



# **Surdex Team**

## **2007 NAIP Post Season Summary**

**27 November, 2007**

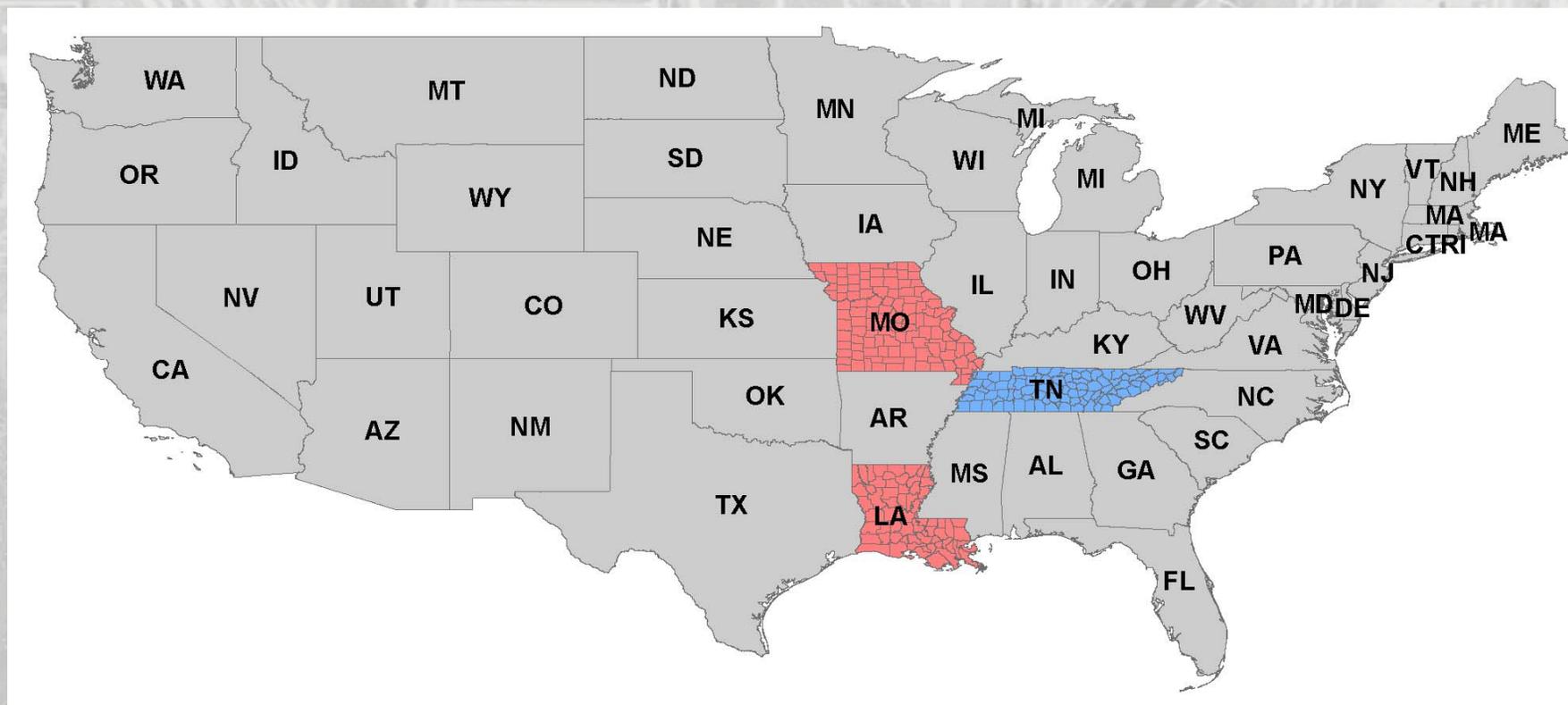
**Craig Molander, SVP Business Development**  
**John Boeding, SVP Production/Operations**



# Team Project Areas



- 3 complete states – all 1m natural color
- Tennessee – digital (DMC)
- Missouri & Louisiana – film





# 2007 NAIP Notes



- Due to decreased workload in 2007 stemming from budget issues:
  - No subcontractors used
  - After initial award, Surdex's request was granted by the government to convert LA from digital to film
  - Excess digital (DMC) capacity was used to pursue other work
  - More time spent improving processing and software environment for the future



# Aerial Photography



- All turbine aircraft
  - Cessna Conquests at 30K' AGL
  - Rockwell TurboCommander at 25K' AGL
- All custom flight plans
- TN flown east-west @ 40% sidelap
- MO, LA flown north-south @ 30% sidelap

	Sq Mi	DOQQs	Counties	Exp	FLM	Acq
LA	51,924	3,253	64	3,950	10,142	Film
MO	73,299	5,012	114	4,730	13,028	Film
TN	44,090	2,916	95	6,656	9,839	Digital
	169,313	11,181	273	15,336	33,009	



# Acquisition Performance



- 100% acquired despite weather and decreased acquisition window in MO (2 weeks less in 2007)
- Extensions in each state – very few exposures remained in each case
- Flight Line Miles (FLM) by state and aircraft

	LA	MO	TN	Total
TurboCmdr	6,174 60.8%	2,756 21.1%		8,930 27.0%
Conquest 1			7,205 73.3%	7,205 21.8%
Conquest 2	3,969 39.2%	10,270 78.9%	2,635 26.7%	16,874 51.2%
	10,143	13,026	9,840	33,009



# New Implementations



- One more DMC added in 2007 for a total of three prior to awards
  - Only two DMCs used for NAIP
  - Intergraph agreed to stock a complete “hot spare” DMC for NAIP season
- RVSM utilized for Conquest aircraft for first time
- East-west flight planning and acquisition (TN) using 40% sidelap (as per Best Practices document)
- Histogram-based image metrics
  - As per specification and additional metrics from Best Practices document)
  - Retained in database



# New Implementations



- \$500K investment in processing and storage prior to awards
  - 14 quad-core processors
  - Additional 80TB added
- Implemented distributed processing (within the Surdex environment) of DMC post-processing
- Nearly fully automated digital dodging/colorimetry
  - Reduces subjectivity and operator interaction
  - Can eliminate the preliminary inspection of data prior to post-processing



# Forecast for 2008 NAIP



- Surdex team capacity can increase over 2006 program levels (55,000+ DOQQs) with a heavier mix of digital acquisition
- Nearly exclusive use of turbine aircraft to ensure performance and boost acquisition productivity
- Increasing fuel and insurance costs will result in increased unit pricing
- New, mandatory inspections and maintenance for Cessna series aircraft (specifically Conquests) will increase cost in 2008



# Forecast for 2008 NAIP



- Surdex advocates the use of absolute accuracy to increase the attractiveness and fidelity of the program for partners
  - Provided ground control provided by the government
  - The elevation model poses the largest share of the accuracy budget
- Poised for 4-band product processing due to similar work on other contracts
- Delivery of seamline files will slightly increase price
  - Not normally saved
  - Requirement to generalize the polygons needs to be re-examined or clarified



# Closing Comments



**GO #1 MIZZOU !!!**

**BEAT OKLAHOMA !!!**