

**VESSEL TRAFFIC UPDATE
FOR
OLYMPIC COAST NATIONAL MARINE SANCTUARY
ADVISORY COUNCIL**

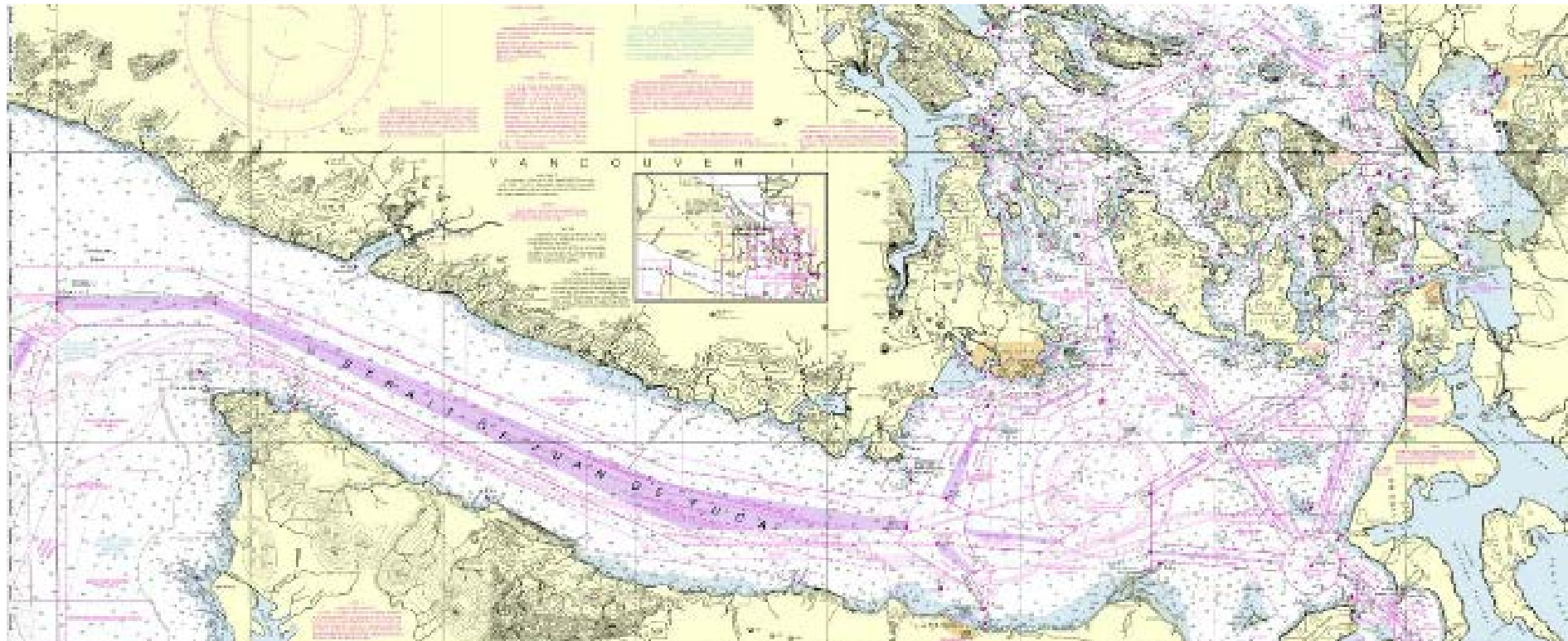
January 18, 2013



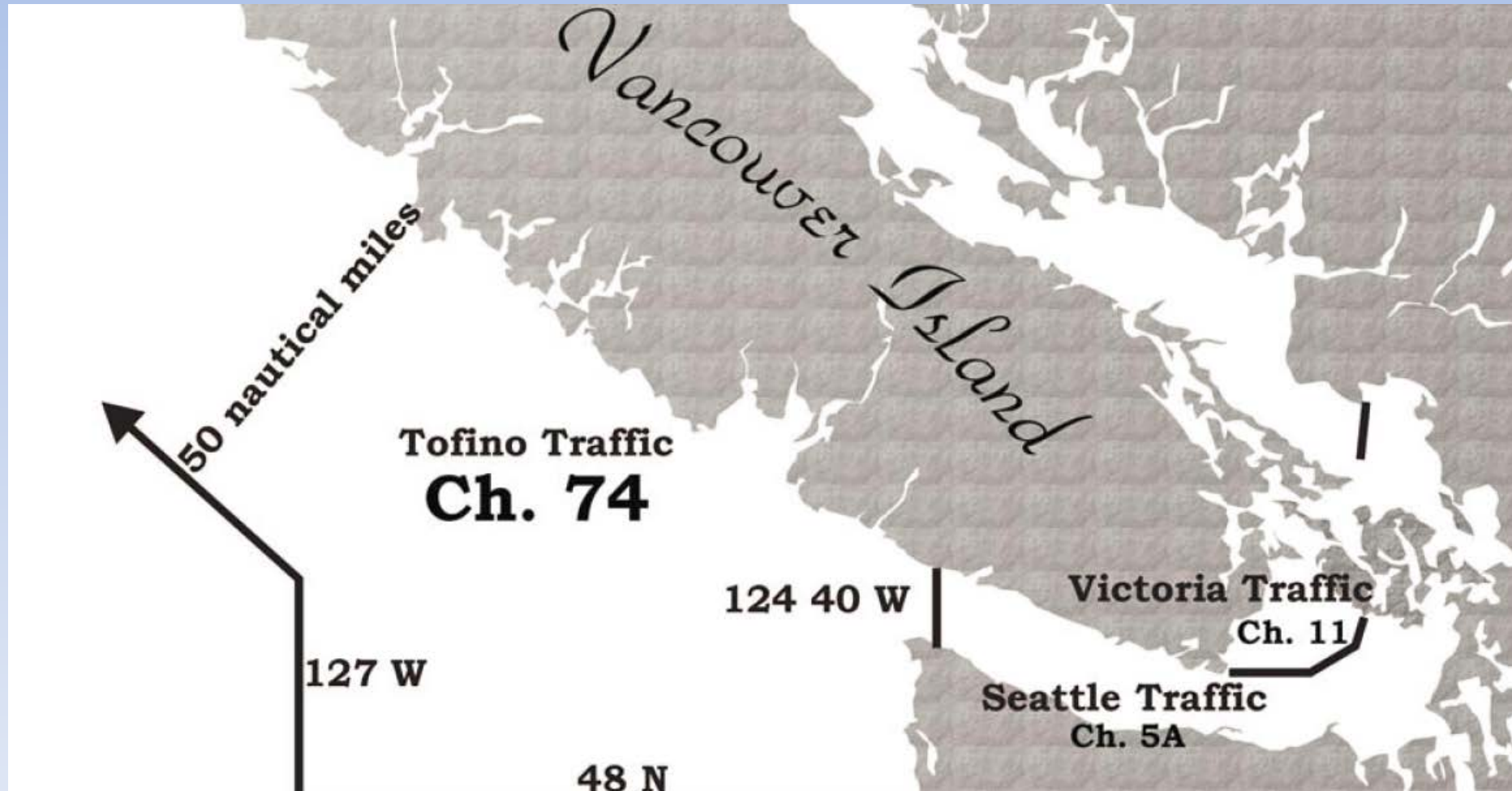
John Veentjer
Executive Director, Marine Exchange
SAC Marine Business Member

Traffic Lanes

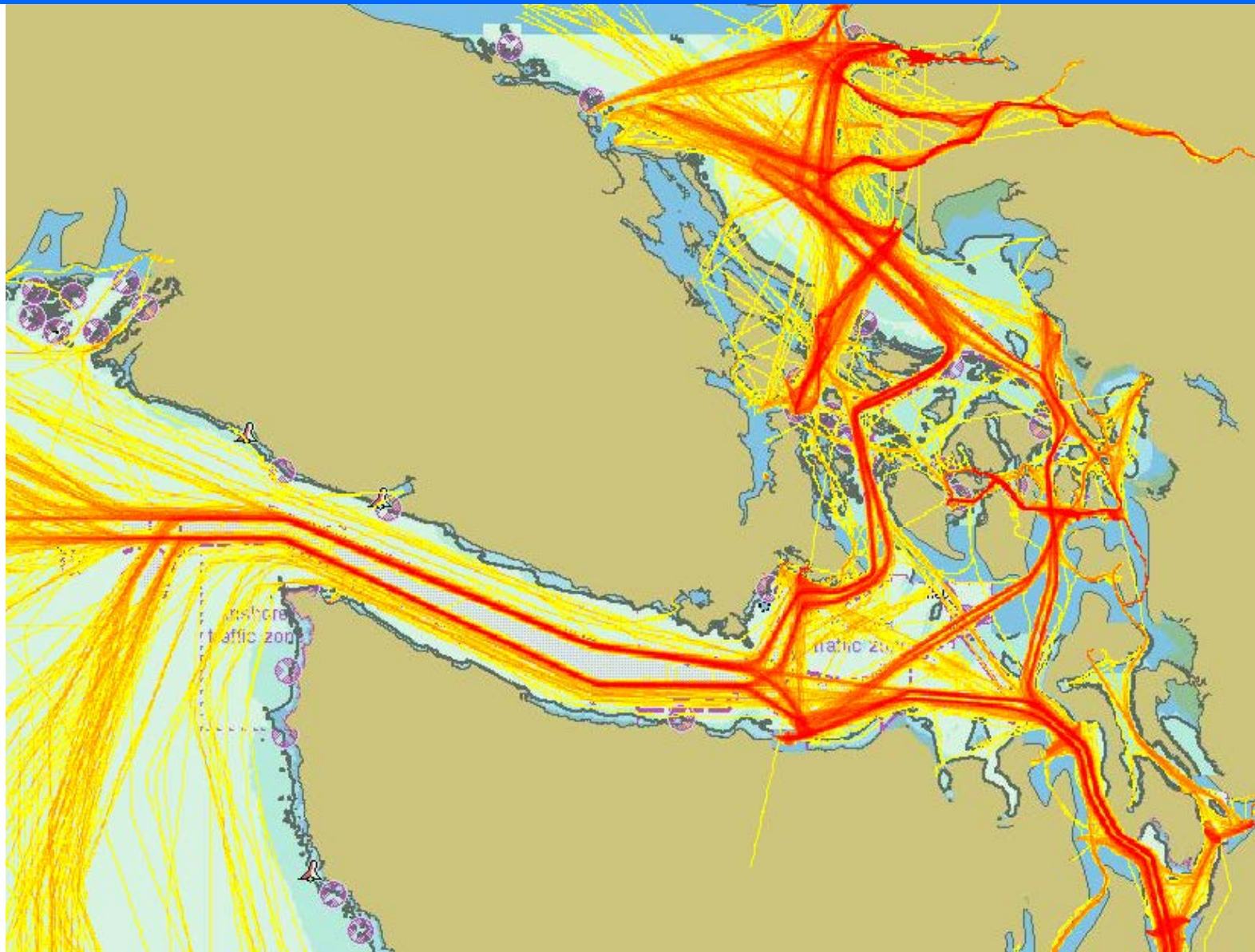
Order and Predictability



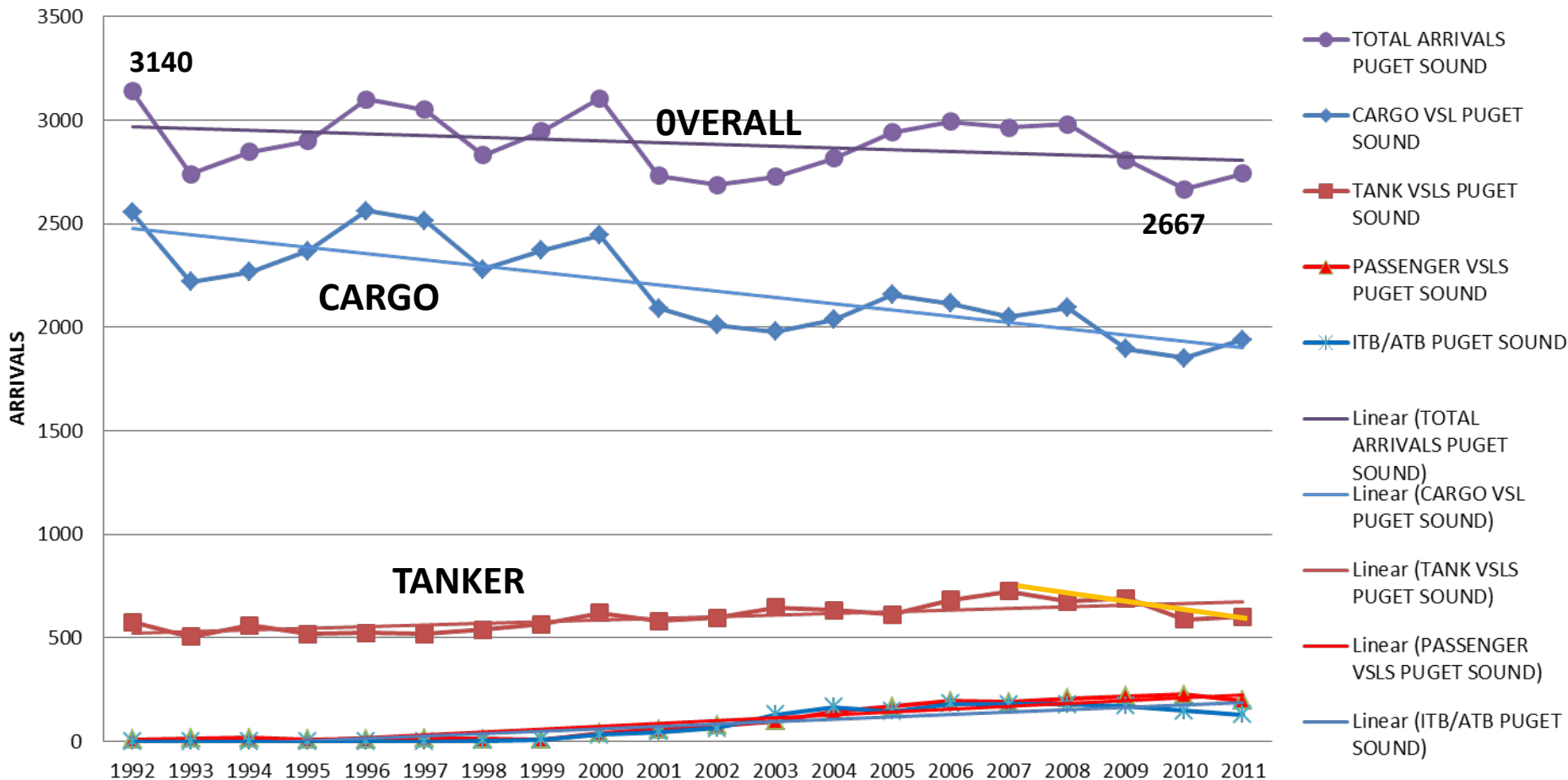
Cooperative Vessel Traffic Service (CVTS) Order and Predictability



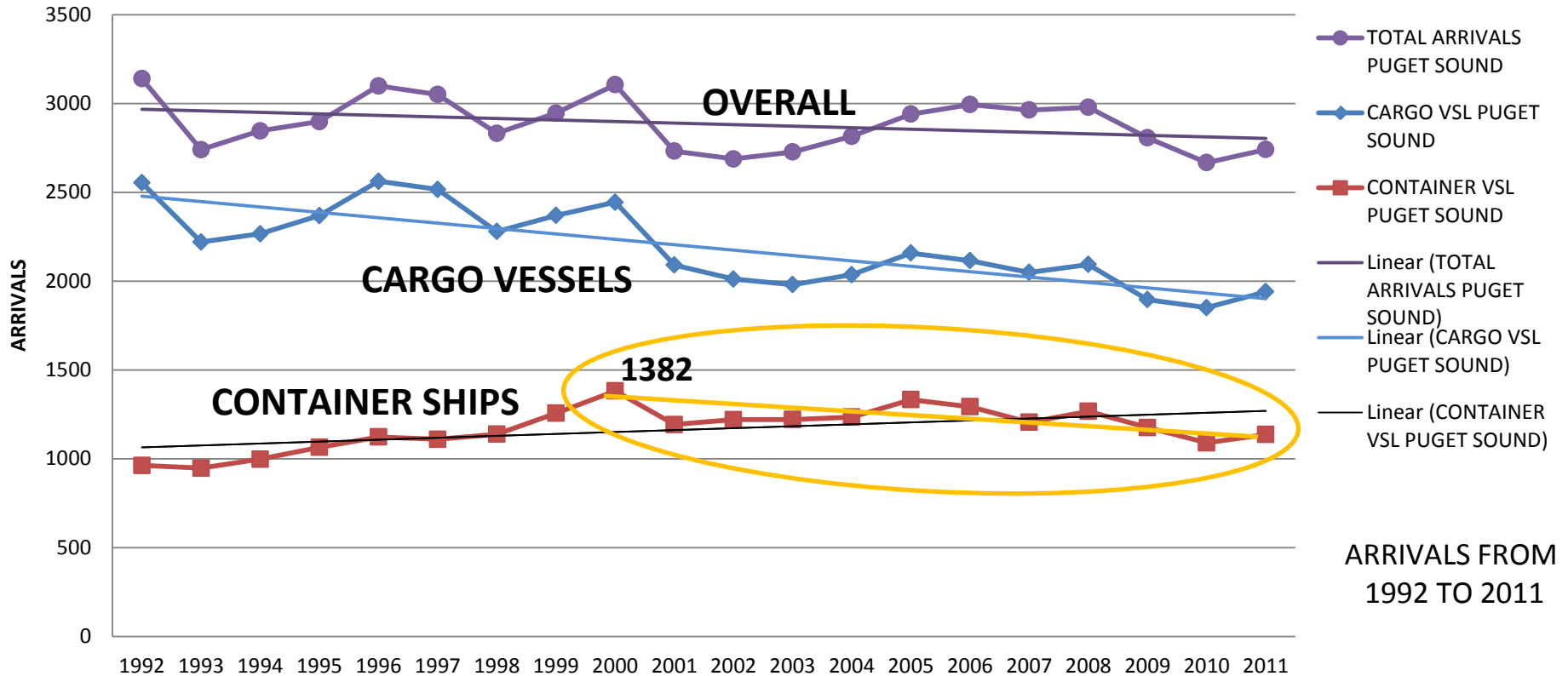
Density Plot January 2011



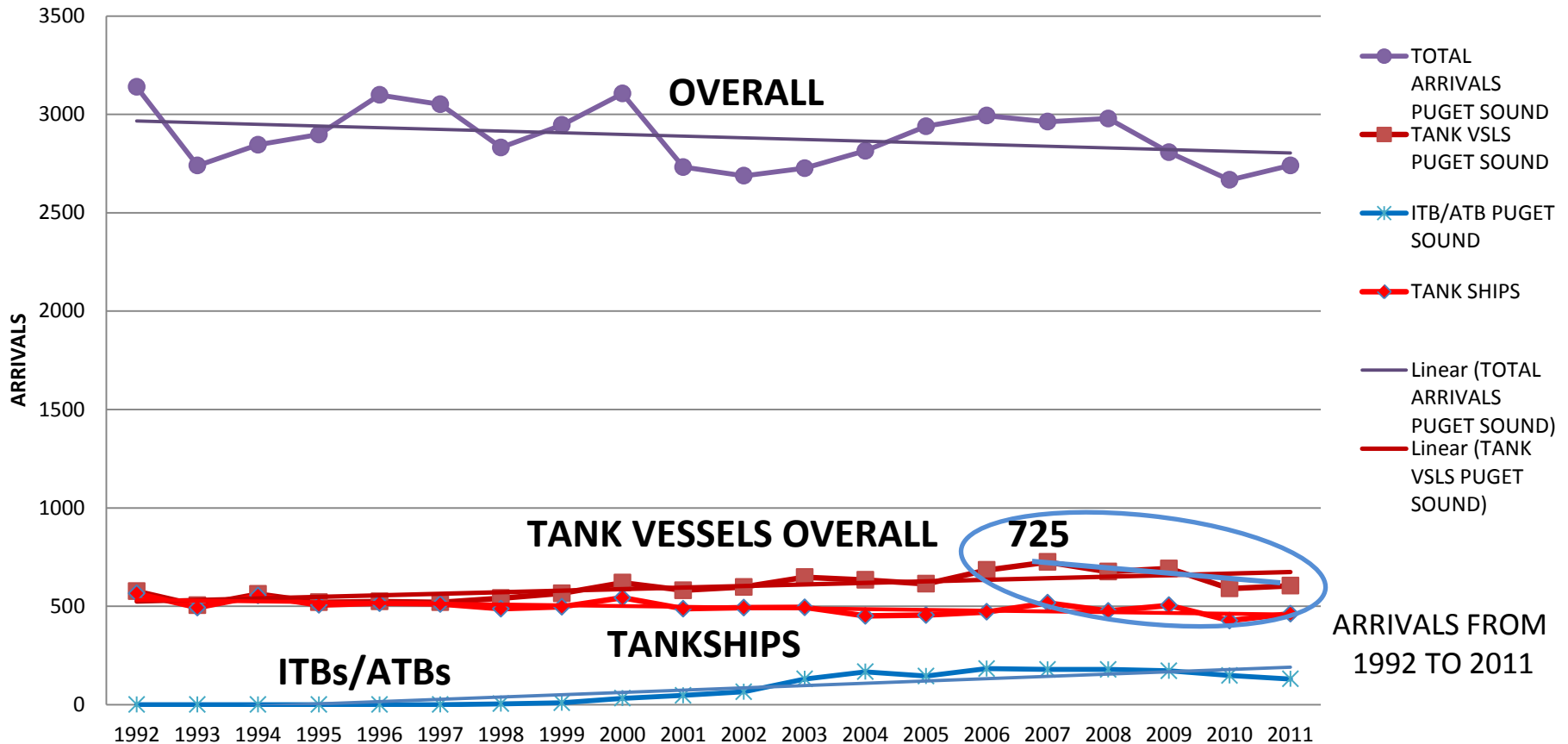
20 YEARS OF PUGET SOUND REGION VESSEL ARRIVAL BY MAJOR SECTOR



20 YEARS OF PUGET SOUND REGION CARGO VESSEL ARRIVALS (AND CONTAINER VSL SPECIFICALLY)

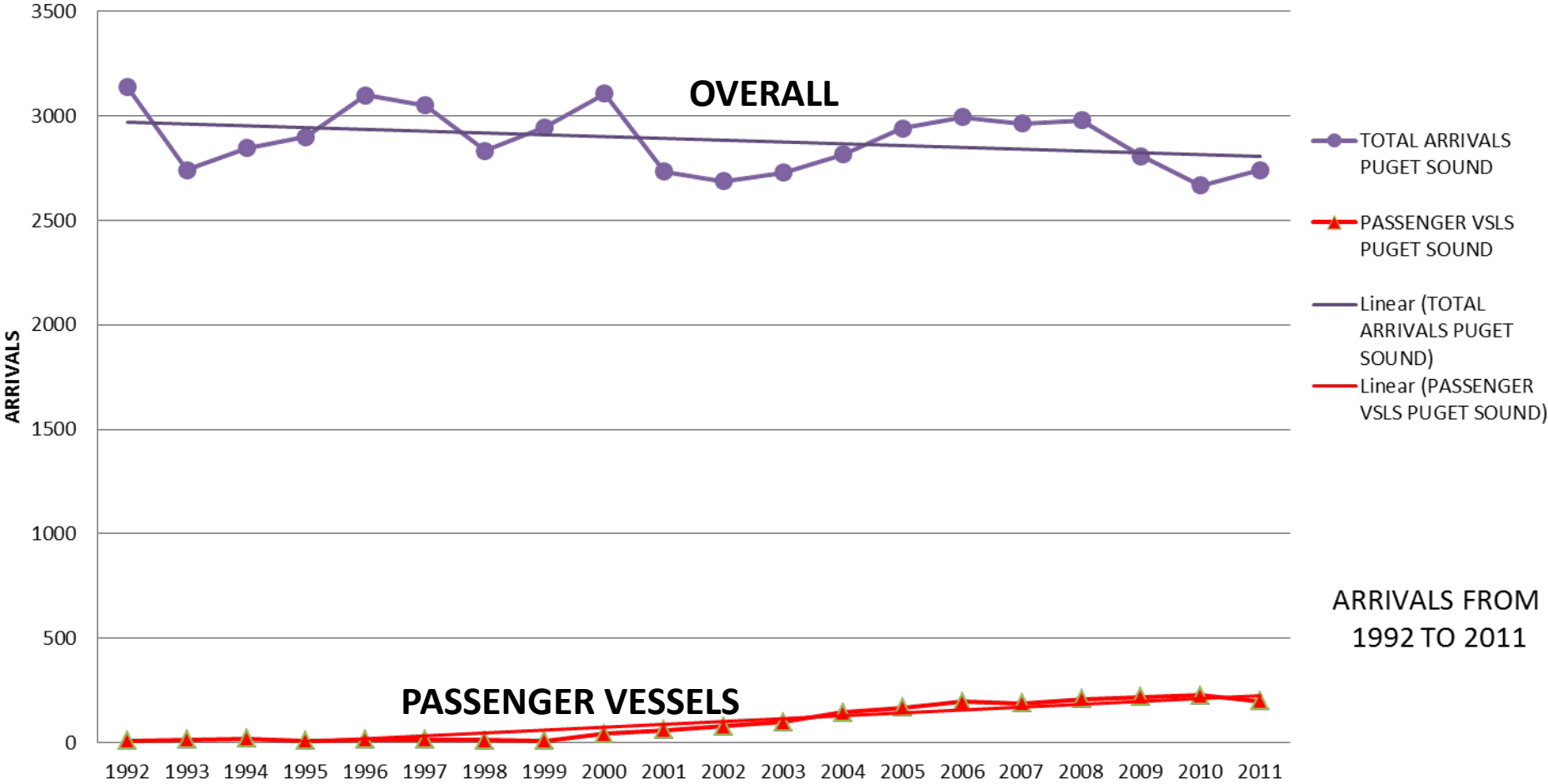


20 YEARS OF PUGET SOUND REGION TANK VESSEL ARRIVALS (TANKSHIPS AND ATBs)

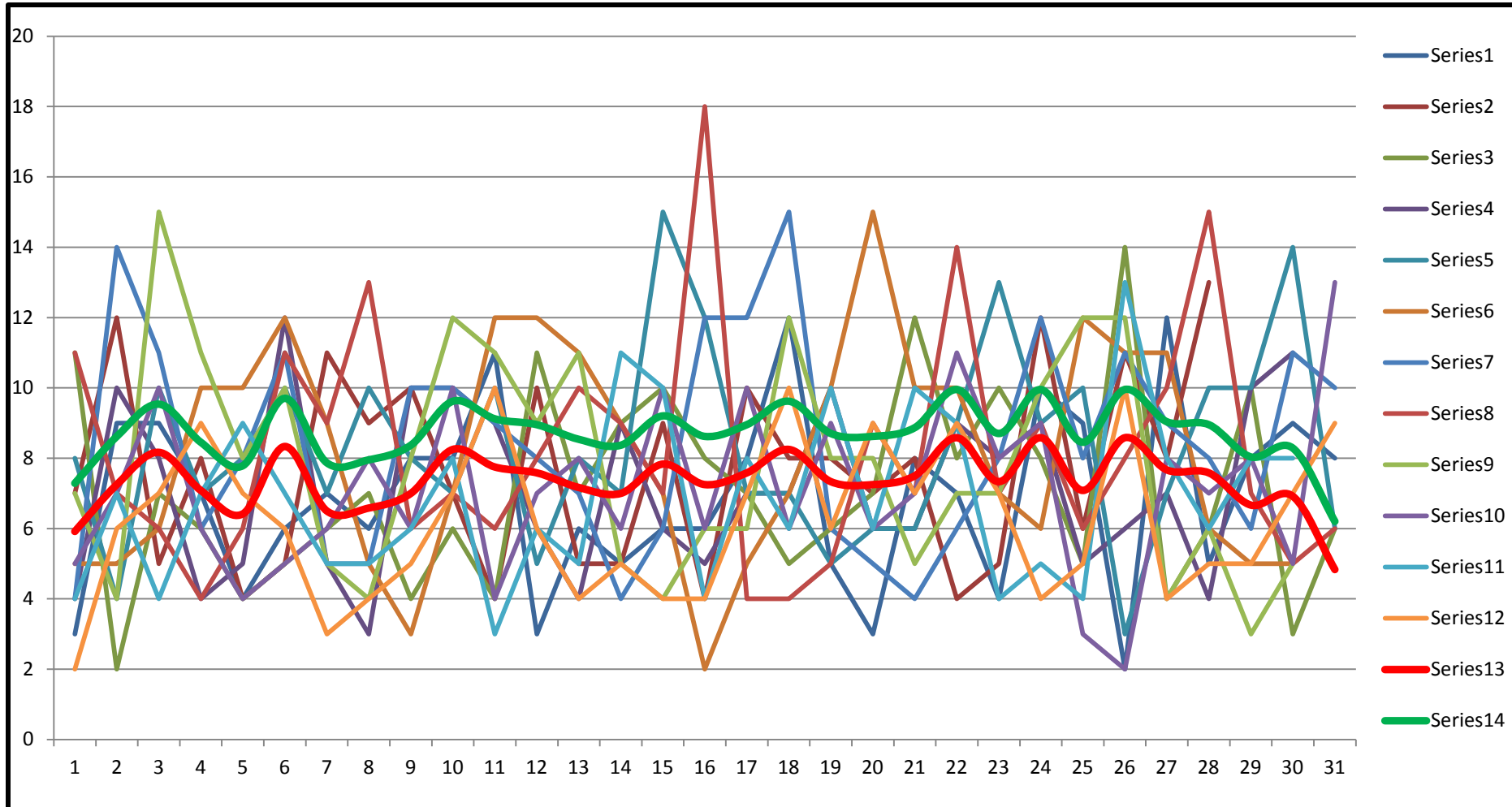


ARRIVALS FROM
1992 TO 2011

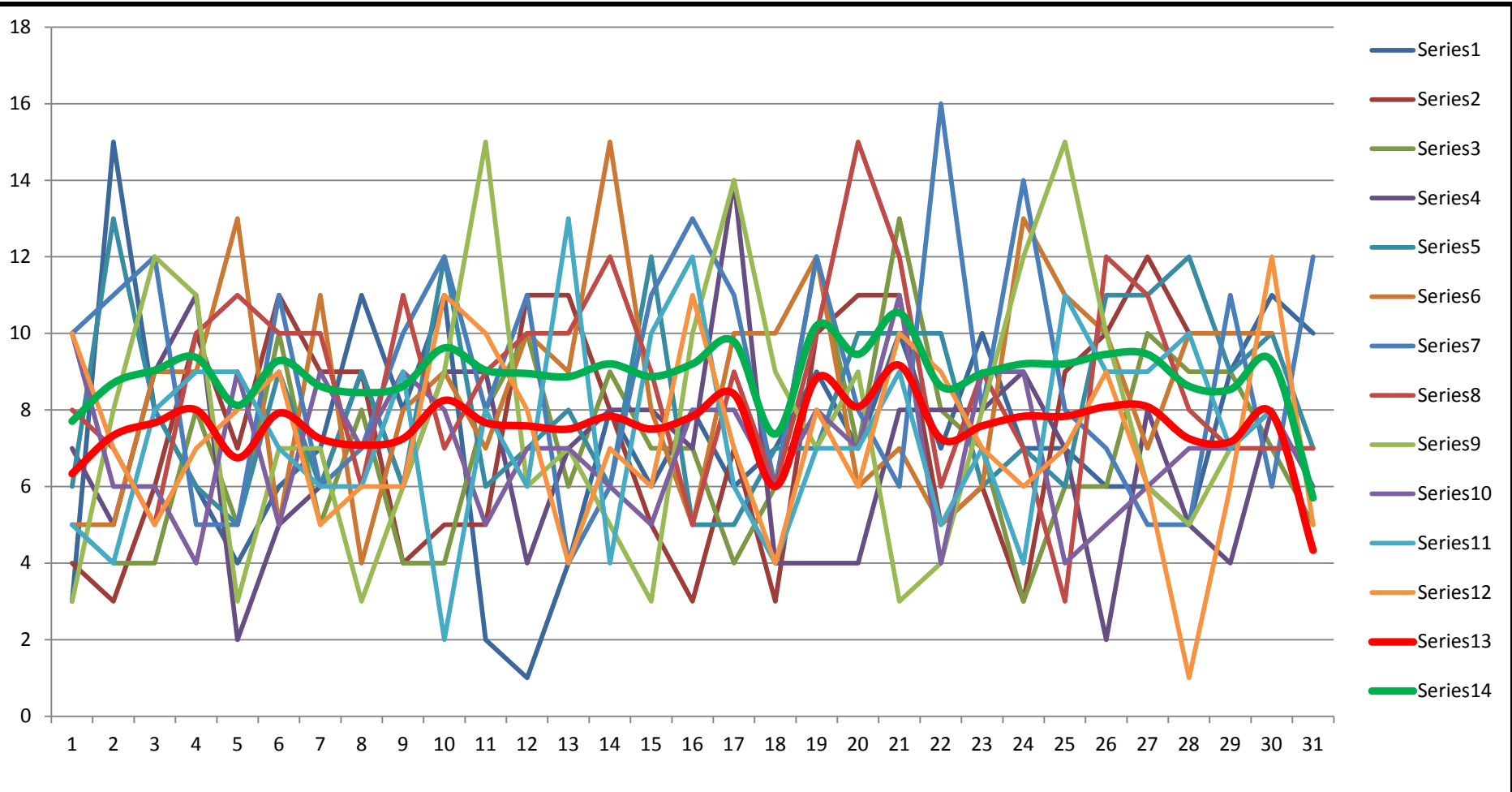
20 YEARS OF PUGET SOUND REGION PASSENGER VESSEL ARRIVALS



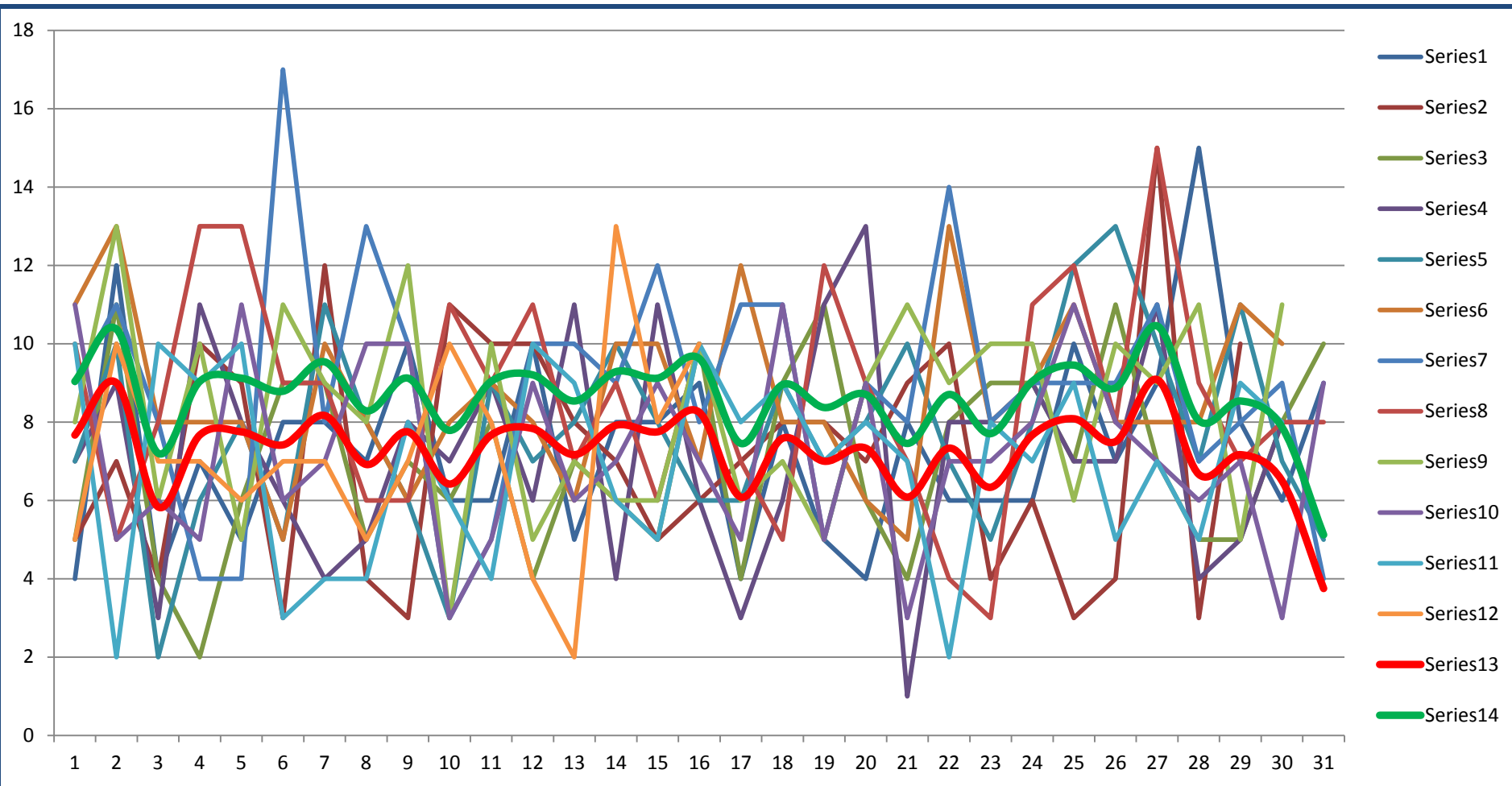
Daily Arrivals to U.S. Puget Sound Ports 2010



Daily Arrivals to U.S. Puget Sound Ports 2011



Daily Arrivals to U.S. Puget Sound Ports 2012



Daily Arrivals to U.S. Puget Sound Ports 2010

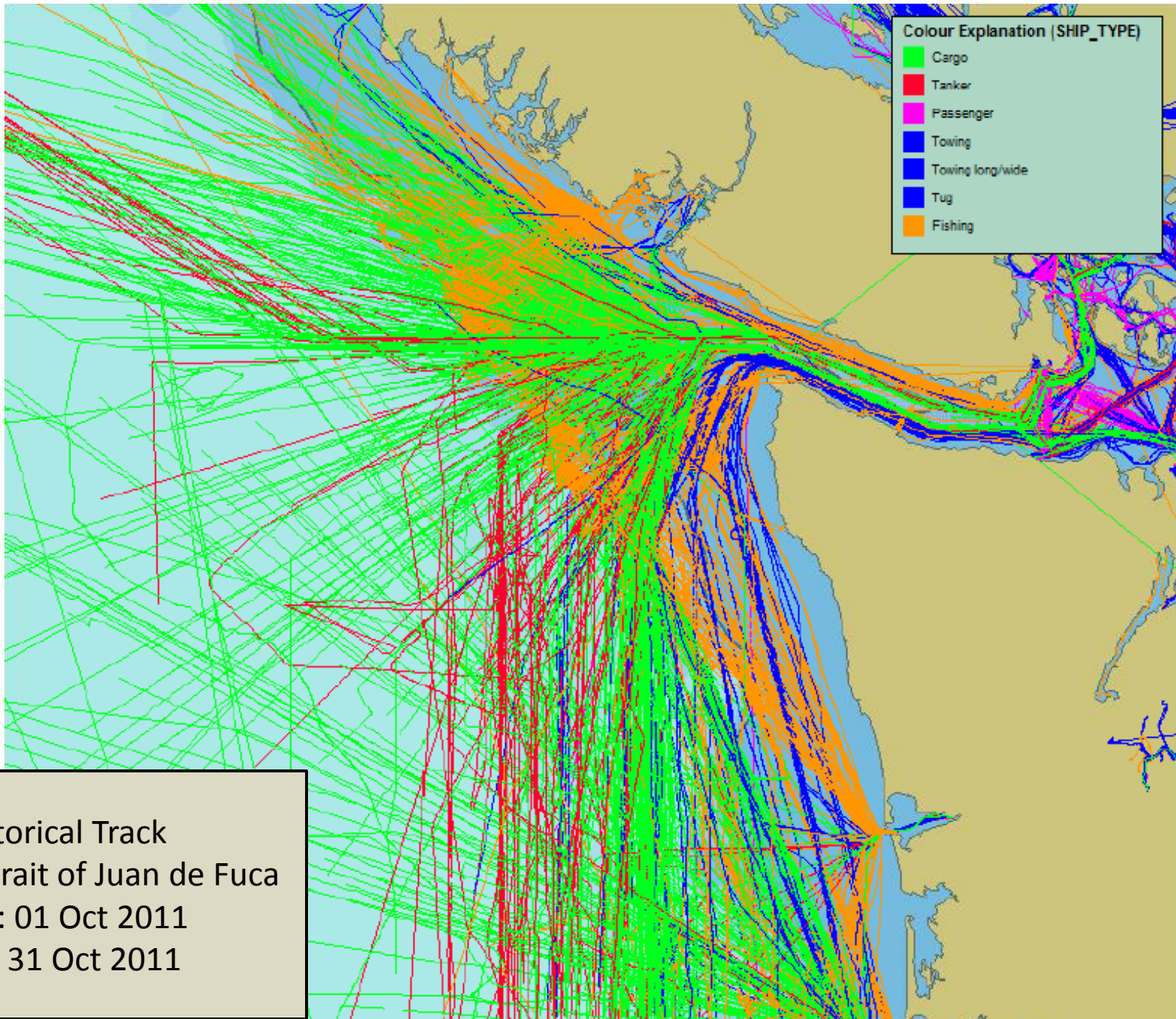
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2010 01	3	9	9	7	4	6	7	6	8	8	11	3	6	5	6	6	8	12	5	3	8	7	4	10	9	2	12	5	8	9	8	214
2010 02	7	12	5	8	4	5	11	9	10	7	4	10	5	5	9	4	10	8	8	7	8	4	5	12	6	11	8	13				215
2010 03	11	2	7	6	4	5	6	7	4	6	4	11	7	9	10	8	7	5	6	7	12	8	10	8	5	14	4	6	10	3	6	218
2010 04	4	10	8	4	5	12	5	3	10	10	9	6	4	9	6	5	7	7	10	6	6	9	8	9	5	6	7	4	10	11		215
2010 05	8	4	10	7	8	10	7	10	8	7	10	5	8	7	15	12	7	7	5	6	6	9	13	9	10	3	7	10	10	14	6	258
2010 06	5	5	6	10	10	12	9	5	3	7	12	12	11	9	7	2	5	7	10	15	10	10	7	6	12	11	11	6	5	5		245
2010 07	4	14	11	6	8	11	5	5	10	10	9	8	7	4	6	12	12	15	6	5	4	6	8	12	8	11	9	8	6	11	10	261
2010 08	11	7	6	4	6	11	9	13	6	7	6	8	10	9	7	18	4	4	5	9	7	14	7	9	6	8	10	15	7	5	6	254
2010 09	7	4	15	11	8	10	5	4	8	12	11	9	11	5	4	6	6	12	8	8	5	7	7	10	12	12	4	6	3	5		235
2010 10	5	7	10	6	4	5	6	8	6	10	4	7	8	6	10	6	10	6	9	6	7	11	8	9	3	2	8	7	8	5	13	220
2010 11	4	7	4	7	9	7	5	5	6	8	3	6	5	11	10	4	8	6	10	6	10	9	4	5	4	13	8	6	8	8		206
2010 12	2	6	7	9	7	6	3	4	5	7	10	6	4	5	4	4	7	10	6	9	7	9	7	4	5	10	4	5	5	7	9	193
	5.917	7.25	8.167	7.083	6.417	8.333	6.5	6.583	7	8.25	7.75	7.583	7.167	7	7.833	7.25	7.583	8.25	7.333	7.25	7.5	8.583	7.333	8.583	7.083	8.583	7.667	7.583	6.667	6.917	4.833	2734
500	7.287	8.62	9.537	8.453	7.787	9.703	7.87	7.953	8.37	9.62	9.12	8.953	8.537	8.37	9.203	8.62	8.953	9.62	8.703	8.62	8.87	9.953	8.703	9.953	8.453	9.953	9.037	8.953	8.037	8.287	6.203	

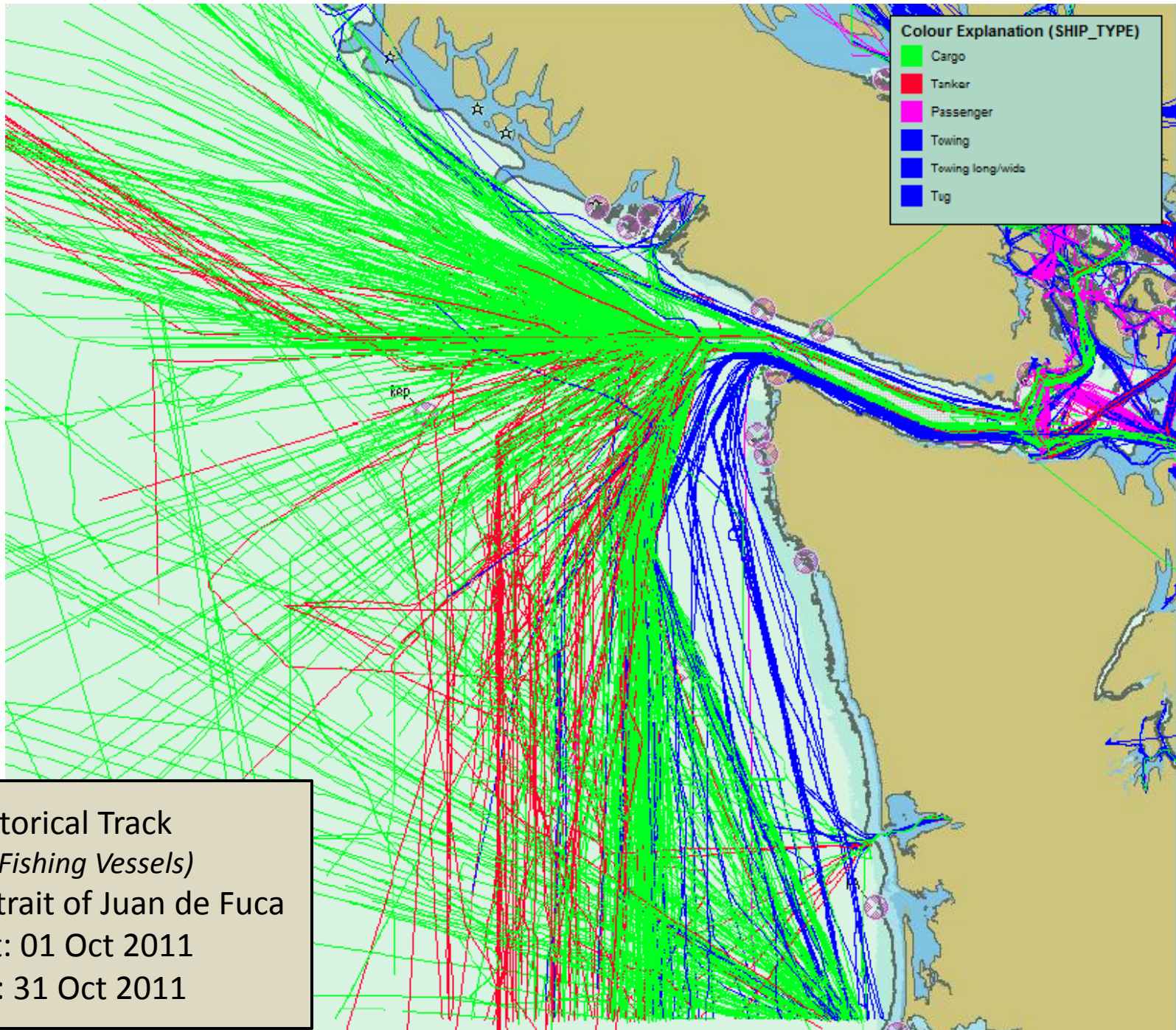
Daily Arrivals to U.S. Puget Sound Ports 2011

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	TOTAL
2011 01	3	15	8	6	4	6	7	11	8	11	2	1	4	8	6	8	6	7	9	7	10	7	10	7	7	6	6	5	9	11	10	225
2011 02	4	3	6	10	7	11	9	9	4	5	5	11	11	8	5	3	7	3	10	11	11	5	6	3	9	10	12	10				208
2011 03	5	4	4	8	5	10	5	8	4	4	8	10	6	9	7	7	4	6	12	7	13	8	7	3	6	6	10	9	9	7	5	216
2011 04	7	5	9	11	2	5	6	9	6	9	9	4	7	8	8	7	14	4	4	4	8	8	8	9	7	2	8	5	4	8		205
2011 05	6	13	8	6	5	9	6	9	6	12	6	7	8	6	12	5	5	7	7	10	10	10	6	7	6	11	11	12	9	10	7	252
2011 06	5	5	9	9	13	5	11	4	8	9	7	10	9	15	8	5	10	10	12	6	7	5	6	13	11	10	7	10	10	10		259
2011 07	10	11	12	5	5	11	6	7	10	12	8	11	4	6	11	13	11	6	12	8	6	16	8	14	8	7	5	5	11	6	12	277
2011 08	8	7	5	10	11	10	10	6	11	7	9	10	10	12	9	5	9	6	10	15	12	6	9	7	3	12	11	8	7	7	7	269
2011 09	3	8	12	11	3	7	7	3	6	9	15	6	7	5	3	10	14	9	7	9	3	4	8	12	15	10	6	5	7	8		232
2011 10	10	6	6	4	9	5	9	7	9	8	5	7	7	6	5	8	8	6	8	7	11	4	9	9	4	5	6	7	7	8	6	216
2011 11	5	4	8	9	9	7	6	6	9	2	8	6	13	4	10	12	6	4	7	7	9	5	7	4	11	9	9	10	7	8		221
2011 12	10	7	5	7	8	9	5	6	6	11	10	8	4	7	6	11	7	4	8	6	10	9	7	6	7	9	6	1	6	12	5	223
	6.333	7.333	7.667	8	6.75	7.917	7.25	7.083	7.25	8.25	7.667	7.583	7.5	7.833	7.5	7.833	8.417	6	8.833	8.083	9.167	7.25	7.583	7.833	7.833	8.083	8.083	7.25	7.167	7.917	4.333	2803
500	7.703	8.703	9.037	9.37	8.12	9.287	8.62	8.453	8.62	9.62	9.037	8.953	8.87	9.203	8.87	9.203	9.787	7.37	10.2	9.453	10.54	8.62	8.953	9.203	9.203	9.453	9.453	8.62	8.537	9.287	5.703	

Daily Arrivals to U.S. Puget Sound Ports 2012

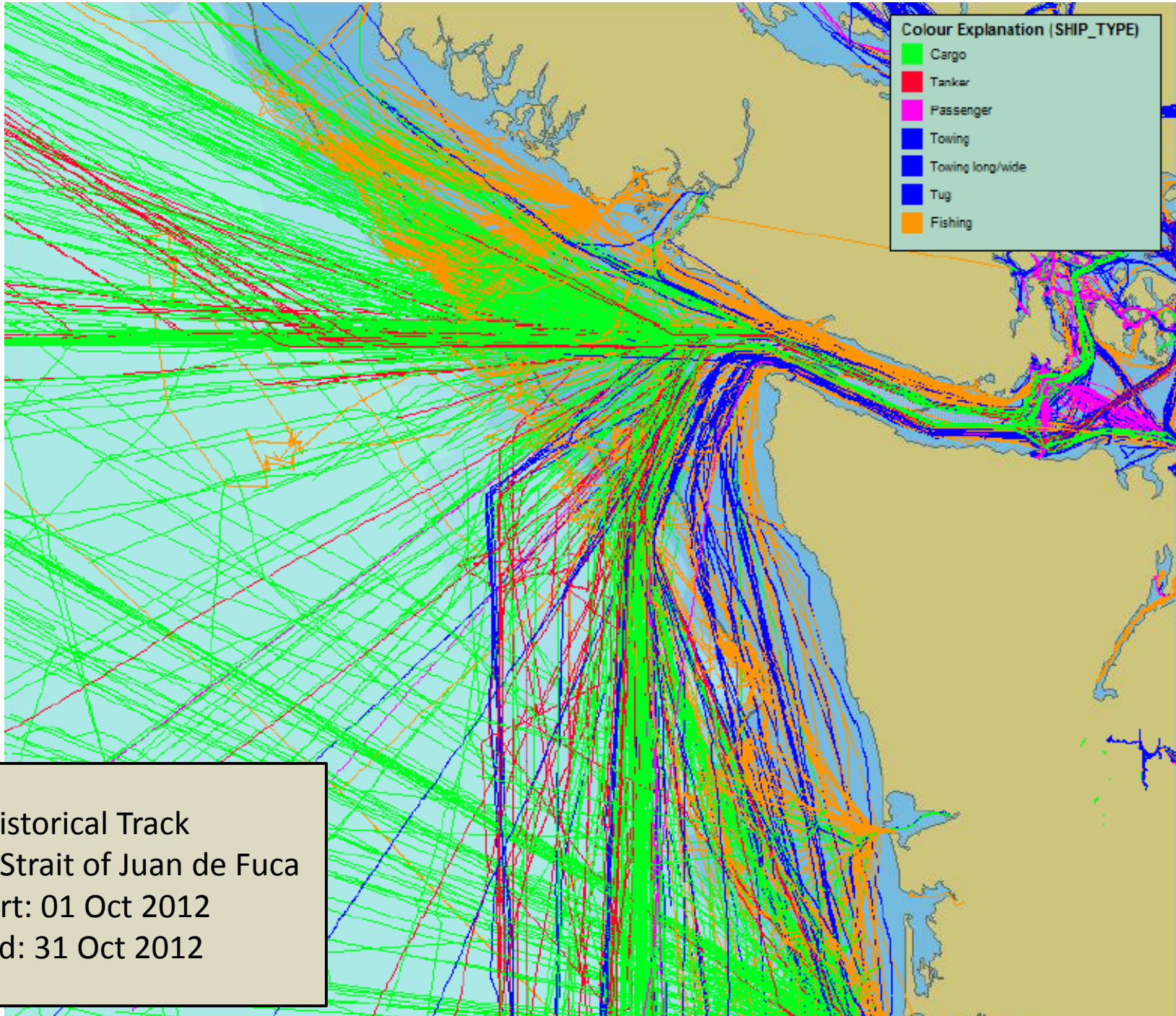
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2012 01	4	12	4	7	5	8	8	7	10	6	6	10	5	8	8	9	4	8	5	4	8	6	6	6	10	7	9	15	8	6	9	228
2012 02	5	7	4	10	9	3	12	4	3	11	10	10	8	7	5	6	7	8	8	7	9	10	4	6	3	4	15	3	10			208
2012 03	5	11	4	2	6	9	9	5	7	6	8	4	7	6	5	10	4	9	11	6	4	8	9	9	7	11	7	5	5	8	10	217
2012 04	7	9	3	11	8	6	4	5	8	7	9	6	11	4	11	6	3	6	11	13	1	8	8	9	7	7	11	4	5	8		216
2012 05	7	10	2	6	8	5	11	8	6	3	9	7	8	10	8	6	6	9	7	8	10	7	5	8	12	13	10	7	11	7	5	239
2012 06	11	13	8	8	8	5	10	8	6	8	9	8	6	10	10	7	12	8	8	6	5	13	8	9	11	8	8	8	11	10		260
2012 07	9	11	8	4	4	17	8	13	10	3	5	10	10	9	12	8	11	11	5	9	8	14	8	9	9	9	11	7	8	9	4	273
2012 08	10	5	8	13	13	9	9	6	6	11	9	11	7	9	6	10	7	5	12	9	7	4	3	11	12	8	15	9	7	8	8	267
2012 09	8	13	6	10	5	11	9	8	12	3	10	5	7	6	6	10	6	7	5	9	11	9	10	10	6	10	9	11	5	11		248
2012 10	11	5	6	5	11	6	7	10	10	3	5	9	6	7	9	7	5	11	5	9	3	7	7	8	11	8	7	6	7	3	9	223
2012 11	10	2	10	9	10	3	4	4	8	6	4	10	9	6	5	10	8	9	7	8	7	2	8	7	9	5	7	5	9	8		209
2012 12	5	10	7	7	6	7	7	5	7	10	8	4	2	13	8	10																116
	7.667	9	5.833	7.667	7.75	7.417	8.167	6.917	7.75	6.417	7.667	7.833	7.167	7.917	7.75	8.25	6.083	7.583	7	7.333	6.083	7.333	6.333	7.667	8.083	7.5	9.083	6.667	7.167	6.5	3.75	2704
500	9.037	10.37	7.203	9.037	9.12	8.787	9.537	8.287	9.12	7.787	9.037	9.203	8.537	9.287	9.12	9.62	7.453	8.953	8.37	8.703	7.453	8.703	7.703	9.037	9.453	8.87	10.45	8.037	8.537	7.87	5.12	





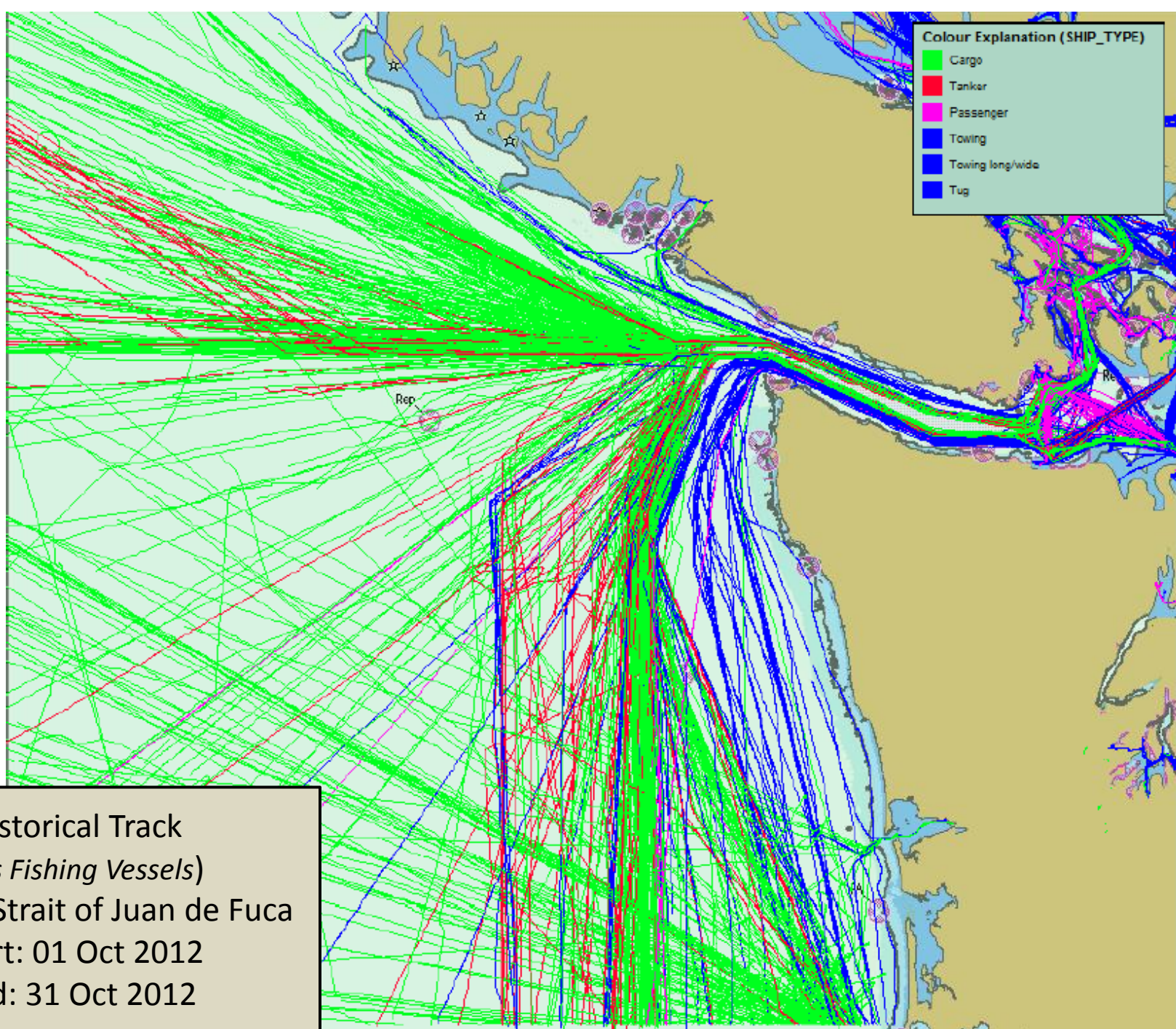
Colour Explanation (SHIP_TYPE)	
Green	Cargo
Red	Tanker
Magenta	Passenger
Dark Blue	Towing
Medium Blue	Towing long/wide
Light Blue	Tug

Historical Track
(less Fishing Vessels)
Entrance Strait of Juan de Fuca
Start: 01 Oct 2011
End: 31 Oct 2011

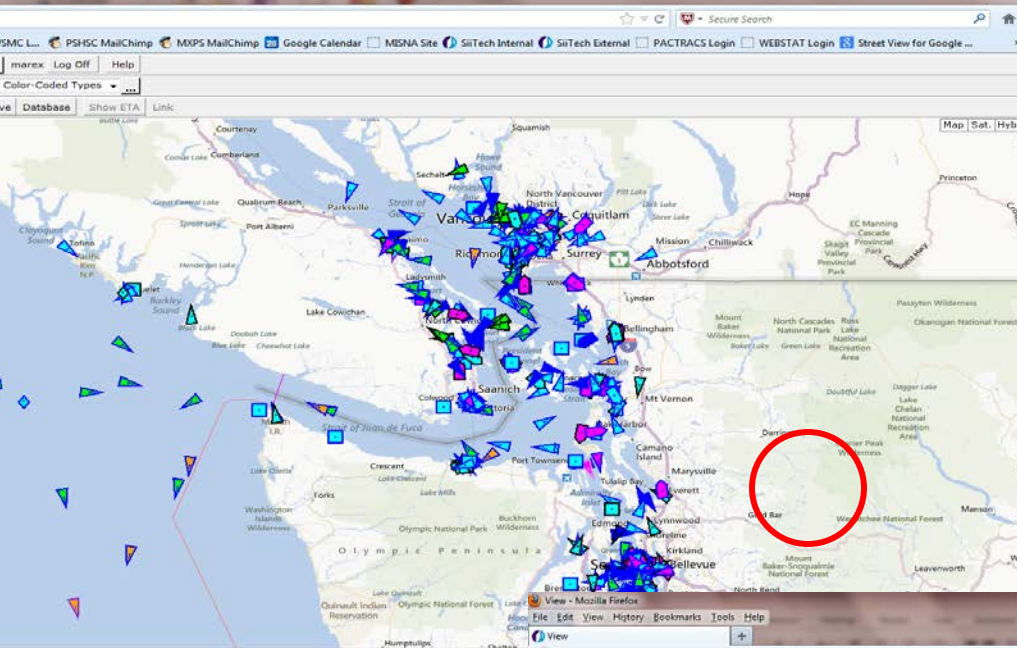


Colour Explanation (SHIP_TYPE)	
Green	Cargo
Red	Tanker
Magenta	Passenger
Dark Blue	Towing
Medium Blue	Towing long/wide
Light Blue	Tug
Orange	Fishing

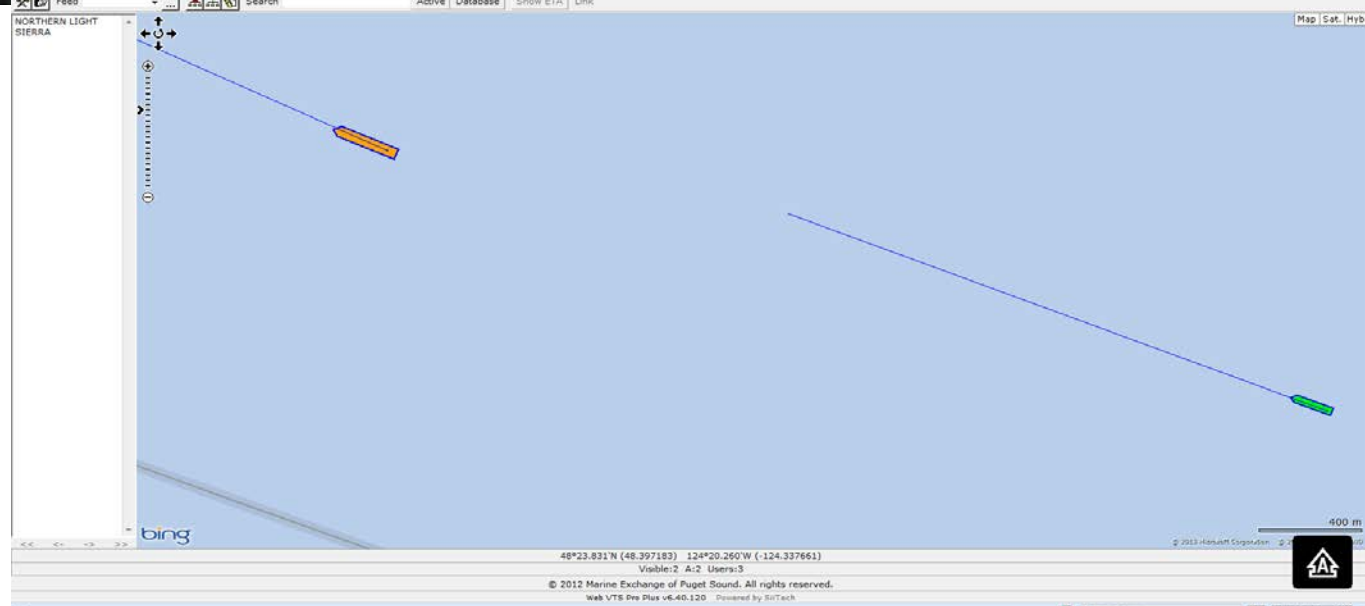
Historical Track
Entrance Strait of Juan de Fuca
Start: 01 Oct 2012
End: 31 Oct 2012



Historical Track
(less Fishing Vessels)
Entrance Strait of Juan de Fuca
Start: 01 Oct 2012
End: 31 Oct 2012



48°33.615'N (48.560250) 124°15.157'W (-124.252625)
 Visible:59 Base Stn:20 A:465 B:97 AtoN:7 Users:3
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 Web VTS Pro Plus v6.40.120 Powered by SiTech



48°23.831'N (48.397183) 124°20.260'W (-124.337661)
 Visible:2 A:2 Users:3
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 Web VTS Pro Plus v6.40.120 Powered by SiTech

2011

Passageline Histogram Report

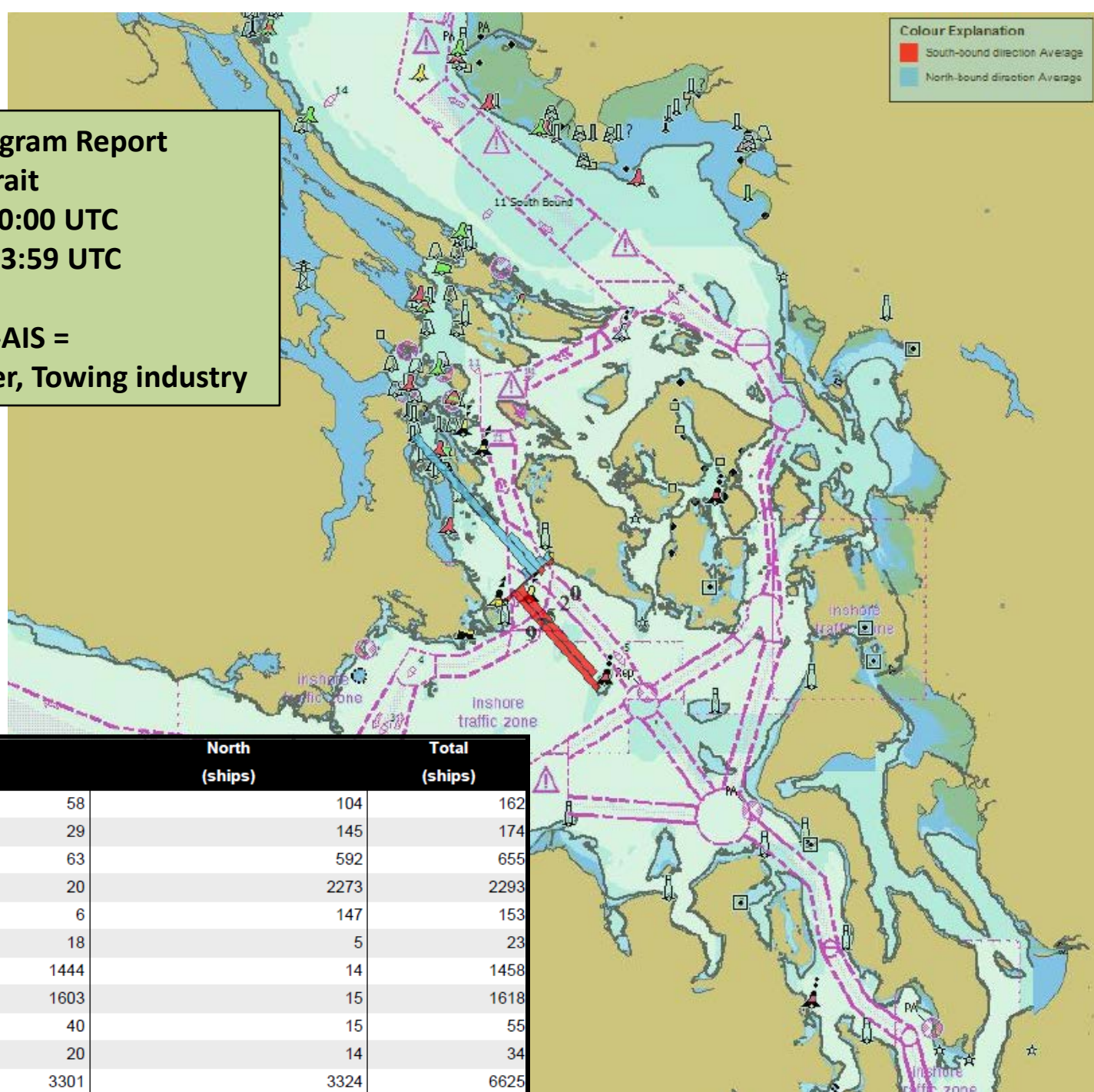
Haro Strait

01 Jan 2011 00:00 UTC

31 Dec 2011 23:59 UTC

SHIPTYPE-AIS =

Tanker, Cargo, Passenger, Towing industry



Column	South (ships)	North (ships)	Total (ships)
0	58	104	162
1	29	145	174
2	63	592	655
3	20	2273	2293
4	6	147	153
5	18	5	23
6	1444	14	1458
7	1603	15	1618
8	40	15	55
9	20	14	34
Total	3301	3324	6625

2011

Passageline Histogram Report

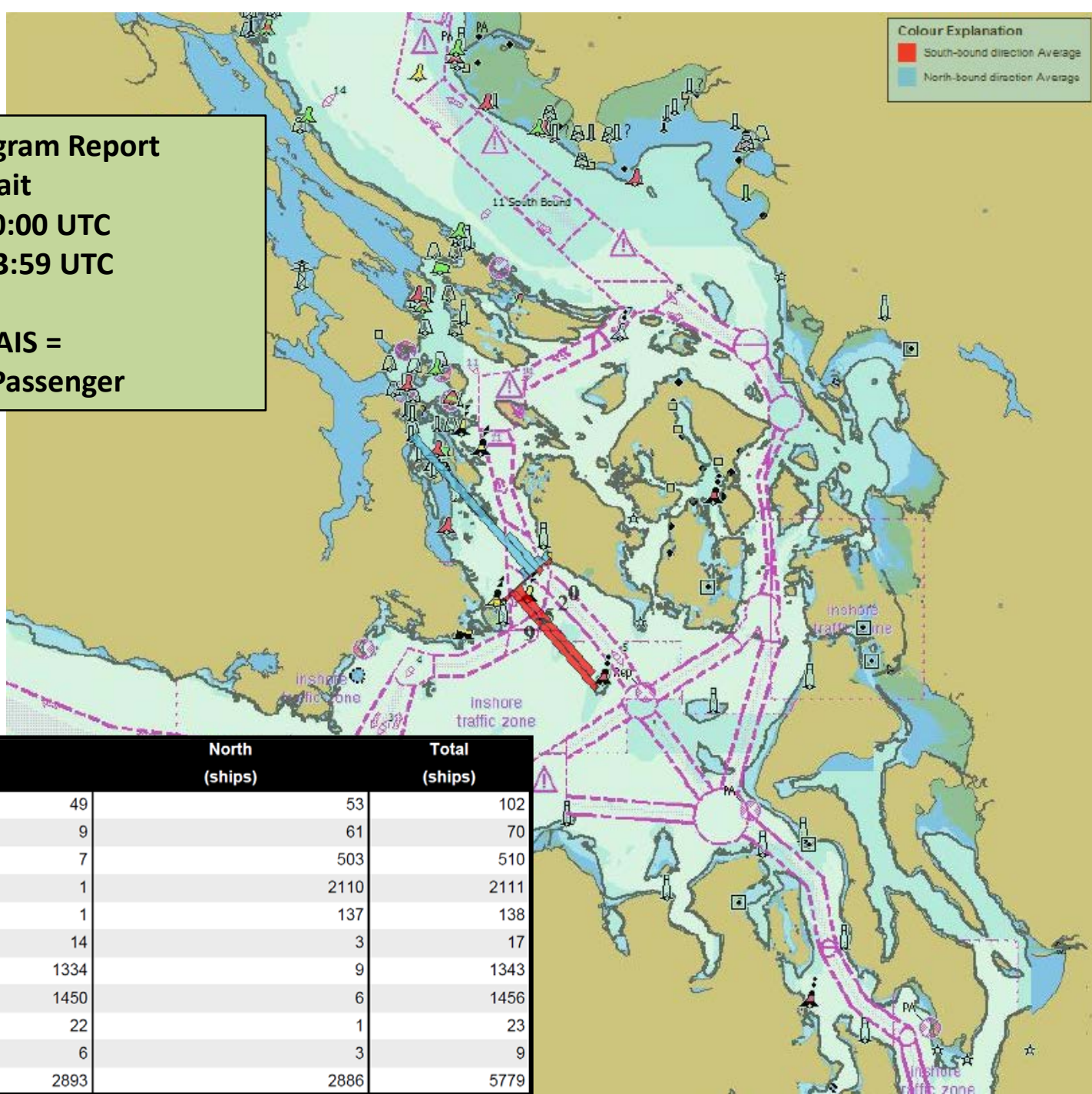
Haro Strait

01 Jan 2011 00:00 UTC

31 Dec 2011 23:59 UTC

SHIPTYPE-AIS =

Tanker, Cargo, Passenger



Colour Explanation
■ South-bound direction Average
■ North-bound direction Average

Column	South (ships)	North (ships)	Total (ships)
0	49	53	102
1	9	61	70
2	7	503	510
3	1	2110	2111
4	1	137	138
5	14	3	17
6	1334	9	1343
7	1450	6	1456
8	22	1	23
9	6	3	9
Total	2893	2886	5779

2011

Passageline Histogram Report

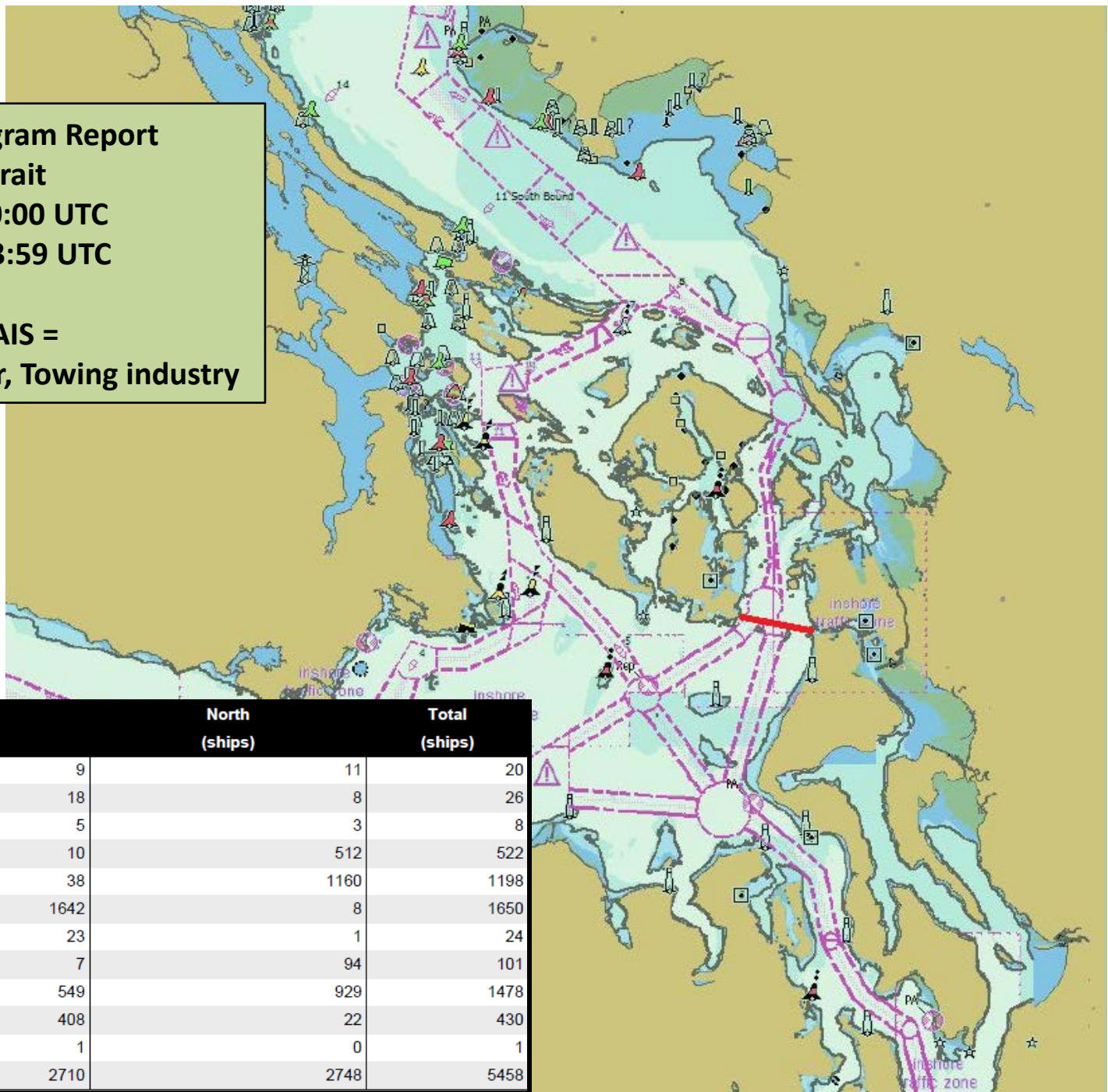
Rosario Strait

01 Jan 2011 00:00 UTC

31 Dec 2011 23:59 UTC

SHIPTYPE-AIS =

Tanker, Cargo, Passenger, Towing industry



Column	South (ships)	North (ships)	Total (ships)
0	9	11	20
1	18	8	26
2	5	3	8
3	10	512	522
4	38	1160	1198
5	1642	8	1650
6	23	1	24
7	7	94	101
8	549	929	1478
9	408	22	430
10	1	0	1
Total	2710	2748	5458

2011

Passageline Histogram Report

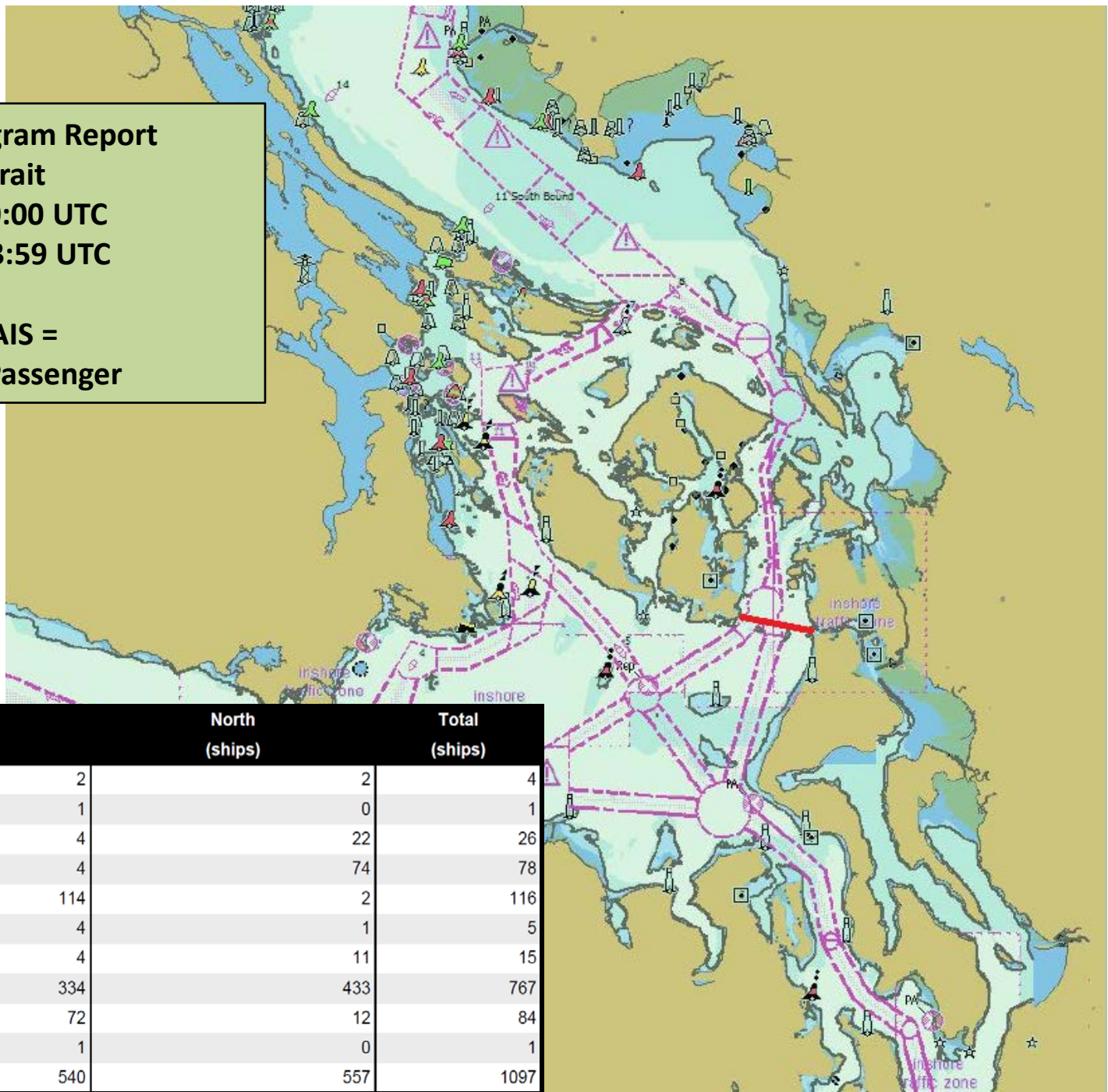
Rosario Strait

01 Jan 2011 00:00 UTC

31 Dec 2011 23:59 UTC

SHIPTYPE-AIS =

Tanker, Cargo, Passenger



Column

South
(ships)

North
(ships)

Total
(ships)

0

2

2

4

1

1

0

1

3

4

22

26

4

4

74

78

5

114

2

116

6

4

1

5

7

4

11

15

8

334

433

767

9

72

12

84

10

1

0

1

Total

540

557

1097

WHAT'S COMING OR MAY BE COMING?

- Expansion of Kinder Morgan oil export in Vancouver, BC – potentially more tanker traffic
 - Vessel traffic assessment
- Potential bulk facility at Cherry Point – coal – potentially more bulk vessel traffic
 - Vessel traffic assessment
- Update Vessel Traffic Risk Assessment
- CG Authorization Act of 2012 required Study re oil export
- Potential change in U.S. oil operations
- Impact of Emissions Control Area

QUESTIONS?