

Aerial Photography Field Office

Annual Report 2008



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OFFICE OF THE DIRECTOR



Throughout the FY 2008 Annual Report, Branch by Branch, Section by Section, employee by employee, noted accomplishments provide positive statistics contributing to another successful year.

APFO's mission is to coordinate the imagery requirements and associated work for the USDA. This delegated authority, from the Administrator, states APFO will contract for, develop, and carry out the imagery and remote sensing programs within the FSA.

Some accomplishments which cut across the organization were;

- ◆ Developed a NAIP Management Plan. This Plan is a living document, under change control which details policy and procedures employed with NAIP. The Plan was developed by a project team sponsored by the Office of the Director and the GIS Program Manager.
- ◆ Developed and implemented a cost share model which allows state governments and other federal agencies to purchase full coverage from FSA core coverage based on agricultural land. The cost share model and fixed 3 year cycle facilitates cost share partnerships by providing stable funding targets within partner budget cycles.
- ◆ APFO archived new imagery – 15 terabytes, bringing the total imagery archived to nearly 100 terabytes.

In May 2008, The United States Library of Congress, had collected and archived just over 82 terabytes of data. A terabyte is roughly the equivalent of the contents of books made from 50,000 trees. One Hundred terabytes of imagery stored in APFO's archives represent the equivalent to the savings of over 5 million trees worth of books and paper, thus contributing greatly to the conservation of our nation's natural resources and USDA Strategic Goal #6, "Protect and Enhance the Nations Natural Resource Base and Environment."

APFO continued to fill positions identified during the reorganization of 2005-2006, selecting highly skilled and talented individuals from not only within APFO but across the United States. These positions include staff, supervisory, and, Deputy Director.

It is with appreciation to the employees and partnerships, support from the office of Deputy Administrator for Farm Programs, FSA and the Department, that APFO says "Thank You" for allowing the APFO to meet and exceed our customer's aerial imagery requirements.

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A**
**Aerial
Photography
Field Office**



Office of the Director
Ronald B. Nicholls
Kent Williams

Christen Grell

Contracting

Geoffrey Gabbott

**Operations
Branch**

Ken Koehler

Customer Service

David Parry

**Administration/
Personnel**

Amy Penechar

**Quality Assurance
Branch**

Brenda Simpson

**Ortho Imagery
Inspection**

David Wheeler

**Resource Imagery
Inspection**

Sherry Holyoak

**Production
Services Branch**

John Stadelman

**Photographic
Services**

James Daniels

Scanning Section

**Geospatial
Services Branch**

Brian Vanderbilt

Geospatial Services

Hugh McGirt

**Service Center
Support**

**Technological
Services Branch**

Lori Uhlhorn

**Digital Data
Management
Distribution**

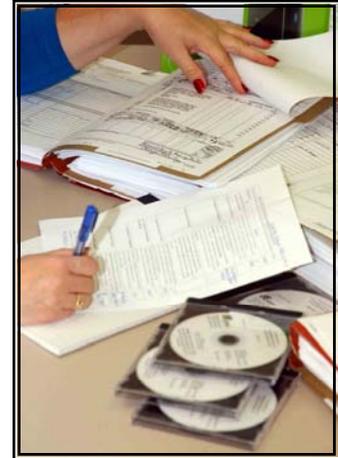
**Application
Development**

CONTRACTING

Mission Statement: *To provide quality procurement services which exceed customer expectations by promoting cooperative partnerships and excellence in customer service and products.*

Fiscal Year 2008 Procurement Achievements Summary:

- ◆ **30 Aerial Photography Contracts Awarded - Total (\$23.2M)**
 - * 6 NAIP Contracts (FSA & Partners) (\$14.33M)
 - * 11 Resource Contracts, 5 Film & 6 Digital (USFS, VT) (\$1.37M)
 - * 13 Small Area Contracts (NRI, WRP) (\$7.5M)
- ◆ Administrative Charge Revenue – **\$328,967**
- ◆ Total Coverage Contracted – **1,177,153 Square Miles**
- ◆ Multiple IT equipment and support contracts, APFO (\$956K)
- ◆ Multiple IT equipment contracts, WDC (\$270K)
- ◆ Grand Total Contract Value – **\$24,423,958**



1. National Agriculture Imagery Program (NAIP):

Provided contracting services to FSA and other contributing partners for one meter digital orthoimagery covering 1,427 counties (1,063,349 square miles) in 20 states. Awarded NAIP contract task orders for a total value of \$14,330,249.00. Approximately \$4.266 million was contributed by state and federal agencies through partnership agreements, and the balance of \$10.064 million funded by FSA. Imagery was acquired using both precision mapping film cameras (17%) and large format digital cameras (83%).

2. Resource Aerial Photography Contracts:

Contracted a total of 37,451 square miles of aerial photography for the Forest Service, Vermont and Bureau of Indian Affairs (BIA) for a total value of \$1,373,930.61. A combined total administrative charge of \$114,925.02 was assessed. Contracted a total of 10,253 square miles of Alaska ortho-imagery and 18,395 square miles of western forests digital aerial photography for USFS. Awarded a total of 5 film based resource aerial photography contracts covering 8,803 square miles.

3. Small Area Contracts (SAC):

Provided contracting services to NRCS to acquire small area aerial photography and related services for 76,353 sites for the NRI and WRP programs in Alaska, Hawaii, Puerto Rico, and the 48 CONUS states. This was the fourth year of a 5-year IDIQ contract with a FY2008 total contract value of \$7,493,948.95. A combined total administrative charge of \$214,041.79 was assessed.



4. APFO & WDC Computer Equipment & Maintenance Contracts:

Provided contract authority and services for the purchase of computer hardware, software and other related equipment, and multiple IT Maintenance Agreements for the APFO and WDC offices for a total amount of \$1,225,829.17.

5. Small Business Concern Program

The contracting section solicited sources for program requirements under a 100% Set-aside for Small Business Concerns where applicable. This resulted in Small Business Concerns receiving 31% of the overall total contract dollar amount, with Large Business Concerns receiving 51% and North American Free Trade Agreement (NAFTA) Business Concerns receiving 18%.

Contract Program	Small Business	Large Business	NAFTA Business	Program Totals
NAIP Contracts	9%	31%	18%	58%
Resource Contracts	1%	5%	N/A	6%
SAC Contracts	17%	4%	N/A	31%
IT/ Other Contracts	4%	1%	N/A	5%
ALL CONTRACTS	31%	51%	18%	100%

6. Support Activities

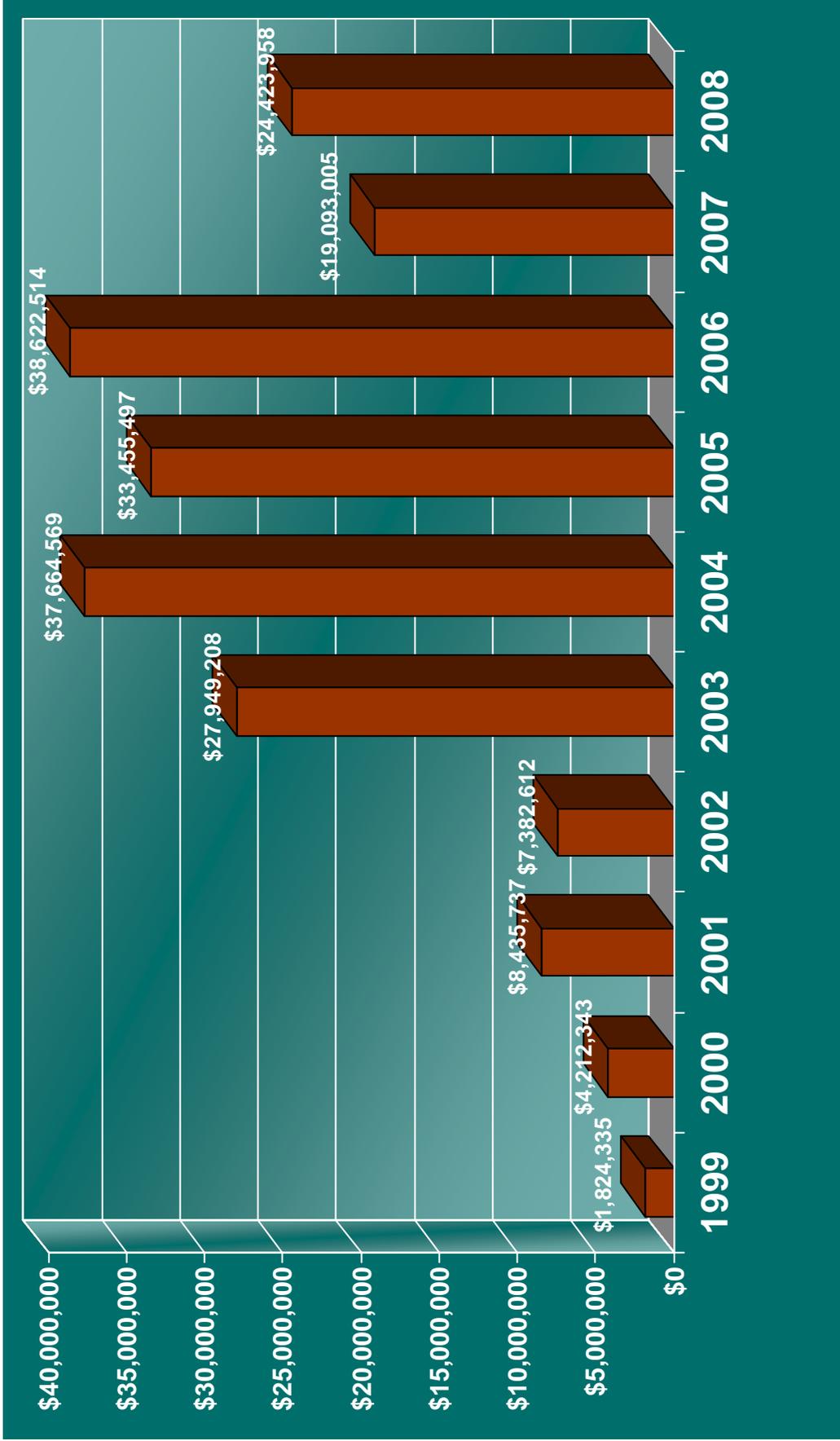
Members of the contracting staff participated in leadership roles in national programs as follows: Branch Chief Co-Chaired the Contract Working Group sponsored by the Federal Geospatial Data Committee (FGDC) for the Imagery for the Nation (IFTN) initiative and served as Chairperson of the Acquisition Management Subcommittee of the National Digital Orthoimagery Program (NDOP). A Contracting Staff employee served as the FSA/APFO representative for the Inter-Agency Digital Imagery Working Group (IADIWIG)



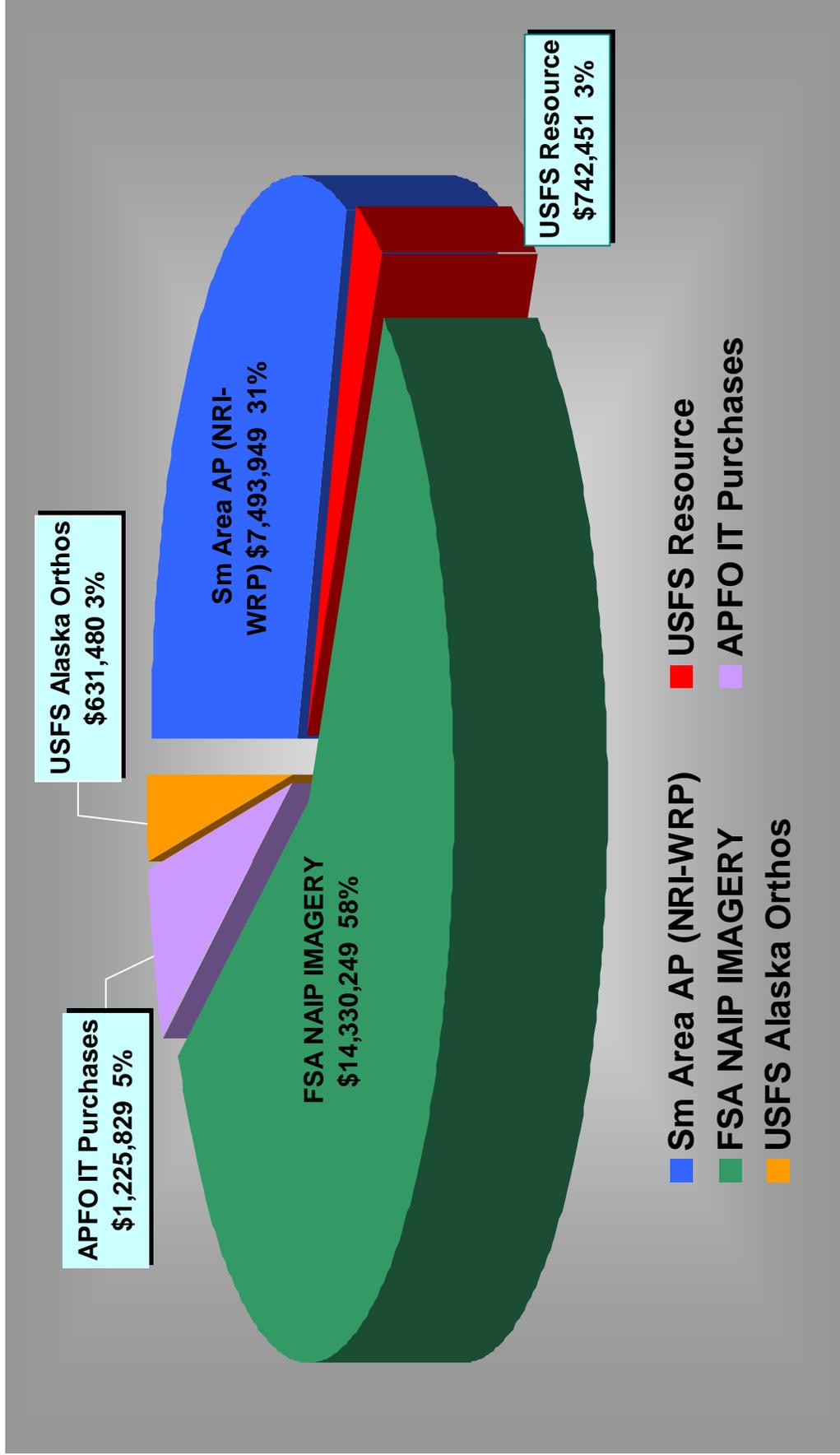
7. Transition to Direct Digital Acquisition

In FY2008 the Forest Service requested APFO's contracting section to acquire 5 large resource projects utilizing digital cameras to provide a more versatile product. The product specifications and deliverables were for 30cm (1 foot) GSD, 4 band, 16-bit geotiff format image tiles, with ABGPS and IMU data. Digital cameras offer several benefits over traditional film (analog) acquisition, such as a sharper first generation image, allowing collection of multi-spectral data (color IR), and having more radiometric resolution than film cameras. This provides users additional high quality data, which is very beneficial for remote sensing and classification of data. From these projects we have learned there are many considerations to be addressed when proposing digital projects, including file formats, end user software requirements, and particularly, file size and storage requirements which can be costly and time consuming.

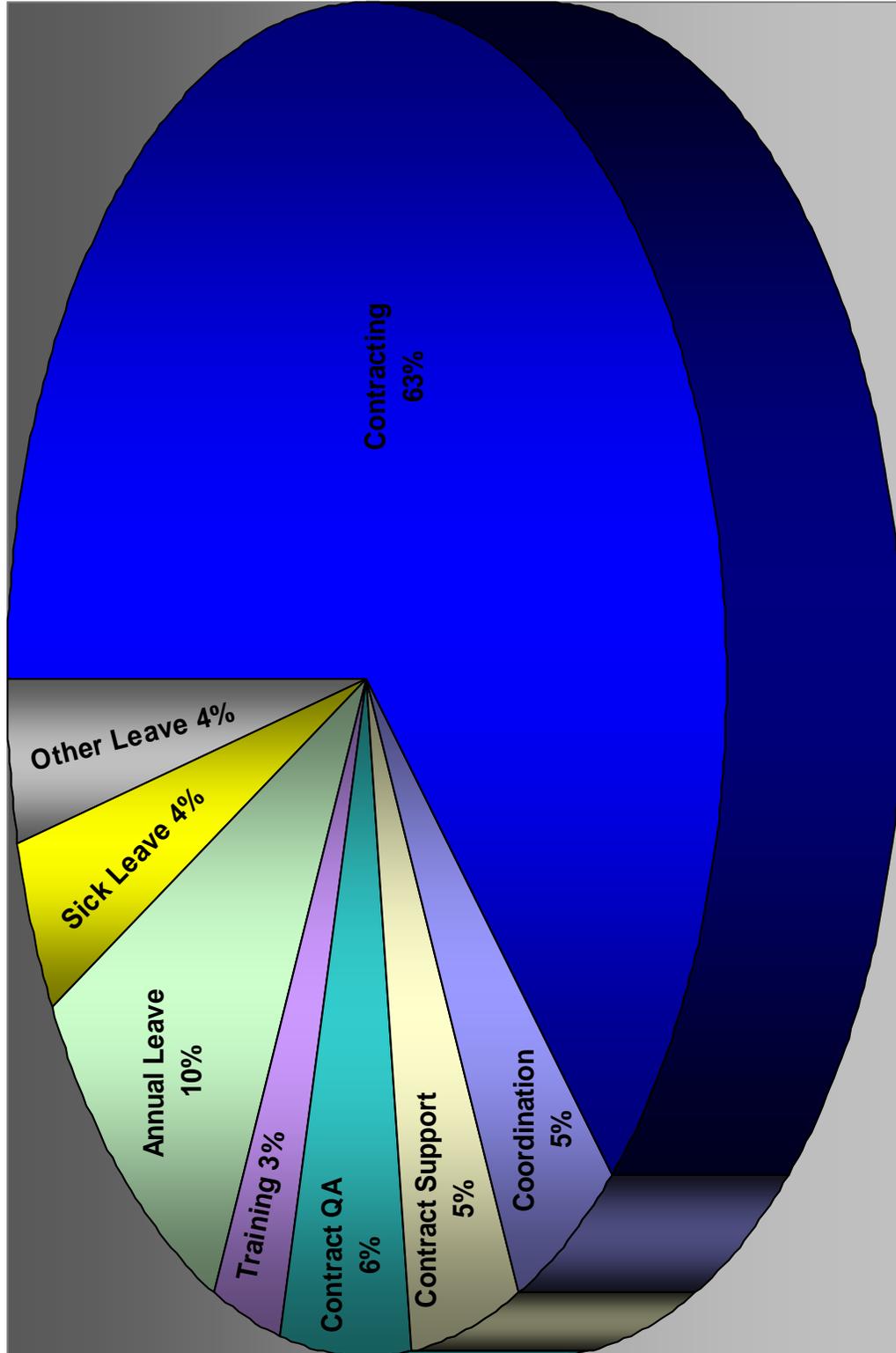
APFO Contract Awards - Ten Year History



FY 2008 Contracts: \$24,423,958



Contracting Activity Report



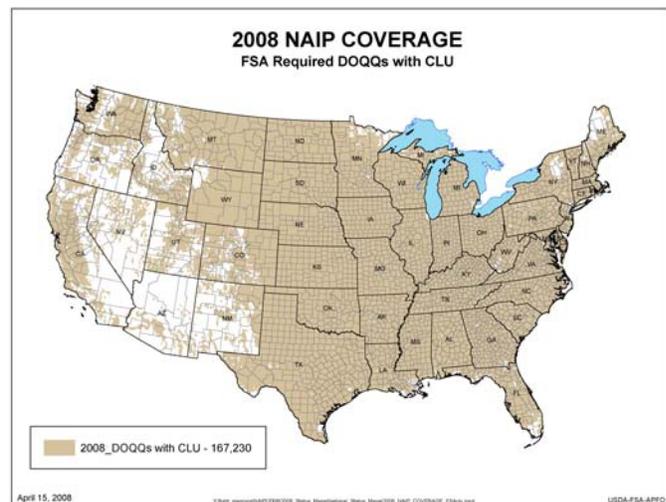
GEOSPATIAL SERVICES BRANCH GEOSPATIAL SERVICES SECTION

Mission Statement: *Produce accurate and quality checked ortho imagery, from a variety of sources. Imagery is made available in soft and hardcopy formats to meet the needs of GIS implementation in support of FSA Service Centers.*

In addition, the Geospatial Services Section flight planned the acquisition of imagery for the NAIP 2007 year.

Cartographic features such as scales or legends accompany hardcopy digital products, thus enhancing usability. Responsibilities of the Geospatial Services Section include:

- ◆ County Index maps created with quarter quads overlays
- ◆ County, State, and National Status Maps containing geospatial information
- ◆ Special projects including ortho generation, compressed imagery production, color balancing of county imagery, and reformatting of imagery to meet FSA specifications.
- ◆ Detailed flight planning status maps by county and state
- ◆ National flight planning status map



Strategic Planning

Geospatial Services Section completed its first year as a section in the Geospatial Branch. Equipment, process improvements, and training were goals established and achieved to include:



Training

- ◆ BAE Conference - 1 Employee
- ◆ ESRI Conference - 1 Employee

Accomplishments

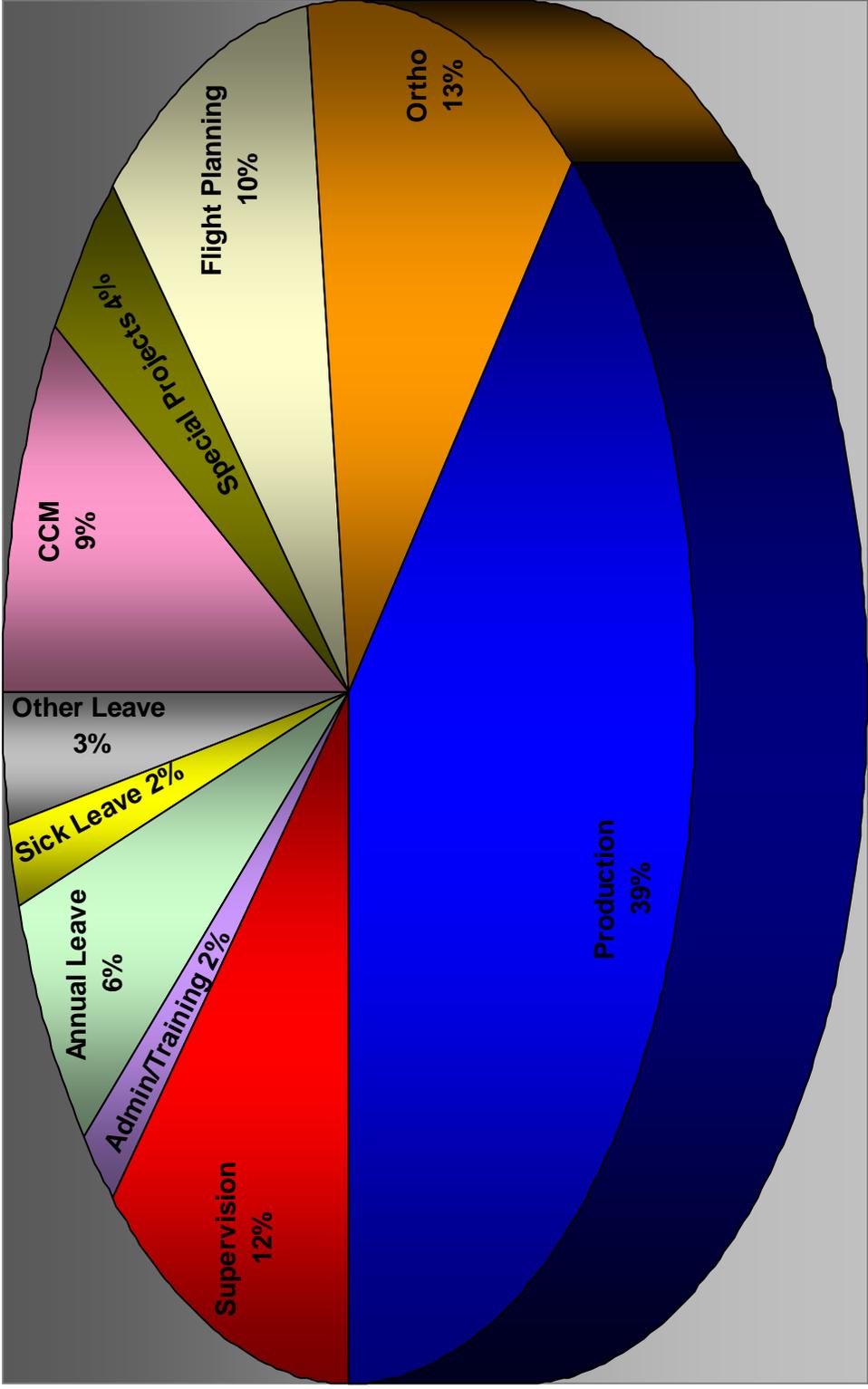
Production

- ◆ Digital Ortho Quarter Quads produced - 203
- ◆ County mosaics reprojected - 3
- ◆ Compressed county mosaics produced - 79
- ◆ Forest Service Digital Indices created - 3
- ◆ Reformatted county mosaics - 1
- ◆ NAIP 2008 states flight planned - 20
- ◆ Resource indices reviewed - 6
- ◆ Status maps produced - 208

Special Projects

- ◆ Georeferenced Gallatin National Forest Imagery and produced 1 compressed image.

Geospatial Services Section Activity Report



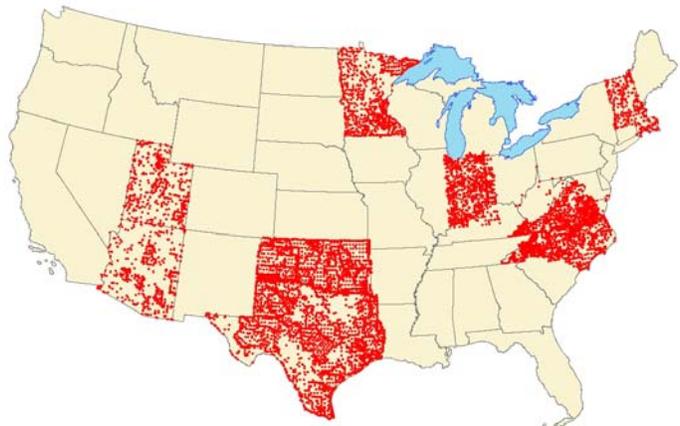
SERVICE CENTER SUPPORT SECTION

Mission Statement: *To provide technical and programmatic support and assistance on geospatial related issues to Farm Service Agency (FSA) Service Centers, State Offices, and Headquarters offices as well as to other government agencies and the public.*

The Service Center Support Section provides technical and programmatic support and assistance on geospatial related issues to Farm Service Agency (FSA) Service Centers, State Offices, and Headquarters offices as well as to other government agencies and the public. The Service Center Support Section supports APFO and FSA in research and analysis, product enhancement, and in the development of processes and methodologies to improve efficiency in all aspects of geospatial business. SCSS expanded from two to five employees in FY07, and can now better address the continually changing world of geospatial technologies and the management of geospatial data, in support of the FSA mission.

Planning and Project Management

- ◆ 1AP – Revised the functional/operational policy for APFO. The last update to this document was in 1996. A draft has been completed and SCSS is expecting the review process, internal and external to APFO, to span most of FY09.
- ◆ National Agriculture Imagery Program (NAIP) Support
 - * Developed and administered 2007 NAIP Survey: AP Notice, design, setup, distribution, analysis, and annual assessment report.
 - * Absolute Control Projects: 2008 control point acquisition for 7 NAIP States. Teaming with States and Federal Agencies to obtain points and supplemental data, database creation and maintenance, and assistance with automation of the inspection process. The database is conservatively worth \$2.0M at present, developed through partnership and on a gratis basis.
 - * Wrote NAIP Control Point Plan.
 - * Wrote NAIP Flight Planning Plan.
 - * Writing NAIP Communications Plan.
 - * Drafted AP Notice for 2008 Flight Planning.
 - * Enhancements to NAIP – JPEG 2000 and MG3 testing, specifications and associated research, 4-band imagery specifications and associated research, Seamline Shapefile enhancement, review, and inspection.
 - * Provided NAIP graphic for FGDC Annual Report.
 - * Developed NAIP Annual Acquisition Map (PDF) for Customer Service Section.
 - * Flight planned NAIP 2008 coverage.



- ◆ Leading project to address ingestion and archiving of varied datasets at APFO. The project consists of development of policy and approval processes, and a functional mechanism for the ingestion and archiving of varied datasets into the APFO infrastructure. The scope of this project has been expanded to encompass potential Geospatial Enterprise Datacenter (GeoEDC) status.
- ◆ Assisted in providing response to initial EDC Directive.
- ◆ Developed imagery requirements survey for FSA, to be administered to select county and state FSA Offices. Results to be processed and report to be provided.
- ◆ Assisted as needed on first digital resource photography projects at APFO, consisting of a complex mix of new customer requirements and diverse deliverables. Evaluated proposals for 3 digital resource contracts.
- ◆ Developed functional process to build resource indexes in-house, saving thousands of dollars in contract costs and speeding up delivery of resource imagery by upwards of a month per project.
- ◆ Evaluated virtual globe RFI responses with respect to FSA needs.
- ◆ Assisted in obtaining authoritative PLSS dataset from BLM.
- ◆ Provided 24x24 photo map scanning and georeferencing estimate to NRCS, tied to the "Blue Dot" project.
- ◆ Updated APFO historical imagery paper.
- ◆ Built APFO's Role in Geospatial Data video for distribution via the APFO website.
- ◆ Information Sheets: updated 6 Information Sheets on APFO website, and created new Information Sheets for 4-Band Imagery and Film Scanning.
- ◆ Assisted with article development for EI Magazine.
- ◆ Continued review and update of the Geodata Management Team (GDM) Manual for Managing Geospatial Datasets in Service Centers.
- ◆ Updated GIS data viewer instructions on APFO website.

Research and Analysis

- ◆ GeoSAR Project – Assessed use of GeoSAR data in “hard to acquire locations”, and for crop assessment/identification. Evaluating deliverable products and developing report for use in FSA business processes.



- ◆ Researched 4 locations in MS based on request from USDA Undersecretary.
- ◆ Evaluated current and potential NASA World Wind functionalities.
- ◆ Created white paper on how to build VRML files associated w/3d models.
- ◆ Created a large area 3d model process.
- ◆ Reviewing alternate methods for inspecting horizontal accuracy of imagery.
- ◆ Performed absolute control horizontal accuracy study, comparing MDOQ products to ground, and NAIP 2007 AZ to ground, processed results and provided summary report.
- ◆ Reviewed data viewers for 4-band functionality.
- ◆ Researched capability of repairing ortho w/o digital source data, wrote analysis and report, and made recommendations to leadership related to digital source data.
- ◆ Created .aux versus .aux.xml incompatibility work around.
- ◆ Investigated use of satellite imagery to patch holes in ortho imagery coverage.

Team Representation, Presentations, and Training Provided

Presentations on various subjects, from historical imagery to NAIP at:

- ◆ Southwest GIS Users Group (SWUG)
- ◆ ESRI International Users Conference
- ◆ National Digital Orthophoto Program (NDOP)
- ◆ JACIE Conference
- ◆ American Society of Photogrammetry and Remote Sensing (ASPRS)
- ◆ Utah GIS Day
- ◆ 2008 FSA NAIP States Introduction
- ◆ 2007 NAIP Post Mortem Brief
- ◆ NAIP USDA Planning Meeting
- ◆ Department of Interior NAIP Briefing
- ◆ Resource Imagery Quality Assurance (QA) Training Briefing

Representation on:

- ◆ National Digital Elevation Program (NDEP)
- ◆ National Digital Ortho-Photo Program (NDOP) – Team Lead on Technical Subcommittee Chair.
- ◆ Interagency Digital Imagery Working Group (IADIWG)
- ◆ Geodata Management Team (GDMT) – Team Lead
- ◆ FGDC Cadastral Subcommittee
- ◆ National LIDAR "Initiative" Distribution Team
- ◆ APFO NAIP Team
- ◆ APFO NAIP Technical Evaluation Committee
- ◆ APFO FGDC IFTN Internal Team
- ◆ APFO EA Committee
- ◆ APFO Sub-for-Santa (EEO)
- ◆ APFO Aerial Observer
- ◆ APFO Safety Team



Custom Data & Digital Cartographic Work Provided

- ◆ Supported multiple RMA custom CLU requests.
- ◆ Supported multiple CLU w/ CRP requests prior to Farm Bill.
- ◆ Created centroid files for all CLU – for FSA economist request.
- ◆ Provided CLU extents national coverage map to ESRI.
- ◆ Provided historical imagery graphical count by county.
- ◆ Produced cartographic screenshots for APFO website for custom print functionality.
- ◆ Provided for multiple custom print layouts originating from DC Offices.
- ◆ Prepared custom map for RMA Administrator.
- ◆ Prepared 3d Model as a pilot project for external customer.
- ◆ Created poster for annual Farm Machinery Show.
- ◆ Created multiple custom georeferenced maps for external requests.
- ◆ Created ArcScene Flythrough for FSA Administrator visit.

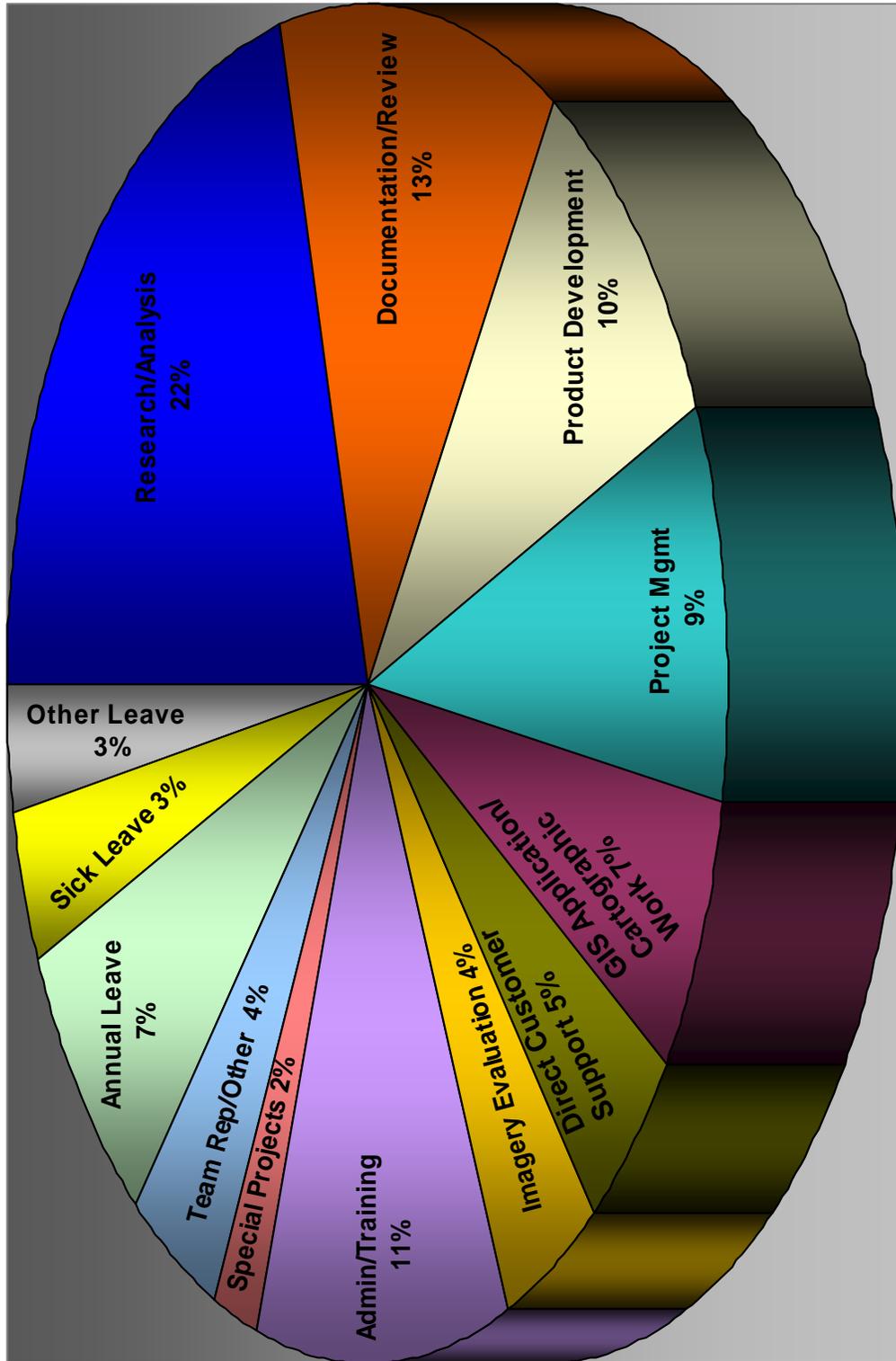


Customer Support

Fielded and answered several hundred customer support calls and emails from APFO, FSA, SCA, federal & local government, private business, and the general public. 75% of this time was in support of FSA customers, 8% in support of other USDA customers, 10% in support of private customers, and the remaining 7% of this time was attributed to other federal, local, state, and regional government customers, and private industry.



Geospatial Service Center Support Section Activity Report



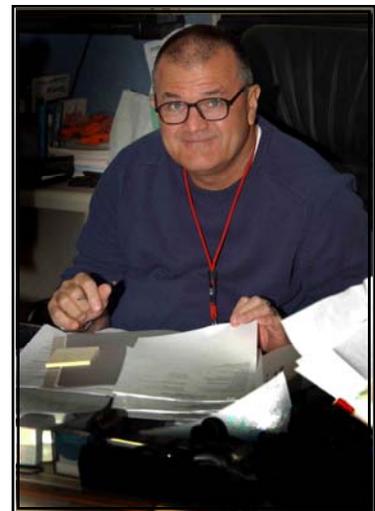
OPERATIONS BRANCH

Mission Statement: *To insure the Aerial Photography Field Office operates in an efficient, cost effective manner by providing resources necessary for the production of aerial imagery products*

USDA Farm Bill, FSA Initiatives and Directives Effect APFO

Provisions of the 2008 Farm Bill, Budget and Performance Management System (BPMS) and, a variety of Initiatives and Directives introduced or implemented during Fiscal Year 2008 have and will significantly change the way APFO employees conduct business.

- ◆ Farm Bill, *Section 1619* prohibits disclosing or identifying attributes of the land such as common land unit (CLU) boundaries.
- ◆ Financial Web Applications Data Mart replaces system/36 applications providing Initial Budget Allotments, Forecasting, Projecting and Allotment Change Models
- ◆ **WebTA** requires employees to enter their time, attendance, and program/activity information in one system
- ◆ **Web52** is an intranet program requiring employees to process SF-52 forms (request for personnel actions) electronically
- ◆ Homeland Security Presidential Directive 12 (**HSPD-12**) requires all Department and Agencies to comply with a “Common, standardized Identification Card
- ◆ Smart Card technology is introduced with USDA’s employee ID card named “**LincPass**” in honor of President Abraham Lincoln
- ◆ New stringent Background Investigation (BI) criteria required for employees and contractors prior to employment with all Departments and Agencies
- ◆ USDA Charge Card Program replaced Bank of America with US Bank, requiring reconciliation, termination and enrollment of all Travel and Purchase Card users
- ◆ **GovTrip** and **SmartPay** are introduced as new intranet applications for travel and purchase card users
- ◆ FSA Administrator Teresa C. Lasseter conducted an **Organizational Assessment**, implementing systemic change across FSA to capitalize on a more effective organization for years to come
- ◆ Consideration to designate APFO as an Enterprise Data Center (**EDC**) by USDA FSA for all USDA aerial imagery resulting in a classification as a “**Center of Excellence**”
- ◆ New FSA Logo Introduced



Procurement

APFO’s Operations Branch, Administrative staff provided maximum, practicable opportunities in acquisitions to small business, small disadvantaged business, and woman owned small business concerns for FY 08.

Procurement for resources has been through the use of GSA SmartPay Purchase Cards and the Integrated Acquisition System (IAS).

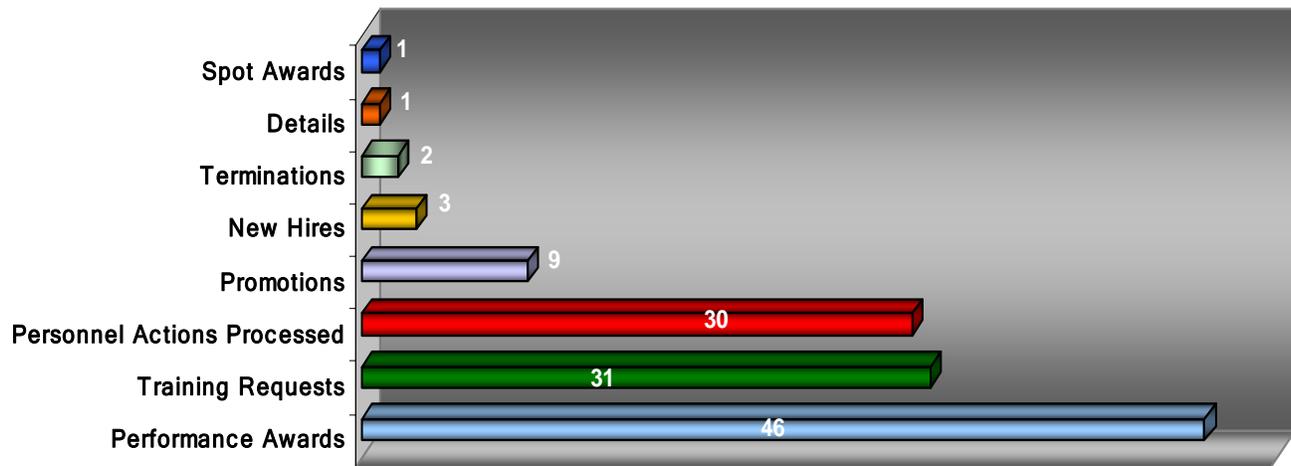


Human Resources

APFO's Operation Branch, Personnel and HR Management worked closely with the Kansas City Human Resource (KCHR) to provide a comprehensive program of personnel services to the APFO employees throughout FY 2008.



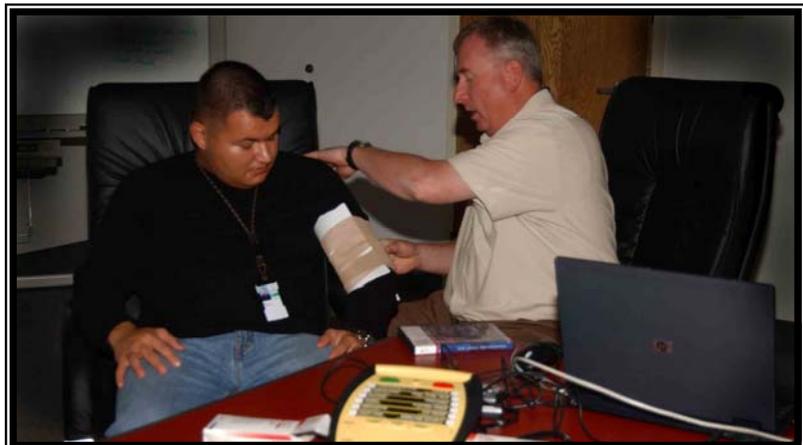
Personnel Work Activities



Safety and Health

Upon re-establishing APFO's Safety Committee, consisting of 1 employee from each Branch, an Automated External Defibrillator, CPR training manikins, automated first aid prompts, books and pamphlets were purchased.

A current floor plan was created to include locations of all fire extinguishers, first aid kits, emergency pull switches and emergency eye wash stations.



EQUAL EMPLOYMENT OPPORTUNITY

Equal Employment Opportunity /Civil Rights/Outreach/Other

◆ Adopt a School – Hillsdale Elementary:

- * APFO Classroom Volunteer
- * Granite Education Foundation Luncheon
- * Chapters of Hope - \$300 in Library Books Donated
- * School Supply Drive – Various School Supplies
- * GIS Day – 2 day event, Kindergarten thru 9th grade.
- * Participating Sponsor for the Utah Shakespearean Festival - 6th grade class

◆ Hispanic Heritage Month:

- * Poster Recognition
- * Salsa Contest
- * Breakfast Burritos

◆ Disability Awareness Month:

- * Poster Recognition

◆ 23rd Annual Utah Women’s Conference:

- * Employees Attended

◆ Native American Heritage Month:

- * Banner Recognition

◆ Veteran’s Day:

- * Poster Recognition

◆ Sub-for-Santa:

- * \$900 from fund raisers
- * Six Children, Four Families
- * Donations to Homeless Center
- * Utah Food Bank

◆ Martin Luther King, Jr. Day:

- * Poster Recognition

◆ Black History Month:

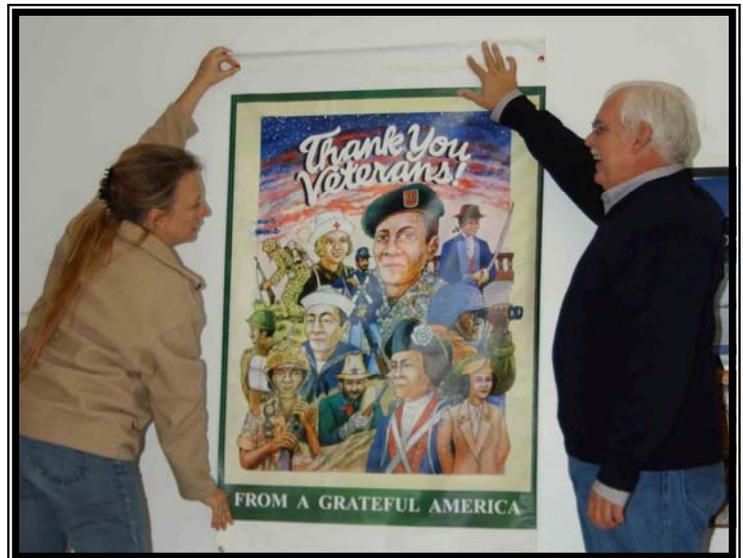
- * Poster Recognition

◆ Women’s History Month:

- * Banner Recognition

◆ Take Our Daughters and Sons to Work Day :

- * Employee/Family participation



◆ Asian/Pacific Heritage Month:

- * Banner Recognition

◆ Breast Cancer Awareness Month:

- * Pink Ribbons, Yoplait Yogurt Lids

◆ Domestic Violence Awareness Month:

- * Purple Ribbons

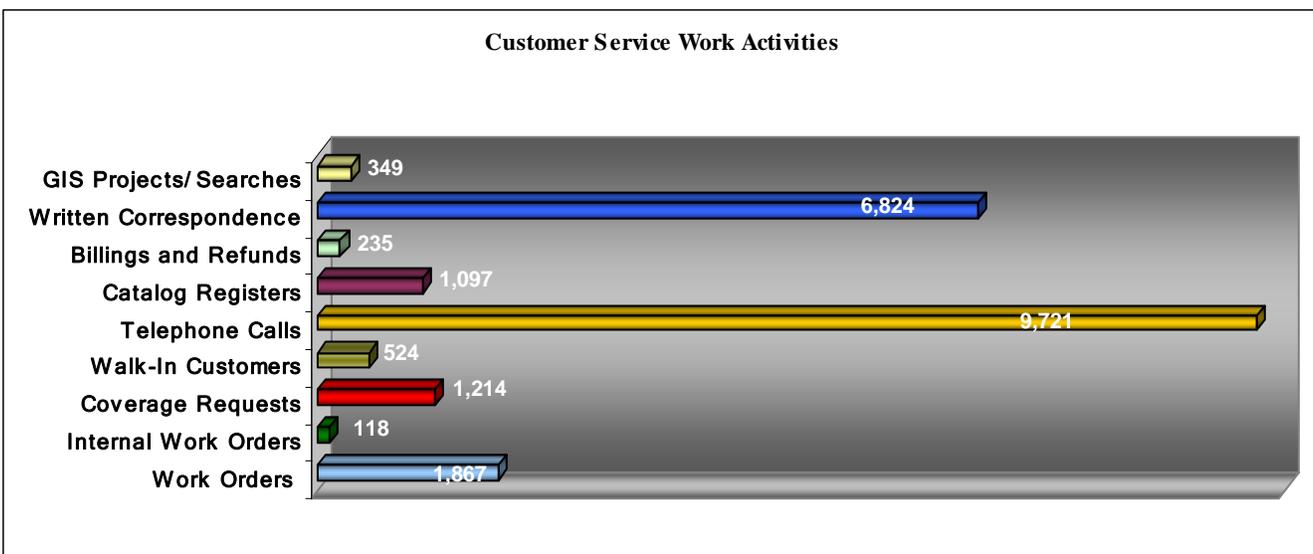
◆ Minimize Cost and Ecologic Impact:

- * Maximized use of recycled packaging products

CUSTOMER SERVICE

Mission Statement: *To serve each customer as their primary source of technical information concerning USDA related aerial photography, digital imagery, and common land unit data of the United States and its territories. To account and reconcile funds from all government agencies and the public.*

As part of the Operations Branch, the Customer Service Section (CSS) is responsible for the receipt and processing of work orders and coverage requests for aerial photography, digital imagery, and common land unit products and services. CSS is the liaison for the Aerial Photography Field Office (APFO) to other government agencies and the public. CSS maintains and monitors all fiscal activity dealing with the sale of aerial photography and digital imagery.



Accomplishments & Noteworthy Activities

Order Form and Price List – Updated and improved order form and price list with easier to understand instructions. New pricing for digital imagery and photo reproductions as of January 1, 2008.

Return Policy Statement – Noted on packing slip and states: Please review shipment contents for accuracy. Return any items with discrepancies such as quantity, damage, or quality within 60 days for replacement or refund. Products returned after 60 days of shipment will not be accepted. All products are subject to review for valid replacement or refund.



Interactive NAIP Status Map – Illustrates all NAIP coverages layered by year in one pdf document. Now available from APFO’s website.

Leaflet 571 – Updated APFO’s brochure. Now available from APFO’s website.

Vegetation Sampling Project – Completed large research request for the University of Michigan who ordered 1500+ scans for a Midwest GIS project.

Research Fee – Established nominal research fee required for walk-in customers needing assistance.



Utah Historical Film Scan Project – Initiated historical film scan project of five Utah counties for digital viewing by walk-in customers. The medium resolution scans will eliminate hands on use of the original film which will greatly reduce any possible damage or scratching of frequently used film.

Custom Digital Paper Enlargements – Digital enlargements can show several layers of data on

the image such as roads, boundaries, and topography. This would also include reproducing one photo for large and small coverage areas that would typically require two or more frames to cover.

Digital Imagery and Common Land Unit Production – The CSS process and produce small volume (short orders) of NAIP Compressed County Mosaics (CCM’s), NAIP Quarter Quads (QQ’s), and certified Common Land Units (CLU’s) for media requests not available from the USDA Geospatial Data Gateway on CD or DVD from October 2007 to May 2008. APFO has automated these processes to satisfy our customer’s delivery requirements. The Technical Services Branch (TSB) distribution team has been producing large volume orders on external hard drives for CCM’s, QQ’s, and CLU’s. TSB currently processes all orders since May 2008. CSS manually fills digital orders where automation is not available for certified CLU’s.



Digital production activities for Short Orders have been provided by CSS from February 2005 to May 2008.

- ◆ NAIP Short Orders – 6,142 CCM’s / 14,016 CLU’s / 480 QQ’s

GIS Processes – CSS utilizes EarthWhere, a Spatial Data Provisioning (SDP) tool, to conduct NAIP QQ searches and order processing. A dual SDP and Work Order Entry System (WOES) are used for order processing and delivering QQ’s on CD or DVD. SDP will be utilized for the upcoming online ordering service.

NAIP Coverage Maps and Shapefiles – Currently available as downloads from the APFO website for QQ coverage. Maps will also be updated and integrated with NAIP Film (where available) photo center coverage and shapefiles during the upcoming fiscal year.

- ◆ GIS Project Searches (manual GIS searches) – 349

GIS Research Tools - Two internal web map services were established to research NAIP QQ (NAIP Coverage) and Film Photo Centers (NAIP Film Search).

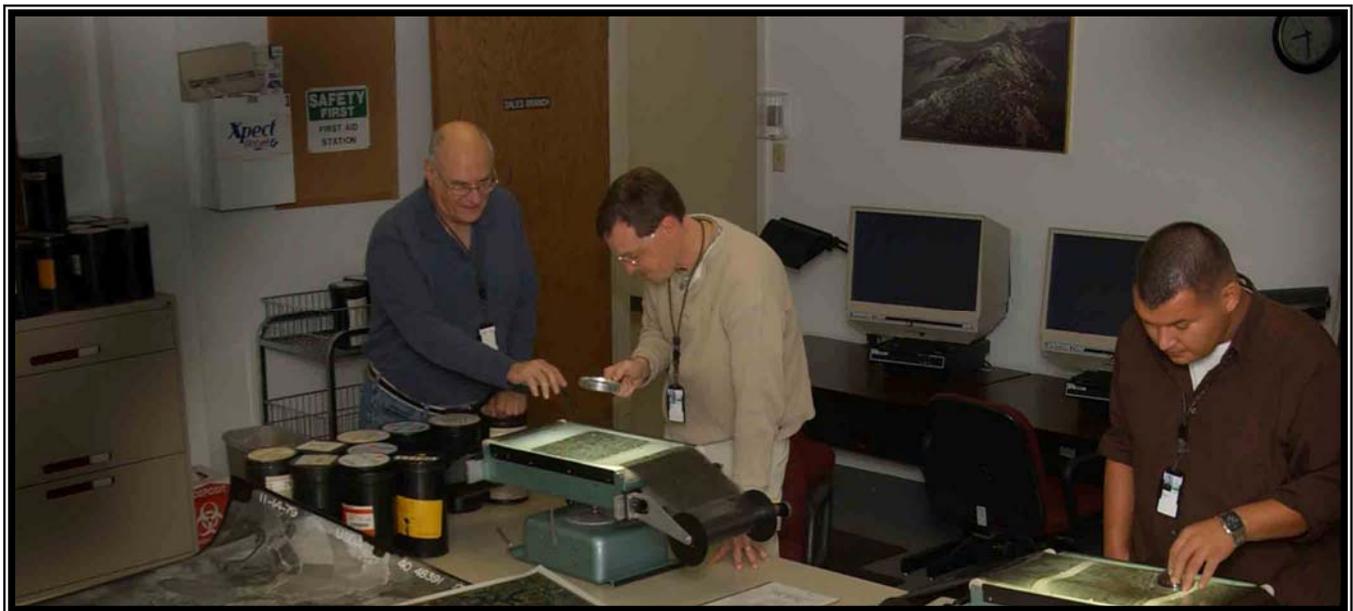
Detailed Activity – One employee involved with the Photo Index Scan inspection. One employee involved with EEO Advisory Committee, Aerial Observer Newsletter, and Awards Committee activities.

Total Dollar Volume \$1,231,111.50 - Includes all fiscal activity associated with the sale of aerial photography and digital imagery.

Major Categories	Amount
Collections Receipts	\$176,706.50
Credit Cards Receipts	\$528,447.50
Federal Bills	\$251,289.50
Flying Contracts/Products	\$279,898.00
Non-Federal Bills	\$101,805.00
Miscellaneous	\$ (749.00)

Fiscal Year Statistical Comparison

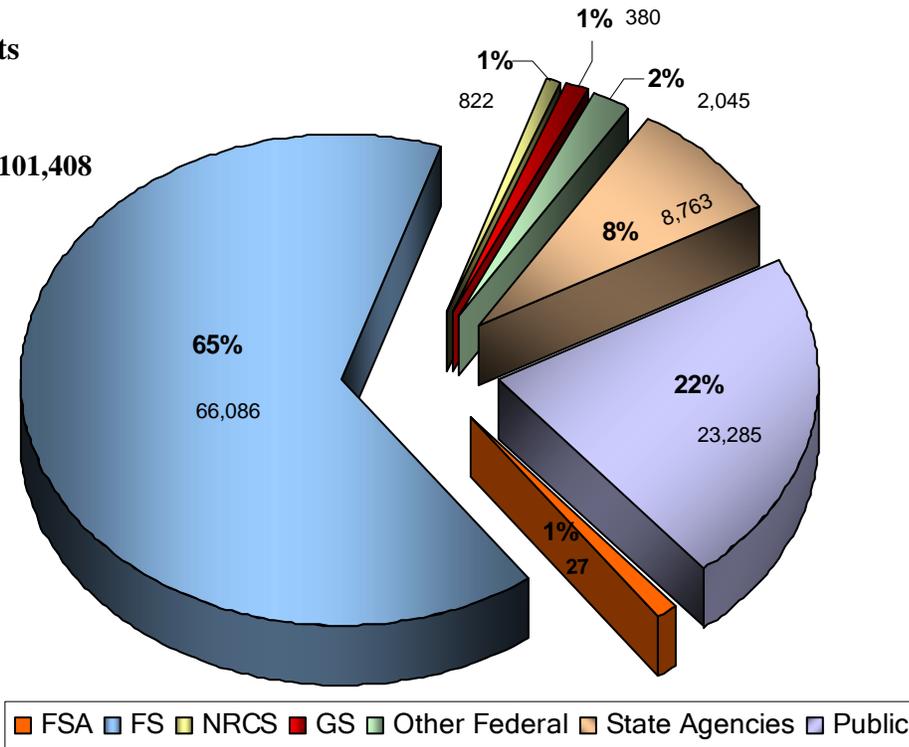
Fiscal Year 2008	231 Units per Order
Fiscal Year 2007	262 Units per Order
Fiscal Year 2006	102 Units per Order



Customers of Aerial Photography Products and Services

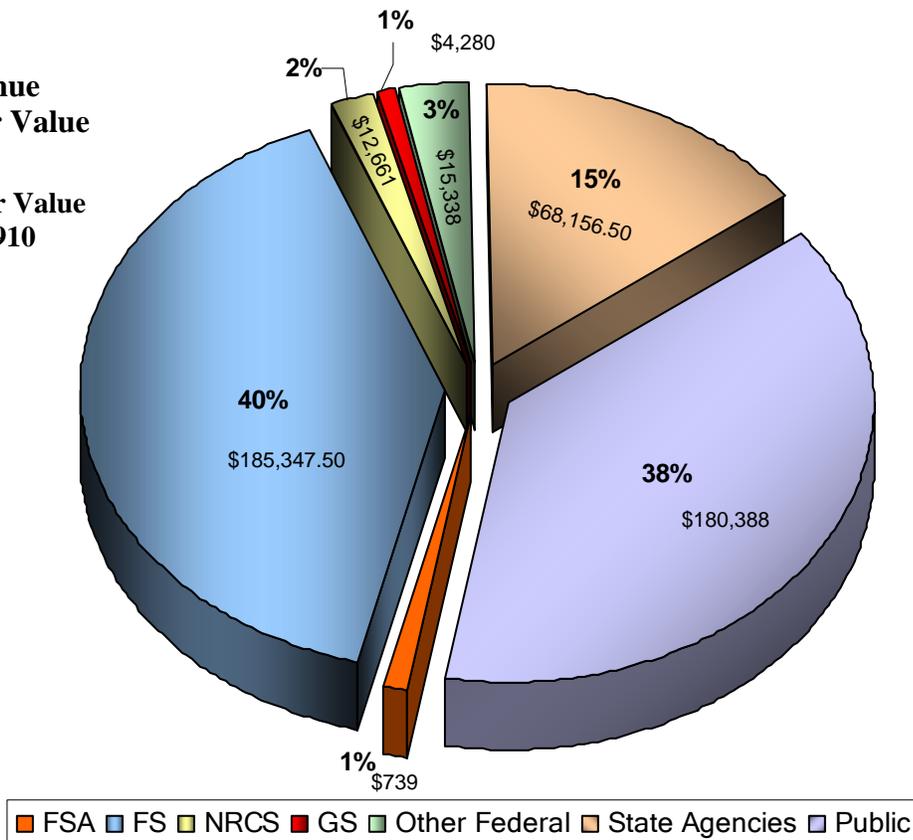
% = Requests
= Units

Total Units = 101,408



% = Revenue
= Dollar Value

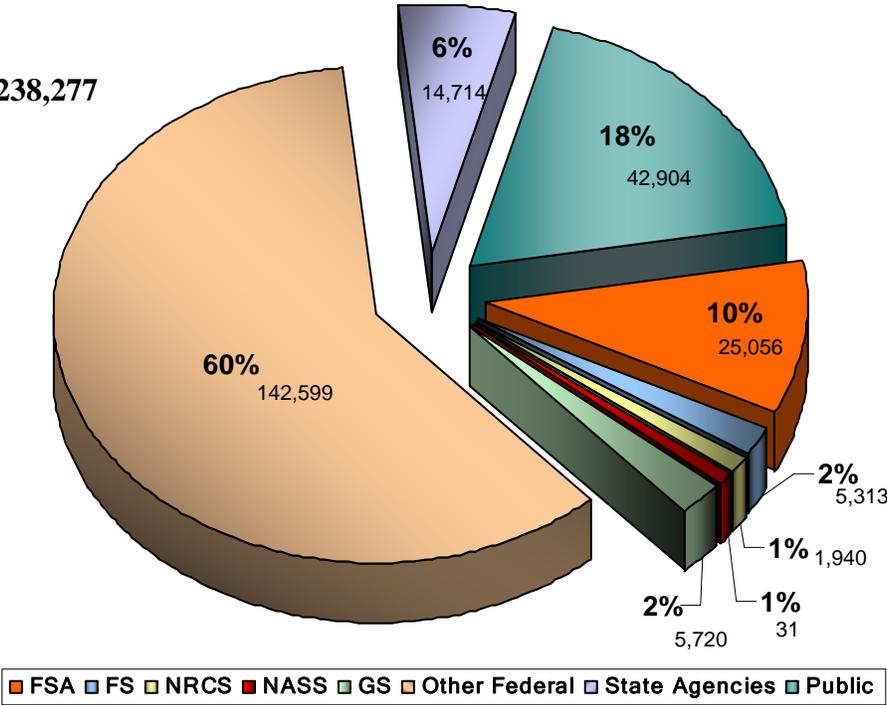
Total Dollar Value = \$466,910



Customers of Digital Imagery Products and Services

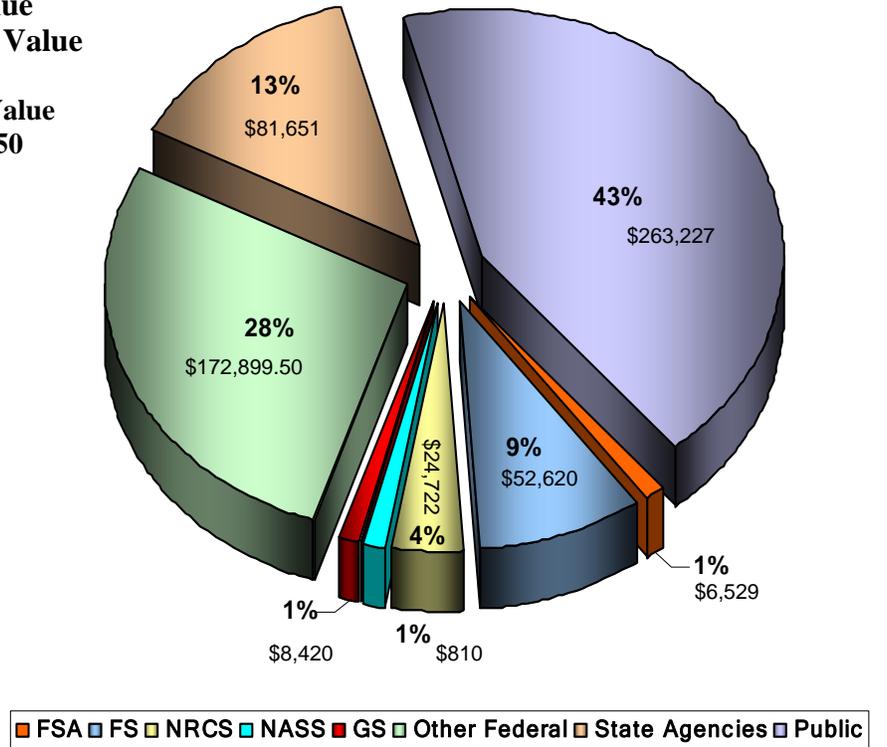
% = Requests
= Units

Total Units = 238,277

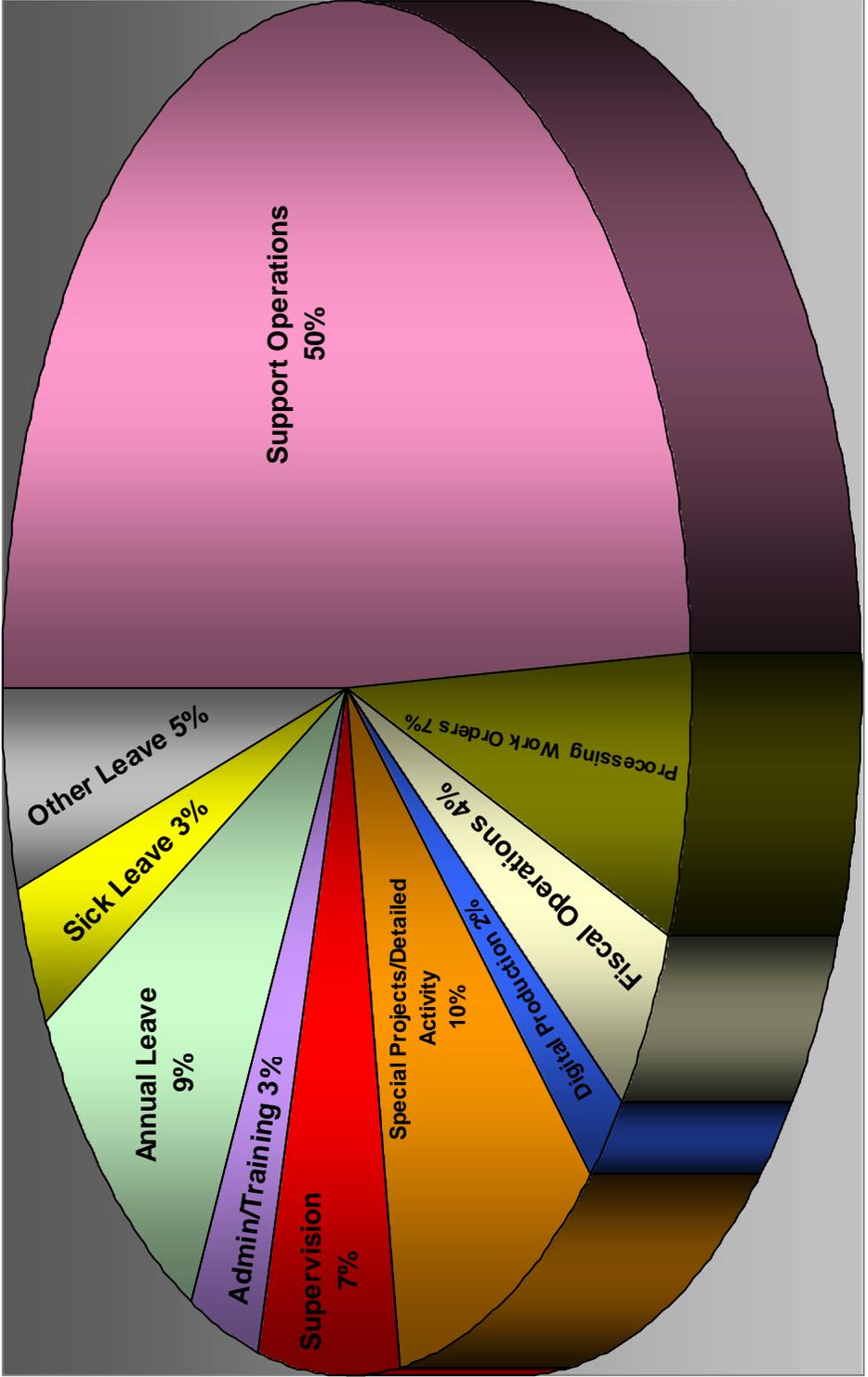


% = Revenue
= Dollar Value

Total Dollar Value = \$610,878.50

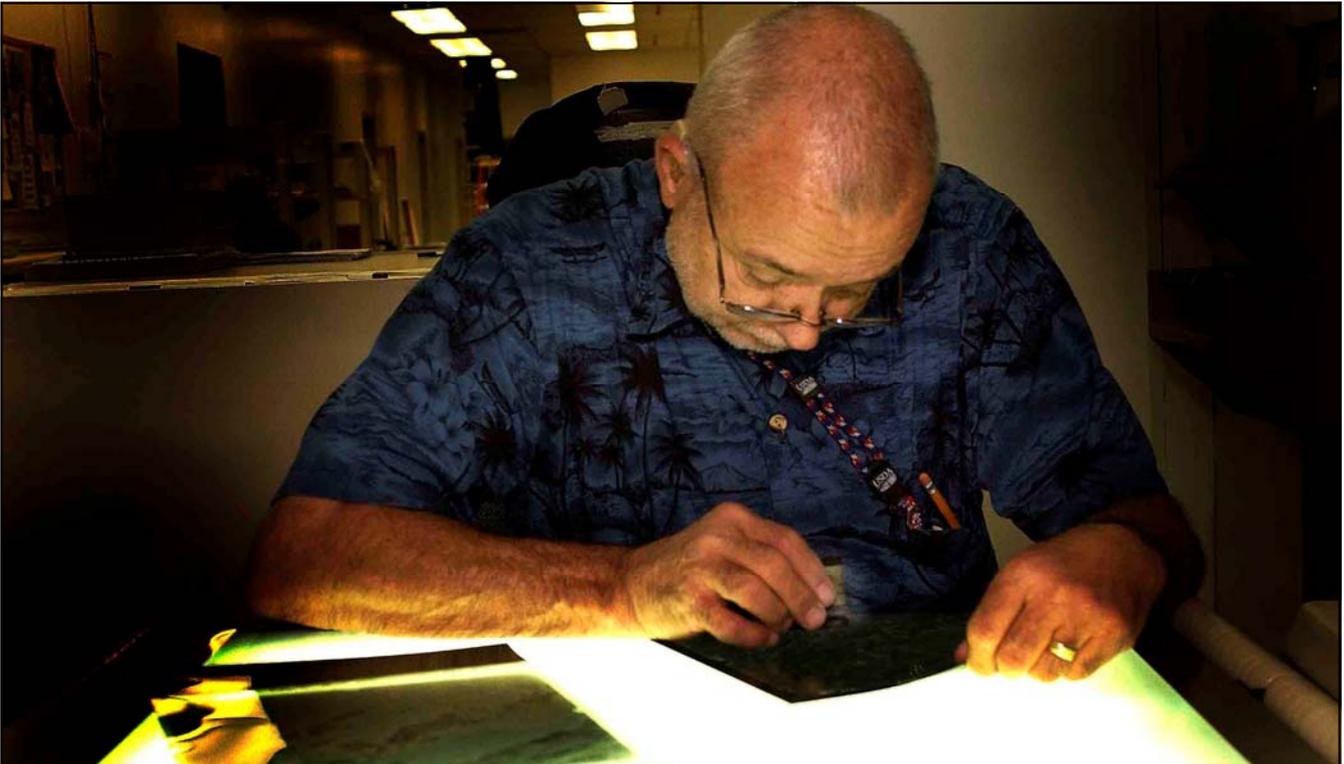


Customer Service Section Activity Report



PRODUCTION SERVICES BRANCH

Mission Statement: *To provide Quality in the form of Value, Service and Customer Conformance. Working in unity with our customers in order to meet their expectations. Providing the highest quality B&W and Color aerial photographic and digital products available.*



Production Services Branch

The Photo/Imaging Branch is responsible for generating color and black and white aerial photographic products and digital imagery for various customers, including FSA, NRCS, and Forest Service, as well as other Federal and non federal agencies and the public. The Branch is also responsible for chemical mixing, electronic and mechanical maintenance and maintaining Aerial Photography Field Office's Film and Media Library.

July 2007, the Photography Section filled a permanent full time position with an internal candidate. The Section Supervisor established an ongoing training and professional development program for the new hire in support of the Branch mission.

Branch employees balanced production time with continued support of the APFO Historical Photo Index contract from FY07, the Photo Section spent 430 hours performing 3,678 index inspections and the Scanning Section documented 491 hours inspecting 6,140 photo index deliverables during FY08.

The U.S. Geological Survey (USGS) Earth Resources Observation and Science (EROS) Center entered into a Memorandum of Understanding (MOU) with the APFO to duplicate 19 rolls of National High



Altitude Photography (NHAP) program film EROS did not have in its inventory. Additionally, the MOU included an agreement to have the APFO digitally scan nearly 200 rolls equating to over 30,000 individual images of National Aerial Photography Program (NAPP) film held in the AFPO film vault, this portion of the MOU is in progress and is anticipated to continue through the next fiscal year.

Hardcopy on demand or custom digital printing has taken aerial imagery to a new level. Our customers can now enjoy our print products customized to their personal specifications. With the addition of a metal surface print paper, several print sizes to choose from, and an almost unlimited amount of data layers that are available, finished print possibilities are nearly boundless.

With 80% of NAIP 08 digitally acquired it stands to reason that digital print production requests will continue to grow in an ever increasing level, in order to keep up with our customers needs digital printing capabilities were enhanced this year with the acquisition of an additional Light Emitting Diode (LED) photographic printer. According to the vendor APFO was first to purchase this version of the LED printer technology, followed by the Johnson Space Center. The new printer has tripled our production capability without reducing quality.

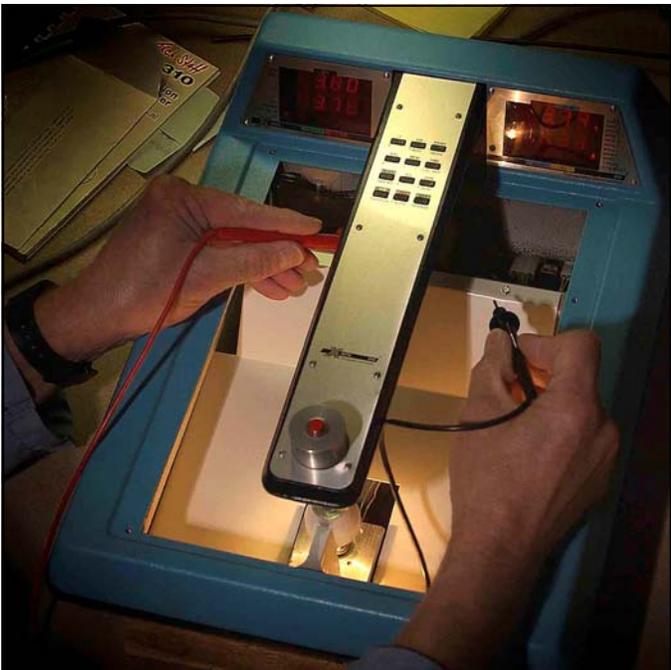
Three dimensional (3D) image products and services were introduced to our customers. With the assistance of the Geospaital Services Branch, digital two dimensional (2D) imagery can be morphed into a 3D rendering for use in producing physical models or image “fly-bys” of any image with associated elevation data.

The color reversal transparency duplication process was discontinued during this report period. The producer of Aerochrome Duplicating Film SO-863, Eastman-Kodak stopped manufacturing this material and provided no suitable alternative to support our requirements. Other film manufacturers were contacted in an effort to maintain this product line for our customers, and like Eastman-Kodak no other manufacturer was, or intended to produce reversal transparency duplication film material.



Technical Support Staff

- ◆ An electrical power audit was conducted to determine the Unlimited Power Supply (UPS) requirements within the production area. Data collected during the audit was used by the Technical Services Branch to produce a spread sheet which summarized the total power requirements in kilo volt amp's for the disaster recovery team and contingency planning.
- ◆ Fabricated and installed two more filter holders for the ASCS vertical enlargers in the Black and White production section for the poly contrast black & white print paper.
- ◆ Rebuilt and modified the metering section of the automated Log-E contact printer in order to support work load request increases for film duplicating services.
- ◆ Assisted with the planning, designing and assembly of the display case for the 3D physical terrain model on display currently in the Customer Service Support Office.
- ◆ Rebuilt, modified and returned three Huston Fearless tacky roll film cleaners to working condition. Fabricated new roller's and wind up system to accept the new HAS Images Inc. tacky roll film cleaning material. This has had a major affect on product quality by removing dust particles from film and has saved APFO thousands of dollars in purchase costs for new film cleaning units.
- ◆ Installed static control mat's in the digital scanning area to prevent and control the release of static discharge which can corrupt and alter digital data.
- ◆ Assisted the Branch Chief in the gathering and digestion of data to produce a preventive maintenance schedule for the processors in the production branch.
- ◆ Assisted in the preventive maintenance rebuilds of seven processors located in the production photo branch.
- ◆ Participated in the reorganization of the photo branch section to improve production.
- ◆ Moved paper storage room's changed dark room layout's, and removed excess equipment. Participated in the largest property surplus and excess equipment disposal in APFO history.
- ◆ Rebuilt the bar code reader used for inventory control throughout APFO that were not functioning. This postponed the purchase of new reader's until more favorable budget



- ◆ Assisted the security section with numerous cabling job's and equipment installations for the upgrading of the APFO security systems.
- ◆ Participated in the drafting of the safety document, Lock out Tag out energy control plan for APFO.
- ◆ Assisted in the search and installation of a new stapler in the shipping department. The stapler is used in the construction of the shipping containers used for shipping APFO production products.
- ◆ Assisted in the installation of the Durst Theta 76R direct digital printer, to be used in the increase of digital production work load, the first one installed in North America.

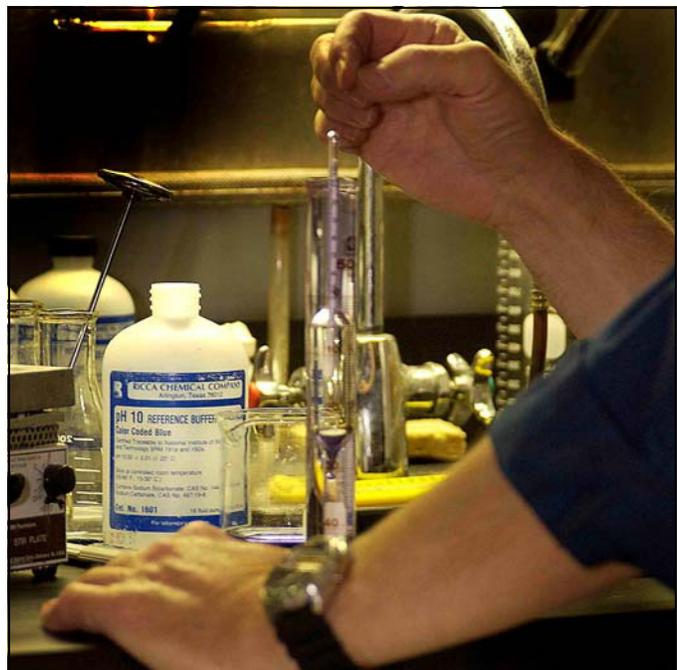


Photography Section

- ◆ Color and B&W Images Produced/Hours: 82,157/4096
- ◆ Color Images/Hours: 47,995/2092
- ◆ B&W Products/hours: 34,162/2004
- ◆ Color/B&W Film Products/Hours: 18,398/994
- ◆ Color/B&W Paper Products/Hours: 63,768/3102

Most requested:

- ◆ Color Paper Product: 10" x 10" – 47,209
- ◆ B&W Paper Product: 10" x 10" – 16,558

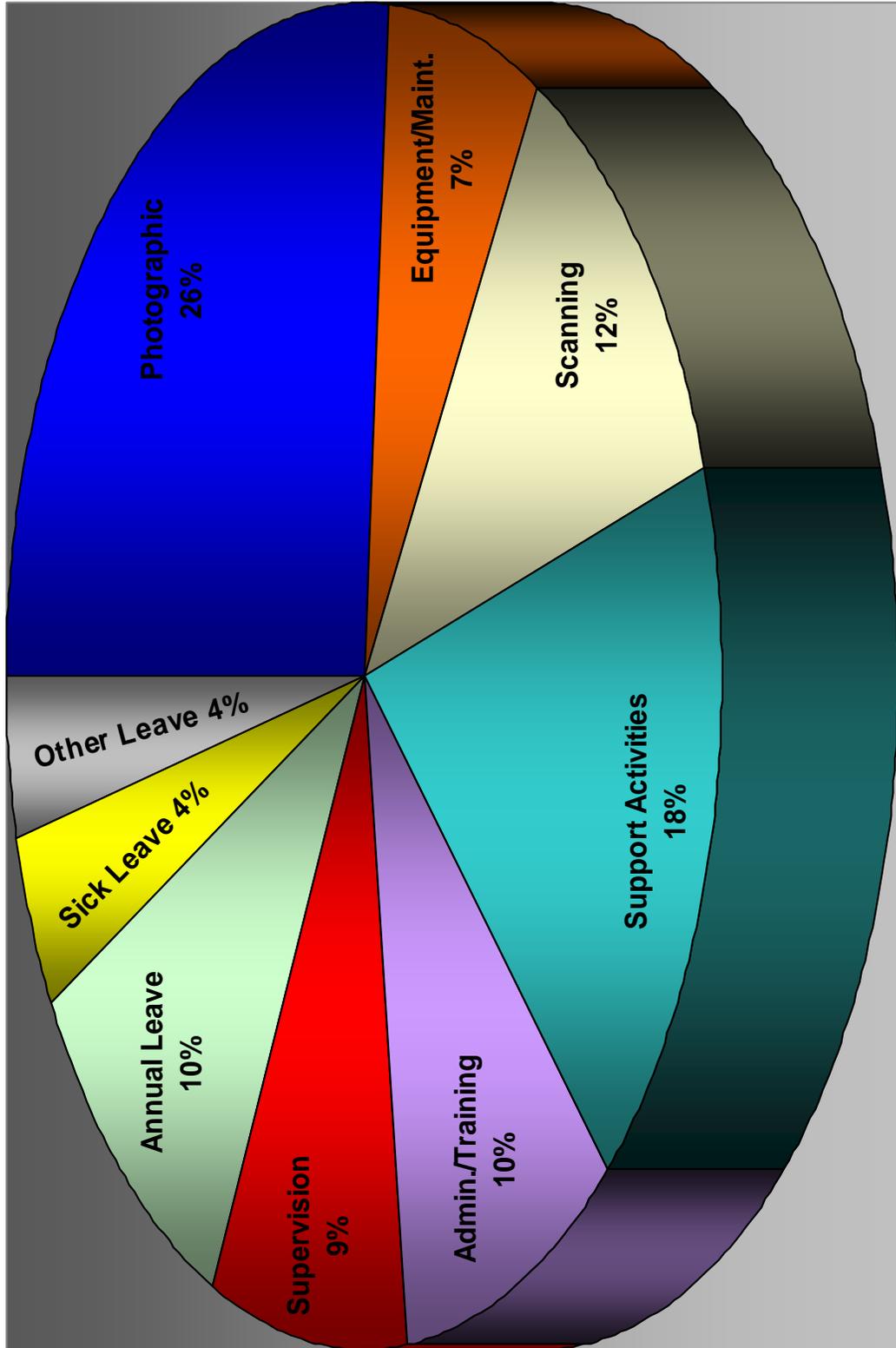


Scanning Section

- ◆ Scans Products/Hours: 25,761/2370
- ◆ Media Products/Hours: 812/217



Production Services Branch Activity Report



QUALITY ASSURANCE BRANCH

The Quality Assurance Branch is comprised of two inspection areas directly responsible for the quality assurance inspection, monitoring, and disseminating of imagery and geospatial data for all aerial film programs contracted. These include the National Agriculture Imagery Program (NAIP), Resource Aerial Photography, Common Land Unit (CLU) updates, National Resources Inventory (NRI) and Wetland Reserve Program (WRP), as well as APFO website update information including status maps and data for these programs. This branch also maintains the Service Center GIS priority (SCIT) and Catalog Listings.

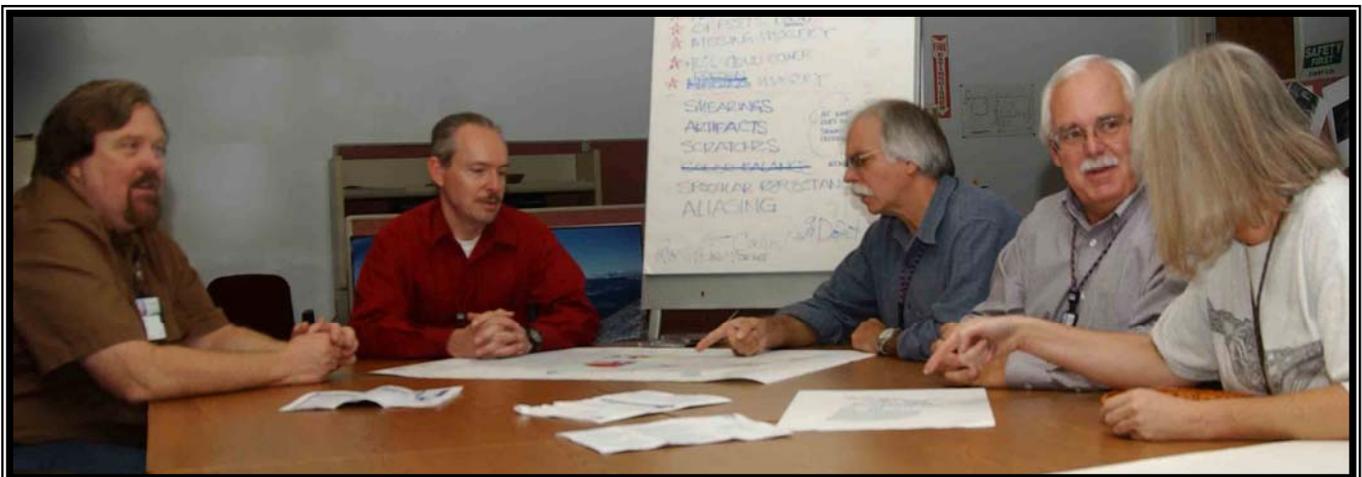
Project management provided for the Vault Index Project. The primary goal of this project is to accomplish the scanning of specified photo, line, and point index reference maps in their varied formats for purposes of preservation. Through this preservation effort, greater visibility of, and access to, historical imagery products will result. Inspection of 32,184 tiff, geo-tiff and enhanced shapefiles from scanned indexes was accomplished during the fiscal year. We have taken delivery of 80,808 products to date for this project.

The branch began a transition in the Resource Imagery area for acquisition and inspection of resource imagery projects. Several customers have requested digital delivery, requiring a feasibility study of changes in the inspection process from analog film inspection to a digital imagery inspection. Once accomplished a new inspection process will be established for the digital imagery.

The branch is responsible for recording and disseminating all quality issues for the NAIP program and monitoring all NRCS Gateway customer problems.

This involved the implementation of a process for tracking and monitoring problems for all quality issues concerning the NAIP imagery.

The branch developed a Quality Assurance Management Plan to be incorporated in the overall NAIP management plan.



ORTHO IMAGERY INSPECTION SECTION

Mission Statement: *To assure customer needs are met by providing quality assurance inspection, monitoring, and disseminating of imagery and geospatial data for the National Agriculture Imagery Program (NAIP).*

The Ortho Imagery Inspection Section (OIIS) developed a 500 day operational plan to focus group synergy in accomplishing Branch strategic goals. OIIS planned, organized and successfully executed 6 major initiatives, along with the inspection of 809 NAIP07 and 218 NAIP08 Compressed County Mosaics (CCM) and 66,382 Quarter Quads. In addition to the NAIP program, OIIS inspected 9181 scanned indexes for the Vault Index project.

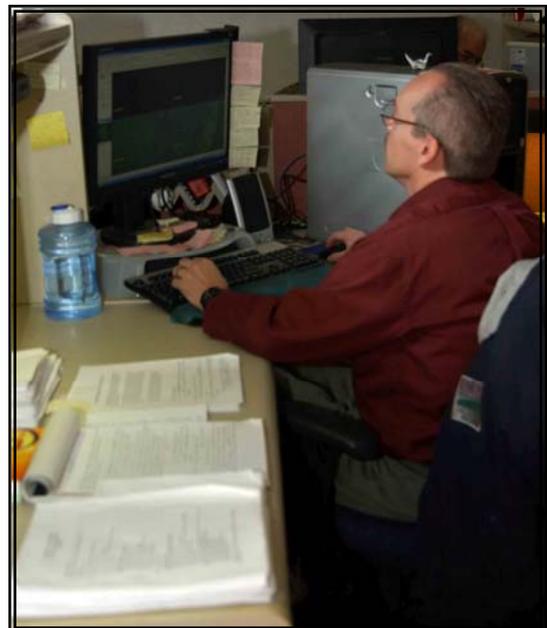


Initiative #1: Develop a Quality Assurance Management Plan. OIIS invested 500 man hours and developed a fully integrated Quality Assurance Management Plan designed to coordinate new technologies in software, data management, inspection processes, with refined image quality standards. The Quality Assurance Management Plan has been incorporated into the integrated NAIP management plan.

Initiative #2: Develop Standard Operating Procedures for all inspection tasks. OIIS invested 1000 man hours to develop 10 Standard Operating Procedures providing detailed step by step instruction on all tasks associated with NAIP imagery inspection. The SOP's were designed using a multi-roll format. OIIS SOP's are used as a basic training guide for new employees as well as for advanced trouble shooting instructions used by fully trained personnel.

Initiative #3: Refine legacy imagery contrast standards. OIIS invested 1000 man hours, to conduct a NAIP imagery contrast study, the results of which re-defined contract standards with the single purpose to improve NAIP image quality. New contrast standards were developed. OIIS partnered with APFO contracting office and incorporated in the FY 08 NAIP contract. Initial imagery evaluation shows that image quality has improved because of the new contrast standards, and that contractors have been able to meet the new contrast specifications over 95% of the time.

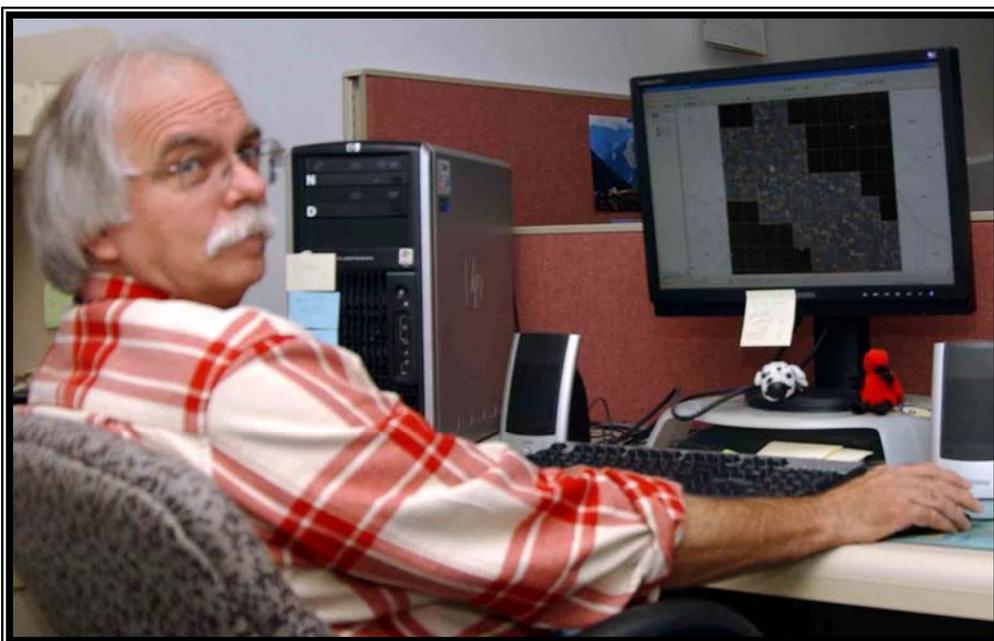
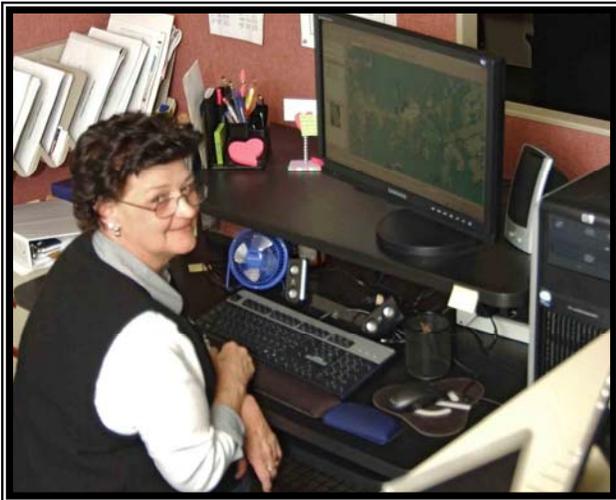
Initiative #4: Conduct a Color management feasibility study. OIIS invested 3000 man hours, to plan and executed a color management feasibility study. Several hundred images were evaluated for color quality with the goal of automating imagery color evaluation. Findings were conclusive that an automated color management process



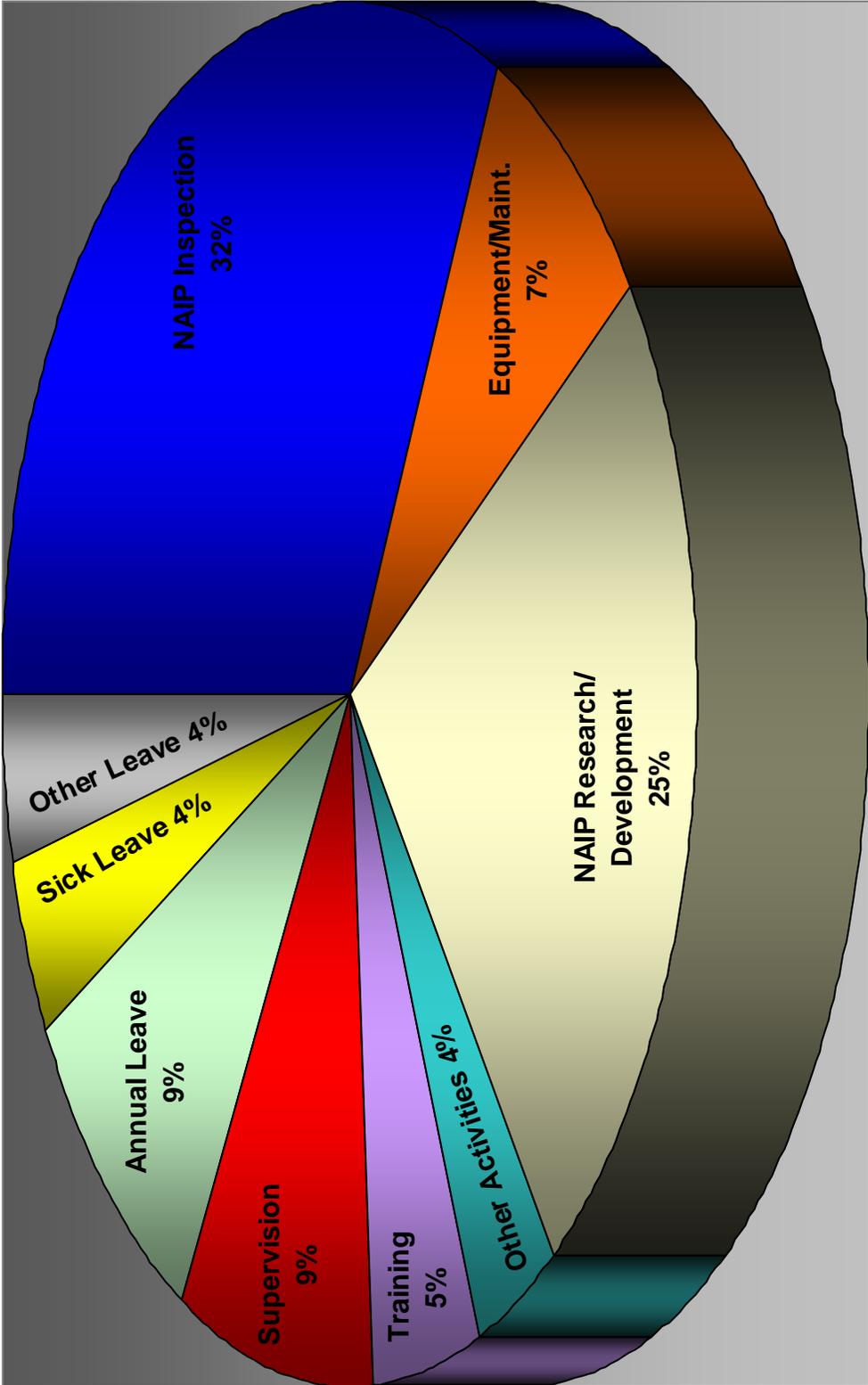
was possible. This feasibility study will be incorporated in a larger imagery quality study and when finished will be presented for peer review.

Initiative #5: Equip each employee with Photoshop elements. NAIP imagery inspection efficiency was compromised due to bottle necks caused by insufficient access to radiometric evaluation software. OIIS partnered with IT resulting with each work station being equipped with Photoshop Elements

Initiative #6: Realign NAIP inspection process to match NAIP contract emphasis. OIIS invested 500 man hours to partner with IT and Contracting and redesigned the NAIP inspection process to include standardized syntax, weighted demerit for defects and storage of all physical and radiometric defects and anomalies in an Oracle database. This redesign provided enhanced data management capabilities that resulted in a comprehensive state-by-state reconciliation report.



Ortho Imagery Inspection Services Activity Report



RESOURCE IMAGERY INSPECTION SECTION

Mission Statement: *To assure customer needs are met by providing quality assurance inspection, monitoring, and disseminating of imagery and geospatial data for the Resource Aerial Photography, National Resources Inventory (NRI), Wetland Reserve Program (WRP) and Common Land Unit (CLU) digitizing. This section also maintains the Service Center GIS priority (SCIT) and Catalog Listings.*

Resource Aerial Photography



- ◆ Provided flight planning for seven (7) film-based resource projects that covered 11,949 square miles (8,964 linear miles), 4,586 NRCS WRP sites and prepared six (6) digital imagery-based projects that covered 28,648 square miles, including the inspection of contractor submitted flight plans.
- ◆ Inspected thirteen (13) Resource projects covering 25,624 square miles (17,238 linear miles) to 100% completion and 72 DOQQ's of Alaska imagery.
- ◆ Inspected, cataloged and archived 121 rolls of Forest Service film and 14 rolls of NAPP film.

National Resources Inventory (NRI)

- ◆ NRI CONUS sites/scans inspected: 65,846 sites and 60,911 scans
- ◆ Alaska 07 sites/scans/ortho's inspected: 55
- ◆ Alaska 08 sites/scans/ortho's inspected: 277
- ◆ Hawaii sites/scans inspected: 244
- ◆ Puerto Rico sites/scans inspected: 450

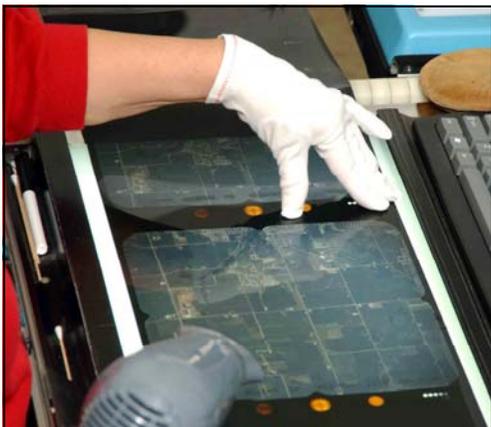


Wetland Reserve Program (WRP)

- ◆ WRP CONUS sites/scans inspected: 7,244 sites and 6,371 scans

Common Land Unit (CLU) Digitizing

- ◆ Monitored the delivery of 16,893 units of updated CLU data from FSA County offices and released to IT for upload to the Data Gateway.

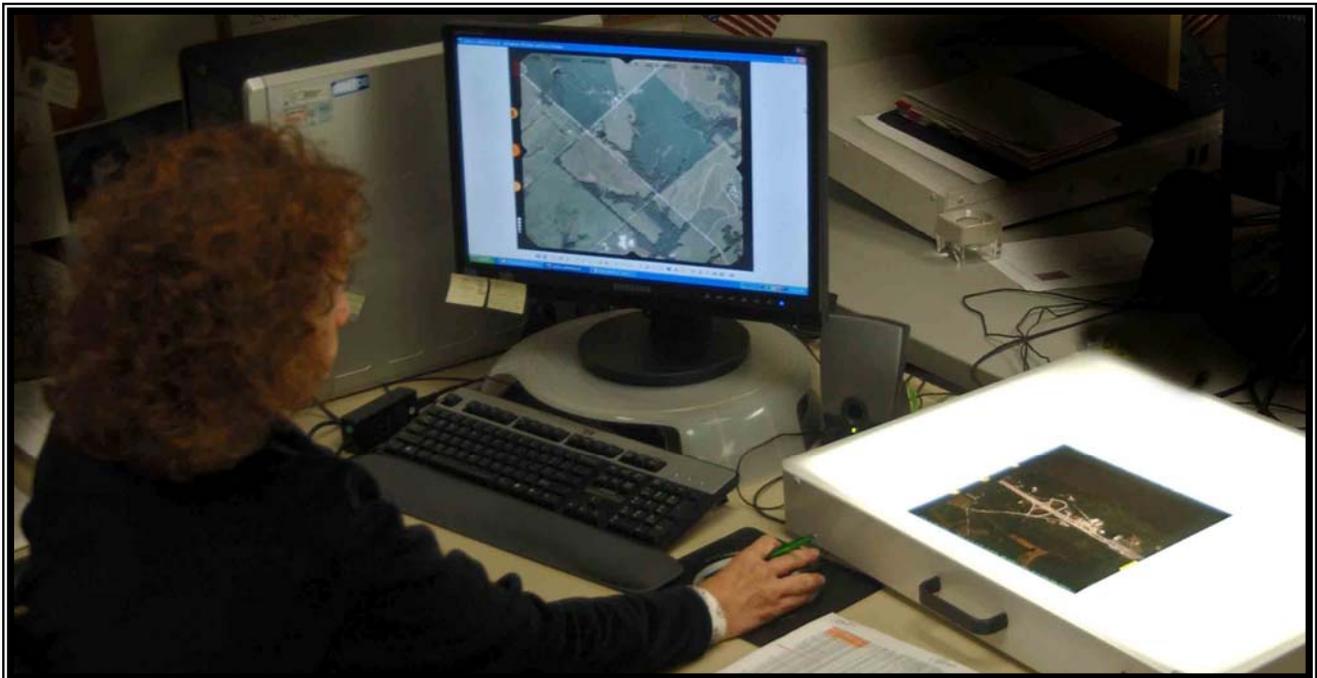


National Agriculture Imagery Program (NAIP)

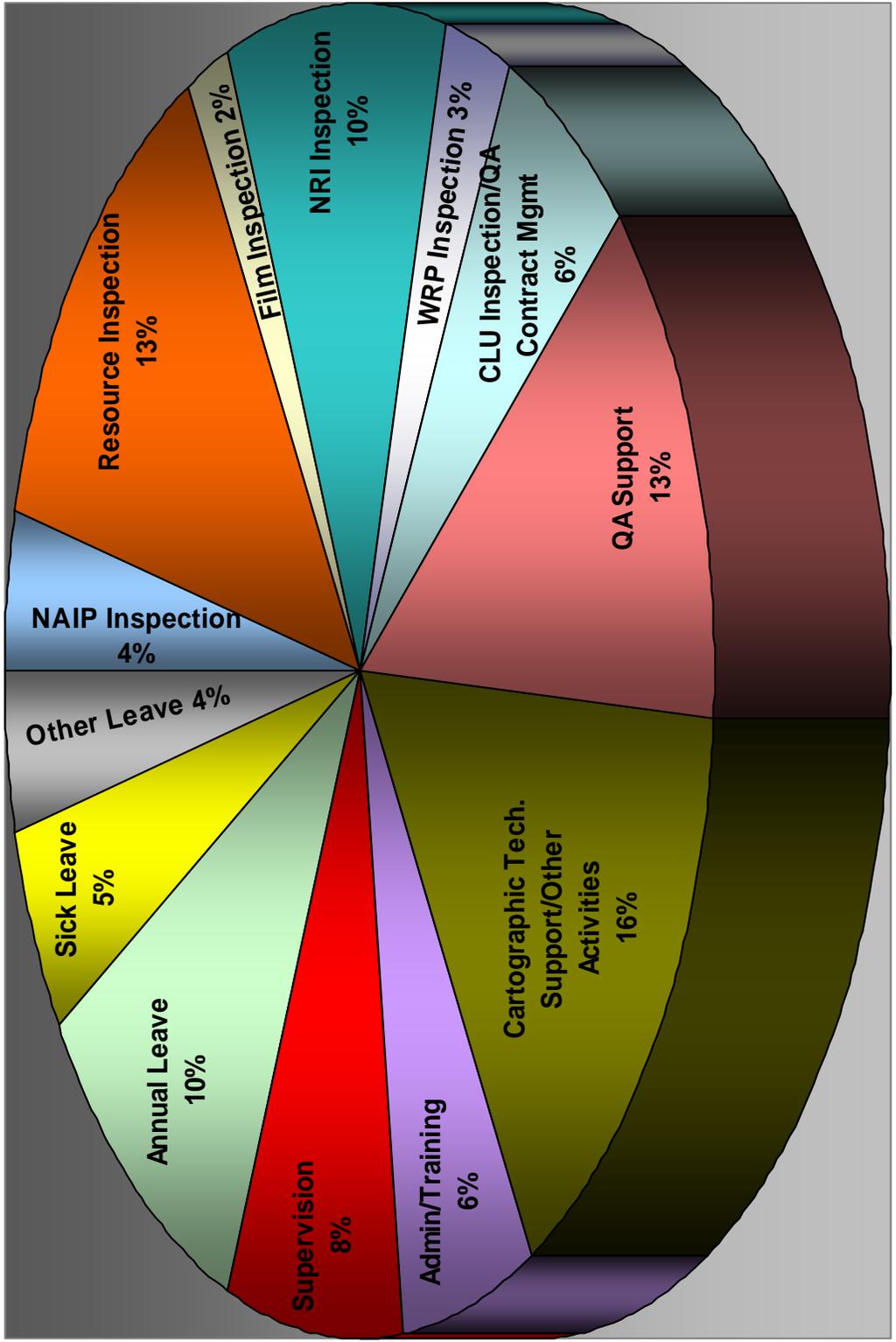
- ◆ The section provided 576 hours of inspection assistance to the Ortho Imagery Inspection section for 151 Compressed County Mosaics (CCM) and 8,376 Quarter Quads for NAIP07.
- ◆ 109 hours were used to inspect, catalog and archive 132 rolls of original film for the NAIP program.

Other Section Accomplishments

- ◆ Performed comprehensive review and corrections to data contained in the APFO Catalog Listing.
- ◆ Inspection of the Vault Index Scans, 198 hours were used to inspect 1653 indexes from this project.
- ◆ Analyzed, verified and edited locations in the database on 14,837 Forest Service indexes from the vault.
- ◆ Two employees served on the Equal Employment Opportunity Advisory Committee



Resource Imagery Inspection Services Activity Report



TECHNOLOGICAL SERVICES BRANCH

Mission Statement: *Provide Information Technology security and support requirements for agency specific applications.*

Under the Technological Services Branch consists of two sections;

The **Digital Data Management and Distribution section** performs data ingestion, archiving, distribution and fills large custom digital product orders.

The **Application Development section** supplies specific production application development while providing support and/or development of custom applications.

The Technological Services Branch (TSB) supports business and GIS applications in direct support of APFO business requirements, managing approximately 92TB (terabytes) of data on behalf of FSA and an additional 100TB of data in support of other USDA agencies (NRCS, FS).

IT Security

- ◆ Certification and Accreditation was completed in FY07 and is reviewed quarterly.
- ◆ There were no IT related security incidents in FY08.
- ◆ Disaster Recovery is being reviewed and maintained for APFO.
- ◆ All APFO databases are continuously reviewed for appropriate security levels and user permissions and changes made as necessary.
- ◆ TSB established policies for newly hired and departing personnel to manage and review user access to APFO data and applications.

Application Development/Implementation

- ◆ Provided project management and technical implementation of Web based Customer Order Entry System (COES) to allow both public and Federal customers the ability to order geospatial data on line.
- ◆ Designed and Developed Web Based Public Interface to support vault holdings catalog.
- ◆ Prototyped new inspection tools for QA of Resource projects.
- ◆ Developed and implemented web based application to support management of Major Projects.
- ◆ Implemented web based geospatial customer support request system.
- ◆ Designed and developed NAIP Absolute control Inspection Process.
- ◆ Designed and developed Inspection process for vault data.



Provided Project Management for the following:

- * Provided project management and oversight for approximately 15 major projects including:
- * Provided project management and technical implementation of Web based Customer Order Entry System (COES) to allow both public and Federal customers the ability to order geospatial data on line.
- * Chaired Contingency Planning team in support of APFO's business requirements, inclusive of all branches.
- * Provided project management on behalf of Production for new Photo printer and imagery scanners.
- * Provided project management of VOIP system throughout APFO.
- * NAIP Status web site and web services
- * Redesign of Online Catalog
- * APFO Intranet site development
- * Geospatial Services legacy application conversion
- * Online Entry System
- * EarthWhere
- * Disaster Recovery
- * Designed and implemented NAS (Network Area Storage) solution to support new digital product on behalf of Forest Service.
- * Interface the Geospatial Data Gateway order processing with the APFO WOES applications.
- * Interface the Geospatial Data Gateway with APFO's Rimage CD/DVD writer.
- * Management of operations for the Geospatial Data Gateway media writing.
- * Catalog and Archive the CRP data set of .dbf files.
- * Modify the Geospatial Data Gateway system for the NAIP 2008 contract changes.
- * Replacement of legacy analog phone with VOIP system
- * Federal Desktop Core Configuration (FDCC) on behalf of APFO
- * Design and Purchase of 50TB additional storage to support "Globe" Strategy in support of FSA service centers use of NAIP



Data Management

- ◆ Data Management of Vault Index Scan submitted from Mapcon



- ◆ Data Management of Vault Film Exposure Scan submitted from USGS, and created by APFO.
- ◆ Consolidate NAIP DLT tapes to one storage location in the vault.
- ◆ Data Management of NAIP 2008 CCM and QQ's submitted by NAIP vendors.
- ◆ ESRI Image server data set creation for the GDW image services.
- ◆ Data Management modification to the NAIP 2008 contract.

Resource Data Gateway

- * Cataloged and managed 1,318 CCM Data sets or 15,816 individual files.
- * Cataloged and managed 2,771 CLU Data sets or 22,168 individual files.

GDW

- * Provided data management support to the GDW operations by cataloging and archiving 50,861 2006 1 and 2 meter NAIP quarter quadrangles.

EarthWhere Catalog

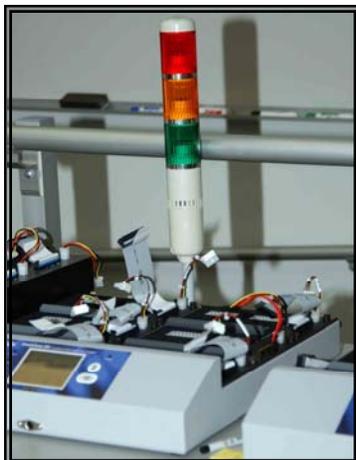
- * Cataloged 50,861 1 and 2 meter 2007 Quarter Quads (QQs) into the APFO Data Provisioning System.

Oracle Catalog

- * Cataloged and managed 1,587 2007 Compressed County Mosaics (CCM's) data sets into the Oracle catalog system (19,044 individual files).
- * Cataloged and managed 17,612 2007 Common Land Unit (CLU's) data set versions into the Oracle catalog system (140,896 individual files).
- * Cataloged and managed 68,124 2007 QQ's into the Oracle catalog system.



Media Delivery



- * Delivered over 148TB of MDOQ, NAIP imagery, and CLU shape files on various media types.
- * APFO Orders - 73TB
- * Gateway Orders - 75TB

Created Master Hard Drives (HDD's) for all Seasons of NAIP 1 meter Imagery

NAIP 2007 21 6 TB

GDW

- ◆ Completed reconciliation and loading of FY06 NY. All FY06 states have now been reconciled and loaded into the GDW.
- ◆ Completed migration of all FY06 NAIP 1m states to NCGC.
- ◆ Completed migration FY03, FY04, FY05 and FY06 NAIP QQ metadata to NCGC. All NAIP QQ metadata has now been migrated
- ◆ to NCGC for FY03, FY04, FY05 and FY06.
- ◆ Completed development of new data management procedures for FY07 NAIP data, utilizing new technologies and applications from ESRI.
- ◆ Completed deployment of all FY07 NAIP states via utilizing new data managements model.
- ◆ In close collaboration with FSA GIS Office, supported the replication of all county based CLU datasets for loading into the GDW.
- ◆ Deployed NAIP Film Search web application for use by Customer Service Section for use when searching for NAIP Film products within the APFO inventory of products.

Employee Training

- ◆ Microsoft TechNet Seminars
- ◆ Oracle Training and Conference
- ◆ ESRI Conference
- ◆ USDA IT Investment and Project Management Training
- ◆ ASPRS Conference
- ◆ Crystal Reports
- ◆ PC Troubleshooting Basic Course

Staff

Two contractors are on site from Computer Services Corporation (CSC) to assist APFO in steady state operations of the Geospatial Data Warehouse. Another contractor is onsite to provide support for web based applications in both business and Geospatial environments.

