

# Gap Analysis for US Seabed 2030 Mapping

USCHC 26 March 2018



Office of Coast Survey  
National Oceanic and Atmospheric Administration

# Identify US waters that have been “mapped”

- Use Seabed 2030 100-m resolution goal
- Use all soundings since 1960 archived at NCEI
  - Irrespective of source or perceived quality
- Basic criterion: At least 1 sounding in the cell
- Enhanced criterion: 3 or more soundings in the cell




# Bathymetric Data Layers




## NOAA NCEI/IHO DCDB


### Multibeam bathymetry

 Paths to raw data files


### Single beam bathymetry

 XYZ (>1960)


### NOS Hydrography

 XYZ (>1960)

### NOS Hydrography (BAGs)

 8 m coverage footprints (SHP)


### Extended continental shelf grids

 100 m coverage footprints (SHP)



## NOAA's Digital Coast

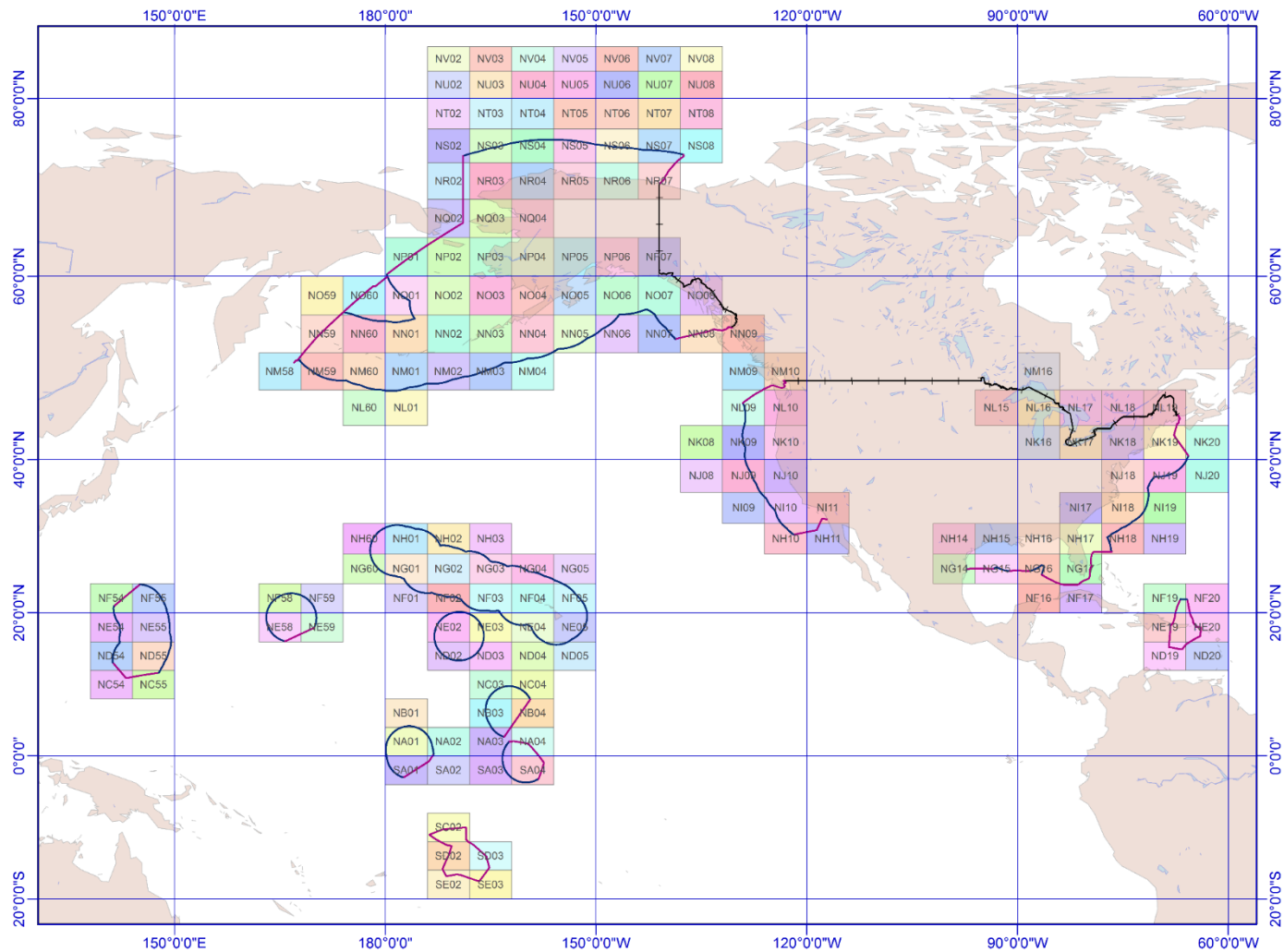
### Bathymetric LiDAR

 10 m coverage footprints (SHP)

Supersession rules eliminate duplicate soundings in results

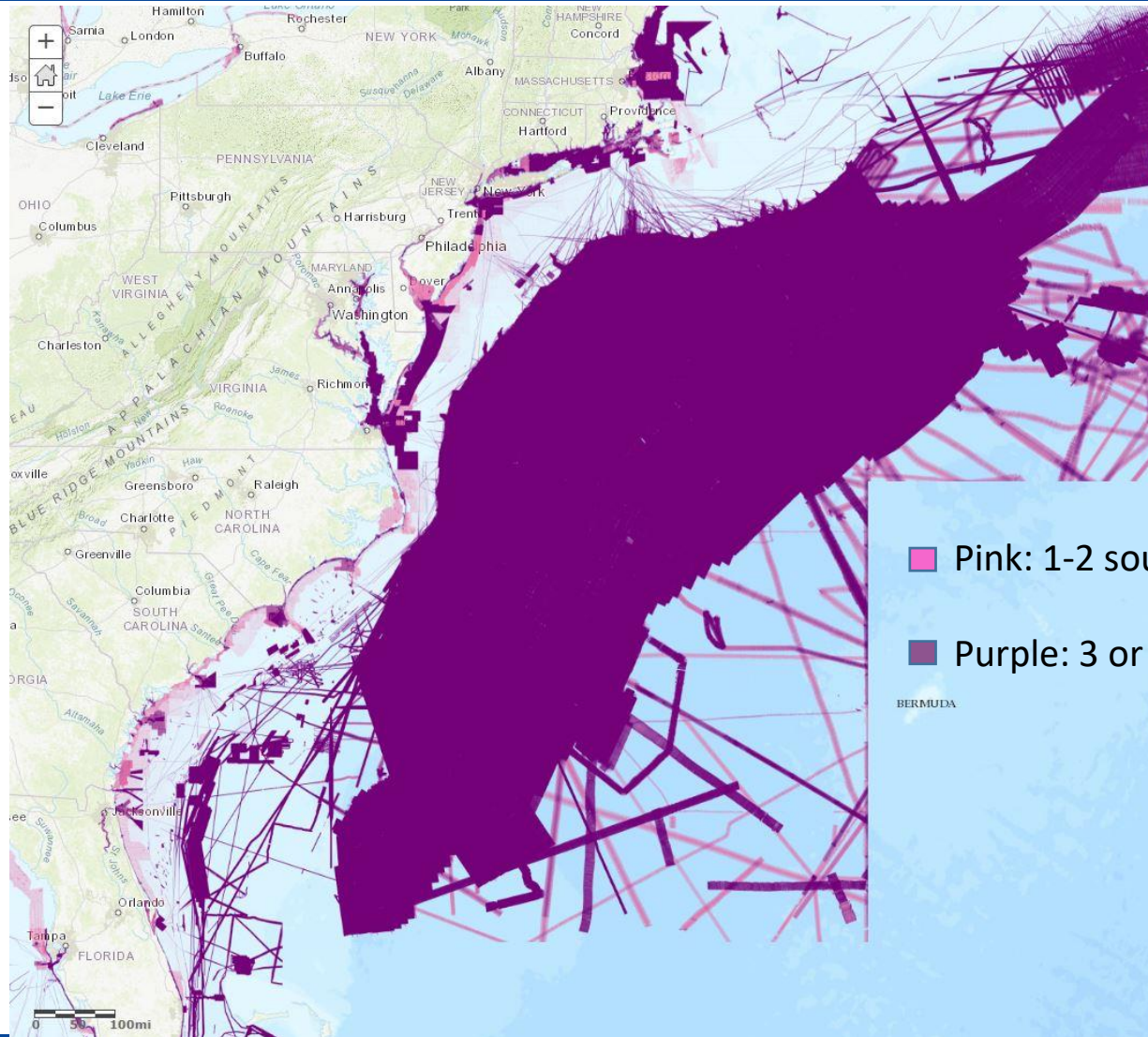



# Analysis Framework





# Coverage Display—US Atlantic



 Pink: 1-2 soundings per cell

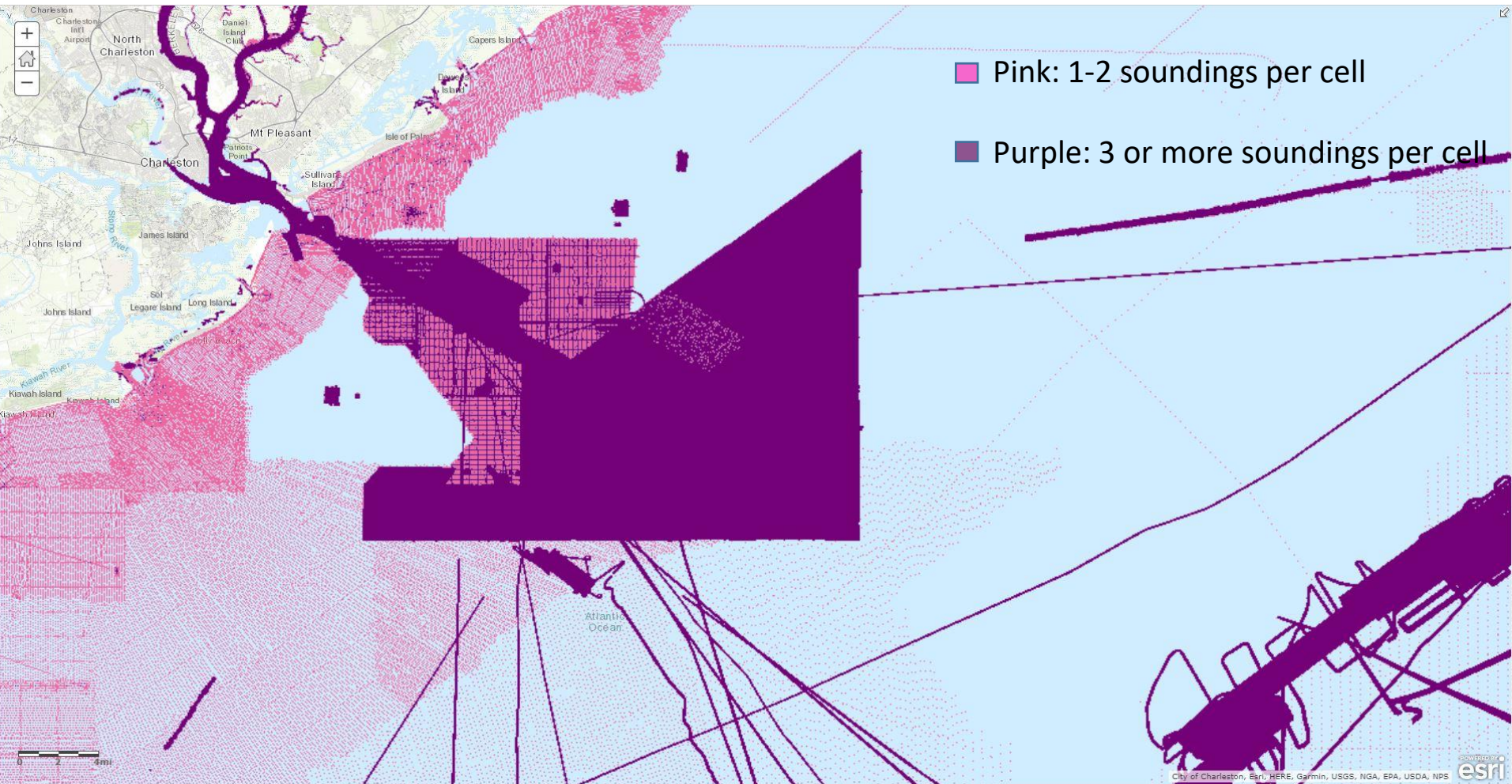
 Purple: 3 or more soundings per cell

BERMUDA



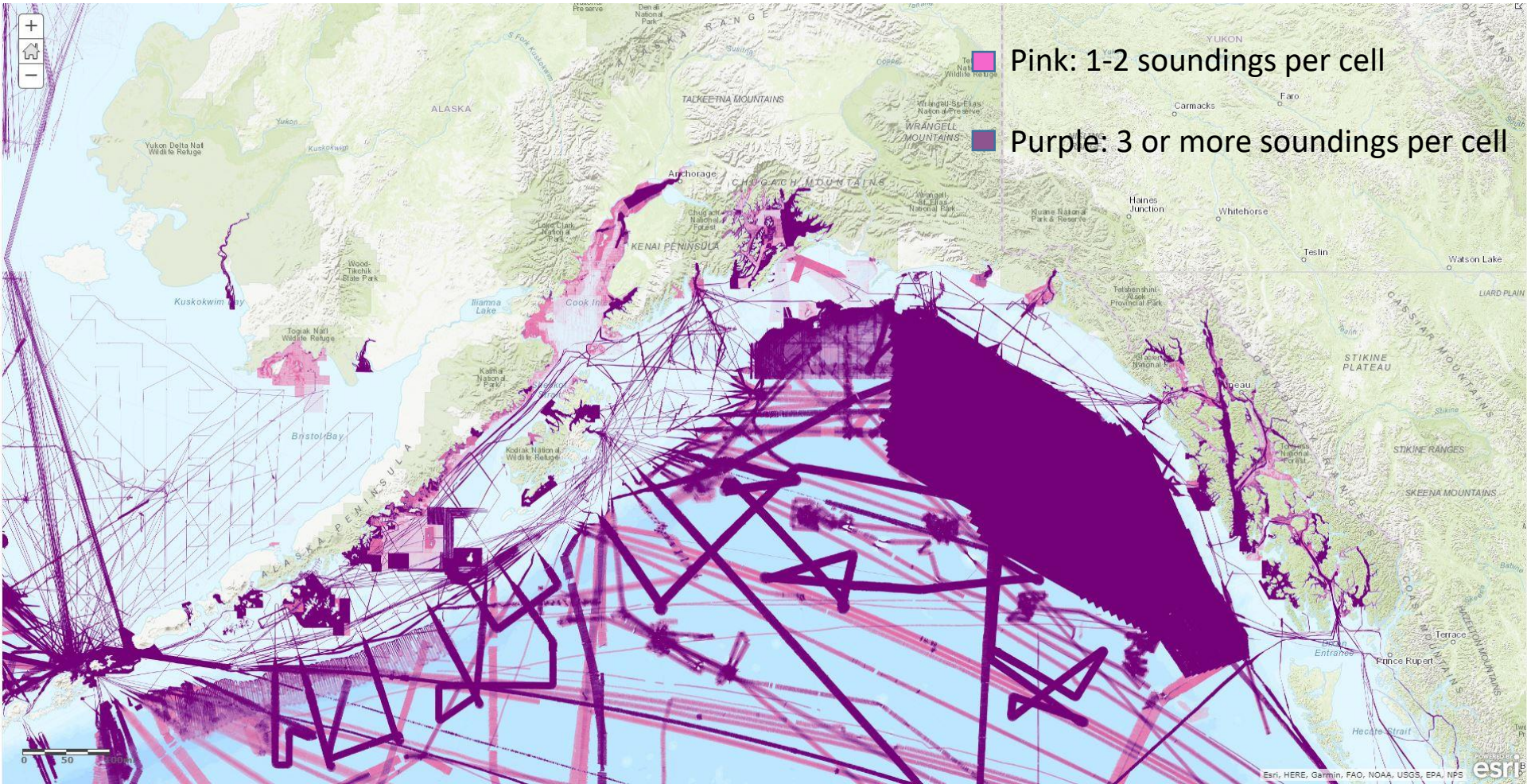


# South Carolina Coastal Shelf



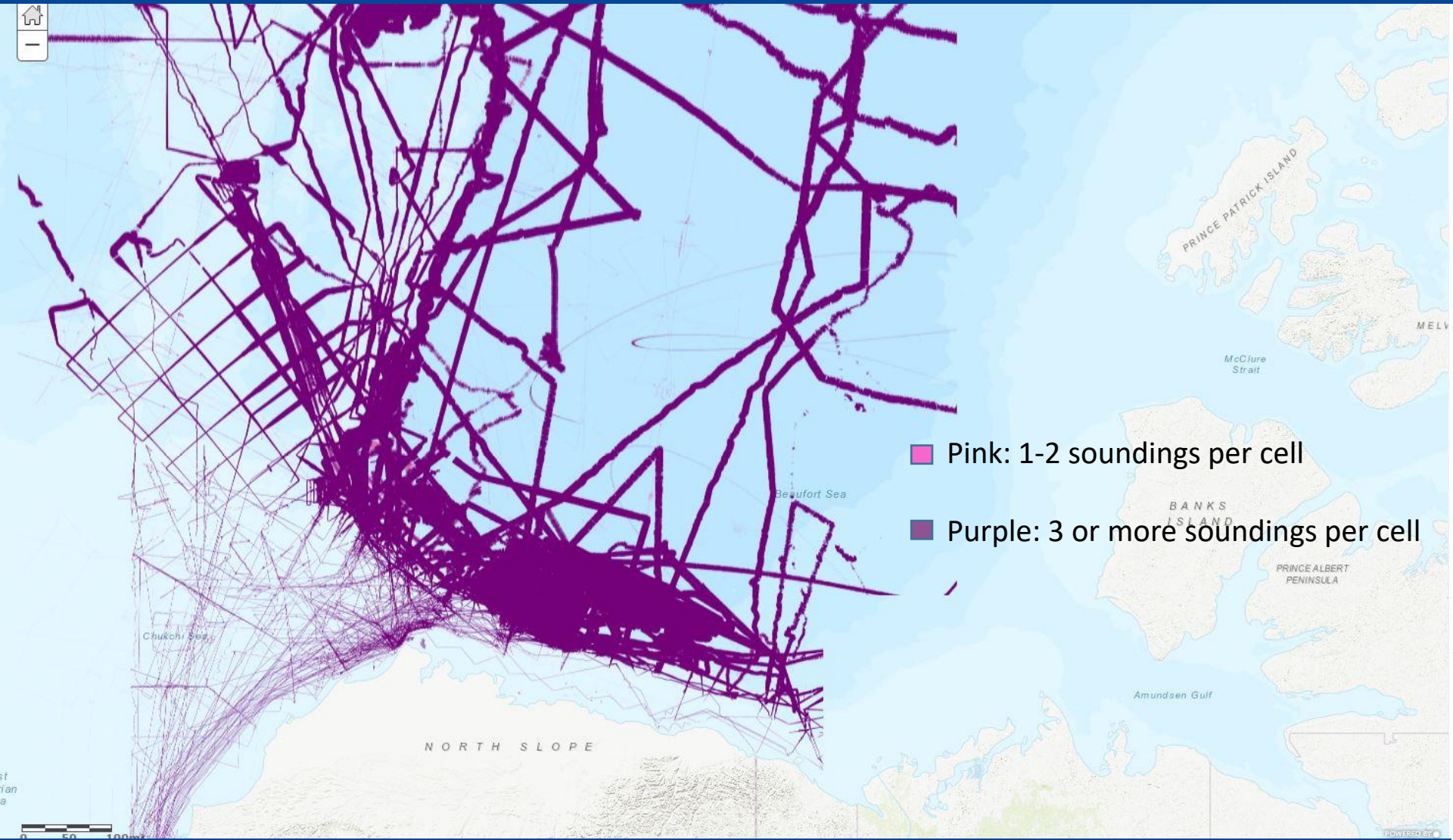


# Alaska



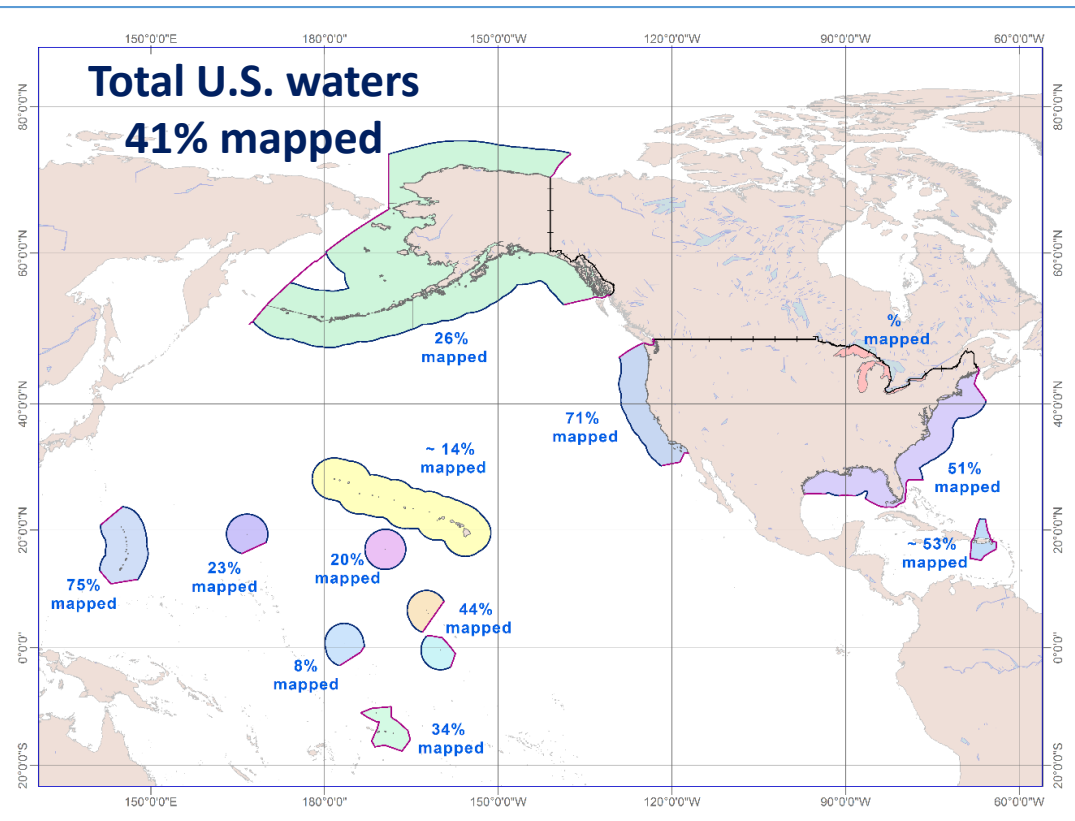


# US Arctic





# US Waters that have been “mapped”



Zones	% "Mapped"	Area "mapped" (sq nm) with modern surveys (>1960)	Total Area (sq nm)
EEZ	42%	1,442,000	3,438,000
"coastal waters"*	31%	48,100	154,000
<b>Total U.S. waters*</b>	<b>41%</b>	<b>1,490,100</b>	<b>3,592,000</b>

\* Includes Great Lakes

