

**NOAA
FISHERIES**

NMFS' Side-by-side Pilot Testing of NEMO (cVMS) and Historical cELB Units for Gulf Shrimp Vessels

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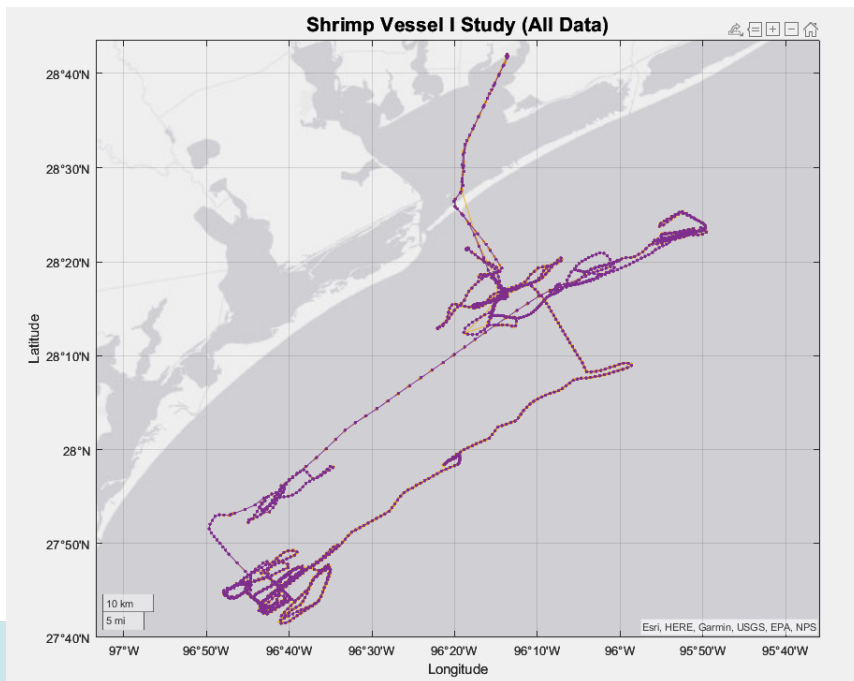
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Cleaning data

- Rows containing bad data were removed (cELB here)

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99:00.000,199:00.000,1,28,14,14,30,39
99:00.000,199:00.000,1,28,14,14,40,41
99:00.000,199:00.000,1,28,14,14,50,41
99:00.000,199:00.000,1,28,14,15,0,42
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99:00.000,199:00.000,1,28,14,15,48,14
99:00.000,199:00.000,1,28,14,15,58,15
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- Data inshore of barrier island remove
- Long time steps removed
- Single obs removed (as possible)
- Unpaired tows removed (as possible)

Processing

- Data processed using the same Matlab codes as the Caretta study.
- Modification made to address a change in Rows containing bad data were removed (cELB here)

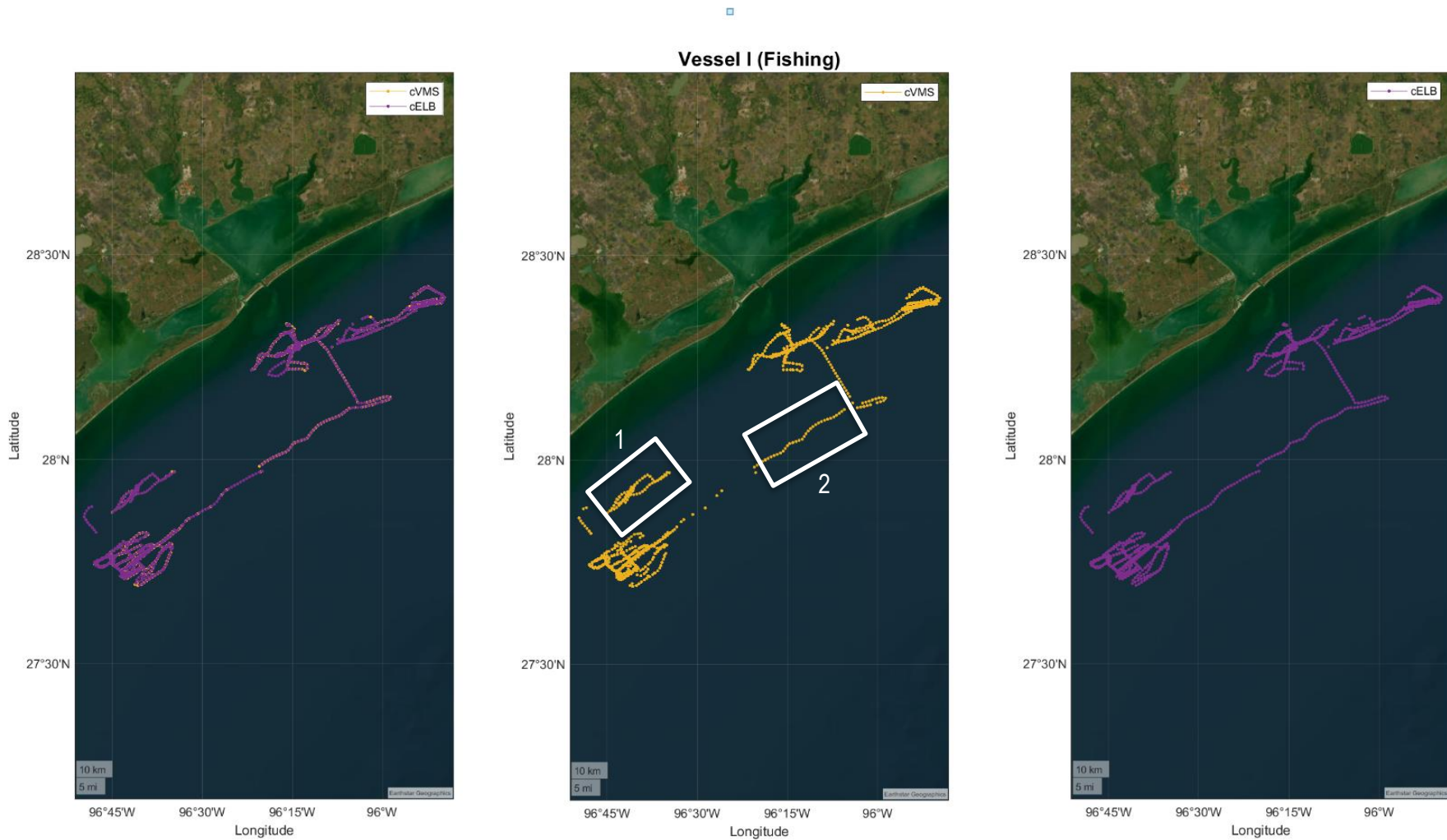
Trip Statistics

Vessel	Distance Swept (nm)		
	NEMO (cVMS)	cELB	%Diff (rel cELB)
Shrimp Vessel I	461.03	551.39	16.39
Shrimp Vessel II	727.46	889.27	18.20
Shrimp Vessel III	1675.69	2058.74	18.61
Shrimp Vessel IV*	471.65	605.85	22.15
Shrimp Vessel V	417.00	577.79	27.83

Vessel	Tow Days		
	NEMO (cVMS)	cELB	%Diff (rel cELB)
Shrimp Vessel I	6.47	7.91	18.13
Shrimp Vessel II	12.17	14.96	18.68
Shrimp Vessel III	25.72	31.76	19.03
Shrimp Vessel IV*	7.45	9.74	23.54
Shrimp Vessel V	6.66	9.38	28.98

* Several nonpaired tows due to cVMS





Check to see if areas with better location data could reduce %-difference

Trip Statistics

Distance Swept (nm) - Vessel 1

Region	NEMO (cVMS)	cELB	%Diff (rel cELB)
Region 1	38.93	42.21	7.75
Region 2	15.52	15.04	3.18

Tow Days Vessel 1

Region	NEMO (cVMS)	cELB	%Diff (rel cELB)
Region 1	0.54	0.61	0.17
Region 2	0.21	0.22	0.03



Conclusions

- cVMS/NEMO was lower than cELB wrt distance swept and tow days (except for one case)
- cVMS/NEMO had longer time steps than specified in a number of cases
- Missing data made alignment difficult to perform for a number of tows
- Relatively large %-difference between cVMS/NEMO and cELB
- Much better agreement when using regions with good data for both units these were smaller than the entire data set, however

