



**Adirondack  
Park Agency**

# Remote Wetland Mapping in the Adirondack Park

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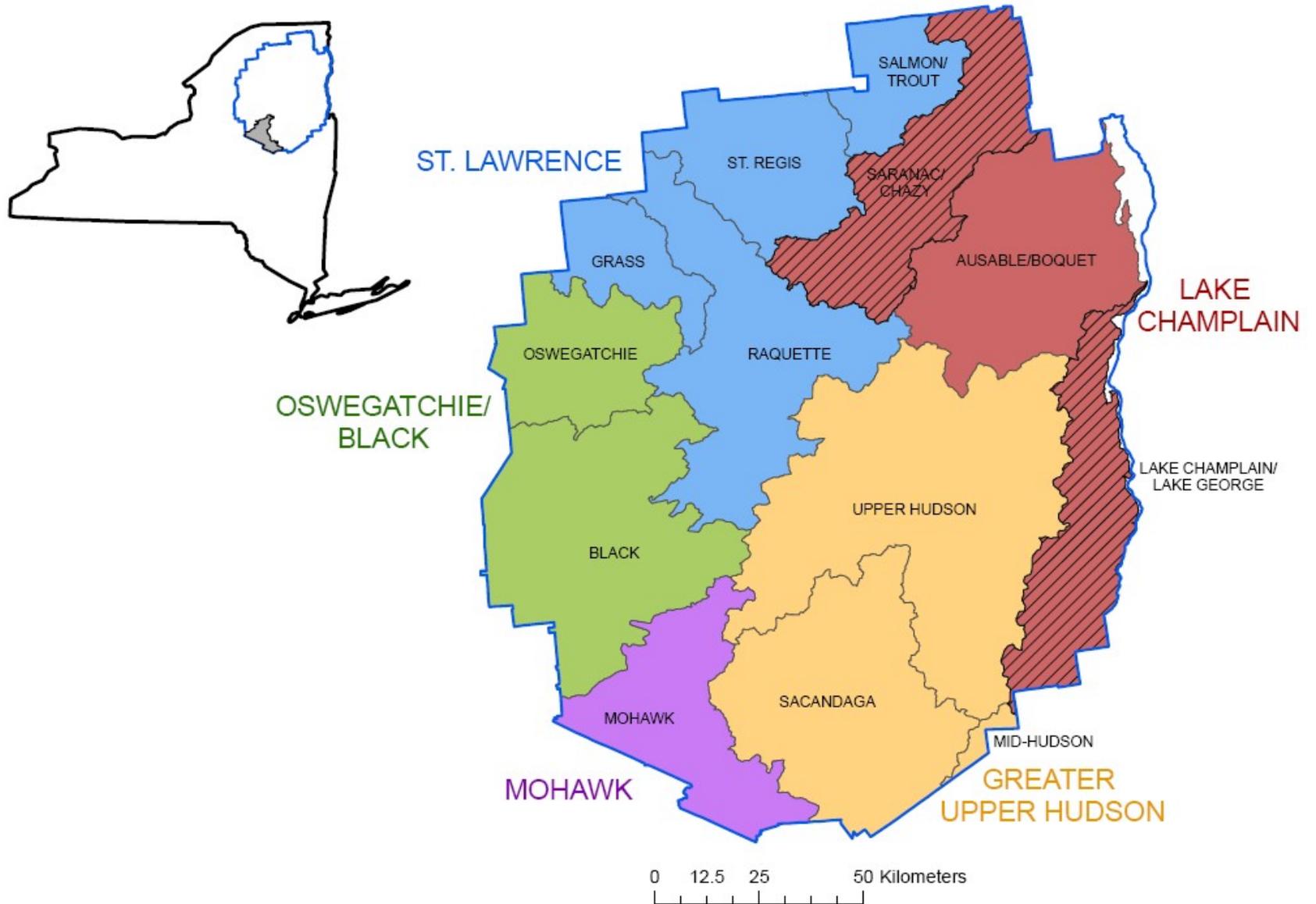
**June 2, 2016**

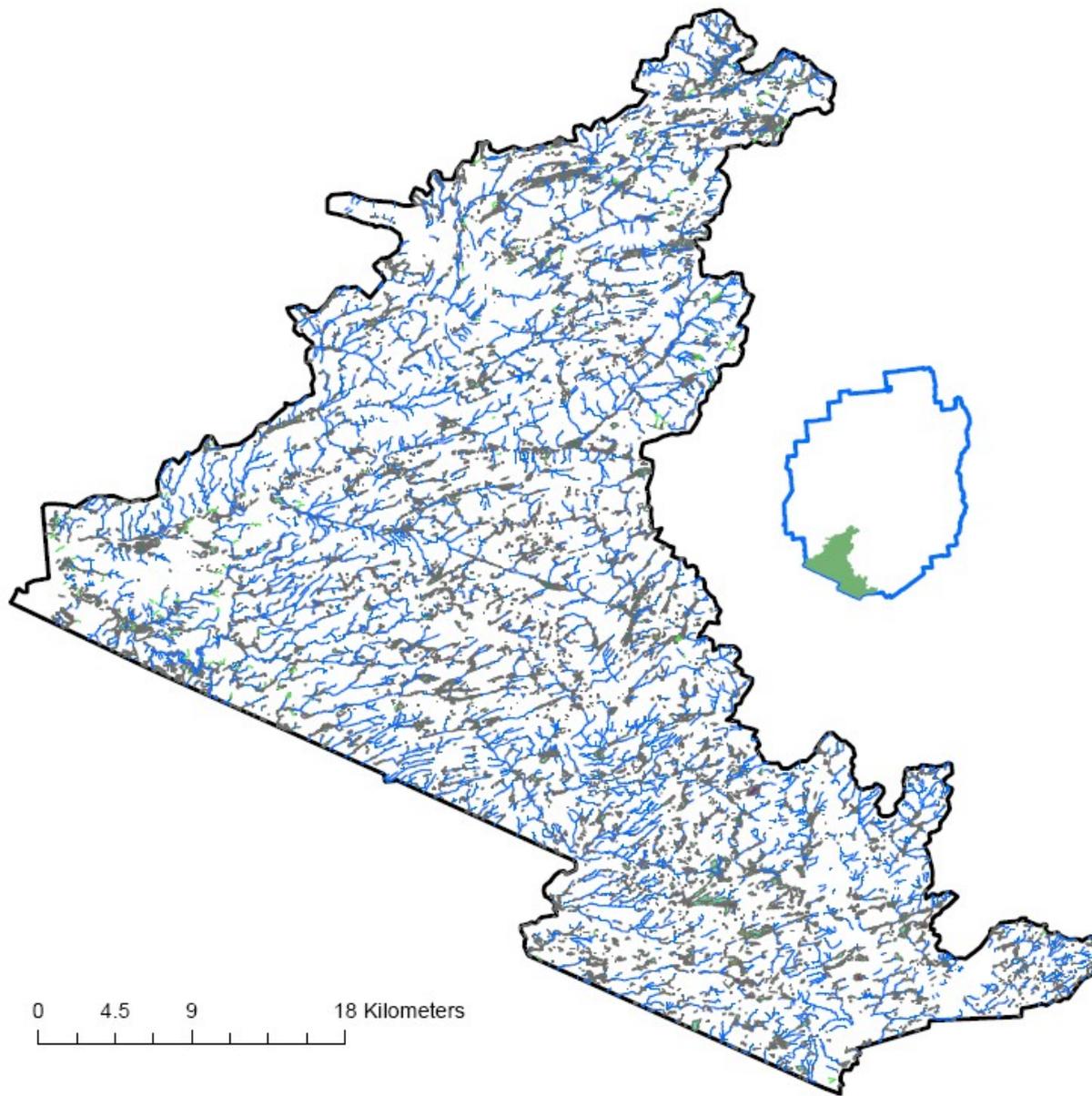
# Outline

- Overview of the Park, wetland regulation, wetland mapping
- Application of digital, stereo, color-infrared air photo interpretation for wetland mapping
- Example of lot-specific wetland air photo interpretation for jurisdictional determination
- Case study: Whiteface Mountain Veteran's Memorial Highway rehabilitation
- Case study: Adirondack Park Invasive Plant Program (APIPP) boat wash station siting

# Outline

- Case study: Remsen/Lake Placid travel Corridor wetland mapping
- Case study: Tupper Lake waste disposal sites, screening for wetland impacts
- Case study: Route 28 Moose River Bridge at McKeever
- The Hardware: purchase and set-up
- Software and data, getting it all to work





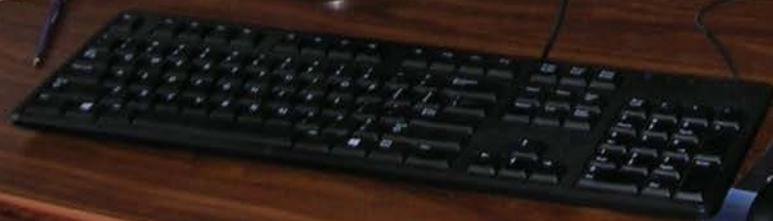
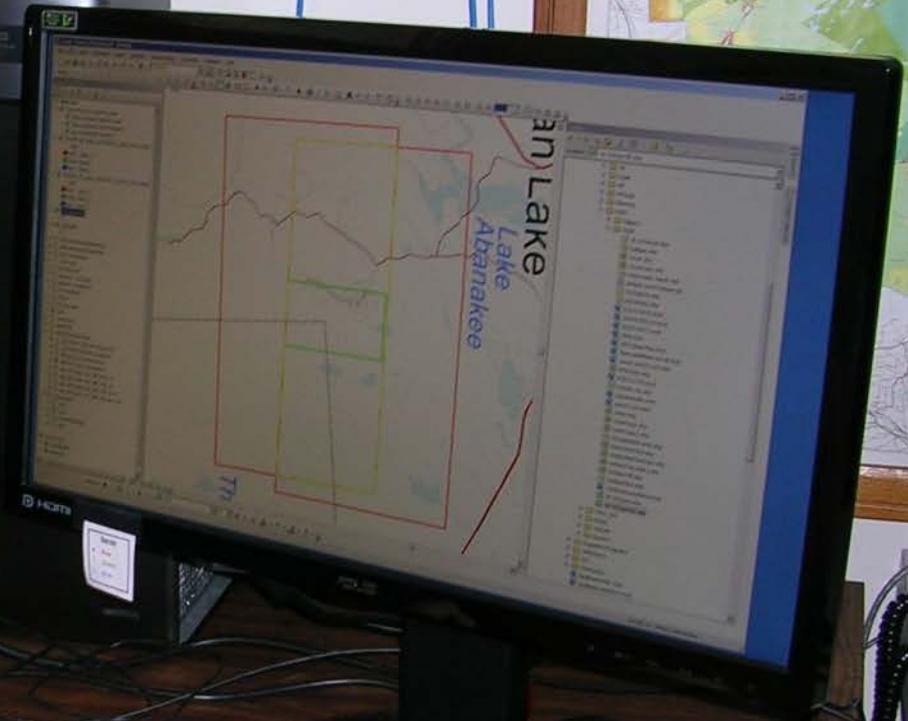
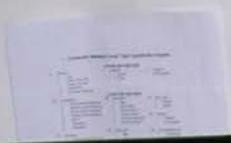
### Wetlands (Class 1)/Streams

-  Streams
-  Linear Wetlands
-  AB5
-  EM1
-  EM2
-  FO1
-  FO2
-  FO4
-  FO5
-  SB2
-  SS1
-  SS2
-  SS3
-  SS4
-  SS5

0 4.5 9 18 Kilometers













Stereo Enhancement    Stereo Analyst    Stereo View

Adjust: Both Images    Image Pairs: NY14\_317\_476.jp2/NY14\_317\_...    Scale: 1:240

Stereo Window

581185.84 2058001.69 us\_survey\_feet 510.900 meters vcs: Same as Image    CE90: 0.983276    LE90: 0.568864



Stereo Enhancement    Stereo Analyst    Stereo View

Adjust: Both Images    Image Pairs: NY14\_317\_476.jp2/NY14\_317\_...    Scale: 1:1215

Stereo Window

581534.99 2057907.92 us\_survey\_feet 509.300 meters vcs: Same as Image    CE90: 0.957582 LE90: 0.569423



Stereo Enhancement

Adjust: Both Images

Stereo Analyst

Stereo Analyst Image Pairs: NY14\_317\_476.jp2/NY14\_317\_476.jp2

Stereo View

Scale: 1:810

581736.59 2057879.71 us\_survey\_feet 509.600 meters vcs: Same as Image

CE90: 0.945904 LE90: 0.569408



Stereo Enhancement    Stereo Analyst    Stereo View

Adjust: Both Images    Image Pairs: NY14\_317\_476.jp2/NY14\_317\_...    Scale: 1:810

Stereo Window

581347.07 2057809.50 us\_survey\_feet 509.000 meters vcs: Same as image    CE90: 0.958710    LE90: 0.569462



Table

Wetlands\*

	FID	Shape *	Id	Acres	done_for	date	interp_by	fld_ck_by	notes	NAIP_NC	NWlabel	System	Class1	Class2	value
	88	Polygon ZM	86	0	J2016-0082	2/16/16	mr						FO5	EM1	4
	89	Polygon ZM	87	0	J2016-0082	2/16/16	mr						FO5	EM1	2
	90	Polygon ZM	88	0	J2016-0082	2/16/16	mr						FO4	EM1	2
	91	Polygon ZM	89	0	J2016-0082	2/16/16	mr						EM1		2
	92	Polygon ZM	90	0	J2016-0082	2/16/16	mr						FO4	EM1	2
▶	93	Polygon ZM	91	0	J2016-00xx	2/19/16	mr		also EM1 (demo)				FO4	SS3	2

94 (1 out of 94 Selected)

Wetlands\*



J2016-00xx

0      Feet      400  
         200

 Feet  
0      200      400

 Lot in question

 Wetlands\*

\*Subject to field verification.

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Locator 

Prepared by M. Rooks 2/19/16. (91)



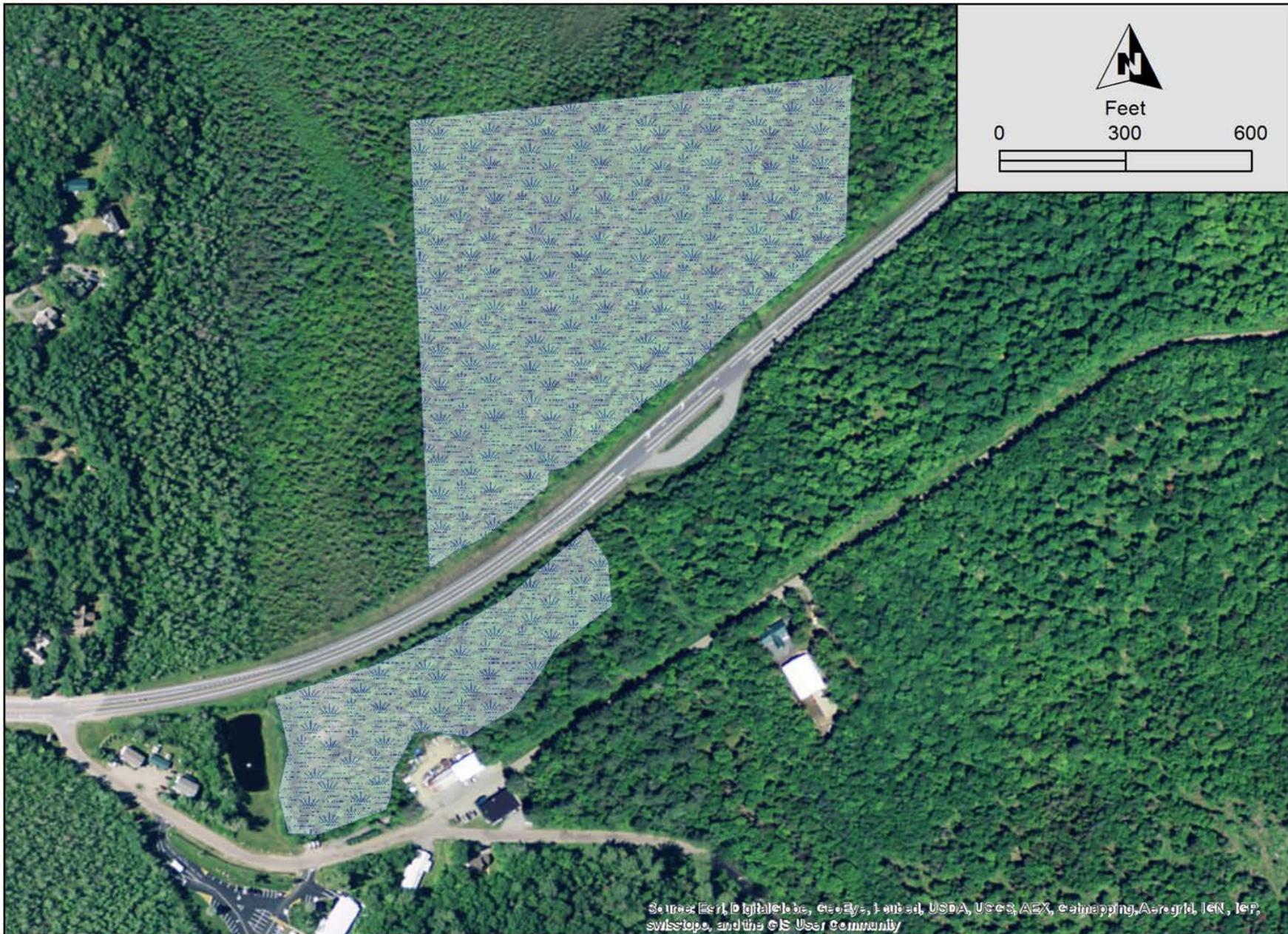




Sources: Esri, DigitalGlobe, GeoEye, Earthstar (United States), USDA, USGS, AeroGRID, IGN, IGP, swisstopo, and the GIS User Community



Source: Esri, DigitalGlobe, GeoEye, IGN, USDA, USGS, AeroGRID, IGN, JP, Swisstopo, and the GIS User Community

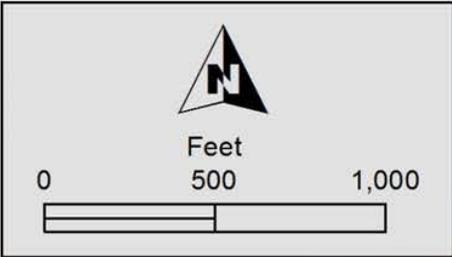


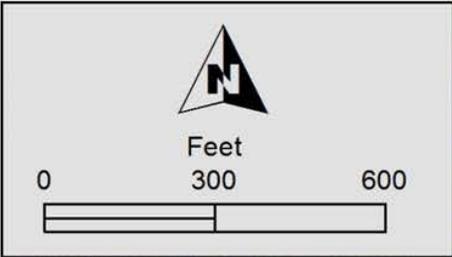
Sources: Esri, DigitalGlobe, GeoEye, Earthstar (United States), USDA, USGS, AeroGRID, IGN, IGP, Swisstopo, and the GIS User Community











Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IEP, swisstopo, and the GIS User Community



# Hardware

- High-end Windows workstation with specialty video card, big memory and big storage.

- Mouse



- Gaming monitors with fast refresh rate.



- Glasses and IR emitter.

# Software

ArcInfo

Stereo Analyst for ArcGIS

# Cost

\$17K, hardware + software



# Data

Priceless. From NYS Digital Orthoimagery Program

# Staff time



- Very significant
- Initial set-up
  - User training

# Questions/ discussion