

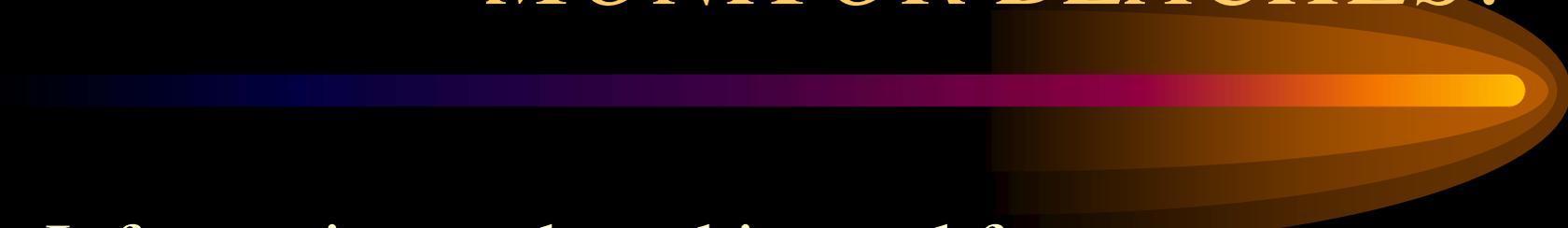
REGIONAL MONITORING OF FLORIDA'S BEACHES



Florida Department of Environmental
Protection

Division of Water Resource Management
Bureau of Beaches and Coastal Systems

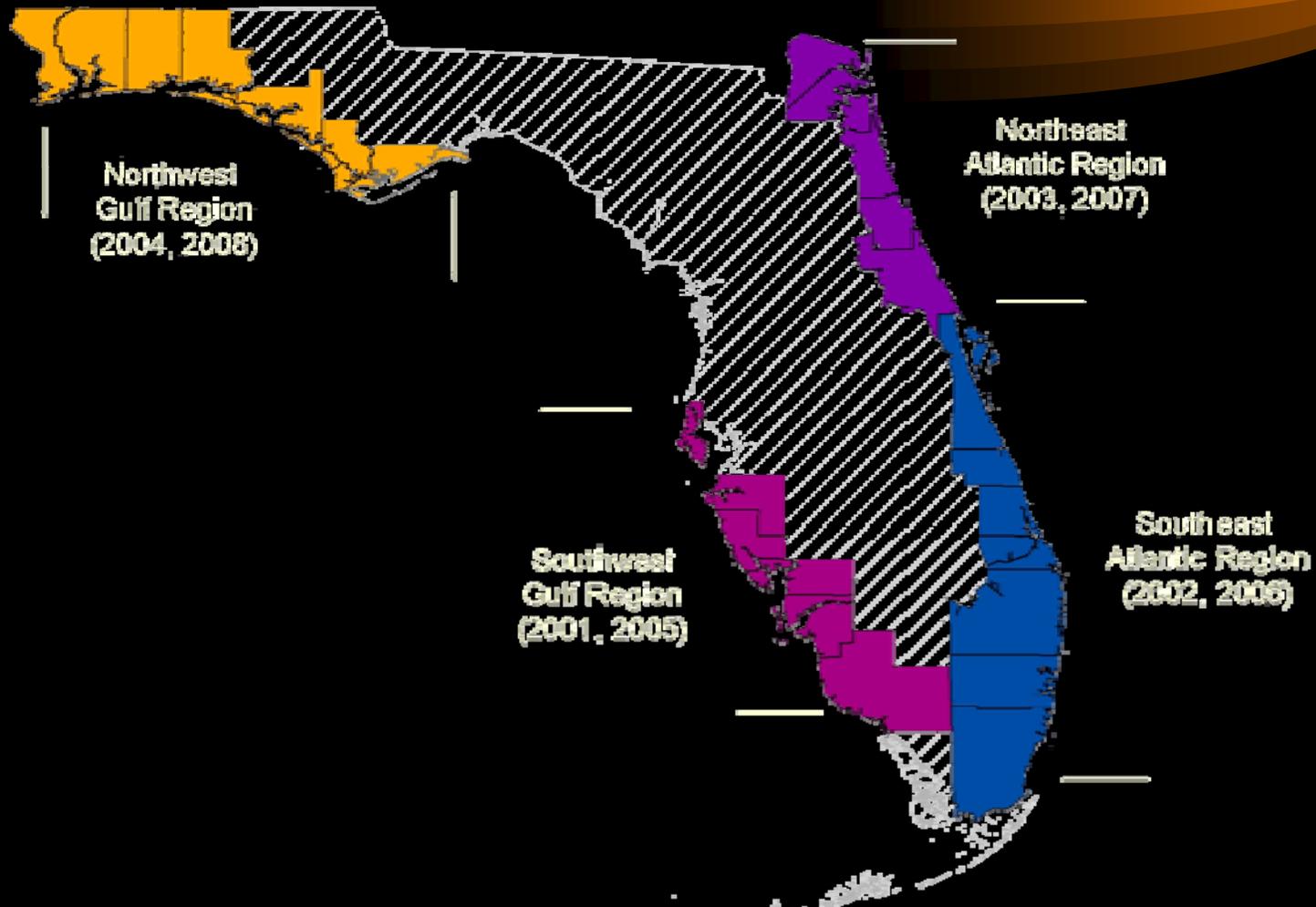
MONITOR BEACHES?



Information gathered is used for

- Shoreline and dune evolution assessment
- Beach erosion control projects.
- Inlet maintenance activities
- Post-storm emergency response

4-YEAR RECURRING CYCLE



WHY MONITOR REGIONALLY?



- Comprehensive view of the state
- Storm effect baseline
- Close knowledge gaps between projects
- Quantify need for future projects.

2008 AREA OF INTEREST



Escambia/Santa Rosa
Okaloosa
Walton
Bay
Franklin
Gulf

WHAT ARE THE ELEMENTS OF REGIONAL MONITORING?



- Geodetic Control Survey
- Beach and Offshore Topographic Data
- Aerial Photography
- Aerial Videography
- Aerial Oblique Photography
- Topographic LiDAR
- Bathymetric Lidar
- Wave Program

Geodetic Control Surveys

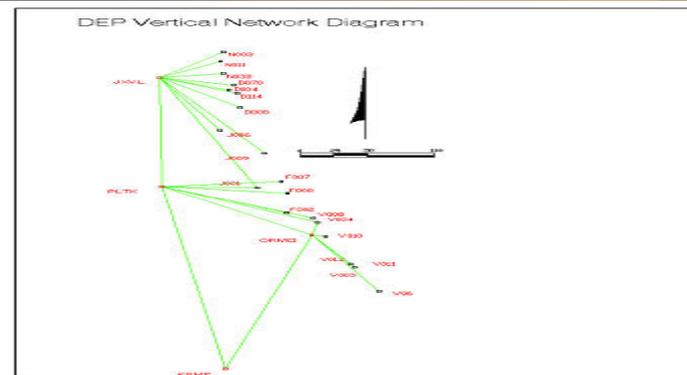


Figure 1. GPS Vertical Control Network, NE Atlantic Region, FL



BEACH PROFILES



- RTK-GPS
- Beach profiles every 1000 feet.

OFFSHORE PROFILES



- RTK-GPS
- Fathometer
- Data collection interval of 1000 ft.

AERIAL PHOTOGRAPHY



- Flown at 3000 ft. altitude
- 4500 ft. X 4500ft.
- 0.4 ft. pixel resolution
- Accurate to ~2.5 ft at 1" = 100' scale

AERIAL PHOTOGRAPHY



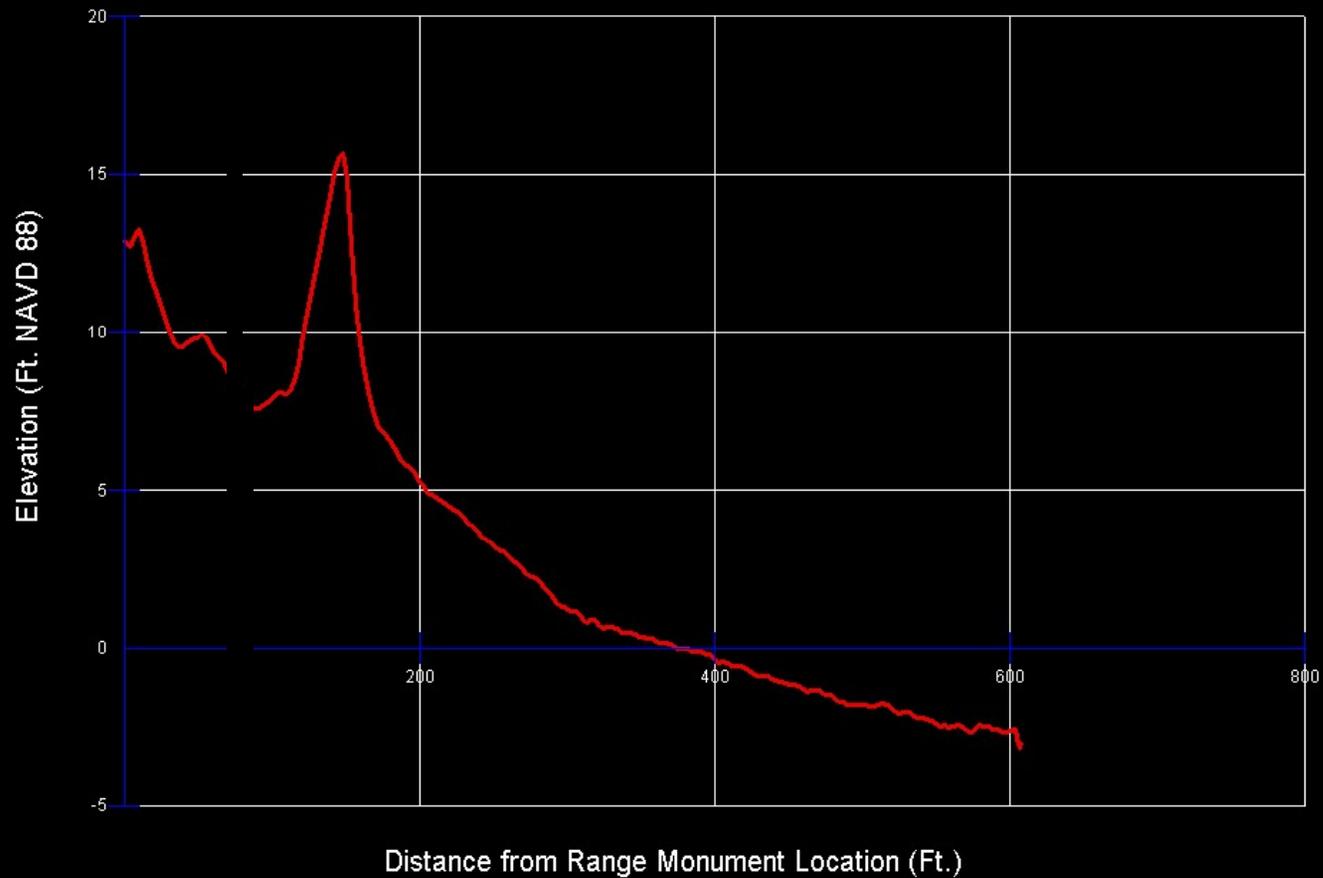
- Clip sheets
- 2200 ft. X 3400ft.
- Control Line map basis
- Laser data delimiter

TOPOGRAPHIC LiDAR



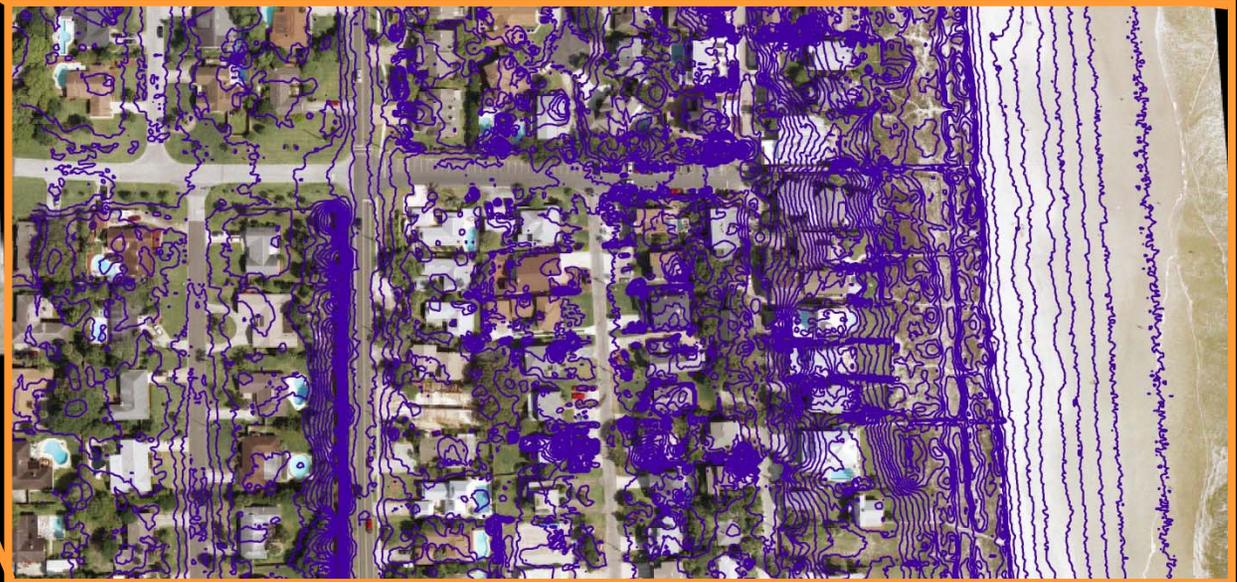
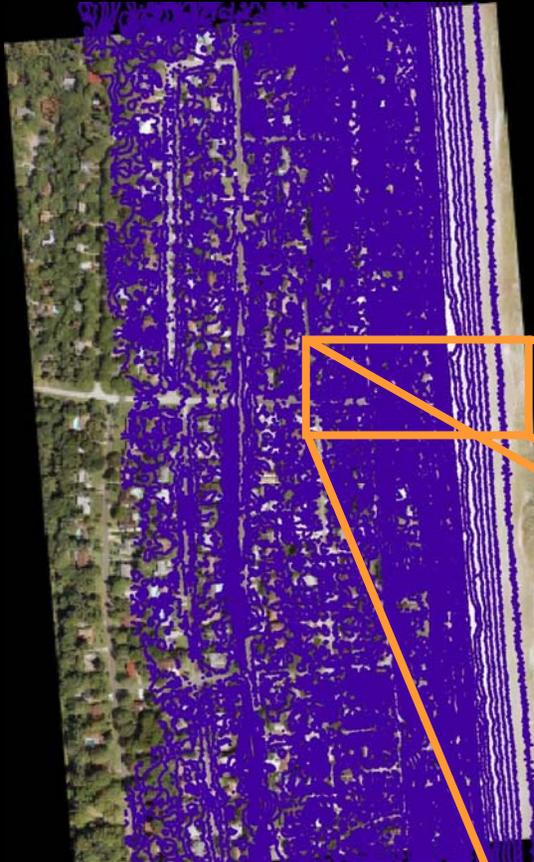
TOPOGRAPHIC LiDAR

Profile of Duval County R-43 (2003)

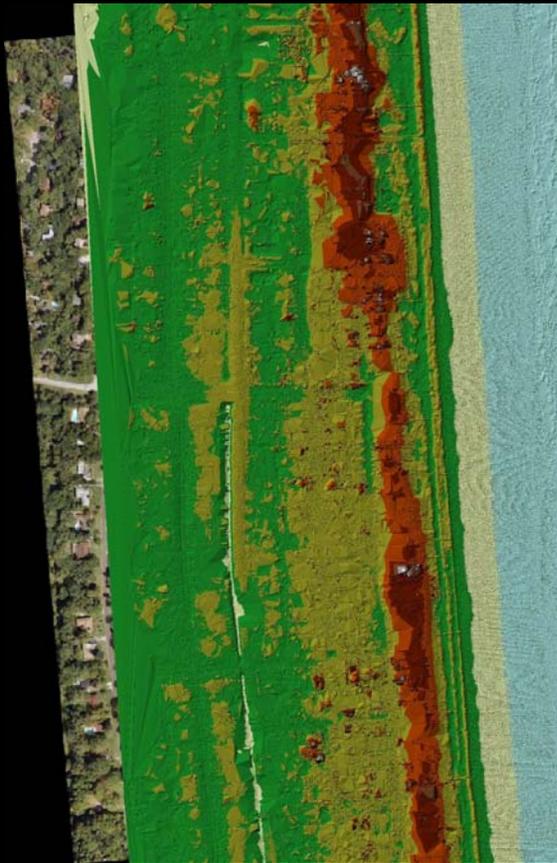


TOPOGRAPHIC LiDAR

- 1-ft. Contour Overlays
- .DXF Format



TOPOGRAPHIC LiDAR



- Color shaded relief maps
- Geo-referenced JPEG format

AERIAL VIDEOGRAPHY



- Flown every two years
- +825 miles per flight
- Available as DVD or over the web in .AVI format.

WHAT IS THE FUTURE OF REGIONAL MONITORING?



- Funding
- Bathymetric LiDAR
- Bathymetric data collection at tidal inlets
- Revision of current specifications
- Development of analytical component
- Addition of geotechnical and environmental component

QUESTIONS?

