

2012 NAIP SEASON

Texas, North Dakota, Nebraska,
Wyoming, Oregon, California,
Kansas

North West Group

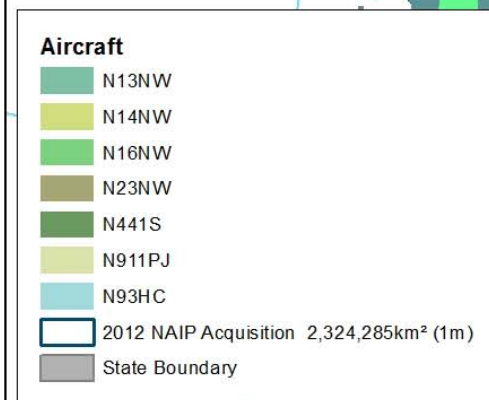
Team

- North West:
 - Contract management
 - Project management
 - Acquisition
 - 4 Cessna Conquests
 - 6 ADS80's
 - Data QC
 - Data archival
 - Processing
 - Delivery
 - Warranty fulfillment
- Fugro Horizons:
 - Acquisition
 - 3 Cessna Conquests
 - 3 ADS80's
 - Data QC

Data Acquisition (summary)

- 60,439 DOQQ's
- 297 flights over 105 suitable weather days
- April 23rd to Sept 17th
- Season extensions:
 - OR Season 1 (Snow)
 - TX Season 2 and Season 3 (Weather)
 - WY (Forest fires)
- Flown at 32,000 ft AGL (RVSM airspace)

2012 NAIP Aircraft Utilization



Data Processing

- Improved automation over 2011 season:
 - Automated accuracy analysis that combines the sensor orientation and DEM to predict final product accuracies:
 - Where orientation an issue more involved AT performed
 - Where DEM an issue generate DEM patch
 - Moved to internal radiometric/mosaic process:
 - Worked well in CA, KS, NE, ND, OR
 - Issues in TX due to multiple seasons and large variation in terrain
 - Where we can process entire state at once optimal results

Problems?

Bad

- Issues with over-flights into Mexico
- Forest fires in Wyoming
- Some DEM issues

Good

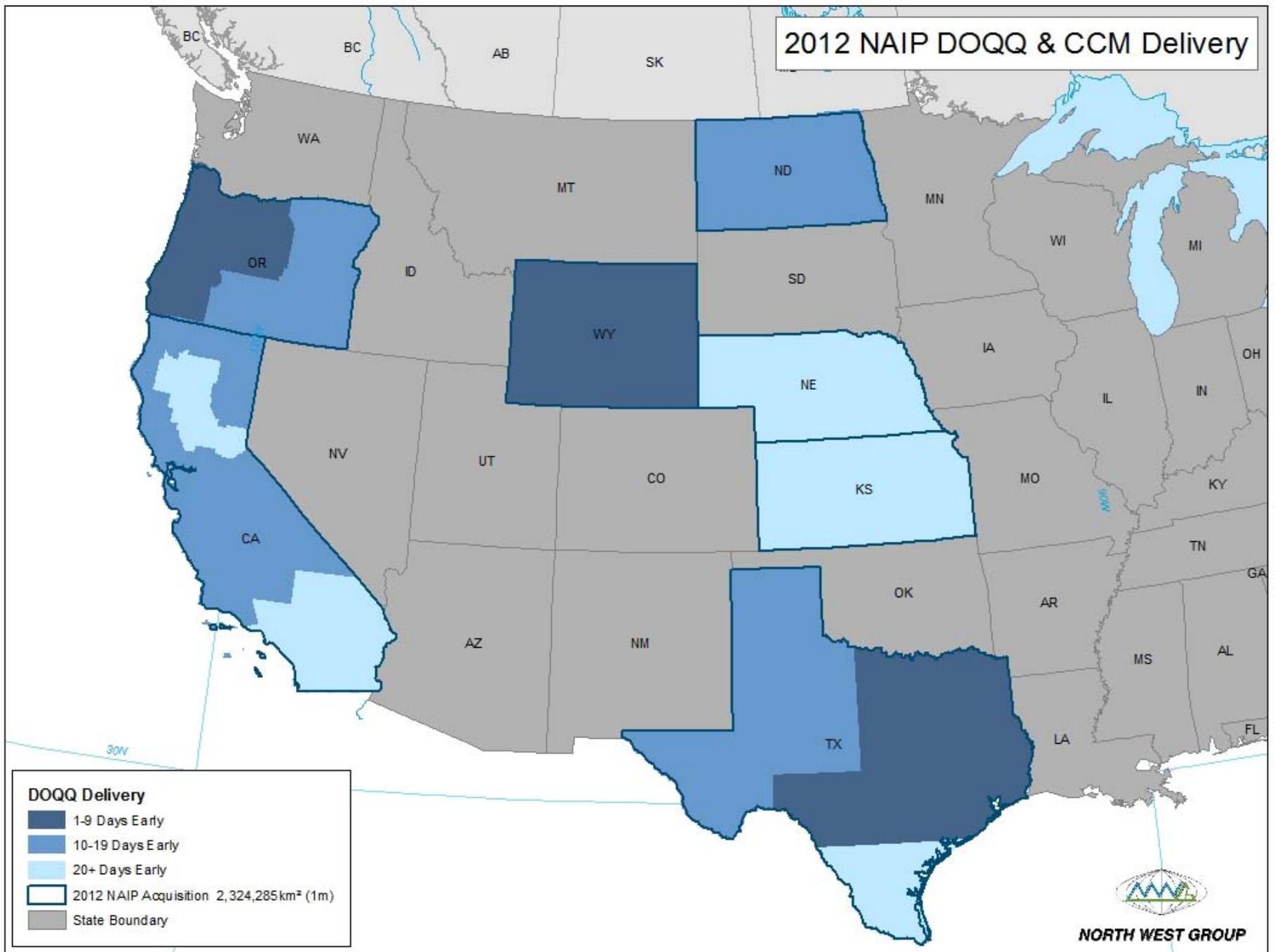
- CCM delivery on hard drives
- Bi-monthly status calls
- Automated accuracy QC
- Better mosaic process

DEM

- For 2012 we ran a new automated process to predict final product accuracy
- This worked to find and address several DEM issues...
- But, some of the problems can't be automatically detected
- With 0.5m the DEM will become much more critical



2012 NAIP DOQQ & CCM Delivery



QC Results (preliminary)

State	Total DOQQ	Warranty claims (DOQQ)	Defects %
CA	11,095	14	0.13%
KS	5,902	0	0.00%
ND	5,712	N/A	
NE	5,627	1	0.02%
OR	7,473	12	0.16%
TX	17,273	N/A	
WY	7,357	N/A	
Total	60,439	27	0.04%

Program improvements for 2013?

- New ADS100 sensor:
 - Improved coverage performance: cost savings
- Delivery schedule could be accelerated:
 - Per county 30 days *after* acquisition complete?

Questions?

- For more info please contact:

John Welter (john.welter@nwgeo.com)

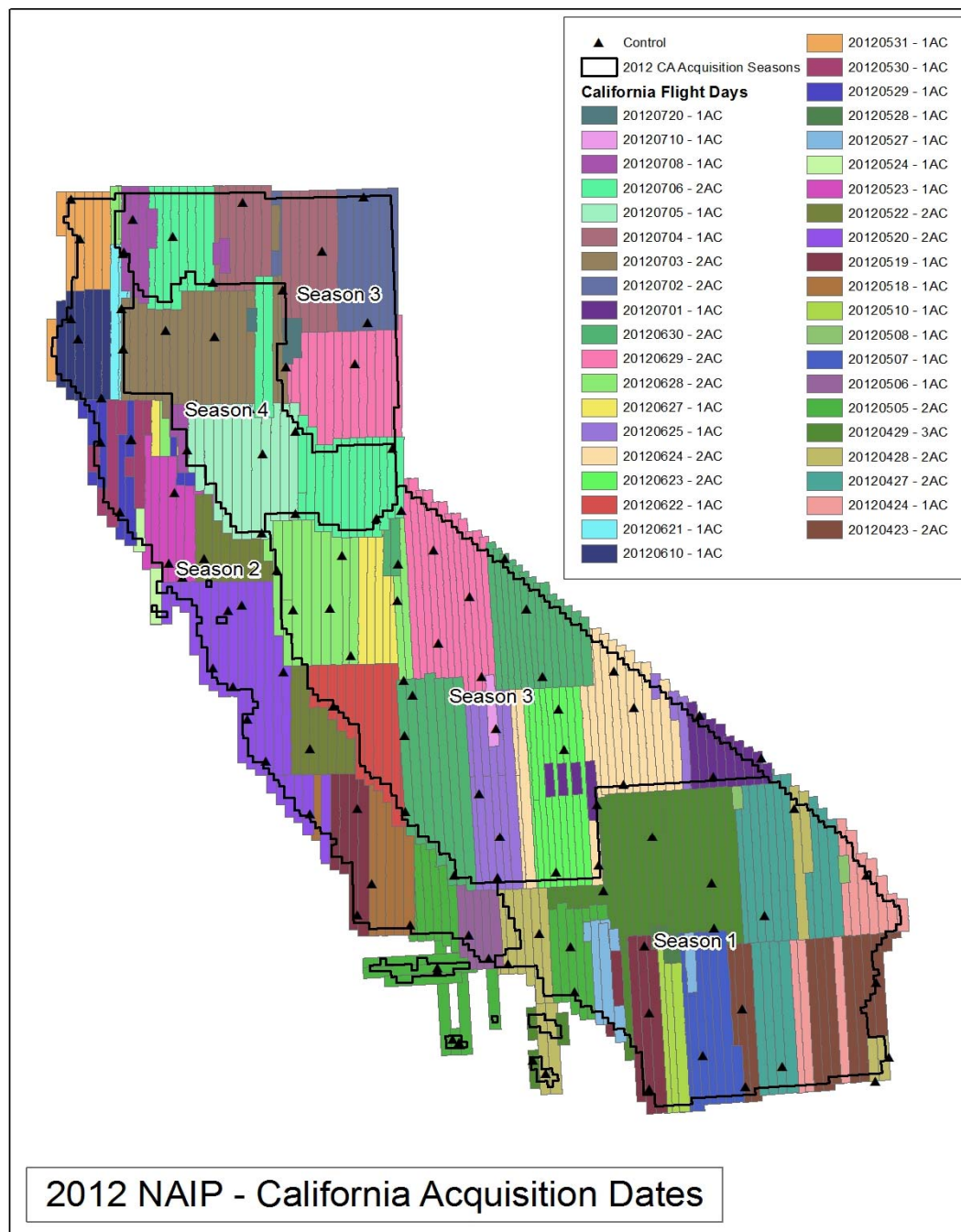
Tim Crago (tim.crago@nwgeo.com)

- Thanks for your time!

Detailed information per state

California

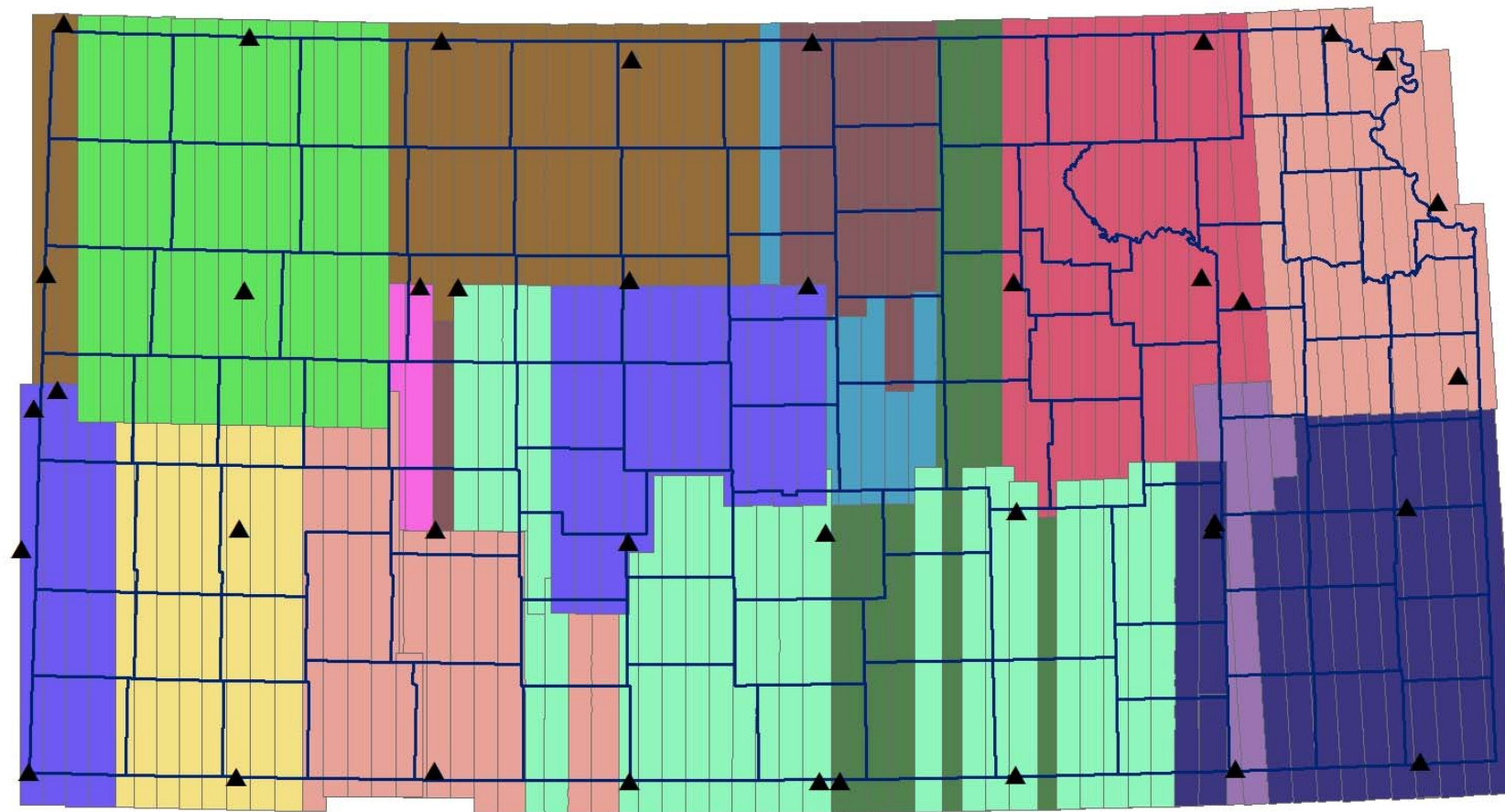
- CCMs – 58
- DOQQs – 11,095
- Acquisition Window
 - Season 1: April 15th – May 31st
 - Season 2: June 1st – June 30th
 - Season 3: June 21st – July 31st
 - Season 4: July 7th – August 7th
- No extension required
- First/Last Flight Date
 - April 23rd – July 20th
- Delivery Dates
 - 15-22 Days early



Kansas

- CCMs – 105
- DOQQs – 5,902
- Acquisition Window
 - Season 1: June 15th – August 7th
 - Season 2: July 1st – September 1st
- No extension required
- First/Last Flight Date
 - June 5th – June 24th
- Delivery Dates
 - 64-89 Days early

2012 NAIP - Kansas Acquisition Dates



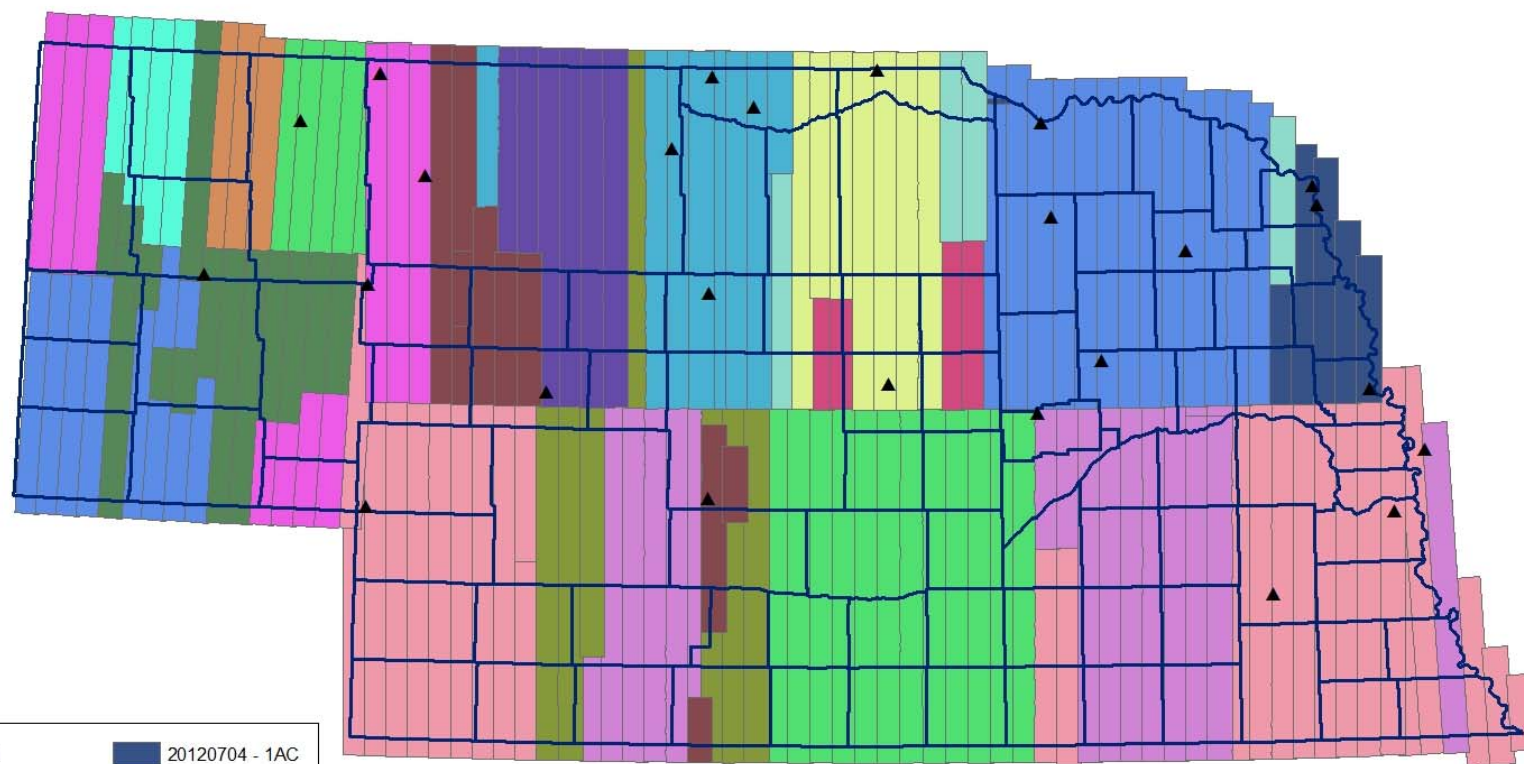
Kansas Flight Dates

20120605- 1AC	20120610- 1AC	20120619- 2AC
20120606- 1AC	20120611- 1AC	20120622- 1AC
20120608- 1AC	20120613- 1AC	20120623- 1AC
20120609- 2AC	20120617- 2AC	20120624- 1AC
	20120618- 2AC	▲ Control
		□ County Boundary

Nebraska

- CCMs – 93
- DOQQs – 5,627
- Acquisition Window
 - Season 1: July 1st – August 31st
- No extension required
- First/Last Flight Date
 - June 21st – July 14th
- Delivery Dates
 - 63 Days early

2012 NAIP - Nebraska Acquisition Dates



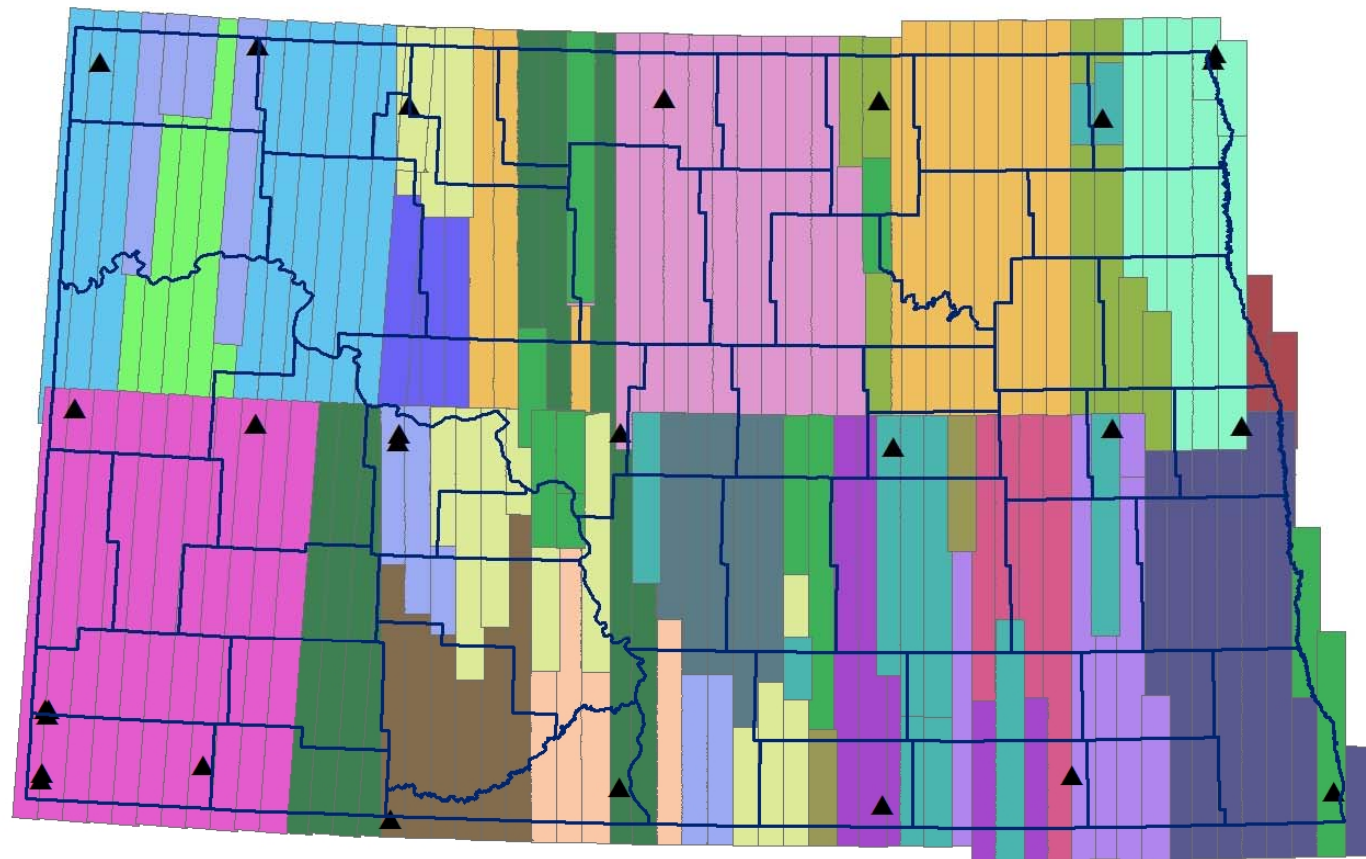
North Dakota

- CCMs – 53
- DOQQs – 5,712
- Acquisition Window
 - Season 1: June 20th – August 20th
- No extension required
- First/Last Flight Date
 - June 25th – August 13th
- Delivery Dates
 - 17 Days early

2012 NAIP - North Dakota Acquisition Dates

North Dakota Flight Dates

- 20120625- 1AC
- 20120626- 1AC
- 20120627- 1AC
- 20120628- 1AC
- 20120629- 1AC
- 20120701- 1AC
- 20120704- 1AC
- 20120705- 1AC
- 20120707- 1AC
- 20120708- 1AC
- 20120709- 1AC
- 20120710- 1AC
- 20120713- 1AC
- 20120714- 1AC
- 20120718- 1AC
- 20120719- 1AC
- 20120720- 1AC
- 20120722- 1AC
- 20120725- 1AC
- 20120727- 1AC
- 20120729- 1AC
- 20120730- 1AC
- 20120731- 1AC
- 20120813- 1AC
- County Boundary
- Control



Oregon

- CCMs – 36
- DOQQs – 7,473
- Acquisition Window
 - Season 1: June 1st – July 15th
 - Season 2: July 7th – August 15th
- Extensions
 - Season 1: 2 extensions, 2 weeks each due to snow
 - Season 2: No extension required
- First/Last Flight Date
 - June 10th – August 4th
- Delivery Dates
 - 1-16 Days early

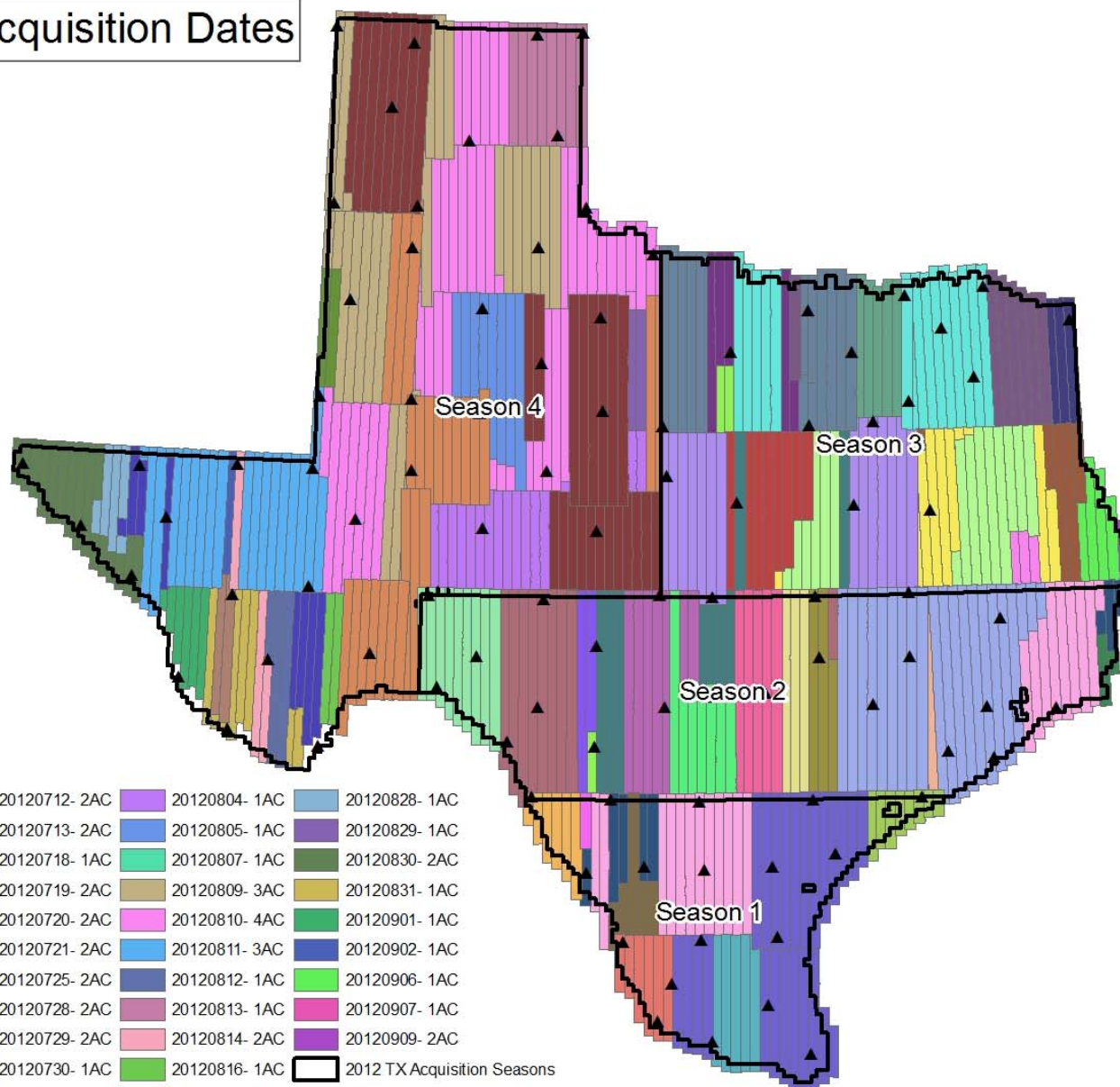
2012 NAIP - Oregon Acquisition Dates



Texas

- CCMs – 254
- DOQQs – 17,277
- Acquisition Window
 - Season 1: April 15th – June 15th
 - Season 2: June 1st – July 31st
 - Season 3: July 1st – August 31st
 - Season 4: August 1st – September 30th
- Extensions
 - Season 1: No extension required
 - Season 2: 2 extensions, 2 weeks each due to weather
 - Season 3: 1 extension, 2 weeks due to weather
 - Season 4: No extension required
- First/Last Flight Date
 - April 23rd – September 17th
- Delivery Dates
 - 2-20 Days early

2012 NAIP - Texas Acquisition Dates



Wyoming

- CCMs – 23
- DOQQs – 7,357
- Acquisition Window
 - Season 1: July 1st – August 15th
- Extensions
 - 1 extension, 2 weeks due to weather (forest fires a factor in delay)
- First/Last Flight Date
 - June 21st – August 18th
- Delivery Dates
 - 3 Days early

2012 NAIP - Wyoming Acquisition Dates

