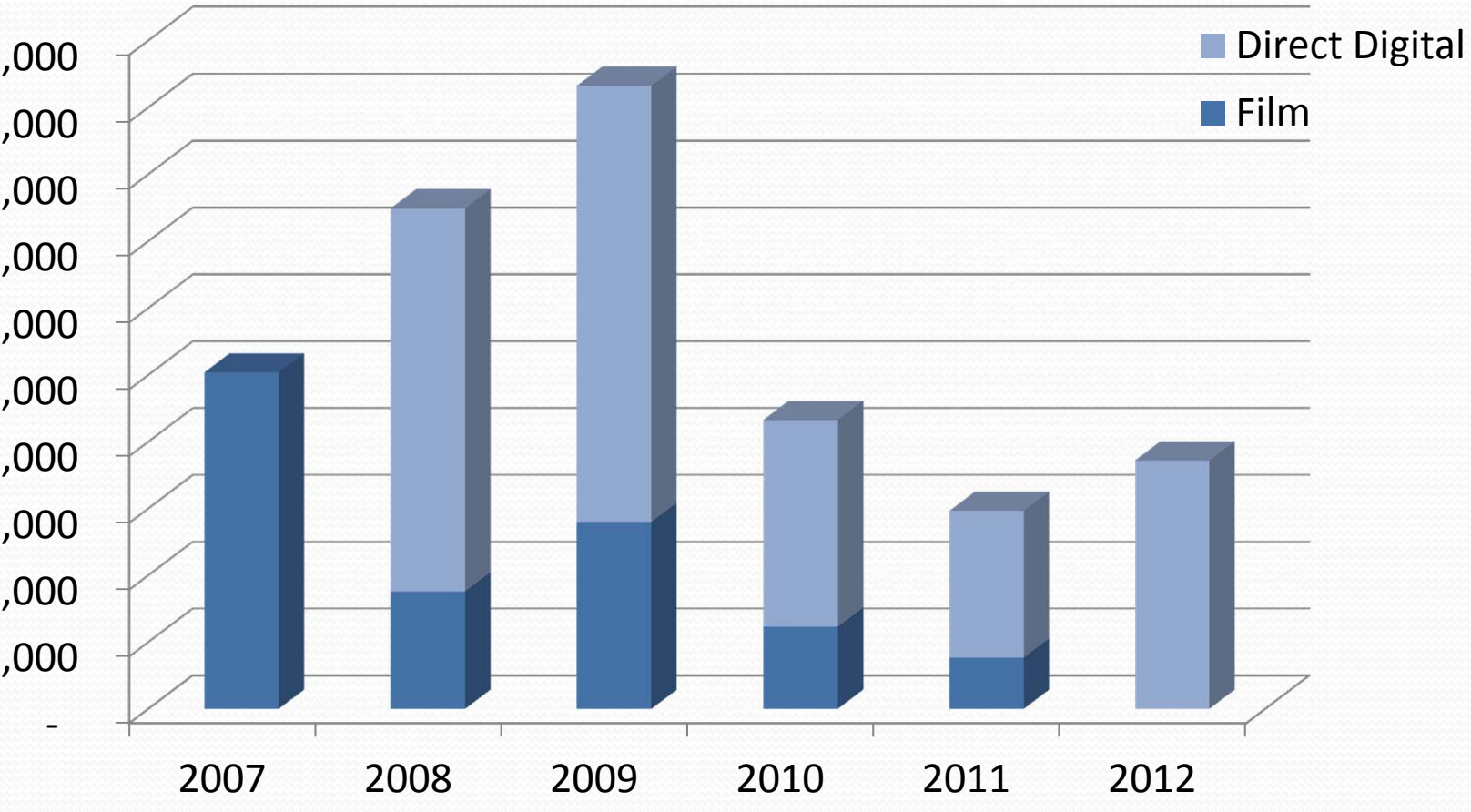
Resource Imagery Contracts

2 years & 3 months in.....

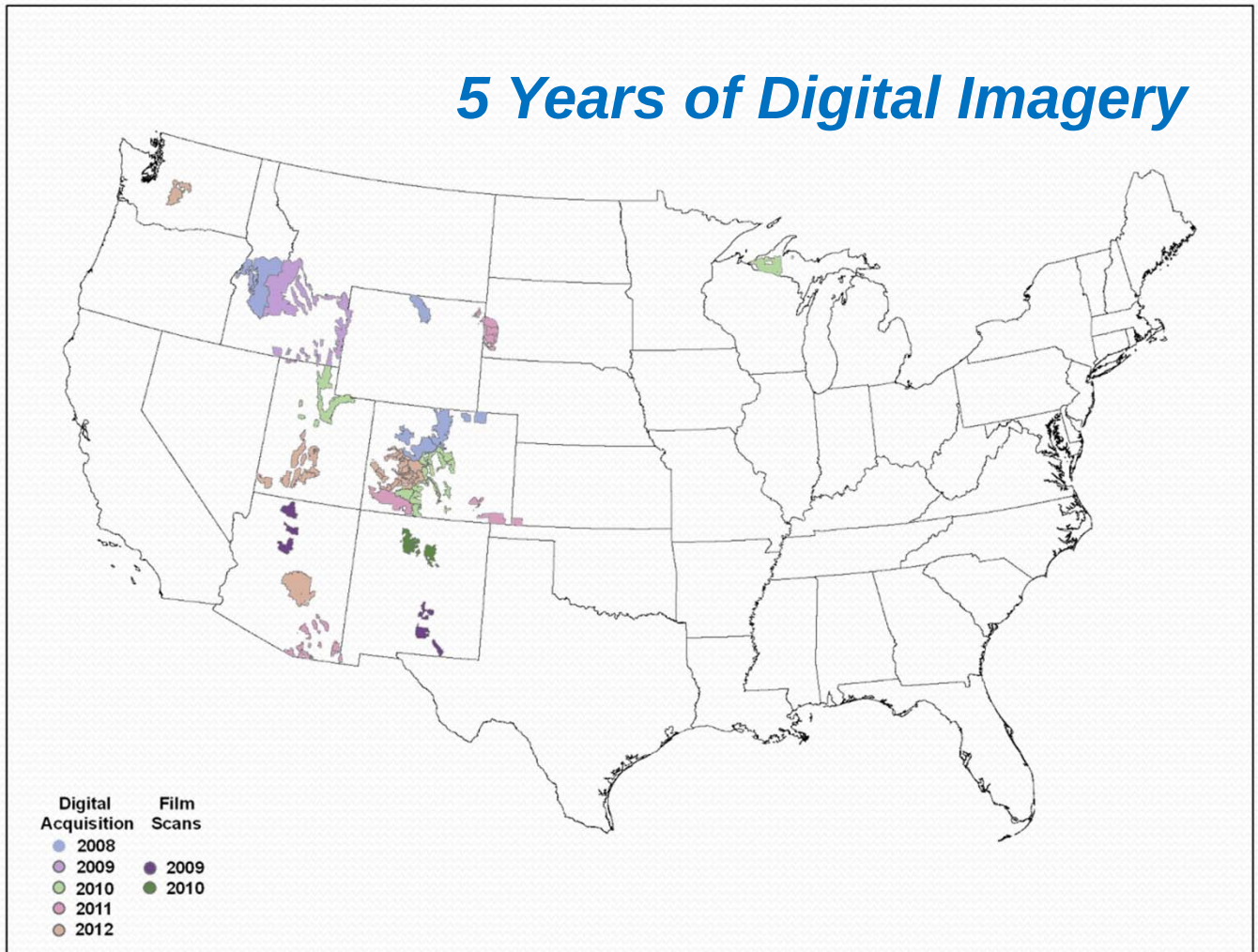
Gratitude and Appreciation!!!

Resource Contracts

(Square Miles)

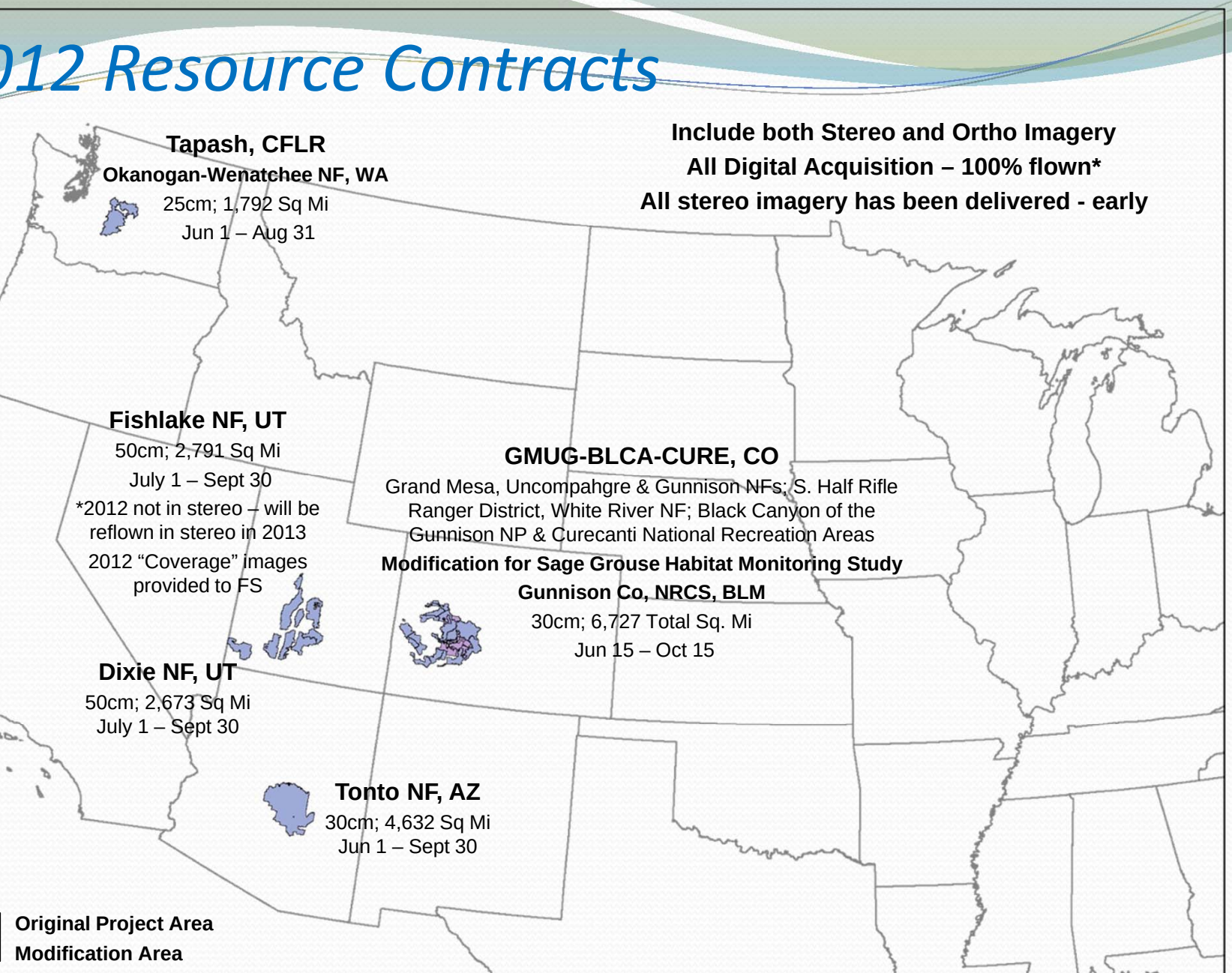


PFO-Contracted Digital Resource Imagery



012 Resource Contracts

Include both Stereo and Ortho Imagery
All Digital Acquisition – 100% flown*
All stereo imagery has been delivered - early



Tapash, CFLR
Okanogan-Wenatchee NF, WA
25cm; 1,792 Sq Mi
Jun 1 – Aug 31

Fishlake NF, UT
50cm; 2,791 Sq Mi
July 1 – Sept 30
*2012 not in stereo – will be reflown in stereo in 2013
2012 "Coverage" images provided to FS

GMUG-BLCA-CURE, CO
Grand Mesa, Uncompahgre & Gunnison NFs; S. Half Rifle Ranger District, White River NF; Black Canyon of the Gunnison NP & Curecanti National Recreation Areas
Modification for Sage Grouse Habitat Monitoring Study
Gunnison Co, NRCS, BLM
30cm; 6,727 Total Sq. Mi
Jun 15 – Oct 15

Dixie NF, UT
50cm; 2,673 Sq Mi
July 1 – Sept 30

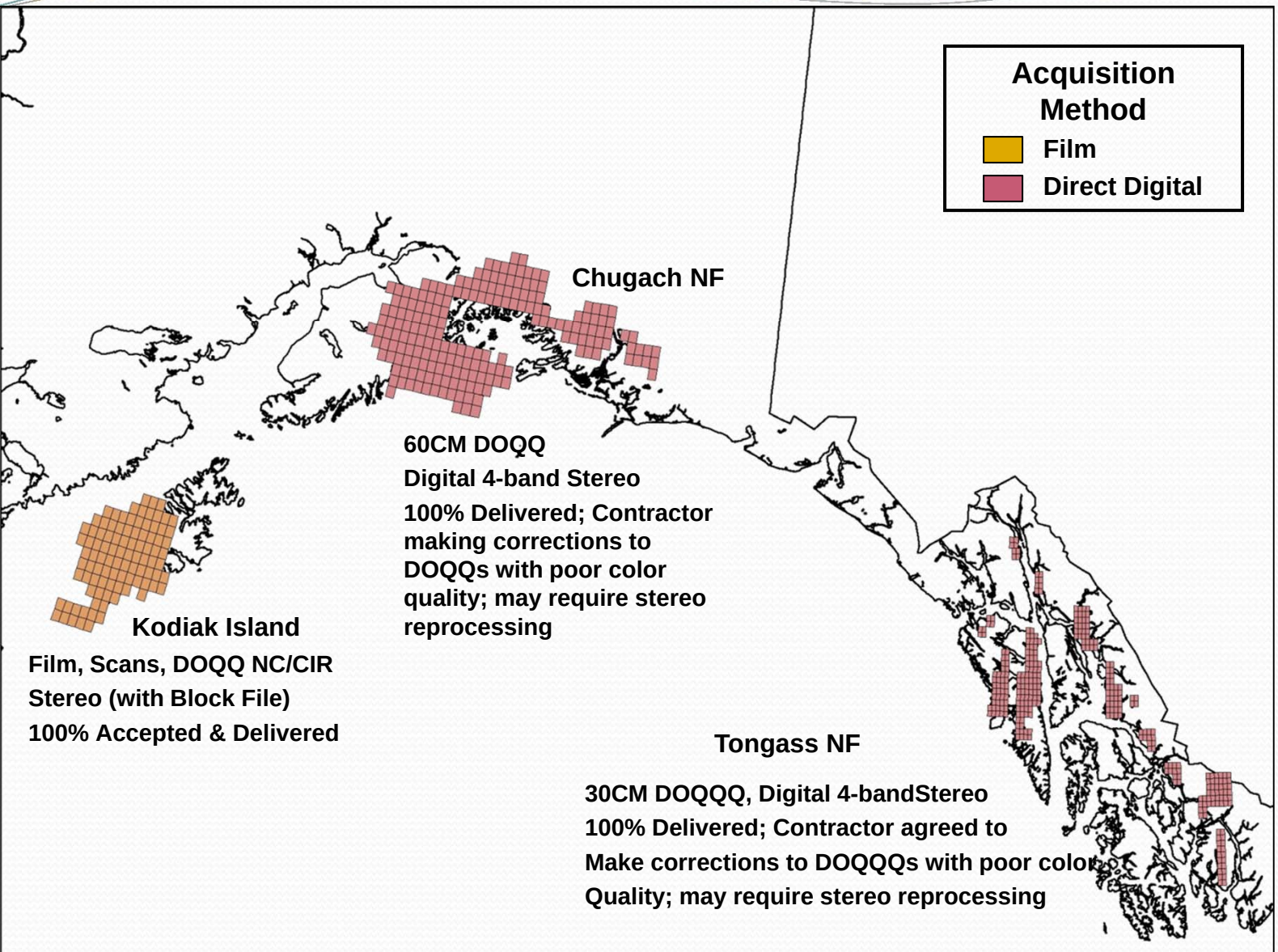
Tonto NF, AZ
30cm; 4,632 Sq Mi
Jun 1 – Sept 30

Original Project Area
Modification Area

012 Carry Over - Prior Year

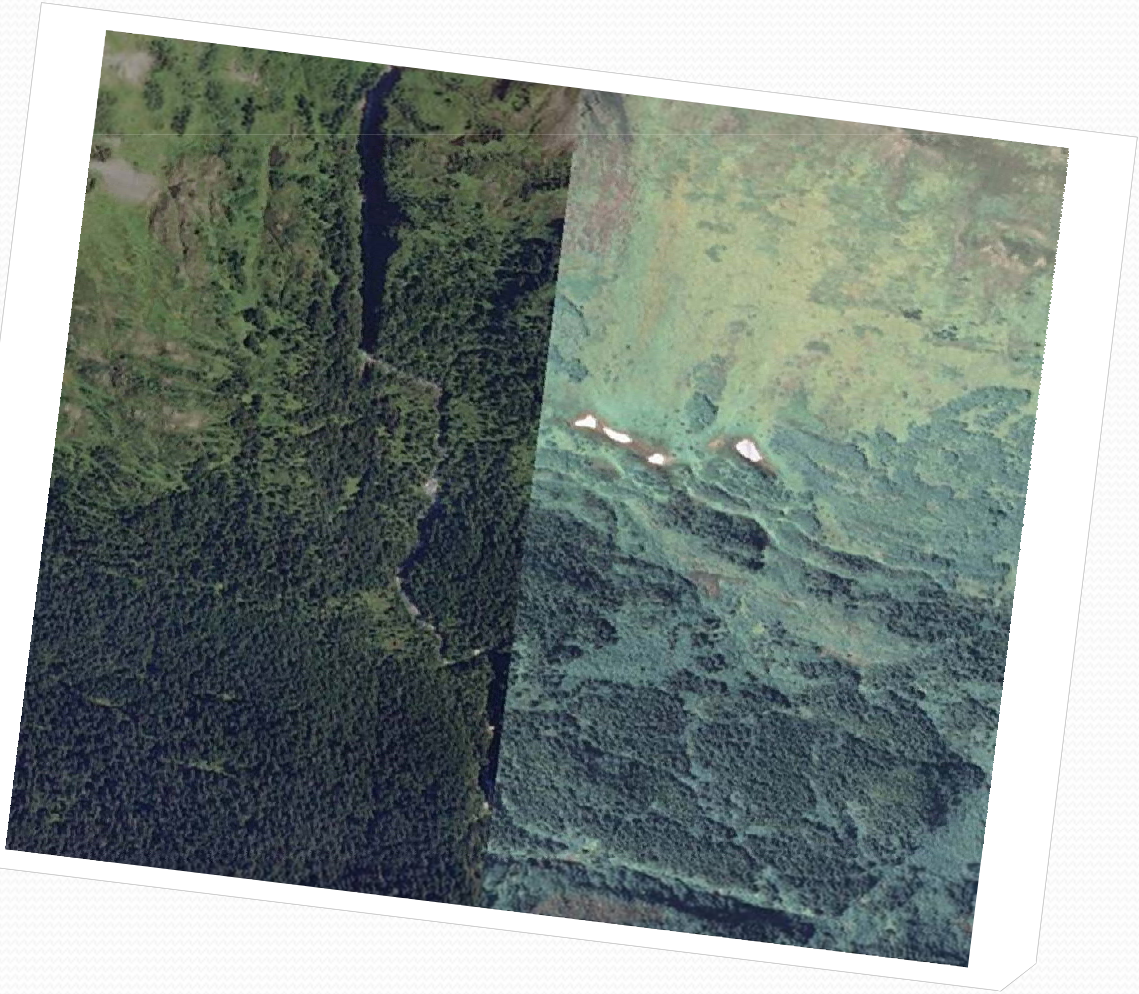
All Digital Acquisition

laska Resource Contracts

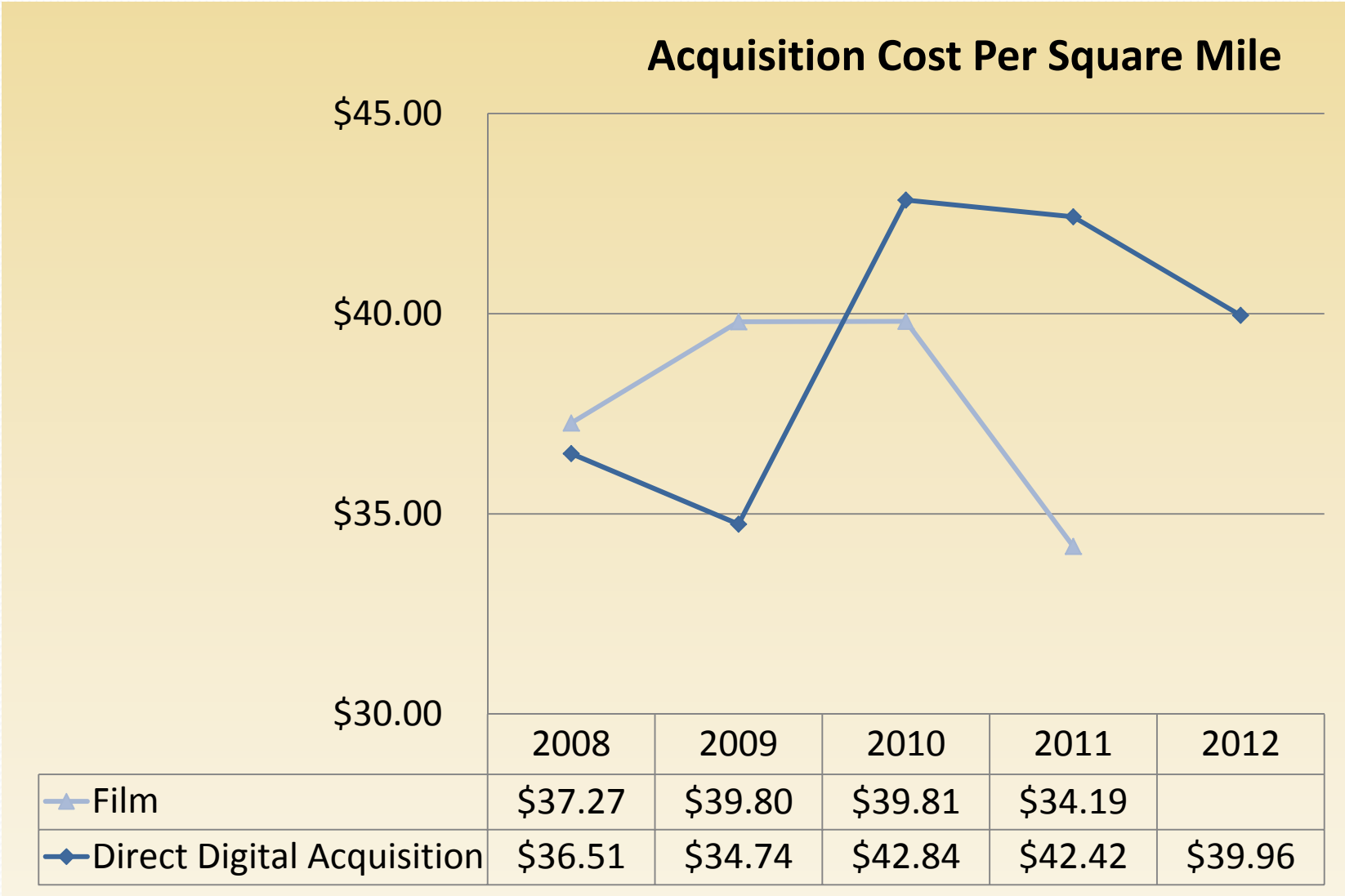


Teal Trees????

Alaska Imagery
eft: closer to
what it should
ook like
ight: “teal”
rees

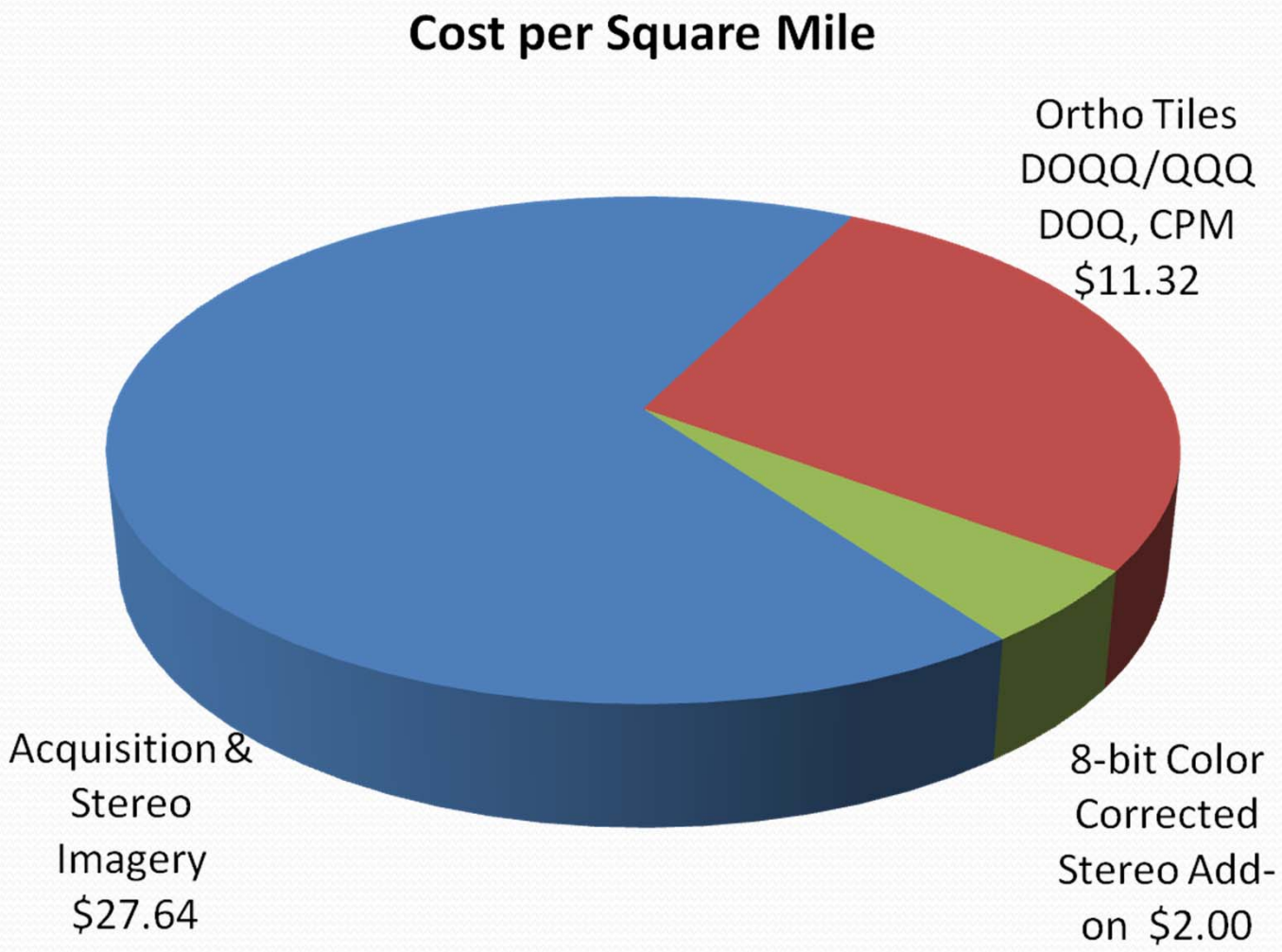


Film vs. Digital Acquisition Cost

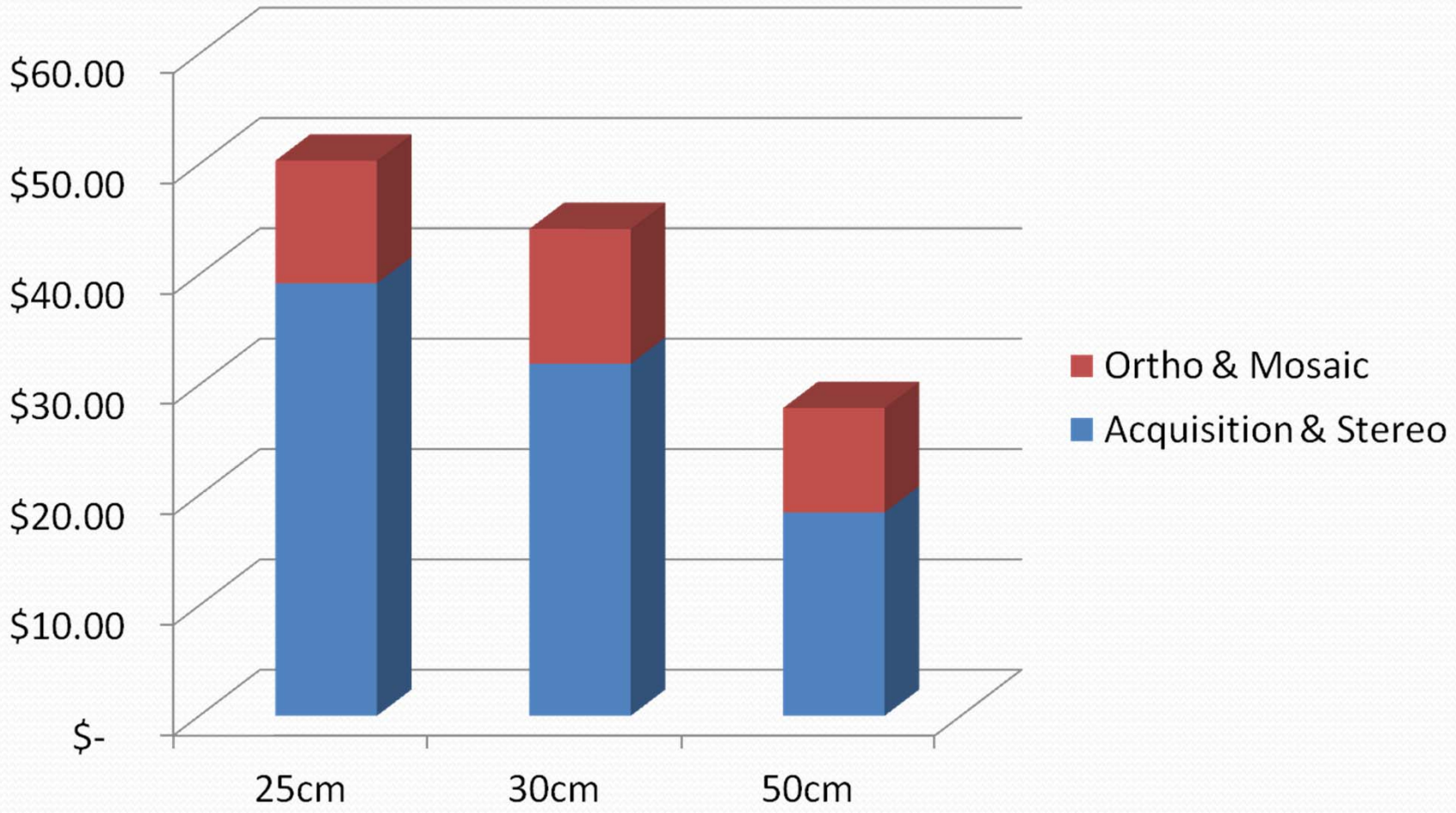


	2008	2009	2010	2011	2012
Film	$37.27	$39.80	$39.81	$34.19	
Direct Digital Acquisition	$36.51	$34.74	$42.84	$42.42	$39.96

2012 Digital Acquisition Cost

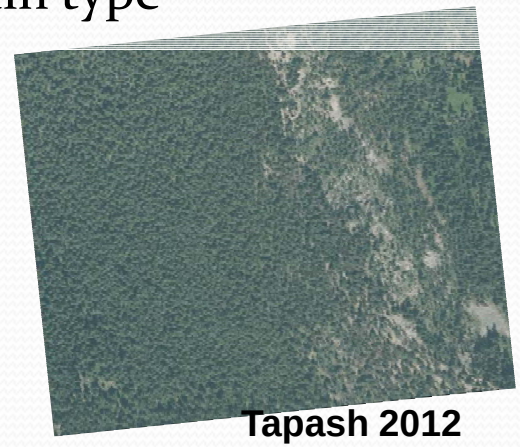


2012 Cost per Square Mile by Resolution



2012 Deliverables & Specifications

- 8-bit Color Corrected Stereo Imagery on all projects
  - Panchromatic Band for test area on Tapash
- DOQQQ (8-bit & 16-bit) and DOQQ in 8-bit
  - Seamline specification
    - Objective: reduce/eliminate seamline blur in trees
    - Proposals addressed new spec. and proposed automated seamlines w/manual review and adjustment
  - Project-wide color balancing
  - APFO renaming orthos to Ohio Index (i.e. B748120_sw_2)
- DOQ & CPM in 4 band .ecw
- Pre-production samples each product & terrain type
- Project Geodatabase
  - Feature classes:
    - Photo Center Point
    - Image Footprint Polygon
    - Orthorectified Image Index
    - Flight Line
    - Seamline
- One-year warranty included in RFP



Tapash 2012

012 Discoveries

- ADS-80/40 Strip Imagery for Stereo
  - James Monty w/Ontario Ministry of Forestry
  - Proper files & instructions for stereo viewing (included in white paper)
  - 100% overlap for prints
    - One ADS contractor proposed using shapefiles to cut imagery into frames meeting endlap requirements
- Color corrected imagery viewing
  - Either min/max or None selected in histogram stretch to view image as produced
  - Stretch or adjust brightness/contrast for enhanced viewing

o Stretch….or Not to Stretch

8-bit color corrected image viewed with None selected

8-bit color corrected image with 2 standard deviation

o Consider for 2013…

- rocurement Vehicle
  - IDIQ advantages & disadvantages
- ource Selection
  - Evaluation criteria
    - Refine criteria & priorities
  - Weights
  - Best value determination
- SAC Image Server for 8-bit Ortho Tiles?
- rcGIS 10 implemented by FS during 2012
  - APFO implementing 10.1 _____?
  - Stereo Analyst for 10.1 is coming _____?
  - Looking at Envi (sp?) for 3D viewing?

otential Changes for Discussion

Identify “ideal” flying season?

- Continue to include full range to keep costs low

Snow ok “above timberline” – new vs. old

Metadata in .xml format rather than .met for ArcGIS 10

- Do we need both?

Geodatabase – image footprint polygon feature class part of the flight plan feature data set?

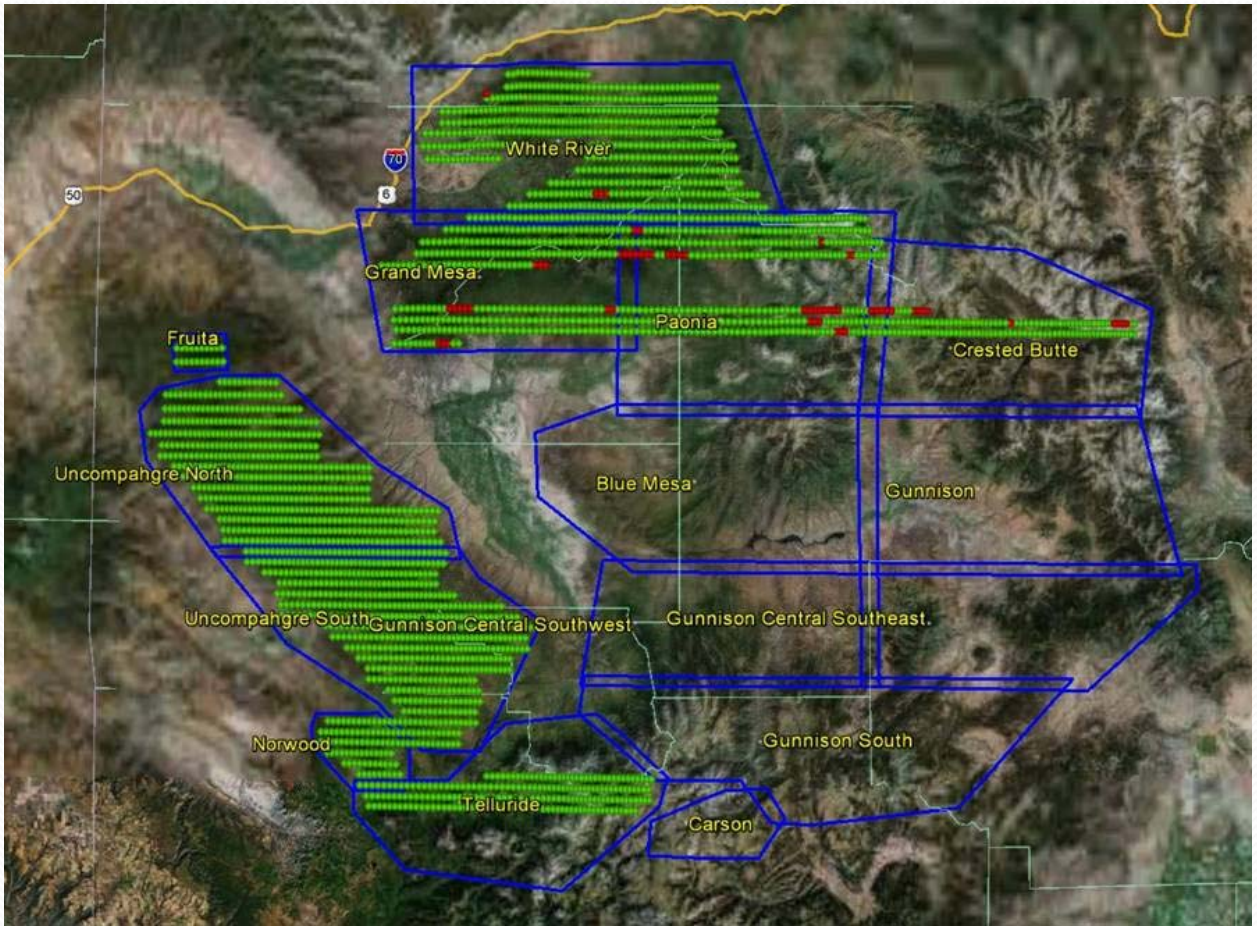
Include option for Auto Correlation data?

- Raw would be low cost from contractor
- Manually adjusted – would require labor & higher cost
- Briefly discussed for GMUG

Managing 3D

Stereo Block Files

- Contractor difficulty in generating a file that works upon load (software)
  - Consider ISAT and related files as option along with .blk & .prj
- Zooming in and maintaining stereo
- Stripping Geotiff header tags
  - No longer an issue with ArcGIS 10
- Define image reference to reduce number of images per block file
  - File for each AT block?
  - Ideal size
    - 1000 – 1500 images still too many?
  - Consider ISAT and related files along with .blk & .prj?

tereo Block File Configuration

GMUG – 15 blocks. Required duplicate images to ensure full stereo coverage of overlapping blocks