NCMP Data Products to Support Coastal Planning and Operations

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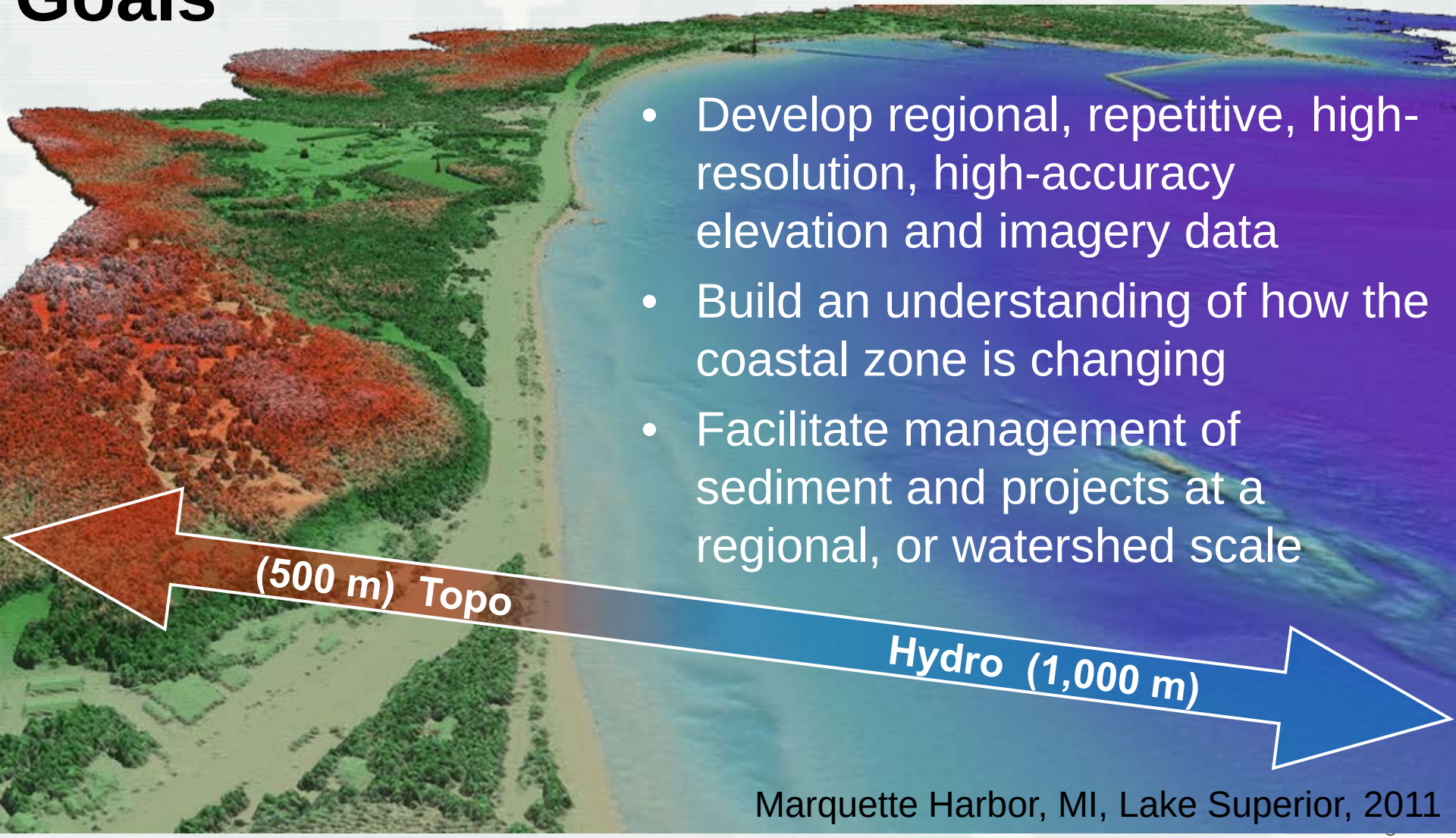
BUILDING STRONG®

Joint Airborne Lidar Bathymetry Technical Center of Expertise

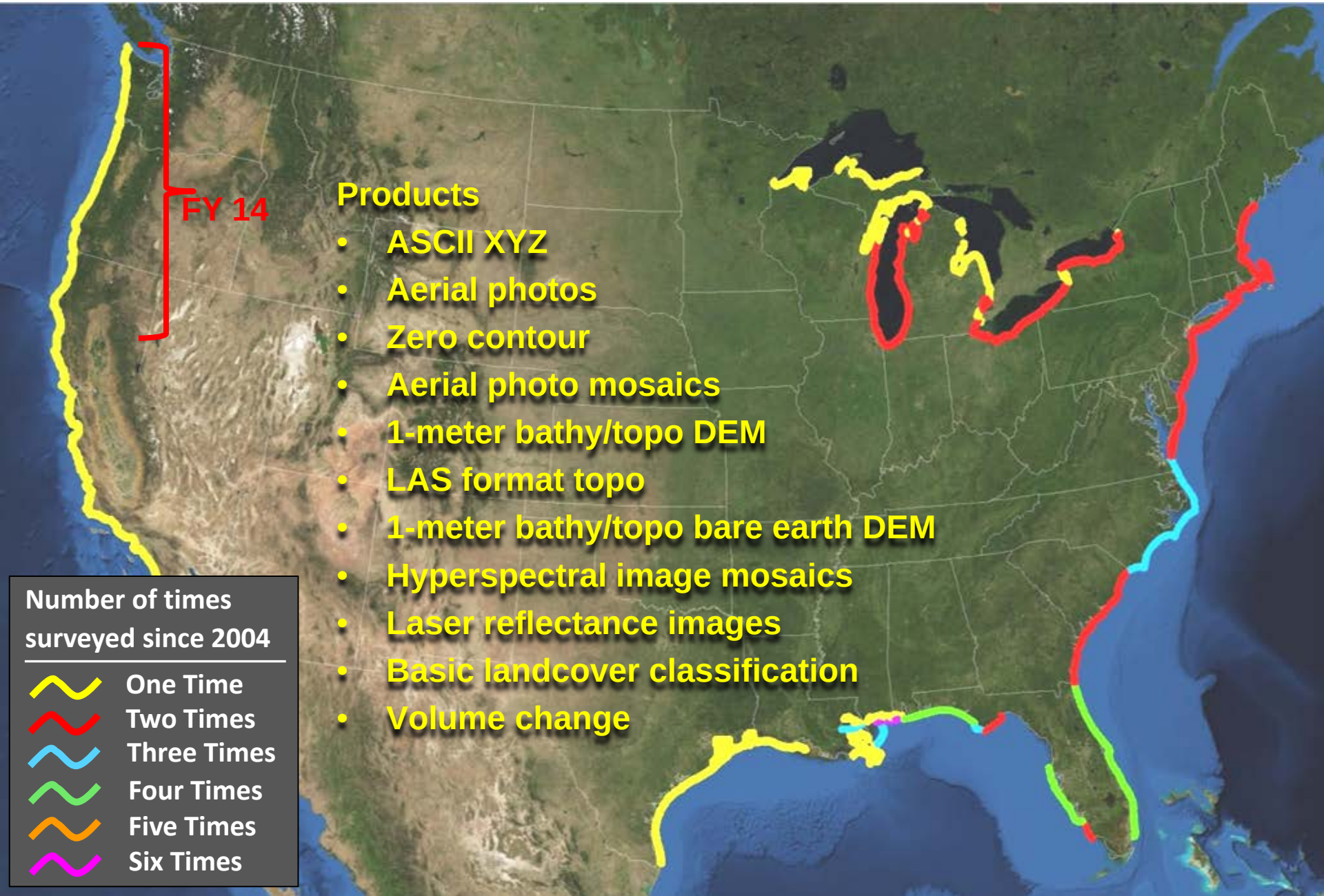
National Coastal Mapping Program Goals



- Develop regional, repetitive, high-resolution, high-accuracy elevation and imagery data
- Build an understanding of how the coastal zone is changing
- Facilitate management of sediment and projects at a regional, or watershed scale

Marquette Harbor, MI, Lake Superior, 2011

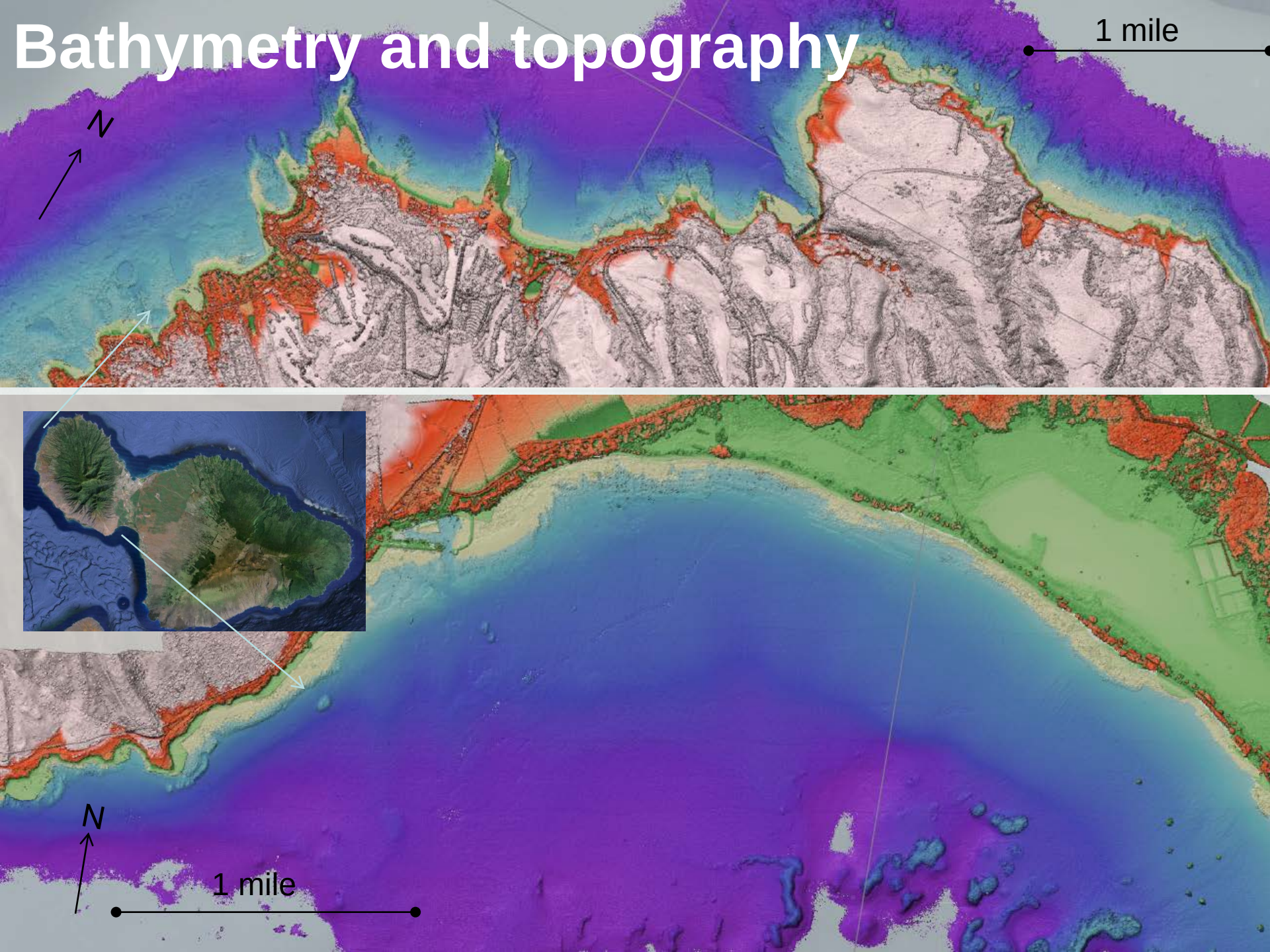
National Coastal Mapping Program



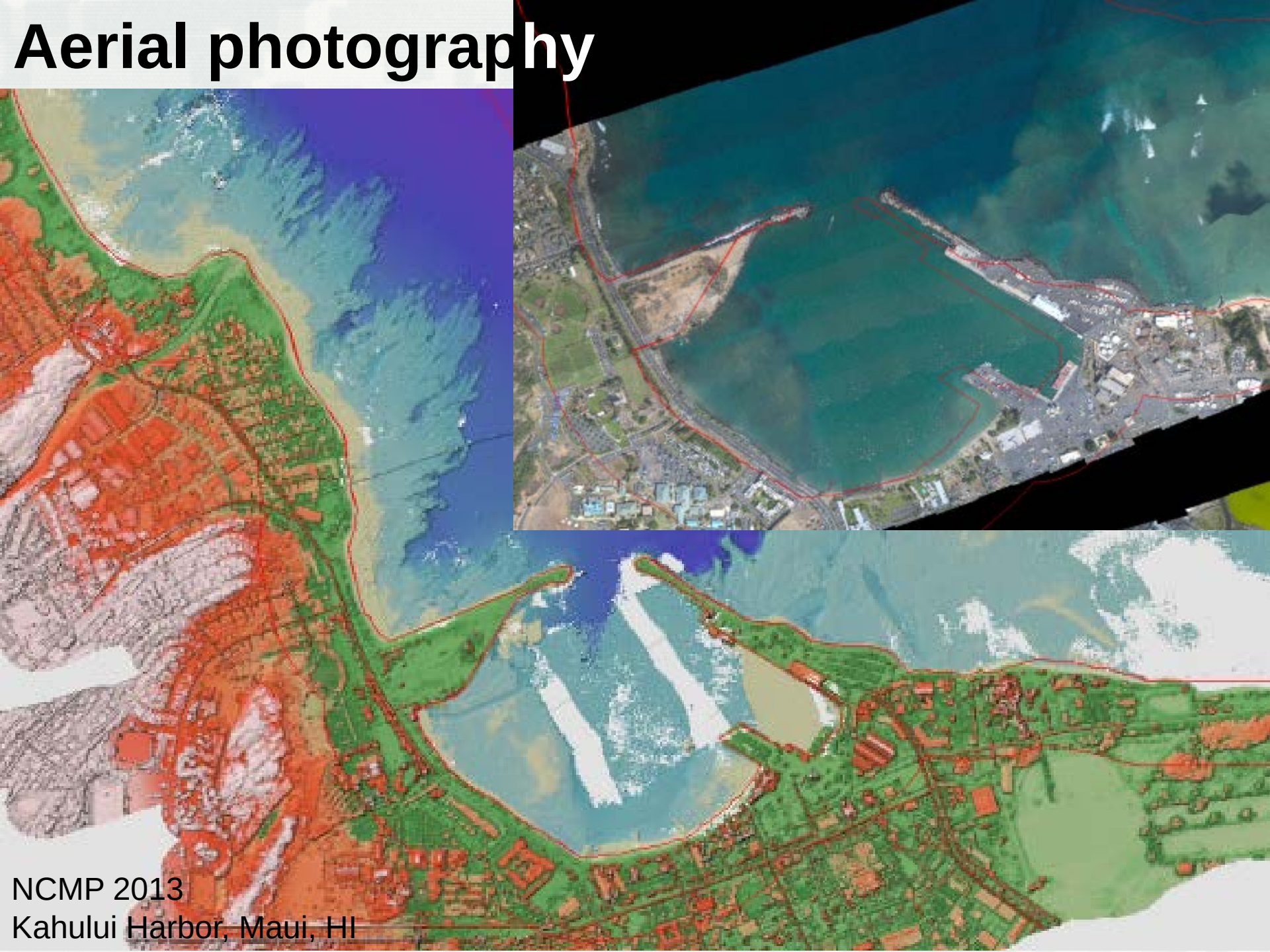
Products

- ASCII XYZ
- Aerial photos
- Zero contour
- Aerial photo mosaics
- 1-meter bathy/topo DEM
- LAS format topo
- 1-meter bathy/topo bare earth DEM
- Hyperspectral image mosaics
- Laser reflectance images
- Basic landcover classification
- Volume change

Bathymetry and topography



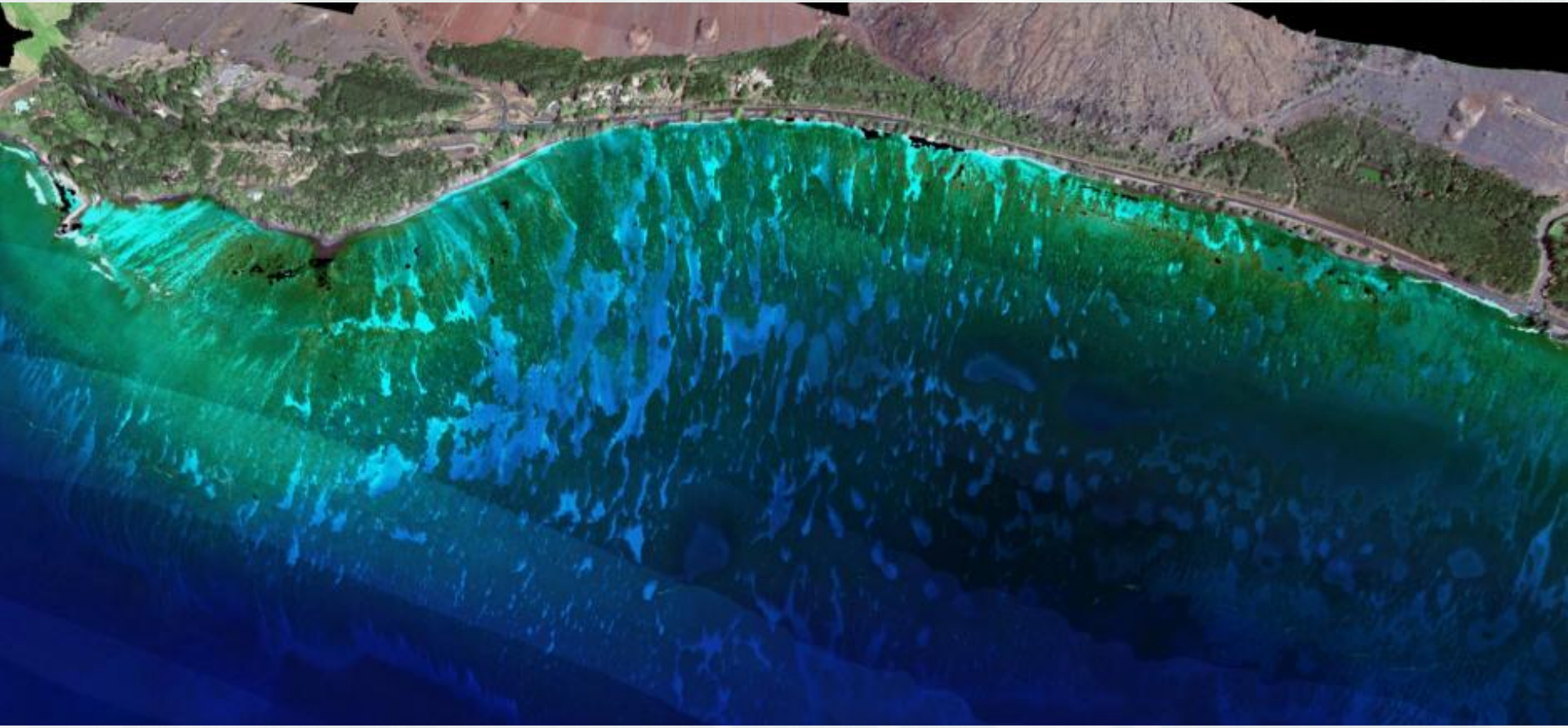
Aerial photography



NCMP 2013
Kahului Harbor, Maui, HI

Hyperspectral imagery

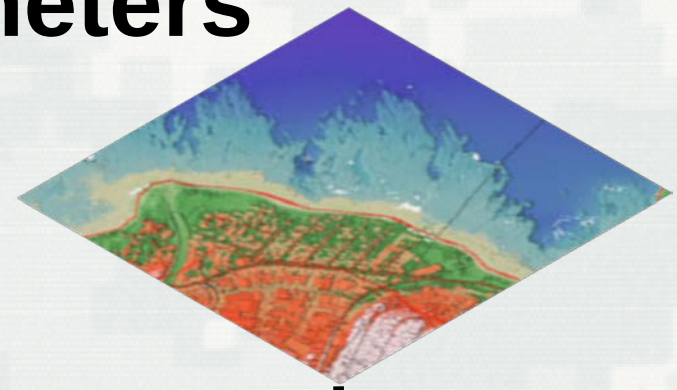
1 m pixel resolution, 36 spectral bands
375-1050 nm



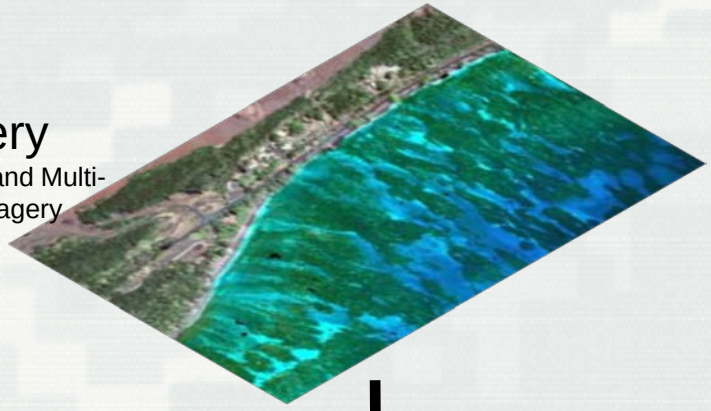
Olowalu, Maui, HI
2013

Parameters

Elevation
Change
(elevation/volume)
Contour (change)
Shoal

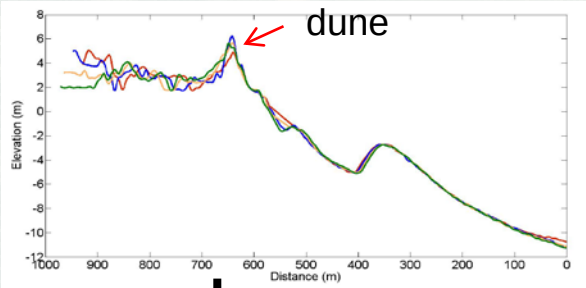


Imagery
Hyperspectral and Multi-Spectral Imagery

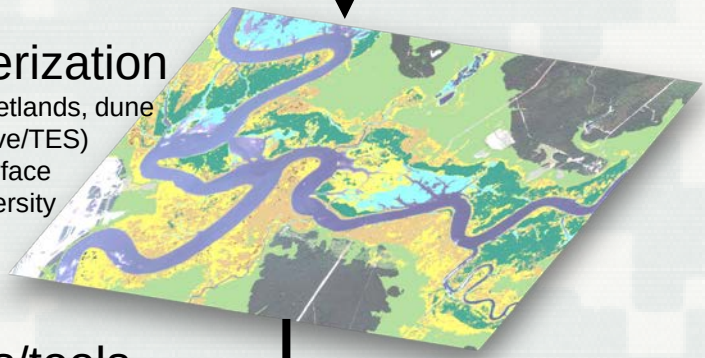


Dune
Elevation (crest/toe)
Continuity
Slope
Volume

Beach
Width
Slope



Land characterization
Critical habitat (SAV, wetlands, dune vegetation, invasive/TES)
Impervious surface
Landscape diversity



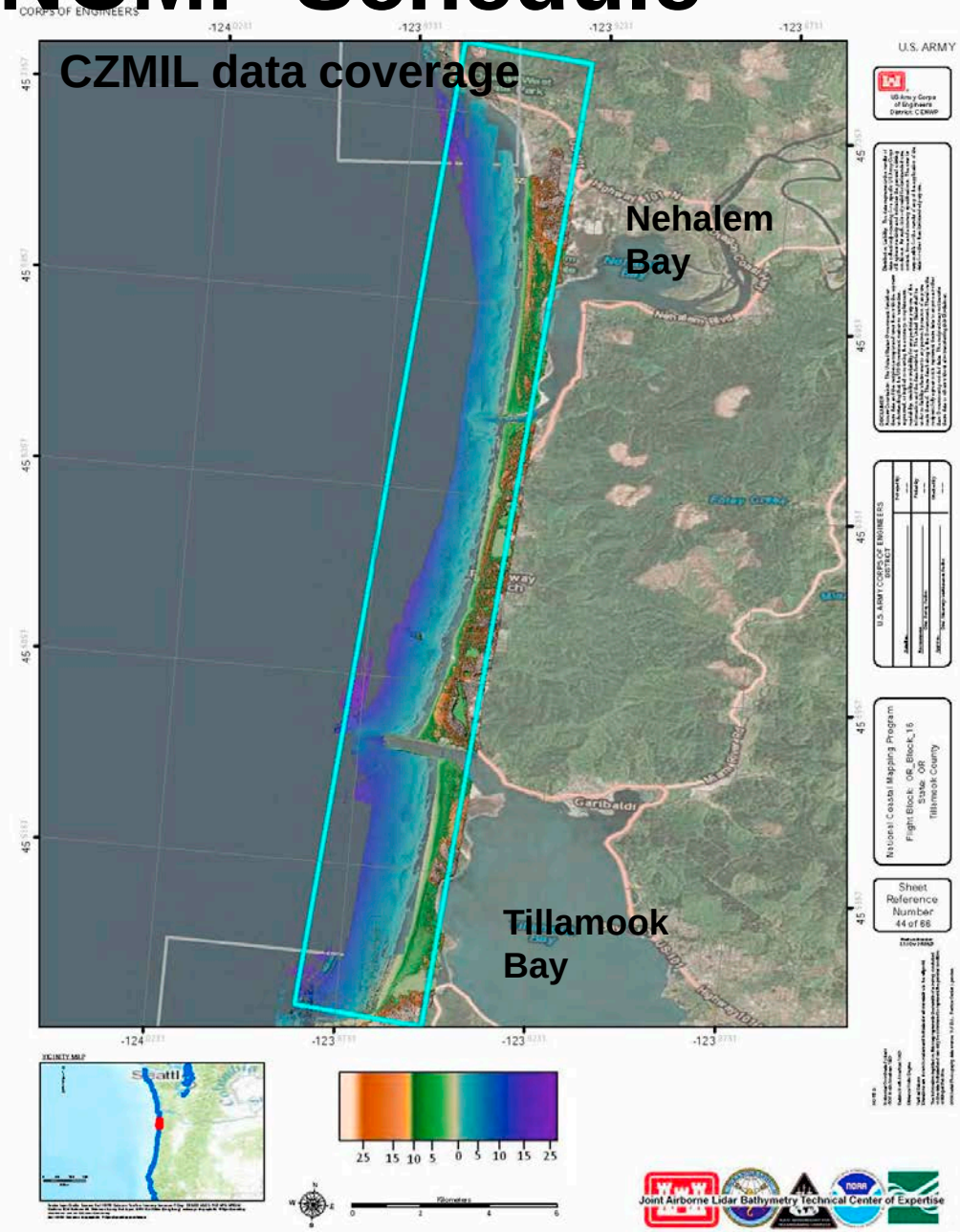
R&D/Value added products/tools

- Change Detection
  - Landscape change modeling
  - Volume/elevation/shoreline change
  - Structure assessment
- Sediment Budgets
- Monitoring Shore Protection
- Defining Coastal Regions

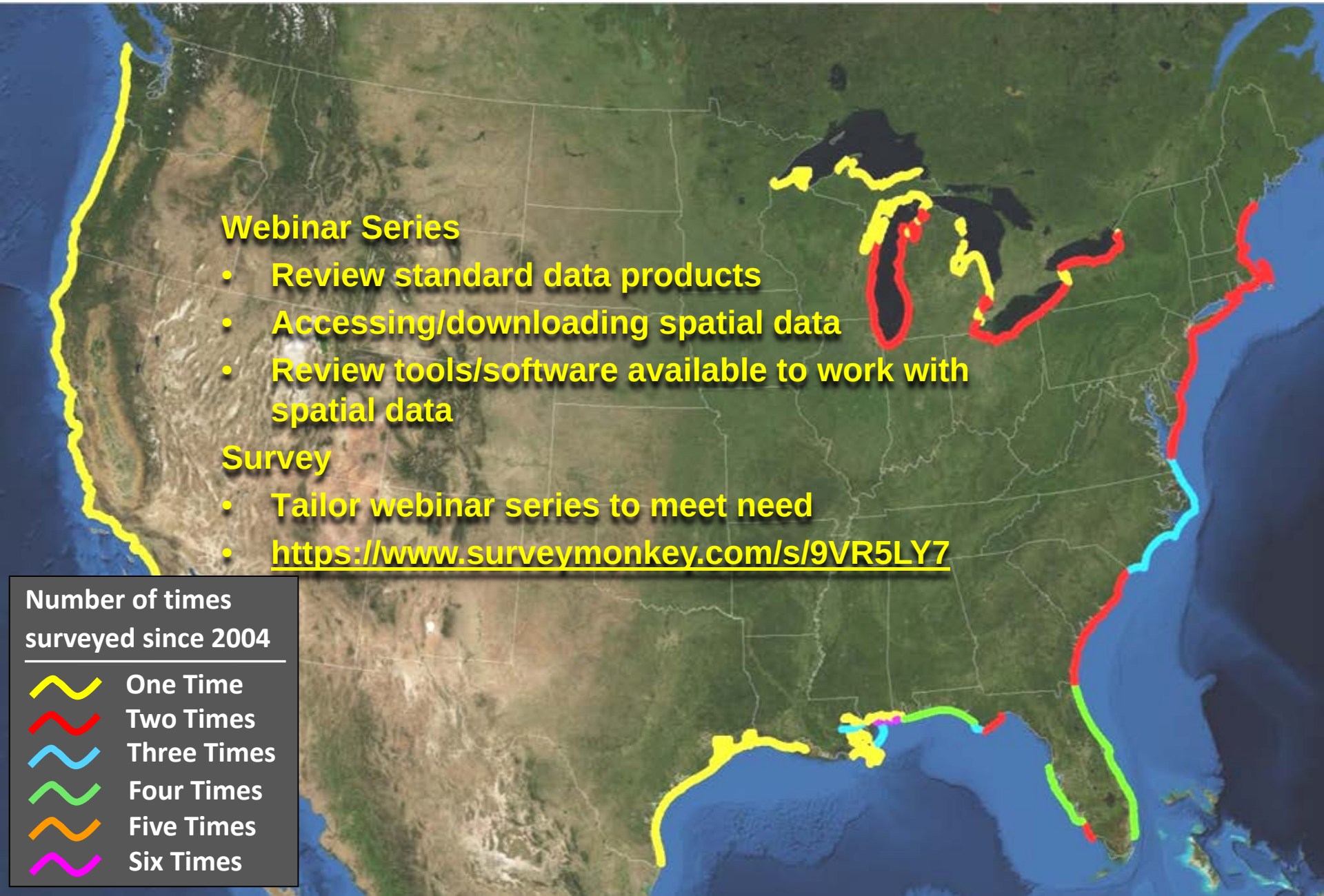
- Coastal Engineering Index
- Coastal Resilience
- Critical Species Detection and Modeling
  - Sea turtle nesting habitat
  - Oysters*
  - Salmonid

    * ECO-PCX model certification

NCMP Schedule



National Coastal Mapping Program



Webinar Series

- Review standard data products
- Accessing/downloading spatial data
- Review tools/software available to work with spatial data

Survey

- Tailor webinar series to meet need
- https://www.surveymonkey.com/s/9VR5LY7

Thank You!

www.jalbtcx.org

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Survey:

https://www.surveymonkey.com/s/9VR5LY7