
- (b) Content: Deliverables shall be in electronic file folders on a scan by scan basis. The folder and files within it shall be named according to the pattern given in Section J, Exhibit 4, Directory and File Naming Conventions.

6.5 Scan Support File

The Contractor shall provide an original scan support file in ASCII comma delimited text format (.txt) for each original index reference map that is scanned. This support file shall follow the template to be provided upon award and contain the following information:

- (a) The scanning resolution
- (b) Model of scanner used
- (c) Time and date of scan
- (d) The original index media type scanned
- (e) Image file size
- (f) Scale of the Original Index

The naming convention for this file shall be the same as that of the index, with a .txt extension. This file shall be prepared and delivered with the original scan.

C-7 GEOREFERENCED SCANNED INDEX REFERENCE MAPS

7.1 Georeferencing

The georeferencing requirements are as follows:

- (a) A GeoTIFF image shall be created for each original scanned image (TIFF) created as a deliverable under Section B 3.1, Original Scan Index Reference Maps.
- (b) Four (4) points per original scan shall be selected for georeferencing activities.
- (c) First order polynomial (affine) transformation shall be applied.
- (d) Recommended source data for georeferencing (in order of preference):
 - 1. USGS 7.5” Digital Raster Graphics (DRG).
 - 2. Compressed County Mosaics (NAIP or MDOQ).NOTE: Upon initiation of work, Compressed County Mosaics may be available via APFO servers, but are not considered a Government Furnished Material. It is the Contractor’s responsibility to provide source data for the georeferencing requirement.
- (e) Point selection for georeferencing shall be based on the following criteria:
 - 1. Unless quality georeferencing points do not exist or the shape of the scanned area does not warrant, each of the four points shall be selected from the four quadrants of the scanned image, one point per quadrant, namely top left, top right, bottom left, and bottom right.
 - 2. The most accurate available source data points shall be selected. For example, if

scans have tic marks or latitude/longitude markings already available, then they will be used. Otherwise, well defined visible primary source points, such as right angle road crossings, or well defined geologic or human made features shall be used.

- (f) Provide Federal Geographic Data Committee (FGDC) compliant metadata per the FGDC-STD-001-1998 specification for each shapefile, using the metadata template provided by the Government. The metadata must parse cleanly through the USGS metadata parser “mp” version 2.8.10 (or later version) without errors.

7.2 Assignment of Coordinate System Information

- (a) Spatial reference information shall be provided for all data. All data shall be projected in the 1983 North American Datum (NAD83), using the corresponding native Universal Transverse Mercator (UTM) zone, with exceptions as noted below. The UTM designation must follow the guidelines agreed upon by the Service Center Agencies. A listing of official UTM designations shall be provided as Government Furnished Material at time of contract award. If questions arise on the appropriate UTM zone for a given scan, the Contractor shall consult with the COR for guidance.
- (b) Scans whose real world location resides outside of the contiguous 48 States shall be projected in World Geodetic System (WGS 1984), with the exception of:
 1. Hawaii (NAD 83 UTM 1-5)
 2. Alaska (NAD 83 UTM 1-10)
 3. Puerto Rico (NAD 83 UTM 19)
 4. The Virgin Islands (NAD 83 UTM 20).

NOTE: (1) For Alaska and National Forests, divisions of UTM are based on location of actual UTM zones, rather than political boundaries (the UTM zone is determined by the location of the greater portion of scanned data). (2) WGS 84 locations include American Samoa (WGS 84 UTM 2S), Commonwealth of the Northern Mariana Islands (CNMI) (WGS 84 UTM 55), Guam (WGS 84 UTM 55), Marshall Islands (WGS 84 UTM 56 through 60), and Palau (WGS 84 UTM 52 through 55).

- (c) All source data used for georeferencing shall itself be in the correct projection, based on the agreed upon Service Center Agency guidelines.
- (d) All scans shall be oriented so that the direction of North is towards the top of the computer display or page.
- (e) All GeoTIFFs shall meet the Index Map GeoTIFF Specification provided as Government Furnished Material. Refer to ATTACHMENT A, USDA Scanned Indexes Description and Specification.

7.3 Control Point File

A tab delimited file (.txt) of control points selected for the georeferencing activities shall be provided for each GeoTIFF. This file will allow APFO to re-georeference original scans, if necessary, by selecting the exact points used by the Contractor. This text file will have as a minimum, fields for the x, y source (“from”) points and x, y map (“to”) points, and shall be loadable using the Georeferencing Toolbar in ESRI ArcGIS 8.3 or higher software. The file shall be named following the format provided in Section J, Exhibit 4, Directory and File Naming Convention. Refer to Section J, Exhibit 2, Control Point File, for an example.

7.4 Delivery Media

- (a) Media: The delivery media for the Georeferenced Scanned Index Reference Maps and associated files shall be External Combo USB2.0/IEEE1394 (Firewire) Hard

Drives. All external hard drives shall be “Combo” style drives, capable of both USB2.0 and IEEE1394 (Firewire) connections. The drives shall be formatted using Microsoft’s NTFS file system. The drives shall become property of the USDA and shall not be returned to the contractor. Each drive shall have a label attached identifying the State(s) and Index types contained on the drive in accordance with Section J, Exhibit 3, External Combo USB2.0/IEEE1394 (Firewire) Hard Drive Label.

- (b) Content: Deliverables shall be in electronic file folders on a scan by scan basis. The folder and all files within it shall be named according to the pattern given in Section J, Exhibit 4, Directory and File Naming Conventions.

7.5 File Naming Convention

The georeferenced scan file naming convention shall follow the format provided in Section J, Exhibit 4, Directory and File Naming Convention.

C-8 SHAPEFILES WITH POPULATED ATTRIBUTE FIELDS

8.1 General Requirements

All shapefiles shall meet the following requirements and specifications.

- (a) The bounding coordinates of each shapefile shall match the bounding coordinates of the georeferenced image.
- (b) The polygon created shall be a best approximation outline of the extents of the area represented on a given scan.
- (c) The following attribute fields shall be populated based upon the textual data resident on each georeferenced image and shall be in the format as identified. **Data fields may be left null only in cases where data to populate fields is not present on the scanned hardcopy original or when data on the original is illegible or otherwise obscured.**

Field Name	Field Type & Size	Field Description
SOLICIT_NO	String (20)	Solicitation/Invitation Number
CNTRCT_YR	Number (4)	Contract Year
LOOKUP_SYM	String (15)	Project/Lookup Symbol
PHOTO_PGM	String (6)	Agency/Photo Program
FILM_TYPE	String (4)	Film Type
FILM_SCALE	Number (6)	Scale

EXAMPLE:

Field Name	Field Type & Size
SOLICIT_NUM	CSS-2-55-DC
CNTRCT_YR	1955
LOOKUP_SYMBOL	27123
PHOTO_PGM	USDA0
FILM_TYPE	SBNI
FILM_SCALE	20000

- (d) Valid values for the population of the PHOTO_PGM and FILM_TYPE fields are shown in Exhibit 5, Valid Field Values for PHOTO_PGM and FILE_TYPE.
- (e) The shapefiles shall use the standard extensions (i.e., .shp, .shx, .sbn, .sbx, .dbf, and .prj) and the metadata for the shapefiles shall use a “.txt” extension.
- (f) Provide Federal Geographic Data Committee (FGDC) compliant metadata per the FGDC-STD-001-1998 specification for each shapefile, using the metadata template provided by the Government. The metadata must parse cleanly through the USGS metadata parser “mp” version 2.8.10 (or later version) without errors.
- (g) Shapefiles shall be viewable and editable in ESRI ArcView 3.x or newer versions of ArcGIS software.

8.2 Delivery Media

Refer to Section C-7.4 Delivery Media. The Shapefiles with Populated Attribute Fields shall be delivered at the same time and in the same directory/folder structure as the Georeferenced Scanned Index Reference Maps they represent.

8.3 Shapefile Naming Convention

Refer to Section J, Exhibit 4, Directory and File Naming Conventions for the naming convention and examples.

PART I - THE SCHEDULE

SECTION D - PACKAGING AND MARKINGD-1 PREPARATION OF MATERIALS FOR SHIPMENT

External Combo USB2.0/IEEE1394 (Firewire) Hard Drives. Drives shall be “Combo” style drives, capable of both USB2.0 and IEEE1394 (Firewire) connections. The drives shall be formatted using Microsoft’s NTFS Filing System. The drives shall become property of the USDA and shall not be returned to the contractor. Each drive shall have a label attached identifying the State(s)/Region(s)/Territory(s) and Index types contained on the drive in accordance with Section J, Exhibit 3, External Combo USB2.0/IEEE1394 Firewire) Hard Drive Label.

D-2 METHOD OF DELIVERY

- (a) Deliverables for Section B-3.4 Project Summary and Recommendations shall be made on CD-ROM (2 copies) to the Contracting Officer. No particular format is required for the labeling of these CD-ROMS. Each CD-ROM shall have a printed label identifying the Solicitation Number and Project Name.
- (b) Deliverables for Sections B-3.1 Original Scan Index Reference Maps; B-3.2 Georeferenced scanned Index Reference Maps; and B-3.3 Shapefile Requirement shall be made via External Combo USB2.0/IEEE1394 (Firewire) Hard Drives. All hard drives will be scanned for viruses by APFO Information Technology (IT) staff prior to being loaded onto the APFO network. If viruses are discovered, the entirety of the data on the hard drive will be rejected and the data will need to be resubmitted by the Contractor and the hard drive will be returned to the **on site** Contractor.
- (c) First Product Delivery: Refer to Section F-3.1 First Product Delivery for instructions. All deliverable files for a given scan must be delivered at the same time.

D-3 PACKAGING FOR SHIPMENT

- (a) All material shall be packed for shipment in such a manner that will ensure acceptance by common carrier and safe delivery at destination. Containers and closures shall comply with the Interstate Commerce Commission regulations, Uniform Freight Classification rules, or regulations of other carriers as applicable to the mode of transportation. Damaged materials will be replaced by the Contractor at no cost to the Government.
- (b) A Government furnished packing slip form shall accompany each shipment. See Section J, Exhibit 7, Packing Slip.

D-4 SHIPPING RECEIPTS

Receipts from common carriers for shipment of materials shall be retained by the Contractor and be made available to the Contracting Officer upon request.

D-5 SHIPPING CONTAINER MARKINGS

All shipping containers shall be clearly marked with delivery address. See Section F-2.

PART I -THE SCHEDULE

SECTION E - INSPECTION AND ACCEPTANCE

E-1 INSPECTION AND ACCEPTANCE (FEB 1988) (AGAR 452.246-70)

- (a) The Contracting Officer or the Contracting Officer's duly authorized representative will inspect and accept the supplies and/or services to be provided under this contract.
- (b) Inspection and acceptance will be performed at:

Aerial Photography Field Office
2222 West 2300 South
Salt Lake City, Utah 84119-2020

E-2 INSPECTION PROCEDURE

- (a) All materials specified in Section F-1 will be inspected to determine conformance to all contract requirements and specifications. Inspections will be performed at the APFO in Salt Lake City, Utah. (Refer to FAR 52.246-2, Inspection of Supplies-Fixed Price and FAR 52.246-4, Inspection of Services-Fixed Price.)
- (b) If inspection of materials reveals marginal deficiencies, a review may be performed to determine if deficiencies may cause increased time and effort in using the material as intended.
- (c) If any of the services do not conform to the contract requirements, the Government may require the Contractor to perform the services again in conformity with contract requirements, at no increase in contract amount. When the defects in services cannot be corrected by re-performance, the Government may:
 - (1) Require the Contractor to take necessary action to ensure that future performance conforms to contract requirements and
 - (2) Reduce the contract price to reflect the reduced value of services performed.

E-3 INSPECTION SCHEDULE

- (a) The Government will make every effort to inspect all material specified within 60 calendar days after they are received at the point designated. Should the inspection procedure be delayed longer than 60 days, the Contractor will be notified of the reason(s) for delay and given the estimated completion date.
- (b) The Contractor will be notified in writing whether the materials are satisfactory and what indexes, if any, shall be re-scanned and what materials, if any, shall be remade because of non-conformity with contract requirements.

E-4 PRELIMINARY INSPECTION

- (a) USDA reserves the right to call in materials for incomplete project areas at any time during the contract period as deemed necessary, to determine extent of acceptability.
- (b) The APFO will perform a preliminary inspection of materials that have been determined questionable from the contractor's inspection, within 2 days of receipt, provided that:
 - (1) The performance period or any approved extension has not expired.
 - (2) In the event of rejected material which requires rework, the contractor shall undertake such rework prior to the end of the contract performance period or approved extension.

E-5 ACCEPTANCE

- (a) Final acceptance will be made after inspection by the Government of all required materials delivered at the specified destination. The delivery date is specified under Section F-3. The acceptance date shall be the date of the letter by the Government to the contractor stating all materials are acceptable and invoice may be submitted.
- (b) Partial acceptance of incomplete projects will be made only after all materials required for the incomplete project have been delivered, inspected, and accepted by the Government. The acceptance date shall be the date of the letter by the Government to the contractor identifying the amount of partial acceptance and referring the contractor to the Contracting Officer.

E-6 CLAUSES INCORPORATED BY REFERENCE (FEB 1998) (FAR 52.252-2)

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

FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1) CLAUSES:

52.246-02 Inspection of Supplies - Fixed Price (AUG 1996)

52.246-04 Inspection of Services - Fixed Price (AUG 1996)

52.246-16 Responsibility for Supplies (APR 1984)

PART I - THE SCHEDULE

SECTION F - DELIVERIES OR PERFORMANCEF-1 MATERIALS TO BE DELIVERED

The materials as specified shall be delivered as required herein.

- (a) Original scan index reference maps in TIFF format.
- (b) Georeferenced index maps in GeoTIFF format.
- (c) Fully attributed shapefiles for georeferenced index maps.
- (d) Project summary and recommendations for future large scale scanning projects.

All materials shall conform to requirements stated herein and become the property of the USDA.

F-2 PLACE OF DELIVERY

The materials to be furnished hereunder shall be delivered, all transportation charges paid by the Contractor, and in accordance with FAR Clause 52.247-35, F.o.b. Destination, Within Consignee's Premises, to:

USDA, FSA, Aerial Photography Field Office
Contracting Section
2222 West 2300 South
Salt Lake City, Utah 84119-2020

Offers submitted on a basis other than F.O.B. Destination within consignee's premises will be deemed unacceptable or rejected as non-responsive.

Packing slip forms for individual states/areas will be furnished to the Contractor upon award. A form must be completed and included with every shipment of goods.

F.O.B. DESTINATION, WITHIN CONSIGNEE'S PREMISES (APR 1984) (FAR 52.247-35)

- (a) The term "f.o.b. destination, within consignee's premises," as used in this clause, means free of expense to the Government delivered and laid down within the doors of the consignee's premises, including delivery to specific rooms within a building if so specified.
- (b) The Contractor shall -
 - (1) (i) Pack and mark the shipment to comply with contract specifications; or
(ii) In the absence of specifications, prepare the shipment in conformance with carrier requirements;
 - (2) Prepare and distribute commercial bills of lading;
 - (3) Deliver the shipment in good order and condition to the point of delivery specified in the contract;
 - (4) Be responsible for any loss of and/or damage to the goods occurring before receipt of the shipment by the consignee at the delivery point specified in the contract;
 - (5) Furnish a delivery schedule and designate the mode of delivering carrier; and
 - (6) Pay and bear all charges to the specified point of delivery.

F-3 SCHEDULE FOR DELIVERY OF MATERIALS

All materials required in this contract shall be shipped within time limits specified in the contract requirements. Failure to ship within the period stated will be considered as failure by the Contractor to prosecute the work as to ensure completion and will render the contract subject to default. Date of shipment will be shown by postmark or carrier receipt.

3.1 First Product Delivery

This contract requires a first product delivery for testing and evaluation purposes. This material may be delivered on DVD-ROM at the Contractor's option. The following quantities shall be provided:

- (a) Original Scan Index Reference Maps and associated Scan Support Files, Quantity 25.
- (b) Georeferenced Scanned Index Reference Maps and associated Shapefiles, metadata, and Control Point Files produced from the Original Scan Index Reference Maps in (a), Quantity 25.

3.2 Original Materials - Delivery Schedule

Unless otherwise specified, all delivery materials required for all original and USDA ordered rework for a project shall be shipped as soon as completed but not later than 15 calendar days after the performance period has ended, or any extension thereof. Delivery schedules for other contract materials shall be specified in the contract. Prompt delivery of all materials will better assure the timely inspection and prompt payment for accepted materials.

3.3 Remake Materials - Delivery Schedule

Unless otherwise specified in the task order, all remake materials requested by USDA shall be shipped as soon as possible after correction is made, but no later than 15 days after receipt in the Contractor's facility of the materials or data required to make the corrections. Signed delivery receipts will be required to verify date of receipt of such data or materials by the Contractor.

F-4 CONTRACTOR'S RESPONSIBILITIES

The Contractor shall: furnish all materials, superintendence, labor, transportations, and equipment; execute and complete the index scanning and georeferencing of the specified indexes and deliver to the USDA the materials called for; execute all work expeditiously, to the satisfaction of the Contracting Officer or authorized Contracting Officer's Representative(s).

F-5 PERFORMANCE OF THE WORK

The Contracting Officer will authorize and direct the project to begin or end anytime within 30 days before or after the approximate dates given, depending upon the current workload and usage of the indexes to be scanned. No scanning shall be undertaken before the Notice to Proceed is issued or after the final date of the performance period (or its extension) has occurred.

5.1 Notice To Proceed

The Notice to Proceed will be given by telephone and confirmed in writing by regular mail. Failure of the Contractor to proceed with scanning on an item within 10 calendar days after

a "Notice to Proceed" is given may be considered as evidence of failure to prosecute the work so as to ensure its timely completion. As evidence of performance, Progress Reports shall be submitted.

5.2 Performance Period Extension

- (a) The Government reserves the right to extend the performance period of this contract beyond the approximate period indicated in Section B-1.2(a).
- (b) The Government may extend the performance period of this contract, at no increase in price, by written notice to the Contractor at any time prior to the end of the original performance period. (Refer to FAR 52.217-08 "Option to Extend Services".)

5.3 Option to Extend the Term of the Contract (MAR 2000) (FAR 52.217-09)

- (a) The Government may extend the term of this contract by written notice to the Contractor within **90** days of the end of the base and any option period; provided that the Government give the Contractor a preliminary written notice of its intent to extend at least **30** days before the contract expires. The preliminary notice does not commit the Government to an extension.
- (b) If the Government exercises this option, the extended contract shall be considered to include this option clause.
- (c) The total duration of this contract, including the exercise of any options under this clause, shall not exceed **2 years 6 months**.

F-6 CLAUSES INCORPORATED BY REFERENCE (FEB 1998) (FAR 52.252-02)

This contract incorporates one or more clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. Also, the full text of a clause may be accessed electronically at this address: <http://acquisition.gov/comp/far/index.html>.

FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1) CLAUSES:

52.242-15 Stop Work Order (AUG 1989)

52.242-17 Government Delay of Work (APR 1984)

PART I - THE SCHEDULE

SECTION G - CONTRACT ADMINISTRATION DATAG-1 CONTRACTING OFFICE

The Aerial Photography Field Office (APFO) of the United States Department of Agriculture (USDA), Farm Service Agency (FSA), is responsible for the solicitation, award, and administration of this contract.

Communications shall be directed to:

Contracting Officer, USDA - FSA
Aerial Photography Field Office
2222 West 2300 South
Salt Lake City, Utah 84119-2020

Telephone (801) 975-3500 Ext. 207
Facsimile (801) 975-3512
E-mail: apfo.contracts@slc.usda.gov

Written correspondence shall reference the contract number and/or solicitation number plus project item number.

G-2 CONTRACTING OFFICER'S REPRESENTATIVE

The awarded contract may have a Contracting Officer's Representative (COR) or a Contracting Officer's Technical Representative (COTR) to monitor progress or performance on this contract. Such designations will be made either at the time of award or by appointment letter.

G-3 CONTRACT INTERPRETATION

Technical assistance regarding interpretation of the specifications and/or terms of the contract will be provided by the Contracting Officer or the COR. Only the Contracting Officer has authority to award, modify, and terminate contracts. The Contractor is encouraged to visit the USDA-APFO facilities and discuss the contract and inspection procedures.

3.1 Discrepancies

Any discrepancy in the schedule or contract technical specifications shall be immediately called to the attention of the Contracting Officer for decision. A discrepancy shall not be adjusted without approval of the Contracting Officer, except at the Contractor's own risk and expense.

G-4 PACKING SLIP

Packing slips are required for this contract and forms will be furnished by the Contracting Officer. Please refer to instructions contained in the packing slip (see Section J, Exhibit 7). It is

essential that all items of information requested on the report be provided. Packing slips shall be prepared and submitted for all shipments of deliverable material to APFO.

G-5 SUBCONTRACTS

Before entering into a subcontract covering any part of the work called for, the Contractor shall inform the Contracting Officer and submit information required by the Contracting Officer to determine acceptability and approval of the anticipated subcontractor's equipment to be used.

G-6 CHARGES TO CONTRACTOR

The USDA may, at its option, correct deficiencies found to exist in connection with materials submitted by the Contractor and deduct from the Contractor's vouchers the cost thereof to the Government. When the deficiencies to be corrected are such that the cost exceeds \$100.00 at current prices, such corrections will be made only with the prior approval of the Contractor, except in the event of termination for default.

G-7 PARTIAL PAYMENTS

For a partially completed project area within a project item, listed as a line item in Section B, acceptance and payment will be made on a per scan basis at the rate of 90 percent of the amount due. Any payment thus made is a partial payment of the contract. These partial payments may be issued monthly for work completed and accepted during the previous month. Upon acceptance of the complete project item or line item, the remaining payment, to total the full payment due for the project item or line item, will be made. Partial payments shall be approved by the Contracting Officer under the conditions stated in FAR 52.232-1, Payments.

G-8 PAYMENT DUE DATE

The required payment date will be 30 calendar days after:

- (a) The date of actual receipt of a proper invoice by the office designated to receive the invoice, or the date all contract deliverables are accepted, whichever is later.
- (b) The date of the check issued in payment or the date of the payment by electronic funds transfer shall be considered to be the date payment is made.

G-9 INTEREST ON OVERDUE PAYMENTS

- (a) The Prompt Payment Act, Public Law 100-496 (96 Stat. 85, 31 USC 1801) is applicable to payments under this contract and requires the payment to Contractors of interest on overdue payments and improperly taken discounts.
- (b) Determinations of interest due will be made in accordance with the provisions of the Prompt Payment Act and Office of Management and Budget Circular A-125.

G-10 INVOICES

An original invoice shall be submitted to the Contracting Officer designated in this contract or on the delivery order to receive invoices. To constitute a proper invoice, the invoice must include the following information and/or attached documentation:

- (a) Name and address of the contractor.
- (b) Invoice date.
- (b) Contract number or other authorization for supplies delivered or services performed.
- (c) Description, quantity, unit of measure, unit price, and extended price of supplies delivered or services performed.
- (d) Shipping and payment terms.
- (e) Name and address of contractor official to whom payment is to be sent (must be the same as that in the contract or in a proper notice of assignment).
- (f) Name (where practicable), title, phone number, and mailing address of person to notify in the event of a defective invoice.
- (g) Any other information or documentation required by the contract.
- (h) While not required, contractors are strongly encouraged to assign an identification number to each invoice.

Notice of an apparent error, defect, or impropriety in an invoice will be given to the Contractor within 7 days of receipt of an invoice and suitably documented.

PART I - THE SCHEDULE

SECTION H - SPECIAL CONTRACT REQUIREMENTS

H-1 OWNERSHIP OF CONTRACT MATERIALS

All maps and data, in all forms, including project deliverables or materials used in the creation of deliverables are exclusively owned by the United States Government. Copying, using material for third party sales or applications, reproducing or sharing the data, in any form, with any other entity outside of the Contractor (including Subcontractors under the supervision of the Contractor), is strictly prohibited without the written permission of the Contracting Officer. All maps and data, in all forms, must be kept in a locked or access controlled room when not in use. All materials and byproducts, including digital files, provided by the government shall be returned to the government at the end of the contract and/or be destroyed and **written certification** that they have been destroyed be delivered to the Contracting Officer. All deliverables shall become the property of the Government upon formal acceptance. See FAR 52.246-16, Responsibility For Supplies. No reproductions shall be made prior to inspection by the Government unless specified in the contract or authorized by the Contracting Officer.

H-2 SECURITY REQUIREMENTS

Per USDA and Department of Homeland Security regulations and requirements, all individuals performing on this contract and visiting the APFO facility shall complete the required documentation which includes Form 1197, Form 176T, and fingerprinting before being granted access to the APFO facility and receiving security access badges. The appropriate forms and instructions will be provided at the time of award.

H-3 TECHNICAL SUPPORT AND WARRANTY

The Contractor shall provide a minimum of one-year customer service and technical support on all product deliverables. This warranty will include coverage for any and all faulty, damaged, corrupt, or otherwise not to specification deliverables, and will require the Contractor to do rework within the warranty period on data that does not meet contract deliverable acceptance criteria. The warranty period will begin at the end of the performance period.

H-4 NOTICE TO THE GOVERNMENT OF DELAY

The Contractor shall immediately, upon becoming aware of any difficulties in meeting performance requirements during the performance period or when difficulties are encountered which may delay deliveries under the contract, notify the Contracting Officer in writing thereof. Such notification shall identify difficulties, the reasons therefore, and the estimated period of anticipated delay.

FAILURE OF THE CONTRACTOR TO GIVE SUCH NOTICE MAY PRECLUDE LATER CONSIDERATION OF ANY CLAIM FOR NON-PERFORMANCE DUE TO ADVERSE CONDITIONS OR ANY REQUEST FOR AN EXTENSION OF CONTRACT TIME.

H-5 WAGE DETERMINATION

The Wage Determination applicable to any contract resulting from this solicitation is determined by the location of contract performance which is Salt Lake City, Utah.

Wage Determination Number 1994-2531, Rev. No. 28, Dated July 15, 2005 applies to this solicitation, and will be applicable for contract performance in the State of Utah. See Section J, Exhibit 8, Wage Determination.

H-6 INDUSTRY SMALL BUSINESS STANDARD

The small business industry size standard for the type of services covered by this procurement, under NAICS Code 518210, is the average annual receipts of the concern and its affiliates for the preceding three (3) years not in excess of \$23 million.

PART II - CONTRACT CLAUSES

SECTION I - CONTRACT CLAUSESI-1 STATEMENT OF EQUIVALENT RATES FOR FEDERAL HIRES (MAY 1989)
(FAR 52.222-42)

In compliance with the Service Contract Act of 1965, as amended, and the regulations of the Secretary of Labor (29 CFR part 4), this clause identifies the classes of service employees expected to be employed under the contract and states the wages and fringe benefits payable to each if they were employed by the contracting agency subject to the provisions of 5 U.S.C. 5341 or 5332.

THIS STATEMENT IS FOR INFORMATION ONLY.
IT IS NOT A WAGE DETERMINATION.

<u>Occupation Code</u>	<u>Title</u>	<u>Minimum Wage Rate</u>
01132	Key Entry Operator II	\$12.20
03160	Peripheral Equipment Operator	\$11.06
29030	Cartographic Technician	\$22.08

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

This contract incorporates the following clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. Also, the full text of a clause may be accessed electronically at this address: www.arnet.gov/far.

FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1) CLAUSES:

- 52.202-01 Definitions (JUL 2004)
- 52.203-03 Gratuities (APR 1984)
- 52.203-05 Covenant Against Contingent Fees (APR 1984)
- 52.203-06 Restrictions on Subcontractor Sales to the Government (JUL 1995)
- 52.203-07 Anti-Kickback Procedures (JUL 1995)
- 52.203-08 Cancellation, Rescission, and Recovery of Funds for Illegal or Improper Activity (JAN 1997)
- 52.203-10 Price or Fee Adjustment for Illegal or Improper Activity (JAN 1997)
- 52.203-12 Limitation on Payments to Influence Certain Federal Transactions (JUN 2003)
- 52.204-04 Printed or Copied Double-Sided on Recycled Paper (AUG 2000)
- 52.204-07 Central Contractor Registration (OCT 2003)

- 52.209-06 Protecting the Government's Interest When Subcontracting with Contractors Debarred, Suspended, or Proposed for Debarment (JUL 1995)
- 52.215-02 Audit and Records - Negotiation (JUN 1999)
- 52.215-08 Order of Precedence - Uniform Contract Format (OCT 1997)
- 52.215-14 Integrity of Unit Prices (OCT 1997)
- 52.216-27 Single or Multiple Awards (OCT 1995)
- 52.217-06 Option for Increased Quantities (March 1989).
- 52.217-08 Option to Extend Services (NOV 1999)
- 52.217-09 Option to Extend the Term of the Contract (MAR 2000)
- 52.219-04 Notice of Price Evaluation Preference for HUBZone Small Business Concerns (OCT 2004)
- 52.219-06 Notice of Total Small Business Set-Aside (JUN 2003)
- 52.219-08 Utilization of Small Business Concerns (MAY 2004)
- 52.219-09 Small Business Subcontracting Plan (JAN 2002)
- 52.222-03 Convict Labor (JUN 2003)
- 52.222-04 Contract Work Hours and Safety Standards Act - Overtime Compensation (SEP 2000)
- 52.222-21 Prohibition of Segregated Facilities (FEB 1999)
- 52.222-26 Equal Opportunity (APR 2002)
- 52.222-35 Equal Opportunity for Special Disabled Veterans, Veterans of the Vietnam Era, and Other Eligible Veterans (DEC 2001)
- 52.222-36 Affirmative Action for Workers with Disabilities (JUN 1998)
- 52.222-37 Employment Reports on Special Disabled Veterans and Veterans of the Vietnam Era, and Other Eligible Veterans (DEC 2001)
- 52.222-41 Service Contract Act of 1965, as Amended (MAY 1989)
- 52.222-44 Fair Labor Standards Act and Service Contract Act - Price Adjustment (FEB 2002)
- 52.222-50 Combating Trafficking in Persons
- 52.223-06 Drug-Free Workplace (MAY 2001)

- 52.223-14 Toxic Chemical Release Reporting (AUG 2003)
- 52.225-01 Buy American Act - Supplies (JUN 2003)
- 52.225-13 Restrictions on Certain Foreign Purchases (DEC 2003)
- 52.227-01 Authorization and Consent (JUL 1995)
- 52.227-03 Patent Indemnity (APR 1984)
- 52.227-14 Rights in Data - General - Alternate I (JUN 1987)
- 52.229-03 Federal, State, and Local Taxes (APR 2003)
- 52.232-01 Payments (APR 1984)
- 52.232-08 Discounts for Prompt Payment (FEB 2002)
- 52.232-09 Limitation on Withholding of Payments (APR 1984)
- 52.232-11 Extras (APR 1984)
- 52.232-17 Interest (JUN 1996)
- 52.232-18 Availability of Funds (APR 1984)
- 52.232-23 Assignment of Claims (JAN 1986)
- 52.232-25 Prompt Payment (OCT 2003)
- 52.233-01 Disputes (JUL 2002)
- 52.233-03 Protest After Award (AUG 1996)
- 52.242-02 Production Progress Reports (APR 1991)
- 52.242-13 Bankruptcy (JUL 1995)
- 52.243-01 Changes - Fixed Price - Alternate II (APR 1984)
- 52.245-04 Government Furnished Property (Short-Form) (JUN 2003)
- 52.246-25 Limitation of Liability - Services (FEB 1997)
- 52.248-01 Value Engineering (FEB 2000)
- 52.249-04 Termination for Convenience of the Government (Services) (Short Form) (APR 1984)
- 52.249-08 Default (Fixed-Price Supply and Service) (APR 1984)
- 52.253-01 Computer Generated Forms (JAN 1991)

PART III - LIST OF DOCUMENTS, EXHIBITS, AND OTHER ATTACHMENTS

SECTION J - LIST OF EXHIBITS AND ATTACHMENTS

<u>EXHIBIT</u>	<u>DESCRIPTION</u>	<u>PAGE</u>
Exhibit 1	Index Scanning Priority List (1 page).	31
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ATTACHMENT

A USDA GeoTIFF Description and Specification (12 pages).

EXHIBIT 1

INDEX SCANNING PRIORITY LIST**Priority 1 – Photo Indexes**

- a. Texas
- b. Utah
- c. California
- d. Colorado
- e. Oregon
- f. Washington
- g. Oklahoma
- h. Pennsylvania
- i. Louisiana
- j. Illinois
- k. Idaho
- l. New Mexico
- m. Florida
- n. Georgia
- o. Virginia
- p. New York
- q. New Jersey
- r. Maryland
- s. Massachusetts
- t. Remaining States and Territories
- u. Forest Service
 - i. Region 4
 - ii. Remaining Regions

Priority 2 – Line/Spot Indexes

- a. NAPP
- b. NHAP
- c. Region 4
- d. Region 5
- e. Region 6
- f. Region 2
- g. Region 1
- h. Remaining Regions
- i. Remaining Territories and Agencies

Priority 3 – Resource Photography Digital Indexes (2003 to present)

These indexes do not require physical scanning, but do require all other processing as outlined in the Statement of Work.

EXHIBIT 2

CONTROL POINT FILE

The following is an example of an appropriately formatted control point file. The screen shot in the figure below is as displayed in Notepad, where (from left to right) tab delimited columns represent the “X Source”, “Y Source”, “X Map”, “Y Map” values. The control point file must be loadable using the Georeferencing Toolbar in ESRI ArcGIS 8.3 or higher software. Note that default settings in ArcGIS allow display of significant figures for georeferencing to 6 decimal places. Control points shall display at least two (2) but not more that six (6) significant figures after the decimal.

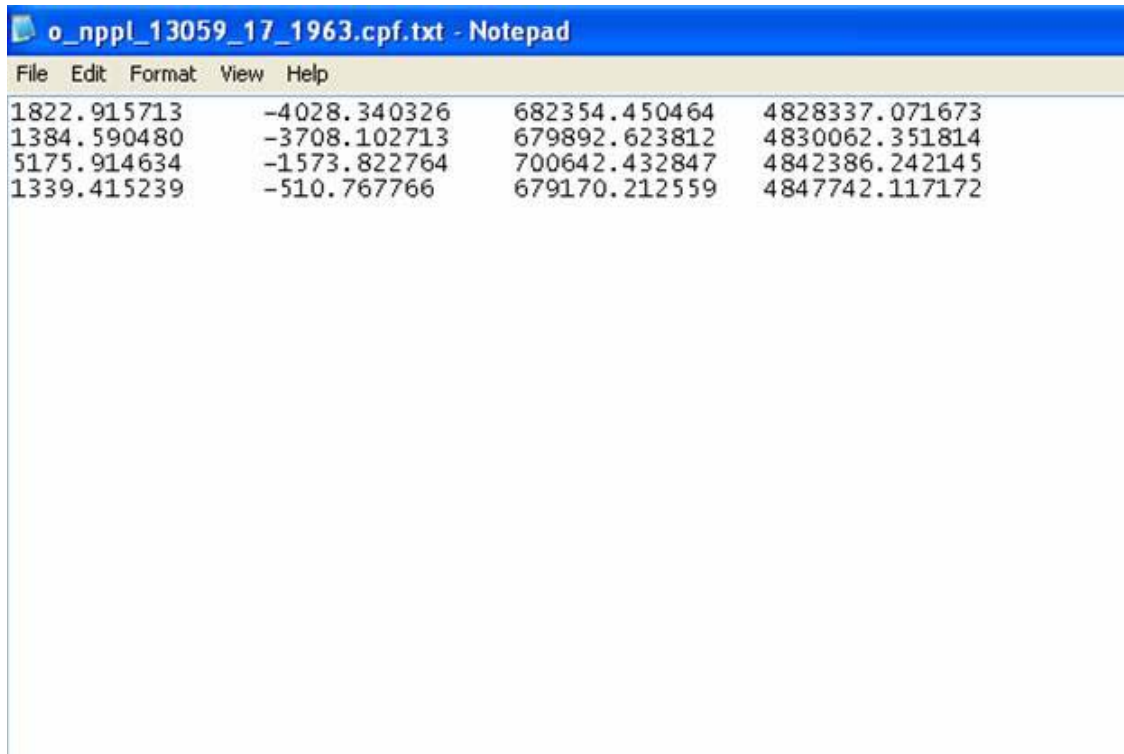
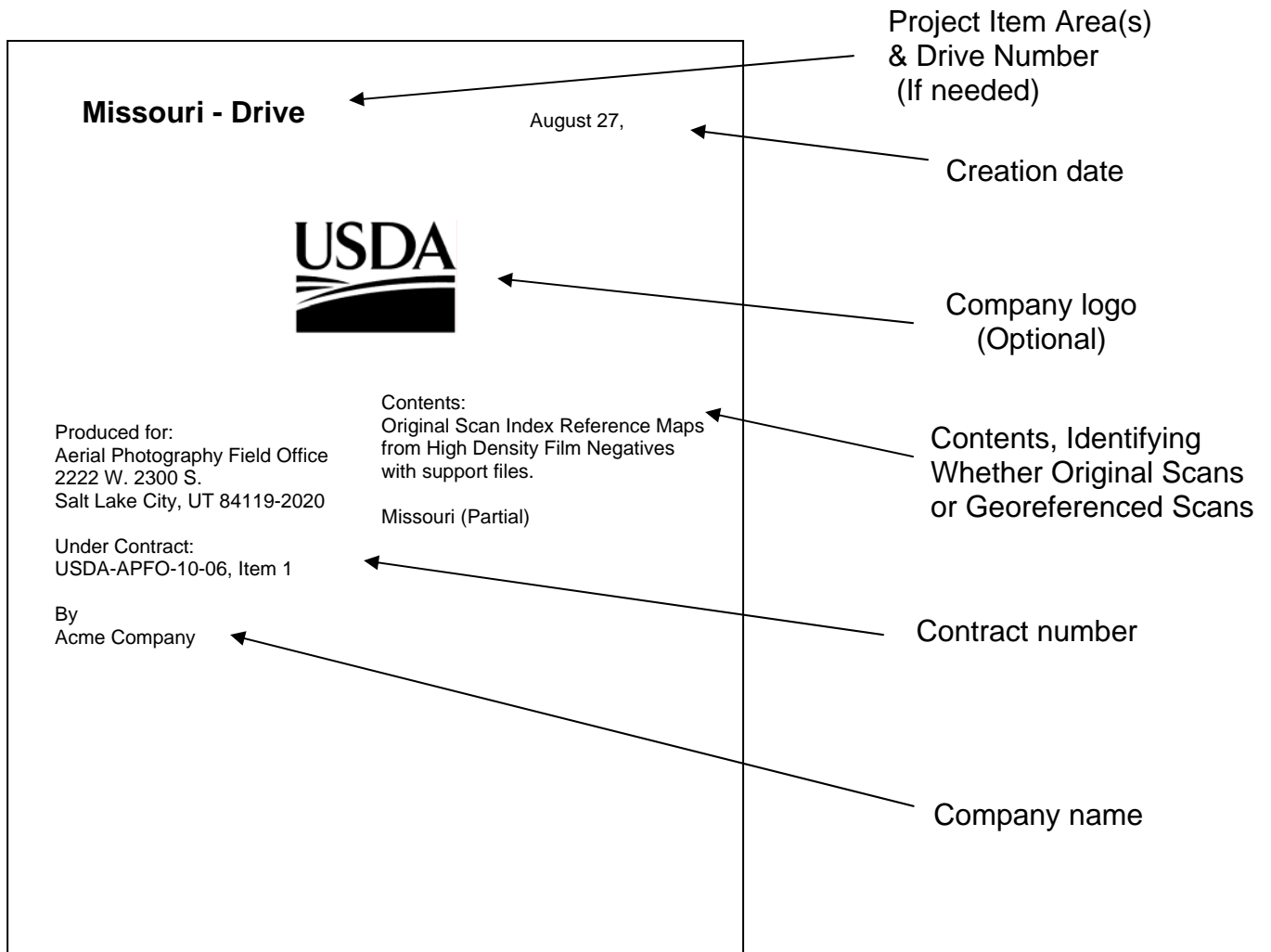


EXHIBIT 3

Figure 1

External Combo USB2.0/IEEE1394 (Firewire) Hard Drive Label



Label should be sized to fit the drive as needed: Approximately 3 1/2" X 4 1/2"

EXHIBIT 4

DIRECTORY AND FILE NAMING CONVENTIONS**General**

Deliverables shall be in two file directories:

The first file directory shall adhere to the following naming convention:

/original/<statecode>/<fipscode>/

Example: original/fl/12125

For Union County, Florida

This directory shall contain:

1. Original Scan (.tif)
2. Scan Support file (.txt)

The second file directory shall adhere to the following naming convention:

/georef/<statecode>/<fipscode>/

Example: georef/fl/12125

For Union County, Florida

This directory shall contain:

1. Georeferenced Scan (.tif)
2. Georeferenced Scan Metadata (.txt)
3. Shapefile (.shp, .dbf, .shx, .prj, etc.)
4. Shapefile Metadata (.shp.txt)
5. Control Point file (.txt)

All deliverable files shall adhere to the following convention, with the exception of the Shapefile Metadata file and the Control Point file:

<imgtype>_<photopgm>_<fipscode>_<utmzone>_<sheetno>_<cntryear>.<ext>

Example: o_nappl_13059_17_01_1963.tif

Shapefile Metadata shall comply with the above convention for a .shp file, however, will include the .txt extension at the end of the name.

Example: o_nappl_13059_17_01_1963.shp.txt

The Control Point file shall comply with the above convention, however, will add .cpf before the .txt extension.

Example: o_nappl_13059_17_01_1963.cpf.txt

Directory and File Naming Convention Descriptors:

imgtype – Index will be grey scale image, 1 character (o – black and white)

photopgm – Photo program, 5 characters (NAPP1, FSA00, FS000, ASCS0, etc.)

*note - valid values for photopgm are shown in Exhibit 5

fipscode – State and county FIPS code, 5 digits

*note – fipscode for National Forest scans refers to National Forest ID (f0201, f6010, etc.)

utmzone – UTM zone number, 2 characters (01, 02, 03, ... 10, 11, etc.)

sheetno – Found in the index, 2 digits (01, 02, 10, etc.)

cntryear – Contract year of film acquisition, 4 digits (1956, 1963, etc.)

ext – Extension for the file type, 3 characters (tif, shp, txt, etc.)

statecode – 2 letter state code (wy, oh, fl, etc.)

*note - the state code may also refer to a 2 letter territory code outside the Continental United States (CONUS).

An **example** of the deliverable file names in each of the two directories:

Directory: original/ga/13059

Original Scan: o_nappl_13059_17_01_1963.tif

Scan Support file: o_nappl_13059_17_01_1963.txt

Directory: georef/ga/13059

Georeferenced Scan: o_nppl_13059_17_01_1963.tif

Georeferenced Scan Metadata: o_nppl_13059_17_01_1963.txt

Shapefile: o_nappl_13059_17_01_1963.shp

o_nappl_13059_17_01_1963.shx

o_nappl_13059_17_01_1963.dbf

o_nappl_13059_17_01_1963.prj

Shapefile Metadata: o_nappl_13059_17_01_1963.shp.txt

Control Point file: o_nappl_13059_17_01_1963.cpf.txt

EXHIBIT 5

VALID FIELD VALUES FOR PHOTO_PGM AND FILM_TYPE

The following is a list of valid field values for the shapefile field PHOTO_PGM. No other field values are allowed. NOTE: The GEOTIFF PHOTO_PGM fields are padded with Zeros (000) to total five (5) characters.

GEOTIFF PHOTO_PGM	FILM PHOTO_PGM	PHOTO PROGRAM DESCRIPTION
ASCS0	ASCS	Agricultural Stabilization and Conservation Service
BIA00	BIA	Bureau of Indian Affairs
BLM00	BLM	Bureau of Land Management
FS000 **	FS	U. S. Forest Service
FSA00	FSA	Farm Service Agency
USGS0	GS	U. S. Geological Survey
MIL00	MIL	U. S. Military
MILA1	MILA1	U. S. Military A1
MILA2	MILA2	U. S. Military A2
NA000	NA	Not Applicable
NAPP1	NAPP1	National Aerial Photo Program – Cycle 1
NAPP2	NAPP2	National Aerial Photo Program – Cycle 2
NAPP3	NAPP3	National Aerial Photo Program – Cycle 3
NASA0	NASA	National Aviation and Space Administration
NAVY0	NAVY	U. S. NAVY
NDOP0	NDOP	National Digital Ortho Program
NFAP0	NFAP	National Forest Assessment Program
NH000	NH	New Hampshire
NHAP1	NHAP1	National High Altitude Program – Cycle 1
NHAP2	NHAP2	National High Altitude Program – Cycle 2
NPS00	NPS	National Park Service
NRCS0	NRCS	Natural Resource & Conservation Service
OTHER	OTHER	OTHER
SCS00	SCS	Soil Conservation Service
USDA0	USDA	U. S. Department of Agriculture

** Forest Service Projects with multiple indexes in a given contract year – the last digit will increment. (FS001, FS002, FS003, etc.)

The following is a list of valid four (4) character (in CAPS) field values for the shapefile field FILM_TYPE. No other field values will be permitted. Microfilm includes microfilm and microfiche.

FILM_TYPE
SBNI – Scan BW Negative Index
SBMI – Scan BW Mylar Index
SBPI – Scan BW Paper Index
SBFI – Scan BW Microfilm Index

EXHIBIT 6

GLOSSARY AND DEFINITIONS

APFO: Aerial Photography Field Office

BW: Black and White

Contracting Officer's Representative (COR): A person who is responsible for specific technical and administrative duties related to a contract.

Contracting Officer's Technical Representative (COTR): A person who has the responsibility of providing technical information on a contract.

DRG: Digital Raster Graphic

FSA: Farm Service Agency

FGDC: Federal Geographic Data Committee

Georeferenced Scan: The product of taking the original scan and performing georeferencing activities as outlined in the Contract. The Georeferenced scan is a GeoTIFF with .tif extension.

Georeferencing: Registering data with correct real world coordinates. Defining location using map coordinates and assignment of a known reference system, which allows data to be viewed, queried, and analyzed with other geographic data.

MDOQ: Mosaicked Digital Ortho Quadrangle

NAD: North American Datum

NAIP: National Agriculture Imagery Program

NDOP: National Digital Orthophoto Program

NRCS: Natural Resource Conservation Service

On Site: Within the walled confines of APFO, located at 2222 West 2300 South, Salt Lake City, Utah, 84119-2020.

Original Scan: Original Scan refers to the initial scan of the hardcopy indexes. It is the first digital representation of the hardcopy indexes, photo, line, spot, or microfiche and it has NOT been georeferenced. The Original Scan is in TIFF format with .tif extension.

Remote Work: Any work occurring outside the walled confines APFO.

Scanning Equipment: Any equipment associated with the scanning of hardcopy media.

Shapefile: An Environmental Systems Research Institute (ESRI) vector data storage format for storing location, shape and attribute data of geographic features, stored as a set of related files.

TIFF: The Tagged Image File Format (TIFF), a copyrighted standard of Adobe Systems, Inc.

GeoTIFF: A Georeferenced TIFF. The GeoTIFF Format Specification is a public domain extension of TIFF that provides a robust and flexible method of storing georeferencing information in a TIFF file.

USDA: United States Department of Agriculture

USFS: United States Forest Service

USGS: United States Geological Survey

UTM: Universal Transverse Mercator

WGS: World Geodetic System

EXHIBIT 7

PACKING SLIP

STATEMENT OF SHIPMENT FOR SCANS

INSTRUCTIONS: This document will accompany all shipments from the contractor. Please complete the requested information at the top of the page and indicate all materials that are included in this shipment. If this is a partial shipment for a State or Area, please so indicate next to the quantities submitted.

SEND TO: CONTRACTING OFFICER
USDA-FSA-APFO
2222 WEST 2300 SOUTH
SALT LAKE CITY, UT 84119-2020

DATE: _____
SHIPMENT NUMBER: _____
TOTAL OF SCANS IN SHIPMENT: _____
NUMBER OF STATES/AREAS: _____

CONTENTS:

EXHIBIT 8
WAGE DETERMINATION

94-2531 UT, STATEWIDE

WAGE DETERMINATION NO: 94-2531 REV (28) AREA: UT, STATEWIDE

HEALTH AND WELFARE LEVEL - INSURANCE ONLY **OTHER WELFARE LEVEL WD: 94-2532

REGISTER OF WAGE DETERMINATIONS UNDER
THE SERVICE CONTRACT ACT
By direction of the Secretary of Labor

U.S. DEPARTMENT OF LABOR
EMPLOYMENT STANDARDS ADMINISTRATION
WAGE AND HOUR DIVISION
WASHINGTON D.C. 20210

William W.Gross Division of
Director Wage Determinations

Wage Determination No.: 1994-2531
Revision No.: 28
Date Of Revision: 07/15/2005

State: Utah
Area: Utah Statewide

Fringe Benefits Required Follow the Occupational Listing

OCCUPATION CODE - TITLE	MINIMUM WAGE RATE
01000 - Administrative Support and Clerical Occupations	
01011 - Accounting Clerk I	9.71
01012 - Accounting Clerk II	11.06
01013 - Accounting Clerk III	12.99
01014 - Accounting Clerk IV	14.53
01030 - Court Reporter	14.65
01050 - Dispatcher, Motor Vehicle	16.80
01060 - Document Preparation Clerk	11.30
01070 - Messenger (Courier)	9.15
01090 - Duplicating Machine Operator	11.30
01110 - Film/Tape Librarian	10.06
01115 - General Clerk I	9.35
01116 - General Clerk II	10.57
01117 - General Clerk III	11.54
01118 - General Clerk IV	12.95
01120 - Housing Referral Assistant	15.50
01131 - Key Entry Operator I	10.27
01132 - Key Entry Operator II	12.20
01191 - Order Clerk I	11.81
01192 - Order Clerk II	13.64
01261 - Personnel Assistant (Employment) I	11.75
01262 - Personnel Assistant (Employment) II	13.19
01263 - Personnel Assistant (Employment) III	14.51
01264 - Personnel Assistant (Employment) IV	16.12
01270 - Production Control Clerk	16.35
01290 - Rental Clerk	9.78
01300 - Scheduler, Maintenance	12.07
01311 - Secretary I	12.07
01312 - Secretary II	13.58
01313 - Secretary III	15.50
01314 - Secretary IV	18.43
01315 - Secretary V	19.98
01320 - Service Order Dispatcher	14.95
01341 - Stenographer I	13.78
01342 - Stenographer II	15.49

01400 - Supply Technician	18.43
01420 - Survey Worker (Interviewer)	11.00
01460 - Switchboard Operator-Receptionist	10.05
01510 - Test Examiner	13.58
01520 - Test Proctor	13.58
01531 - Travel Clerk I	10.64
01532 - Travel Clerk II	11.29
01533 - Travel Clerk III	11.84
01611 - Word Processor I	12.90
01612 - Word Processor II	15.88
01613 - Word Processor III	17.61
03000 - Automatic Data Processing Occupations	
03010 - Computer Data Librarian	10.36
03041 - Computer Operator I	12.14
03042 - Computer Operator II	15.36
03043 - Computer Operator III	18.14
03044 - Computer Operator IV	19.77
03045 - Computer Operator V	21.91
03071 - Computer Programmer I (1)	18.33
03072 - Computer Programmer II (1)	22.70
03073 - Computer Programmer III (1)	27.62
03074 - Computer Programmer IV (1)	27.62
03101 - Computer Systems Analyst I (1)	24.61
03102 - Computer Systems Analyst II (1)	27.62
03103 - Computer Systems Analyst III (1)	27.62
03160 - Peripheral Equipment Operator	11.06
05000 - Automotive Service Occupations	
05005 - Automotive Body Repairer, Fiberglass	17.53
05010 - Automotive Glass Installer	15.42
05040 - Automotive Worker	15.39
05070 - Electrician, Automotive	16.24
05100 - Mobile Equipment Servicer	13.69
05130 - Motor Equipment Metal Mechanic	16.91
05160 - Motor Equipment Metal Worker	15.39
05190 - Motor Vehicle Mechanic	16.01
05220 - Motor Vehicle Mechanic Helper	12.67
05250 - Motor Vehicle Upholstery Worker	14.54
05280 - Motor Vehicle Wrecker	15.39
05310 - Painter, Automotive	16.24
05340 - Radiator Repair Specialist	15.39
05370 - Tire Repairer	12.41
05400 - Transmission Repair Specialist	16.91
07000 - Food Preparation and Service Occupations	
(not set) - Food Service Worker	7.58
07010 - Baker	11.21
07041 - Cook I	9.03
07042 - Cook II	10.22
07070 - Dishwasher	7.19
07130 - Meat Cutter	12.97
07250 - Waiter/Waitress	7.71
09000 - Furniture Maintenance and Repair Occupations	
09010 - Electrostatic Spray Painter	15.76
09040 - Furniture Handler	11.34
09070 - Furniture Refinisher	15.76
09100 - Furniture Refinisher Helper	11.89
09110 - Furniture Repairer, Minor	13.64
09130 - Upholsterer	15.76

11030 - General Services and Support Occupations	
11030 - Cleaner, Vehicles	8.63
11060 - Elevator Operator	8.49
11090 - Gardener	11.86
11121 - House Keeping Aid I	8.01
11122 - House Keeping Aid II	8.49
11150 - Janitor	8.77
11210 - Laborer, Grounds Maintenance	9.85
11240 - Maid or Houseman	8.01
11270 - Pest Controller	12.65
11300 - Refuse Collector	10.08
11330 - Tractor Operator	11.47
11360 - Window Cleaner	9.05
12000 - Health Occupations	
12020 - Dental Assistant	11.19
12040 - Emergency Medical Technician (EMT)/Paramedic/Ambulance Driver	12.07
12071 - Licensed Practical Nurse I	12.40
12072 - Licensed Practical Nurse II	13.93
12073 - Licensed Practical Nurse III	15.58
12100 - Medical Assistant	10.61
12130 - Medical Laboratory Technician	11.47
12160 - Medical Record Clerk	12.36
12190 - Medical Record Technician	14.89
12221 - Nursing Assistant I	8.35
12222 - Nursing Assistant II	9.38
12223 - Nursing Assistant III	10.25
12224 - Nursing Assistant IV	11.49
12250 - Pharmacy Technician	13.01
12280 - Phlebotomist	11.57
12311 - Registered Nurse I	19.70
12312 - Registered Nurse II	24.35
12313 - Registered Nurse II, Specialist	24.35
12314 - Registered Nurse III	32.43
12315 - Registered Nurse III, Anesthetist	32.43
12316 - Registered Nurse IV	36.21
13000 - Information and Arts Occupations	
13002 - Audiovisual Librarian	20.49
13011 - Exhibits Specialist I	14.75
13012 - Exhibits Specialist II	17.95
13013 - Exhibits Specialist III	21.89
13041 - Illustrator I	17.33
13042 - Illustrator II	21.09
13043 - Illustrator III	25.73
13047 - Librarian	18.55
13050 - Library Technician	11.03
13071 - Photographer I	15.07
13072 - Photographer II	17.59
13073 - Photographer III	21.42
13074 - Photographer IV	26.13
13075 - Photographer V	31.70
15000 - Laundry, Dry Cleaning, Pressing and Related Occupations	
15010 - Assembler	7.94
15030 - Counter Attendant	7.94
15040 - Dry Cleaner	10.56
15070 - Finisher, Flatwork, Machine	7.94
15090 - Presser, Hand	7.94
15100 - Presser, Machine, Drycleaning	7.94

15130 - Presser, Machine, Shirts	7.94
15160 - Presser, Machine, Wearing Apparel, Laundry	7.94
15190 - Sewing Machine Operator	11.32
15220 - Tailor	11.96
15250 - Washer, Machine	8.86
19000 - Machine Tool Operation and Repair Occupations	
19010 - Machine-Tool Operator (Toolroom)	17.44
19040 - Tool and Die Maker	19.70
21000 - Material Handling and Packing Occupations	
21010 - Fuel Distribution System Operator	14.42
21020 - Material Coordinator	17.18
21030 - Material Expediter	17.18
21040 - Material Handling Laborer	11.67
21050 - Order Filler	10.54
21071 - Forklift Operator	12.33
21080 - Production Line Worker (Food Processing)	12.33
21100 - Shipping/Receiving Clerk	11.74
21130 - Shipping Packer	11.74
21140 - Store Worker I	9.37
21150 - Stock Clerk (Shelf Stocker; Store Worker II)	13.04
21210 - Tools and Parts Attendant	12.33
21400 - Warehouse Specialist	12.33
23000 - Mechanics and Maintenance and Repair Occupations	
23010 - Aircraft Mechanic	20.93
23040 - Aircraft Mechanic Helper	14.42
23050 - Aircraft Quality Control Inspector	20.94
23060 - Aircraft Servicer	16.62
23070 - Aircraft Worker	17.74
23100 - Appliance Mechanic	15.28
23120 - Bicycle Repairer	12.41
23125 - Cable Splicer	23.36
23130 - Carpenter, Maintenance	15.59
23140 - Carpet Layer	16.59
23160 - Electrician, Maintenance	18.42
23181 - Electronics Technician, Maintenance I	16.25
23182 - Electronics Technician, Maintenance II	23.20
23183 - Electronics Technician, Maintenance III	25.14
23260 - Fabric Worker	14.74
23290 - Fire Alarm System Mechanic	17.64
23310 - Fire Extinguisher Repairer	13.66
23340 - Fuel Distribution System Mechanic	19.60
23370 - General Maintenance Worker	14.35
23400 - Heating, Refrigeration and Air Conditioning Mechanic	17.74
23430 - Heavy Equipment Mechanic	18.36
23440 - Heavy Equipment Operator	17.20
23460 - Instrument Mechanic	17.64
23470 - Laborer	10.08
23500 - Locksmith	15.23
23530 - Machinery Maintenance Mechanic	20.19
23550 - Machinist, Maintenance	16.52
23580 - Maintenance Trades Helper	11.89
23640 - Millwright	17.69
23700 - Office Appliance Repairer	16.90
23740 - Painter, Aircraft	17.51
23760 - Painter, Maintenance	15.23
23790 - Pipefitter, Maintenance	19.47
23800 - Plumber, Maintenance	18.70

23820 - Pneudraulic Systems Mechanic	17.98
23850 - Rigger	17.45
23870 - Scale Mechanic	15.82
23890 - Sheet-Metal Worker, Maintenance	17.95
23910 - Small Engine Mechanic	14.43
23930 - Telecommunication Mechanic I	17.45
23931 - Telecommunication Mechanic II	18.14
23950 - Telephone Lineman	17.45
23960 - Welder, Combination, Maintenance	15.86
23965 - Well Driller	16.67
23970 - Woodcraft Worker	17.45
23980 - Woodworker	12.84
24000 - Personal Needs Occupations	
24570 - Child Care Attendant	8.85
24580 - Child Care Center Clerk	11.05
24600 - Chore Aid	7.98
24630 - Homemaker	12.24
25000 - Plant and System Operation Occupations	
25010 - Boiler Tender	20.65
25040 - Sewage Plant Operator	17.66
25070 - Stationary Engineer	20.65
25190 - Ventilation Equipment Tender	13.49
25210 - Water Treatment Plant Operator	17.66
27000 - Protective Service Occupations	
(not set) - Police Officer	21.39
27004 - Alarm Monitor	13.92
27006 - Corrections Officer	19.80
27010 - Court Security Officer	19.14
27040 - Detention Officer	18.00
27070 - Firefighter	18.02
27101 - Guard I	9.39
27102 - Guard II	14.22
28000 - Stevedoring/Longshoremen Occupations	
28010 - Blocker and Bracer	16.40
28020 - Hatch Tender	16.40
28030 - Line Handler	16.40
28040 - Stevedore I	16.19
28050 - Stevedore II	18.90
29000 - Technical Occupations	
21150 - Graphic Artist	17.16
29010 - Air Traffic Control Specialist, Center (2)	31.49
29011 - Air Traffic Control Specialist, Station (2)	21.71
29012 - Air Traffic Control Specialist, Terminal (2)	23.92
29023 - Archeological Technician I	15.26
29024 - Archeological Technician II	17.06
29025 - Archeological Technician III	21.14
29030 - Cartographic Technician	22.08
29035 - Computer Based Training (CBT) Specialist/ Instructor	24.61
29040 - Civil Engineering Technician	18.35
29061 - Drafter I	11.13
29062 - Drafter II	14.87
29063 - Drafter III	17.44
29064 - Drafter IV	22.08
29081 - Engineering Technician I	11.81
29082 - Engineering Technician II	14.42
29083 - Engineering Technician III	17.41
29084 - Engineering Technician IV	22.15

29085 - Engineering Technician V	24.38
29086 - Engineering Technician VI	27.94
29090 - Environmental Technician	18.58
29100 - Flight Simulator/Instructor (Pilot)	29.18
29160 - Instructor	20.77
29210 - Laboratory Technician	16.62
29240 - Mathematical Technician	22.08
29361 - Paralegal/Legal Assistant I	14.91
29362 - Paralegal/Legal Assistant II	18.01
29363 - Paralegal/Legal Assistant III	20.00
29364 - Paralegal/Legal Assistant IV	27.33
29390 - Photooptics Technician	22.08
29480 - Technical Writer	23.93
29491 - Unexploded Ordnance (UXO) Technician I	20.02
29492 - Unexploded Ordnance (UXO) Technician II	24.22
29493 - Unexploded Ordnance (UXO) Technician III	29.03
29494 - Unexploded (UXO) Safety Escort	20.02
29495 - Unexploded (UXO) Sweep Personnel	20.02
29620 - Weather Observer, Senior (3)	18.66
29621 - Weather Observer, Combined Upper Air and Surface Programs (3)	16.80
29622 - Weather Observer, Upper Air (3)	16.80
31000 - Transportation/ Mobile Equipment Operation Occupations	
31030 - Bus Driver	14.51
31260 - Parking and Lot Attendant	7.64
31290 - Shuttle Bus Driver	11.70
31300 - Taxi Driver	9.56
31361 - Truckdriver, Light Truck	11.70
31362 - Truckdriver, Medium Truck	15.94
31363 - Truckdriver, Heavy Truck	17.11
31364 - Truckdriver, Tractor-Trailer	17.11
99000 - Miscellaneous Occupations	
99020 - Animal Caretaker	10.09
99030 - Cashier	8.09
99041 - Carnival Equipment Operator	9.47
99042 - Carnival Equipment Repairer	10.14
99043 - Carnival Worker	7.46
99050 - Desk Clerk	8.86
99095 - Embalmer	21.05
99300 - Lifeguard	10.52
99310 - Mortician	21.05
99350 - Park Attendant (Aide)	13.21
99400 - Photofinishing Worker (Photo Lab Tech., Darkroom Tech)	10.52
99500 - Recreation Specialist	12.24
99510 - Recycling Worker	12.75
99610 - Sales Clerk	10.95
99620 - School Crossing Guard (Crosswalk Attendant)	8.33
99630 - Sport Official	10.52
99658 - Survey Party Chief (Chief of Party)	16.95
99659 - Surveying Technician (Instr. Person/Surveyor Asst./Instr.)	15.40
99660 - Surveying Aide	12.07
99690 - Swimming Pool Operator	13.13
99720 - Vending Machine Attendant	10.85
99730 - Vending Machine Repairer	13.13
99740 - Vending Machine Repairer Helper	10.85

ALL OCCUPATIONS LISTED ABOVE RECEIVE THE FOLLOWING BENEFITS:

HEALTH & WELFARE: \$2.87 an hour or \$114.80 a week or \$497.47 a month

VACATION: 2 weeks paid vacation after 1 year of service with a contractor or successor; 3 weeks after 5 years, and 4 weeks after 15 years. Length of service includes the whole span of continuous service with the present contractor or successor, wherever employed, and with the predecessor contractors in the performance of similar work at the same Federal facility. (Reg. 29 CFR 4.173)

HOLIDAYS: A minimum of eleven paid holidays per year: New Year's Day, Martin Luther King Jr's Birthday, Washington's Birthday, Good Friday, Memorial Day, Independence Day, Labor Day, Columbus Day, Veterans' Day, Thanksgiving Day, and Christmas Day. A contractor may substitute for any of the named holidays another day off with pay in accordance with a plan communicated to the employees involved.) (See 29 CFR 4.174)

THE OCCUPATIONS WHICH HAVE PARENTHESES AFTER THEM RECEIVE THE FOLLOWING BENEFITS (as numbered):

1) Does not apply to employees employed in a bona fide executive, administrative, or professional capacity as defined and delineated in 29 CFR 541. (See CFR 4.156)

2) APPLICABLE TO AIR TRAFFIC CONTROLLERS ONLY - NIGHT DIFFERENTIAL: An employee is entitled to pay for all work performed between the hours of 6:00 P.M. and 6:00 A.M. at the rate of basic pay plus a night pay differential amounting to 10 percent of the rate of basic pay.

3) WEATHER OBSERVERS - NIGHT PAY & SUNDAY PAY: If you work at night as part of a regular tour of duty, you will earn a night differential and receive an additional 10% of basic pay for any hours worked between 6pm and 6am. If you are a full-time employed (40 hours a week) and Sunday is part of your regularly scheduled workweek, you are paid at your rate of basic pay plus a Sunday premium of 25% of your basic rate for each hour of Sunday work which is not overtime (i.e. occasional work on Sunday outside the normal tour of duty is considered overtime work).

HAZARDOUS PAY DIFFERENTIAL: An 8 percent differential is applicable to employees employed in a position that represents a high degree of hazard when working with or in close proximity to ordnance, explosives, and incendiary materials. This includes work such as screening, blending, dying, mixing, and pressing of sensitive ordnance, explosives, and pyrotechnic compositions such as lead azide, black powder and photoflash powder. All dry-house activities involving propellants or explosives. Demilitarization, modification, renovation, demolition, and maintenance operations on sensitive ordnance, explosives and incendiary materials. All operations involving regrading and cleaning of artillery ranges.

A 4 percent differential is applicable to employees employed in a position that represents a low degree of hazard when working with, or in close proximity to ordnance, (or employees possibly adjacent to) explosives and incendiary materials which involves potential injury such as laceration of hands, face, or arms of the employee engaged in the operation, irritation of the skin, minor burns and the like; minimal damage to immediate or adjacent work area or equipment being used. All operations involving, unloading, storage, and hauling of ordnance,

explosive, and incendiary ordnance material other than small arms ammunition. These differentials are only applicable to work that has been specifically designated by the agency for ordnance, explosives, and incendiary material differential pay.

** UNIFORM ALLOWANCE **

If employees are required to wear uniforms in the performance of this contract (either by the terms of the Government contract, by the employer, by the state or local law, etc.), the cost of furnishing such uniforms and maintaining (by laundering or dry cleaning) such uniforms is an expense that may not be borne by an employee where such cost reduces the hourly rate below that required by the wage determination. The Department of Labor will accept payment in accordance with the following standards as compliance:

The contractor or subcontractor is required to furnish all employees with an adequate number of uniforms without cost or to reimburse employees for the actual cost of the uniforms. In addition, where uniform cleaning and maintenance is made the responsibility of the employee, all contractors and subcontractors subject to this wage determination shall (in the absence of a bona fide collective bargaining agreement providing for a different amount, or the furnishing of contrary affirmative proof as to the actual cost), reimburse all employees for such cleaning and maintenance at a rate of \$3.35 per week (or \$.67 cents per day). However, in those instances where the uniforms furnished are made of "wash and wear" materials, may be routinely washed and dried with other personal garments, and do not require any special treatment such as dry cleaning, daily washing, or commercial laundering in order to meet the cleanliness or appearance standards set by the terms of the Government contract, by the contractor, by law, or by the nature of the work, there is no requirement that employees be reimbursed for uniform maintenance costs.

** NOTES APPLYING TO THIS WAGE DETERMINATION **

Under the policy and guidance contained in All Agency Memorandum No. 159, the Wage and Hour Division does not recognize, for section 4(c) purposes, prospective wage rates and fringe benefit provisions that are effective only upon such contingencies as "approval of Wage and Hour, issuance of a wage determination, incorporation of the wage determination in the contract, adjusting the contract price, etc." (The relevant CBA section) in the collective bargaining agreement between (the parties) contains contingency language that Wage and Hour does not recognize as reflecting "arm's length negotiation" under section 4(c) of the Act and 29 C.F.R. 5.11(a) of the regulations. This wage determination therefore reflects the actual CBA wage rates and fringe benefits paid under the predecessor contract.

Source of Occupational Title and Descriptions:

The duties of employees under job titles listed are those described in the "Service Contract Act Directory of Occupations," Fourth Edition, January 1993, as amended by the Third Supplement, dated March 1997, unless otherwise indicated. This publication may be obtained from the Superintendent of Documents, at 202-783-3238, or by writing to the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Copies of specific job descriptions may also be obtained from the appropriate contracting officer.

REQUEST FOR AUTHORIZATION OF ADDITIONAL CLASSIFICATION AND WAGE RATE {Standard Form 1444 (SF 1444)}

Conformance Process:

The contracting officer shall require that any class of service employee which is not listed herein and which is to be employed under the contract (i.e., the work to be performed is not performed by any classification listed in the wage determination), be classified by the contractor so as to provide a reasonable relationship (i.e., appropriate level of skill comparison) between such unlisted classifications and the classifications listed in the wage determination. Such conformed classes of employees shall be paid the monetary wages and furnished the fringe benefits as are determined. Such conforming process shall be initiated by the contractor prior to the performance of contract work by such unlisted class(es) of employees. The conformed classification, wage rate, and/or fringe benefits shall be retroactive to the commencement date of the contract. {See Section 4.6 (C)(vi)} When multiple wage determinations are included in a contract, a separate SF 1444 should be prepared for each wage determination to which a class(es) is to be conformed.

The process for preparing a conformance request is as follows:

- 1) When preparing the bid, the contractor identifies the need for a conformed (occupation) and computes a proposed rate).
- 2) After contract award, the contractor prepares a written report listing in order proposed classification title), a Federal grade equivalency (FGE) for each proposed classification), job description), and rationale for proposed wage rate), including information regarding the agreement or disagreement of the authorized representative of the employees involved, or where there is no authorized representative, the employees themselves. This report should be submitted to the contracting officer no later than 30 days after such unlisted class(es) of employees performs any contract work.
- 3) The contracting officer reviews the proposed action and promptly submits a report of the action, together with the agency's recommendations and pertinent information including the position of the contractor and the employees, to the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, for review. (See section 4.6(b)(2) of Regulations 29 CFR Part 4).
- 4) Within 30 days of receipt, the Wage and Hour Division approves, modifies, or disapproves the action via transmittal to the agency contracting officer, or notifies the contracting officer that additional time will be required to process the request.
- 5) The contracting officer transmits the Wage and Hour decision to the contractor.
- 6) The contractor informs the affected employees.

Information required by the Regulations must be submitted on SF 1444 or bond paper.

When preparing a conformance request, the "Service Contract Act Directory of Occupations" (the Directory) should be used to compare job definitions to insure that duties requested are not performed by a classification already listed in the wage determination. Remember, it is not the job title, but the required tasks that determine whether a class is included in an established wage determination. Conformances may not be used to artificially split, combine, or subdivide classifications listed in the wage determination.

PART IV - REPRESENTATIONS AND INSTRUCTIONS

SECTION K
REPRESENTATIONS, CERTIFICATIONS, AND OTHER STATEMENTS OF OFFERORS

K-1 ANNUAL REPRESENTATIONS AND CERTIFICATIONS – NEGOTIATION (Undated)
(FAR 52.215-07)

The offeror has completed the annual representations and certifications electronically via the Business Partner Network (BPN) Web site at <http://orca.bpn.gov>. After reviewing the BPN database information, the offeror verifies that the representations and certifications currently posted electronically (*check the appropriate block*):

- [] (a) Are current, accurate, and complete as of the date of this offer and are incorporated in this offer by reference (see FAR 14.2113(b)).
- [] (b) Are current, accurate, and complete as of the date of this proposal and are incorporated in this offer by reference, except for the changes identified below [*insert changes, identifying change by clause number, title, date*]. These amended representation(s) and/or certification(s) are also incorporated in this offer and are current, accurate, and complete as of the date of this proposal.

FAR clause No.	Title	Date	Change

Any changes provided by the offeror do not automatically update the representations and certifications posted on the BPN.

(End of Provision)

K-2 ADDRESS TO WHICH PAYMENT SHOULD BE MAILED

In the space provided below, the Contractor is requested to indicate the address to which payment should be mailed, or indicate "same" if it is the same as the address shown on the solicitation form (page 1).

K-3 SCANNER(S) TO BE USED IN COMPLETION OF ITEM(S) IN THIS CONTRACT:

Make/Model	Serial #	Bidder Owned (check appropriate block)
		<input type="checkbox"/> Yes <input type="checkbox"/> No *
		<input type="checkbox"/> Yes <input type="checkbox"/> No *
		<input type="checkbox"/> Yes <input type="checkbox"/> No *

* If the scanner(s) is/are not offeror owned, a written statement of availability from the owner of the scanner must be enclosed. See Section C-2.

K-4 PAST PERFORMANCE REFERENCES

If no previous contracts have been held by the offeror with the Aerial Photography Field Office, list at least two (2) references with whom the offeror has held similar contracts. If possible, one reference should be within the Federal Government.

(List company or agency name, address, name of person to contact, and telephone number)

(1) _____ (2) _____

K-5 KEY PERSONNEL INTENDED FOR PERFORMANCE ON THIS CONTRACT:

List all key professional and technical personnel intended to perform on this contract. List may include project manager, lead computer operator, lead cartographic (GIS) technician and key back-up or support personnel.

Name	Title	Education	Years of Experience

**K-6 SOLICITATION PROVISIONS INCORPORATED BY REFERENCE (FEB 1998)
(FAR 52.252-1)**

This contract incorporates one or more solicitation provisions by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. The offeror is cautioned that the listed provisions may include blocks that must be completed by the offeror and submitted with its quotation or offer. In lieu of submitting the full text of those provisions, the offeror may identify the provision by paragraph identifier and provide the appropriate information with its quotation or offer. Also, the full text of a solicitation provision may be accessed electronically at this address: www.arnet.gov/far.

FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1) PROVISIONS:

52.203-11 Certification and Disclosure Regarding Payments to Influence Certain Federal Transactions (APR 1991)

52.204-05 Women-Owned Business (Other Than Small Business) (MAY 1999)

52.222-38 Compliance with Veterans' Employment Reporting Requirements (DEC 2001)

PART IV - REPRESENTATIONS AND INSTRUCTIONS

SECTION L - INSTRUCTIONS, CONDITIONS, AND NOTICES TO OFFERORS

L-1 TYPE OF CONTRACT (APR 1984)(FAR 52.216-01)

The Government contemplates award of a Firm-Fixed-Price contract resulting from this solicitation.

L-2 INSTRUCTIONS FOR PREPARATION OF TECHNICAL AND PRICING PROPOSALS

The following instructions establish the acceptable minimum requirements for the format and content of proposals. Offeror's are advised to furnish all information in the sequence and format specified below. Failure to furnish all information requested may adversely affect the evaluation of the proposal. Proposals will be evaluated in accordance with the evaluation factors set forth in Section M of this solicitation.

2.1 General Instructions

- (a) Proposal must be prepared in two parts: Part I: Pricing Proposal, and Part II: Technical Proposal. Each of the parts shall be separate and complete in itself so that evaluation of one may be accomplished independently from evaluation of the other. The technical proposal must not contain any reference to cost or price.
- (b) Proposal should be precise, factual and responsive and must include, but is not limited to, the information listed below. Proposal content shall be organized in two separate parts and be submitted in the order indicated as follows:

2.2 PART I Pricing Proposal

- (a) Pricing information and related data shall be submitted as Part I of the offeror's proposal. Each proposal must contain a signed and dated Standard Form 33 (page 1 of the solicitation) with items 12 through 18 completed. Section B should be submitted in its entirety with both unit price and the total price for the offered estimated quantities indicated in the appropriate locations.
- (b) Prices shall be based on estimated quantities specified in the solicitation.

2.3 PART II Technical Proposal

Response to the following technical statements will form the basis of a proposal's technical merit. Offerors are cautioned to address all requested information as completely and accurately as possible. Data contained in Section K of the solicitation document shall be referenced in support of statements.

(a) Project Plan

- (1) A project outline and narrative statement of work philosophy.
- (2) Project flowchart or process diagram.
- (3) Description of the scanning and georeferencing process, including a narrative

explanation of the process steps taken to produce deliverables required by this RFP.

(b) Personnel Qualifications

List all professional and technical personnel intended to perform on this contract in the appropriate locations in Section K of the solicitation document. Recommended list includes Project Manager, Lead Computer Operator(s), Lead Cartographic (GIS) Technician(s), and key back-up or support personnel. Brief resumes may be provided on separate papers for the personnel listed, stating name, title, education, past experience, and years of experience.

(c) Quality Control System

Detailed statement on contractor quality control system that will ensure all contract materials submitted for inspection are in compliance with contract specifications. See Section C, Paragraph 1.1(c) for quality control requirements.

(d) Past Performance History

- (1) Past performance will be evaluated based on relevant performance history contained in USDA and/or other Federal Government contract records of similar projects. Offeror's past performance will be evaluated according to the following criteria and may include other relevant factors:
 - (i) USDA/Other Federal Agency contract performance record;
 - (ii) Project completion record;
 - (iii) Delivery schedule compliance record.
- (2) If no previous contracts have been held by the offeror with the USDA and/or other Federal Government Agencies, list at least two (2) references with which the offeror has held similar contracts. List past performance references in the space provided in Section K of the solicitation document.
- (3) If an offeror does not have, or have available, a past performance history, the offeror's proposal will not be evaluated favorably or unfavorably on past performance.

(e) Incomplete Contracts

List all incomplete contracts which require performance during the approximate performance period indicated in Section B and affect equipment and personnel listed herein. List shall include project name, client, and project status. This summary shall include the percent of work remaining and/or time commitments.

2.4 Solicitation Document and Supporting Data

The offeror's proposal must include the following required information and supporting data specified in the solicitation document:

Section K:

- (a) Expiration Dates for CCR and ORCA,
- (b) Scanners to be used in Completion of the Contract,
- (c) Past Performance References (if required),
- (d) Key Personnel to Perform on the Contract.

Section L:

- (a) Scanner Calibration Report(s),
- (b) Current Financial Statement.

The solicitation document may be submitted in its entirety, complete with Sections C through M (preferred), or at a minimum with Standard Form SF-33, and Sections B, K & L.

L-3 SCANNER CALIBRATION REPORT

Each offeror shall submit with the offer, one copy of a Report of Calibration from the manufacturer or from the offeror's quality control personnel for each scanner to be used. A scanner calibration report will not be acceptable if more than three years old at the time of the scheduled date for receipt of offers.

L-4 CURRENT FINANCIAL STATEMENT

Offerors may be required to provide a "current" financial statement. For purposes of this solicitation, a current financial statement would be the most recent annual report, updated, if necessary, so that information reflects the company's financial status within the past 6 months. All data shall be certified by an authorized company officer as to its accuracy and veracity or validated by an independent certified public account. If necessary, the Contracting Officer may request additional financial information.

Financial information received will be treated as confidential and will not be used for purposes other than evaluation of financial responsibility. Failure to provide this information may delay or prohibit the Contracting Officer from making an affirmative decision on the offerors responsibility.

L-5 CONTRACT DIFFICULTIES AND CONTINGENCIES

Offerors are cautioned to examine the solicitation, visit the work location if necessary, and evaluate the facilities needed and difficulties attending the execution of the proposed contract. Considerations include local conditions, nature/condition of the indexes and microfiche, and all other contingencies.

L-6 SERVICE OF PROTEST (AUG 1996) (FAR 52.233-2)

Protests, as defined in Section 33.101 of the Federal Acquisition Regulation, that are filed directly with an agency, and copies of any protests that are filed with the General Accounting Office (GAO) shall be served on the Contracting Officer (addressed as follows) by obtaining written and dated acknowledgment of receipt from; Director, Acquisition Management, USDA/FSA/MSD/AG Code 0567, P.O. Box 2415, Washington, D.C. 20013-2415.

The copy of any protest shall be received in the office designated above within one day of filing a protest with the GAO.

L-7 INQUIRIES (FEB 1988) (AGAR 452.204-70)

Inquiries and all correspondence concerning this solicitation should be submitted in writing to the Contracting Officer. Offerors should contact only the contracting officer issuing the solicitation about any aspect of this requirement prior to contract award.

L-8 SOLICITATION PROVISIONS INCORPORATED BY REFERENCE (FEB 1998) (FAR 52.252-1)

This solicitation incorporates one or more solicitation provisions by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. The offeror is cautioned that the listed provisions may include blocks that must be completed by the offeror and submitted with its quotation or offer. In lieu of submitting the full text of those provisions, the offeror may identify the provision by paragraph identifier and provide the appropriate information with its quotation or offer. Also, the full text of a solicitation provision may be accessed electronically at this address: www.arnet.gov/far.

FEDERAL ACQUISITION REGULATION (48 CFR CHAPTER 1) PROVISIONS:

52.204-06 Data Universal Numbering System (DUNS) Number (JUN 1999)

52.211-06 Brand Name of Equal (AUG 1999)

52.215-01 Instructions to Offerors - Competitive Acquisition (MAY 2001)

PART IV - REPRESENTATIONS AND INSTRUCTIONS

SECTION M - EVALUATION FACTORS FOR AWARDM-1 PROPOSAL EVALUATION

Proposal evaluation is an assessment of the proposal and the offeror's ability to perform the prospective contract successfully. The Government shall establish an evaluation team that includes appropriate contracting, technical, and other expertise to ensure a comprehensive evaluation of proposals.

1.1 Technical Evaluation Team

The Technical Evaluation Team will evaluate, and rank according to technical merit, all proposals in accordance with the evaluation factors established in this solicitation. The team will not have access to the pricing proposal during the technical evaluation process. The offeror's proposal shall be in the format prescribed in Section L and shall contain a response to each of the areas identified.

1.2 Competitive Range

The Contracting Officer shall establish the competitive range based on ratings of each proposal against all evaluation criteria including price. The competitive range shall be comprised of all of the most highly rated proposals. The competitive range can be limited for purposes of efficiency (see FAR 52.215-1(f)(4)). If negotiations are conducted in the source selection process they shall occur after establishment of the competitive range.

1.3 Source Selection Decision

The Contracting Officer shall select for purposes of contract award(s) the overall superior proposal(s) which offers the "best" value to the Government, price and other factors considered. The decision shall be based on a comparative assessment of proposals against all source selection criteria in the solicitation.

M-2 EVALUATION FACTORS

Proposals shall be evaluated according to the following criteria including all supporting information furnished by the offeror with the proposal. The evaluation criteria are listed in descending order of importance with relative point values indicated. See Section L for instructions for preparation of technical and pricing proposals.

2.1 Technical Evaluation

<u>Evaluation Criteria</u>	<u>Relative Point Value</u>
(a) Project Plan	35
(b) Personnel Qualifications	25
(c) Quality Control System	20
(d) Past Performance History	10

(e) Incomplete Contracts

$\frac{10}{100}$

2.2 Price Evaluation

While technical excellence is considered more significant than price, the proposed price between technically superior proposals shall be an important factor in selection of a proposal for award. The Government reserves the right to make an award to other than the lowest priced offeror, or other than the highest technically rated offeror, when the perceived benefits and tradeoffs provide the Government the greatest value.

The offeror's contract price proposal will be based on the quantities and requirements specified in Section B. The Government's evaluation of price proposals shall be conducted by determining a relative unit price ranking for each proposal. All proposed prices will be scored according to their relationship to the lowest unit price offered by a responsive, responsible offeror. The lowest price receives the highest score, and higher prices receive successively lower ranking scores.

Offerors are cautioned that pricing proposals should be submitted initially on the most favorable terms which the offeror can submit to the Government. Offerors are requested to insert the total quantity of Scans, the unit price (price per Scan), and the total amount in the appropriate locations in Section B. In case of discrepancy between a unit price (price per Scan) and an extended price (total amount), the unit price will be presumed to be correct, subject, however, to correction to the same extent and in the same manner as any other mistake.

2.3 Other Factors

The Contracting Officer will consider, in addition to the evaluation criteria, the prospective Contractor's responsibility record in terms of financial resources, business integrity and ethics, and other standards, as defined in the Federal Acquisition Regulation, Part 9.

M-3 CONTRACT AWARD

The Government intends to evaluate proposals and award contracts resulting from this solicitation after conducting discussions with offerors whose proposals have been determined to be within the competitive range.

3.1 Contract Award

The contract will be awarded to that responsive and responsible offeror whose proposal represents the greatest value and is determined to be in the best interest and the most advantageous to the Government, price and other factors considered.

3.2 Possibility of Award Without Discussion

Notice is given to all offerors that there is a possibility that award may be made without discussion or further negotiation. Proposals should be submitted initially on the most favorable terms, from a price and technical standpoint, which the offeror can submit to the Government.

3.3 Required or Requested Information

Award will be made only in conjunction with proposals from responsible prospective Contractors. Failure to provide the information, material, and/or documentation either required in Sections K and L, or requested by the Contracting Officer, within eight (8) calendar days of the request, may result in the proposal being rejected.

USDA GeoTIFF DESCRIPTION AND SPECIFICATION

VERSION 1.0

April 2006

USDA Farm Service Agency
Aerial Photography Field Office
2222 West 2300 South
Salt Lake City, UT 84119-2020
(801) 975-3500

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1.0 SCOPE

This document establishes the technical criteria to be used in the production of the GeoTIFF product for use by the Aerial Photography Field Office. This document is applicable to the GeoTIFF deliverables only, not the original scanned non-georeferenced TIFF images.

2.0 APPLICABLE DOCUMENTS

In the event of conflict between the contents of this specification and the documents referenced herein, the contents of this specification shall take precedence.

- 2.1 TIFF Specification Revision 6 dated June 3, 1992 (Adobe Systems Inc.). The Tagged Image File Format (TIFF) is a copyrighted standard of Adobe Systems, Inc.
- 2.2 GeoTIFF Revision 1.0 Specification, dated December 28, 2000 (Version 1.8.2). The GeoTIFF Format Specification is a public domain extension of TIFF that provides a robust and flexible method of storing georeferencing information in a TIFF file.

3.0 GENERAL REQUIREMENTS

USDA programs use indexes for various program uses including, but not limited to historical research, agriculture analysis, natural resource inventory, and change detection. The complex nature of these indexes require adherence to exact format and content.

- 3.1 Datums and Coordinates. Unless otherwise stated, all georeferenced indexes shall be projected in the North American Datum of 1983 (NAD83), using the corresponding native Universal Transverse Mercator (UTM) zone (see Figure 1, UTM Zones) with coordinates in meters. The vertical datum for all indexes shall be North American Vertical Datum of 1988 (NAVD88). Georeferenced scans whose real world location resides outside of the contiguous 48 States shall be placed in a World Geodetic System, WGS 1984 UTM, with the exception of Hawaii (NAD83 UTM 1 through 5), Alaska (NAD83 UTM 1 through 10), Puerto Rico (NAD83 UTM 19), and the Virgin Islands (NAD83 UTM 20). For Alaska, UTM divisions are based on location of actual UTM zones, rather than political boundaries (see Figure 1a, Alaska UTM Zones).
- 3.2 Image Quality. All digital images shall have proper histograms and tone balance.
 - (a) Image Radiometry. All Indexes shall have a tonal range that prevents the clipping of highlight or shadow detail from the image.
 - (b) Radiometric Resolution.
Black & White Imagery. All B&W indexes shall be an 8-bit grayscale image in accordance with Section 4, Grayscale Images, of the TIFF Specification.

3.3 Digital Image File Format.

All georeferenced indexes shall be produced using a georeferenced tagged image format (GeoTIFF) in accordance with this specification, the GeoTIFF 1.0 Specification, and the baseline TIFF 6.0 Specification (stated in order of precedent). All indexes shall be readable by older applications that assume TIFF 5.0 or an earlier version of the specification. List 1, Tag Listings, List 2, “tiffinfo” Output, and List 3, ListGeo Output shows an example of a TIFF tag listing.

Indexes that use designated “Extended TIFF 6.0 file” features shall not be used. This includes, but is not limited to, any of the major new extensions such as “tiled images.” Features designated as “not recommended for general data interchange” are considered extensions to the baseline TIFF 6.0 specification and shall not be used.

(a) Tagged Image File Format (TIFF) Requirements

- (1) All public tags shall conform to the TIFF Specification and shall not be modified outside of the parameters given in the specification. Use of tag numbers not specified in the TIFF Specification is not permitted. As a minimum, the TIFF tags listed in Table 1, Required TIFF Tags, and Table 2, Required GeoTIFF Specific Tags, shall be included when creating indexes under this specification.
- (2) Tags numbered 32,768 or higher, sometimes called private tags, are reserved and shall not be used unless listed in Table 3, Approved Private Tags. Enumeration constants numbered 32,768 or higher are reserved and shall not be used.
- (3) Tags numbered in the “reusable” 65,000-65,535 range shall not be used.
- (4) All index files shall be created using the little-endian byte order as specified in the TIFF Specification. Bytes 0-1 of the Image File Header must be “II” (4949.H).
- (5) All index files shall only have a single Image File Directory (IFD).
- (6) Tiled TIFF files are not allowed.

(b) Georeferenced Tagged Image Format (GeoTIFF) Requirements. A GeoTIFF file is a TIFF 6.0 file, and inherits the file structure as described in the corresponding portion of the TIFF Specification. All GeoTIFF specific information is encoded in several additional reserved TIFF tags, and contains no private Image File Directories (IFD's), binary structures or other private information invisible to standard TIFF readers. The GeoTIFF 1.0 standard uses a MetaTag (GeoKey) approach to encode dozens of data elements into just six TIFF 6.0 tags. GeoKeys are structurally similar to TIFF 6.0 tags, but at one lower level of abstraction. As a minimum, the four tags listed in Table 3, Required GeoTIFF MetaTags, shall be included when creating indexes under this specification.

3.4 Naming Convention. All index digital files shall use the following naming convention:

File Name:

<imgtype>_<photopgm>_<fipscode>_<utmzone>_<sheetno>_<cntryear>.<ext>

imgtype – Index will be grey scale image, 1 character (o – black and white)

photopgm – Photo program, 5 characters (NAPP1, FSA00, FS000, ASCS0 , etc.)

fipscode – State and county FIPS code, 5 digits

*note – fipscode for National Forest scans refers to National Forest ID (f0201, f6010, etc.)

utmzone – UTM Zone number, 2 digits

sheetno – Found in the index, 2 digits (01, 02, 10, etc.)

cntryear – Contract year of film acquisition, 4 digits (1956, 1963, etc.)

ext – Extension for the file type, 3 characters (tif, shp, txt, etc.)

Example: o_nappl_13059_17_01_1963.tif

4.0 VERIFICATION

Any indexes not meeting the requirements in Section 3 may be rejected for non-compliance. Each index or, at the APFO's determination, a random sample from the lot may be inspected using the following methods. The use of automated processes, such as computer scripts, may be substituted for visual verification.

4.1 General.

Geographic Extent. Visual verification will be done to verify index coverage.

4.2 Datums and Coordinates. Verification of georeferencing, correct datums and coordinate systems, shall be accomplished by visually viewing the image using GIS software other than the software used to create the image.

4.3 Image Quality. Visual verification will be done to each index to verify proper histogram and tone balance.

(a) Image Radiometry. Visual verification will be done to verify index tonal range. Each index may be compared to the original data to ensure the processing has not clipped information from the shadow or highlight areas.

(b) Spatial Resolution. Visual verification will be done to measure spatial resolution.

- (c) Radiometric Resolution. Visual verification will be done to verify bit depth and compliance with TIFF Specification.
- (d) Band-to-Band Registration Accuracy. Visual verification will be done to verify index band-to-band registration accuracy.

4.4 Digital Image File Format. Automated computer scripts will be used to verify that all GeoTIFF and TIFF Specifications are complied with. Correct encoding of all required Meta-Keys (also called GeoKeys) shall be confirmed by referencing each GeoKey using a software application designed to check each against the specifications.

5.0 NOTES

5.1 DEFINITIONS

Band – a range of wavelengths of electromagnetic radiation. Also, image data gathered at this wavelength range.

Brightness value – a number (normally 0-255) representing a discrete intensity gray level of a pixel in an image.

Chip – each separate piece of a mosaick image that contributes to the final image.

Dodging – manipulation of the intensity of part of a photograph by selectively shading or masking.

Field – refers only to the entire field, including the value, of the geokey (as defined in the TIFF Specification).

Ground Sample Distance (GSD) – the area of ground represented in each pixel in x and y components.

Image File Directory – contains information about the image. There must be at least 1 IFD in a TIFF file and each IFD must have at least one entry.

Metadata – description of the content, quality, condition, and other characteristics of the data.

Private tags – TIFF tags numbered 32768 or higher. Private tags are not defined in the TIFF Specification.

Public tags – TIFF tags that are defined by the TIFF Specification.

Resample – interpolation of pixel values based upon neighboring pixel values.

Tag – refers only to the identifying number portion of the geokey (as defined in the TIFF Specification).

Figure 1, UTM Zones

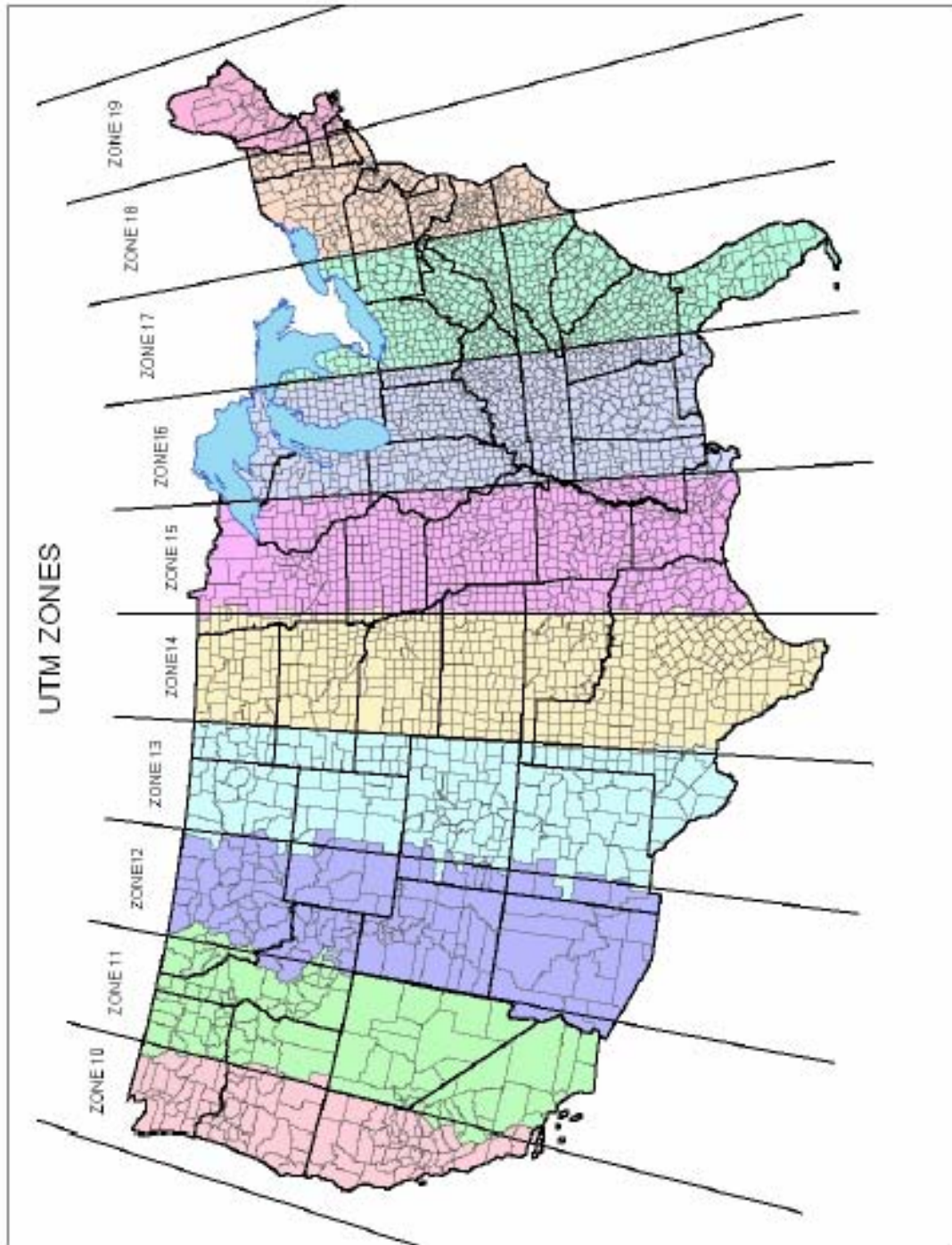


Figure 1a, Alaska UTM Zones

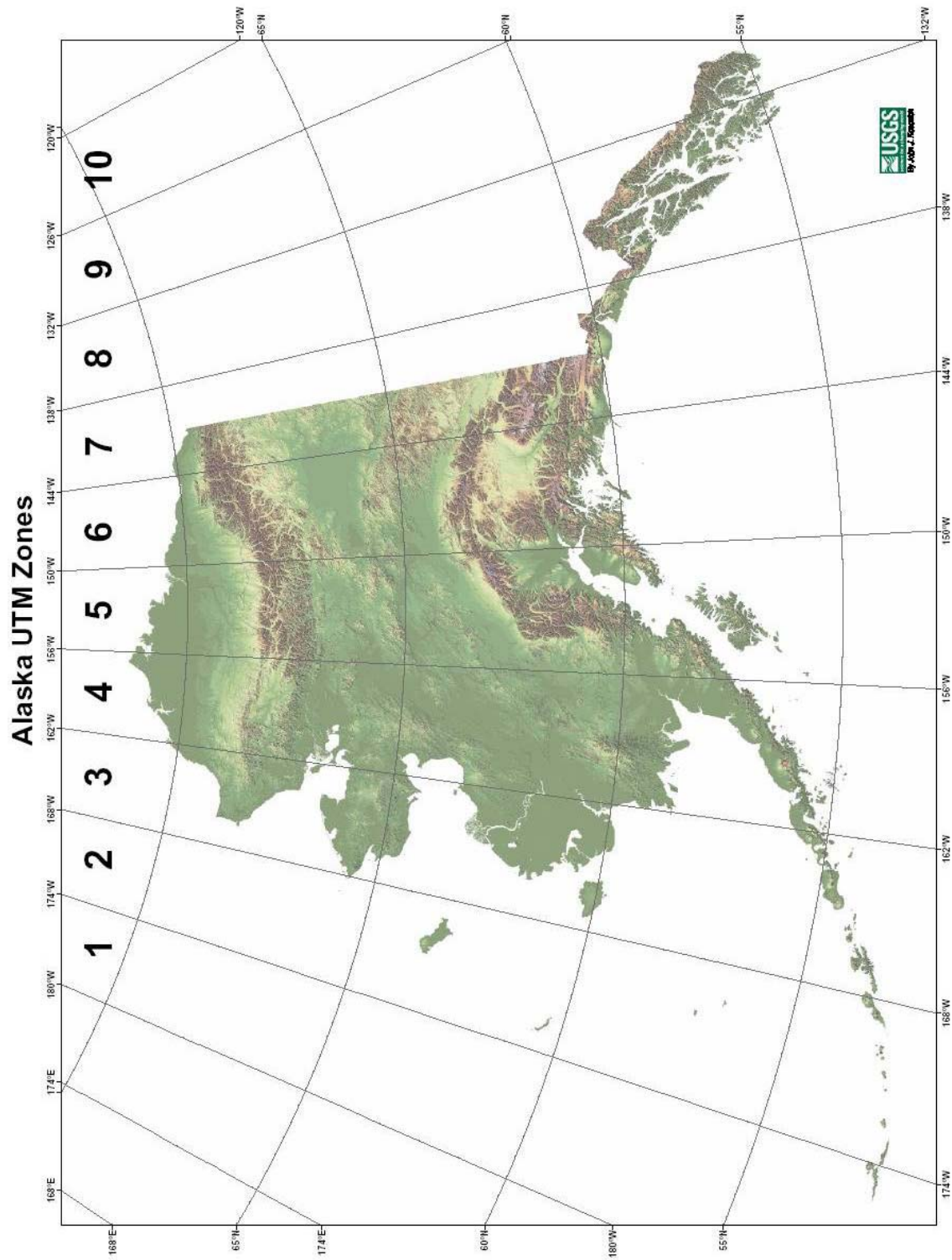


Table 1, Required TIFF Tags

TAG NAME	DESCRIPTION
ImageDescription tag (270.d, 10e.h)	The ImageDescription tag shall contain the program name. For example, under the contract the tag will read: “USDA-FSA-APFO”
DocumentName tag (269.d, 10d.h)	The DocumentName tag shall have the following form: <fipscode> <cntryear> <photopgm> where: <fipscode> is the State and county FIPS code, 5 digits <cntryear> Is the contract year of film acquisition, 4 digits (1956, 1963, etc.) <photopgm> is the photo program, 4 characters (NP05, NPP1, USGS, USFS, etc.)

Table 2, Required GeoTIFF Specific Tags

TAG NAME	DESCRIPTION
ModelPixelScaleTag (33550.d, 830e.h)	The X and Y values must be populated and be equal to the ground distance of one index pixel.
ModelTiepointTag (33922.d, 8482.h)	This tag specifies the (X,Y) ground coordinates of the (0,0) image pixel, by convention in the upper left corner of the image. All indexes shall use the UTM project reference frame. GeoTIFF 1.0 allows considerable flexibility in how an image is tied to the ground, but index image data should be tied to the (0,0) pixel. The Z coordinate value should be set to 0. See section 2.6.1 of the GeoTIFF 1.0 standard.
GeoAsciiParamsTag (34737.d, 87b1.h) (required)	This tag is used to store all the ASCII-valued GeoKeys. See section 2.4 of the GeoTIFF 1.0 standard.
GeoKeyDirectoryTag (34735.d, 87af.h) (required)	This tag references all non-ASCII GeoKeys. All projection and datum information is stored in GeoKeys. See section 2.10.2.2 of this standard and section 2.4 of the GeoTIFF 1.0 standard.

Table 3, Approved Private Tags

TAG NAME	ID
ModelPixelScaleTag	33550 (SoftDesk)
ModelTransformationTag	34264 (JPL Carto Group)
INGR Packet Data Tag	33918 (Intergraph)
INCR Flag Registers	33919 (Intergraph)
IrasB Transformation Matrix	33920 (Intergraph)
UnUsed	33921 (Intergraph)
ModelTiepointTag	33922 (Intergraph)
GeoKeyDirectoryTag	34735 (SPOT)
GeoDoubleParamsTag	34736 (SPOT)
GeoAsciiParamsTag	34737 (SPOT)

Table 4, Required GeoTIFF MetaTags

TAG NAME	DESCRIPTION
GTModelTypeGeoKey (1024.d, 400.h) (required)	The required value is 1 (ModelTypeProjected).
TRasterTypeGeoKey (1025.d, 401.h) (required)	<p>a. The required value is 1 (RasterPixelIsArea) which is the default value.</p> <p>b. The "PixelIsArea" raster grid space uses coordinates I and J, with (0,0) denoting the upper-left corner of the image, and increasing I to the right, increasing J down. The first pixel-value fills the square grid cell with the bounds top-left = (0,0), bottom-right = (1,1) and so on; by extension this one-by-one grid cell is also referred to as a pixel. An N by M pixel image covers an area with the mathematically defined bounds (0,0),(N,M).</p>
ProjectedCSTypeGeoKey (3072.d, c00.h) (required)	This key contains a coded value for the projection, datum, and possibly plane coordinate zone. Legal values for this key are listed in section 6.3.3.1 of the GeoTIFF 1.0 standard.

TAG NAME (Cont.)	DESCRIPTION (Cont.)
PCSCitationGeoKey (3073.d, c01.h) (required)	This is a free text field for describing the projection and datum. index images are projected into the UTM coordinate system. These fields shall describe the projection, zone, and datum and shall be in the following form: a. <datum>/UTM Zone <number> <N/S> (i) <datum> is the common datum abbreviation, NAD83. (ii) Where <number> is the UTM zone number. b. Example: NAD83 / UTM zone 15N
GTCitationGeoKey (1026.d, 402.h) (required)	This is a free text field for providing a description of the index. The GeoKey contents shall be in the following form. <fipscode> <cntryear> <photopgm> where: <fipscode> is the State and county FIPS code, 5 digits <cntryear> Is the contract year of film acquisition, 4 digits (1956, 1963, etc.) <photopgm> is the photo program, 4 characters (NP05, NPP1, USGS, USFS, etc.)
ProjLinearUnitsGeoKey (3076.d, c04.h) (required)	This key contains a coded value for the linear units used by the projection. Legal values for this key are listed in section 6.3.3.1 of the GeoTIFF 1.0 standard. Indexes shall use the code value of 9001 ("Linear_Meter").

List 1, Tag Listings

The following table summarizes the TIFF 6.0, GeoTIFF 1.0, and GeoKey requirements. The values in the table are consistent with the TIFF 6.0 and GeoTIFF 1.0 standards, but there are less options than are allowed by TIFF. Additional guidelines and requirements for the values of tags and keys are detailed in the body of this standard. Additional public tags and keys may be used at the data producer's option, providing they do not conflict with the required tags.

TIFF tags required by baseline TIFF:

TagName Decimal Hex Type Value

ImageWidth 256 100 SHORT or LONG

ImageLength 257 101 SHORT or LONG

BitsPerSample 258 102 SHORT 8,8,8

Compression 259 103 SHORT 1

PhotometricInterpretation 262 106 SHORT 2
 Orientation 274 112 SHORT 1
 StripOffsets 273 111 SHORT or LONG
 SamplesPerPixel 277 115 SHORT or LONG 3
 RowsPerStrip 278 116 SHORT or LONG 1
 StripByteCounts 279 117 LONG or SHORT
 TIFF tags defined by GeoTIFF:
TagName Decimal Hex Type Value
 ModelPixelScaleTag 33550 830E DOUBLE
 ModelTiepointTag 33922 8482 DOUBLE
 GeoAsciiParamsTag 34737 87B1 ASCII
 GeoKeyDirectoryTag 34735 87AF SHORT
 GeoKeys defined by GeoTIFF and used by APFO:
TagName Decimal Hex Type Value
 GTModelTypeGeoKey 1024 400 6.3.1.1 code 1
 GTRasterTypeGeoKey 1025 401 6.3.1.2 code 1
 GTCitationGeoKey 1026 402 ASCII
 ProjectedCSTypeGeoKey 3072 C00 6.3.3.1 code
 PCSCitationGeoKey 3073 C01 ASCII
 ProjLinearUnitsGeoKey 3076 C04 SHORT

List 2, “tiffinfo” Output

This listing is an output of the libtiff utility program “tiffinfo”.
 TIFF Directory at offset 0x2370bc4
 Image Width: 3247 Image Length: 3815
 Resolution: 200, 200 (unitless)
 Bits/Sample: 8
 Compression Scheme: none
 Photometric Interpretation: RGB color
 Document Name: <fipscode> <entryyear> <photopgm>
 Image Description: “USDA-FSA-APFO”
 Samples/Pixel: 3
 Rows/Strip: 1
 Planar Configuration: single image plane

List 3, ListGeo Output

The following is an example of a GeoTIFF tag and GeoKey listing from an image. This listing is the output of the libgeotiff utility program "listgeo". The projection information below the line "End_Of_Geotiff" is implied by the standard projection and is not stored explicitly in the data file. The descriptions are retrieved from libgeotiff lookup tables in the listgeo application.

Geotiff_Information:

Version: 1

Key_Revision: 1.0

Tagged_Information:

ModelTiepointTag (2,3):

0 0 0

337962 3763838 0

ModelPixelScaleTag (1,3):

2 2 1

End_Of_Tags.

Keyed_Information:

GTModelTypeGeoKey (Short,1): ModelTypeProjected

GTRasterTypeGeoKey (Short,1): RasterPixelIsArea

GTCitationGeoKey (Ascii,45): "<fipscode> <cntryyear> <photopgm> "

ProjectedCSTypeGeoKey (Short,1): PCS_NAD83_UTM_zone_15N

PCSCitationGeoKey (Ascii,21): "NAD83 / UTM zone 15N"

ProjLinearUnitsGeoKey (Short,1): Linear_Meter

End_Of_Keys.

End_Of_Geotiff.

PCS = 26915 (name unknown)

Projection = 16015 ()

Projection Method: CT_TransverseMercator

ProjNatOriginLatGeoKey: 0.000000 (0d 0' 0.00"N)

ProjNatOriginLongGeoKey: -93.000000 (93d 0' 0.00"W)

ProjScaleAtNatOriginGeoKey: 0.999600

ProjFalseEastingGeoKey: 500000.000000

ProjFalseNorthingGeoKey: 0.000000

GCS: 4269/NAD83

Datum: 6269/North American Datum 1983

Ellipsoid: 7019/GRS 1980 (6378137.00,6356752.31)

Prime Meridian: 8901/Greenwich (0.000000/ 0d 0' 0.00"E)

Projection Linear Units: 9001/metre (1.000000m)

Corner Coordinates:

Upper Left (337962.000,3763838.000) (94d45'16.56"W, 34d 0' 9.55"N)

Lower Left (337962.000,3756208.000) (94d45'11.47"W, 33d56' 1.94"N)

Upper Right (344456.000,3763838.000) (94d41' 3.51"W, 34d 0'13.09"N)

Lower Right (344456.000,3756208.000) (94d40'58.63"W, 33d56' 5.47"N)

Center (341209.000,3760023.000) (94d43' 7.54"W, 33d58' 7.53"N)