# Onondaga County 12 Inch Ortho (4bd)

## Metadata:

- <u>Identification Information</u>
- Data Quality Information
- Spatial Data Organization Information
- Spatial Reference Information
- Entity and Attribute Information
- Distribution Information
- Metadata Reference Information

## Identification Information:

#### Citation:

## Citation Information:

Originator: NYS Office of Information Technology Services, GIS Program Office

Publication Date: 20150910

Title:

Onondaga County 12 Inch Ortho (4bd)

Geospatial Data Presentation Form: raster digital data

Series\_Information:

Series\_Name: NYS Digital Ortho-imagery Program (NYSDOP)

Issue Identification: 2015 imagery in Wanye County

## Publication Information:

Publication Place: Albany, New York

Publisher: NYS Office of Information Technology Services, GIS Program Office

#### Description:

#### Abstract:

These files contain 2015 digital Ortho-imagery of Onondaga County, New York. Image pixel size is 1.0' GSD. Image type is 4-band, RGB & NIR. Image horizontal accuracy is within 4' at the 95% confidence level (NSSDA). Each file contains an image covering 2000 ft. by 3000 ft. on the ground.

## Purpose:

This digital Ortho-imagery can serve a variety of purposes, from general planning to field reference for spatial analysis to a tool for revision of vector maps. It can also serve as a reference layer for GIS.

#### Time Period of Content:

Time Period Information:

Range of Dates/Times:

Beginning Date: 4-15-2015

Ending Date: 5-9-2015

Currentness\_Reference: ground condition

Status:

Progress: Complete

Maintenance and Update Frequency: Irregular

Spatial Domain:

Bounding\_Coordinates:

West\_Bounding\_Coordinate: -76.408595 East\_Bounding\_Coordinate: -75.912268 North\_Bounding\_Coordinate: 43.249342 South Bounding Coordinate: 42.934738

Keywords:

Theme:

Theme\_Keyword\_Thesaurus: Orthophoto, ortho Theme Keyword: Digital Ortho-imagery

Place:

Place\_Keyword\_Thesaurus: none Place\_Keyword: Onondaga County

Place Keyword: New York

Access\_Constraints: Some imagery tiles are classified as sensitive due to their content. Use Constraints:

Use of sensitive imagery, if granted, is only for the use specified in the request. *Point of Contact:* 

Contact Information:

Contact Person Primary:

Contact Person: Tim Ruhren

Contact Organization: NYS ITS GIS Program Office

Contact Address:

Address\_Type: mailing and physical address

Address:

State Office Campus Building 7A, 4th Floor, 1220 Washington Avenue

City: Albany

State or Province: New York

Postal\_Code: 12242 Country: USA

Contact\_Voice\_Telephone: 518-242-5029 Contact\_Facsimile\_Telephone: 518-322-4976  $Contact\_Electronic\_Mail\_Address: tim.ruhren@its.ny.gov$ 

Hours of Service: 9am -4:30pm Easten time

Data Set Credit:

NYS ITS GIS Progam Office

Security\_Information:

Security Classification System: New York State based

Security Classification: Unclassified

Security\_Handling\_Description: Data was shipped to NYS Division of Homeland Security and Emergency Services - Office of Cyber Security and NYC Dep of Information Technology via disk drives encrypted with password protection.

Native Data Set Environment:

Microsoft Windows 7 Version 6.1 (Build 7601) Service Pack 1; ESRI ArcCatalog 10.2

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## Data Quality Information:

## Logical\_Consistency\_Report:

The dataset contains raster images or digital ortho images so the logical consistency report is not applicable. The file naming convention was supplied by New York State. When the ortho tiles were created the file names were restricted to a numeric value representing the lower left corner of the ortho tile. These tiles were then all renamed using a batch script so that they reflected the N.Y. state standard (i.e. "w\_11701012\_12\_15100\_4bd\_2015.tif"). Consistency of file naming was ensured by using a batch process. The file naming convention consists of the first letter for Central, East, West or Long Island for New York State Plane Coordinate Systems (NYSPCS). The following four numeric characters represent the first four characters of the "X" coordinate value for the tile's lower left corner coordinate in NYSPCS and the next four characters represent the first four characters of the "Y" coordinate value for the tile's lower left corner coordinate in NYSPCS. The next two numeric characters represent the tile's Ground Sampling Distance (GSD) value in ft. The following five numeric characters represent the Above Mean Terrain (AMT) nominal height at which the UltraCam Eagle sensor recorded or collected the original imagery for the corresponding area. The next three characters are "4bd" for 4-band ortho-photos. Lastly, the last four numeric digits represent the year in which the particular ortho was created.

Completeness Report:

The project consisted of 3,867 final tiles.

Positional Accuracy:

Horizontal Positional Accuracy:

Horizontal\_Positional\_Accuracy\_Report: +/-4 ft. at the 95% confidence level (NSSDA) for 12 inch resolution.

## Lineage:

Process Step:

## Process\_Description:

This dataset contains orthoimagery of Onondaga County New York. This dataset was created as part of the contract to provide new natural color digital aerial imagery with airborne GPS-IMU control and ground surveyed control to develop and support 4 band (RGBIR) 8 bit orthos for portions of New York State. Based on the NYSDOP-2013-RFP leaf-off 12-inch imagery was to be captured for Onondaga County.

Keystone Aerial Surveys of Philadelphia, PA was chosen as the vendor to capture the aerial imagery. Axis and Keystone planned the flight mission with a target GSD of 1.0' with an endlap of 60% and a sidelap of 30%. The Ultracam Eagle digital mapping camera (UCE) coupled with flight navigation systems and airborne GPS and inertial measurement units were flown at an approximate altitude of 15,100' above mean ground elevation. The image footprint of the Ultracam Eagle yields a image footprint size of 20,010 x 13,080 pixels, thereby capturing an average image footprint of 20,010' wide by 13,080' inline for a twelve inch pixel resolution. The aerial imagery for Onondaga County was flown as part of the New York 2015 1-Foot Imagery Area. A total of 87 flight lines and 6,806 exposures were captured for this area between April 15, 2015 and May 9, 2015. Onondaga County imagery was georeferenced by the New York Central aerotriangulation block. This subblock of AT had a total of 72 flight lines and 5,592 exposures.

Aerotriangulation for this photo mission was performed using Microsoft UltraMap AT software. Automatic tie point measurements were formulated and independent ground control points and airborne GPS were introduced to further refine the data. Please see the final aerotriangulation and survey reports submitted to the NYS Office of Information Technology Services, GIS Program Office for additional information on the aerotriangulation and ground control collection.

Once a suitable aerotriangulation solution was obtained the UltraMap Ortho module was used to produce the orthorectified imagery, terrain model, and seamlines. This module produces digital orthophotos using a pixel based matching algorithm which is derived from the Digital Terrain Model (DTM) and radiometrically balanced proprietary imagery. The orthorectified images are then mosaicked together into the final tiles to produce a very accurate and precise orthophoto. The State of New York provided Axis a tile grid shapefile with 3,867 tiles with a dimension of 2,000' by 3,000'. Once the tiles were output they were then inspected in a final QA/QC process for overall image quality with all undesirable artifacts and errors corrected before delivery. Final edits to the seamlines and terrain model files were also performed. Once the tiles were corrected a final adjustment to the brightness and contrast was applied. In addition, the tiles were converted to JP2/J2W format at a 10:1 compression ratio with ESRI AUX and MapInfo TAB files.

Contact Information:

Contact Person Primary:

Contact\_Person: Brian Tolley Contact\_Organization: Axis Geospatial, LLC

Contact\_Position: Production Manager Contact Address:

*Address\_Type:* mailing and physical address *Address:* 

101 Bay St City: Easton

State\_or\_Province: Maryland

Postal\_Code: 21601 Country: USA Contact\_Voice\_Telephone: 410-822-1441

Contact\_Electronic\_Mail\_Address: btolley@axisgeospatial.com

Hours\_of\_Service: 9am - 5pm Eastern Time

Cloud Cover: 0

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Spatial\_Data\_Organization\_Information:

Direct\_Spatial\_Reference\_Method: Raster

Raster\_Object\_Information:

Row\_Count: 2000 Column Count: 3000

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Spatial Reference Information:

Horizontal Coordinate System Definition:

Planar:

Map Projection:

Transverse Mercator:

Scale\_Factor\_at\_Central\_Meridian: 0.999938 Longitude\_of\_Central\_Meridian: -76.583333 Latitude of Projection Origin: 40.000000

False\_Easting: 820208.3333 False\_Northing: 0.000000

Planar\_Coordinate\_Information:

Planar\_Coordinate\_Encoding\_Method: coordinate pair Coordinate Representation:

Abscissa\_Resolution: .001 Ordinate\_Resolution: .001

Planar Distance Units: survey feet

Geodetic Model:

Horizontal\_Datum\_Name: D\_North\_American\_1983 Ellipsoid Name: Geodetic Reference System 80

Semi-major Axis: 6378137.000000

Denominator of Flattening Ratio: 298.257222

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```
Detailed Description:
           Entity_Type:
                 Entity Type Label: Onondaga County 12 Inch Ortho (4bd)
                 Entity_Type_Definition:
                 Entity Type Definition Source:
           Attribute:
                 Attribute Label:
                 Attribute Definition:
                 Attribute Definition Source:
                 Attribute Domain Values:
                 Beginning_Date_of_Attribute_Values:
                 Ending Date of Attribute Values:
                 Attribute Value Accuracy Information:
                 Attribute Measurement Frequency:
      Overview Description:
           Entity and Attribute Overview:
           Entity and Attribute Detail Citation:
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Distribution Information:
     Distributor:
      Resource Description: Downloadable Data
     Distribution Liability:
      Standard Order Process:
           Digital Form:
                 Digital Transfer Information:
                       Format Name: Tiff
                       File Decompression Technique:
                       Transfer Size: 23.0
                 Digital Transfer Option:
                       Online Option:
                       Offline Option:
                             Offline Media: Hard Drive
                             Recording Capacity:
```

Recording\_Format: Compatibility Information:

Fees: 0.00

Ordering Instructions:

Turnaround:

Technical\_Prerequisites: Available\_Time\_Period:

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Metadata Reference Information:

Metadata\_Date: 20150910 Metadata Contact:

Contact Information:

Contact\_Person\_Primary:

Contact\_Person: Tim Ruhren

Contact\_Organization: NYS ITS GIS Program Office

Contact Position: NYS GIS Clearinghouse

Contact Address:

Address\_Type: mailing and physical address

Address:

State Office Campus Building 7A, 4th Floor, 1220 Washington Avenue

City: Albany

State or Province: New York

Postal\_Code: 12242 Country: USA

Contact\_Voice\_Telephone: 518-242-5029 Contact Facsimile Telephone: 518-322-4976

Contact Electronic Mail Address: tim.ruhren@its.ny.gov

Metadata Standard Name: FGDC Content Standards for Digital Geospatial Metadata

Metadata Standard Version: FGDC-STD-001-1998

Metadata Time Convention: local time

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