Overview of Pictometry Oblique Imagery Project LAR-IAC 2/7/06

Schedule of Acquisition & Processing of Imagery Data

- Estimating over 600 flight hours to capture the planned groundspace for LA County
- Much of this time is spent in or near some of the most tightly controlled airspace in the U.S.
- ATC has planned for better access than previous project but can only handle a limited number of imaging aircraft at one time
- Expect to have county imaged by May 1 but airspace and weather factors may affect this

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Internal QA/QC Process

- Planning Phase
  - checks are made to ensure that the groundspace will be captured in a way that satisfies the customer image type assignments
  - Predictive image polygons are checked to make sure that the set of flight plans will produce full coverage of the intended area

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Internal QA/QC Process

- Planning Phase
  - Airspace restrictions are double-checked to be certain we are flying in the most effective patterns for minimizing interference with heavy air traffic zones
  - Elevation models are applied to check for completeness of coverage over varying ground levels, and that ground sample distance (GSD) is maintained for adherence to contract requirements

Internal QA/QC Process

- Capture Phase
  - capture software reads the flight plans and captures the images
  - A number of automatic quality checks are applied by the in-air system to identify and flag for re-capture any images that exceed parameters for errors that may cause the image to be unusable

Internal QA/QC Process

- Processing Phase
  - is where the most detailed image and geo data checks are performed
  - In-depth analysis of the quality and continuity of the geo data is performed prior to applying the data to the images
  - Image quality is checked in a variety of automated and manual steps

- Every image is checked for gross defects that would render the image unusable, and a more detailed check is performed on a subset of images, and on more during accuracy checks
- Image polygons are analyzed throughout the Processing stages and again as the final Image Library is assembled for shipment to the customer
- At every stage where copying or processing takes place, automated and manual integrity checks are performed to ensure that nothing gets missed, corrupted or deleted

Internal QA/QC Process

- Delivery Stage
  - Customer Support integrates the customer GIS data and checks it against the Image Library for correct operation and accuracy
  - A number of starter workspaces are created and tested to set the stage for successful use of the images and GIS data by the customer user community

- Customer Support also performs a number of checks on the images for complete coverage and proper licensing
- Pictometry always holds usability to a high standard. Due to the nature of oblique aerial imaging, artifacts such as lighting and the resultant color variation between images, cloud shadows, reflective glare from water and other smooth surfaces, etc. will occur

Acceptance Criteria

- Contained in Schedule A of Agreement
  - Scope of Services
  - Specifications and Requirements (page 6)

EFS Software Improvements

- Pictometry is constantly improving the features and functionality of our software and adding new applications and interfaces. Some of the recent improvements include:
  - Change Analysis to enable direct before and after comparisons of structures, developments, or areas damaged by disaster

Analysis of Pre and Post Storm Damage
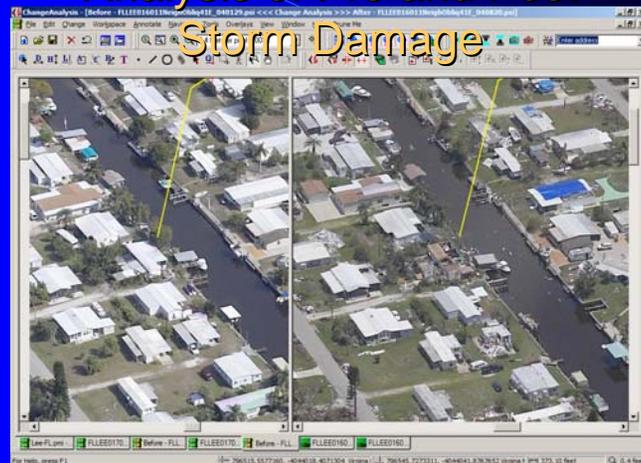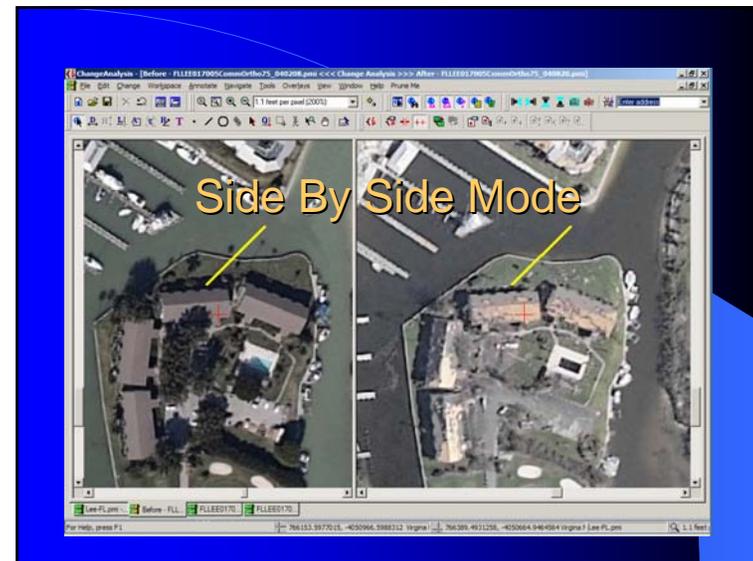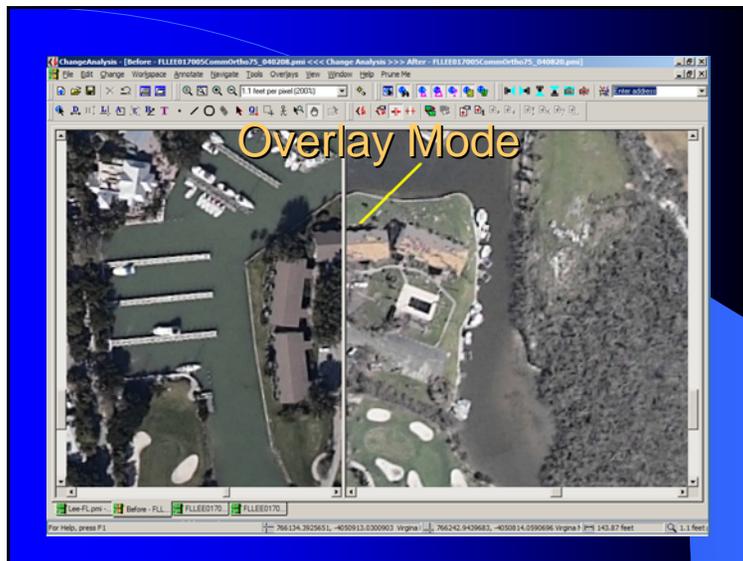
- Improved EFS interfacing with GIS applications such as ArcGIS, ArcIMS and others
- Enabling interfaces with 911 systems for better tools for dispatchers and other public safety workers
- Improved use of GIS data and better visualization tools (icons, etc.), and easier access to and switching between GIS layers during Query and Lookup functions

- Additional coordinate systems support
- A Configuration Editor to enable standardized and locked-down configurations of EFS for large-scale and multiple-user deployments
- Improved exporting functions for batch export of images and GIS data for use in other systems
- Measurement and other analysis tools have been improved, including showing measurements on images, enabling building façade area measurements, and more

Examples of LA Flight Plans

- See PDF of most controlled Class B Airspace
- Expect over 300 Flight Plans covering 4,000 square mile project area

Examples of New LA Imagery

- Images of Orange County are representative of new format
- Have shifted from portrait to landscape mode for more usable area of image
- Increased from 6 megapixel to 11 megapixel cameras

Delivery Plan

- Will work with LA County to determine staged shipment program and make multiple shipments as needed
- Delivery media options and pricing have been provided, NAS units have been very practical for large deliveries in the past
- ATC, weather, and pilot safety will determine partial coverage, not geography

Sub-Warehousing Extraction Software

- WarehouseLayoutBuilder is a utility that uses a list of sectors or a shapefile to create a copy of part of the county image library
- Will be provided to and used by IT Admin staff only, not intended for end-users

Questions?