



United States Department of Agriculture

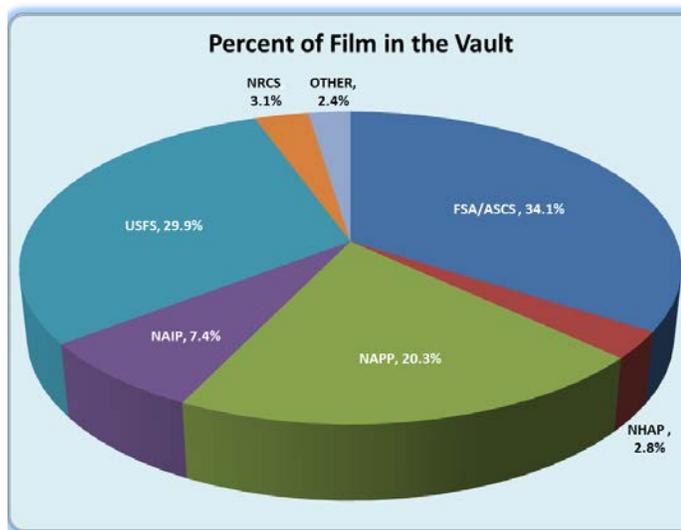
Historical Aerial Photography at the Aerial Photography Field Office (APFO) INFORMATION SHEET

June 2016

What is in the collection of aerial photography archived at APFO?

APFO is home to one of the country’s largest film libraries. We currently house nearly 70,000 rolls of film (nearly 11 million exposures). The film dates from Contract Year 1954 to 2012; pre-1955 film can be found in the National Archives.

What is in the film vault?



The largest part of the collection, around 34%, was acquired for the Agricultural Stabilization and Conservation Service (ASCS), the pre-cursor of the current Farm Service Agency (FSA). This film dates from 1955 to 1980.

In 1980, USDA joined with a consortium of other Federal

agencies in the National High Altitude Program (NHAP; 1980 – 1987) and the National Aerial Photography Program (NAPP; 1987 – 2003). NHAP makes up 2.8% of the collection, and 20.3 % is from NAPP.

Nearly 30% of the film in the collection was acquired for Forest Service Programs.

APFO also archives film acquired for a number of other agencies, most notably the National Resource Conservation Service (NRCS), and from the earlier years of FSA’s National Agriculture Imagery Program. NAIP film could potentially be scanned at a finer pixel resolution than the original DOQQs, which sometimes had a 2m resolution.

Why does APFO have such a large film collection?

Aerial photography was first used in the 1930s, to assist with the new programs set up under the Agricultural Adjustment Act of the Depression Era New Deal. After World War II, the new ASCS began using photography to monitor compliance with agricultural programs, primarily those dealing with crop programs.

When APFO functioned as a photography lab, 24” x 24” enlargements were sent to county offices around the countries, and the field boundaries were hand drawn on the photographs. The photography was contracted by county, and the agricultural areas were flown more frequently than non-agricultural counties.

When USDA joined other Federal agencies in funding the NHAP and NAPP programs, it was decided to duplicate the film and archive one copy at the U. S. Geological Survey (USGS) EROS Data Center in South

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Dakota and one copy at APFO on Salt Lake City.

APFO has contracted flying projects for the USFS. The final deliverables were given to them, but copies of the film are archived at APFO.

After 2012, all projects contracted through APFO were for imagery acquired with digital sensors. Film is no longer being added to the archive.

Why preserve the old film?

USDA's historical aerial photography can play a vital role in environmental assessments, change detection, past land use analysis, and property boundary disputes. Our customers include attorneys, universities, local governments, Federal Agencies, and individuals. FSA programs also have requirements which necessitate access to historical imagery.

How is the film being preserved?

The U.S. Government mandates the preservation of certain historical records. The film is deserving of preservation, but over time it may become worn out from use, or may disintegrate with age. For this reason, APFO has begun to scan the film, with the goal of converting all of the film into a digital format for purposes of preservation and access. The film will then need to be archived in a location with controlled humidity and temperature, which will preserve its life.

How much film has been scanned?

APFO decided to begin the scanning project with Utah, because of frequent local walk-in customers. Film for the Salt Lake area had become worn due to customer use, and having scans to show customers meant that the film cans would no longer need to be opened. As of June 2016, all film from Utah has been scanned. Other states are being scanned, balancing requested areas with a priority list.

Another concern for the scanning project is with acetate-based film, which was used from 1954 to 1963. This film is prone to a type of degradation called "vinegar syndrome." Scanning film from that time period is also a priority.

What is the scanning resolution?

The film is scanned at 12.5 microns (2136 ppi), and the

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ground sample distance will vary depending on the scale of the original film. The ASCS projects were often flown at a 1:20,000 scale, and the scans will have a 25 cm resolution. NHAP CIR projects were acquired at a 1:60,000 scale, and will produce a scan with a 70 cm resolution. Virtually all of the NAPP and NAIP projects were flown at a 1:40,000 scale, and scans will have a 50 cm resolution.

Are the scans georeferenced?

Most scans are not georeferenced or orthorectified. APFO currently provides georeferencing service to the public and orthorectification service to government agencies when workloads permit.

What formats are available?

APFO no longer maintains a wet lab on site, and all prints are created from scanned film. Any exposure in the archives can be printed on regular or metallic paper in sizes ranging from 10" x 10" to 30" x 40." The metallic print provides a silver luster, which will enhance the colors. A dry erase marker can be used on the metallic paper.

Custom vector data can be added to imagery at a customer's request. Section lines, elevation contours, and streets are common requests. These maps cannot be certified.

Digital images are in a TIFF format, and are provided to customers on CD, DVD, Flash Drive, or Hard Drive. The cost is dependent upon the file sizes and type of media required for delivery.

What is the cost of scanned prints or files?

Prints created from scans range in price from \$15.00 for a 10" x 10" print to \$80.00 for a 30" by 40" metallic print. Custom prints require an additional fee.

Digital files can cost from \$14 for a CD (up to 651 MB of data) to \$193.50 for a 2TB hard drive. The price list can be found at: http://www.fsa.usda.gov/Assets/USDA-FSA-Public/usdafiles/APFO/bulk_pricing_size.pdf

Are camera calibration reports available for use with the scanned film?

Camera reports are available from APFO upon request. In some cases, camera reports do not exist for certain years of flying.

What years of film are available for my area?

Availability can be found on the imagery catalogs available on the APFO website. The links to the catalogs are:

<http://www.fsa.usda.gov/programs-and-services/aerial-photography/imagery-products/imagery-catalogs/index>

There are catalogs for programs flown by state/county and for Forest Service acquisitions.

A map of available photography is available on ArcGIS Online, at:

<http://www.arcgis.com/home/item.html?id=03e5dfa695b24a48bf5f5bf14c633416>

Are older years of NAIP imagery available?

DOQQs for all years of NAIP are available for purchase from APFO. County mosaics are available for free download from the USDA Geospatial Data Gateway. Compressed county mosaics smaller than 8 Gb, created from NAPP film which was scanned and orthorectified by USGS, are also available on the Gateway. The Gateway can be accessed at: <https://gdg.sc.egov.usda.gov/>. Larger CCMs must be purchased from APFO.

Who do I contact for more information?

Contact the APFO Customer Service Section at apfo.sales@slc.usda.gov or 801-844-2922 for more detailed information on purchasing prints or scans of historical film. More information is available on the [APFO website](#), or by writing to APFO at 2222 W 2300 S, Salt Lake City, UT 84119-2020.

For further information contact GIS Specialists Nathan Pugh, 801-844-2927 or Louise Mathews, 801-844-2934.

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