Resource Imagery Program

INFORMATION SHEET

February

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What is the Resource Imagery Program?

The Resource program acquires aerial imagery to support specific customer needs and requests. These customers include, but are not limited to, the United States Forest Service (USFS), National Park Service (NPS), Bureau of Indian Affairs (BIA), and branches of the United States Military. The imagery is normally acquired as a four-band digital product, which can be viewed as either a natural color or color infrared image. Resource imagery is often used as a higher resolution base layer for different projects. These projects include analyzing land use/land change, forestry health assessment, and overall geographic analyses. Generally speaking, the Resource Program encompasses imagery that is not acquired as part of the National Agriculture Imagery Program (NAIP).

Who acquires the imagery?

Independent contractors acquire the Resource imagery. Contracts to acquire imagery are initiated at APFO. Once announced, contractors may bid on the solicitations, which are either requests for proposals (RFP) or requests for quotes (RFQ).

Contractors are selected via "best value" criteria. Contract proposals are evaluated on past performance, ability and capacity to perform the work, and cost.

A listing of the current Resource contracts can be found on the APFO website.

How is the imagery acquired?

At present, acquisition is entirely done with digital sensors. The sensors currently in use may acquire imagery through a continuous collection technology, or may use set "exposures," similar to film based acquisition. The imagery is collected through a "stereo" acquisition process, meaning there is significant overlap between each image.

What is the spectral resolution of the imagery?

As a general rule, it is four-band imagery, containing red, green, blue, and near-infrared bands. Either natural color or color infrared imagery (CIR) can be displayed by changing the band assignments in the viewing software.

What spatial resolution is the imagery?

Resource imagery resolution varies. Each contract can have a unique ground sample distance (GSD). The GSD is usually anywhere between 15cm and 50cm.

What is the absolute accuracy specification?

The Resource Program transitioned to an absolute accuracy specification beginning in 2007, which tied the imagery to true ground rather than another imagery source. The contract states that "all well-defined points tested shall fall within 6 meters of true ground at a 95% confidence level".

Is the imagery reviewed to make sure it is accurate?

APFO has stringent imagery compliance guidelines, and all deliverables are inspected using automated and visual methods to ensure accuracy and compliance with the contract.

How long has the Resource Program been in existence?

APFO has been contracting for Resource imagery since the 1950's. Only since 2007 has the program shifted towards digital technologies

How is the imagery formatted?

The base product is usually the "raw" image from the digital sensor. These images may be color balanced with minimal geospatial correction applied. Most of the imagery is in the Digital Ortho Quarter Quarter Quad (DOQQQ) format. Each individual image tile (DOQQQ) covers one eighth of a standard USGS quadrangle plus a 300 meter buffer on all four sides. Other formats are sometimes delivered including Digital Ortho Quarter Quads (DOQQ; one fourth of a quadrangle), Digital Ortho Quads (DOQ; one full quadrangle), and Compressed Project Mosaics (CPM).

How much does Resource imagery cost?

Costs vary greatly by product and volume. Contact the APFO Customer Service Section at apfo.sales@slc.usda.gov or at 801-844-2922 for detailed information.

What software is needed to view the imagery?

1. Four band imagery will require software which can recognize all four bands. A list of free viewing software is available at the APFO website. This list is provided for convenience; USDA-FSA-APFO does not support or endorse these products or services.
2. Most image viewing software will display GeoTIFF files.

Who do I contact for more information?

1. Progress on the Resource acquisitions can be found on the APFO website or on the USDA ArcGIS Online Resource map.
2. For sales information, contact USDA-FSA-APFO at 2222 W 2300 S, Salt Lake City UT, 84119-2020, call 801-844-2922, or visit the APFO website.
3. For further information contact the Resource Project Manager, Zack Adkins at 801-844-2925.

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