



National Geospatial Program Office

# *Status of USGS Orthoimagery and Elevation Programs*

*FALL 2008 NDOP*

# USGS National Orthoimagery Program

## Past 2-3 years

- **Period of transition and instability**
- **High-resolution requirement supporting**
  - NGA Urban Areas Program
    - Emergency/Security operations
  - State Programs
- **1- meter requirements supporting**
  - State programs – mixed leaf-on/leaf-off
  - NAIP – OMB 5-year agreement for 11 Western States
- **Seamless maintenance**

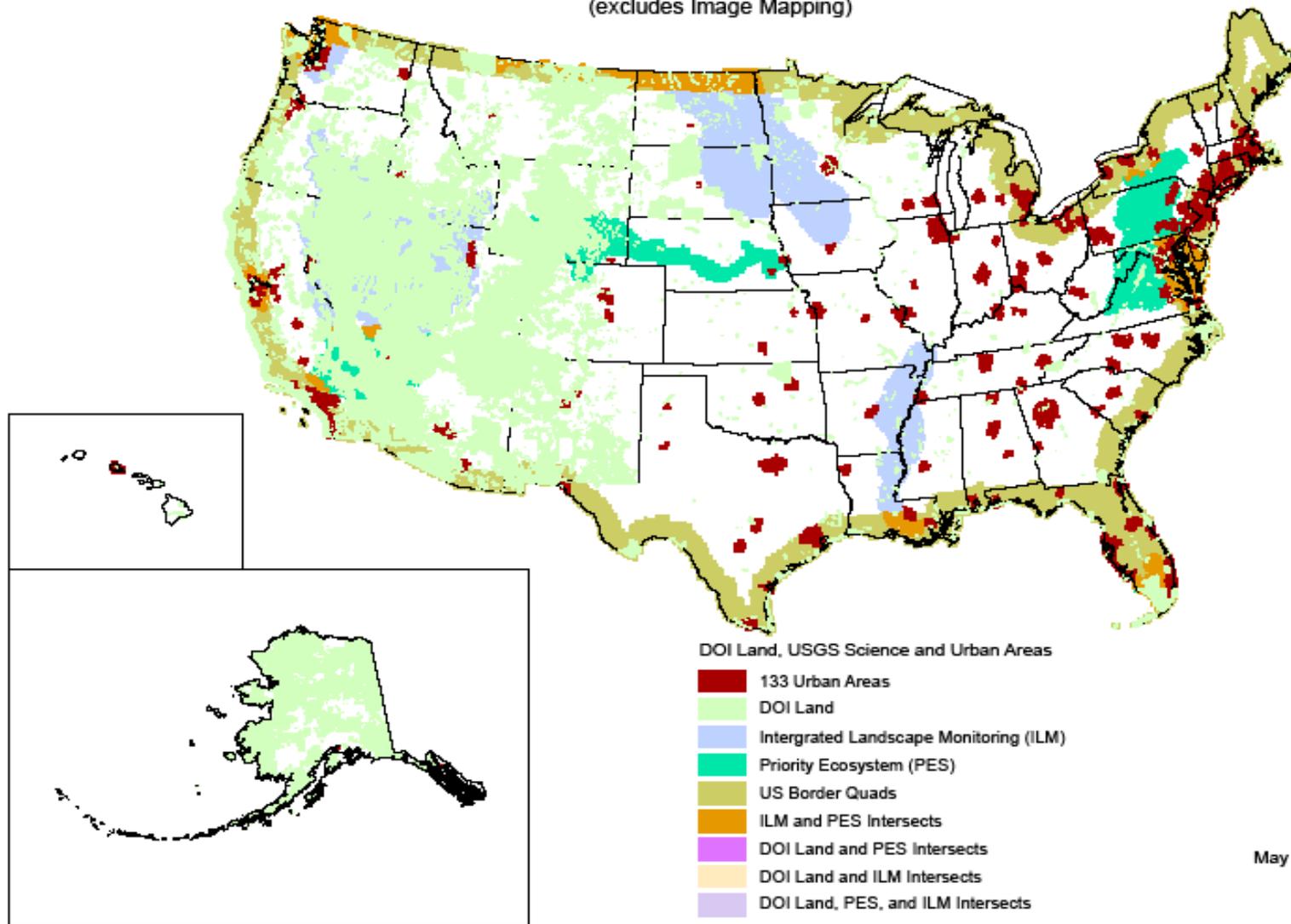
# USGS National Orthoimagery Program

## Current program requirements

- 1-meter Orthoimagery
  - Support Graphic program products
  - NGP Priority areas
  - DOI and USGS Science Areas
  - Maintaining the USGS Orthoimagery data set
  - IFTN
- 1-ft Orthoimagery
  - Urban Areas Program
  - IFTN
  - NGA US/Canada/Mexico Border project
- Operational Support for both

# Priority Areas For FY09 Program of Work - DRAFT

(excludes Image Mapping)



May 22, 2008

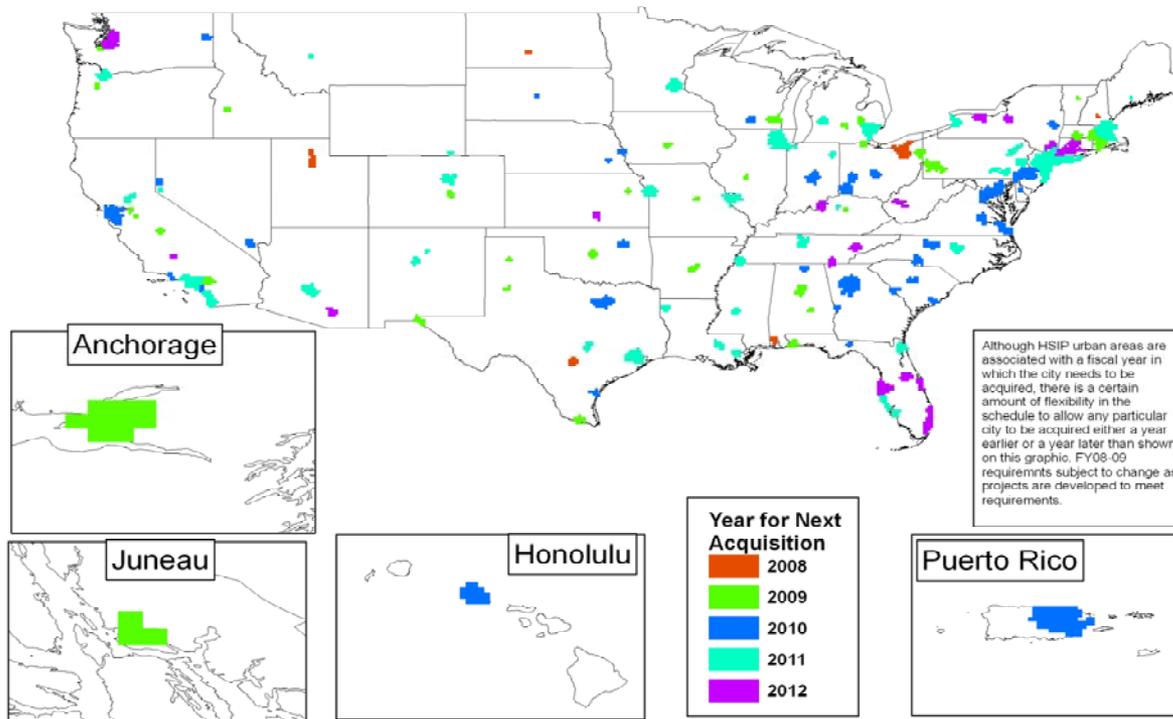
# USGS National Orthoimagery Program



NATIONAL GEOSPATIAL-INTELLIGENCE AGENCY

UNCLASSIFIED

## FY08-12 High Resolution Imagery Requirements -- 1 April 2008



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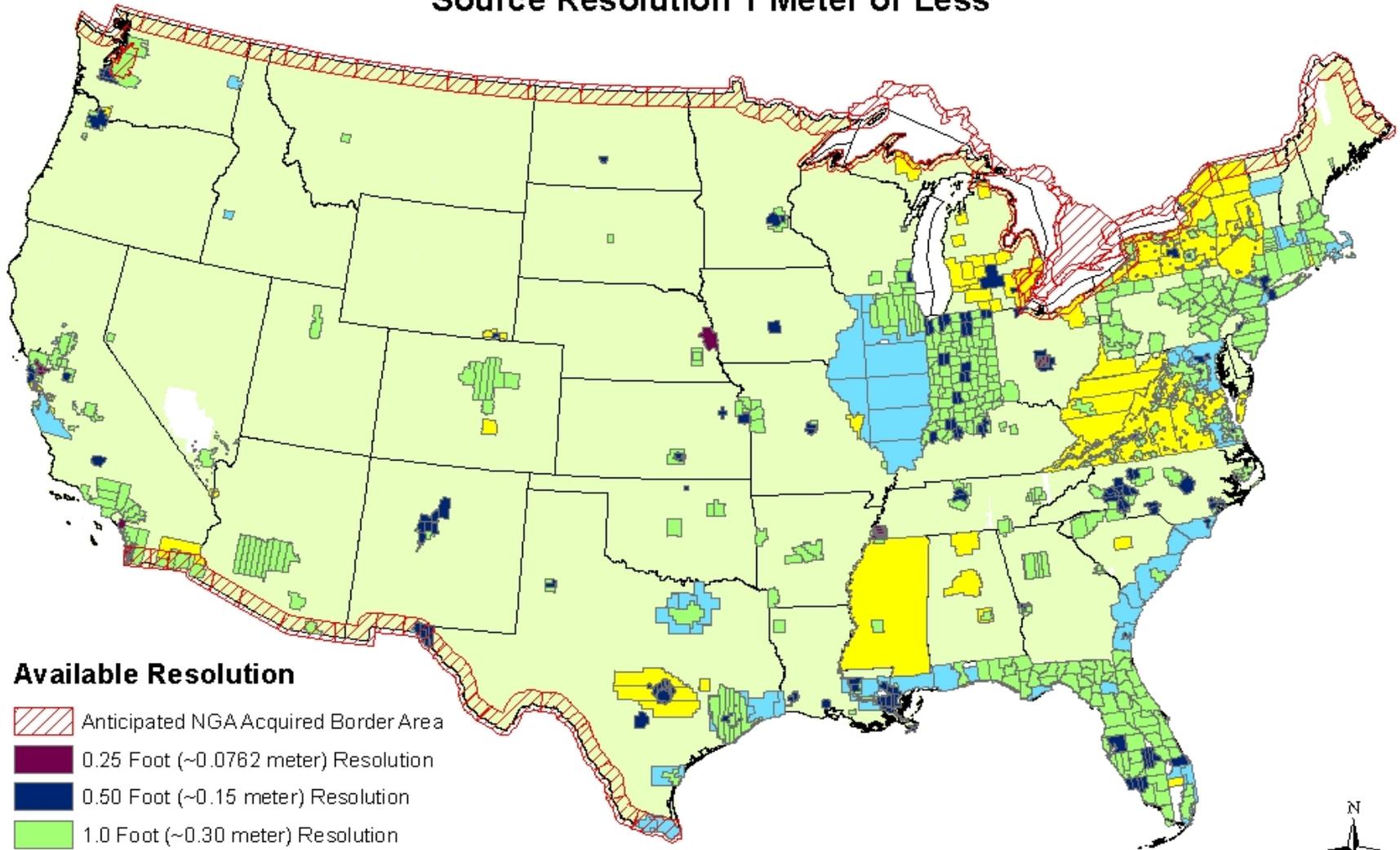
THE UNITED STATES OF AMERICA



# FY 2008 OI Acquisitions of Note

- 239,470.5 sq miles or 7.94% added in 2008 over conterminous US
- Boston, MA UA
  - 29 separate partnerships on GPSC
- Denver, CO DNC
  - Partnership contract - 9 partners
- Chicago, IL UA
  - Successful but barely
- Multiple Texas UAs
- Louisiana Coastal CIR

## Orthoimagery Available for Conterminous U.S. Source Resolution 1 Meter or Less



### Available Resolution

-  Anticipated NGA Acquired Border Area
-  0.25 Foot (~0.0762 meter) Resolution
-  0.50 Foot (~0.15 meter) Resolution
-  1.0 Foot (~0.30 meter) Resolution
-  1.5 Foot (~0.50 meter) Resolution
-  2.0 Foot (~0.60 meter) Resolution
-  1 Meter Resolution



August 2008

# Hi-res and NAIP in the Seamless Server

2008	%	Square Miles	Square KM	HRO Quad Eq
<b>HRO</b>				
Conus	29.47	888,295.45	2,300,674	16,150.84
AK	1.07	6,275	16,254	114.11
HI	10.87	697.4	1,807	12.69
<b>NAIP</b>				
Conus	86.46	2,606,234.5	6,750,117	47,386
AK	0	0	0	0
HI	0	0	0	0

# FY 2008 Orthoimagery Funding

## Orthoimagery

- Partnerships

- \$2,391,276.00 Total
- \$176,356.00 SIR
- 30+ different partners\*

- Contracts

- \$5,652,818.00 Total
- \$656,408.00 SIR
- 50 different partners

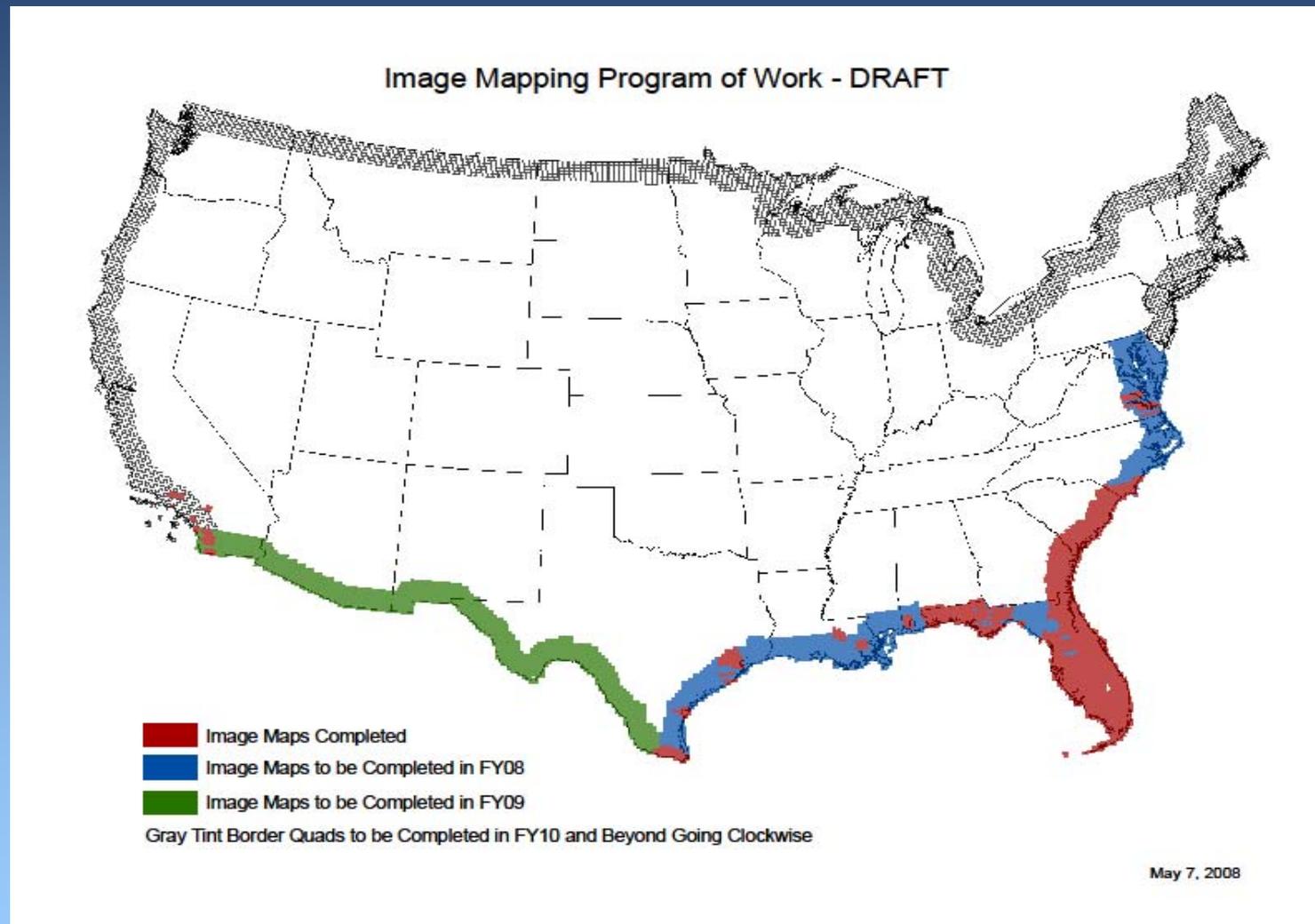
- \$832,764.00 SIR into \$8,044,094.00 Partner

# NGP FY09 Orthoimagery Program Goals

## 1-meter OI FY09 goals

- NAIP
  - \$875K - USGS share of DOI NAIP Federal Lands acquisition
  - 3-year program for lower 48 coverage
  - First steps toward meeting IFTN 1 meter goals
- NGP Priority Areas
  - Northern border and Northeastern coast for graphics
  - DOI and USGS Science Areas

# NGP FY09 Orthoimagery Program Goals



# NGP FY09 Orthoimagery Program Goals

- **1-ft OI goals for FY09**

- Working with NGA to rescope Urban Areas program for IFTN high res program
  - Expand UA's to partner on counties, areas of infrastructure, other Federal AOIs
  - Partner on State hi-res programs where 133 UAs intersect
- QA support for NGA US/Canada/Mexico Border project
  - 40 mile swath (30 miles US & 10 miles CN/MX) 207,443 sq m
  - 24-bit, 3 channels (Red, Green, Blue), with co-registered 8 bit uncompressed GeoTIF format 1 channel Infrared. - DHS
  - 8-bit uncompressed UTM projected GeoTIF format: 3 channels (Red, Green, Blue) Natural Color. – NGA
  - 38 TBs
  - 8 deliveries, 1 per month starting in December

# NGP Elevation Program Goals

## 10-meter (1/3 arc-second) OI FY09 goals

- Complete revision of 10-m data over next 3 years

## 1/9-arc-second and finer goals

- Continue collaboration with NGA on lidar for Urban Areas program
- NGP Priority Areas – Coasts and Science Areas (multi-discipline)

## Make Alaska a High Priority Area

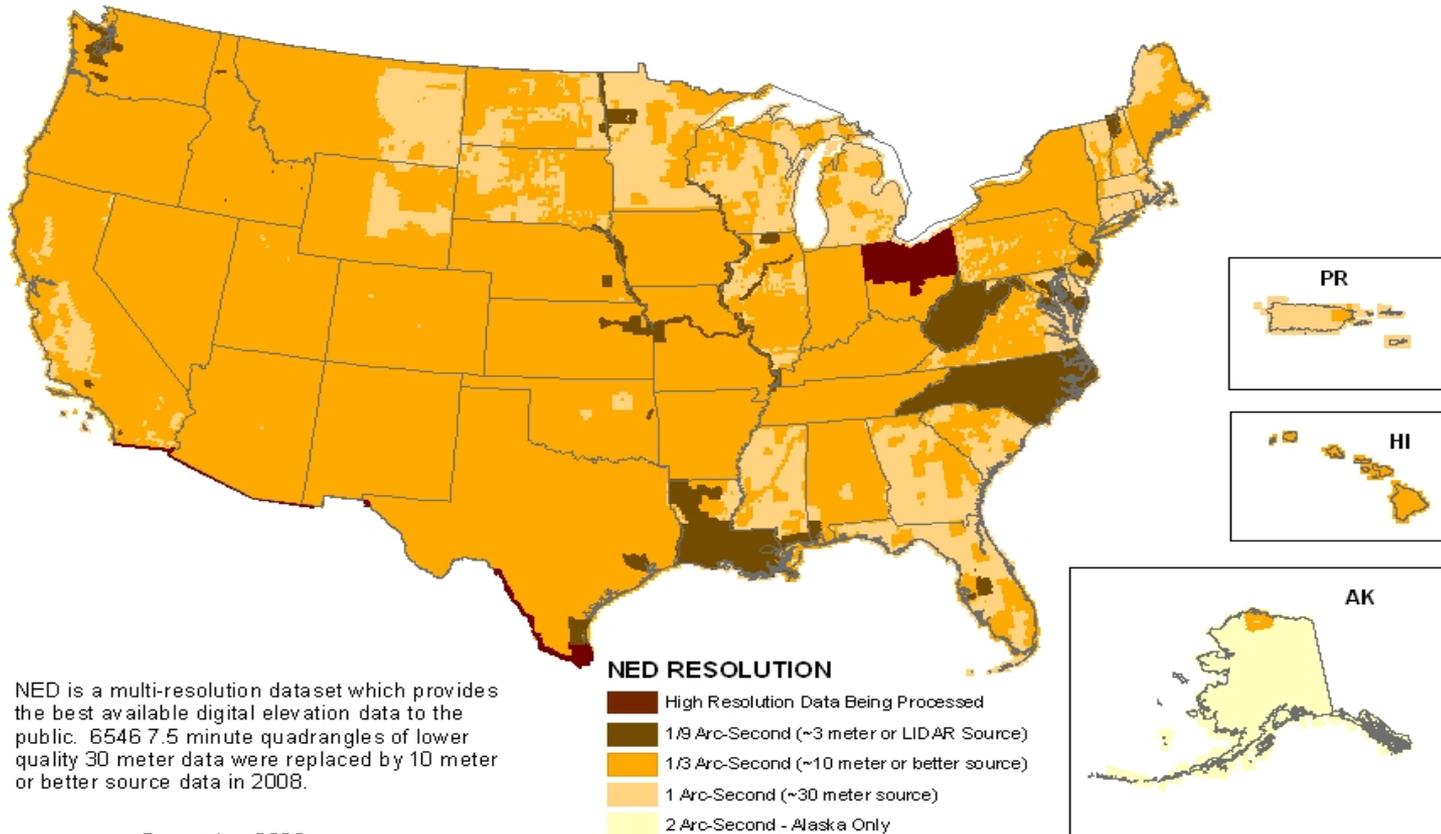
- Partner with AGDC for elevation and control FY09
- Partner with AGDC to partner on Alaska for elevation and control

## Data from lidar

- Numerous issues/projects/plans

## Integration with other themes of The National Map

## National Elevation Dataset Source Information



NED is a multi-resolution dataset which provides the best available digital elevation data to the public. 6546 7.5 minute quadrangles of lower quality 30 meter data were replaced by 10 meter or better source data in 2008.

September 2008

# FY 2008 Elevation Funding

## Partnerships

- \$1,244,000.00 Total
- \$661,600.00 SIR
- 29+ different partners\*
- 29 of 33 project for lidar
- **Contracts**
  - \$6,556,308.00 Total
  - \$1,065,337 SIR
  - 27 different partners

# FY 2008 Elevation Acquisitions of Note

- **Kenai Peninsula, AK**
  - Over 5000 sq miles of lidar coverage
- **Denver, CO DNC**
  - GPSC contract of over 600sq miles with core area feature extraction
- **Large multi-discipline projects**
  - Rainwater Basin, NE-KS
  - International Red River Basin, MN, 35,000 sq miles
- **SC State-wide Lidar – 23 counties**

# 2009 USGS Contract Developments

- **Geospatial Products and Services Contract**
  - FAR Part 36 Arch. & Eng. (QBS)
  - FAR Part 15 Negotiated (Best Value) planned for FedBizOpps
  - Commercial Aerial Products Contract planned for FedBizOpps completed this summer – CRSDC-A/S now CAP-C

# Issues – Orthoimagery and Elevation

- **Program Direction**
  - Stabilizing, but still needs fine tuning
- **Alaska**
  - Big State with **BIG** mapping requirements
- **Project Review Process**
  - New process, initially successful but issues to iron out
  - Would like to begin agreements and contracts at beginning of new FY
- **Integration**
- **IFTN vs NLI**

# Issues – Orthoimagery and Elevation - Continued

- Licensed data
- Role of EROS
  - Seamless
  - Elevation Unit desires a larger role
  - Dissemination only?
- Integration is the key issue
- Program reporting mechanisms need refinement
  - JTX the answer?