

# Encounter Candidate 1

A Washington State Ferry on the Kingston to Edmunds run, passing ahead of a container ship at approximately 1.6 nautical miles.

Since the two domains overlap, this model would classify the situation as an encounter.

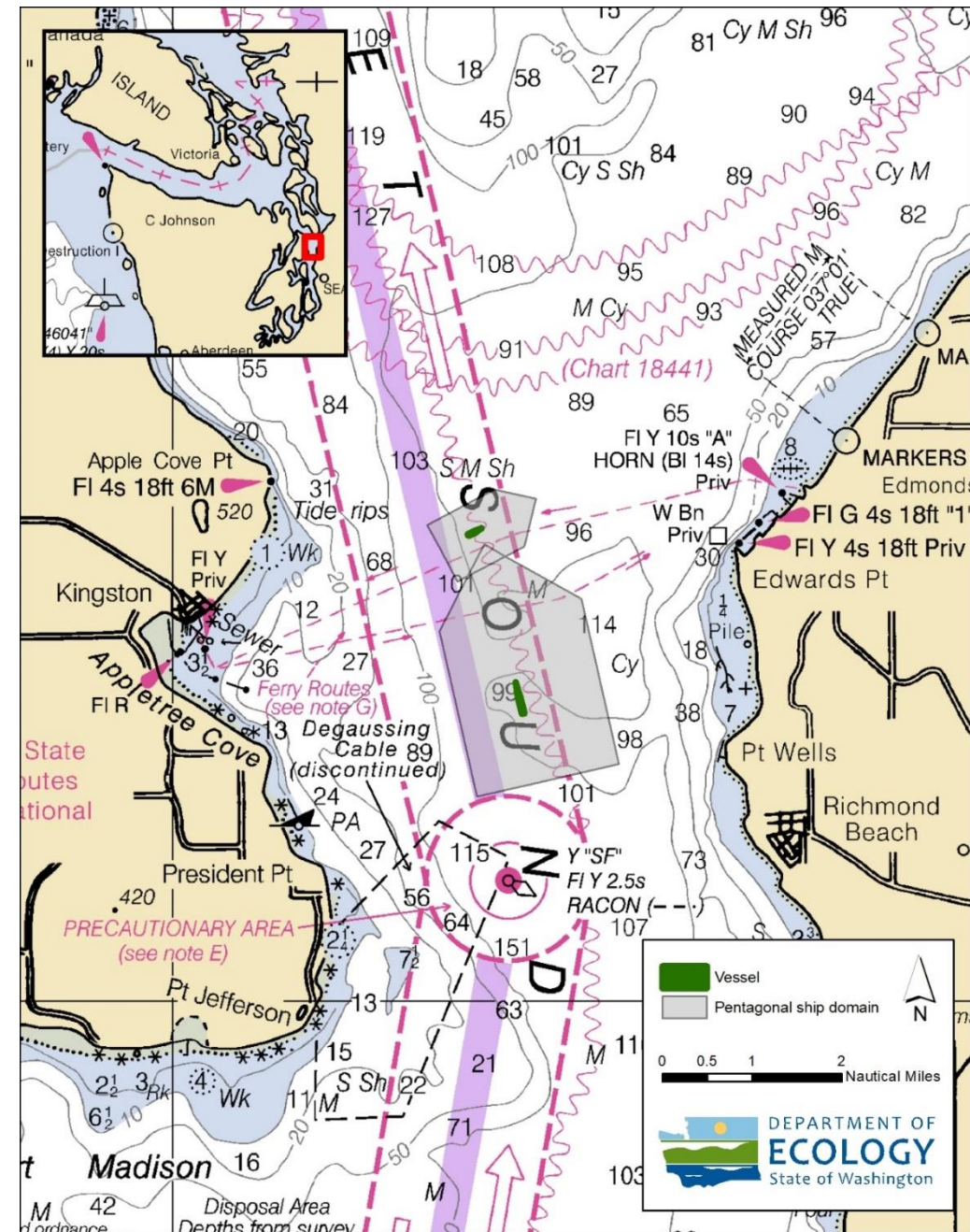
Both vessels have a ship domain calculated using the Pentagonal model.

## Car Ferry (eastbound)

- Length: 134 meters
- Beam: 26 meters
- Speed: 16.3 kts

## Container Ship (northbound)

- Length: 294 meters
- Beam: 32 meters
- Speed: 18.2 kts



# Encounter Candidate 2

A Washington State Ferry on the Kingston to Edmunds run, passing ahead of a container ship at approximately 1.6 nautical miles.

Since the two domains do not overlap, this model would not classify the situation as an encounter.

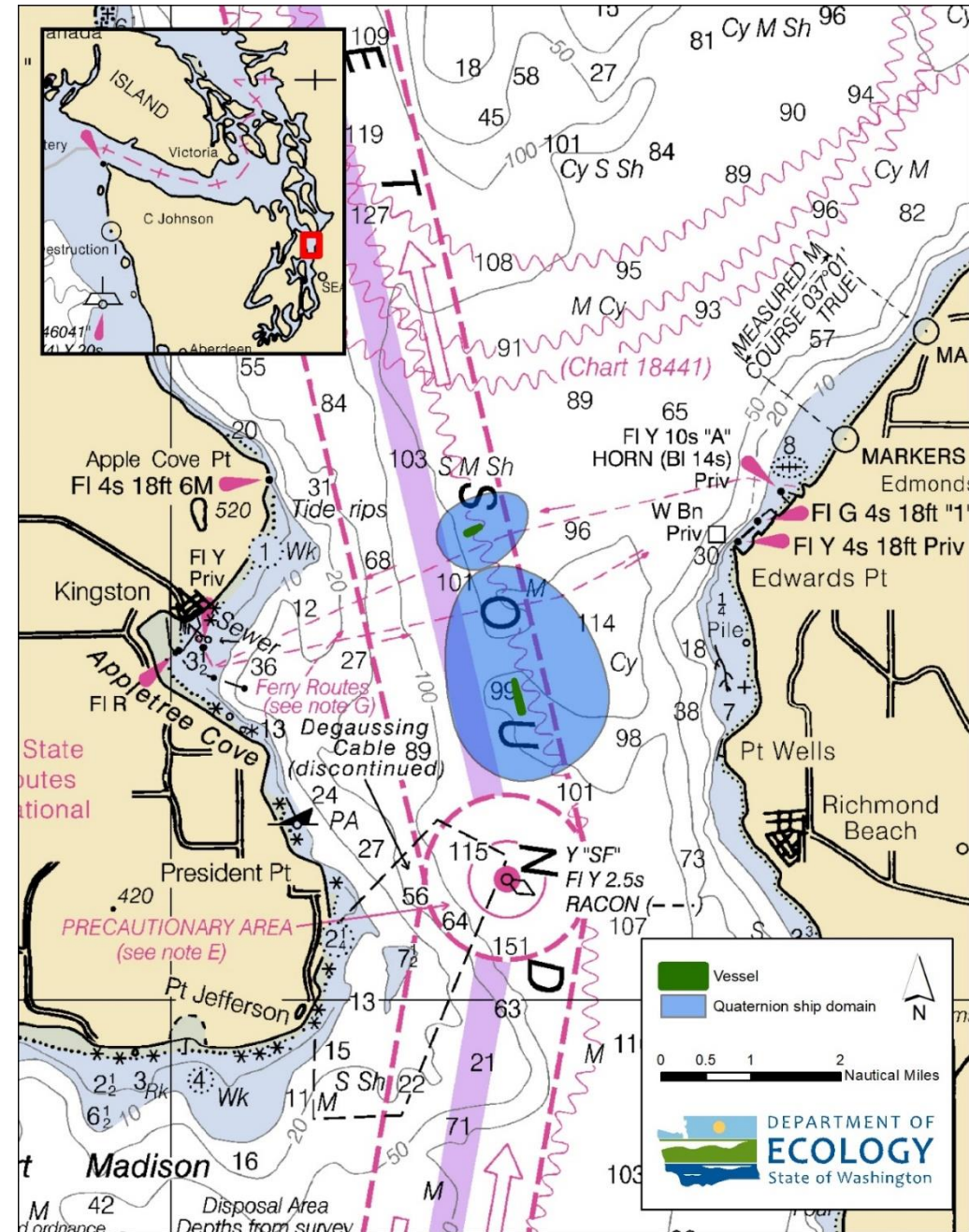
Both vessels have a ship domain calculated using the QSD model.

## Car Ferry (eastbound)

- Length: 134 meters
- Beam: 26 meters
- Speed: 16.3 kts

## Container Ship (northbound)

- Length: 294 meters
- Beam: 32 meters
- Speed: 18.2 kts

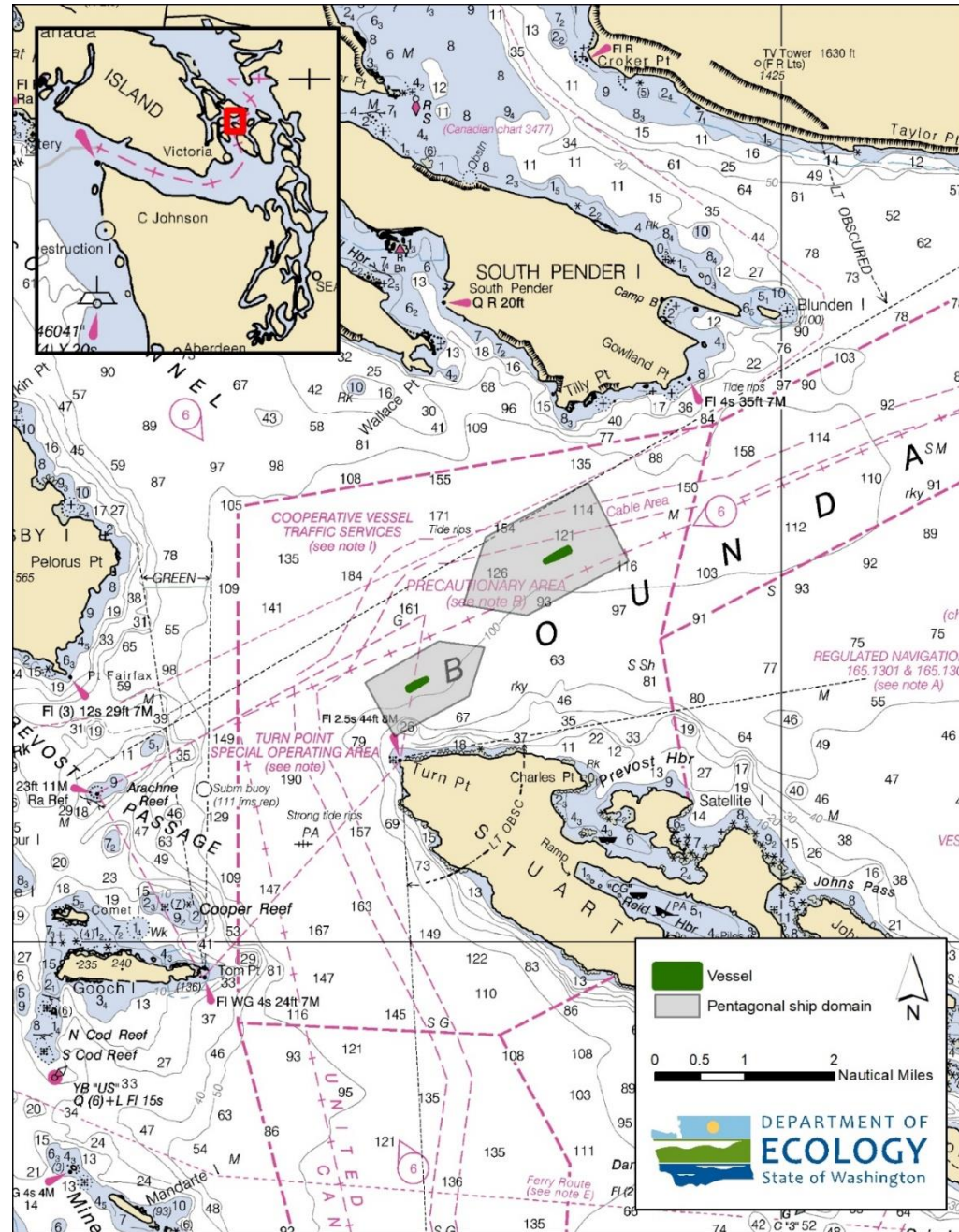


# Encounter Candidates 3-4

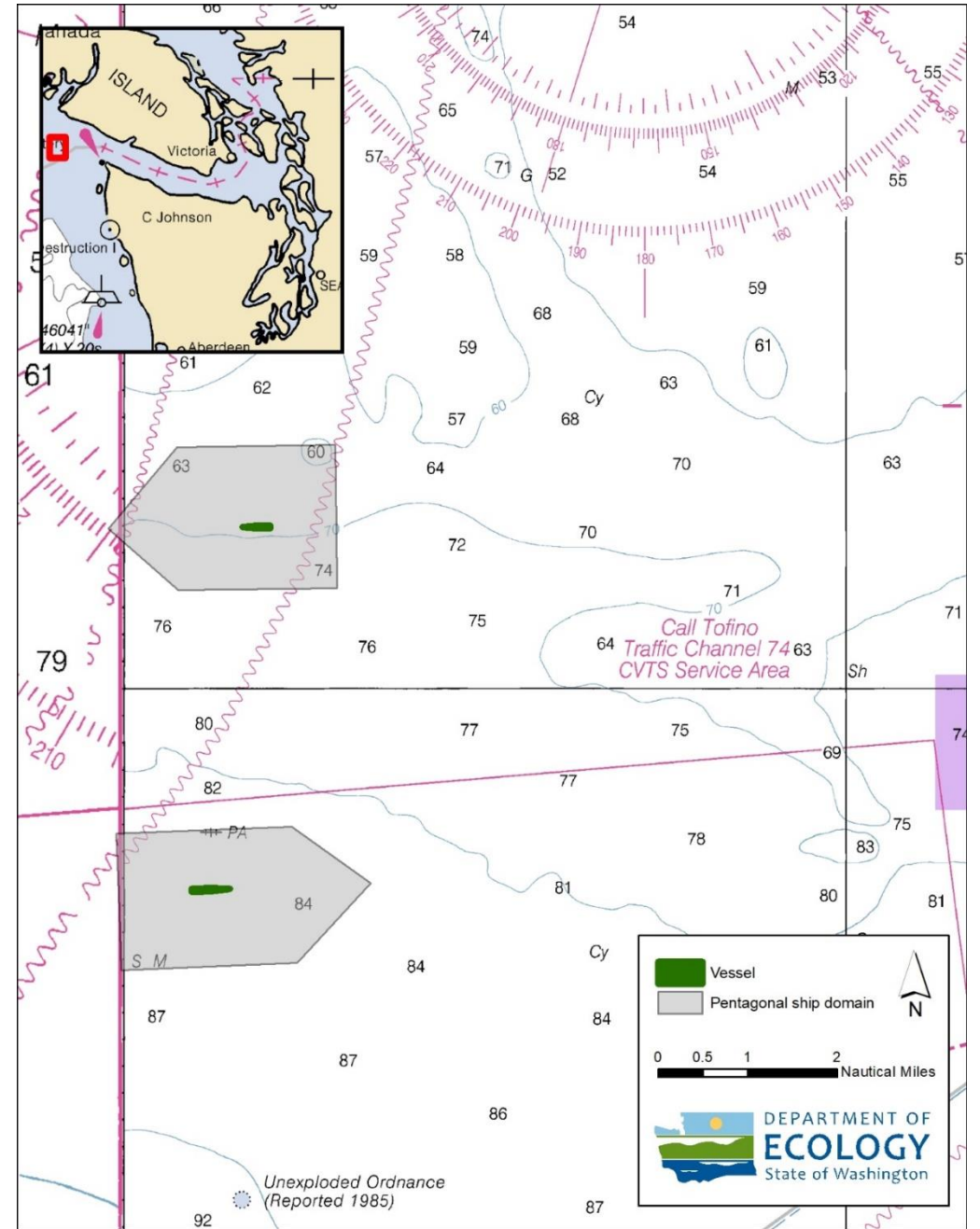
These maps show vessels ranging in length from 180 to 350 meters, and at speeds from 8 to 22 knots.

These examples illustrate how ship domain size and shape is linked to vessel length and speed.

The examples use the Pentagonal Model.



Eastbound Bulk Carrier: Length 180m; Beam 30m; 8.1kts  
 Westbound Bulk Carrier: Length 235m; Beam 38m; 9.8 kts



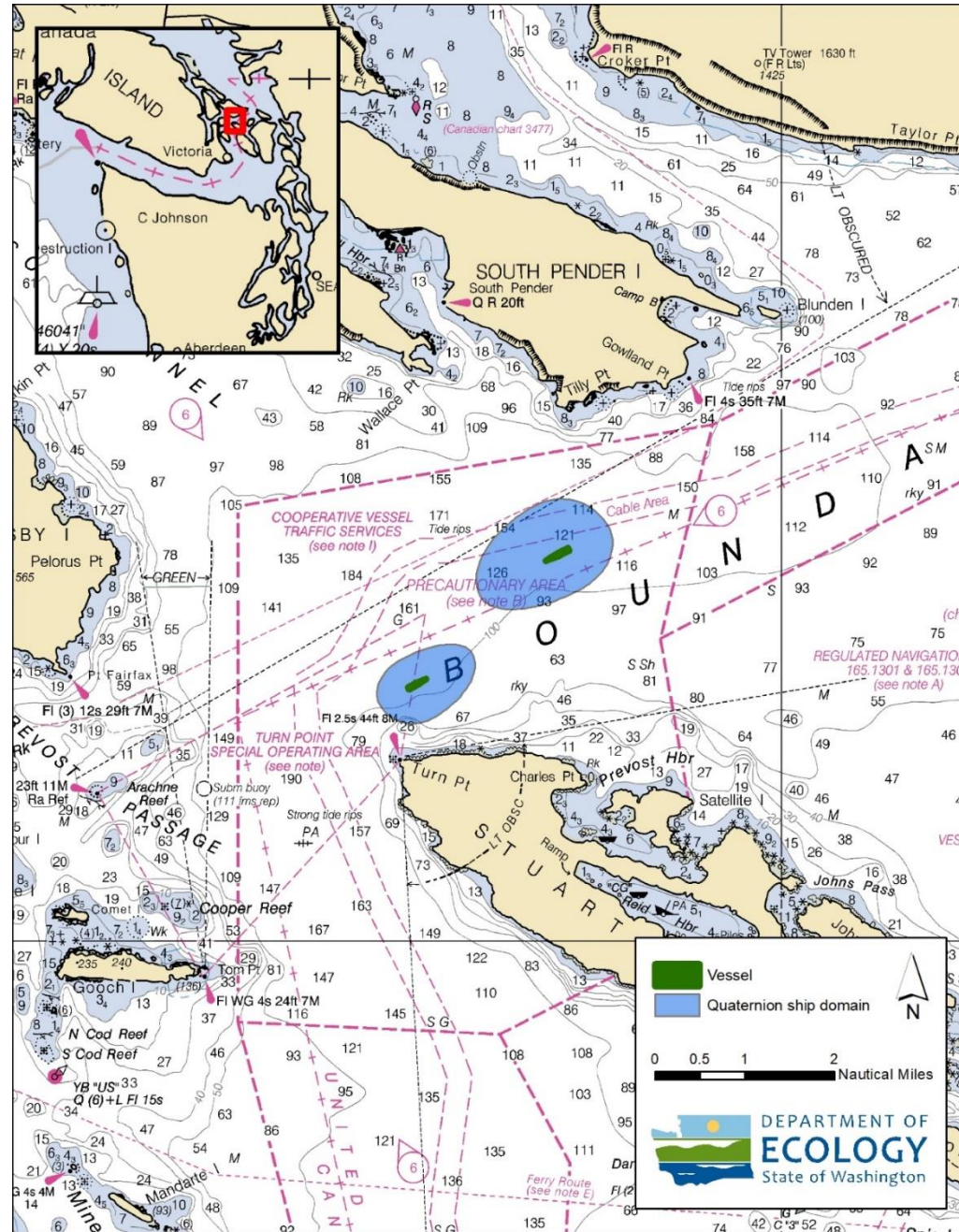
Eastbound Container Ship: Length 350m; Beam 46m; 10.9 kts  
 Westbound Container Ship: Length: 256m; Beam 36m; 22.3 kts

# Encounter Candidates 5-6

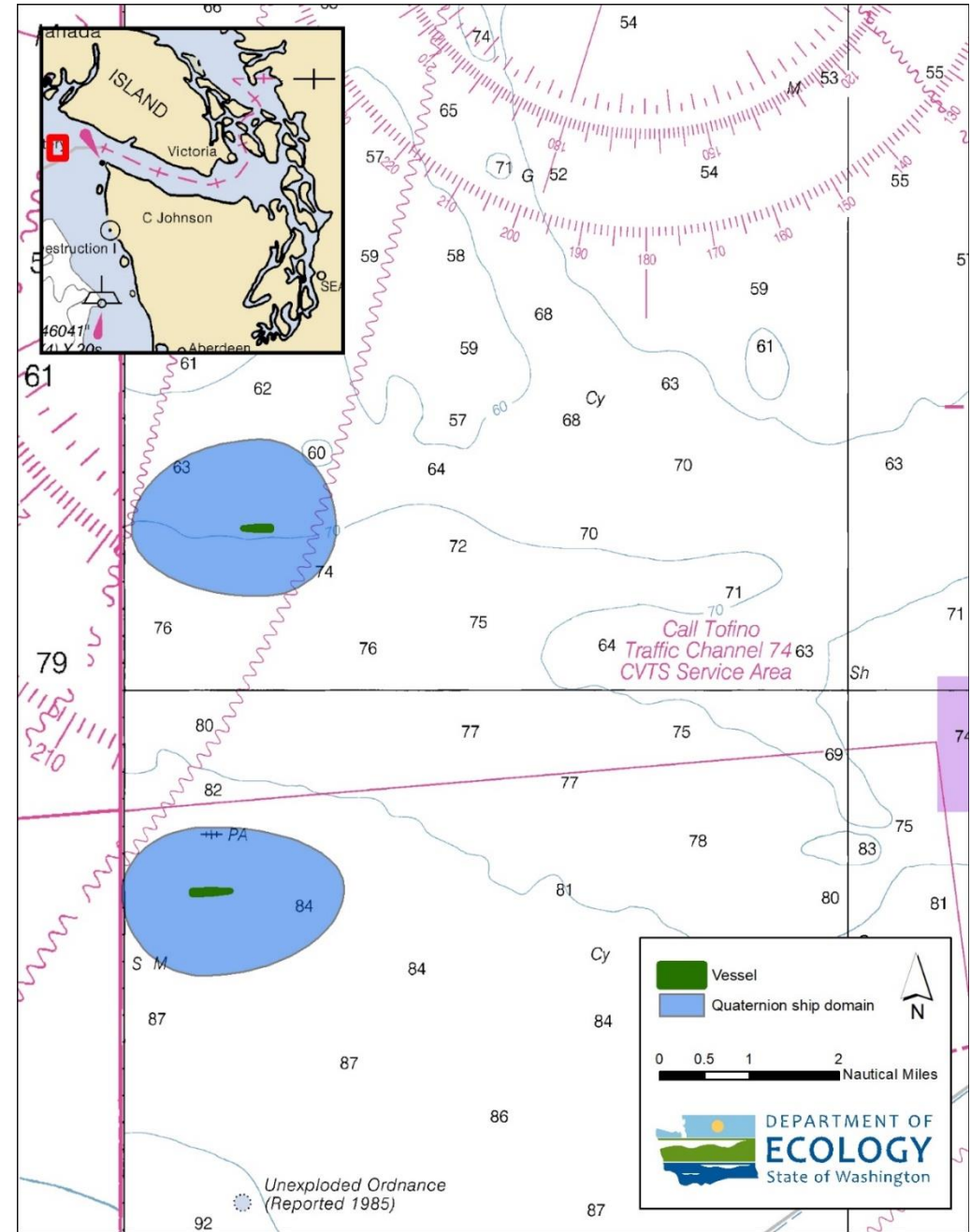
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Eastbound Bulk Carrier: Length 180m; Beam 30m; 8.1kts  
 Westbound Bulk Carrier: Length 235m; Beam 38m; 9.8 kts



Eastbound Container Ship: Length 350m; Beam 46m; 10.9 kts  
 Westbound Container Ship: Length: 256m; Beam 36m; 22.3 kts

# Encounter Candidate 7

A southbound car carrier overtaking a tug and barge. The tug's ship domain is barely visible as a green dot, just south of the edge of the car carrier's grey ship domain.

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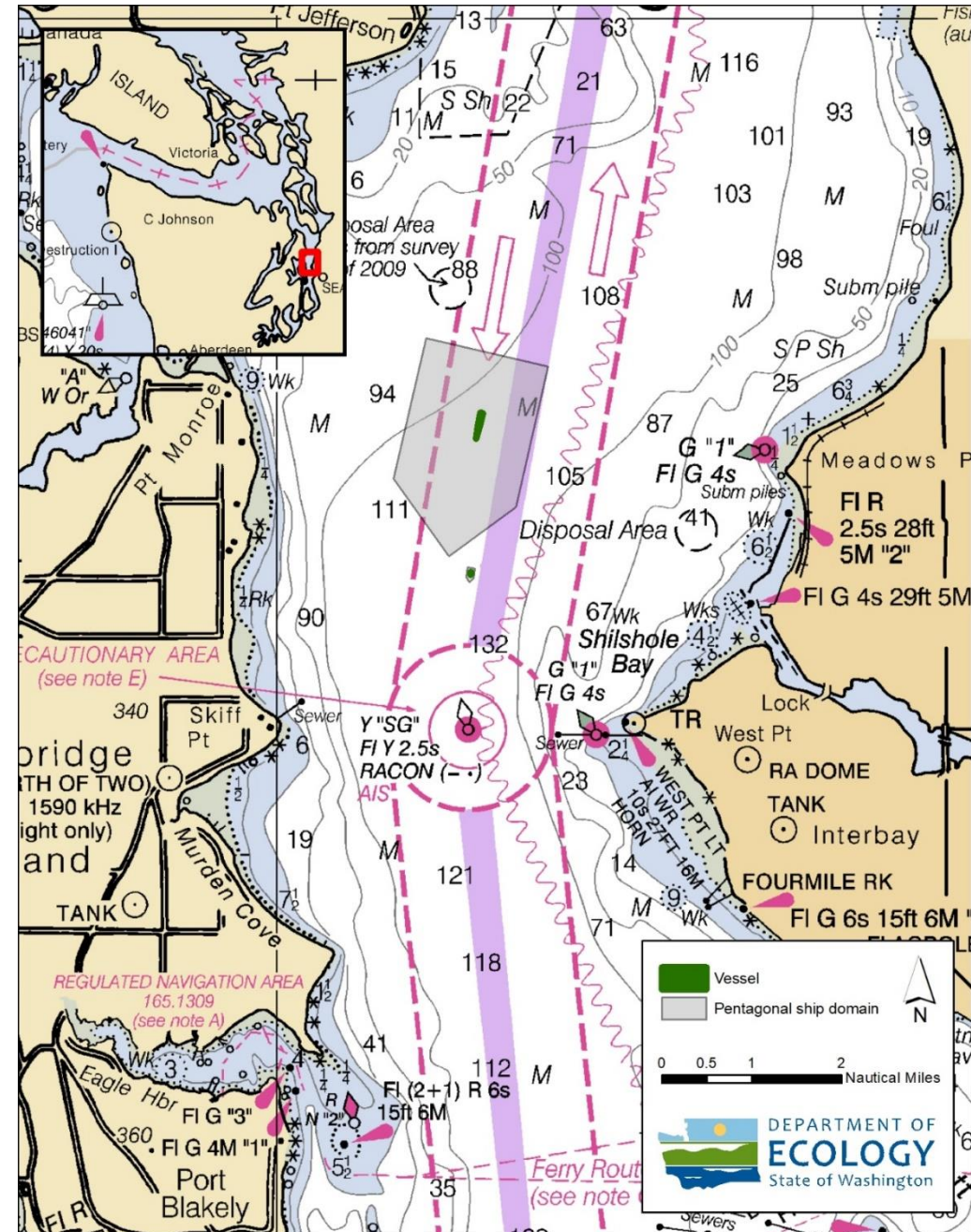
Both vessels have a ship domain calculated using the Pentagonal model.

## Car Carrier

- Length: 244 meters
- Beam: 32 meters
- Speed: 19.5 kts

## Tug

- Length: 22 meters
- Beam: 8 meters
- Speed: 5.4 kts



# Encounter Candidate 8

A southbound car carrier overtaking a tug and barge. The tug's ship domain is based on the combined dimensions of the tug and barge.

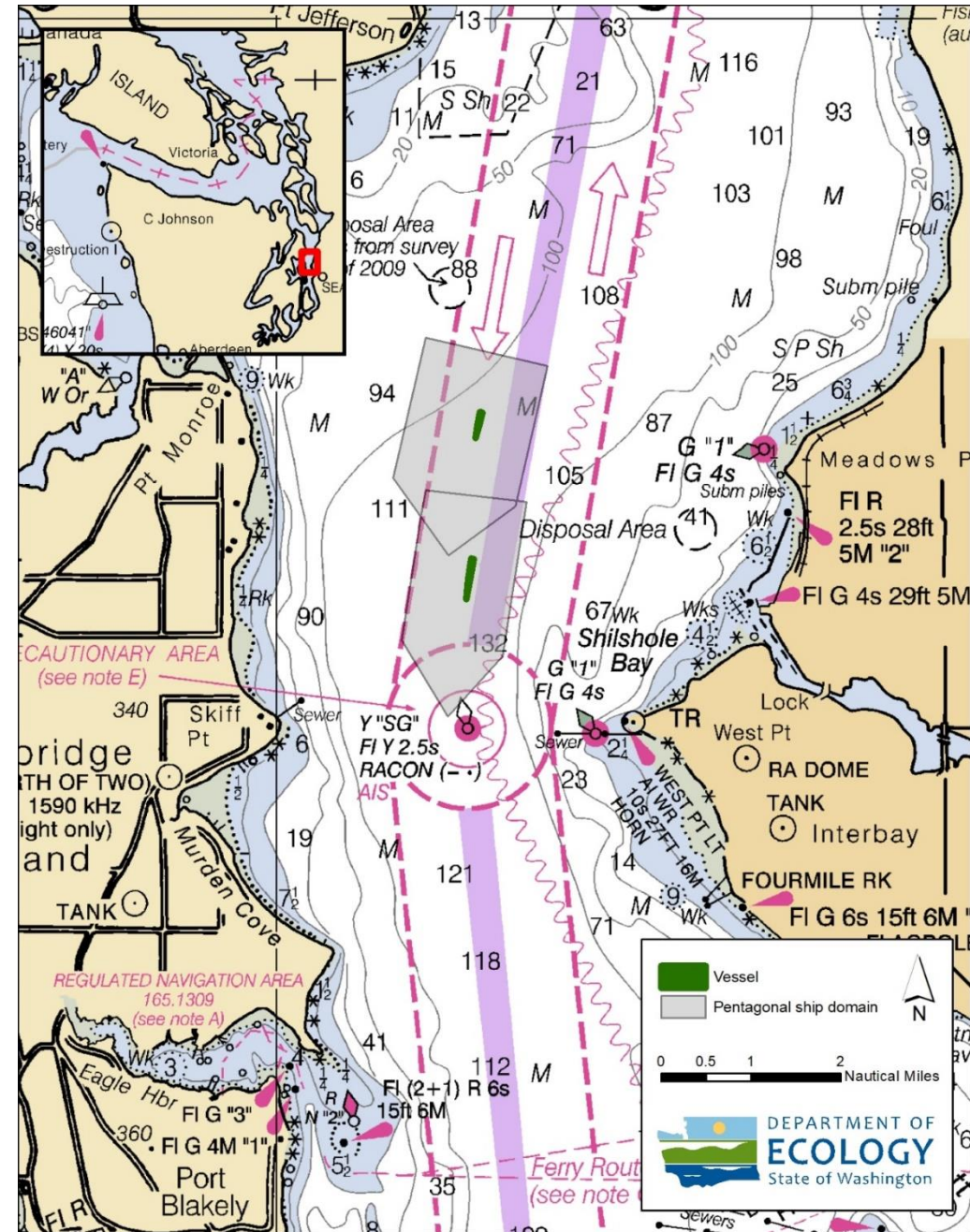
The values for the dimension of the barge and the length of the tow are estimated, and included below.

## Car Carrier

- Length: 244 meters
- Beam: 32 meters
- Speed: 19.5 kts

## Tug and Barge

- Overall Length: 375 meters
- Overall Beam: 29 meters
- Length of Barge: 115 meters
- Length of Tow: .13 nautical miles
- Speed: 5.4 kts



# Vessels at Anchor

Two anchored ATBs, one in Vendovi Island South and the other in Vendovi Island East. The map also shows a northbound escort tug underway to Bellingham.

The ship domains are calculated using the Pentagonal model. The ATBs domains are calculated using the length of the tug and barge, and the beam of the barge.

## Vendovi South ATB

- Length: 207 meters
- Beam: 23 meters
- Speed: 0.1 kts

## Vendovi East ATB

- Length: 172 meters
- Beam: 23 meters
- Speed: 0.1 kts

## Escort Tug

- Length: 48 meters
- Beam: 14 meters
- Speed: 9 kts

