

Chart 18421
Chartlet: 12 & 24

They're looking for 25 specific items on the combined description. Need to include all items as if you were writing the two routes separately.B.

B. TIDES AND CURRENTS expected (directions, speeds, highs and lows)

Tides

	<u>Mean Range</u>	<u>Diurnal Range</u>
Anacortes	4.8	8.2
Ship Harbor	4.8	8.1
Friday Harbor	4.6	7.7
Turn Point	4.4	7.5

Currents (14 items)

1. In **Haro Strait** the flood sets N, ebb current sets in the opposite direction. The ebb runs longer and has greater velocity. Tide rips on the ebb between Henry Island and around Turn Point. The ebb velocity can be 6 knots during large tides.
2. In bad weather, heavy tide rips form over **Beaumont Shoals**.
3. **Spieden Channel**: Flood currents flowing E from Haro and W from San Juan Channel cause heavy tide rips and eddies.
4. **Limestone Point**: Heavy tide rips and eddies off Limestone Point and Green Point on Spieden Island.
5. **President Channel**: Current velocities of 2 to 5 kts.
6. **Channels between the Wasp Islands**: Tidal currents can have considerable velocity.
7. **Fisherman Bay**: Tidal currents can have considerable velocity.
8. **S end of San Juan Channel**, between Goose Island and Deadman Island, average current is 2.6 kts on flood and ebb. Max flood currents of 5 kts or more cause severe rips and eddies.
9. **Rosario Strait**: Currents in Lopez, Thatcher, and Obstruction Passes reported 3 to 7 kts
10. **Fauntleroy Point**: With S wind and ebb, heavy rips off the E entrance to Thatcher Pass.
11. **Obstruction** and **Peavine Passes** currents estimated 5.5 to 6.5 kts at times. Heavy tide rips E of Obstruction Island.
12. **Boulder Reef** portions uncover at half tide; kelp marking the reef is drawn under by the current.

13. **Bellingham Channel** - Between Cypress, Guemes, and Sinclair Islands currents have considerable velocity. LB6 off Clark Point reported to submerge during strong currents.

14. **Guemes Channel** currents exceeds 5 kts at times.

C. TRAFFIC including cross traffic (directions, type)

Haro Strait generally used by oceangoing vessels bound from the W to ports in Alaska or British Columbia. It's the widest channel and well marked. Vessels bound N from Puget Sound may use Rosario Strait or Haro Strait; the use of San Juan Channel by deep-draft vessels is not recommended.

Rosario Strait: Constantly used by vessels bound to Bellingham, Anacortes, and the San Juan Islands. Vessels bound for British Columbia or Alaska also use it to take advantage of the currents.

The waters of the **San Juan Islands** are used extensively by pleasure craft, especially in July, August, and September. Some tugs and barges use the larger passes.

Cross traffic:

Mostly Washington State ferries on scheduled runs from Anacortes through Thatcher Pass, Harney Channel, Wasp Passage, San Juan Channel, Spieden Channel, and across Haro Strait to Sidney, B.C. Ferry landings are at Upright Head on Lopez Island, Shaw Island, Orcas Island, and Friday Harbor on San Juan Island.

1. Johns Pass used by fishing vessels and small boats.
2. Local vessels bound from Friday Harbor to Deer Harbor use a channel 70 yards wide through the rocks and shoals between Cliff Island and Low Island.
3. Friday Harbor, Roche & Deer Harbors are used by yachts & pleasure craft.
4. North Bay, San Juan Is.: Gravel is barged from pits on the NW shore of the bay to Vancouver Island.
5. Kanaka Bay, a small cove used by fishing boats, 2.5 miles NW of Eagle Point.
6. Bellevue Point: During the June-October fishing season, many purse seiners in this area. At night they anchor close inshore, between Cattle Point and Pile Point.
7. Mackaye Harbor has several private piers used by seafood company vessels.
8. Blakely Island: has a small-craft basin and channel on N end.
9. Burrows Bay: Small craft using Deception Pass, bound to or from the islands or from Bellingham Bay, pass through Burrows Bay.
10. Flounder Bay: a sheltered basin and popular harbor at the N end of Burrows Bay, has a large marina.

D. VESSEL TRAFFIC SYSTEM in effect (what's in place, who's required and where)

Haro Strait (4 items)

VTS managed by Victoria Traffic VHF 11. The TSS on this chartlet is a recommended route and is voluntary.

In accordance with Cooperative Vessel Traffic Management Service the US and CA pilots have established a special operating area within a 2nm arc centered on Turn Pt between Haro Strait and Boundary Pass.

Communicate with Vic VTS VHF 11, at call in point 6 at Danger Shoal N/B, Gowlland Pt S/B, approx 3nm before SOA. Make safe passing arrangements with other participants.

The SOA applies to participating vessels 100m or more in length within or approaching the SOA. Vessel's can't enter when another participating vessel is in the SOA.

In the SOA Loaded tankers 40000 DWT or more are required to make passing arrangements prior to meeting, overtaking, or crossing any other vessel in the SOA.

WSF normally check in in the vicinity of Danger Shoal with the Victoria Traffic Ch 11 westbound and Seattle Traffic CH 5A eastbound.

Rosario Strait (8 items)

Managed by Seattle Traffic on VHF channel 5A under a mandatory system.

VTS Special Areas.

- (1) The Rosario Strait VTS Special Area consists of waters between Precautionary Area "RB" (not marked by a buoy) and Precautionary Area "C" (marked by Lighted Buoy "C"); and
- (2) The Guemes Channel VTS Special Area consists of those waters between Shannon Point on Fidalgo Island and Southeast Point on Guemes Island.

Additional VTS Special Area Operating Requirements. The following additional requirements are applicable in the Rosario Strait and Guemes Channel VTS Special Areas:

- (1) A vessel engaged in towing shall not impede the passage of a vessel of 40,000 DWT or more.
- (2) A vessel 40,000 DWT shall not enter or get underway in the area without prior approval of the VTS. Authorization requested 15 minutes prior to entry.
- (3) A vessel 100 meters or more in length and a vessel of 40,000 dead weight tons or more may not operate within 2,000 yards of each other except when crossing astern.
- (4) A deviation has been granted for WSF to meet a vessel of 40,000 deadweight tons or more when the ultimate intention is to pass astern.

WSF normally check in prior to departure Anacortes westbound and vicinity Frost Island eastbound.

E. SPECIAL HARBOR RULES and navigational customs observed in the area (6 items)

Puget Sound Pilots are compulsory for all foreign vessels and US vessels engaged in foreign trade in US waters. Pilotage is optional for US vessels engaged in coast-wise trade off the W Coast US including AK and BC provided they are under control of a federally licensed pilot.

COLREGS apply and are enforced by USCG in US waters and by Canadian authority in Canadian waters.

Logging is a major industry, be aware of navigational hazards like free floating logs, dead heads and sinkers.

Friday Harbor and Anacortes are Customs Ports of Entry.

Friday Harbor: Marina Entrance Lights 1 & 2 display Q Y during seaplane operations.

Magnetic disturbances in the vicinity of:

- Pt Doughty
- East Sound, NW head
- Bellevue Pt
- Burrows Bay, eastern shore

F. Description of all ANCHORAGES (*aprx sizes, desc, mooring buoy, depths and type of bottom*)

General Anchorages: None on chartlets.

Small craft can find multiple areas to anchor in 2-20 fathoms (20 items):

San Juan Island:

- Open Bay, E of Kellett Bluff, good holding ground, protection from N & E weather
- Roche Harbor, 4-9 fathoms
- Friday Harbor, 6-7 fathoms
- North Bay, SJI, 7-10 fathoms
- W of Harbor Rock, SE San Juan I., 10-20 fathoms

Stuart Island

- Reid Harbor, 4-5 fathoms, soft bottom
- Prevost Harbor, 6-7 fathoms, muddy bottom

Jones Island: Small pleasure craft anchor in the bights in the N and S shores.

Shaw Island

- Indian Cove, 4-7 fathoms, soft bottom
- Parks Bay, 6-8 fathoms, soft bottom

Orcas Island

- Deer Harbor, 6-7 fathoms

West Sound N of Double Island, 7-12 fathoms
East Sound, anywhere

Lopez Island

Fisherman Bay, 10-12 ft, soft bottom

Mackaye Harbor, 5-6 fathoms, soft mud

Lopez Sound, in SE weather, N of Center Island 3-5 fathoms, mud bottom

In W weather, in the large bight on the W side

Watmough Bay, SE Lopez Is.

Fidalgo Island

Burrows Bay, 15-16 fathoms, soft bottom

Ship Harbor, 4-8 fathoms, soft shell mud bottom, not good holding ground

Cypress Island: Strawberry Bay, 7 fathoms, seldom used

G. RESTRICTED AREAS – None

Prominent GEOGRAPHIC FEATURES AND MAN-MADE STRUCTURES

Stuart Island: two prominent hills 640 feet high near the middle
Turn Point: bold, steep-to, marked by a light and fog signal

Spieden Island: 2.5 miles long in an E direction with an extreme width of 0.5 mile. The S side of the island has few trees, but the N face is well wooded

San Juan Island: 13 miles long, rugged, and partly wooded.

Mount Dallas: highest of several hills on San Juan island, rises abruptly from the middle of the W side to 1,036 feet.

Kellett Bluff: steep and rocky and prominent from either S or N; marked by a light

Roche Harbor: The quarry tunnels from the old lime works and the ruins of the old mill are still prominent.

North Bay: Gravel pits on the NW shore.

Friday Harbor: town on the W shore of the cove.

University of Washington marine laboratory: 0.4 mile NNW of the N end of Brown Island. Concrete buildings are prominent.

Waldron Island: Irregular in shape and 3 miles long; highest point, 612 feet, is near Point Disney, its S end.

Orcas Island: wooded and mountainous.

Mount Constitution: 2454 ft, marked by a stone lookout tower and a lighted radio tower.

Turtleback Mountain (Turtle Back Range) and **Orcas Knob:** conical, and bare on the summit, in the W part of the island, are prominent and easily recognized.

Orcas: summer resort; five white tanks are near the back of the wharf. The ferry slip is just E of the wharf

Shaw Island: village served by the ferry; store, warehouse, and a float landing with berths for about 25 craft.

Lopez Island

Upright Head: narrow peninsula that attains an elevation of 260 feet. A ferry slip is in the small cove at the tip of this peninsula.

Lopez: small village at the entrance to Fisherman Bay.

Lopez Hill: 488 feet high, is near the S midsection of Lopez island.

Richardson: five fuel tanks are prominent from seaward

Blakely Island: At N end, bordering on Peavine Pass, is a small-craft basin and channel.

James Island: two hills with heights of 260 and 219 feet.

Lummi Island: wooded and about 8 miles long; the N part is low, but in the S part **Lummi Peak** attains an elevation of over 1,600 feet

Sinclair Island: wooded and comparatively low in places.

Cypress Island: 1,530 feet high, steep on the lower slopes and gently rounding at the top

Belle Rock Sector Light: ½ NM NE of Bird Rocks

Bird Rocks: consisting of three rocks close together, are near the middle of Rosario Strait, about 2 miles WNW of Burrows Island Light. The southernmost and largest is 37 feet high.

Guemes Island: Yellow Bluff SW side

Fidalgo Island

Ship Harbor: Ferry terminal

Mt Erie 1270 ft, radio towers

Flounder Bay: a well-sheltered basin; site of a large marina.

Burrows Island Light: 34-foot white square tower on a building at the W end of the island; a fog signal is at the station.

Williamson Rocks: a group of small, grass-covered islets and rocks, are 0.5 mile S of Allan Island and are marked on the S side by a lighted gong buoy.

