



Apr 6th, 2:30 PM - 2:45 PM

Salish Sea surface currents: real-time velocities from HF radar

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Dewey, Richard; Pawlowicz, Rich; Morley, Mike; and Wang, Manman, "Salish Sea surface currents: real-time velocities from HF radar" (2018). *Salish Sea Ecosystem Conference*. 581.
<https://cedar.wvu.edu/ssec/2018ssec/allsessions/581>

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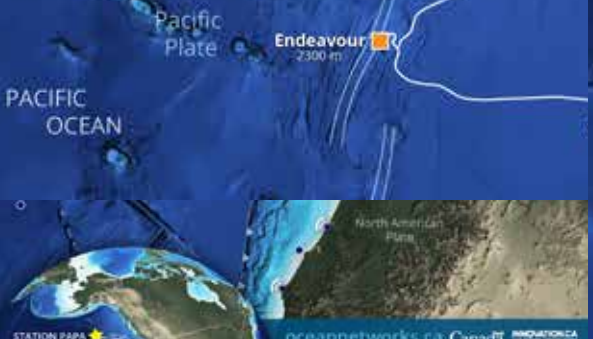
Salish Sea Surface Currents:
Real-time velocities from hf radar

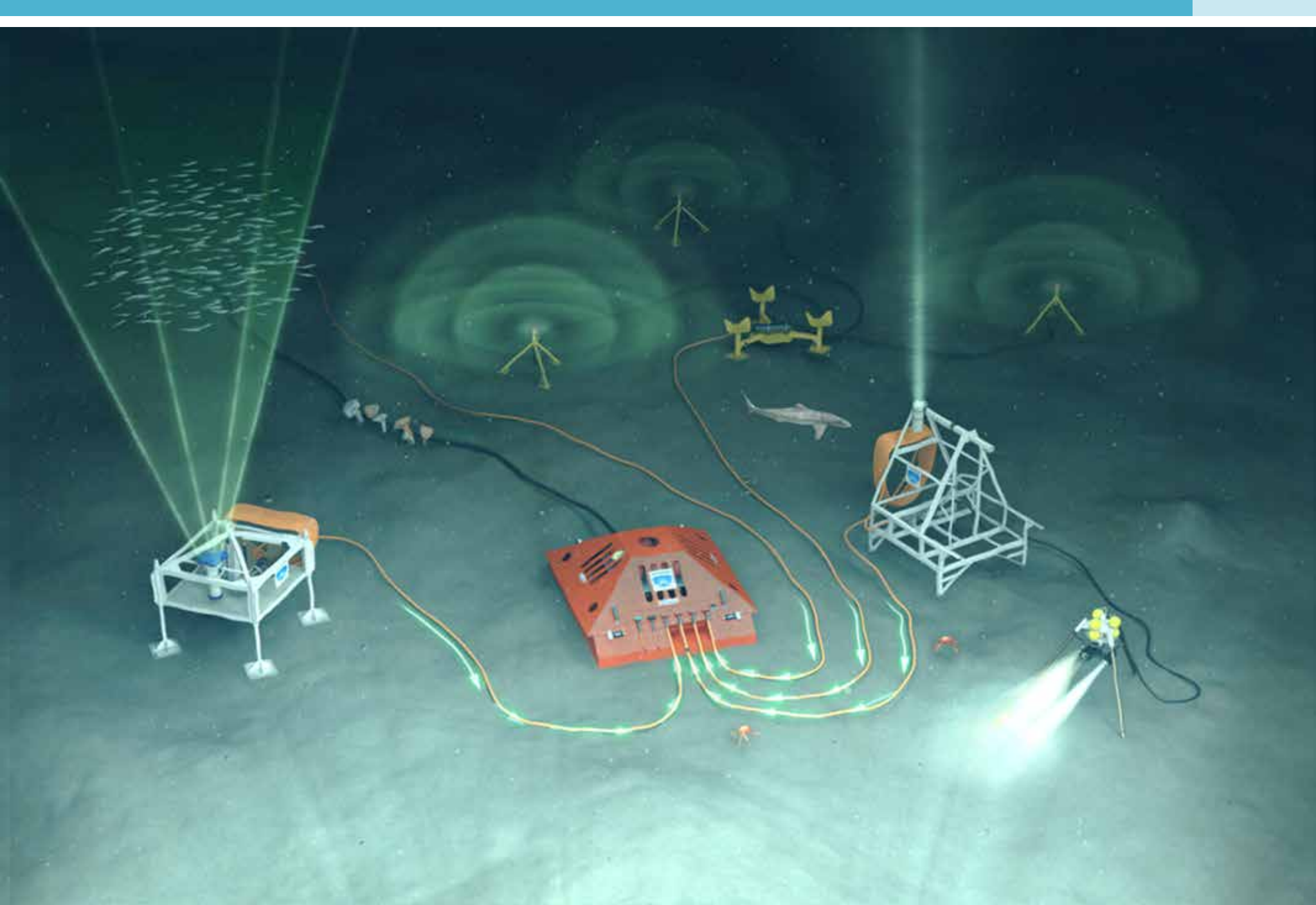
Richard Dewey¹, Mark Halverson², Manman Wang¹, Mike Morley¹
Ocean Networks Canada¹ & UBC² SSEC 2018 - Seattle

NORTHEAST PACIFIC MAJOR OBSERVING SYSTEMS



SOUTHERN BRITISH COLUMBIA INFRASTRUCTURE



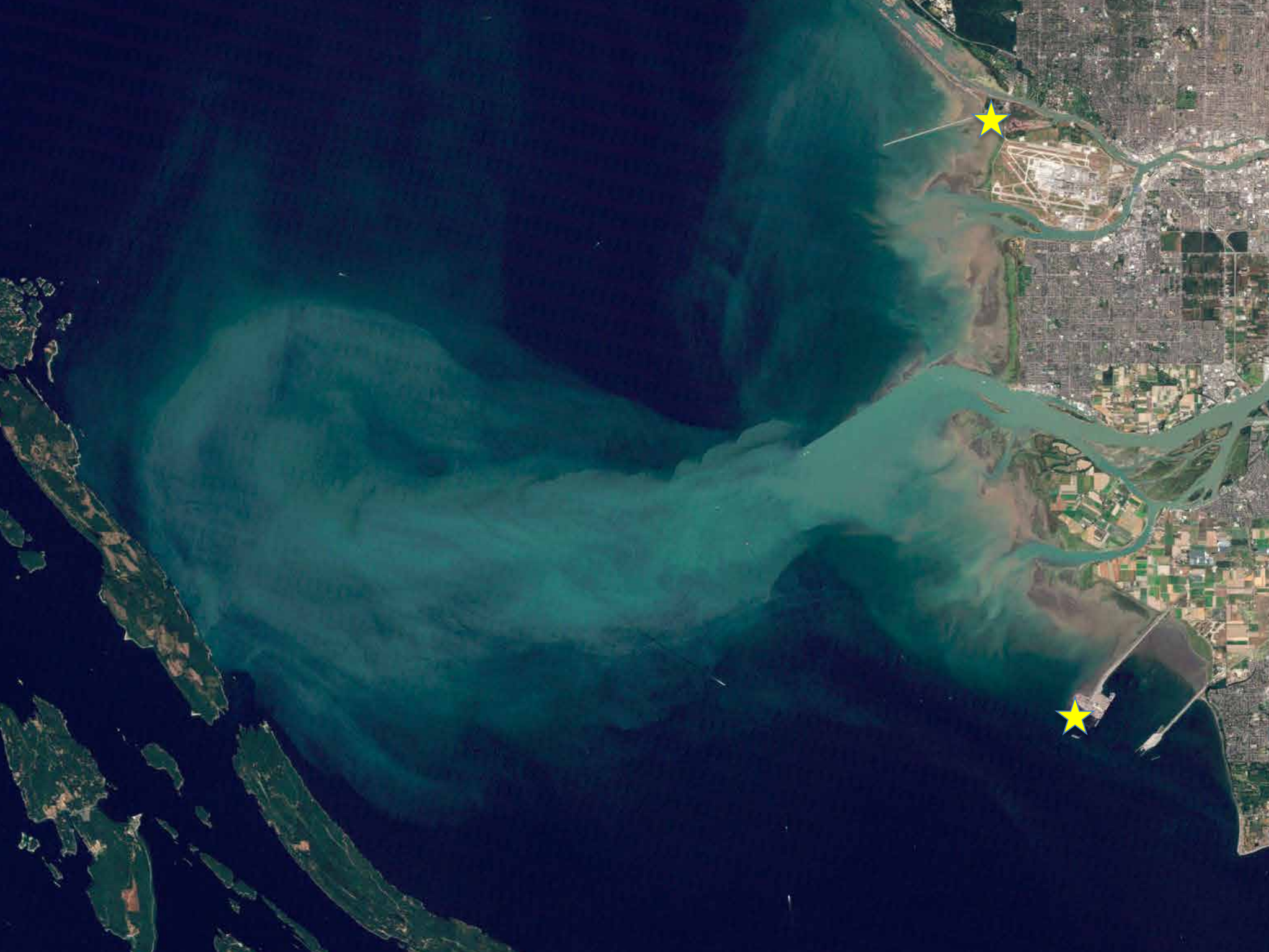


WORLD-LEADING DISCOVERIES AT A CRITICAL TIME

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Ocean Dynamics: Tides, Wind, and River





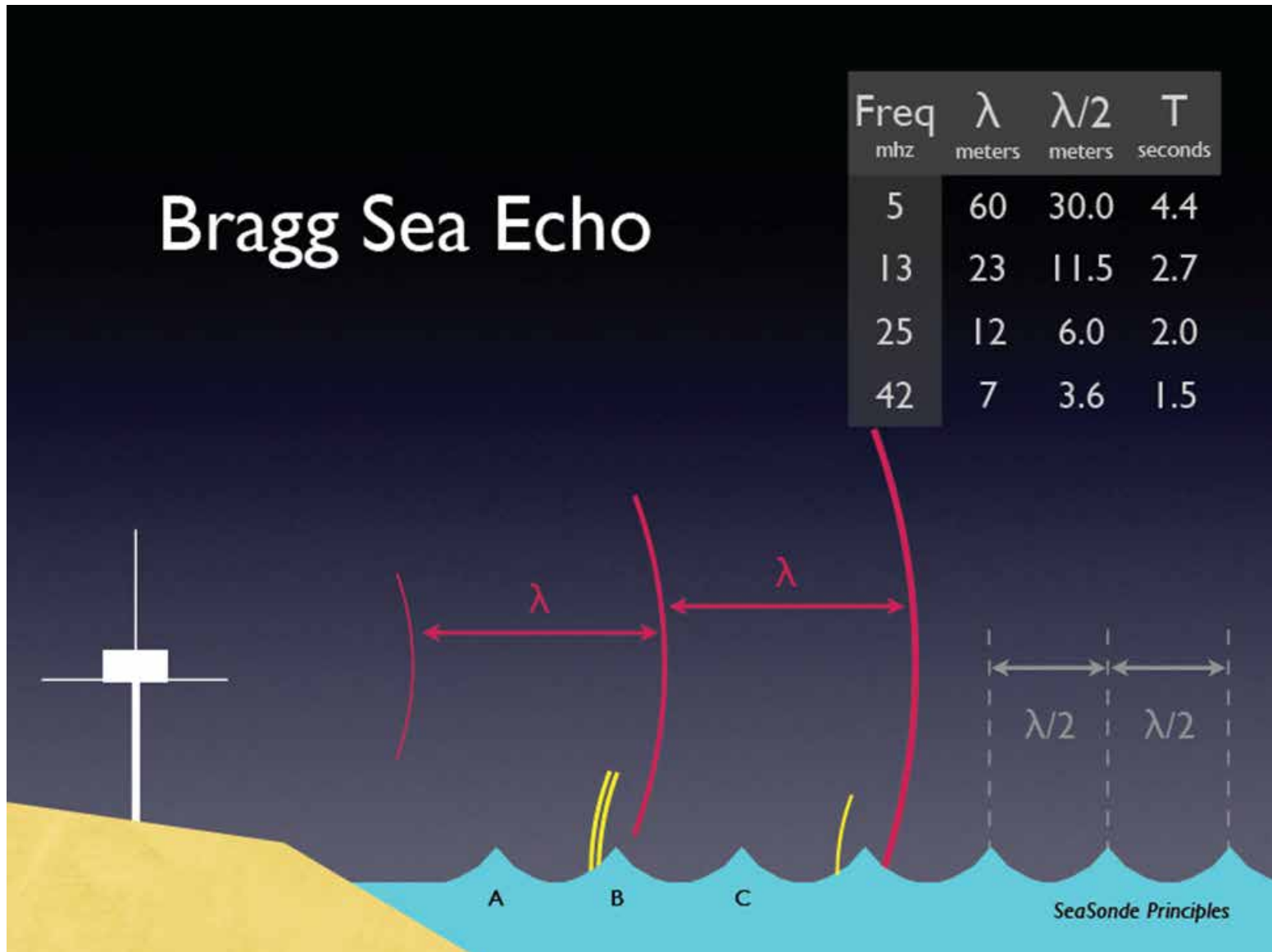


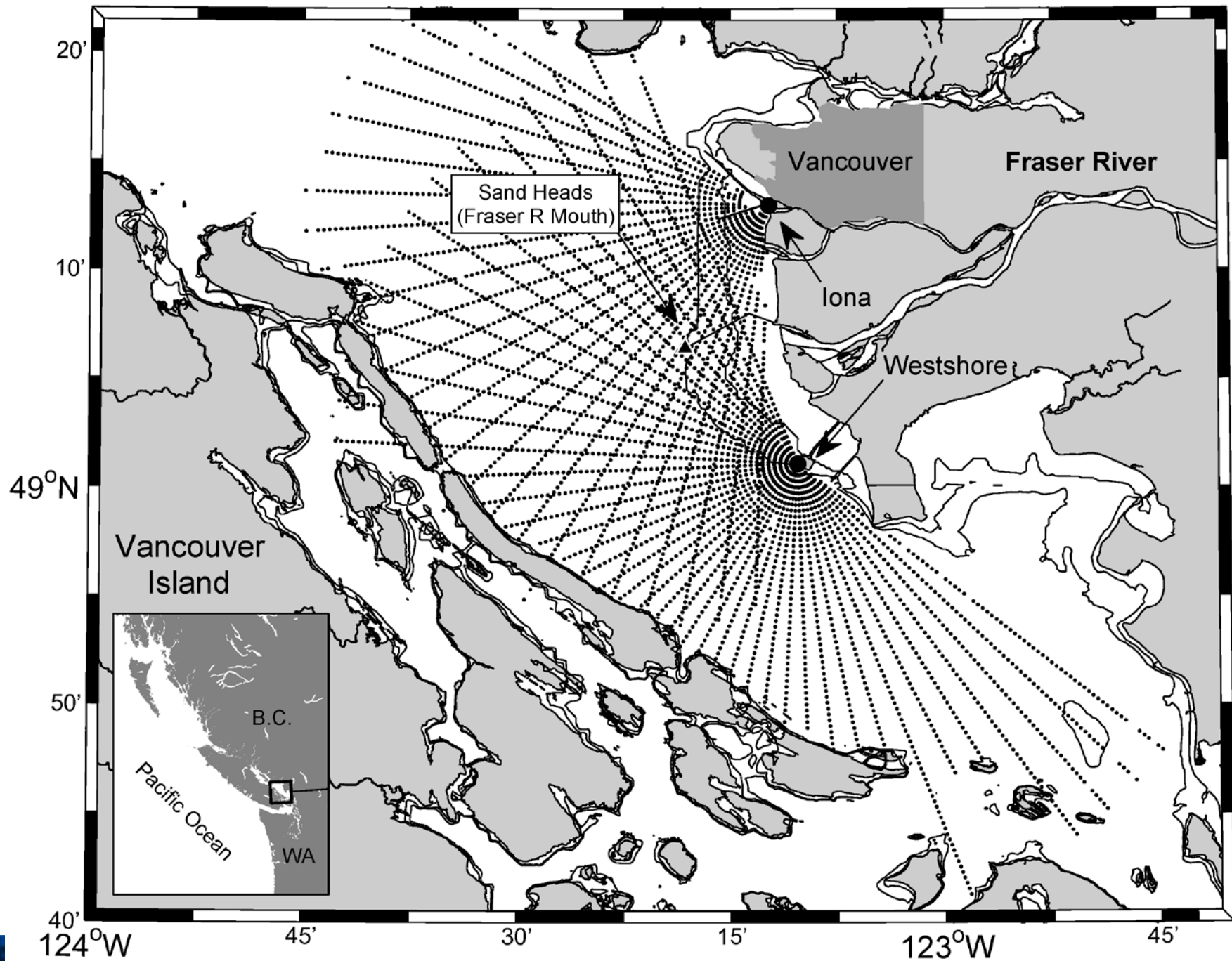
Strait of Georgia

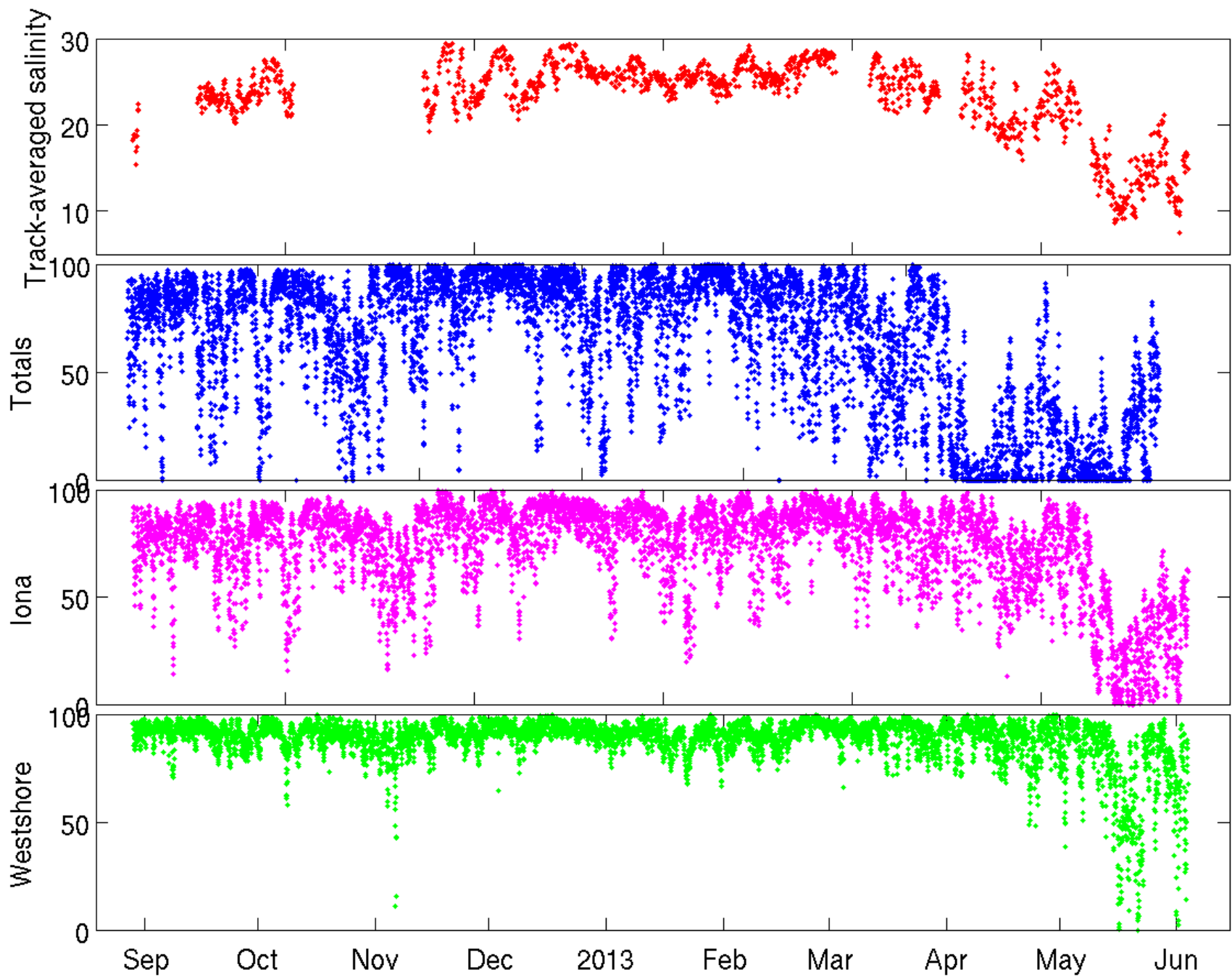
- 4 CODAR Stations
- Iona WWTP
- Westshore Coal Port
- Pt. Atkinson
- Georgia Pt.



ONC CODAR: 25MHz, BW-300kHz à 500m



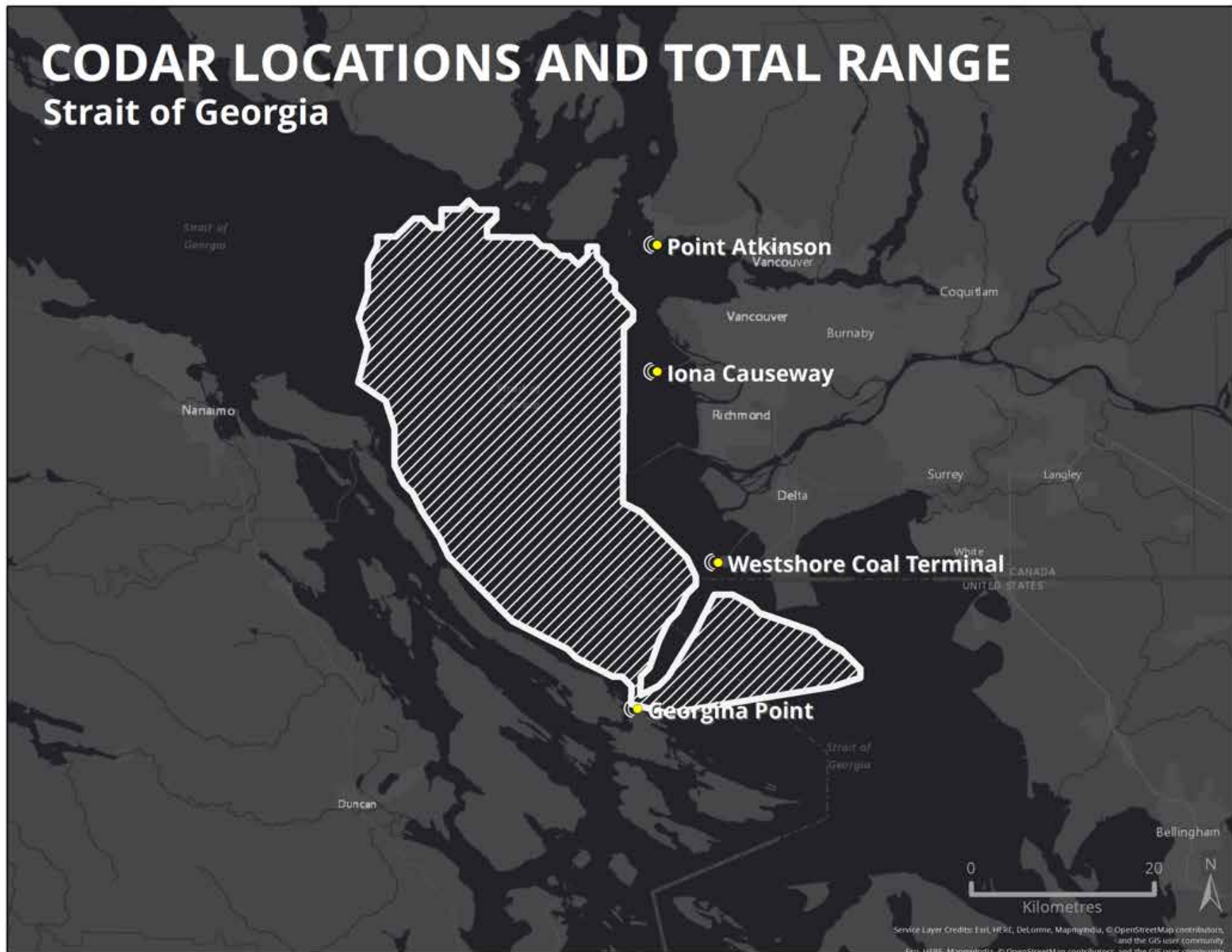


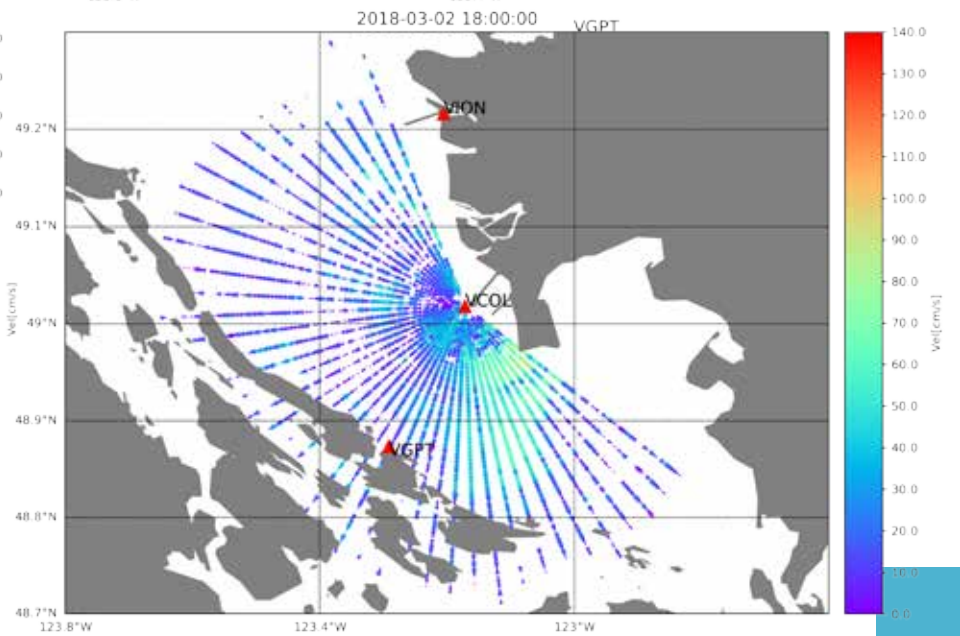
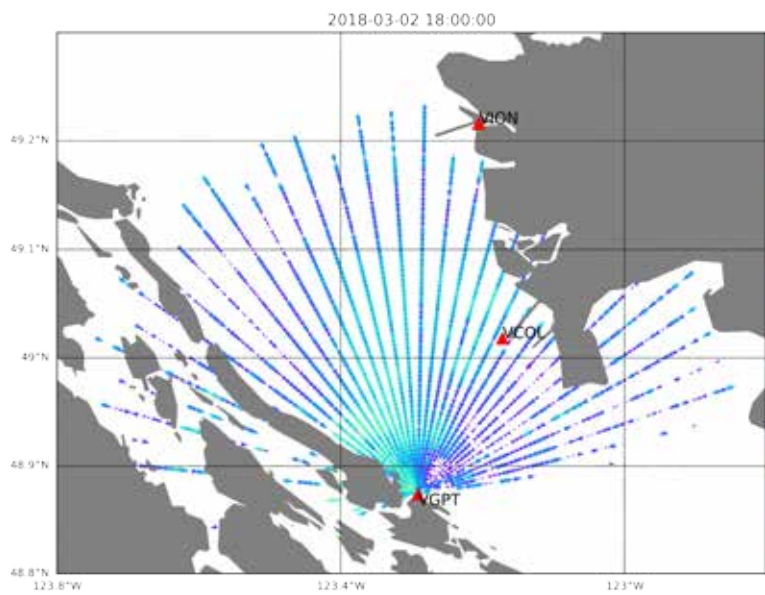
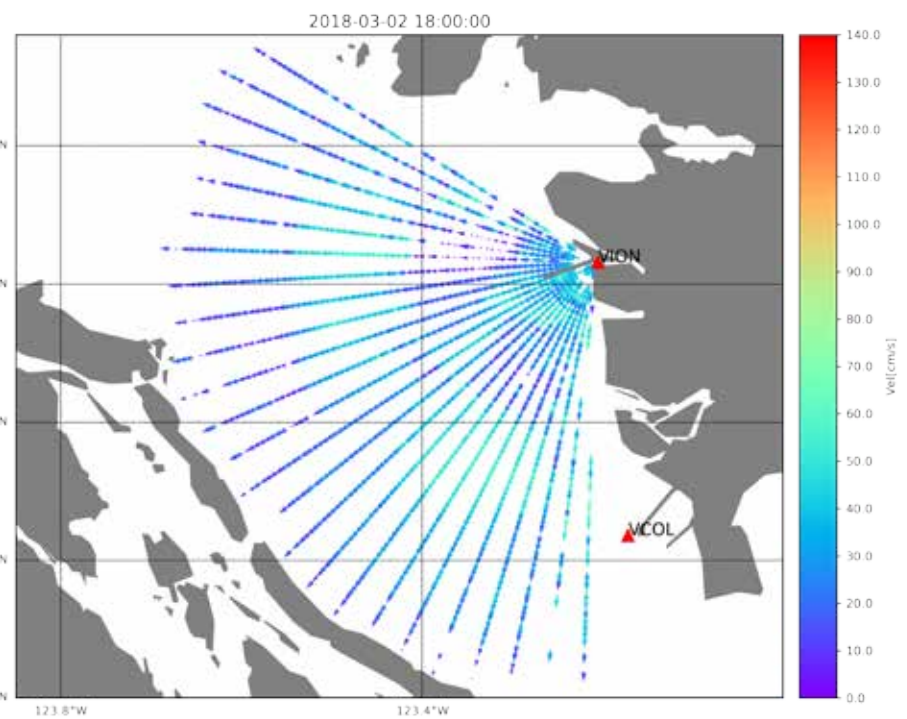
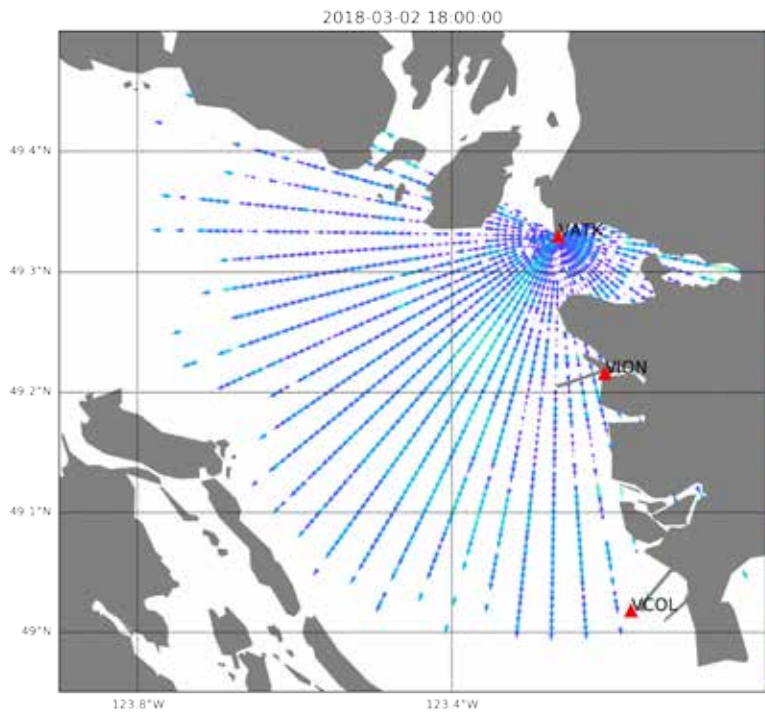




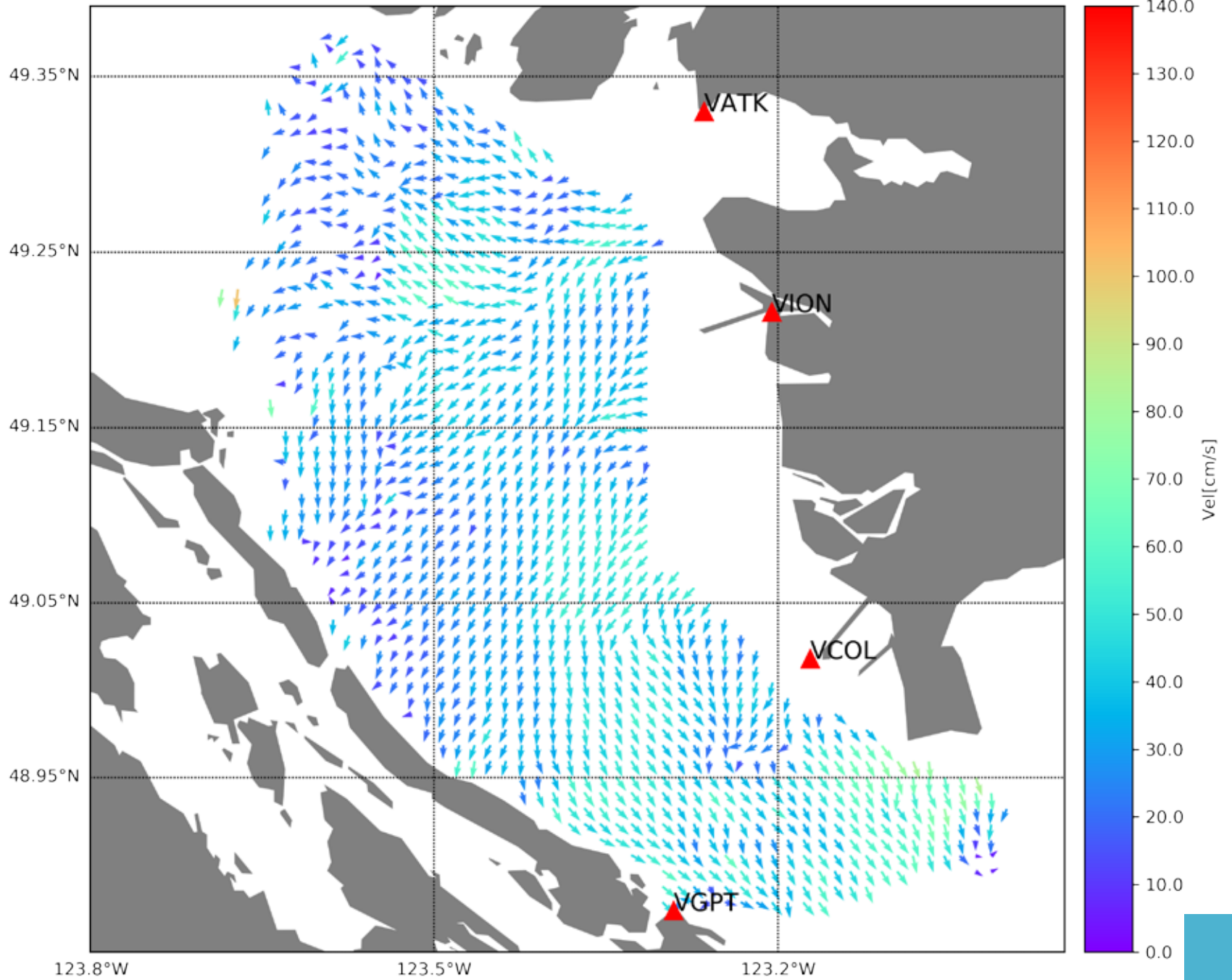
CODAR LOCATIONS AND TOTAL RANGE

Strait of Georgia

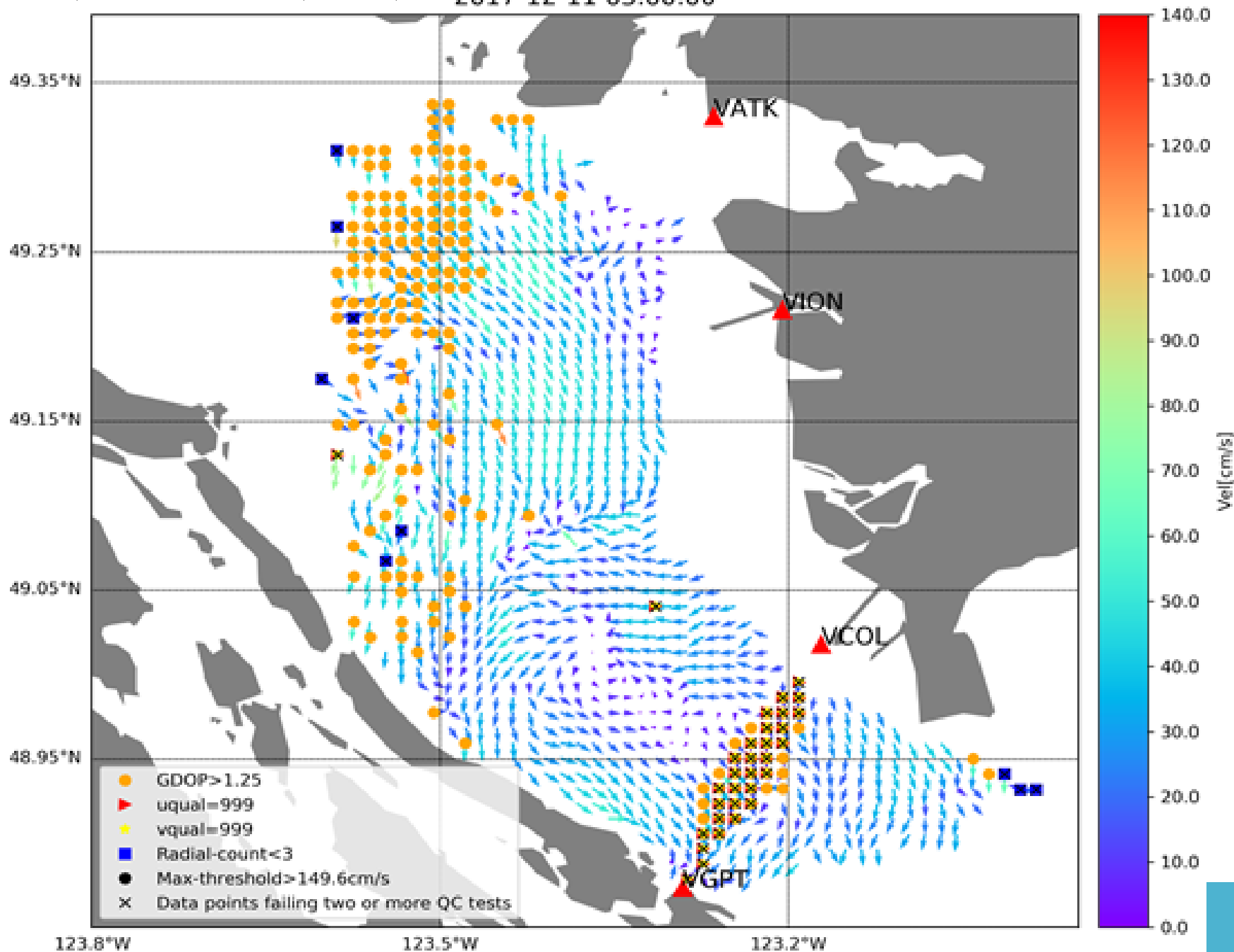




2018-03-02 18:00:00



QARTOD QA/QC 2017-12-11 03:00:00

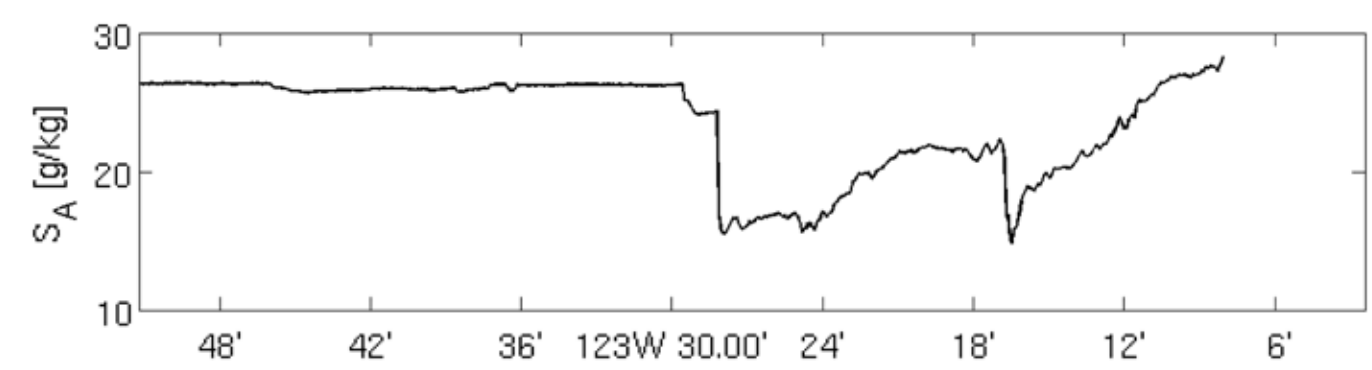
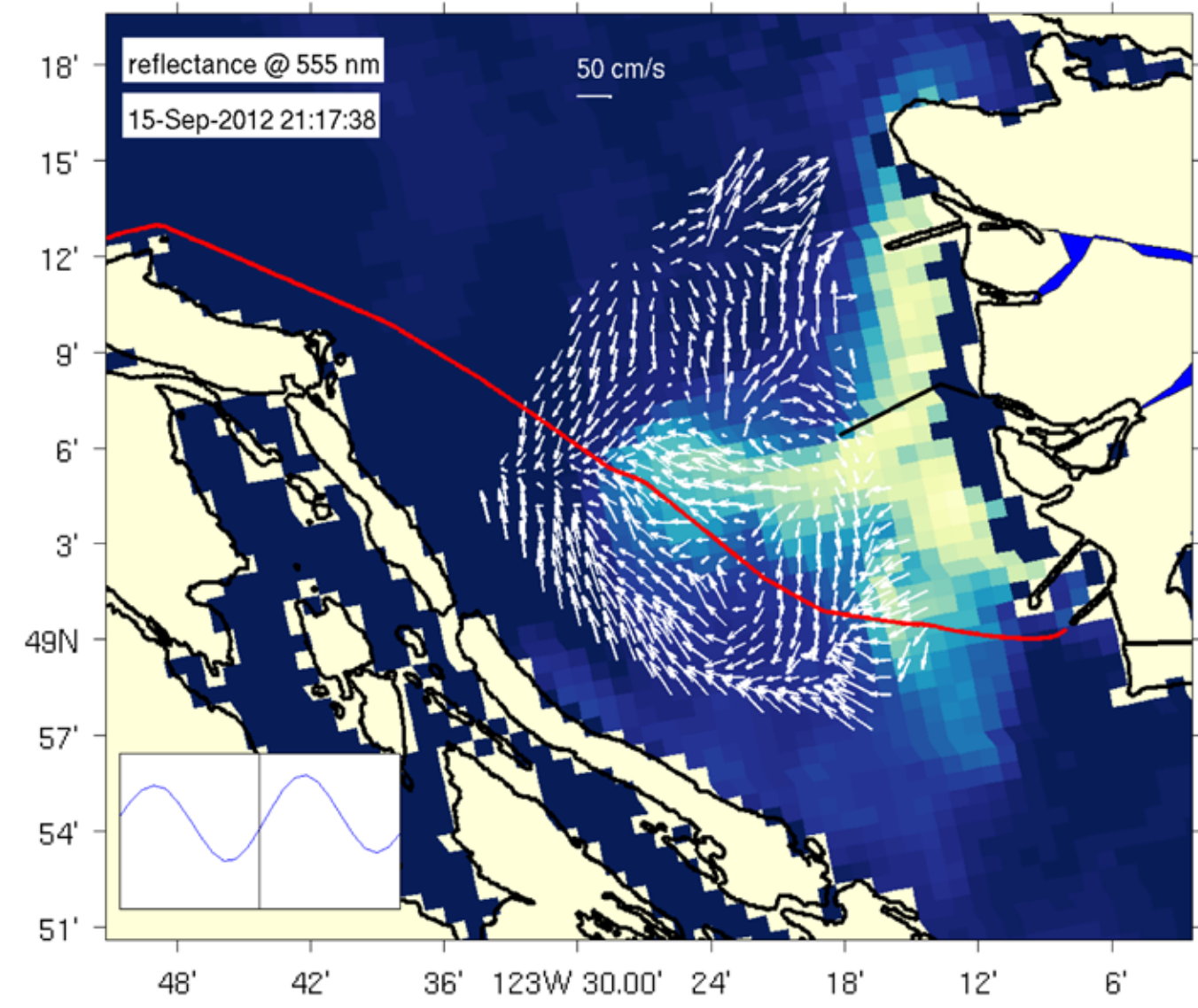


123.8°W

123.5°W

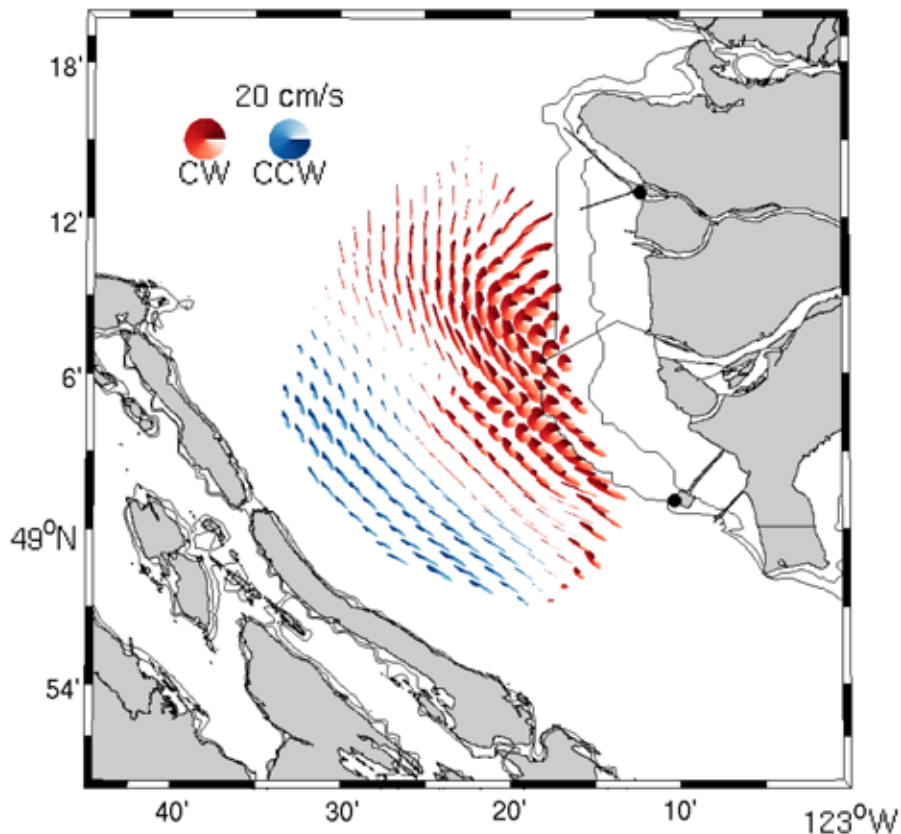
123.2°W





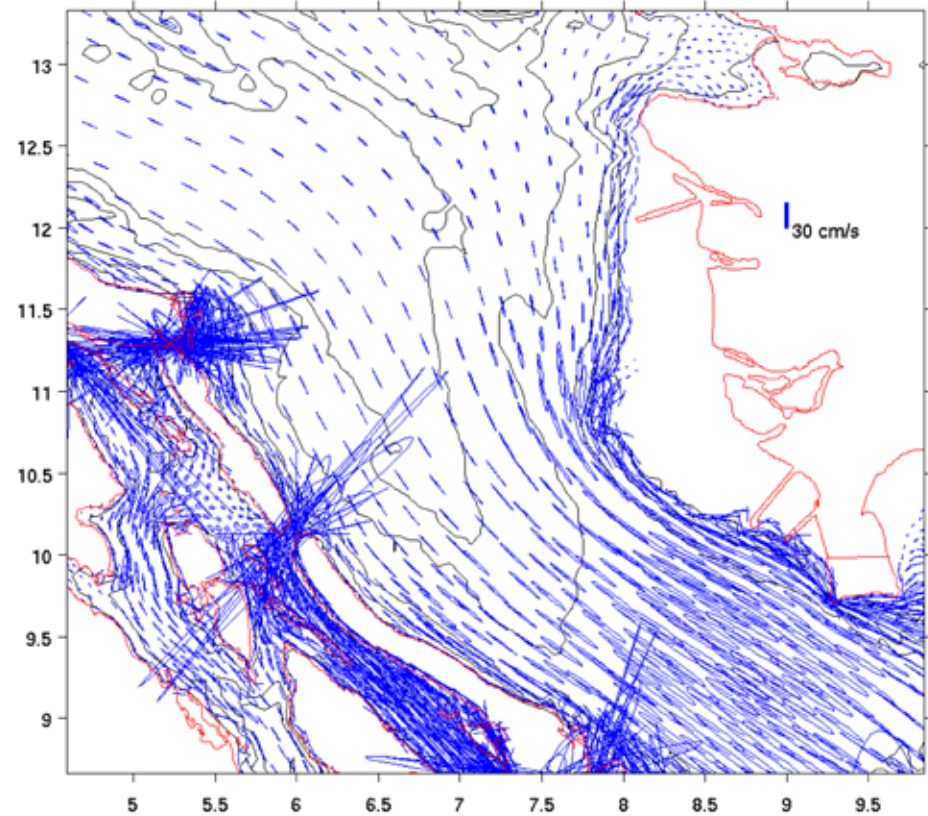
Tidal flow

M2

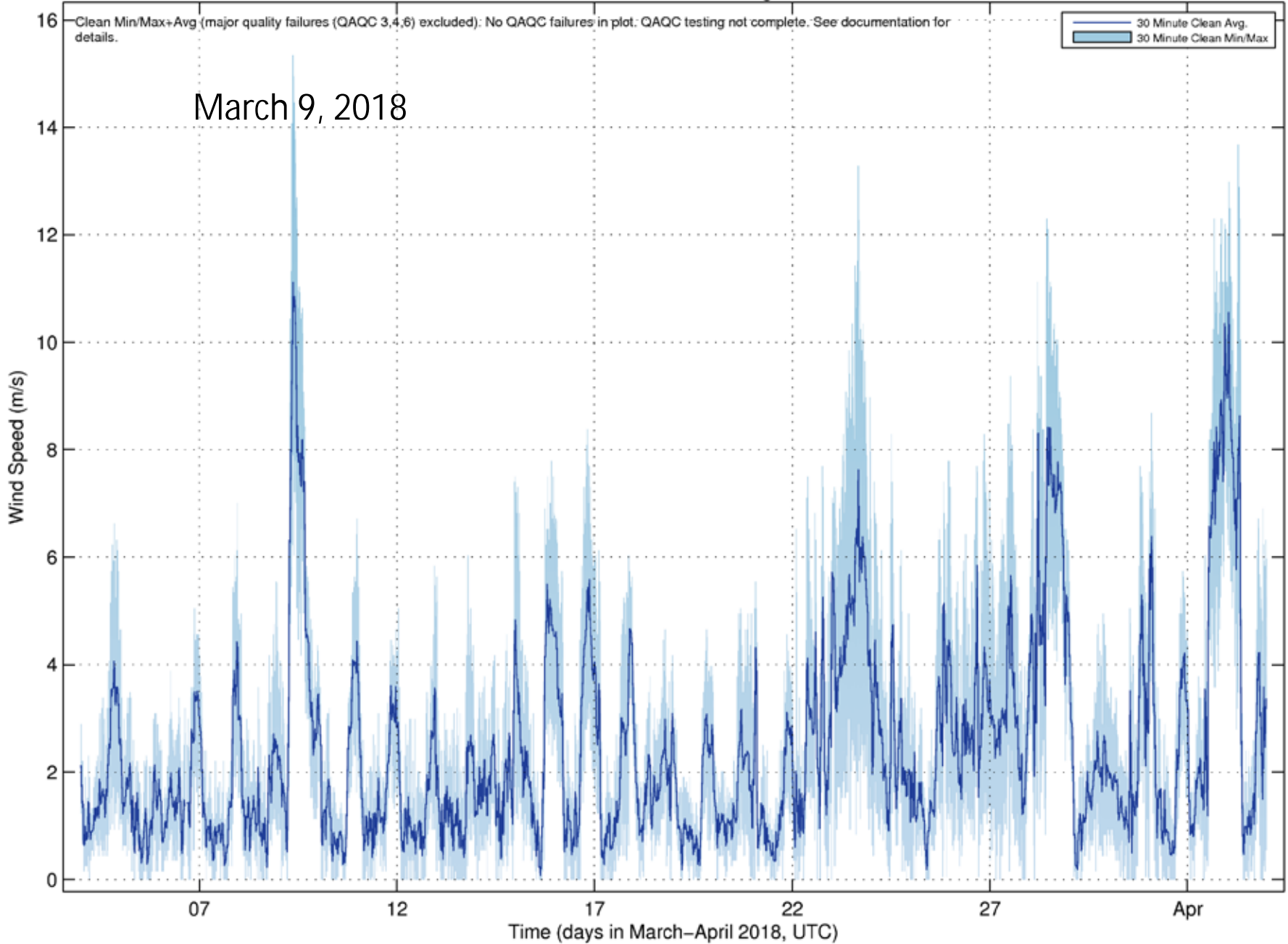


M2 major axis:
Max: 25 cm/s
Mean: 12 cm/s

M2



Foreman et al. (1995)
Hard boundary at the edge of the mudflats



49°25'N

49°20'N

49°15'N

49°10'N

49°05'N

49°00'N

48°55'N

48°50'N

48°45'N

W

123°50'W

123°40'W

123°30'W

123°20'W

123°10'W

123°00'W

122°50'W

ONC Strait of Georgia

SeaSonde Measurements

VSOG - Mar 9, 2018 12:00 UTC (± 37.5 min)

VATK

VION

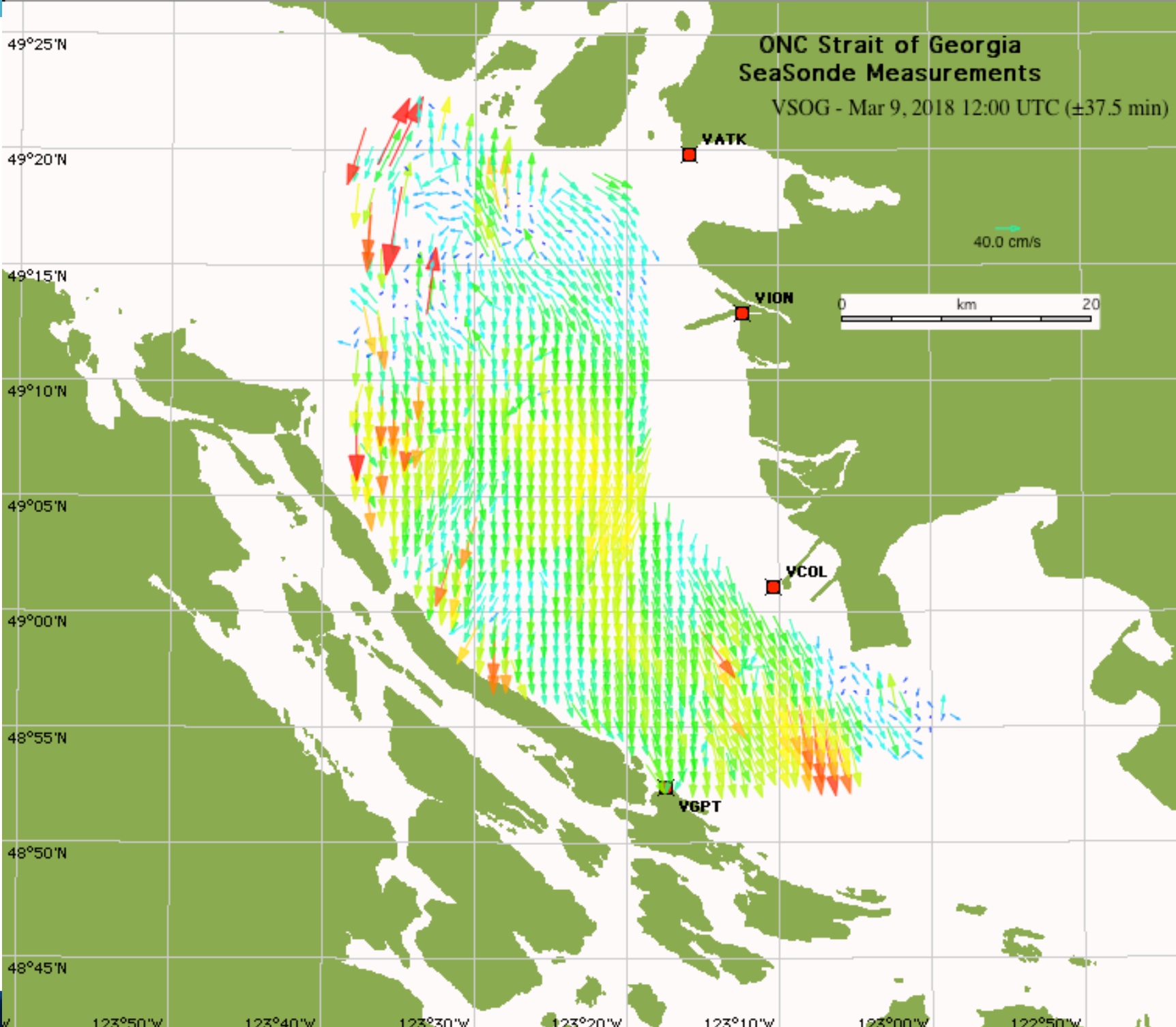
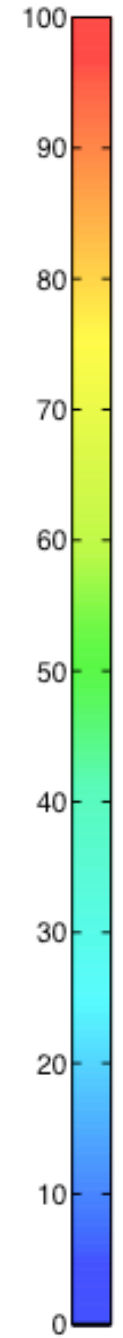
VCOL

VGPT

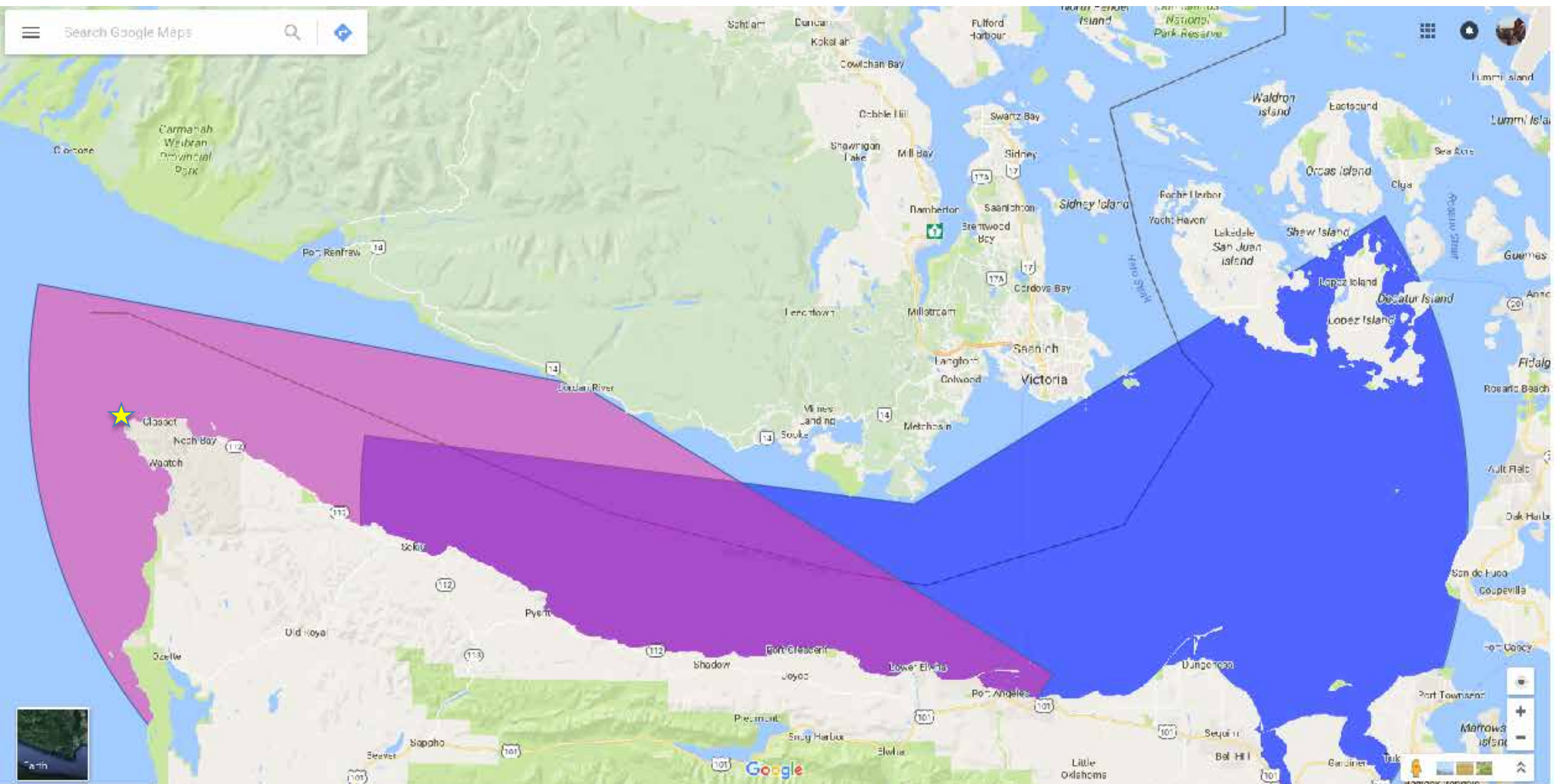
40.0 cm/s



Vel (cm/s)



Coming in 2018 and beyond ...



High Frequency Radar Surface Currents CODAR in the Salish Sea Explore and Download

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