Argo float coverage in Gulf of Mexico and Caribbean Sea

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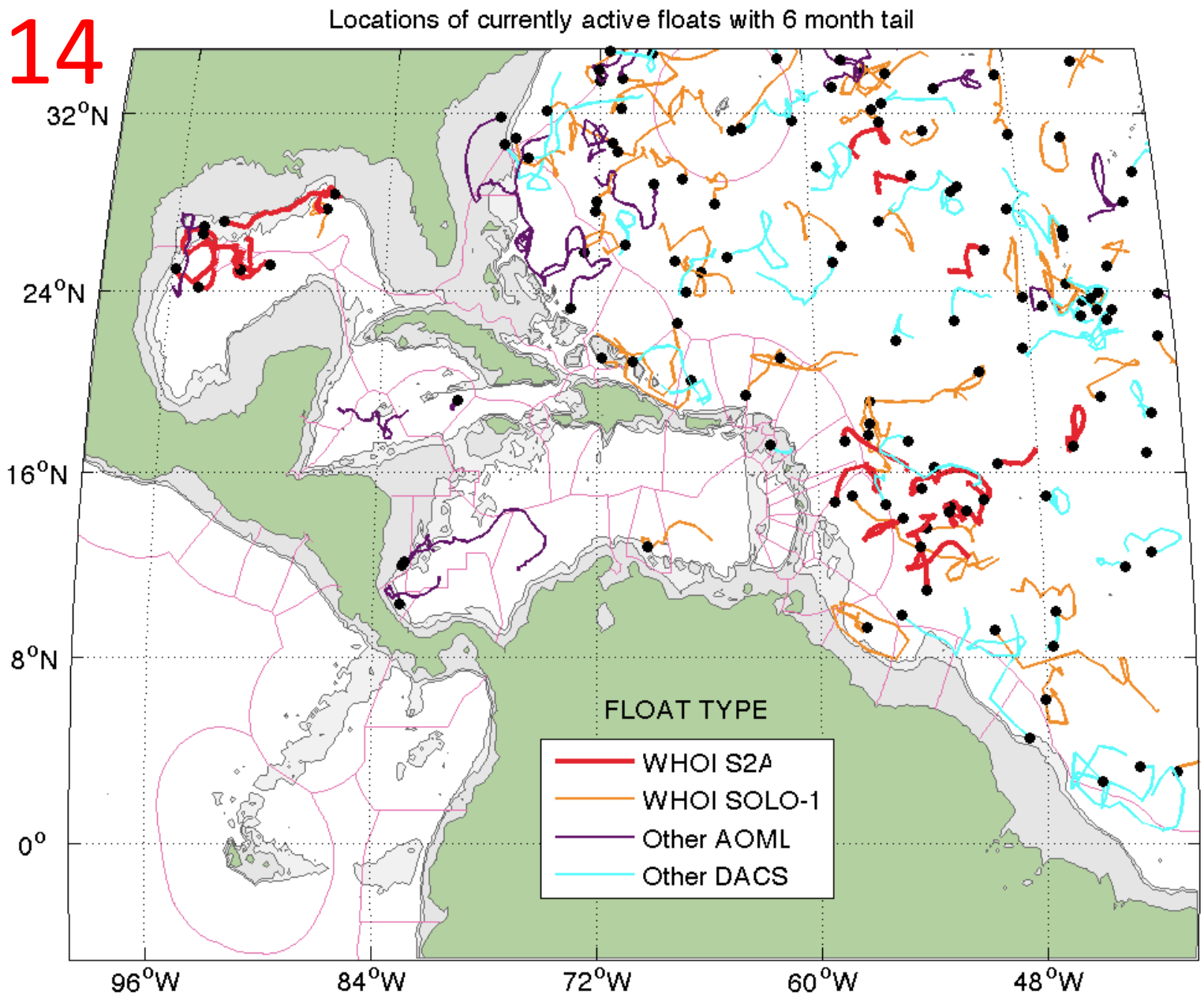
AST 16, IFREMER

2014

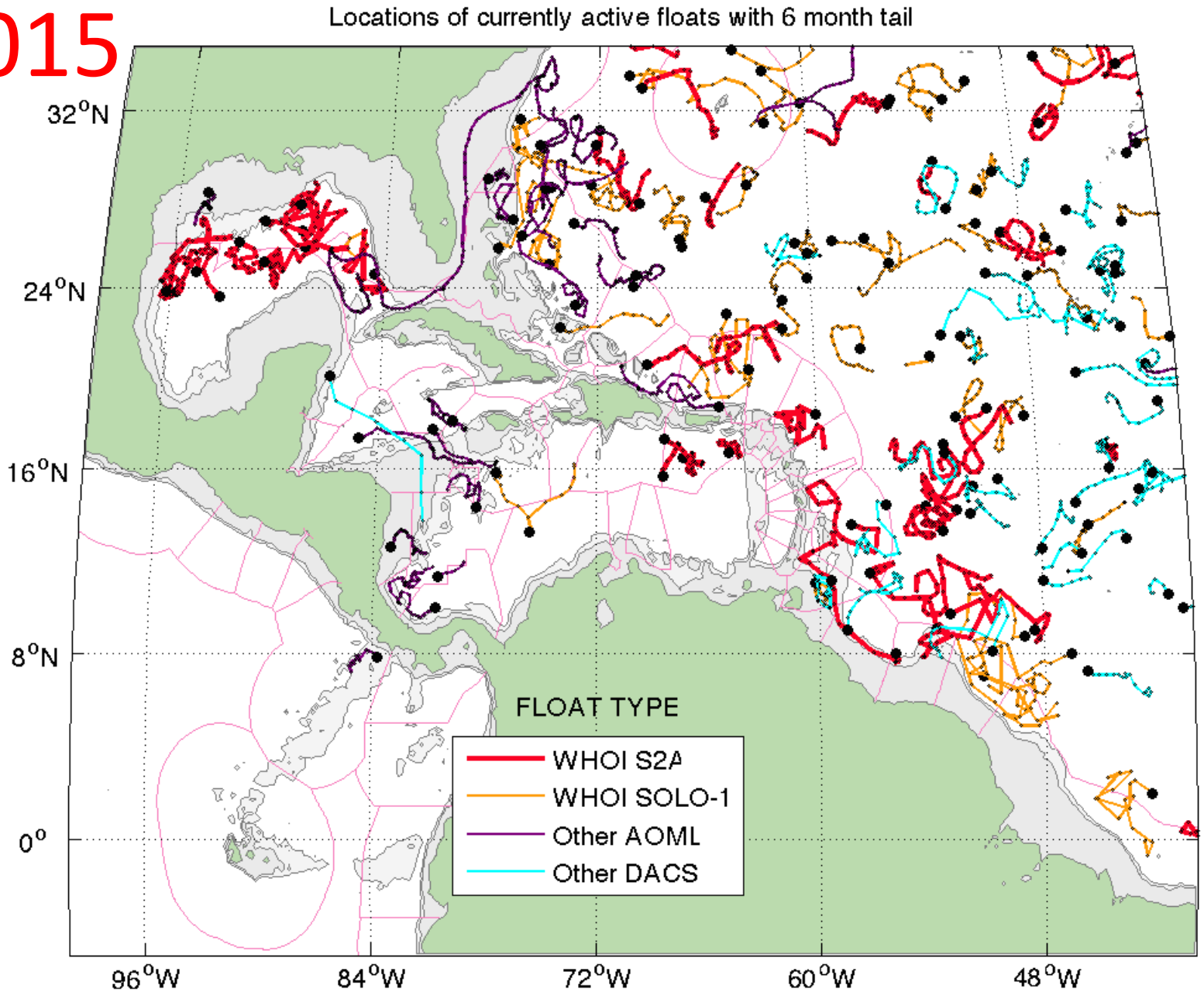


WHOI Argo:11-Mar-2014

Past Deployments and currently planned for 2015

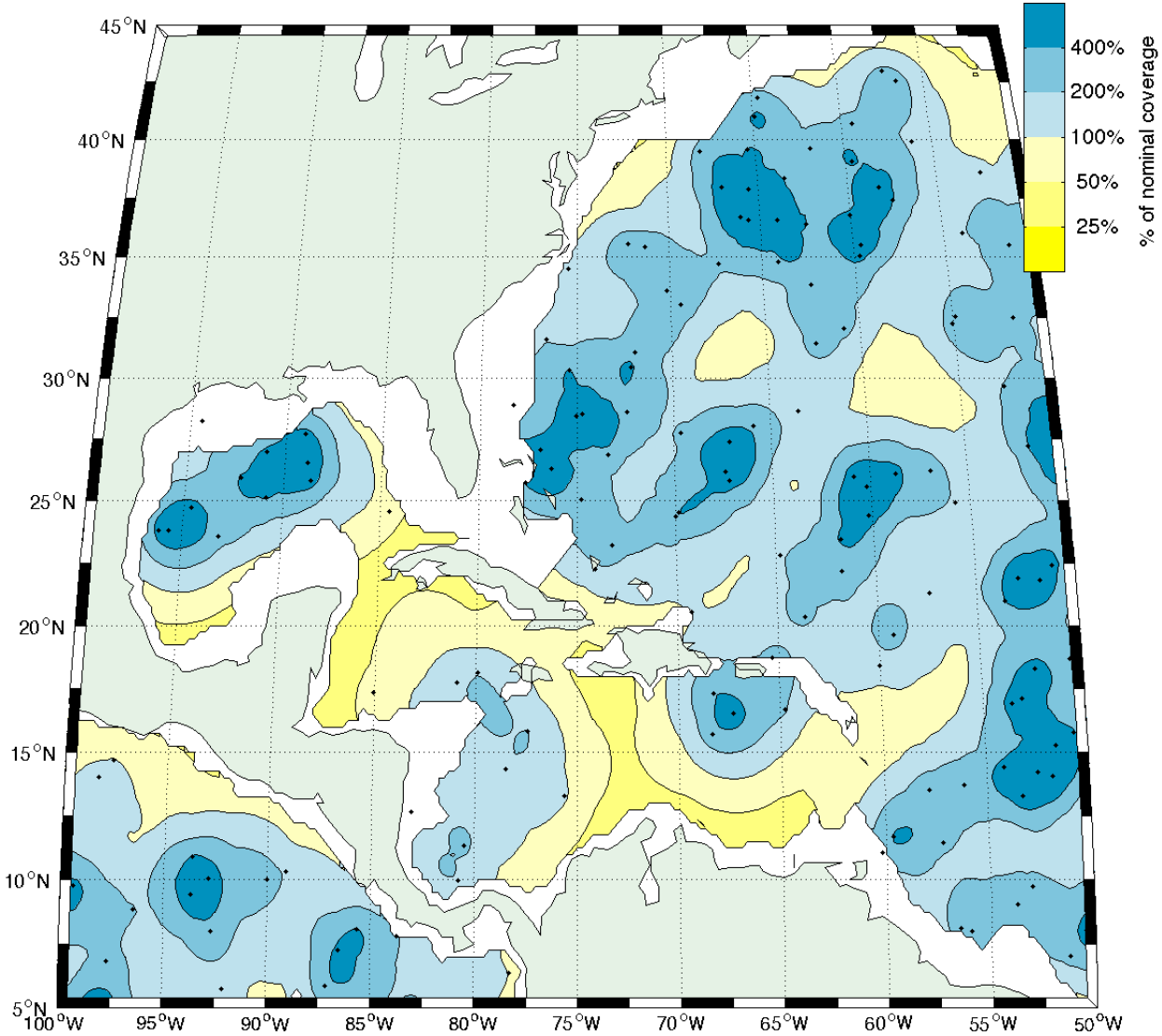
Date	SHIP	Location	# of floats
2013 September	*RV Pelican* (LUMCON)	Gulf of Mexico	7
2014 March	*SSV Corwith Cramer* (Sea Education Assoc.)	Caribbean	2
2014 April	*RV Okeanos Explorer* (NOAA)	Gulf of Mexico	4
2014 November	*MV Explorer* (Semester at Sea)	Caribbean	2
2015 May (planned)	*RV Nancy Foster* (NOAA)	Caribbean	4-6
2015 May (planned)	*RV Pelican* (LUMCON)	Gulf of Mexico	4

2015



WHOI Argo:13-Mar-2015

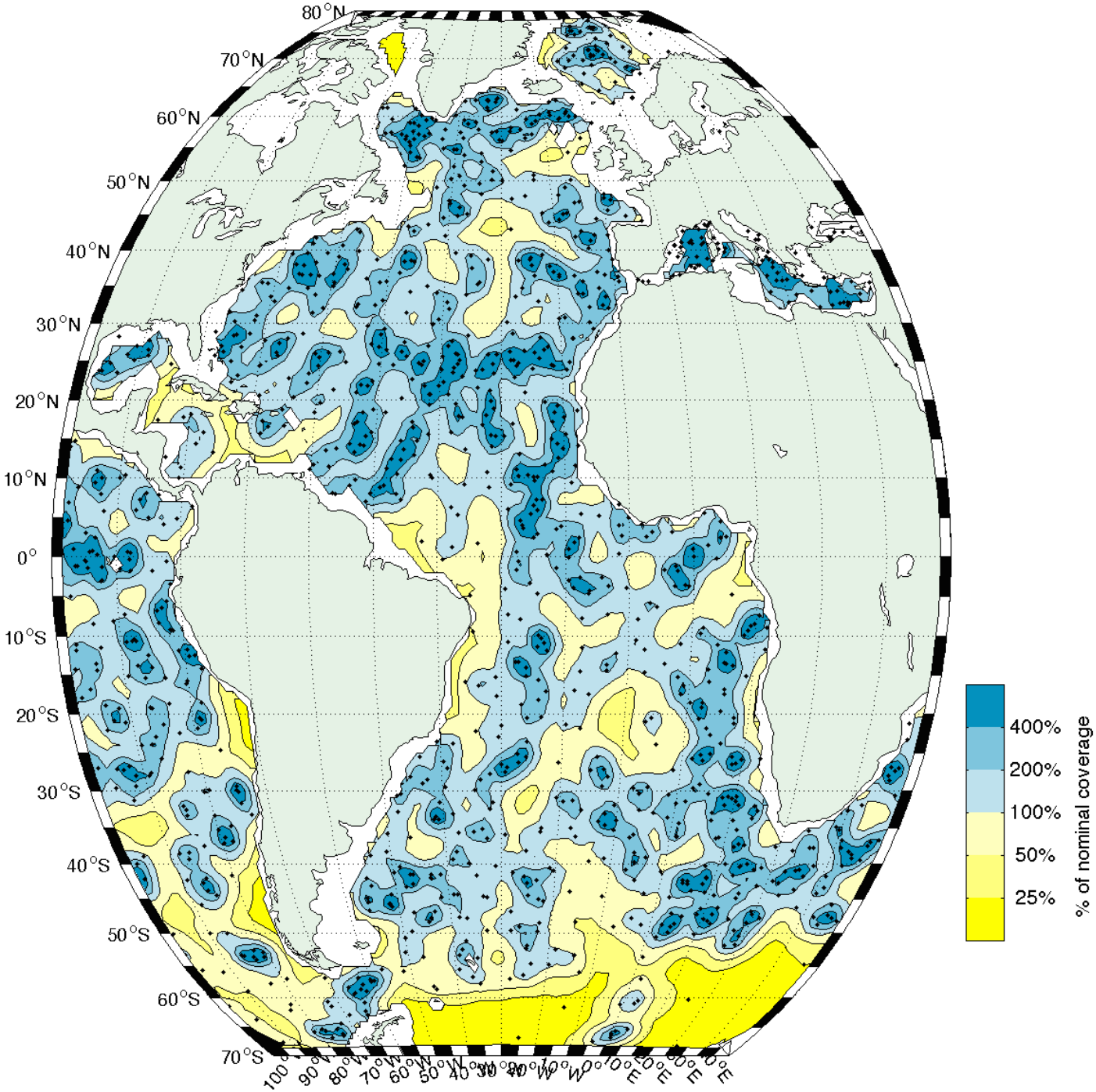
Float Sparseness



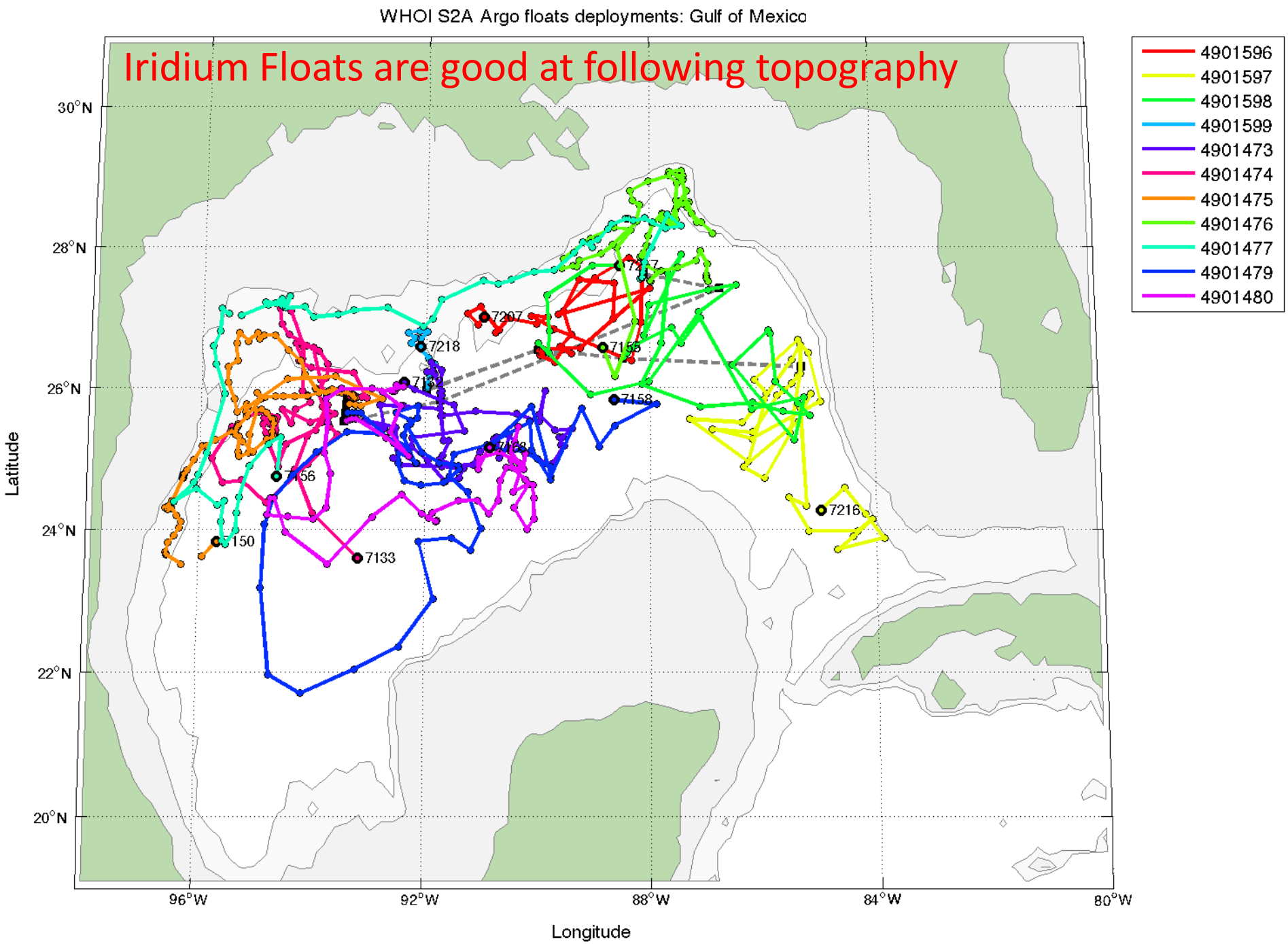
Argo Float Sparseness: 2015-03-05, Fraction of nominal coverage based on distance to 4 nearest floats. DAC=GDAC

http://argo.whoi.edu/maps/sparse/index.html

WHOI Argo:12-Mar-2015

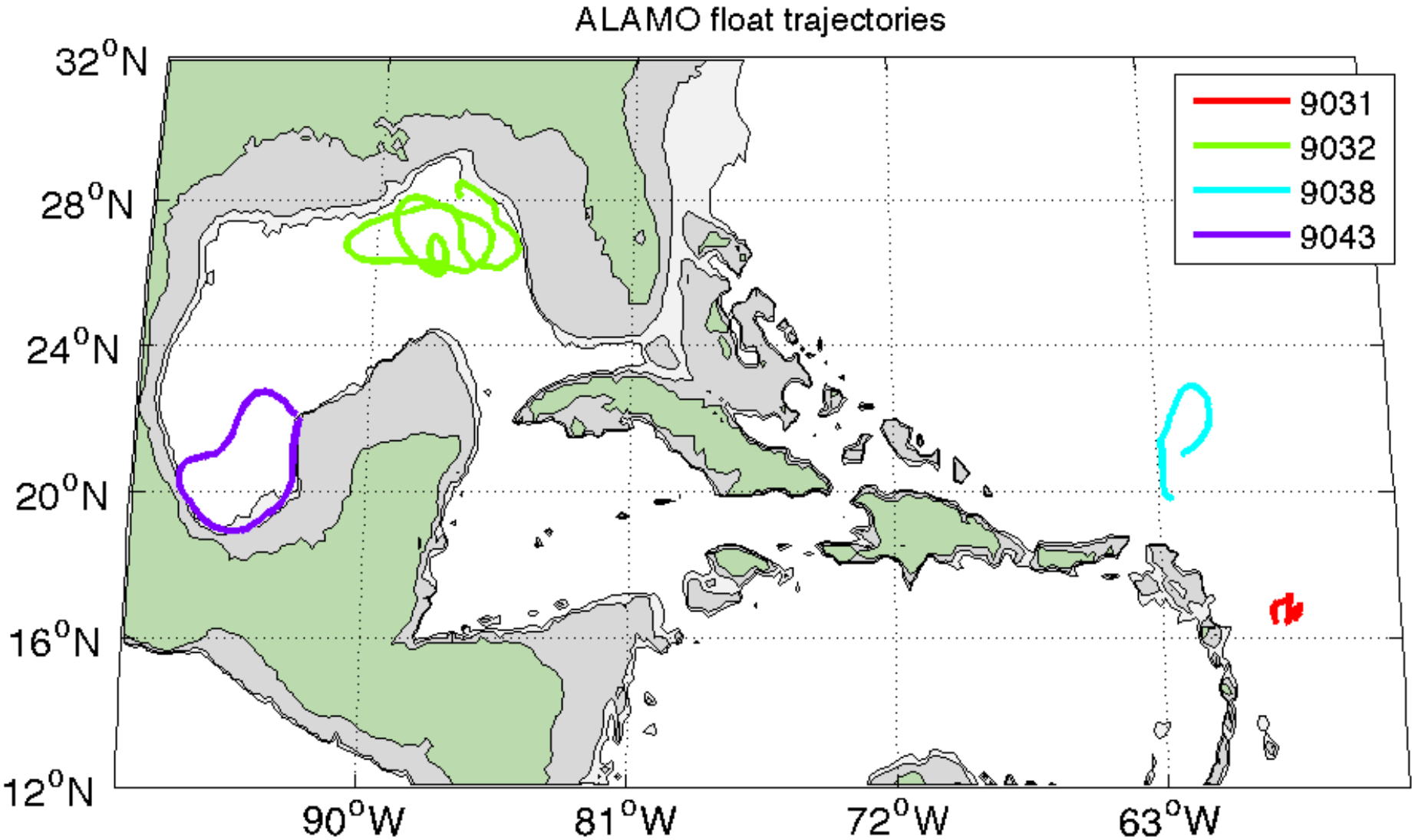


Argo Float Sparseness: 2015-03-05, Fraction of nominal coverage based on distance to 4 nearest floats. DAC=GDAC


WHOI S2A Argo floats deployments: Gulf of Mexico
Iridium Floats are good at following topography
4901596
4901597
4901598
4901599
4901473
4901474
4901475
4901476
4901477
4901479
4901480
30°N
28°N
26°N
24°N
22°N
20°N
Latitude
96°W
92°W
88°W
84°W
80°W
Longitude
7218
7158
7216
7133

Airborne ALAMO floats deployed for 2014 Hurricane Season

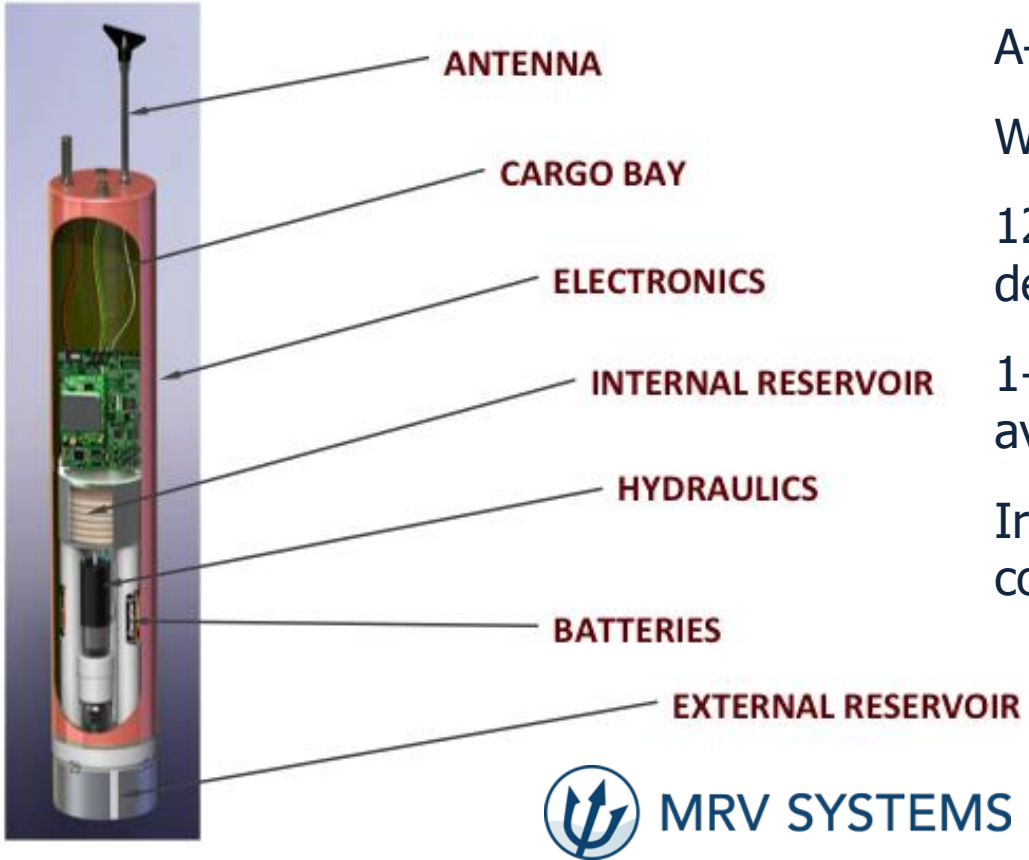
P-T sensor only, ~300m profiles, 8 cycles per day, longevity ~100 days



ALAMO

Smaller profiling float that will fit in the AXBT launcher and can be used operationally by the NOAA and USAF Hurricane Hunters planes.

Advantages over AXBT include: multiple profiles, more sensors (pressure, salinity, & accelerometer for surface waves), no VHF receiver equipment on planes.



A-sized case

Weight ~10 kg

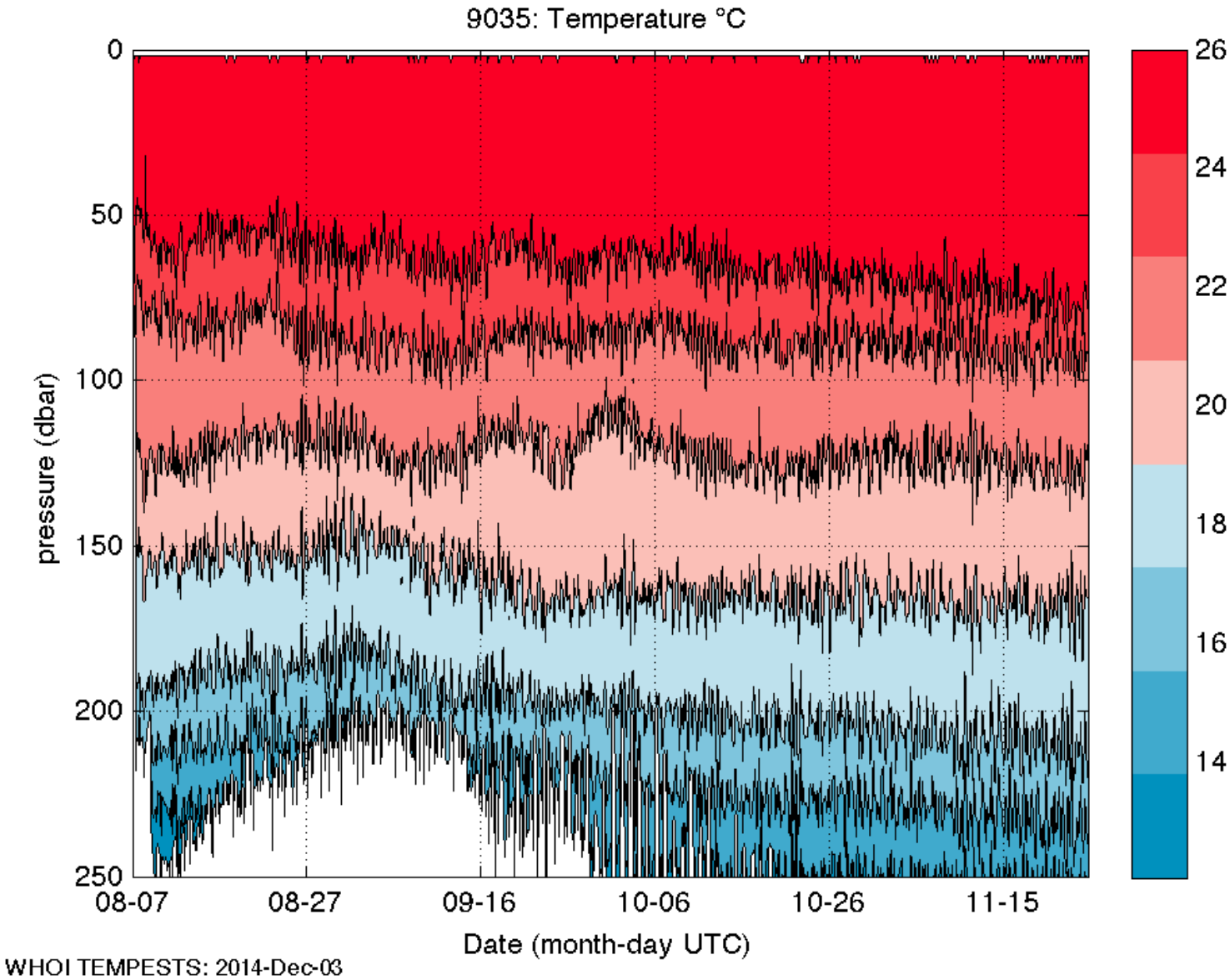
1200-meter depth rating

1-2 dbar bin-averaged data

Iridium data communication

4901723 Upper Ocean Temperature

8 profiles per day for 111 days. Data on GTS but not GDAC



Summary

- Floats with Iridium telemetry appear capable of "dwelling" in the Gulf of Mexico.
- 2015 WHOI Argo deployment plans in Caribbean/GOM

Gulf of Mexico	***RV PELICAN***	**4**
Caribbean	*RV NANCY FOSTER*	4-6

- 60 ALAMO floats available for deployment in 2015 hurricane season (5 with RBR CTDS)