

ORDER FOR SUPPLIES OR SERVICES

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

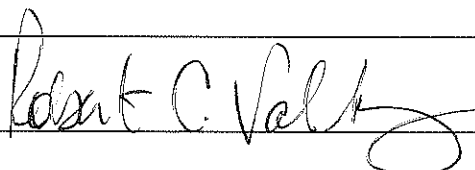
| | | | | | | |
|--|--|---|---------------------------|---|----------------------|--|
| 1. DATE OF ORDER 08/10/2010 | | 2. CONTRACT NO. (If any) G10PC00025 | | 6. SHIP TO: TIM SAULTZ | | |
| 3. ORDER NO. G10PD02075 | | 4. REQUISITION/REFERENCE NO. 10588331717 | | a. NAME OF CONSIGNEE U S GEOLOGICAL SURVEY, NMD | | |
| 5. ISSUING OFFICE (Address correspondence to) U S GEOLOGICAL SURVEY, APS PO BOX 25046 MS204A DENVER FEDERAL CENTER DENVER CO 80225 | | | | b. STREET ADDRESS 1400 INDEPENDENCE RD | | |
| | | c. CITY ROLLA | | d. STATE MO | e. ZIP CODE 65401 | |
| 7. TO: a. NAME OF CONTRACTOR Pat Olson | | | | f. SHIP VIA Best Method | | |
| b. COMPANY NAME AERO-METRIC INC | | | | 8. TYPE OF ORDER | | |
| c. STREET ADDRESS 4020 TECHNOLOGY PARKWAY | | | | <input type="checkbox"/> a. PURCHASE REFERENCE YOUR: Please furnish the following on the terms and conditions specified on both sides of this order and on the attached sheet, if any, including delivery as indicated. | | <input type="checkbox"/> b. DELIVERY - Except for billing instructions on the reverse, this delivery order is subject to instructions contained on this side only of this form and is issued subject to the terms and conditions of the above-numbered contract. |
| d. CITY SHEBOYGAN | | e. STATE WI | f. ZIP CODE 53083-6049 | | | |
| 9. ACCOUNTING AND APPROPRIATION DATA See Funding Detail | | | | 10. REQUISITIONING OFFICE U S GEOLOGICAL SURVEY, NMD | | |

| | | | | | | | |
|--|--|-------------------------------|--|--|--|---|--|
| 11. BUSINESS CLASSIFICATION (Check appropriate box(es)) <input type="checkbox"/> a. SMALL <input checked="" type="checkbox"/> b. OTHER THAN SMALL <input type="checkbox"/> c. DISADVANTAGED <input type="checkbox"/> d. WOMEN-OWNED | | | | | | | |
| 12. F.O.B. POINT Destination | | 14. GOVERNMENT B/L NO. n/a | | 15. DELIVER TO F.O.B. POINT ON OR BEFORE (Date) 01/31/2011 | | 16. DISCOUNT TERMS 10 days % 20 days % 30 days % days % | |
| 13. PLACE OF | | | | | | | |
| a. INSPECTION Destination | | b. ACCEPTANCE Destination | | | | | |

17. SCHEDULE (See reverse for Rejections)

| ITEM NO. (a) | SUPPLIES OR SERVICES (b) | QUANTITY ORDERED (c) | UNIT (d) | UNIT PRICE (e) | AMOUNT (f) | QUANTITY ACCEPTED (g) |
|-----------------|-----------------------------|-------------------------|-------------|-------------------|---------------|--------------------------|
| | SEE LINE ITEM DETAIL | | | | | |

| | | | | | | | |
|-------------------------------------|--|----------------|---------------------------|--|-----------------|--|-----------------------------------|
| SEE BILLING INSTRUCTIONS ON REVERSE | 18. SHIPPING POINT | | 19. GROSS SHIPPING WEIGHT | | 20. INVOICE NO. | | 17(h) TOT. (Cont. pages) |
| | 21. MAIL INVOICE TO: CHRISTINA RAGAN | | | | | | |
| | a. NAME US GEOLOGICAL SURVEY, GIO | | | | | | 17(i) GRAND TOTAL \$421,755.44 |
| | b. STREET ADDRESS (or P.O. Box) NATIONAL GEOSPATIAL TECHNICAL OPERATIONS CENTER III, 1400 INDEPENDENCE ROAD | | | | | | |
| c. CITY ROLLA | | d. STATE MO | e. ZIP CODE 65401-2602 | | | | |

| | | | | | | |
|--|--|--|---|--|--|--|
| 22. UNITED STATES OF AMERICA BY (Signature)  | | | 23. NAME (Typed) Robert C. Valdez TITLE: CONTRACTING/ORDERING OFFICER | | | |
|--|--|--|---|--|--|--|

**ORDER FOR SUPPLIES OR SERVICES
SCHEDULE - CONTINUATION**

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

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| DATE OF ORDER 08/10/2010 | CONTRACT NO. G10PC00025 | ORDER NO. G10PD02075 |
|-----------------------------|----------------------------|-------------------------|

| ITEM NO. (a) | SUPPLIES OR SERVICES (b) | QUANTITY ORDERED (c) | UNIT (d) | UNIT PRICE (e) | AMOUNT (f) | QUANTITY ACCEPTED (g) | | | | | | |
|----------------------|--|----------------------------|-------------------|----------------------|---------------|-----------------------------|------------|------|-----|-------------|------------|--|
| 0001 | <p><i>Requisition No: 10-5883-31717</i> <i>Vendor Code: 050264662</i></p> <p>Geospatial Product and Services (GPSC) - Base Year</p> <p>The contractor shall perform this task in accordance with the attached Task Order Detail for Arkansas Valley Colorado Lidar and contractor's proposal dated July 27, 2010, revised on August 5, 2010 and revised again on August 5, 2010.</p> <table border="0"> <tr> <td><i>Delivery Date</i></td> <td><i>Start Date</i></td> <td><i>End Date</i></td> </tr> <tr> <td>01/31/2011</td> <td>08/10/2010</td> <td>01/31/2011</td> </tr> </table> <p>Reference Requisition: 10588331717</p> | <i>Delivery Date</i> | <i>Start Date</i> | <i>End Date</i> | 01/31/2011 | 08/10/2010 | 01/31/2011 | 1.00 | JOB | 421,755.440 | 421,755.44 | |
| <i>Delivery Date</i> | <i>Start Date</i> | <i>End Date</i> | | | | | | | | | | |
| 01/31/2011 | 08/10/2010 | 01/31/2011 | | | | | | | | | | |

TOTAL CARRIED FORWARD TO 1ST PAGE (ITEM 17i) ⇒ \$421,755.44

| Contract Level Funding Summary | Document Number | Title | Page |
|---|------------------------|--|-------------|
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2010 - 2011 - SIRTR - 5883 - - 252M - - 57000 - - - E1CCA - - - - -
 \$93,840.59

Reference Requisition: 10588331717

2010 - 2011 - SIRTR - 5883 - - 252M - - 57000 - - - E1CCB - - - - -
 \$18,978.99

Reference Requisition: 10588331717

2010 - 2011 - SIRTR - 5883 - - 252M - - 57000 - - - E1C9B - - - - -
 \$113,747.44

Reference Requisition: 10588331717

2010 - 2011 - SIRTD - 5883 - - 252M - - 57000 - - - E1C10 - - - - -
 \$195,188.42

Reference Requisition: 10588331717

Total Funding: \$421,755.44

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TASK ORDER DETAIL

USGS CONTRACT: G10PC00025

CONTRACTOR: Aero-Metric, Inc.

TASK ORDER NUMBER: G10PD2075

TASK NAME: Arkansas Valley Colorado Lidar

The Contractor shall furnish all facilities, labor, materials, and equipment, unless specifically identified otherwise, to provide the mapping services and products in accordance with the specifications, terms, and conditions contained in Contract No. G10PC00025, and the following requirements specific to this Task Order, and in accordance with Contractor’s proposal dated July 27, 2010, revised on August 5, 2010 and revised again on August 5, 2010, and in the amount of:

| | |
|-------------------------------|----------------------|
| Task Order Fixed Price | \$ 421,755.44 |
|-------------------------------|----------------------|

SECTION C: DESCRIPTION/SPECIFICATIONS/WORK STATEMENT.

The following **Section C** additional requirements are applicable to this Task Order:

C.1. **Statement of Work (SOW):** Reference C.1 of the Contract. This task order is for Planning, Acquisition, processing, and derivative products of lidar data to be collected at a nominal pulse spacing (NPS) of **1.0 meters**. Lidar data, and derivative products produced in compliance with this task order are based on the *“U.S. Geological Survey National Geospatial Program Base Lidar Specification, Version 13”*, of which sections I through IV are incorporated by reference. The attached lidar specifications are required baseline specifications. In addition to the requirements listed below, variations from the specifications will be shown and noted below. For any item which is not specifically addressed below, the attached Version 13 specifications will be the required specification authority.

This task order is for acquisition of all areas: Priority Areas 1, 2, and 3 and the FEMA Areas.

C.1.a. **DATA ACQUISITION (COLLECTION):** The contractor shall be responsible for acquisition of lidar data of sufficient density and quality to meet the requirements specified:

C.1.a.(i) **Collection area:** The collection area shall be defined as the Defined Project Area. The Project Area is defined in **“Attachment A – Project Description and Diagram”** and further delineated by the ESRI ArcShape file included as **“Attachment B – Shape File(s)”**

C.1.a.(ii) **Nominal Pulse Spacing:** Nominal Pulse Spacing (NPS) shall be no greater than **1.0 meters**; assessment to be made against single swath, first return data located within the geometrically usable center portion (typically ~90%) of each swath.

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- C.1.a.(iii) **Signal Returns** The laser system shall be configured to collect multiple echoes per pulse, with a minimum of a first return and a last return and at least one additional intermediate return. All returns captured during acquisition shall be delivered. Return number shall be recorded.
- C.1.a.(iv) **GPS Times:** shall be recorded at a precision sufficient to allow unique timestamps for each return.
- C.1.a.(v) **Signal Strength:** The signal strength (intensity) of each return pulse shall be recorded.
- C.1.a.(vi) **Clustering:** The spatial distribution of geometrically usable points is expected to be uniform and free from clustering. In order to ensure uniform densities throughout the data set:
- C.1.a.(vi)(a) A regular grid, with cell size equal to the design NPS will be laid over the data.
- C.1.a.(vi)(b) At least 90% of the cells in the grid shall contain at least 1 lidar point.
- C.1.a.(vi)(c) Clustering will be tested against the 1st return only data
- C.1.a.(vi)(d) Acceptable data voids identified elsewhere in this specification are excluded.
- C.1.a.(vii) **Control:** LIDAR shall be acquired using the following control specifications.
- C.1.a.(vii)(a) **Supplemental Ground Control:** Differentially corrected GPS Ground Control used to supplement the Airborne GPS positional accuracy.
- C.1.a.(vii)(b) **Ground Control Quality Check points:** The Contractor shall collect a minimum of twenty (20) additional Ground Control points which shall be delivered in ESRI Arc Shape format and will be used by the Government for validation.
- (01) Twenty (20) check points shall be collected uniformly dispersed over the project area to verify fundamental vertical accuracy.
 - (02) Fundamental vertical accuracy checkpoints should be located only in open terrain, where there is a high probability that the sensor will have detected the ground surface without influence from surrounding vegetation.
 - (03) Checkpoints should be located on flat or uniformly sloping terrain and will be at least five (5) meters away from any breakline where there is a change in slope.
 - (04) The checkpoint accuracy shall satisfy a Local Network accuracy of 10-centimeteres at the 95% confidence level.
 - (05) Check points shall not be incorporated into the contractor's vertical solution.
- C.1.a.(viii) **Vertical Accuracy Requirements:** Lidar collected under this task order shall be at a vertical accuracy NSSDA $RMSE_z = 15cm$ (NSSDA Accuracy_Z 95% = 30cm) or better; assessment procedures to comply with FEMA guidelines.

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- C.1.a.(ix) **Positional Accuracy Validation:** The absolute and relative accuracy of the data, both horizontal and vertical, relative to known control, shall be verified prior to classification and subsequent product development. A detailed report of this validation is a required deliverable
- C.1.a.(x) **Relative Accuracy Requirements:** Relative accuracy of 10cm RMSE_Z or better; assessment to be made swath-to-swath and within single swaths.
- C.1.a.(xi) Acquisition Window:** Acquisition window shall be between **August 15 and September 30, 2010.**
- C.1.a.(xii) **Swath Length:** Long swaths (those which result in a LAS file larger than 2GB) shall be split into segments. Each segment shall thenceforth be regarded as a unique swath. Other swath segmentation criteria may be acceptable, with prior approval.
- C.1.a.(xiii) **Overlap:** Flight line overlap of 20% or greater, as required to ensure there are no data gaps between the usable portions of the swaths. Collections in high relief terrain are expected to require greater overlap. Any data with gaps between the geometrically usable portions of the swaths will be rejected.
- C.1.a.(xiv) **Data Voids:** Data Voids [areas => (4*NPS)², measured using 1st-returns only] within a single swath are not acceptable, except:
- C.1.a.(xiv)(a) where caused by water bodies
- C.1.a.(xiv)(b) where caused by areas of low near infra-red (NIR) reflectivity such as asphalt or composition roofing.
- C.1.a.(xiv)(c) where appropriately filled-in by another swath
- C.1.a.(xv) **Data Acquisition Conditions:**
- C.1.a.(xv)(a) **Atmospheric:** Cloud and fog-free between the aircraft and ground
- C.1.a.(xv)(b) **Ground:**
- (01) Snow free; very light, undrifted snow may be acceptable in special cases, with prior approval.
- (02) No unusual flooding or inundation, except in cases where the goal of the collection is to map the inundation.
- C.1.a.(xv)(c) **Vegetation:** Leaf-off is required:
- (01) This data is being acquired, in part, to study fault lines in and around the Arkansas River Valley. An accurate bare-earth model is necessary.
- C.1.a.(xvi) **Time of Day:** Time of day is not of concern.

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C.1.b. **DATA PROCESSING AND HANDLING:** The contractor shall be responsible for post processing of lidar data of sufficient density and quality to meet the requirements specified in **Attachment C, Section II**. All processing should be carried out with the understanding that all point deliverables are required to be in fully compliant LAS format, v1.2 or v1.3. Data producers are encouraged to review the LAS specification in detail.

C.1.b.(i) **In BARE EARTH AREA**

C.1.b.(i)(a) **Data Accuracy:** Data collected under this Task Order shall meet the National Standard for Spatial Database Accuracy (NSSDA) accuracy standards. The NSSDA standards specify that vertical accuracy be reported at the 95 percent confidence level for data tested by an independent source of higher accuracy. For example the metadata statement shall read, “Tested __ (meters, feet) vertical accuracy at 95 percent confidence level.”

C.1.b.(i)(b) **Fundamental Vertical Accuracy (FVA)** of the TIN: 36.3 cm at a 95% confidence level, derived according to NSSDA, i.e., based on RMSE of 18.5 cm in the “open terrain” land cover category. This is a required accuracy.

C.1.b.(i)(c) **Consolidated Vertical Accuracy (CVA):** 36.3 cm at a 95% confidence level, derived according to ASPRS Guidelines, Vertical Accuracy Reporting for LiDAR Data, i.e., based on the 95th percentile error in all land cover categories combined. This is a required accuracy.

C.1.b.(ii) **Hydro Flattening Requirements:**

C.1.b.(ii)(a) FEMA Defined Areas:

- (01) All areas shall be hydro-flattened. The FEMA designated areas shall also be hydro-enforced.
- (02) A set of 2 feet interval contours shall be produced and delivered for the FEMA areas.

C.1.b.(ii)(b) Inland Ponds and Lakes:

- (01) ~2-acre or greater surface area (~350’ diameter for a round pond)
- (02) Flat and level water bodies (single elevation for every bank vertex defining a given water body).
- (03) The entire water surface edge must be at or just below the immediately surrounding terrain.
- (04) Long impoundments such as reservoirs, inlets, and fjords, whose water surface elevations drop when moving downstream, should be treated as rivers.

C.1.b.(ii)(c) Inland Streams and Rivers:

- (01) 100’ **nominal** width: This should not unnecessarily break a stream or river into multiple segments. At times it may squeeze slightly below 100’ for short segments. Data producers should use their best professional judgment.

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- (02) Flat and level bank-to-bank (perpendicular to the apparent flow centerline); gradient to follow the immediately surrounding terrain.
- (03) The entire water surface edge must be at or just below the immediately surrounding terrain.
- (04) Streams should break at road crossings (culvert locations). These road fills should not be removed from DEM. However, streams and rivers should **not** break at bridges. Bridges should be removed from DEM. When the identification of a feature as a bridge or culvert cannot be made reliably, the feature should be regarded as a culvert.

C.1.c. **DELIVERABLE PRODUCTS:** The following deliverable products shall be produced from the lidar produced in C.1.b above.

C.1.c.(i) **Raw Point Cloud Data:**

- C.1.c.(i)(a) Fully compliant LAS v1.2 or v1.3, Point Record Format 1, 3, 4, or 5
- C.1.c.(i)(b) LAS v1.3 deliverables with waveform data are to use external “auxiliary” files with the extension “.wdp” for the storage of waveform packet data. See the LAS v1.3 Specification for additional information.
- C.1.c.(i)(c) Georeference information included in all LAS file headers
- C.1.c.(i)(d) GPS times are to be recorded as Adjusted GPS Time, at a precision sufficient to allow unique timestamps for each return.
- C.1.c.(i)(e) Intensity values in native radiometric resolution.
- C.1.c.(i)(f) Full swaths, all collected points to be delivered.
- C.1.c.(i)(g) 1 file per swath, 1 swath per file, file size not to exceed 2GB, as described in Section II, Paragraph 5.

C.1.c.(ii) **Classified Point Cloud:**

- C.1.c.(ii)(a) Fully compliant LAS v1.2 or v1.3, Point Record Format 1, 3, 4, or 5
- C.1.c.(ii)(b) LAS v1.3 deliverables with waveform data are to use external “auxiliary” files with the extension “.wdp” for the storage of waveform packet data. See the LAS v1.3 Specification for additional information.
- C.1.c.(ii)(c) Georeference information included in LAS header
- C.1.c.(ii)(d) GPS times are to be recorded as Adjusted GPS Time, at a precision sufficient to allow unique timestamps for each return.
- C.1.c.(ii)(e) Intensity values in native radiometric resolution.

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- C.1.c.(ii)(f) Tiled delivery, without overlap
- C.1.c.(ii)(g) Classification Scheme (minimum):
- (01) Code 1 – Processed, but unclassified
 - (02) Code 2 – Bare-earth ground
 - (03) Code 7 – Noise (low or high, manually identified, if needed)
 - (04) Code 9 – Water
 - (05) Code 10 – Ignored Ground (Breakline Proximity)
- C.1.c.(ii)(h) *Note: Class 7, Noise, is included as a convenience for the data producer. It is not required that all “noise” be assigned to Class 7.*
- C.1.c.(ii)(i) *Note: Class 10, Ignored Ground, is for points previously classified as bare-earth but whose proximity to a subsequently added breakline requires that it be excluded during Digital Elevation Model (DEM) generation.*
- C.1.c.(iii) **Bare Earth Surface (Raster DEM):**
- C.1.c.(iii)(a) Cell Size 1 meters
- C.1.c.(iii)(b) Delivery in an industry-standard, GIS-compatible, 32-bit floating point raster format (ERDAS .IMG preferred)
- C.1.c.(iii)(c) Georeference information shall be included in raster file
- C.1.c.(iii)(d) Tiled delivery, without overlap
- C.1.c.(iii)(e) DEM tiles will show no edge artifacts or mismatch
- C.1.c.(iii)(f) Void areas (i.e., areas outside the project boundary but within the tiling scheme) shall be coded using a unique “NODATA” value. This value shall be identified in the appropriate location within the file header.
- C.1.c.(iii)(g) Vertical Accuracy (RMSE_Z) of the bare earth surface is to be assessed using the methods described in the FEMA “Guidelines and Specifications for Flood Hazard Mapping Partners, Appendix A”, Section A.8.5 paragraph 1, Section A.8.6.1, and Section A.8.6.2 (substituting the contracted vertical accuracy requirements (RMSE_Z) for those listed in the FEMA document). All QA/QC analysis materials and results are to be delivered to the USGS.
- C.1.c.(iii)(h) Depressions (sinks), natural or man-made, are not to be filled (as in hydro-conditioning and hydro-enforcement).
- C.1.c.(iii)(i) Water Bodies (ponds and lakes), wide streams and rivers (“double-line”), and other non-tidal water bodies as defined in Section III are to be hydro-flattened within the DEM.

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Hydro-flattening shall be applied to all water impoundments, natural or man-made, that are larger than ~2 acre in area (equivalent to a round pond ~350' in diameter), to all streams that are nominally wider than 100', and to all non-tidal boundary waters bordering the project area regardless of size. The methodology used for hydro-flattening is at the discretion of the data producer.

- C.1.c.(iv) **FEMA Area DEMs:** A set of DEMS for the FEMA areas shall be hydro enforced.
- C.1.c.(v)** **FEMA Area Contours:** A set of 2 foot interval contours shall be produced and delivered for the FEMA areas.
- C.1.c.(vi) **Control:** Control, as defined in C.1.a, above, shall be delivered to the Government as specified in C.2. Digital Deliverables.
- C.1.c.(vii) **Metadata:** The following requirements for Metadata shall be met:
- C.1.c.(vii)(a) Collection Report detailing mission planning and flight logs.
- C.1.c.(vii)(b) Survey Report detailing the collection of control and reference points used for calibration and QA/QC.
- C.1.c.(vii)(c) Processing Report detailing calibration, classification, and product generation procedures including methodology used for breakline collection and hydro-flattening.
- C.1.c.(vii)(d) QA/QC Reports (detailing the analysis, accuracy assessment and validation of:
(01) The point data (absolute, within swath, and between swath)
(02) The bare-earth surface (absolute)
(03) Other optional deliverables as appropriate
- C.1.c.(vii)(e) Control and Calibration points: All control and reference points used to calibrate, control, process, and validate the lidar point data or any derivative products are to be delivered.
- C.1.c.(vii)(f) Geo-referenced, digital spatial representation of the precise extents of each delivered dataset. This should reflect the extents of the actual lidar source or derived product data, exclusive of Triangular Irregular Network (TIN) artifacts or raster NODATA areas. A union of tile boundaries or minimum bounding rectangle is not acceptable. ESRI Polygon shapefile is preferred.
- C.1.c.(vii)(g) Product metadata (FGDC compliant, XML format metadata). One file for each:
(01) Project
(02) Lift
(03) Tiled deliverable product group (classified point data, bare-earth DEMs, breaklines, etc.). Metadata files for individual tiles are not required.
- C.1.c.(viii) **Project Report:** The contractor shall deliver a production report which details:
- C.1.c.(viii)(a) A record of field work procedures.
- C.1.c.(viii)(b) Data derivation and adjustments.
- C.1.c.(viii)(c) Quality control procedures and results.
- C.1.c.(viii)(d) Any problems encountered and solutions used in resolving such problems.
- C.1.c.(viii)(e) Statistical report summarizing the results of the airborne GPS adjustment and the overall accuracy of the adjusted IMU data.

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C.1.c.(viii)(f) Production report shall be Microsoft Word, Adobe PDF format or other compatible digital format.

C.1.d. TILING SCHEME AND DATA FORMAT:

C.1.d.(i) **Tile Coverage:** Tiles which lie completely within the project area shall be complete to the tile edges. Tiles which lie partially outside the project boundary shall be complete to the project boundary with enough overlap beyond the project boundary to ensure that no parts of the project are omitted.

C.1.d.(i)(a) **Tile Size:**

(01) Tiles shall be 1500 x 1500 meters named on the even UTM lines derived from the southwest corner of each tile using the last digit of the UTM zone, the three digits of the west UTM line, and four digits from the south UTM line. For example:
zwwwssss

(01).1. Where z = last digit of UTM zone

(01).2. www = west limit in thousands

(01).3. ssss = south limit in thousands

(02) Tiled deliverables shall conform to the tiling scheme, without added overlap.

(03) Tiling scheme will be used for all tiled deliverables.

(04) Tiled deliverables shall edge-match seamlessly in both the horizontal and vertical.

C.1.d.(i)(b) **Spatial Reference System:**

(01) The Spatial Reference System shall be: *for the Conterminous United States (CONUS) is: UTM, NAD83, Meters; NAVD88, Meters. Data should reference the most recent Geoid model approved by the NGS, to two decimal places. UTM Zone 13*

C.1.e. **NOTIFICATION:** The Government POC named below shall be notified within 24 hours of the start of acquisition of data. Notification can be made by e-mail and is for information purposes only, not permission to proceed.

C.1.f. **PERMITS:** The contractor shall be responsible for obtaining all permits which may be required in the performance of this task order, which shall include, but not be limited to any permits for acquisition of data in controlled or restricted airspace, and access to control points on the ground.

C.1.g. **USE AND DISTRIBUTION RIGHTS:** All deliverable data and documentation shall be free from restrictions regarding use and distribution. Data and documentation provided under this Task Order shall be freely distributable by government agencies.

C.1.g.(i) **NOTE: “U.S. Geological Survey National Geospatial Program Base Lidar Specification, Version 13”**, Section IV, regarding data providers rights to resell data or derivative products

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as they see fit are specifically exempted from this task order. *(this may be removed if the v13 spec wording is changed)*

C.1.h. **CERTIFICATIONS:** The contractor shall certify as part of its proposal that the work performed on this task order complies with Section 52.225-5 of the Federal Acquisition Regulations relating to Trade Agreements.

C.1.i. **THE GOVERNMENT POINT-OF-CONTACT (POC) FOR THIS TASK ORDER:** The Government Point of Contact for the original task order and any modifications shall be the POC listed below.

Address: USGS/NGTOC

Telephone:(573) 308-3579

ATTN: John Murphey, MS 602
1400 Independence Road
Rolla, MO 6540

FAX:(573)-308-3810

e-mail: jmurphey@usgs.gov

C.2. **Digital Deliverables:** Reference C.1 of the Contract.

C.2.a. **The Contractor shall deliver three copies** of the Lidar data products and documentation as specified in Section C.1 of this Task Order.

C.2.b. **Format:** Data shall be delivered in the formats specified in C.1.c above.

C.2.c. **Delivery Medium:** The digital data shall be delivered on external hard drive, i.e. (firewire, or USB2 – Less than USB2 is not acceptable). Files shall be stored into appropriate directories on the drive.

C.2.d. **Deliverable Validation:** Reference C.1 - 3.12 of the Contract. The Government may choose to contract with a separate contractor for validation on all submitted deliverables.

SECTION D: - PACKAGING AND MARKING

D.1. No additional Section D requirements are applicable to this Task Order.

SECTION E: - INSPECTION AND ACCEPTANCE - The following Section E additional requirements are applicable to this Task Order:

E.1. **Inspection Period:** Reference GS0720 of the Contract. The inspection period begins the day after the data has been delivered. All deliverables will be validated within a thirty (30) calendar-day of the inspection period

E.2. **Inspection and Acceptance Procedures:** Reference E780 of the Contract. The Government will perform a full inspection of all deliverables in accordance with E780 (b) of the Contract.

E.3. **Nonconforming deliverables:** Nonconforming deliverables returned to contractor for rework shall be delivered in accordance with Contract clause E784 (b).

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SECTION F: - DELIVERIES OR PERFORMANCE - The following Section F additional requirements are applicable to this Task Order:

- F.1. **Place of Delivery:** Reference GS0904 of the Contract. Contractor shall submit all requested deliverables to the address of the POC, as shown in Section C of this Task Order.
- F.2. **Delivery Schedule:** Reference F981 of the Contract. The Government requires the following delivery schedule:
 - F.2.a. **Lot One (1):** Consisting of all required deliverables (including metadata) of the lidar data for all three priority areas and the FEMA areas and the derived products as specified in the task order, shall be delivered no later than **January 31, 2011**.
- F.3. **Progress Reports:** Contractor shall submit a monthly progress report for this task order in accordance with Contract clause GS0931 and GS0938.

SECTION G: - CONTRACT ADMINISTRATION DATA

- G.1. No additional Section G requirements are applicable to this Task Order

SECTION H: - SPECIAL CONTRACT REQUIREMENTS -The following Section H additional requirements are applicable to this Task Order:

- H.1. **Applicable Regulations And Permits -- Aircraft Operations:** Reference H1344 of the contract. The contractor shall be responsible for applying for and obtaining any required permits for access, over-flight, or intrusion to restricted or otherwise limited ground access and/or airspace, which may be included within the requirement of this task order.
- H.2. **Government Furnished Property:** Reference H1480 (Conditions Regarding Use Of GFP) of the contract. No Government furnished property is being supplied with this Task Order.

SECTION I: - CONTRACT CLAUSES

- I.1. No additional detail is required for this Task Order.

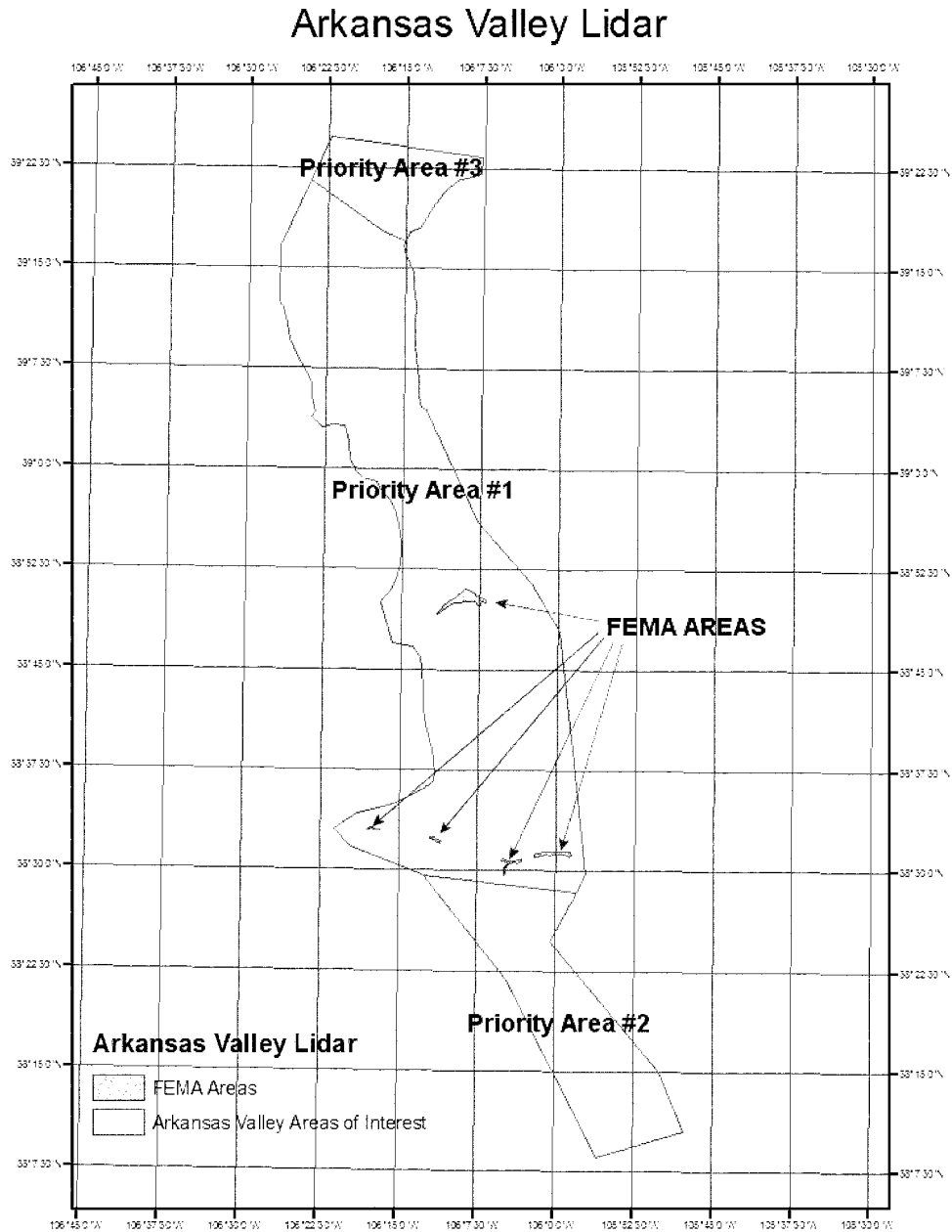
SECTION J: - LIST OF ATTACHMENTS TO THIS TASK ORDER

- J.1. Attachment A - Project Area Description 1 Page
- J.2. Attachment B - Shape files 1 Page

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**TASK ORDER Attachment A -
Araknsas Valley Colorado Lidar – Project Description and Diagram**

The Arkansas Valley Lidar task is made up of three areas of interest. This task order involves Lidar for the central area of interest, including the FEMA Areas. The north and south areas of interest may be added if funding becomes available.



END "ATTACHMENT A"

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**TASK ORDER Attachment B -
Arkansas Valley Colorado Lidar – Project Shape Files**

THIS SECTION CONSISTS OF THE FOLLOWING DATA SET(S)

Arkansas Valley.zip
contains

Ark_river_lidar_boundary.shp
(primary area of interest)

Topo_Boundary.shp
(FEMA Areas)

END “ATTACHMENT B”