Metadata for 2005 Orthophotography Products

What does this data set describe?

Title: NCTCOG Cooperative 2005 Ortho Project

Abstract: The North Central Texas Council of Governments (NCTCOG), in concert with over 100 participants, facilitated the acquisition of six-inch digital orthophotography (orthos) in 2005. These orthos were collected for Collin, Dallas, Denton, Ellis, Kaufman, Navarro, Rockwall, and Tarrant counties.

1. How should this data set be cited?

   NCTCOG Cooperative 2005 Ortho Project

2. What geographic area does the data set cover?

   All or part of the following counties in Texas: Collin, Dallas, Denton, Ellis, Kaufman, Navarro, Rockwall, and Tarrant

3. What does it look like?

Aerial photographs

4. Does the data set describe conditions during a particular time period?

   Beginning Date: January 2005

   Ending Date: March 2005

   Currentness Reference: publication date

5. What is the general form of this data set?

   Geospatial Data Presentation Form: SDE raster digital data

6. How does the data set represent geographic features?
   a. How are geographic features stored in the data set?

      This is a raster data set.

   b. What coordinate system is used to represent geographic features?

      The map projection used is Lambert Conformal Conic.

      Projection parameters:

         Standard Parallel: 32.133333
         Standard Parallel: 33.966667
         Longitude of Central Meridian: -98.500000
         Latitude of Projection Origin: 31.666667
         False_Easting: 1968500.000000
         False_Northing: 6561666.666667

      Planar coordinates are encoded using rows and columns. Abscissae (x-coordinates) are specified to the nearest 0.500000. Ordinates (y-coordinates) are specified to the nearest 0.500000. Planar coordinates are specified in survey feet

      The horizontal datum used is North American Datum of 1983.
      The ellipsoid used is Geodetic Reference System 80.
      The semi-major axis of the ellipsoid used is 6378137.000000.
      The flattening of the ellipsoid used is 1/298.257222.

      Vertical Coordinate System Definition:

         Altitude System Definition:

         Altitude Datum Name: North American Vertical Datum of 1988

         Altitude Resolution: 1.000000

         Altitude Distance Units: Feet

         Altitude Encoding Method:

      Explicit elevation coordinate included with horizontal coordinates

7. How does the data set describe geographic features?

As raster imagery.

Who produced the data set?

1. Who are the originators of the data set?

   North Central Texas Council of Governments (NCTCOG)

2. To whom should users address questions about the data?

   John Hunt, Manager of GIS
   NCTCOG
   (817) 695-9163 (voice)
   (817) 640-4428 (FAX)
   jhunt@nctcog.org

Why was the data set created?

These orthos were created for use by NCTCOG members, state and federal government agencies, and the private sector to assist in the creation of base data needed for GIS applications in the NCTCOG region.

How was the data set created?

1. From what previous works were the data drawn?

   All control and monumentation used in the 2001 and 2003 orthophotography and 2001 LiDAR projects.

2. How were the data generated, processed, and modified?

   Color aerial photography were acquired using a Z/I Digital Mapping Camera (Z/I DMC) which has been proven accurate for photogrammetry mapping by the USGS digital sensor evaluation program at Stennis, Mississippi. The flight design achieved a nominal ground- pixel resolution sufficient for developing 6" pixel orthophotography without oversampling. It was also designed with sufficient forward overlap and strip side laps to ensure total project area coverage.

   Several urbanized areas required spot shots, or photos taken from directly overhead, to minimize building tilt. Ground and airborne GPS control were acquired under the supervision of a registered surveyor at sufficient density and accuracy to support production of digital orthophotography to the specifications required. Control was collected in Texas State Plane, North Central Zone, NAD 83, NAVD 88 (HARN), U.S. Survey Feet. Aerotriangulation was performed using industry-accepted procedures on an approved softcopy workstation or analytical stereoplotter to support the horizontal accuracy requirements of the digital orthophotography. RMS of known ground points does not exceed 1 foot in x, y, or z.

   Digital elevation models (DEMs) were constructed using industry-accepted procedures with sufficient density of points to support production of digital orthophotographs at the required specifications. Existing DEMs were used if available and suitable for the purpose. Certain above-ground features such as bridges and overpasses were collected in a way that avoids apparent displacement or distortion in the resulting images. In these situations, the geometric accuracy requirements were waived.

   The most nadir part of every image was used in the mosaicking. Mosaic seam lines were created to ensure that joins do not cut hard detail where avoidable. Mosaic lines do not cross through above-ground

structures unless unavoidable. Seams through or along streets are placed to avoid obscuring or artificially creating centerlines, curbs, and sidewalks.

3. What similar or related data should the user be aware of?

   2001 & 2003 orthos, and 2001 LiDAR. Various vector data available throughout the region.

How reliable are the data; what problems remain in the data set?

1. How well have the observations been checked?
2. How accurate are the geographic locations?

   RMS of known ground points will not exceed 1 foot in x, y, or z.

3. How accurate are the heights or depths?

   RMS of known ground points will not exceed 1 foot in x, y, or z.

4. Where are the gaps in the data? What is missing?

   None.

5. How consistent are the relationships among the observations, including topology?

How can someone get a copy of the data set?

1. Are there legal restrictions on access or use of the data?

   Access_Constraints:

   Products are delivered to participants that purchased the orthos and signed the Licensing Agreement.

   Use_Constraints:

   The digital orthophotography (orthos) are the property of the North Central Texas Council of Governments (NCTCOG), except where specified by contract. Participants that signed licensing agreements with NCTCOG may freely use this product, with the exception of reselling the raw data. Copies of the data may be provided to contractors performing work for the participant. These "authorized users" may utilize the NCTCOG data product in the licensed operating environment for any use that furthers the participant's internal operations or in furtherance of their mission. If data are released to a non-contributing entity, they must sign the Contractor Licensing Agreement before the products can be distributed to them. These products must be either returned or destroyed upon completion of the project. These products are not public domain and are not to be distributed as such.

2. Who distributes the data set?

   North Central Texas Council of Governments

   John Hunt, Manager of GIS
   (817) 695-9163 (voice)
   (817) 640-4428 (FAX)
   jhunt@nctcog.org

3. What legal disclaimers am I supposed to read?

   Participants that signed licensing agreements with NCTCOG may freely use this product, with the exception of reselling the raw data.

4. How can I download or order the data?

   Availability in digital form:

   Data format: TIFF with World file

   Size: Approx. 72 MB / Tile

   Cost to order the data:

   6" resolution = $30/Tile
   1' resolution = $15/Tile
   2' resolution = $7.50/Tile
   4' resolution = $5/Tile
   8' resolution = $2.50/Tile

   Special instructions:

   Depending on the size of the order, you may order online at www.dfwmaps.com. For larger orders, contact John Hunt at 817- 695-9163 or jhunt@nctcog.org.

   How long will it take to get the data?

   2-3 days, depending on the size of the order.

5. Is there some other way to get the data?

   Contact John Hunt at (817) 695-9163 or jhunt@nctcog.org.

Who wrote the metadata?

Metadata author:

John Hunt, Manager of GIS
NCTCOG
616 Six Flags Dr.
Arlington, TX 76011
(817) 695-9163
jhunt@nctcog.org

Metadata standard:

FGDC Content Standards for Digital Geospatial Metadata (FGDC-STD-001-1998)

Metadata extensions used:

http://www.esri.com/metadata/esriprof80.html

Dates:

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For more information, contact John Hunt at 817-695-9163 or jhunt@nctcog.org.