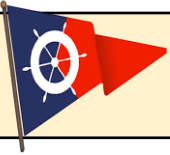


Marine Route Planning - Bring

- Waggoner tides and currents
- Ports and Passes
- Local knowledge book
- Canada Pilot book and other guides that cover British Columbia

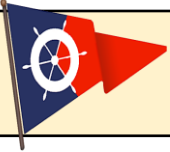


WELCOME to QYC Tech Talks!

- A Tech Talk is...
 - An exchange of information, ideas and experience
 - More discussion than “teaching”
 - A little structure
- We encourage...
 - Listening, learning & contributing
 - Discussion and debate
 - Questions
- Our next Tech Talk is:
 - Essential Maintenance, May 2, QYC

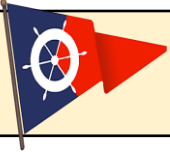


Together, to Learn From Each Other



Marine Route Planning

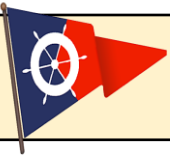
- What to consider when planning your route
- Constraints
 - Supplies
 - Ports
 - Shelter
 - Location?
- Passes and rapids...
 - ...and how to navigate



Route Planning vs Cruise Planning

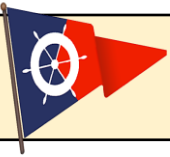
- Route planning:
 - Define route options, if any
 - Consider risks and opportunities
 - Final route selection decision

- Cruise planning:
 - For an entire vacation
 - Considers resupply & cruise vs relax days



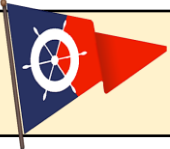
QUARTERMASTER YACHT CLUB – Marine Route Planning

Marine Route Planning – Considerations...



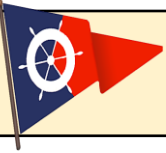
Marine Route Planning – Considerations...

- Available time
 - Delay tolerance
 - Boat speed
 - Cruise speed
 - Top speed
 - Boat seaworthiness
 - Crew
 - Durability
 - Sea-state tolerance
 - Fuel economy preference
 - Ports and anchorages
 - Weather
 - Shelter options
 - Passes?
 - Tides
 - Currents
 - Capacities – fuel, water
- Factors you control
 - When you leave port
 - If you leave port
 - Your route
 - Your speed (sometimes)



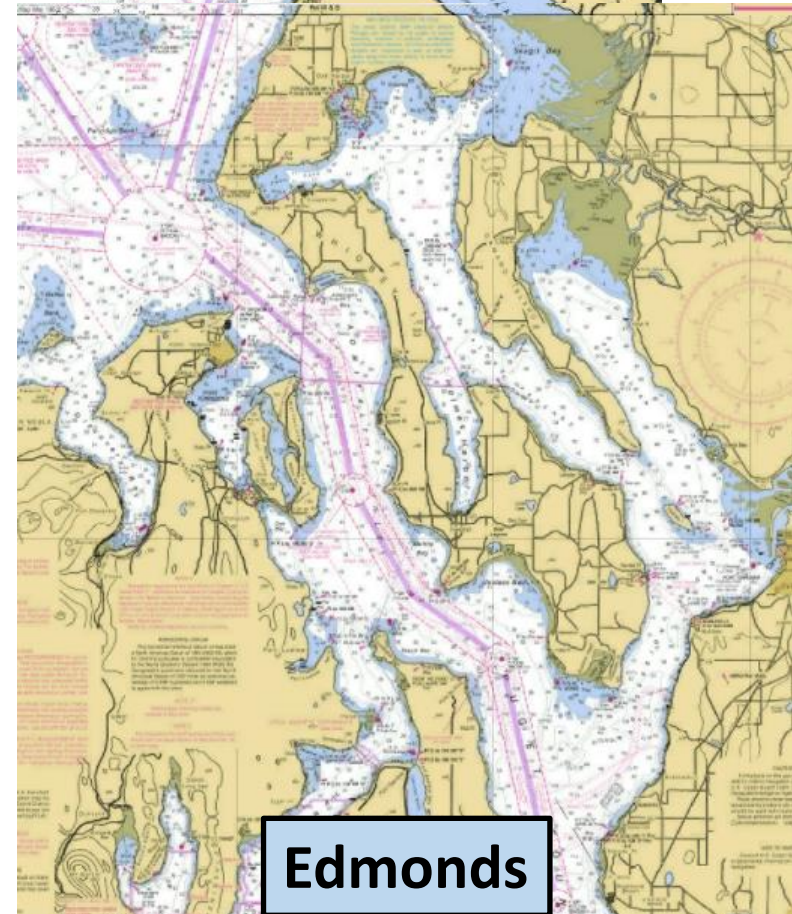
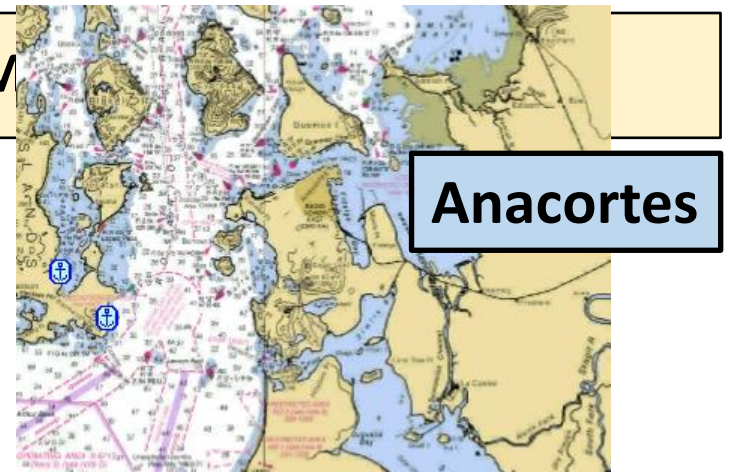
Marine Route Planning – Basic Approach...

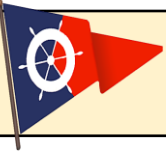
- Identify your preferred destination
- Identify route options, if any
- Identify conditions – weather, tides, currents
- Identify constraints – eg: a pass that must be crossed at slack
- How much time do you have / how much do you want to use?
- Do you need supplies along the way?
- Evaluate risks and opportunities
- Final destination selection
- Final route selection



Route Planning Example

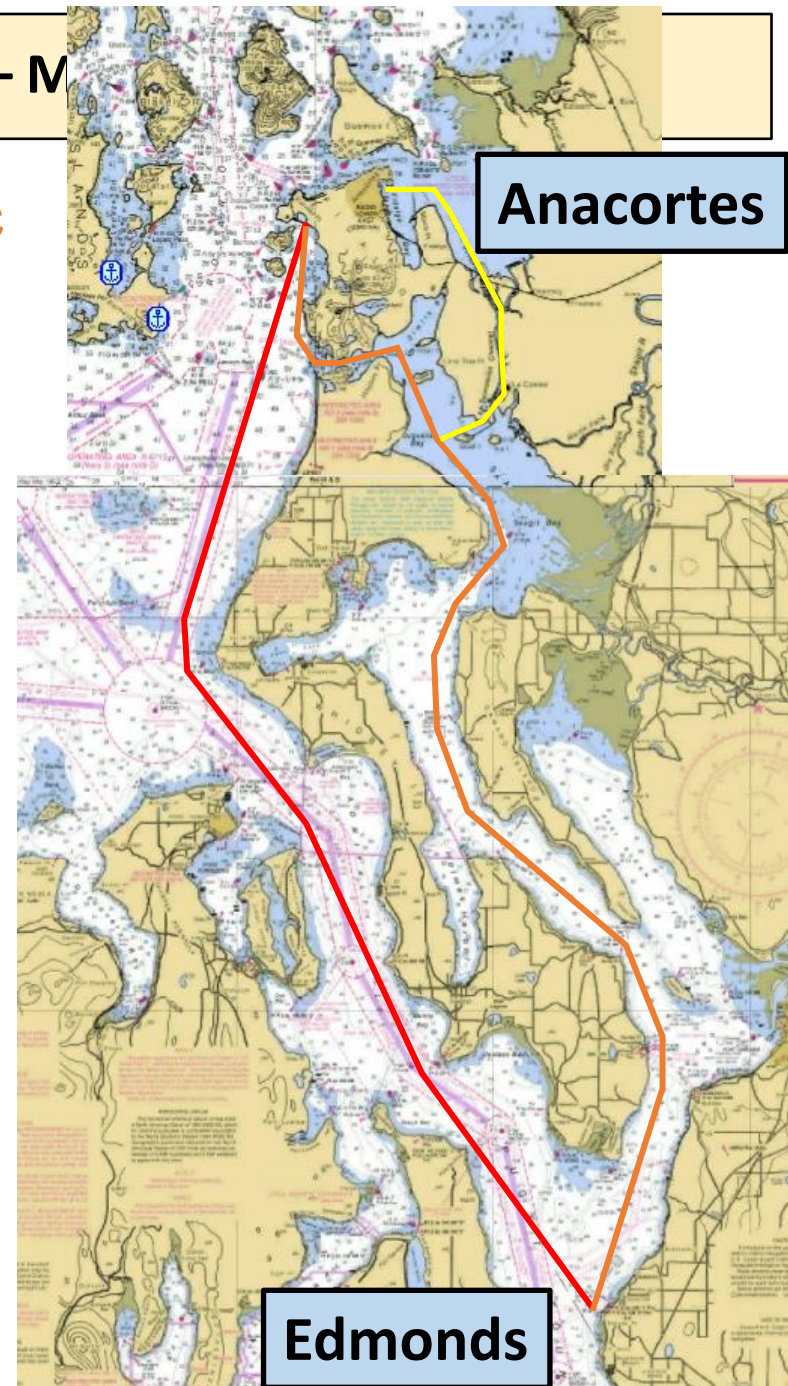
- Edmonds to Anacortes, depart 8AM
- Route options

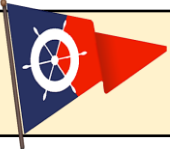




Route Planning Example

- Edmonds to Anacortes, depart 8AM
- Three route options:
 - Admiralty Inlet: 47 Knots
 - Deception Pass: 50 Knots
 - LaConnor: 52 Knots
- Three arrive times (at 8 knots speed):
 - Admiralty Inlet: 1:55 PM
 - Deception Pass: 2:15 PM
 - LaConnor * : 3:45 PM
- * 4 Knots through LaConnor

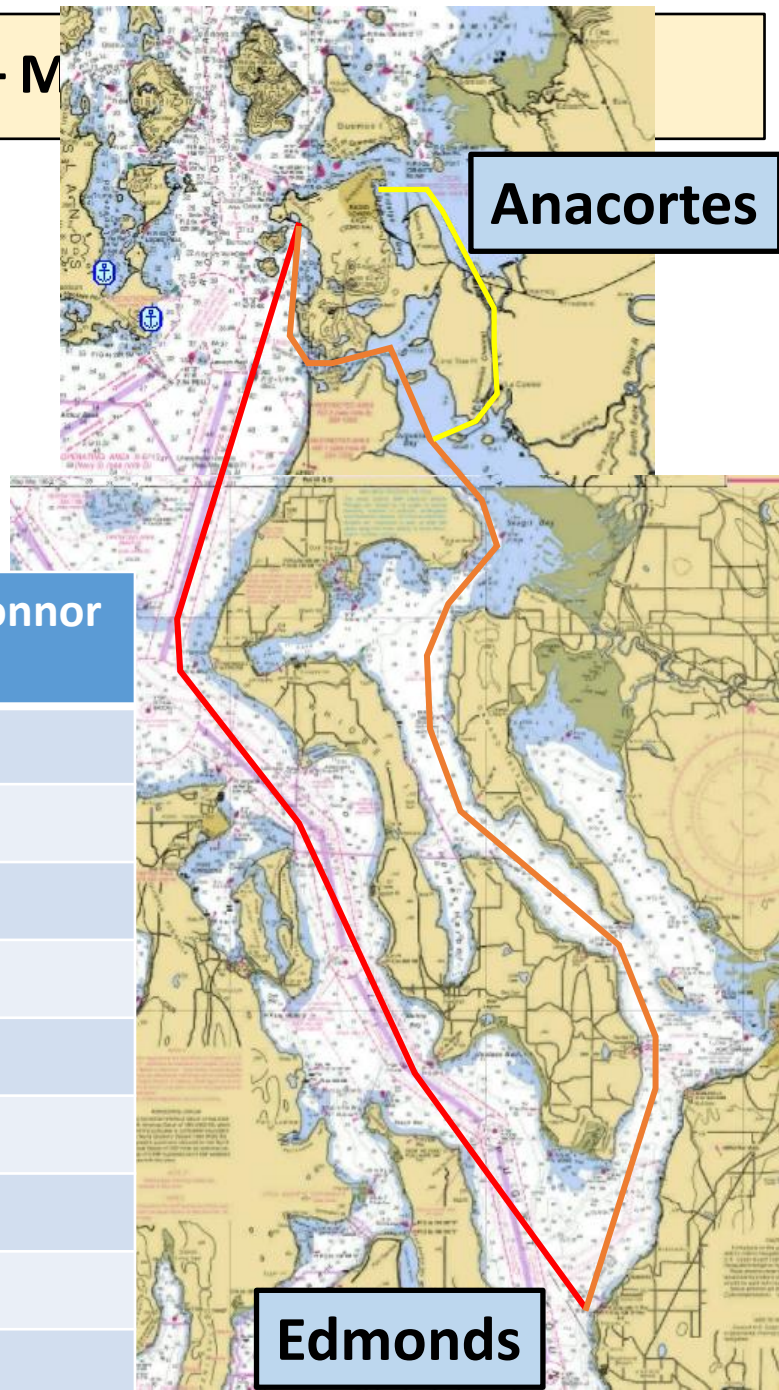


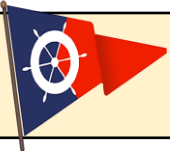


Route Planning Example

- Edmonds to Anacortes, depart 8AM
- Route risks & opportunities:

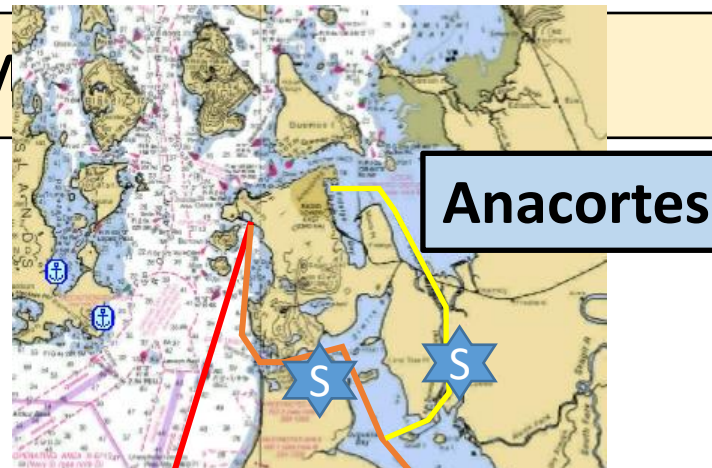
Risk & Opportunity	Admiralty Inlet	Deception Pass	LaConnor






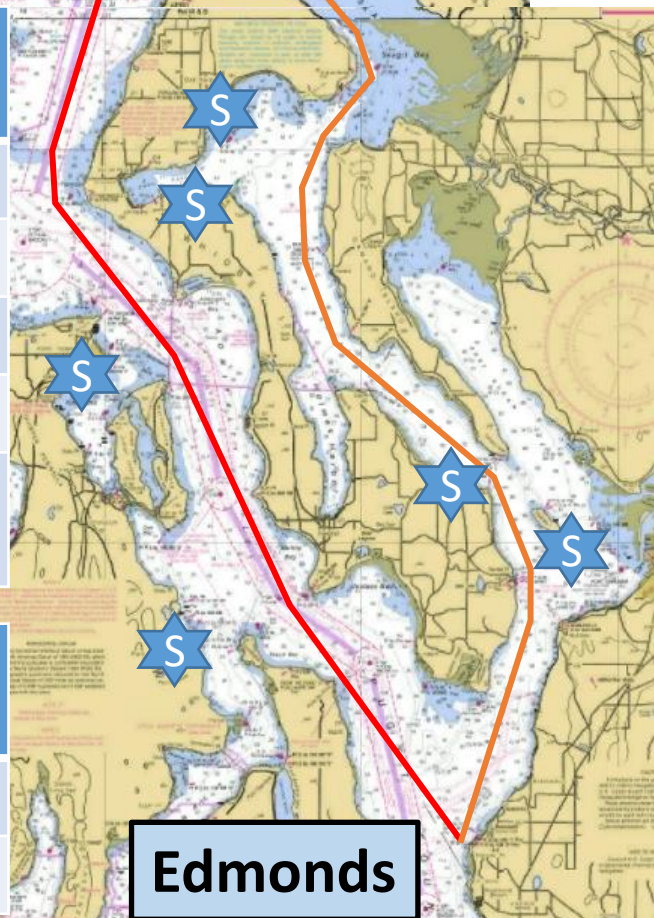
Route Planning Example

- Edmonds to Anacortes, depart 8AM
- Route risks & opportunities:



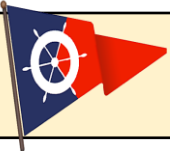
Anacortes

Risks	Admiralty Inlet	Deception Pass	LaConnor
Wind & waves	Highest	Small	Smallest
Passes & currents	No	Yes	No
Swing bridge	No	No	Yes
En-route shelter 	Two	Five	Five
Shallow water	No	No	Dredged channel



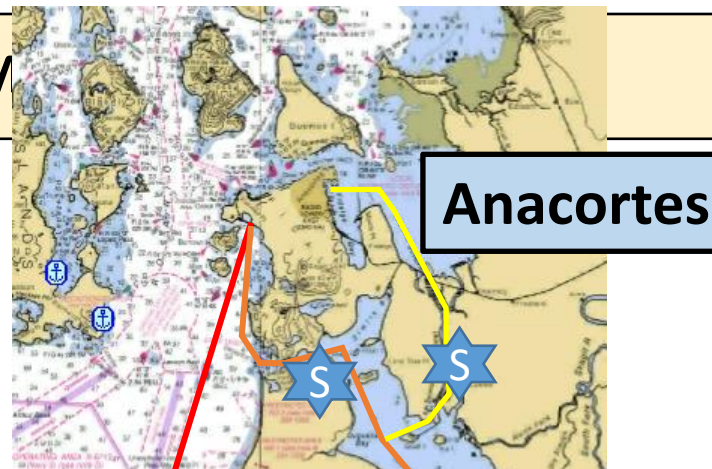
Edmonds

Opportunity	Admiralty Inlet	Deception Pass	LaConnor
Fuel stop	No	No	Yes
Food stop	No	Not really	Yes




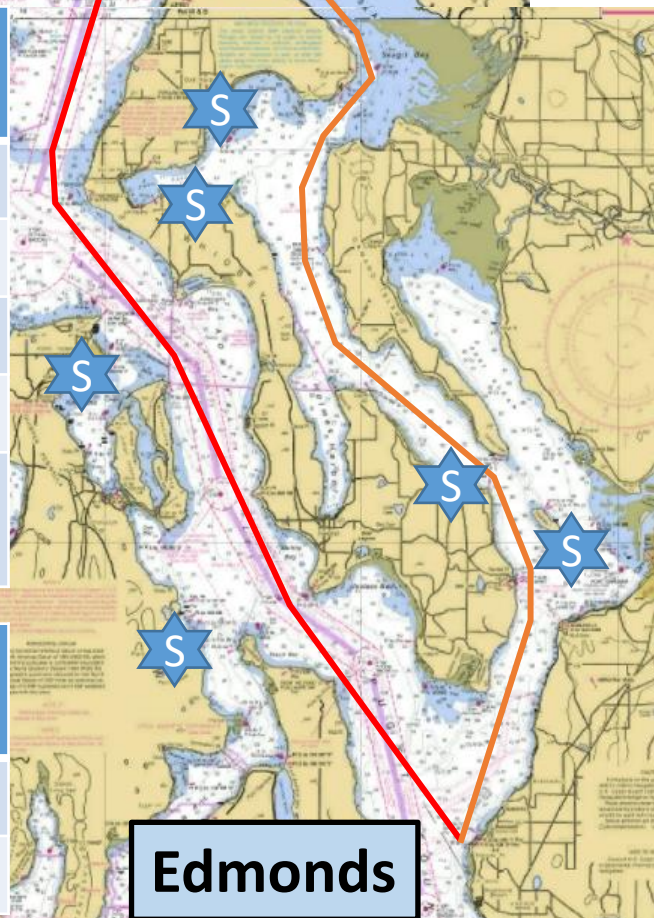
Route Planning Example

- Edmonds to Anacortes, depart 8AM
- Route risks & opportunities:



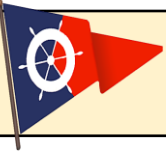
Anacortes

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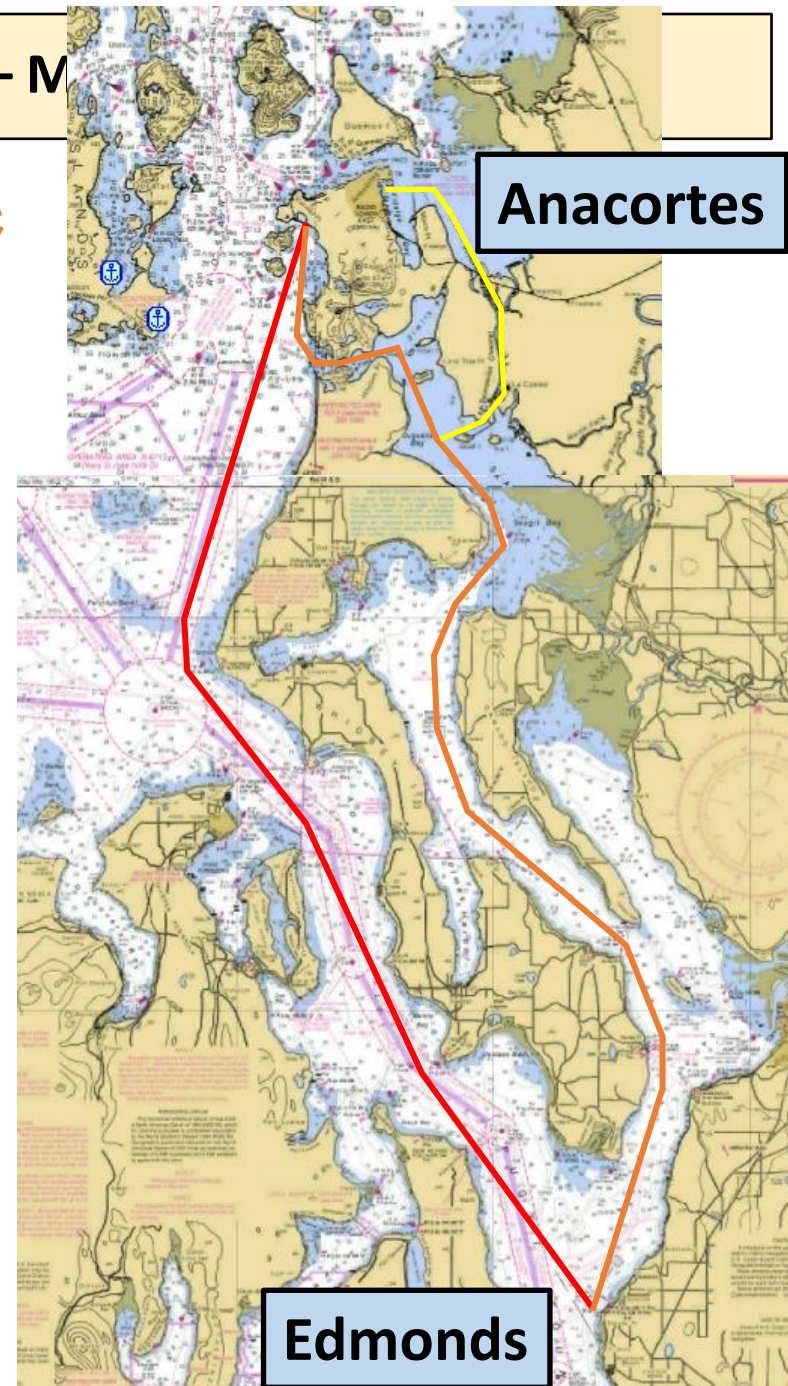
Edmonds

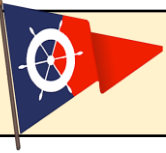
Opportunity	Admiralty Inlet	Deception Pass	LaConnor
Fuel stop	No	No	Yes
Food stop	No	Not really	Yes



Route Planning Example

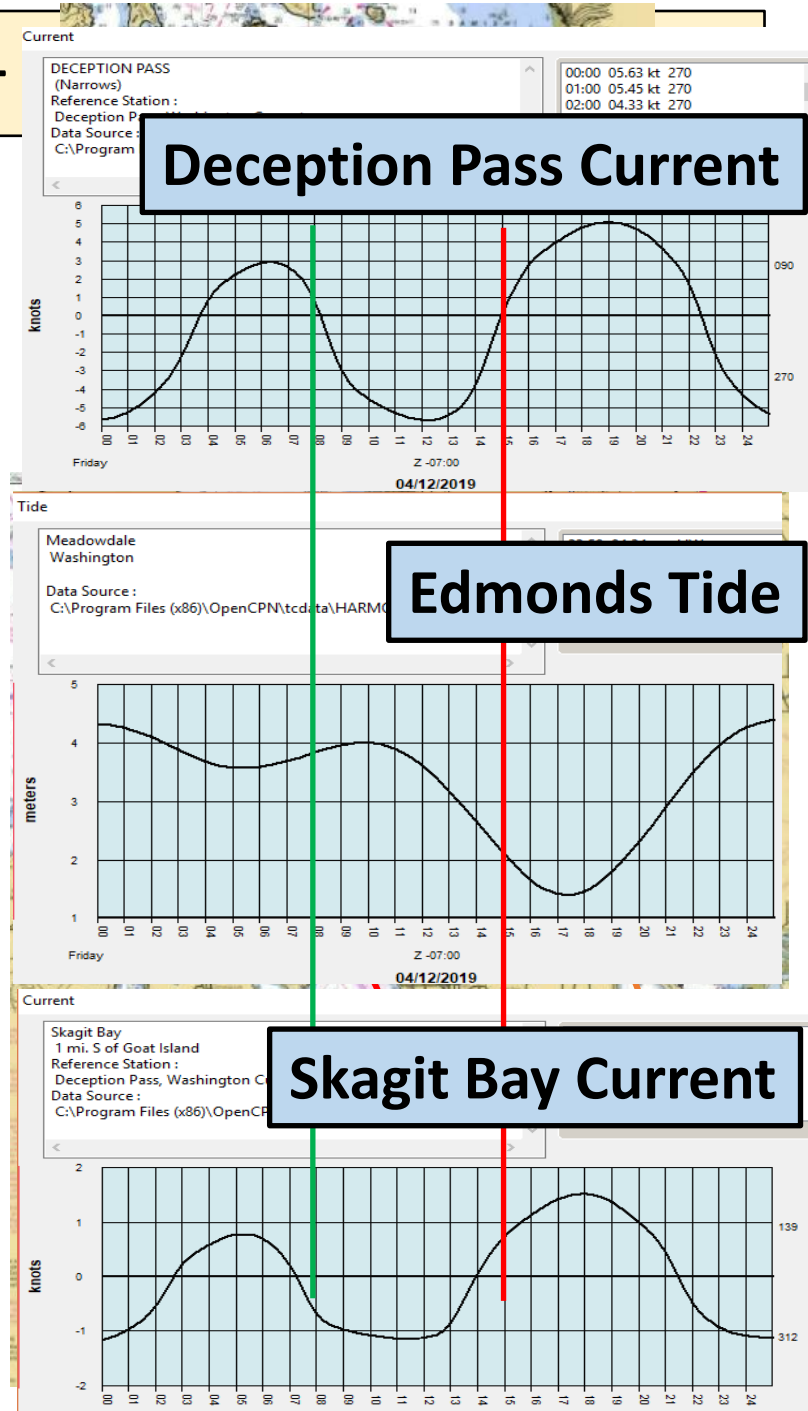
- Edmonds to Anacortes, depart 8AM
- Wind & Wave Evaluation:
 - [Windy TV](#)
 - [NOAA Marine Weather](#)
 - [Ferry Weather](#)

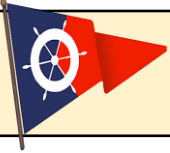




Route Planning Example

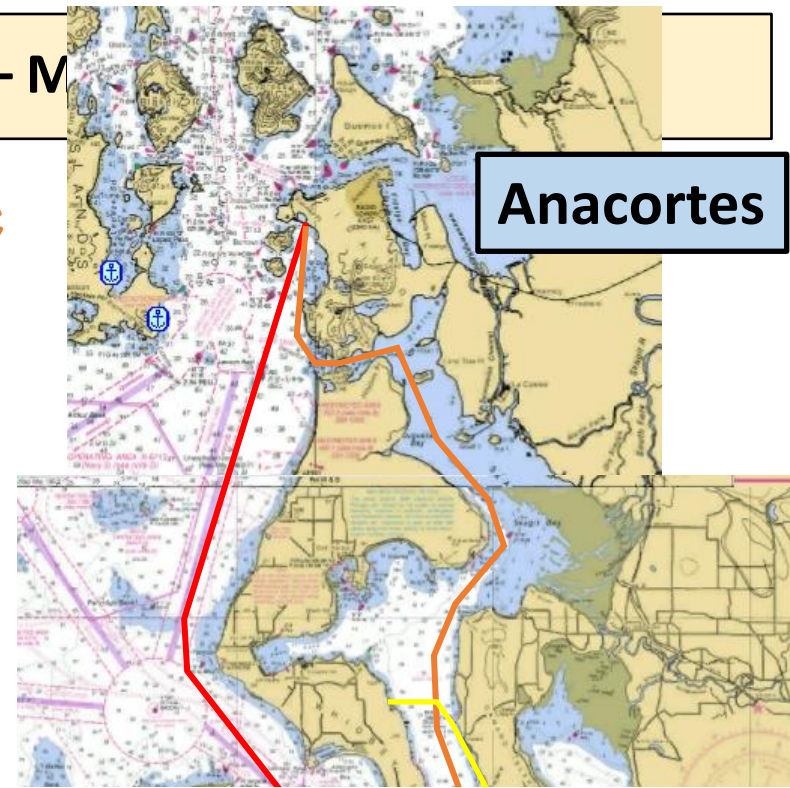
- Edmonds to Anacortes, depart 8AM
- Deception Pass Evaluation:
 - Slack times: 8:10 AM & 3:00 PM
 - Edmonds to Deception: 44 knots
 - Transit time (at 8 knots): 5.5 Hours
 - Arrival time (at 8 knots): 1:30PM
 - Tide: Little impact
 - Current: Adds 1 knot in Skagit Bay
- Depart 9AM, arrive Anacortes 4PM



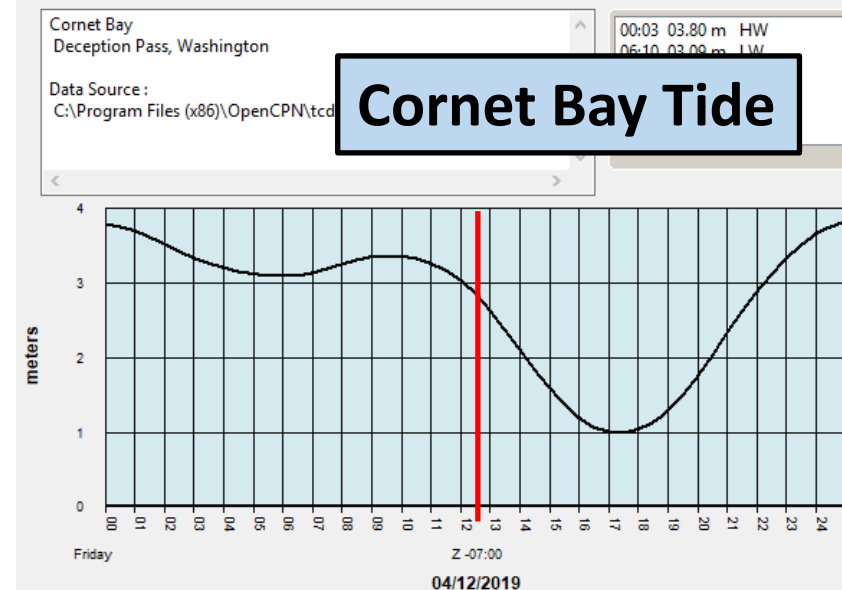


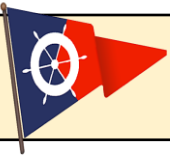
Route Planning Example

- Edmonds to Anacortes, depart 8AM
- Dredged Channel Water Depth Eval:
 - Edmonds to Channel: 38 knots
 - Transit time (at 8 knots): 4.8 Hours
 - Arrival time (at 8 knots): 12:45 PM
 - Cornet bay tide: 8 ft (falling)
 - Swinomish dredge depth:
 - 12 ft @ LLW
 - Last dredging: Dec 2014
 - Accumulation / year: 1.5 ft (avg)
 - Est'd depth: 6 ft @ LLW
 - Water depth: ~14 ft

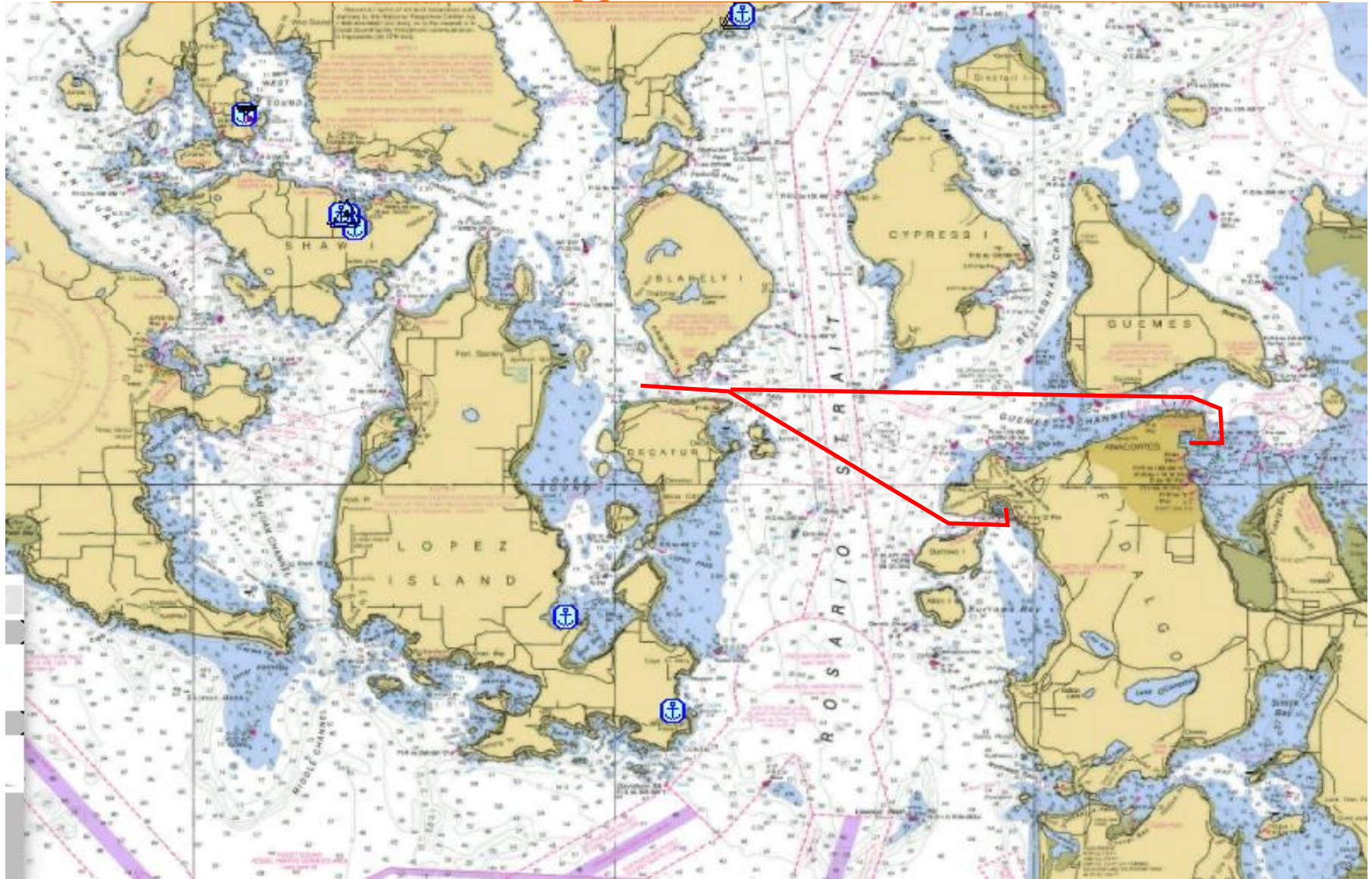


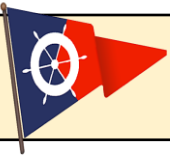
Tide



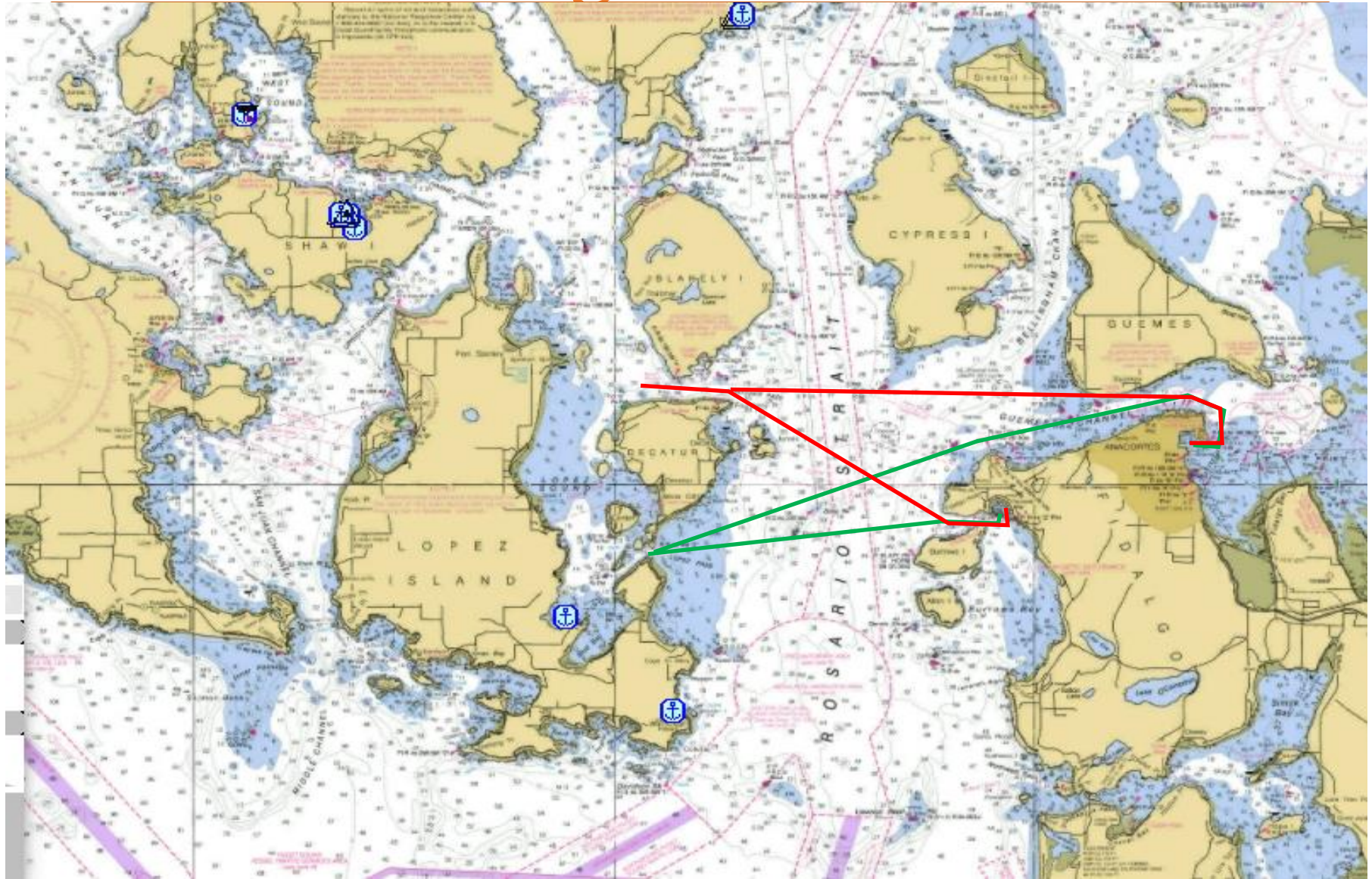


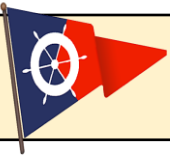
Route Planning – Some Alternatives



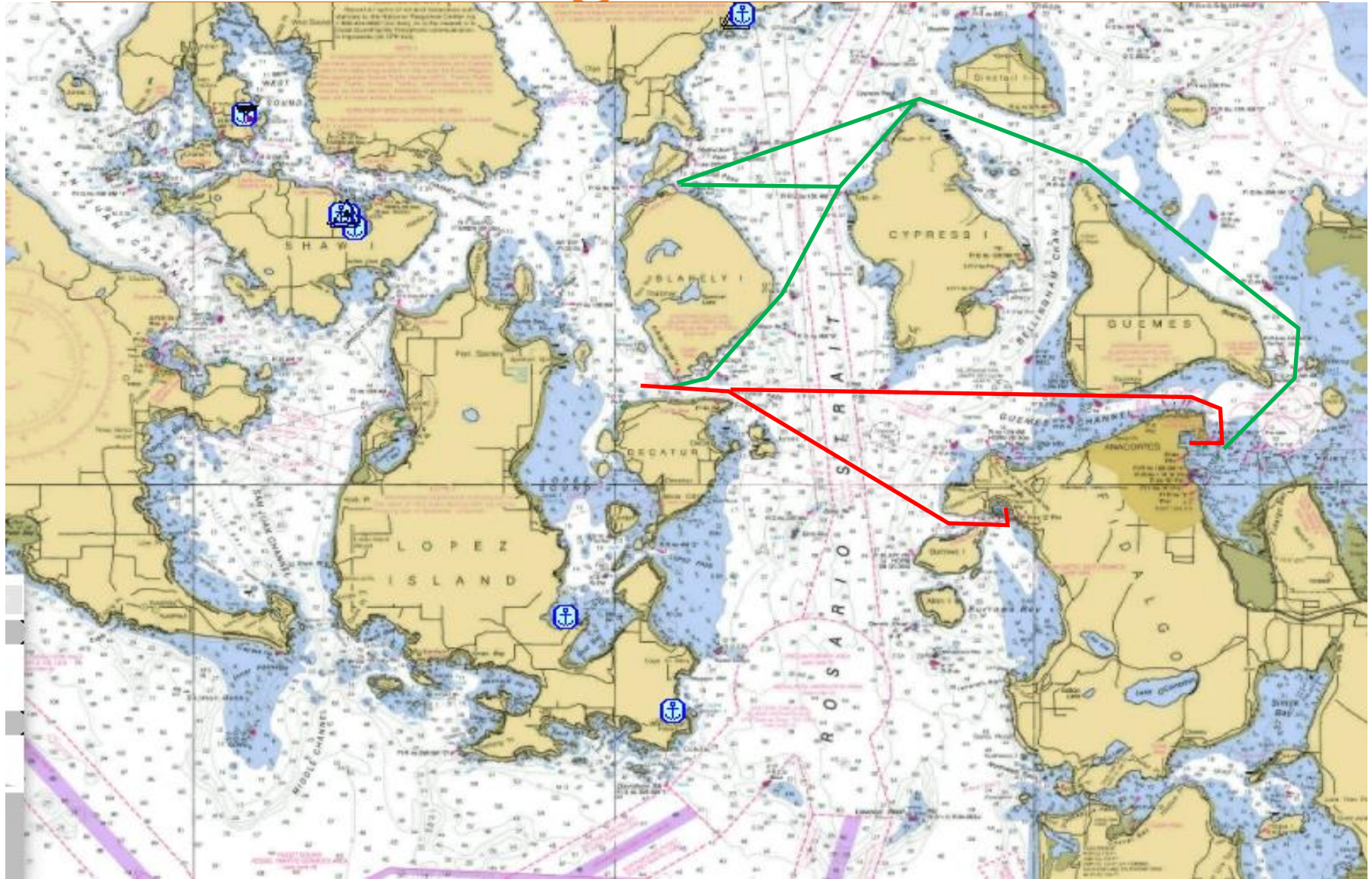


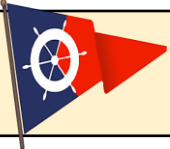
Route Planning – Some Alternatives



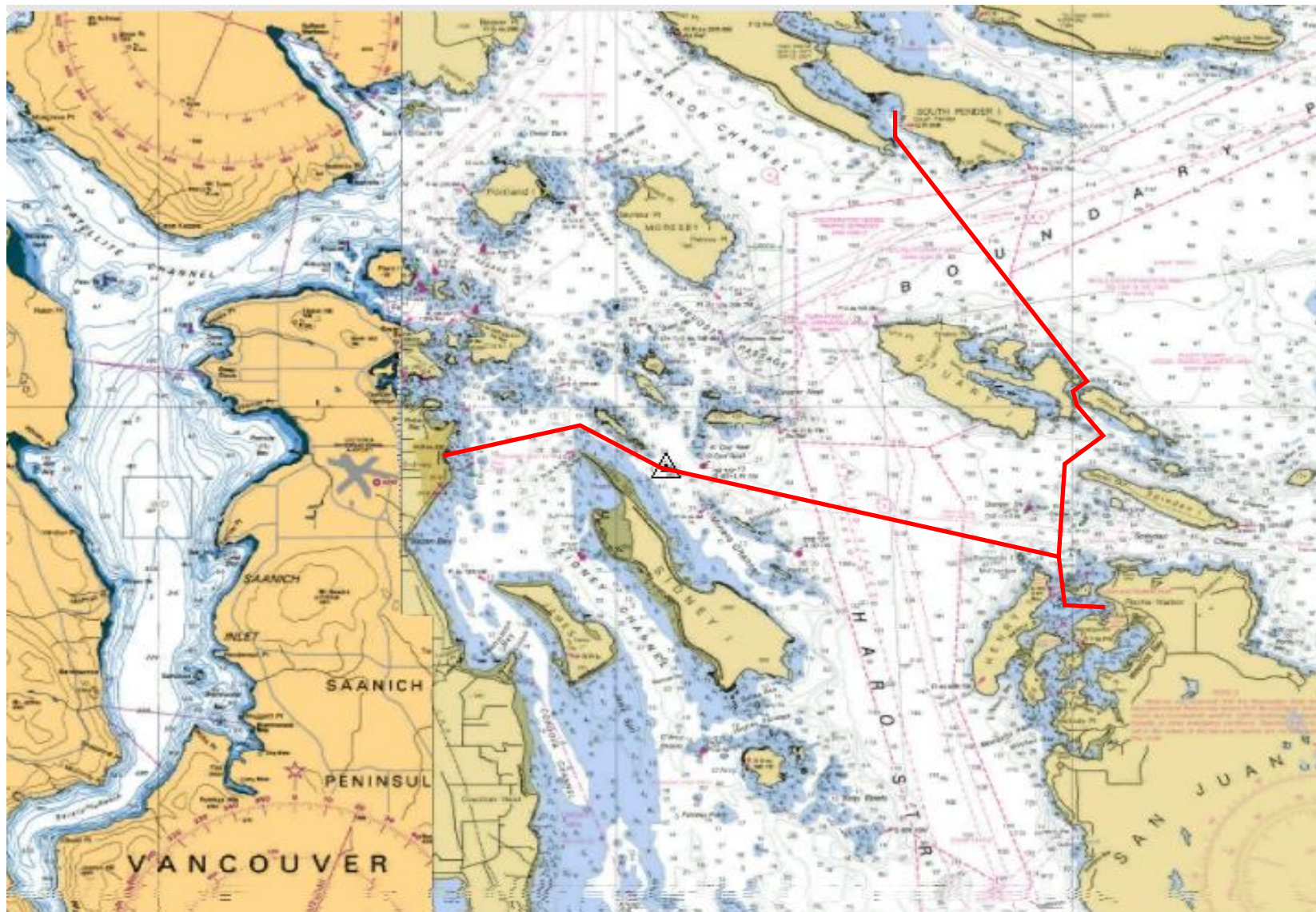


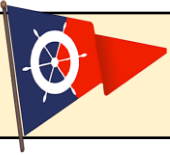
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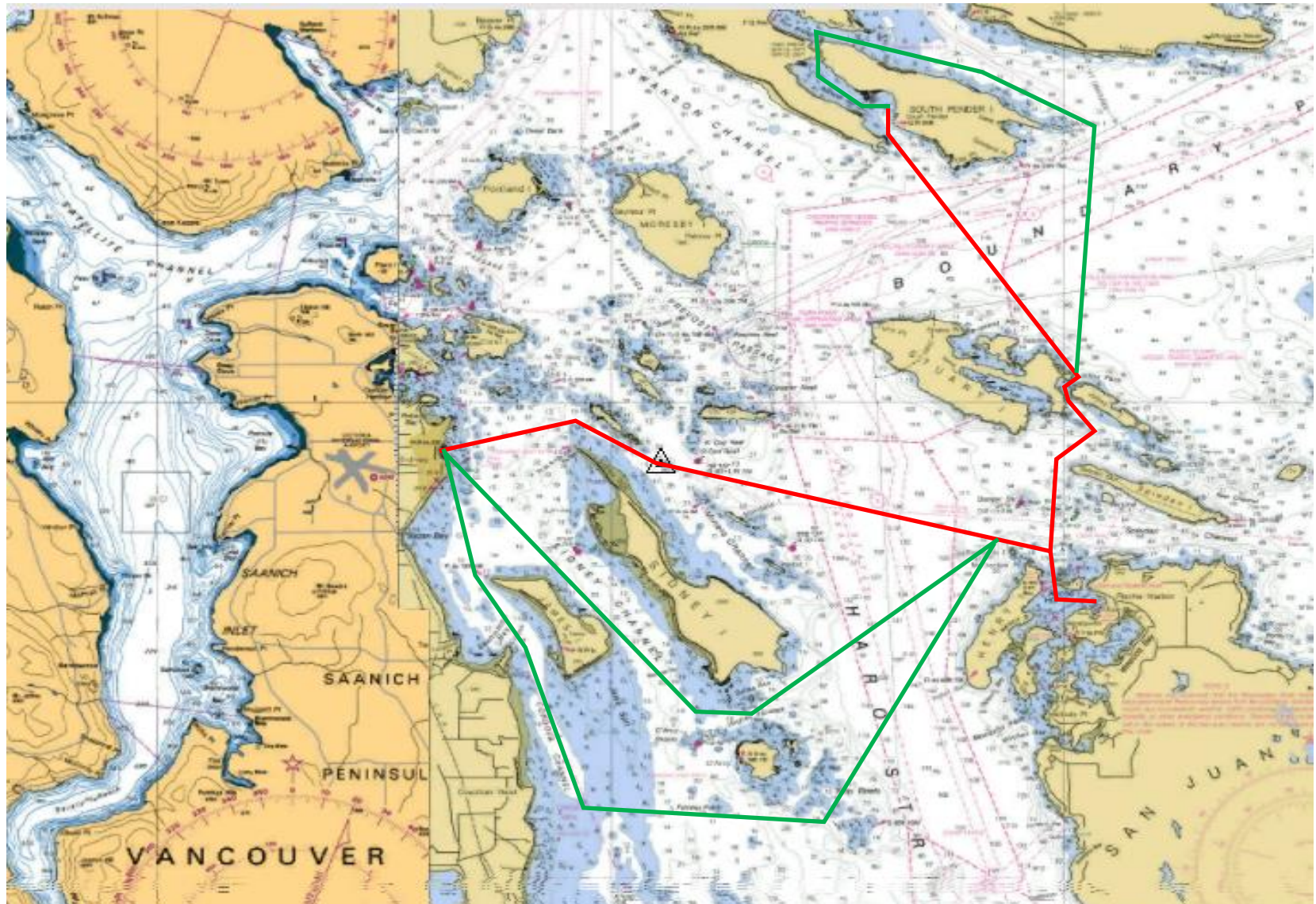


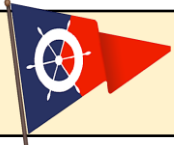
Route Planning – Some Alternatives



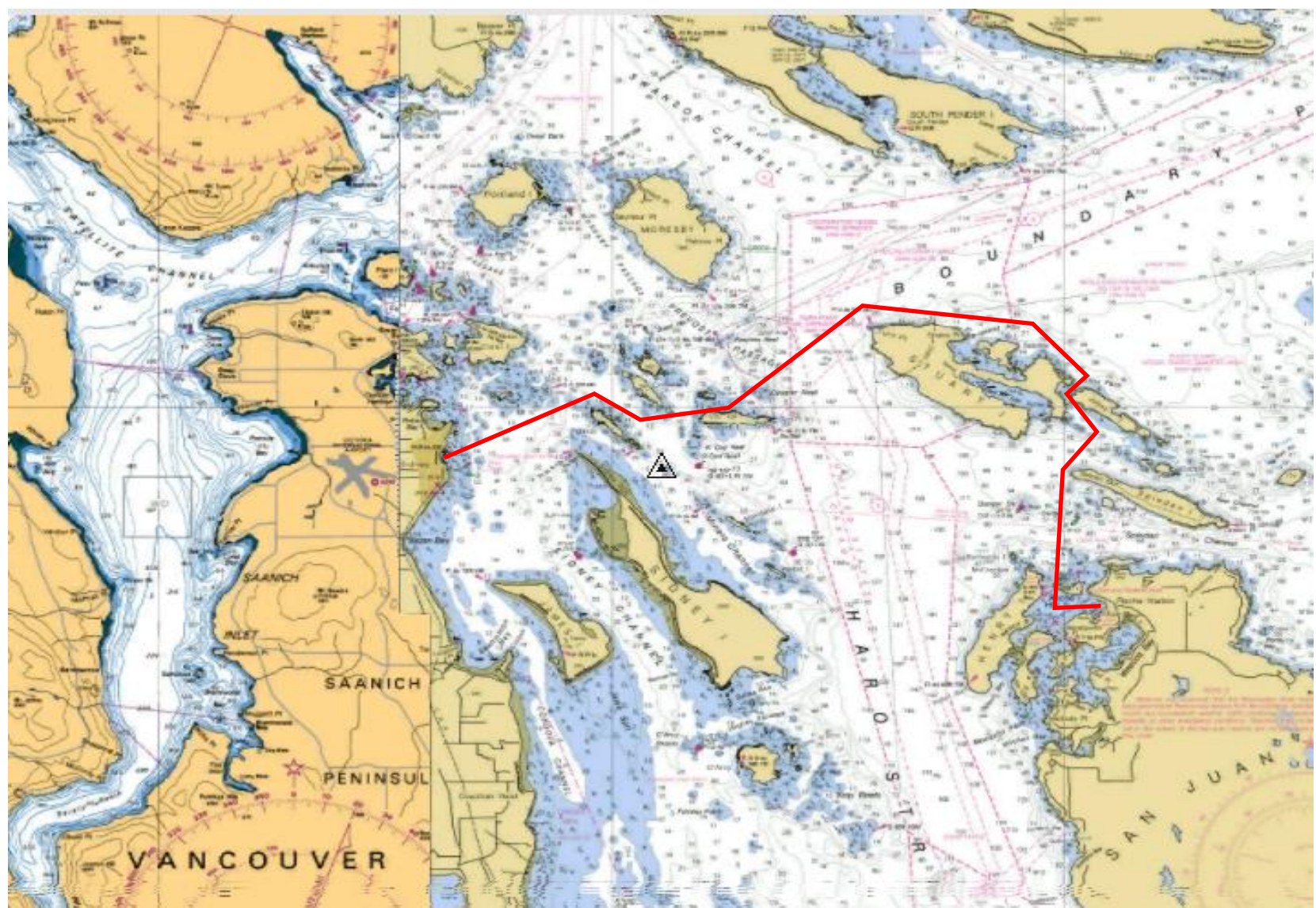


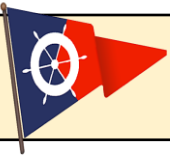
Route Planning – Some Alternatives





Route Planning – Some Alternatives



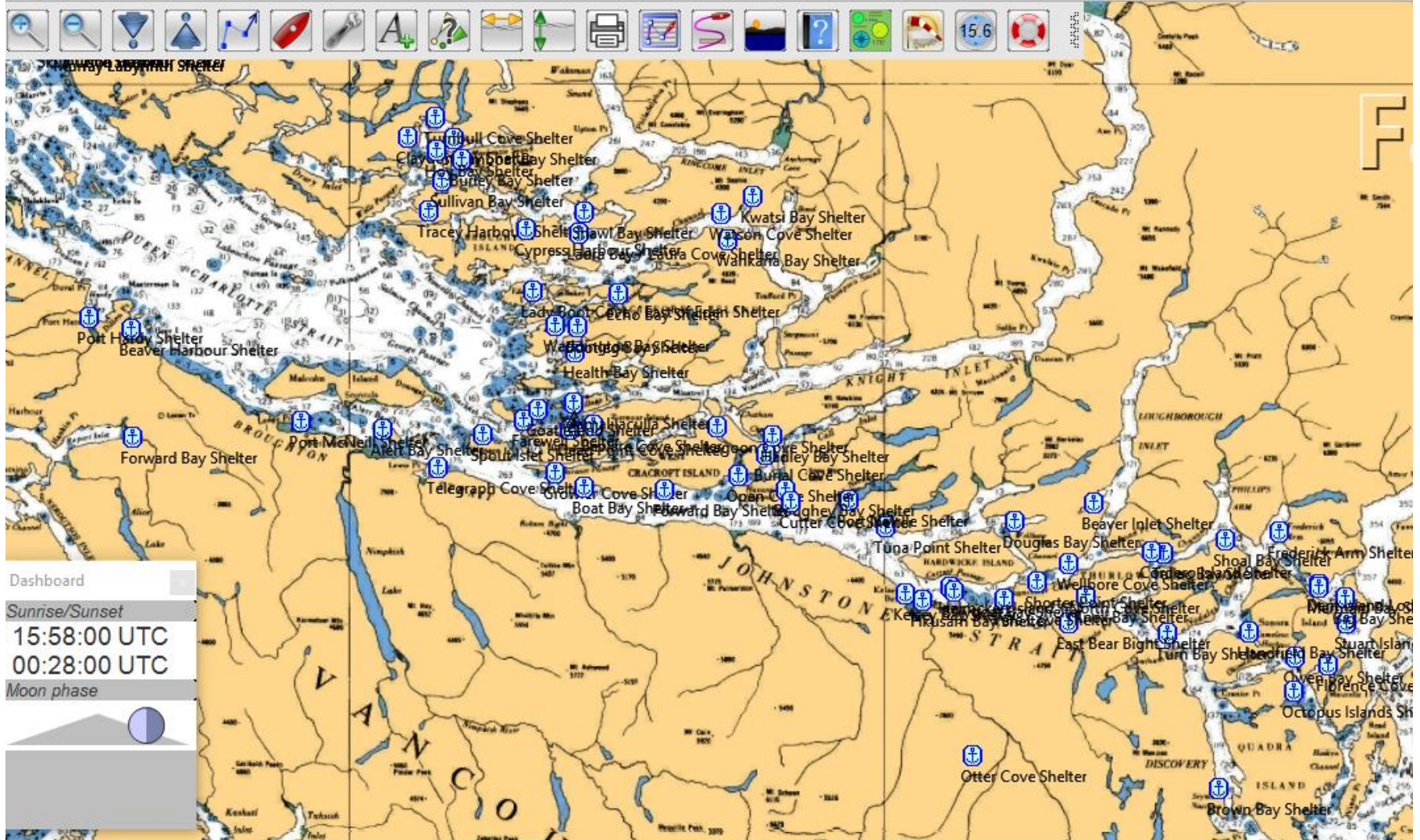


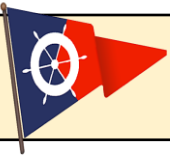
QUARTERMASTER YACHT CLUB – Marine Route Planning

Route Planning – Some Alternatives

OpenCPN 4.2.0

Navigate View AIS Tools Help



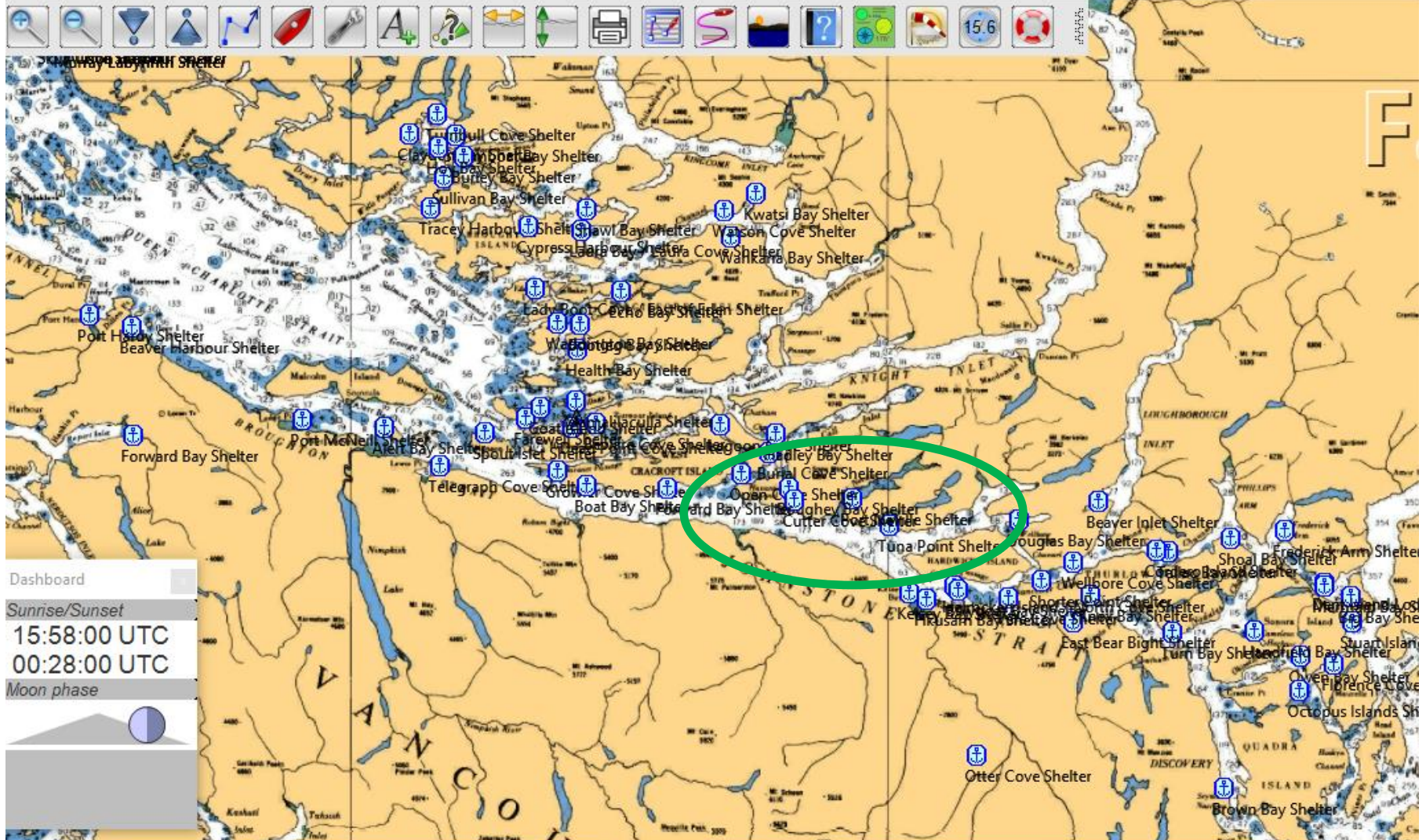


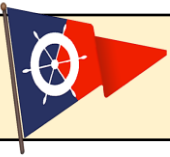
QUARTERMASTER YACHT CLUB – Marine Route Planning

Route Planning – Some Alternatives

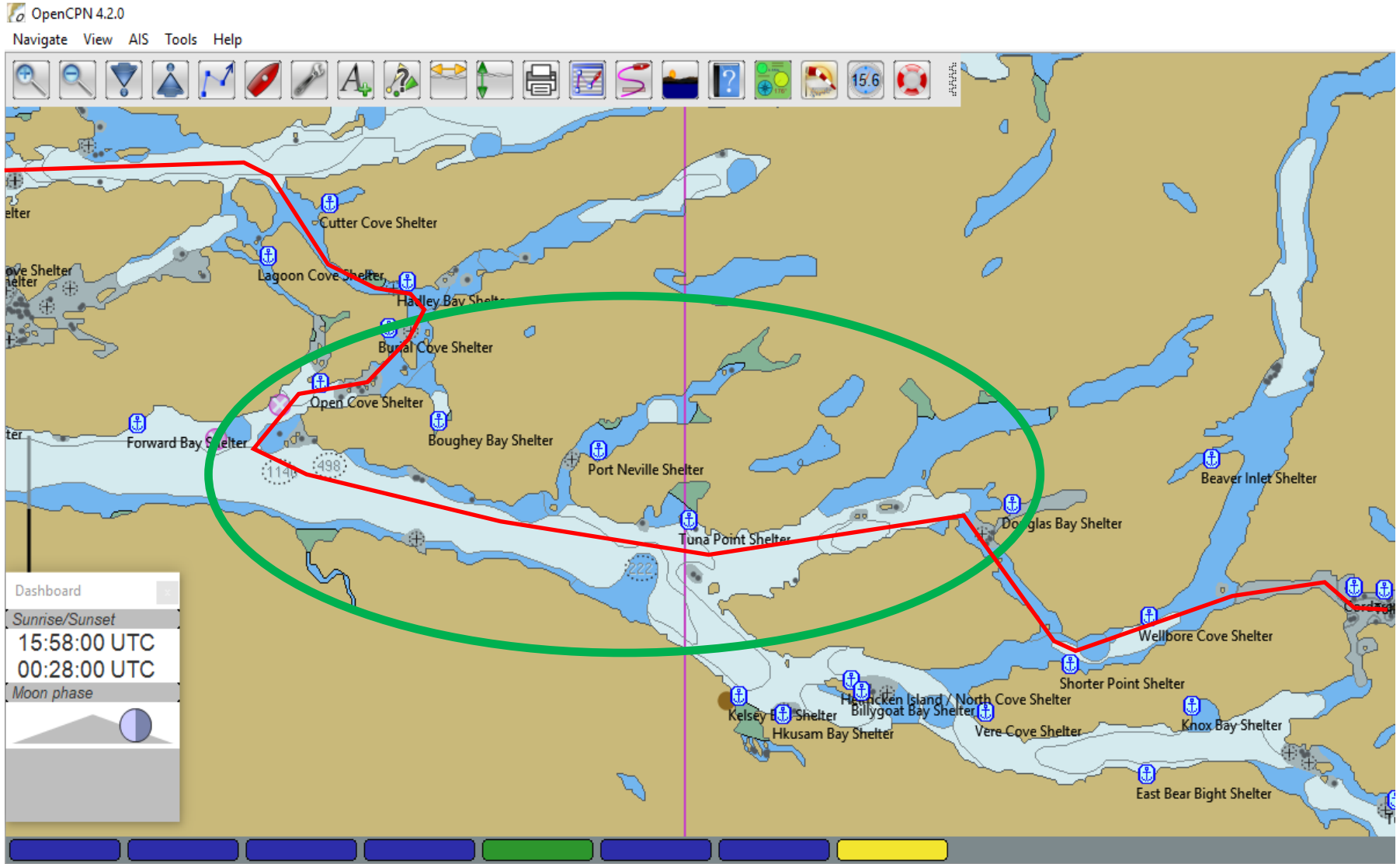
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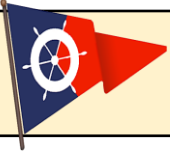
Navigate View AIS Tools Help





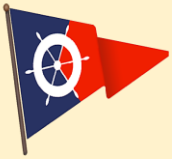
Route Planning – Some Alternatives





Marine Route Planning

- Evaluate your route alternatives
 - Risks and opportunities
 - Wind and waves
 - Identify constraints
 - Narrows and straits with currents
 - Pick the alternative that manages risk
- Only you decide if and when to go...
 - Make sure the crew agrees

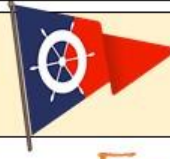


QUARTERMASTER
YACHT CLUB

Our Next Tech Talk

Location: **QYC**
Meyers Hut

Date: **Thursday,**
May 2



QUARTERMASTER YACHT CLUB
Tech Talk Series

Essential Marine Maintenance

- Attend this Tech Talk to discuss:

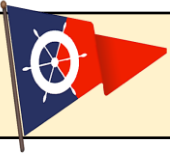


- Diesel and Gas engine maintenance
- How to maintain all those other systems...
- It's not just the boat to keep up....

Where: Quartermaster Yacht Club "Meyers Hut"
23428 Vashon Hwy SW, Vashon, WA 98070

When: Thursday, May 2, 2019, 7 to 9 PM

Why: More boat bucks for you, not the boatyard...



QUESTIONS?