

While looking through the Go Guide, you see the following trip listed:

August 18th, Sat – Friday Harbor to Roche Harbor SKIII. 12nm. We will meet in Friday Harbor at 7:30am for a 8:30am launch on a one way trip to Roche Harbor. We'll stop at Reuben Tarte Picnic Area for lunch before rounding Limestone Point and heading to Roche Harbor. Wet or Dry suits are required.

Using the information learned in the tides and currents session, and the Sea Trails chart provided, look at the proposed trip route. Determine what conditions you may encounter that will either challenge you or prevent you from going on this trip. Consider different weather conditions and/or tides and current conditions that may affect your decision. Look for hazards, obstacles, or cautionary situations to be aware of on this paddle. Look for alternate stopping points or rest stops. Why do you think this is classified as a SKIII?

Personally, what would make this trip one that you would particularly want to go on or not go on?

Be prepared at the next class to address these and other questions the instructors may ask you.

Hint:

Currents: Primary Station is San Juan Channel > Secondary Stations are Turn Rock Light, 1.9 mi NW of and Limestone Point, Spieden Channel

Tides: Primary at Port Townsend > Secondary at Friday Harbor

Tides Calculation Worksheet

Date:				Trip Name:		
Primary Tide Station Name:						
Secondary Tide Station Name:						
Tides	Primary Station Time	Secondary Station Adjustment	Secondary Station Time	Primary Station Height	Secondary Station Adjustment	Secondary Station Height
Low						
High						
Low						
High						
Low						

Currents Calculation Worksheet

Date:				Trip Name:		
Primary Current Station Name:						
Secondary Current Station Name:						
Currents	Primary Station Time	Secondary Station Time Adjustment	Secondary Station Time	Primary Current (In Knots)	Secondary Current Adjustment	Secondary Station Current
Slack						
Ebb						
Slack						
Flood						
Slack						
Ebb						
Slack						
Flood						
Slack						

Currents Calculation Worksheet

Date:				Trip Name:		
Primary Current Station Name:						
Secondary Current Station Name:						
Currents	Primary Station Time	Secondary Station Time Adjustment	Secondary Station Time	Primary Current (In Knots)	Secondary Current Adjustment	Secondary Station Current
Slack						
Ebb						
Slack						
Flood						
Slack						
Ebb						
Slack						
Flood						
Slack						

Trip Planning Considerations

- Tides
- Currents
- Course
- Distance
- Speed
- Fetch
- Hazards, obstacles, cautionary situations
- Alternate stopping or rest stops
- Weather

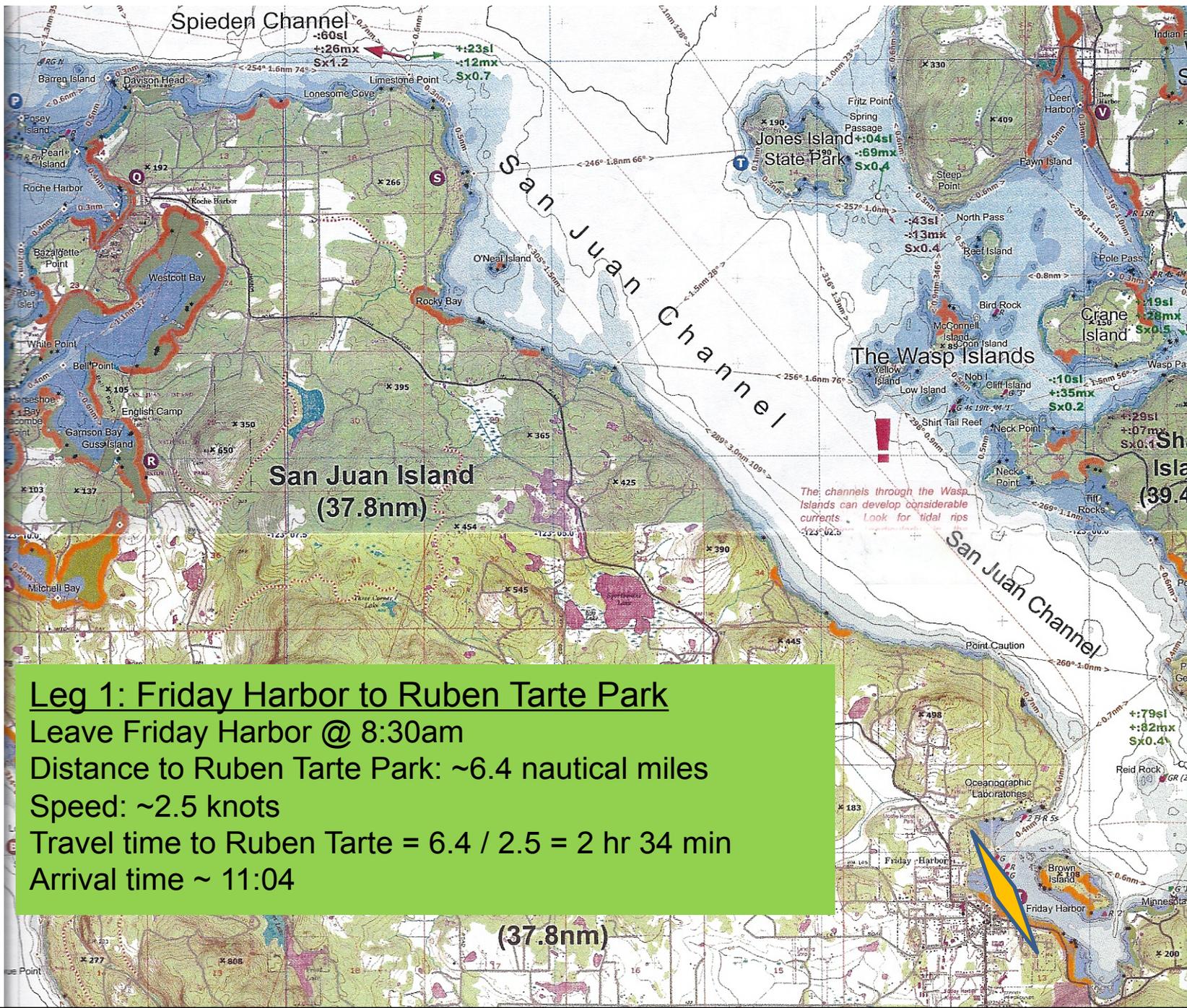
Planning Tools

- Tide & current tables
- Charts
- Marine weather forecasts
- Knowledge & advice from experts with local experience
- Info from the Web on the put in, lunch stop, take out, wildlife, etc
- Ferry schedule

Friday Harbor to Roche Harbor

August 18, 2018

- Assuming an average speed of 2.5 kts, and allowing up to 1.5 hours for breaks, what time will you be in Roche Harbor?
- What will be your arrival time at Ruben Tarte? Will there be much of a beach to land on?
- Are there other places you could land along the route? With what limitations?
- For Leg 2, what potential hazards might you encounter in the area near Limestone Point?
- Would you continue on to Roche Harbor? Why or why not?
- If yes, when would you leave Ruben Tarte?
- What other factors should you consider before leaving Friday Harbor?



Spieden Channel

$\pm 60sl$
 $\pm 26mx$
 $Sx1.2$

San Juan Channel

Jones Island State Park

The Wasp Islands

San Juan Island
(37.8nm)

Sh... Island
(39.4)

The channels through the Wasp Islands can develop considerable currents. Look for tidal rips

Leg 1: Friday Harbor to Ruben Tarte Park

Leave Friday Harbor @ 8:30am

Distance to Ruben Tarte Park: ~6.4 nautical miles

Speed: ~2.5 knots

Travel time to Ruben Tarte = $6.4 / 2.5 = 2 \text{ hr } 34 \text{ min}$

Arrival time ~ 11:04

(37.8nm)

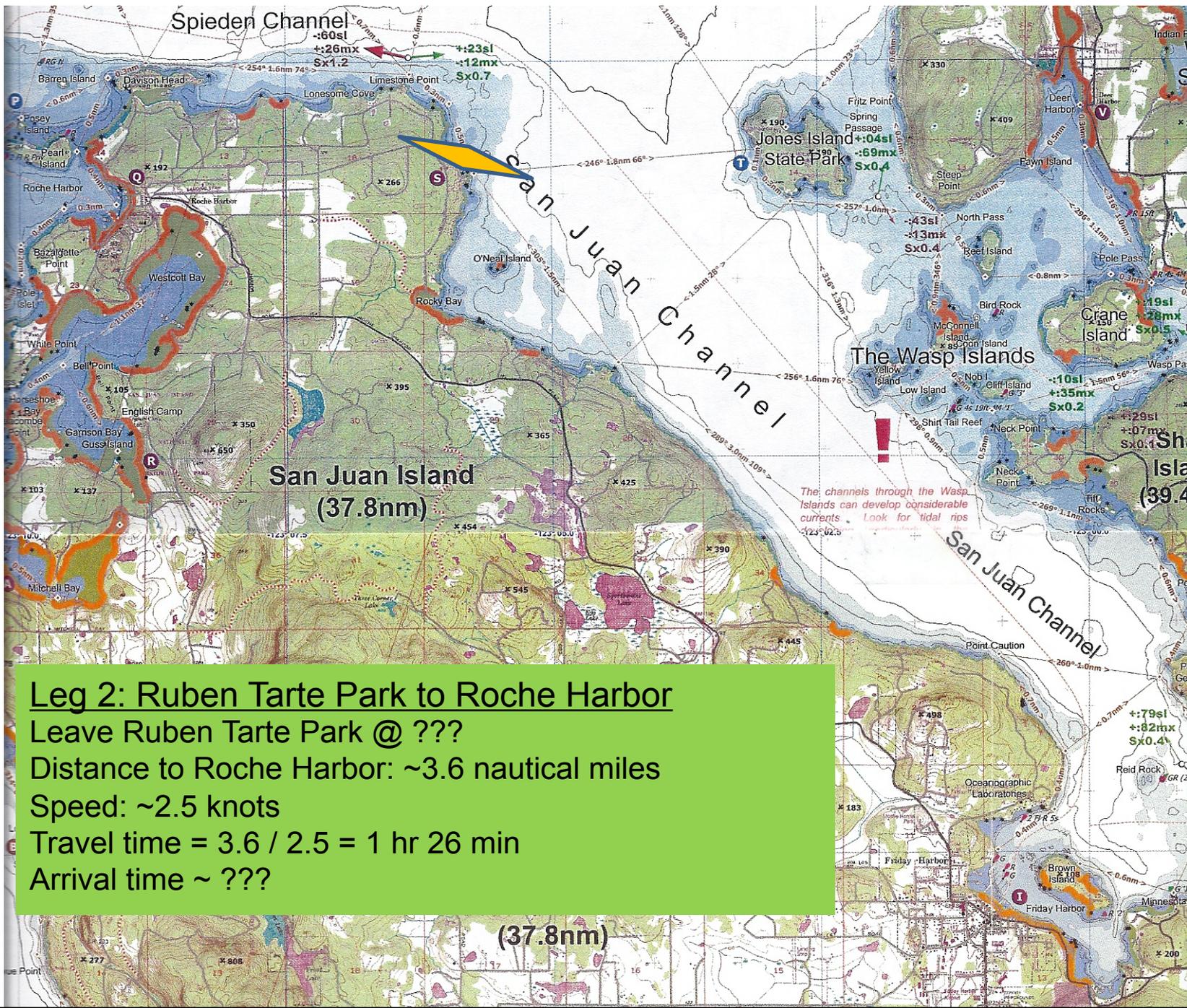
Tides Calculation Worksheet

Date: August 18, 2018				Trip Name: Friday Harbor to Roche Harbor		
Primary Tide Station Name: Port Townsend						
Secondary Tide Station Name: Friday Harbor, San Juan Island						
Tides	Primary Station Time	Secondary Station Adjustment	Secondary Station Time	Primary Station Height	Secondary Station Adjustment	Secondary Station Height
Low	04:39	+0 51	05:30	1.2	*0.92	1.1
High	12:20	+0 33	12:53	6.2	*0.91	5.6
Low	16:23	+0 51	17:14	4.8	*0.92	4.4
High	22:28	+0 33	23:01	7.8	*0.91	7.1
Low						

Beach at Ruben Tarte Park at a 5.68' tide per aerial photos of Washington's Coast:
<https://fortress.wa.gov/ecy/coastalatlantools/ShorePhotos.aspx>

8/15/2006 11:24 AM





Leg 2: Ruben Tarte Park to Roche Harbor

Leave Ruben Tarte Park @ ???

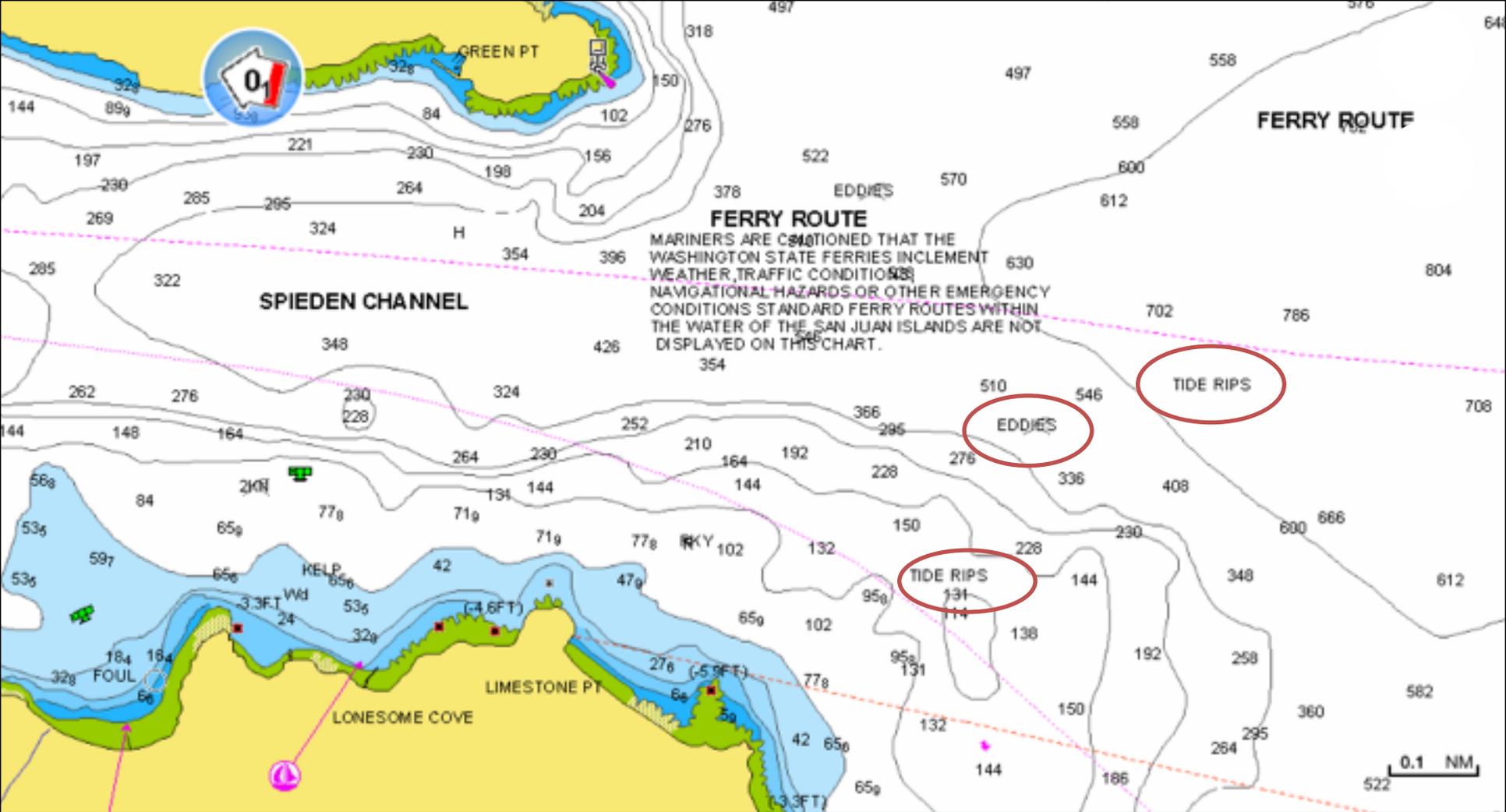
Distance to Roche Harbor: ~3.6 nautical miles

Speed: ~2.5 knots

Travel time = $3.6 / 2.5 = 1 \text{ hr } 26 \text{ min}$

Arrival time ~ ???

(37.8nm)



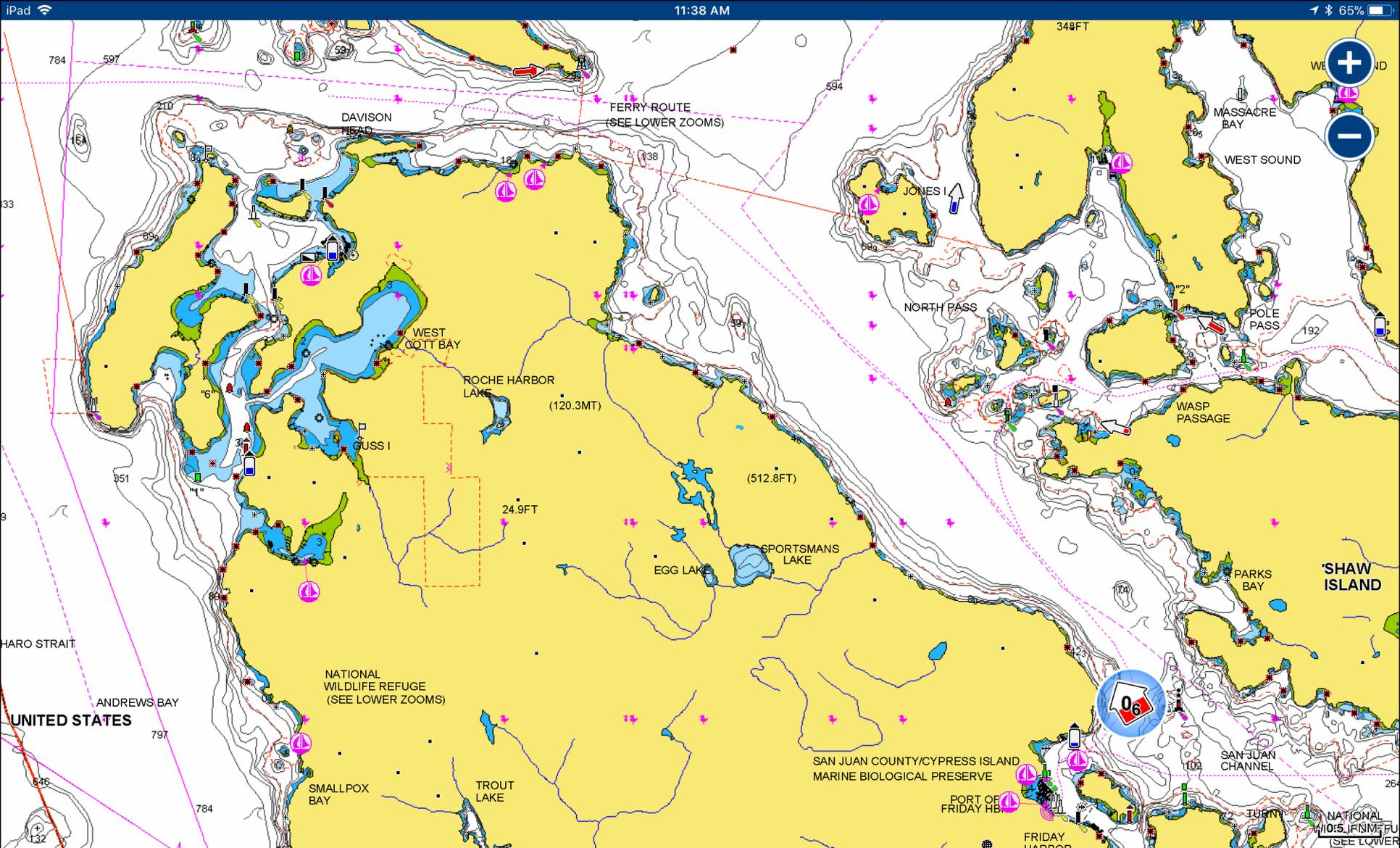
Limestone Point, Spieden Channel

Currents Calculation Worksheet

Date: August 18, 2018				Trip Name: Friday Harbor to Roche Harbor		
Primary Current Station Name: San Juan Channel						
Secondary Current Station Name: Turn Rock Light, 1.9 mi NW of						
Currents	Primary Station Time	Secondary Station Time Adjustment	Secondary Station Time	Primary Current (In Knots)	Secondary Current Adjustment	Secondary Station Current
Slack						
Ebb	02:18	-0 01	02:17	2.7E	*0.5	1.4
Slack	05:54	+1 19	07:13			
Flood	08:54	+1 22	10:16	2.3F	*0.4	.9
Slack	12:48	+0 20	13:08			
Ebb	15:24	-0 01	15:23	1.3E	*0.5	.7
Slack	18:12	+1 19	19:31			
Flood	20:36	+1 22	21:58	1.4F	*0.4	.6
Slack						

Currents Calculation Worksheet

Date: August 18, 2018				Trip Name: Friday Harbor to Roche Harbor		
Primary Current Station Name: San Juan Channel						
Secondary Current Station Name: Limestone Point, Spieden Channel						
Currents	Primary Station Time	Secondary Station Time Adjustment	Secondary Station Time	Primary Current (In Knots)	Secondary Current Adjustment	Secondary Station Current
Slack						
Ebb	02:18	+0 26	02:44	2.7E	*1.2	3.2
Slack	05:54	+0 23	06:17			
Flood	08:54	-0 12	08:42	2.3F	*0.7	1.6
Slack	12:48	-1 00	11:48			
Ebb	15:24	+0 26	15:50	1.3E	*1.2	1.6
Slack	18:12	+0 23	18:35			
Flood	20:36	-0 12	20:24	1.4F	*0.7	1
Slack						



11:38 AM 65%

Navigation controls: zoom in (+), zoom out (-), and a compass icon.

Turn Rock Light, 1.9 Miles Northwest Of ☆

Details

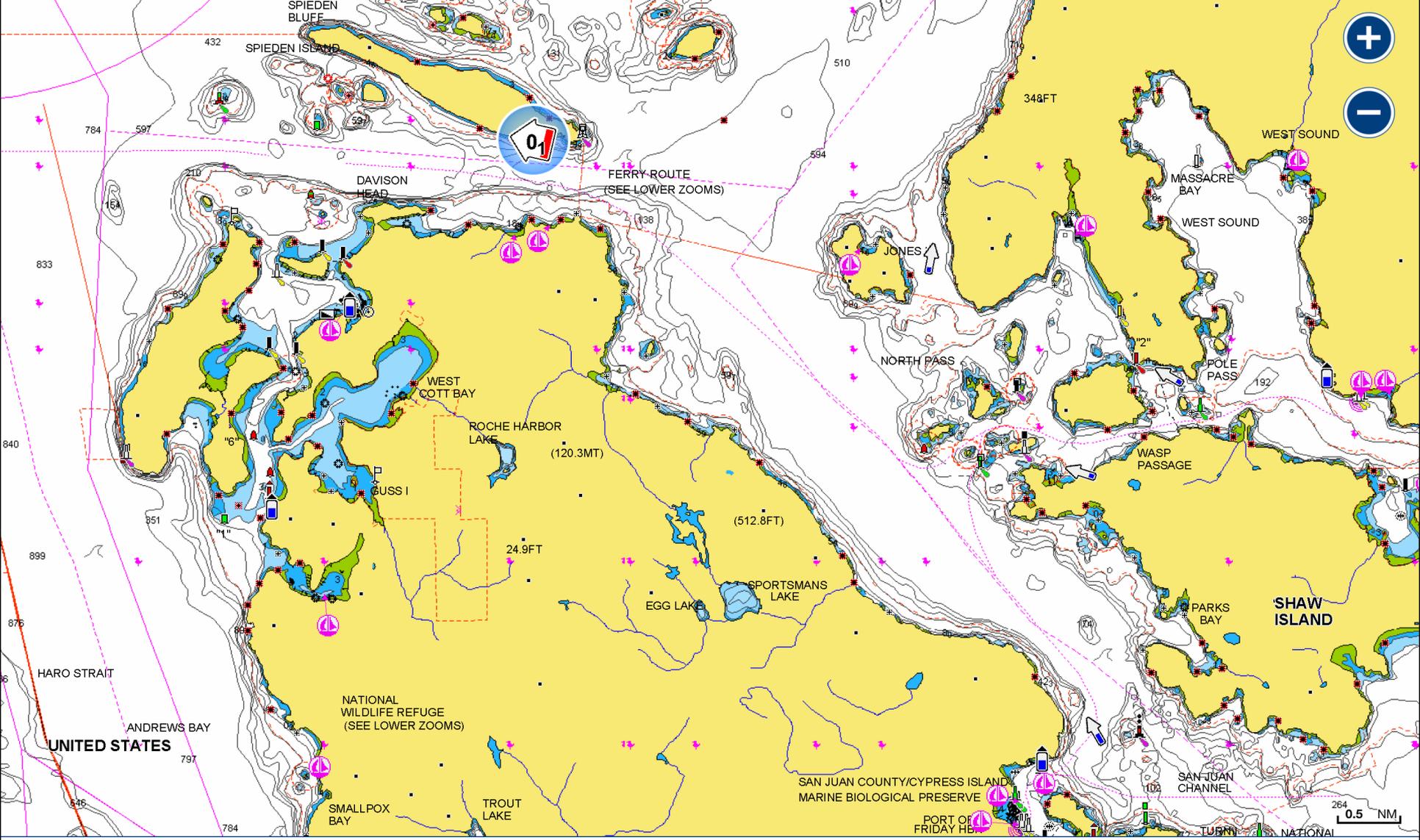
8:30 AM 10:12 AM 9:43 PM
0.92 kts 0.57 kts

0.65 kts

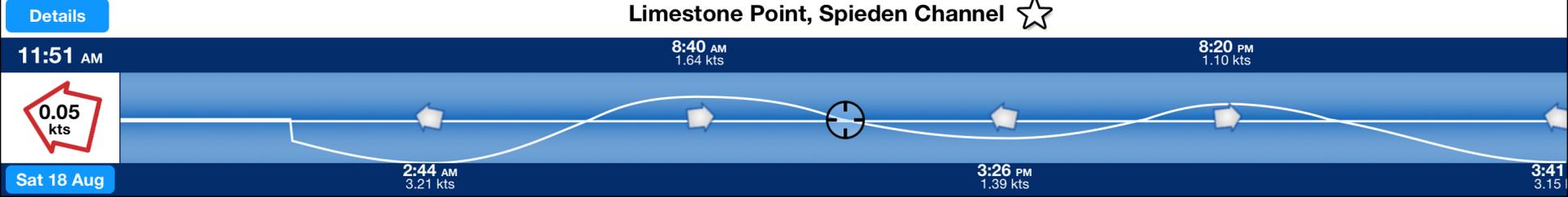
Sat 18 Aug

2:21 AM 1.34 kts 3:50 PM 0.62 kts

A speed plot showing a speed of 0.65 kts at 2:21 AM and 3:50 PM, with a compass icon in the center.



Limestone Point, Spieden Channel ☆



Cell Phone Weather/Marine Page URL: cell.weather.gov
PDA Weather/Marine Page URL: mobile.weather.gov

PZZ100-231915-
303 AM PDT THU APR 23 2015

.SYNOPSIS FOR THE NORTHERN AND CENTRAL WASHINGTON COASTAL AND INLAND

WATERS... A COLD FRONT WILL MOVE THROUGH THE AREA FROM THE WEST THU...FOLLOWED BY A WEAK TROUGH FRI AND FRI NIGHT. A WEAK FRONTAL SYSTEM WILL REACH THE AREA SUN...AND HIGH PRES WILL BUILD OVER THE REGION MON.

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PZZ133-231915-
NORTHERN INLAND WATERS INCLUDING THE SAN JUAN ISLANDS-
303 AM PDT THU APR 23 2015

SMALL CRAFT ADVISORY IN EFFECT FROM 11 AM PDT THIS MORNING THROUGH THIS EVENING

TODAY
S WIND 10 TO 20 KT...BECOMING SE 15 TO 25 KT IN THE AFTERNOON. WIND WAVES 1 TO 3 FT...BUILDING TO 2 TO 4 FT. A CHANCE OF RAIN IN THE MORNING... THEN SHOWERS LIKELY IN THE AFTERNOON.

TONIGHT
SW WIND 15 TO 25 KT...EASING TO 10 TO 20 KT AFTER MIDNIGHT. WIND WAVES 2 TO 4 FT...SUBSIDING TO 1 TO 3 FT. SHOWERS LIKELY.

FRI
S WIND 15 TO 25 KT. WIND WAVES 2 TO 4 FT. SHOWERS LIKELY.

FRI NIGHT
S WIND 5 TO 15 KT. WIND WAVES 2 FT OR LESS.

Always check the National Weather Service Marine Forecast *before* you launch!

Keep track of the weather as you go!!

Be ready to alter your plans if conditions take a turn for the worse.

Don't let prior plans or commitments override a decision to stay off or get off the water when conditions get bad.

DETAILED FORECAST

...SMALL CRAFT ADVISORY IN EFFECT THROUGH THIS EVENING...

Synopsis: A COLD FRONT OVER THE COASTAL WATERS THIS MORNING WILL MOVE THROUGH WESTERN WASHINGTON THIS AFTERNOON...FOLLOWED BRIEFLY BY ONSHORE FLOW. A WEAK TROUGH WILL MOVE THROUGH THE FORECAST AREA FROM THE OFFSHORE WATERS FRI AND FRI NIGHT. A WEAK FRONTAL SYSTEM WILL REACH THE AREA SUN...AND HIGH PRES WILL BUILD OVER THE REGION MON.

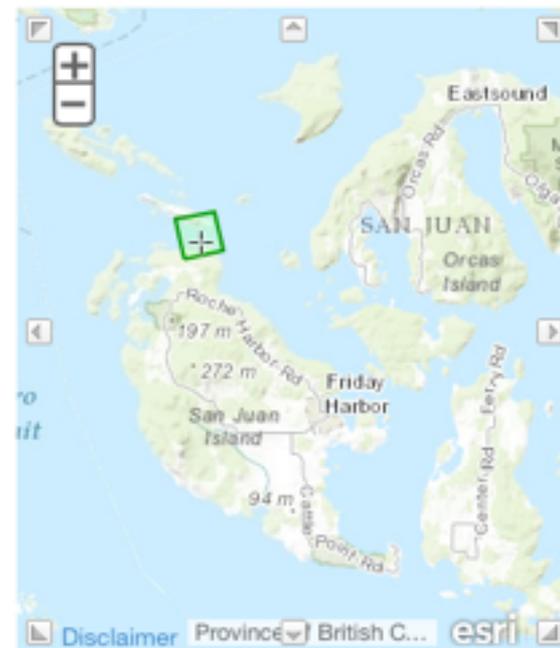
Today	SE wind 8 to 16 kt. Showers likely, mainly after 11am. Wind waves 1 to 2 ft.
Tonight	WSW wind 7 to 12 kt. Showers likely, mainly after 11pm. Wind waves 1 to 2 ft.
Friday	SE wind 9 to 14 kt becoming SSW in the afternoon. Showers likely. Wind waves around 1 ft.
Friday Night	WSW wind 6 to 13 kt. A chance of showers. Wind waves 1 ft or less.
Saturday	E wind around 7 kt becoming N in the morning. A chance of showers. Wind waves 1 ft or less.
Saturday Night	WSW wind around 8 kt. A chance of rain. Wind waves 1 ft or less.
Sunday	S wind 7 to 9 kt becoming SE in the morning. A chance of rain. Wind waves 1 ft or less.
Sunday Night	Variable winds 5 kt or less. A chance of rain. Wind waves 1 ft or less.
Monday	SSE wind 7 to 10 kt. A chance of rain. Wind waves 1 ft or less.

*Notices:

1. This forecast is for a single location. For safety concerns, mariners should be aware of the weather over a larger area. Forecast information for a larger area can be found within the [zone forecast](#) and the [NDFD graphics](#).
2. The forecast conditions at a particular point may not exceed the criteria of a

Topographic

Select Another Point



Requested Location

Forecast Area

ABOUT THIS FORECAST

Point 48.63°N 123.12°W

Forecast:

Last Update: 3:32 am PDT Apr 23, 2015

Forecast Valid: 9am PDT Apr 23, 2015-6pm PDT Apr 29, 2015

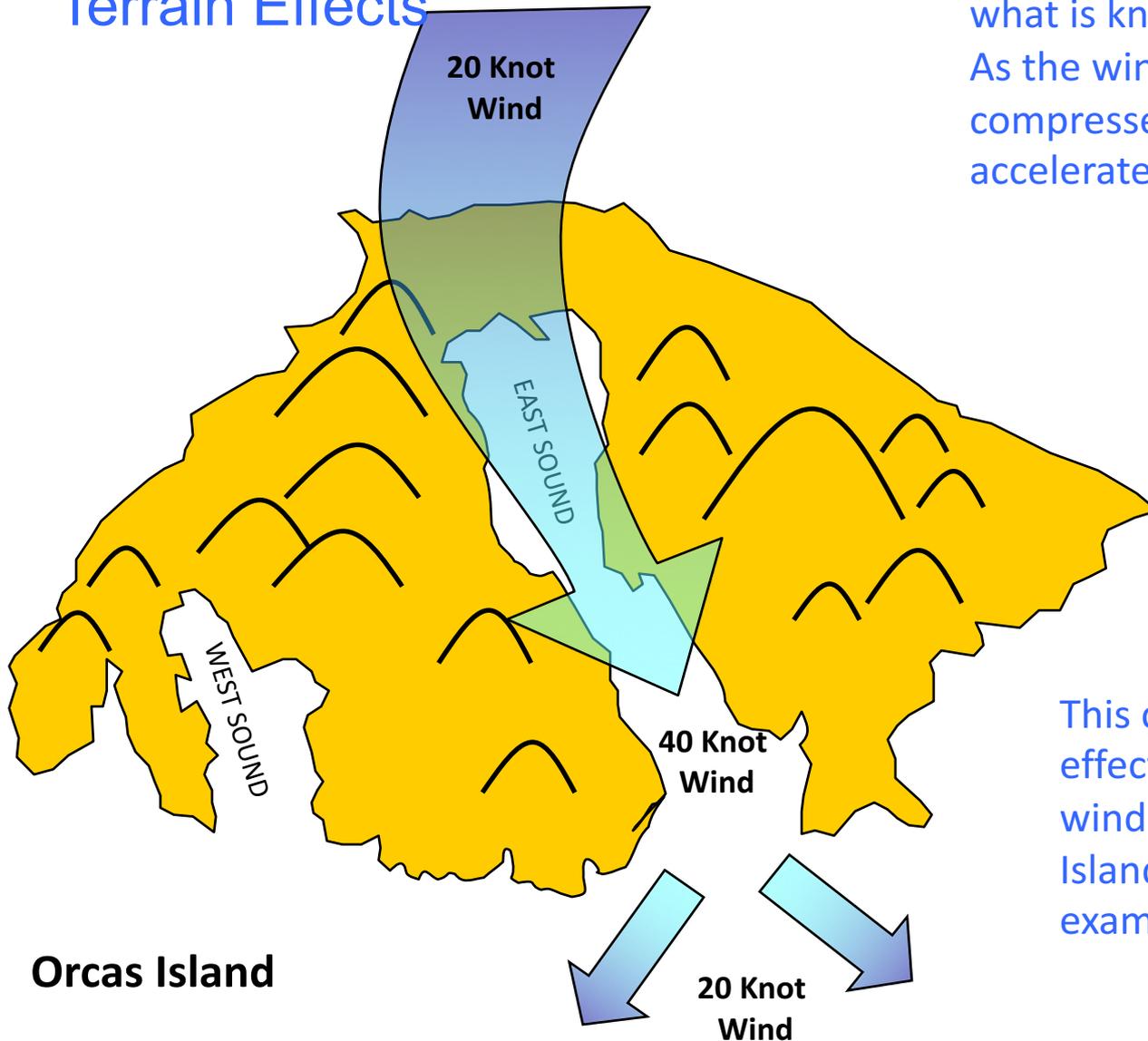
[Forecast Discussion](#)

[KML](#)

[XML](#)

Wind

Terrain Effects



A wind blowing into a pass produces what is known as the Venturi Effect. As the wind enters the pass, it is compressed and therefore accelerates.

This can as much as double the effective wind speed until the wind exits the pass. Orcas Island presents an excellent example of this effect.

Wind Shadow

Terrain Effects

A strong wind will hamper paddling. However, if there is a land mass in the direction the wind is originating, moving towards it will reduce the wind's effect.

There will be some lighter back-eddy winds.

