

## naip\_1-1\_1n\_s\_ca023\_2005\_1

**Data format:** Raster Dataset - MrSID

**File or table name:** naip\_1-1\_1n\_s\_ca023\_2005\_1.sid

**Coordinate system:** Universal Transverse Mercator

**Theme keywords:** Digital Georectified Image, Mosaic, Georectified imagery, Quarter Quadrangle Centered, Georectification, Compression, MrSID, NAIP, Compliance, Aerial Compliance, Farming

**Abstract:** This data set contains digital ortho-imagery developed to support planning and delivery of USDA programs. The USDA field service centers use digital ortho imagery as a basic reference for conservation plans and soil survey. The imagery has a 1 meter ground sample distance (GSD) ortho imagery rectified to National Mapping Standards at the 1:24,000 scale. Imagery is based on a (7.5 x 15) or (7.5 x 11.25) minute quarter quadrangle with a 300 meter buffer on all four sides. Quarter quads imagery is formatted to the UTM coordinate system using NAD83. Each quad may contain as much as 10% cloud cover per tile. This file was generated by compressing quarter quadrangle tiles that cover a project area. MrSID compression, with mosaic option, was used. Target values for the compression ratio are (15:1) and compression levels (9) are used.

### FGDC and ESRI Metadata:

- [Identification Information](#)
- [Data Quality Information](#)
- [Spatial Data Organization Information](#)
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Metadata elements shown with blue text are defined in the Federal Geographic Data Committee's (FGDC) [Content Standard for Digital Geospatial Metadata \(CSDGM\)](#). Elements shown with green text are defined in the [ESRI Profile of the CSDGM](#). Elements shown with a green asterisk (\*) will be automatically updated by ArcCatalog. ArcCatalog adds hints indicating which FGDC elements are mandatory; these are shown with gray text.

### Identification Information:

**Citation:****Citation information:**

**Originators:** USDA-FSA Aerial Photography Field Office

**Title:**

naip\_1-1\_1n\_s\_ca023\_2005\_1

\***File or table name:** naip\_1-1\_1n\_s\_ca023\_2005\_1.sid

**Publication date:** 20060105

\***Geospatial data presentation form:** remote-sensing image

**Publication information:**

**Publication place:** Salt Lake City, Utah

**Publisher:** USDA FSA Aerial Photography Field Office

**\*Online**

**linkage:** [\\Snap550020\SNAPGIS\GIS1\imagery\aerials\NAIP\2005\naip\\_1-1\\_1n\\_s\\_ca023\\_2005\\_1.sid](\\Snap550020\SNAPGIS\GIS1\imagery\aerials\NAIP\2005\naip_1-1_1n_s_ca023_2005_1.sid)

**Online**

**linkage:** <http://datagateway.nrcs.usda.gov/GatewayHome.html>

**Online**

**linkage:** [http://new.casil.ucdavis.edu/casil/remote\\_sensing/naip\\_2005/](http://new.casil.ucdavis.edu/casil/remote_sensing/naip_2005/)

**Description:****Abstract:**

This data set contains digital ortho-imagery developed to support planning and delivery of USDA programs. The USDA field service centers use digital ortho imagery as a basic reference for conservation plans and soil survey. The imagery has a 1 meter ground sample distance (GSD) ortho imagery rectified to National Mapping Standards at the 1:24,000 scale. Imagery is based on a (7.5 x 15) or (7.5 x 11.25) minute quarter quadrangle with a 300 meter buffer on all four sides. Quarter quads imagery is formatted to the UTM coordinate system using NAD83. Each quad may contain as much as 10% cloud cover per tile. This file was generated by compressing quarter quadrangle tiles that cover a project

area. MrSID compression, with mosaic option, was used. Target values for the compression ratio are (15:1) and compression levels (9) are used.

**Purpose:**

Imagery is used to meet USDA program requirements including conservation planning and soil survey. The interim product is a compressed mosaic. Users should be aware that the interim compressed mosaic may contain defects and have horizontal accuracy less than the specified tolerances.

**\*Language of dataset:** en

**Time period of content:**

**Time period information:**

**Single date/time:**

**Calendar date:** 2005

**Currentness reference:**

Majority years of Photography Dates.

Majority years of Photography Dates.

**Status:**

**Progress:** Complete

**Maintenance and update frequency:** Irregular

**Spatial domain:**

**Bounding coordinates:**

**West bounding coordinate:** -124.462018

**East bounding coordinate:** -123.367039

**North bounding coordinate:** 41.504889

**South bounding coordinate:** 39.929782

**Local bounding coordinates:**

**\*Left bounding coordinate:** 377650.000000

**\*Right bounding coordinate:** 468960.000000

**\*Top bounding coordinate:** 4595190.000000

**\*Bottom bounding coordinate:** 4420630.000000

**Keywords:**

**Theme:**

**Theme keywords:** Digital Georectified Image, Mosaic, Georectified imagery, Quarter Quadrangle Centered, Georectification, Compression, MrSID, NAIP, Compliance, Aerial Compliance, Farming

**Theme keyword thesaurus:** None

**Place:**

**Place keywords:** CA, Humboldt, Humboldt CO CA FSA, 06023

**Place keyword thesaurus:** Geographic Names Information System

**Access constraints:** None

**Use constraints:**

None, The Originator asks to be credited in derived products.

None, The Originator asks to be credited in derived products.

**Point of contact:**

**Contact information:**

**Contact organization primary:**

**Contact organization:** USDA-FSA Aerial Photography Field Office

**Contact address:**

**Address type:** mailing and physical address

**Address:**

2222 West 2300 South

2222 West 2300 South

**City:** Salt Lake City

**State or province:** Utah

**Postal code:** 84119-2020

**Country:** USA

**Contact voice telephone:** 800-973-3500

**Contact facsimile telephone:** 801-975-3529

**Browse graphic:**

**Browse graphic file name:** [None](#)

**Browse graphic file description:**

None

**Browse graphic file type:** None

**\*Native dataset format:** Raster Dataset

**Native data set environment:**

MrSID Generation 3

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## Data Quality Information:

### Logical consistency report:

None.

None.

### Completeness report:

None

None

### Positional accuracy:

#### Horizontal positional accuracy:

#### Horizontal positional accuracy report:

FSA Digital Orthophoto Specs.

FSA Digital Orthophoto Specs.

#### Vertical positional accuracy:

#### Vertical positional accuracy report:

N/A 2d only

N/A 2d only

### Lineage:

#### Source information:

#### Source citation:

#### Citation information:

Originators: Aerial Photography Field Office

### Title:

Humboldt, CA

Publication date: 20060105

Source scale denominator: 40000

Type of source media: DVD

Source citation abbreviation:

MrSID compressed image

Source contribution:

Mosaicked County Image

Mosaicked County Image

Source time period of content:

**Time period information:**  
**Single date/time:**  
**Calendar date:** 2005

**Source currentness reference:**  
Majority Aerial Photography Date

**Process step:**

**Process description:**

Imagery was flown with Leica ADS40 digital sensors to capture 0.9m raw data. Raw data is then downloaded using Leica GPro software into 12 bit TIFF format. The raw TIFF imagery is then georeferenced and reprojected using GPS/INS 200Hz exterior orientation information (x/y/z/o/p/k) to allow stereo viewable imagery. This stereo viewable imagery is processed with the GPro/LPS automatic point matching algorithm to determine common match points every 2000 pixels across the imagery strip and 333 pixels along strip. This pattern includes dual rows of line ties to the adjacent line of imagery. The resulting point data is imported in Leica ORIMA and used to perform a full bundle adjustment of the imagery point data. Any blunders are removed, and weak areas are manually supplemented to ensure good coverage of points. Once the point data is cleaned and point coverage is acceptable vertical control points from the prior generation MDOQQ's are introduced in the corners and center of the block being adjusted. This control is used to perform any datum shift (x/y/z and rotation) to ensure the new adjusted imagery fits the existing MDOQQ reference imagery. The output from this bundle adjustment process is revised exterior orientation data for the sensor with any GPS/INS, datum, and sensor calibration errors modeled and compensated for. Using this revised EO data orthorectified image strips are created using the USGS DEM. The 10m DEM is used where available and 30m DEM is used elsewhere. The orthorectified strips are overlaid over the existing MDOQQ compressed files to ensure accuracy is met by a visual inspection and manually measuring features. Once the accuracy of the orthorectified image strips are validated the strips are processed with a NWG proprietary dodging package that compensates for the bi-directional reflectance function that is caused by the sun's position relative to the image area. This compensated imagery is then imported into Inpho's OrthoVista 4.0 package which is used for the final radiometric balance, mosaic, and DOQQ sheet creation. These final DOQQ sheets contain a 300m minimum buffer. These final DOQQ tiles are edge inspected to the existing MDOQQ sheets for accuracy validation. The final DOQQ tiles are then organized into directories based on the USDA provided county lists. A visual

inspection is performed of the entire county to ensure all tiles are present and the radiometric quality of the county looks good. If the radiometric quality is acceptable the county is compressed to MG3 format using Lizard Tech's GeoExpress v5.0 with a compression factor of 15 and 9 overview levels. Once this compression is complete manual reviewing is performed to ensure satisfactory results. The associated CCM shapefile is created using ESRI ArcView 9.0 with the latest service packs.

**Process date: 20060105**

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## **Spatial Data Organization Information:**

### **Indirect spatial reference method:**

Humboldt, CA

### **Direct spatial reference method: Raster**

### **Raster object information:**

\* **Image format:** MrSID

\* **Number of bands:** 3

\* **Row count:** 174560

\* **Column count:** 91310

\* **Vertical count:** 1

\* **Cell size X direction:** 1.000000

\* **Cell size Y direction:** 1.000000

\* **Bits per pixel:** 8

\* **Pyramid layers:** TRUE

\* **Image colormap:** FALSE

\* **Compression type:** Wavelet

**Raster object type:** Pixel

\* **Raster display type:** pixel codes

\***Raster origin:** Upper Left

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## Spatial Reference Information:

### Horizontal coordinate system definition:

#### Coordinate system name:

\***Projected coordinate system name:** NAD\_1983\_UTM\_Zone\_10N

#### \***Geographic coordinate system**

**name:** GCS\_North\_American\_1983

### Planar:

#### Grid coordinate system:

\***Grid coordinate system name:** Universal Transverse Mercator

#### Universal Transverse Mercator:

\***UTM zone number:** 10

#### Transverse mercator:

\***Scale factor at central meridian:** 0.999600

\***Longitude of central meridian:** -123.000000

\***Latitude of projection origin:** 0.000000

\***False easting:** 500000.000000

\***False northing:** 0.000000

### Planar coordinate information:

**Planar coordinate encoding method:** row and column

#### Coordinate representation:

**Abscissa resolution:** 1

**Ordinate resolution:** 1

**Planar distance units:** meters

### Geodetic model:

**Horizontal datum name:** North American Datum of 1983

**Ellipsoid name:** Geodetic Reference System 80

**Semi-major axis:** 6378137

**Denominator of flattening ratio:** 298.257

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## Entity and Attribute Information:

### Detailed description:

\***Name:** Band\_1

### Entity type:

\***Entity type label:** Band\_1

\***Entity type type:** Table

\***Entity type count:** 256

### Attribute:

\***Attribute label:** ObjectID

\***Attribute alias:** ObjectID

\***Attribute definition:**  
Internal feature number.

Internal feature number.

\***Attribute definition source:**  
ESRI

ESRI

\***Attribute type:** OID

\***Attribute width:** 4

\***Attribute precision:** 0

\***Attribute scale:** 0

### Attribute domain values:

\***Unrepresentable domain:**

Sequential unique whole numbers that are automatically generated.

### Attribute:

\***Attribute label:** Value

\***Attribute alias:** Value

\***Attribute type:** Integer

\***Attribute width:** 0

\***Attribute precision:** 0

\***Attribute scale:** 0

### Attribute:

\***Attribute label:** Count

\***Attribute alias:** Count

- \* **Attribute type:** Integer
- \* **Attribute width:** 0
- \* **Attribute precision:** 0
- \* **Attribute scale:** 0

**Detailed description:**

- \* **Name:** Band\_2

**Entity type:**

- \* **Entity type label:** Band\_2
- \* **Entity type type:** Table
- \* **Entity type count:** 256

**Attribute:**

- \* **Attribute label:** ObjectID
- \* **Attribute alias:** ObjectID
- \* **Attribute definition:**  
Internal feature number.  
Internal feature number.
- \* **Attribute definition source:**  
ESRI  
ESRI

- \* **Attribute type:** OID
- \* **Attribute width:** 4
- \* **Attribute precision:** 0
- \* **Attribute scale:** 0

**Attribute domain values:**

- \* **Unrepresentable domain:**  
Sequential unique whole numbers that are automatically generated.

**Attribute:**

- \* **Attribute label:** Value
- \* **Attribute alias:** Value
  
- \* **Attribute type:** Integer
- \* **Attribute width:** 0
- \* **Attribute precision:** 0
- \* **Attribute scale:** 0

**Attribute:**

\* **Attribute label:** Count

\* **Attribute alias:** Count

\* **Attribute type:** Integer

\* **Attribute width:** 0

\* **Attribute precision:** 0

\* **Attribute scale:** 0

**Detailed description:**

\* **Name:** Band\_3

**Entity type:**

\* **Entity type label:** Band\_3

\* **Entity type type:** Table

\* **Entity type count:** 256

**Attribute:**

\* **Attribute label:** ObjectID

\* **Attribute alias:** ObjectID

\* **Attribute definition:**  
Internal feature number.

Internal feature number.

\* **Attribute definition source:**  
ESRI

ESRI

\* **Attribute type:** OID

\* **Attribute width:** 4

\* **Attribute precision:** 0

\* **Attribute scale:** 0

**Attribute domain values:**

\* **Unrepresentable domain:**

Sequential unique whole numbers that are automatically generated.

**Attribute:**

\* **Attribute label:** Value

\*Attribute alias: Value

\*Attribute type: Integer

\*Attribute width: 0

\*Attribute precision: 0

\*Attribute scale: 0

**Attribute:**

\*Attribute label: Count

\*Attribute alias: Count

\*Attribute type: Integer

\*Attribute width: 0

\*Attribute precision: 0

\*Attribute scale: 0

**Overview description:**

**Entity and attribute overview:**

24-bit pixels, 3 band color (RGB) represent brightness values 0 - 255

24-bit pixels, 3 band color (RGB) represent brightness values 0 - 255

**Entity and attribute detail citation:**

None

None

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**Distribution Information:**

**Distributor:**

**Contact information:**

**Contact person primary:**

Contact person: Supervisor Contract Services Branch

Contact organization: USDA-FSA Aerial Photography Field Office

**Contact address:**

Address type: mailing and physical address

**Address:**

2222 West 2300 South

2222 West 2300 South

**City:** Salt Lake City  
**State or province:** Utah  
**Postal code:** 84119-2020  
**Country:** USA

**Contact voice telephone:** 800-975-3500  
**Contact facsimile telephone:** 801-975-3529

**Resource description:** Mosaicked County Image for Humboldt, CA

**Distribution liability:**

In no event shall the creators, custodians, or distributors of this information be liable for any damages arising out of its use (or the inability to use it).

**Standard order process:**

**Digital form:**

**Digital transfer information:**

**Format name:** Compressed County Mosaic

**Format information content:**

Natural Color

Natural Color

\***Transfer size:** -1055.863

\***Dataset size:** -1055.863

**Digital transfer option:**

**Online option:**

**Computer contact information:**

**Network address:**

**Network resource name:** [None](#)

**Offline option:**

**Offline media:** DVD

**Recording format:** ISO 9660

**Fees:** Contact the Aerial Photography Field Office for more information

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**Metadata Reference Information:**

Metadata date: 20060105

\*Language of metadata: en

Metadata contact:

Contact information:

Contact organization primary:

Contact organization: USDA-FSA Aerial Photography Field Office

Contact address:

Address type: mailing and physical address

Address:

2222 West 2300 South

2222 West 2300 South

City: Salt Lake City

State or province: Utah

Postal code: 84119-2020

Country: USA

Contact voice telephone: 801-975-3500

Metadata standard name: Content Standard for Digital Geospatial  
Metadata

Metadata standard version: FGDC-STD-001-1998

\*Metadata time convention: local time

Metadata extensions:

\*Online linkage: <http://www.esri.com/metadata/esriprof80.html>

\*Profile name: ESRI Metadata Profile

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**Binary Enclosures:**

**Thumbnail:**

**Enclosure type:** Picture

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