



Parsing the February 2018 Loaded TEU Numbers

Preliminary March Figures. Well, it looked good for a couple of days at least. On April 10, the Port of Long Beach posted container trade numbers that painted a decidedly upbeat picture, with inbound trade up 7.3% (+18,290 TEUs), while outbound moves jumped 18.3% (+21,984 TEUs). Alas, three days later, the neighboring Port of Los Angeles reported numbers so dreadful as to suggest that U-boats had spent

the month torpedoing LA-bound ships off Angel's Gate. The port's inbound container volume stumbled by 29.2% (-109,089 TEUs) from a year earlier, while outbound trade was down 14.6% (-28,065 TEUs). That brought the total San Pedro Bay numbers to -14.6% on the inbound side (-90,799 TEUs) and -1.9% (-6,016 TEUs) on the outbound. Also less than buoyant were the March numbers from the Port of

Exhibit 1 February 2018 - Inbound Loaded TEUs at Selected Ports

	Feb 2018	Feb 2017	% Change	Feb 2018 YTD	Feb 2017 YTD	% Change
Los Angeles	383,090	298,975	28.1%	805,922	714,398	12.8%
Long Beach	342,247	249,759	37.0%	666,903	548,749	21.5%
San Pedro Bay Totals	725,337	548,734	32.2%	1,472,825	1,263,147	16.6%
Oakland	73,666	64,106	14.9%	148,802	144,547	2.9%
NWSA	114,218	102,697	11.2%	211,020	230,934	-8.6%
USWC Totals	913,221	715,537	27.6%	1,832,647	1,638,628	11.8%
Boston	12,283	9,821	25.1%	23,011	21,428	7.4%
NYNJ	274,638	262,875	4.5%	583,641	523,600	11.5%
Philadelphia*	23,610	20,327	16.2%	47,329	44,976	5.2%
Wilmington DE*	15,114	15,350	-1.5%	32,090	31,588	1.6%
Maryland	40,195	33,653	19.4%	83,380	73,955	12.7%
Virginia	100,368	96,921	3.6%	204,518	198,223	3.2%
South Carolina	70,397	73,855	-4.7%	148,566	156,953	-5.3%
Georgia	158,890	148,374	7.1%	328,648	302,737	8.6%
Jaxport	25,044	23,838	5.1%	50,771	48,848	3.9%
Port Everglades	31,315	31,474	-0.5%	62,393	62,456	-0.1%
Miami	30,132	32,361	-6.9%	64,571	67,045	-3.7%
USEC Totals	781,986	748,849	4.4%	1,628,918	1,531,809	6.3%
New Orleans	8,910	7,236	23.1%	17,599	17,421	1.0%
Houston	84,799	73,389	15.5%	174,242	157,978	10.3%
USGC Totals	93,709	80,625	16.2%	191,841	175,399	9.4%
Vancouver	135,844	126,759	7.2%	274,821	255,898	7.4%
Prince Rupert	42,533	29,789	42.8%	88,904	70,777	25.6%
British Columbia Totals	178,377	156,548	13.9%	363,725	326,675	11.3%

*Does not distinguish loaded from empty containers.

Source Individual Ports



Parsing the February 2018 Numbers *Continued*

Oakland, which indicated a slight dip in both directions of container trade. Inbound TEUs were down 1,595 TEUs (-1.9%) from a year ago, while 445 fewer outbound TEUs (-0.7%) were shipped. Rounding out a decidedly off month for USWC ports, the Northwest Seaport Alliance reported a 12.9% fall-off in inbound TEUs (-15,492) and a 7.5% drop in outbound TEUs (-7,498). Adding up the West Coast numbers, 107,586 fewer TEUs entered USWC ports this March than last, while the outbound traffic was down 13,920 TEUs or 2.8%. As much as the USWC ports might like to blame the timing of the Asian New Year for their lackluster trades, British Columbia's ports fared much differently. Up at the Port of Prince Rupert, inbound TEUs

totalled 11.9% higher (+4,119 TEUs) than a year earlier, while outbound traffic surged by 43.5% (+5,667 TEUs). At Vancouver, imports were up 16.1% (+19,501 TEUs), while exports slipped by 4.0% (-1,036 TEUs). Meanwhile, back East, late winter snow storms notwithstanding, the March numbers released so far look uniformly solid. At what is presumably the Official Port of the Boston Red Sox, imports were up 46.8% (+3,677 TEUs) in March, while exports edged ahead by 6.6% (+402 TEUs). Container traffic at the much larger Port of Virginia was up 13.5% (+13,458 TEUs) inbound and 6.8% (+6,264 TEUs) outbound. Charleston handled 9.1% (+7,346 TEUs) more inbound trade than a year earlier and 4.7% (+3,290 TEUs) more

Exhibit 2 February 2018 - Outbound Loaded TEUs at Selected Ports

	Feb 2018	Feb 2017	% Change	Feb 2018 YTD	Feb 2017 YTD	% Change
Los Angeles	157,591	155,358	1.4%	307,626	317,778	-3.2%
Long Beach	130,916	119,811	9.3%	251,419	238,045	5.6%
San Pedro Bay Totals	288,507	275,169	4.8%	559,045	555,823	0.6%
Oakland	73,905	72,581	1.8%	148,788	145,909	2.0%
NWSA	76,088	71,243	6.8%	143,660	148,313	-3.1%
USWC Totals	438,500	418,993	4.7%	292,448	294,222	-0.6%
Boston	7,221	6,177	16.9%	14,142	15,277	-7.4%
NYNJ	116,702	105,638	10.5%	229,595	216,596	6.0%
Philadelphia*	21,749	21,905	-0.7%	44,181	47,408	-6.8%
Wilmington DE*	5,594	7,002	-20.1%	11,322	13,602	-16.8%
Maryland	19,211	22,516	-14.7%	37,874	39,878	-5.0%
Virginia	82,102	85,827	-4.3%	158,398	175,594	-9.8%
South Carolina	69,063	66,296	4.2%	128,808	133,164	-3.3%
Georgia	120,734	119,090	1.4%	228,233	236,480	-3.5%
Jaxport	38,806	31,135	24.6%	80,064	61,135	31.0%
Port Everglades	35,985	34,776	3.5%	70,387	67,221	4.7%
Miami	30,316	29,339	3.3%	62,809	60,508	3.8%
USEC Totals	547,483	529,701	3.4%	1,065,813	1,066,863	-0.1%
New Orleans	20,939	22,247	-5.9%	41,170	44,315	-7.1%
Houston	85,606	88,553	-3.3%	156,752	176,956	-11.4%
USGC Totals	106,545	110,800	-3.8%	197,922	221,271	-10.6%
Vancouver	80,766	94,027	-14.1%	156,894	179,491	-12.6%
Prince Rupert	14,261	12,692	12.4%	28,744	23,986	19.8%
British Columbia Totals	95,027	106,719	-11.0%	185,638	203,477	-8.8%

*Does not distinguish loaded from empty containers.

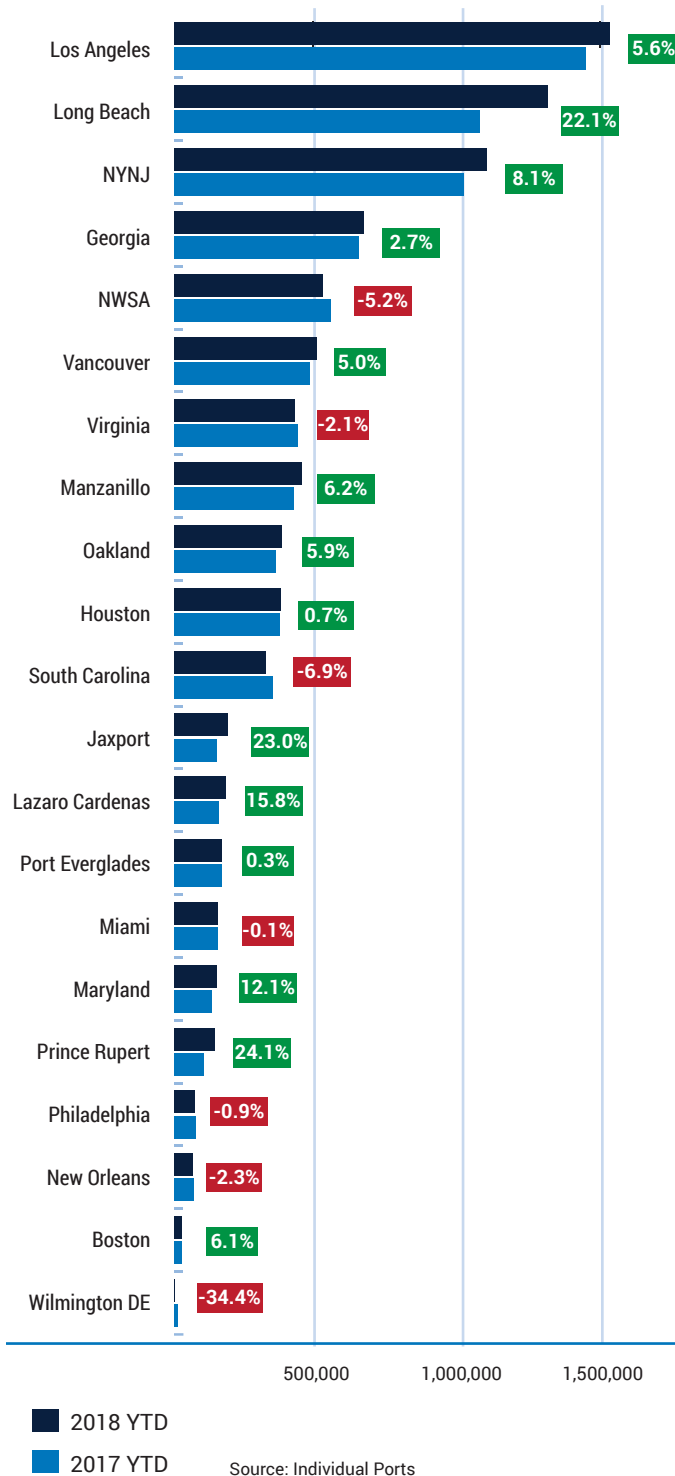
Source Individual Ports



Parsing the February 2018 Numbers *Continued*

Exhibit 3

**February Year-to-Date Total TEUs
(Loaded and Empty) Handled at
Selected Ports**



outbound. Savannah's inbound container trade was up a robust 16.2% (+22,307 TEUs), while its export traffic increased by 11.0% (+13,170 TEUs).

February's Inbound loaded container traffic. For U.S. West Coast (USWC) ports, February produced the first month of uniform coastwide increases in inbound TEU traffic since May 2017 as the Northwest Seaport Alliance posted an impressive 11.2% (+11,521 TEUs) bump over February of last year. The Ports of Long Beach and Los Angeles astonished everyone with a combined 32.2% year-over-year jump in inbound TEUs over last February. That translated into handling 176,603 more inbound TEUs than the two ports had processed a year earlier. Meanwhile, the Port of Oakland reported a solid 14.9% increase in inbound trade (+9,560 TEUs). Taken together, the Big 5 USWC container ports recorded a remarkable 25.1% (+197,684 TEUs) surge in import containers over February 2017.

The USWC experience in February contrasted sharply with the eleven Atlantic Coast ports we monitor. But unlike in recent months, it was the West that bested the East. Snowstorms and frigid temperatures up and down the Eastern Seaboard no doubt had a lot to with dampening ship movements and port operations on that side of the country as did the timing of the Asian New Year. At the Port of New York/New Jersey, inbound traffic in January was up 4.5% (+11,763 TEUs) in February, but three major East Coast gateways (Charleston, Everglades, and Miami) saw imports decline year-over-year.

On the export TEU side, USWC ports' February numbers were positive but much less impressive. To be sure, outbound container traffic at the two San Pedro Bay ports was up 4.8% (+13,338 TEUs) from last February. Oakland reported a relatively meek 1.8% (+1,324 TEUs) gain, while the Seattle/Tacoma alliance posted a 6.8% (+4,845 TEUs) increase. Altogether, the five major USWC container ports handled 19,507 more export TEUs (+ 4.7%) than in February 2017.

Here again, the USWC ports topped their East Coast rivals, albeit with a substantial boost from the weather. Collectively, the eleven ports we survey grew their export trades by 3.4% (+17,782 TEUs). As for the Gulf Coast Ports of New Orleans and Houston, February was



Parsing the February 2018 Numbers *Continued*

disappointing, with container exports down a combined 3.8% (-4,255 TEUs) from a year earlier.

Weights and values. The adjacent **Exhibit 4** employs U.S. Commerce Department's data on the declared weight and value of containerized shipments arriving and departing at U.S. mainland ports in February to determine the trade shares held by USWC ports. Overall, containerized imports at USWC ports in February was 12.4% higher by weight and 20.5% by value over the same month a year earlier.

Exhibits 5 and 6 on the next page provide a breakdown by major USWC port region: Los Angeles/Long Beach, Oakland, and the Northwest Seaport Alliance Ports of Seattle and Tacoma. Exhibit 5 looks at USWC ports' shares of worldwide U.S. mainland container trade, while Exhibit 6 spotlights U.S.-East Asian container trade.

Worldwide Destinations and Origins. Tonnage-wise, China is by far the leading destination of USWC containerized exports with a 30.5% share in February. In next place was Japan with an 11.6% share, followed by South Korea (10.2%), Taiwan (9.4%), and Vietnam (6.6%).

China continued to overwhelmingly dominate containerized import tonnage entering USWC ports with a 56.9% share in February, up from 52.5% a year earlier. Trailing far behind in second place was Japan (4.9%); Vietnam (4.5%); Taiwan (4.3%); and South Korea (3.8%).

NWSA Woes. The Northwest Seaport Alliance Ports of Tacoma and Seattle finally posted some positive numbers, +11.2% on the inbound side and 6.8% on the outbound. However, Seattle continues to carry Tacoma in this marriage. Statistics compiled by the Pacific Maritime Association reveal widely divergent experiences at the two ports. At Seattle, PMA figures show a 38.7% (+14,781 TEUs) jump in inbound containers over February 2017 and a 21.7% (+6,187 TEUs) increase in outbound trade. But at Tacoma, inbound traffic was down 16.0% (-11,537 TEUs) from a year earlier, while inbound trade was off 10.9% (-6,819 TEUs).

U.S. foreign trade statistics reveal a similar dichotomy in terms of the declared weight of foreign shipments moving through the two ports. Seattle's containerized imports were up 38.6% over February 2017, while its containerized

Exhibit 4 USWC shares of Mainland U.S. Containerized Imports and Exports by weight and by value

	Feb 2018	Jan 2018	Feb 2017
USWC Share of Mainland U.S. Containerized Imports			
By Weight	39.9%	41.0%	37.4%
By Value	49.0%	49.1%	46.7%
USWC Share of Mainland U.S. Containerized Exports			
By Weight	35.3%	32.9%	39.4%
By Value	33.2%	32.3%	35.0%
USWC Share of Mainland U.S. Containerized Imports from East Asia			
By Weight	58.8%	58.0%	56.5%
By Value	68.5%	67.1%	65.8%
USWC Share of Mainland U.S. Containerized Exports to East Asia			
By Weight	56.20%	53.30%	59.20%
By Value	64.90%	62.00%	66.60%

Source: U.S. Commerce Department.



Photos courtesy of the Port of Hueneme



Parsing the February 2018 Numbers Continued

export tonnage rose 26.9%. Tacoma, meanwhile, handled 16.0% less import tonnage than it had a year earlier and 1.9% less export tonnage. Container traffic at Tacoma began a pattern of year-over-year declines in both imports and exports last May following a rejigging of shipping alliances.

The China Scrap Paper Flap. China's effective ban on HS 470790 scrap is obviously going to restrain export growth at USWC ports this year. Last year, USWC ports shipped to China 1.08 million metric tons of what Chinese officials alleged, in a filing last summer with the World Trade Organization, was some pretty nasty scrap paper and cardboard. (Think bales of recycled pizza boxes with a slice or two of pizza still inside...after a long ocean voyage...

arriving on a hot, humid Chinese summer day.) So, earlier this year, Beijing formally upped the standards of import quality to a level nearly every scrap paper exporter in the U.S. and Europe argued was unattainable. Not surprisingly, China imported just 1,939 metric tons in February.

Why is this worth mentioning? Exports to China of HS 470790 containerized tonnage from USWC ports, which had amounted to 97,093 metric tons in February 2017, plummeted to just 1,939 metric tons this February, a drop of 98%. A year ago, HS 470790 accounted for as much as 8.7% of total containerized shipments to China. That trade now represents about 0.2% of total USWC container export tonnage to China. ■

Exhibit 5 USWC Port Regions' Shares of U.S. Mainland Container Trade, February 2018

	Feb 2018	Jan 2018	Feb 2017
Shares of U.S. Mainland Ports Containerized Import Tonnage			
LA/LB	29.9%	31.4%	27.0%
Oakland	3.8%	3.6%	3.7%
NWSA	5.3%	5.0%	5.4%
Shares of U.S. Mainland Ports Containerized Import Value			
LA/LB	38.1%	39.1%	35.6%
Oakland	3.3%	3.3%	3.4%
NWSA	7.40%	6.40%	7.30%
Shares of U.S. Mainland Containerized Export Tonnage			
LA/LB	21.2%	19.7%	23.8%
Oakland	5.5%	5.5%	6.1%
NWSA	7.6%	7.3%	8.6%
Shares of U.S. Mainland Containerized Export Value			
LA/LB	22.1%	21.3%	23.5%
Oakland	6.3%	6.5%	6.3%
NWSA	4.5%	4.4%	4.9%

Source: U.S. Commerce Department.

Exhibit 6 USWC Port Regions' Shares of U.S. Mainland-East Asia Container Trade, February 2018

	Feb 2018	Jan 2018	Feb 2017
Shares of U.S. Mainland Ports' East Asian Container Import Tonnage			
LA/LB	46.6%	46.3%	43.0%
Oakland	4.1%	4.2%	4.5%
NWSA	8.0%	7.0%	8.6%
Shares of U.S. Mainland Ports' East Asian Container Import Value			
LA/LB	54.3%	54.1%	51.0%
Oakland	3.7%	3.8%	3.9%
NWSA	10.3%	8.8%	10.5%
Shares of U.S. Mainland Ports' East Asian Container Export Tonnage			
LA/LB	36.00%	33.60%	38.00%
Oakland	7.90%	8.00%	8.20%
NWSA	12.30%	11.50%	12.90%
Shares of U.S. Mainland Ports' East Asian Container Export Value			
LA/LB	45.3%	43.4%	46.2%
Oakland	10.4%	10.5%	11.1%
NWSA	13.1%	12.1%	14.1%

Source: U.S. Commerce Department.



Jock O'Connell's Commentary: Will Calamity Befall Kalama?

Developments have been exceptionally fast in coming in the trade imbroglio between the United States and China. So, too, have any number of conflicting, confusing, and sometimes shark-jumping reports warning of how much we all have to fear if things escalate into a full-on trade war.

What springs to mind is Herman Wouk's couplet in *The Caine Mutiny*: "When in danger or in doubt, run in circles, scream and shout."

Still, as next to impossible as it has become to provide timely commentary on the day's all-important tariff tribulations in a newsletter that's published just once a month, here's what we know.

USWC ports are at risk. Any trade dispute involving China obviously creates problems for U.S. West Coast ports. Last year, USWC ports handled 63.5% (\$247.59 billion) of the total U.S.-China maritime trade valued at \$390.08 billion. Of that, 48.8% went through the Ports of Los Angeles and Long Beach alone. Including the 8.2% share that transited the NWSA Ports of Seattle and Tacoma and the 3.9% portion that the Port of Oakland handled, 60.9% of U.S.-China maritime trade went through the five major USWC ports last year. Smaller USWC ports like Longview and Kalama, Washington handled 2.6% of all U.S.-China maritime trade.

On the import side, 55.3% of the 68,094,005 metric tons of Chinese goods that entered U.S. ports last year came through USWC ports. As for exports, those same ports handled 25.9% of the 104,602,580 metric tons of exports that were shipped to China in 2017 from U.S. ports.

All of the major USWC ports do a sizable share of their business with China. Last year, the Ports of Los Angeles and Long Beach handled \$386.04 billion worth of two-way trade, 46.9% of which involved China as either the destination or origin. Oakland was rather less dependent on its China trade, with the People's Republic accounting for just 31.5% of its \$48.34 billion in two-way trade last year. At the Northwest Seaport Alliance Ports of Seattle and Tacoma, 41.8% of last year's \$76.51 billion in maritime trade was conducted with China. Even a smaller,

niche ports like Longview does over 40% of its business with the PRC.

Where we are now. For the record, we are not in a trade war...yet. Apart from the initial volleys of higher tariffs aimed at curtailing imports of aluminum and steel into the U.S. and China's retaliatory tariffs that targeted a cornucopia of U.S. fruits, nuts, and wines (along with pork, steel pipes, and aluminum scrap), subsequent exchanges between the two nations have been rhetorical exercises aimed at establishing bargaining agendas, while unnerving the people who actually trade goods internationally.

As for the impact of the new tariffs that have been imposed, there is currently only anecdotal information to go by, and that is seldom reliable. A local television station airing a story highlighting the woes of a local exporter too often goes viral, leading many viewers to conclude that entire American industries rather than individual firms are hurting. Reliable, statistics detailed enough to permit analysts to gauge just how much trade is being affected will not be available until June 6 when the Commerce Department releases trade data for April.

There is, though, ample cause for concern about what those numbers will reveal about the higher tariffs now in place.

The opening shot. On March 1, acting under Section 232 of the Trade Expansion Act of 1962, the President announced the imposition of a 25% tariff on steel and a 10% tariff on aluminum imports that "threaten to impair the national security." Although the tariffs were originally intended to be applied universally, the administration soon moved to exempt several allied countries. However, China (along with Japan) was not among the countries shielded from the higher import levies. Those tariffs took effect on March 23.

Last year, USWC ports handled 27.6% of the 529.2 metric tons of iron and steel the U.S. imported from China and 51.6% of the 946.4 metric tons of imported Chinese aluminum.

Continued



Jock O'Connell's Commentary [Continued](#)

China's response. Almost predictably, Beijing fired back by announcing a new 15% tariff to be levied against U.S. fruits, nuts, wines, and some steel pipes, along with a 25% tariff on pork and aluminum waste and scrap. Those levies took effect on April 2.

The Port of Oakland last year handled 42.3% of the nation's 140,598 metric tons of edible fruits and nuts exports to China. Another 31.8% went through San Pedro Bay, while the NWSA accounted for 17.3%. Not surprisingly, Oakland, with its proximity to Northern California's wine producing regions, shipped nearly 93% of U.S. wine exports to China last year.

It is worth noting, though, that for all the attention being devoted to the plight of wine, fruits and nut exporters, it's the 25% tariff on aluminum waste and scrap that will likely have a greater impact on USWC port operations. Why? Because, at 388,602 metric tons last year, aluminum waste and scrap shipments to China from USWC ports easily outweighed the 109,471 metric tons of exports of fruits and nuts to the PRC or the 21,267 metric tons of wine.

Caveats. So how are these new Chinese tariffs likely to affect business at USWC ports? The answer will be determined not by trade theory so much as by how individual Chinese importers respond. Imposing a higher tariff does not necessarily close a market to imported goods. Although a higher tariff on, say, California wines going into China will certainly increase the cost to the importer, a lot depends on what then happens on the ground. In the case of wine, it seems highly unlikely that a 15% increase in import duties will automatically cause a Chinese importer of high-quality California wines to walk away from years invested in building a presence for those wines in China, especially if the tariff is viewed as a temporary inconvenience that might soon be negotiated away.

In the case of the higher tariff Beijing has slapped on pork imports from the U.S., three-quarters of that trade is actually controlled by the Chinese multinational that owns Smithfield Foods and produces Nathan's Famous hotdogs along with Armour and John Morrell bacon. We'll see whether certain "accommodations" will be made to minimize harm to a Chinese firm and its customers. But

it is still the case that U.S. pork shipments to China have been increasingly routed through USWC ports in recent years, with the share growing from 22.8% in 2015 to 39.0% in 2016 to 46.1% last year.

What's next? The U.S. Trade Representative is expected to announce any day now the details of the next tranche of higher tariffs on imports from Chinese. Up to now, most consumer items like cell phones, apparel, footwear, and furniture have been excluded from higher levies. However, to meet the target of imposing an additional \$100 billion in tariffs on Chinese goods, that will certainly have to change. Again, it will be some time before such proposed tariffs would be employed, if they ever are.

Those increased tariffs would be imposed on consumer goods that typically arrive in containers. Those new tariffs would have special significance for USWC ports which, in dollar terms, handled 68.2% of the \$302.54 billion in containerized imports from China last year. Just by themselves, the Ports of Los Angeles and Long Beach accounted for 55.3% of those imports. By declared weight, 59.2% of the 61,253 million metric tons of containerized goods that arrived from China at U.S. ports last year went through USWC ports, with the San Pedro Bay ports alone holding a 47.3% share of the trade.

Actions that would erode trade volumes would have a wide range of immediate consequences from reduced port revenue to lay-off notices throughout the complex logistical systems that support the ports. These impacts would be particularly large in Southern California, given the disproportionate share of the China trade that moves through San Pedro Bay. But further rounds of tariffs could prove even more debilitating for smaller ports like Washington State's Port of Kalama.

Speculation has it that Beijing could ultimately seek to impede exports of U.S. soybeans or Boeing aircraft in the next round of higher tariffs. Such a development could have a particularly damaging impact on Washington State, not so much because Boeing has major operations there but because the state's ports play a key role in transporting soybeans to China. At Kalama, for example, soybean shipments to China accounted for one-third of its entire export volume in 2017.

[Continued](#)



Jock O'Connell's Commentary [Continued](#)

Just what we don't need right now. A brewing trade dispute between the world's two largest economies comes at a particularly inopportune time for USWC ports planning on investing billions of dollars to upgrade facilities to meet the growing competitive challenge posed by rivals on the East and Gulf Coast ports and in British Columbia but also increasingly stringent air quality standards being set by state and local governments. Ports derive their revenue largely from the volumes of containers or cargos crossing their docks. A major trade dispute that could easily curtail the volume of goods flowing through USWC ports isn't going to be at all helpful.

Still, it bears stressing, threats of new tariffs are not tariffs. They are bargaining chips that negotiators will have to address in the coming months. At the same time, there is growing pressure within the U.S. to roll back or rescind the higher tariffs on steel imports and to think long and hard about the virtues of using tariffs on goods to resolve issues that are more and more coming to involve intellectual property.

For the time being, at least, Beijing's warning that it might impose a 25% tariff on imports of U.S. soybeans is merely a red flag. So, for now at least, the Columbia River Port of Kalama probably won't have to hold bake sales to supplement its maritime revenue.

Kudos for Candor

I know one economist who insists that, as a lad, he had predicted Bill Mazeroski would hit Ralph Terry's second pitch over the left field wall in Pittsburgh's Forbes Field for the walk-off homerun that gave the Pirates a seventh game victory in the 1960 World Series. I know this because he reminds me of his (alleged) precocious prognostication every year at World Series time.

His may be an extreme case, but it's not unusual. Economic forecasters are notorious for shamelessly advertising the ones they got right. (And, if they were nearly alone among their peers in doing so, you'll never

hear the end of it...as Paul Krugman incessantly reminds us about his warnings prior to the 2008 financial crisis.)

As for the forecasts they blew, most authors of aberrant predictions pray to Lethe, the Greek goddess of forgetfulness, in hopes that no one will recall the times their educated guesswork went seriously awry.

Of course, one sure way of abetting the public's amnesia is to avoid going around reminding everyone of how very far off your predictions have been. That's why we should be impressed by the forthrightness shown by Drewry's senior quantitative economist Mario Moreno at last month's "Pulse of the Port" confab down at the Port of Long Beach. Before presenting his estimates of U.S.-Asia container trade volumes in 2018, Mr. Moreno took pains to remind his audience of just how poorly he did with the forecast he presented at the same conference a year earlier.

For example, he noted that U.S. container imports from Asia grew by 3.5% in 2017, or just about half of the 6.9% growth he had expected. Similarly, he conceded that the 0.8% decline in U.S. containerized export volumes to Asia in 2017 was much lower than the 1.3% increase he foresaw in that trade.

The self-confessed margins of error that characterized Mr. Moreno's 2017 trade forecasts were roughly consistent with his 2016 forecasts. Standing before last year's "Pulse of the Port" audience, he noted that the actual 6.0% increase in U.S. container exports to Asia in 2016 differed substantially from the 0.8% decline he had anticipated. He likewise conceded that the 4.1% growth in container imports from Asia in 2016 was rather less than the 5.5% increase he had predicted.

As for 2018, Mr. Moreno thinks that, in the absence of a major trade war with China, U.S. containerized imports from Asia should increase by 6.8%, while U.S. exports to Asia should grow by 4.9%. ■

Jock's comments are his own and do not necessarily represent the views of PMSA.



The Never Ending Story: Indirect Source Rules

By Thomas Jelenić
Vice President, Pacific Merchant Shipping Association

For almost a decade, the logistics industry has faced the threat of “indirect source rules” or ISRs. Indirect source rules are a clever way of saying that facilities should be responsible for emissions from sources they do not control. That is why it is referred to as “indirect”. So, under the ISR logic, a warehouse in the Inland Empire would be responsible for the trucks picking up and dropping off freight – this would be similar to a grocery store telling its customers what kind of car they could use on a shopping trip. For the moment, put aside the absurdity of making someone responsible for something they do not control – I will come back to that.

I want to start off with the interminable process that industry has faced. This process, through all its twists and turns, is really about one thing: power. More specifically, who has the power to regulate mobile sources in California and, through that power, influence or control land-use decisions.

Authority to regulate mobile sources has been vested in the Air Resources Board (CARB) since California began controlling emissions for the simple reason that mobile sources move throughout the State (not to mention the country) and vehicle operators could never comply with a patchwork of different regulations from county to county. CARB has often implemented this authority through two straightforward mechanisms. The first is new engine standards, by which CARB has ensured that each new generation of vehicles is cleaner than the last. Through the second, CARB often accelerates the impact of new engine standards by issuing in-use standards, basically requirements that vehicles be retired before the end of their useful life forcing the adoption of newer, cleaner equipment. Through these requirements, new vehicles are more than 90% cleaner than older vehicles...and are getting cleaner still.

Local air pollution control districts were granted authority over stationary sources for the simple reason that, as the name implies, these sources do not move and cannot be subject to multiple jurisdictions. Local air pollution control districts have always coveted CARB’s mobile source

authority. Indirect source rules are a means through which local districts can wield mobile source authority. To date, no indirect source rules have been initiated by a local air pollution control district on freight facilities.

The current battle over indirect source rules arguably begins with the South Coast Air Quality Management District’s (SCAQMD) 2017 Air Quality Management Plan. In that plan, SCAQMD once again put indirect source rules on the table. After years of development, the approval of the 2017 plan in March of last year accelerated the discussion of indirect source rules. A month later, CARB also took up the issue of indirect source rules – despite the fact it has direct regulatory authority to set emissions standards for engines. A year later, CARB staff concluded that its authority is better exercised through establishing new engine standards and in-use standards.

However, during Board discussion and public discussion of the topic, it was revealed that community activists are unhappy with the local land-use decisions made by their local elected representatives and they seek tools from CARB to block or overturn local land use decisions. Apparently, the CARB Board is sympathetic to wading into local land-use decisions. As a recent Los Angeles Times article concluded:

“Responding to residents urging rules at a meeting last month, [CARB Chair] Nichols said the proliferation of warehouses has ‘not gone unnoticed. It’s a really serious problem,’ and the Air Resources Board was watching the South Coast district very closely and ‘hoping that they will do the right thing.’

“And if some reason they don’t,” Nichols said, ‘then we will have to take action.’”

This past March, SCAQMD heard public testimony on staff’s proposal to initiate a regulatory process for freight facility indirect source rules (or as SCAQMD calls them “facility-based measures”). Following public testimony, the Board postponed the item since not all Board members



The Never-Ending Story *Continued*

were present. In April, with more Board members absent, the Board again voted to postpone consideration. In May, if enough Board members are present, the public may finally know where the SCAQMD stands on indirect source rules – a phenomenally bad public policy that, if implemented, would have dire consequences for the logistics industry, the ports and consumers throughout the United States.

Why dire consequences?

Unlike the straightforward regulatory approach taken by California for decades, indirect source rules call on freight facilities, like marine terminals, to be responsible for emissions from mobile sources like trucks – sources they do not control. Indirect source rules have no requirement that equipment manufacturers build compliant trucks, unlike new engines standards. Indirect source rules have no

requirement that fleet owners accelerate their purchase of new, cleaner equipment, unlike in-use standards. Instead, indirect source rules would fine freight facilities, when truck manufacturers don't produce cleaner trucks and fleet owners don't purchase those vehicles. The only other option would be to shut down facilities when they reach their emission threshold. Imagine how that would play out in a global trade environment?

Which raises the question, how is indirectly regulating something more effective than doing so directly? How are indirect source rules a better strategy to clean up the air than new engine standards and new in-use standards? Or are indirect source rules simply a power grab by regulators attempting to exert control over a vibrant part of California's economy? ■



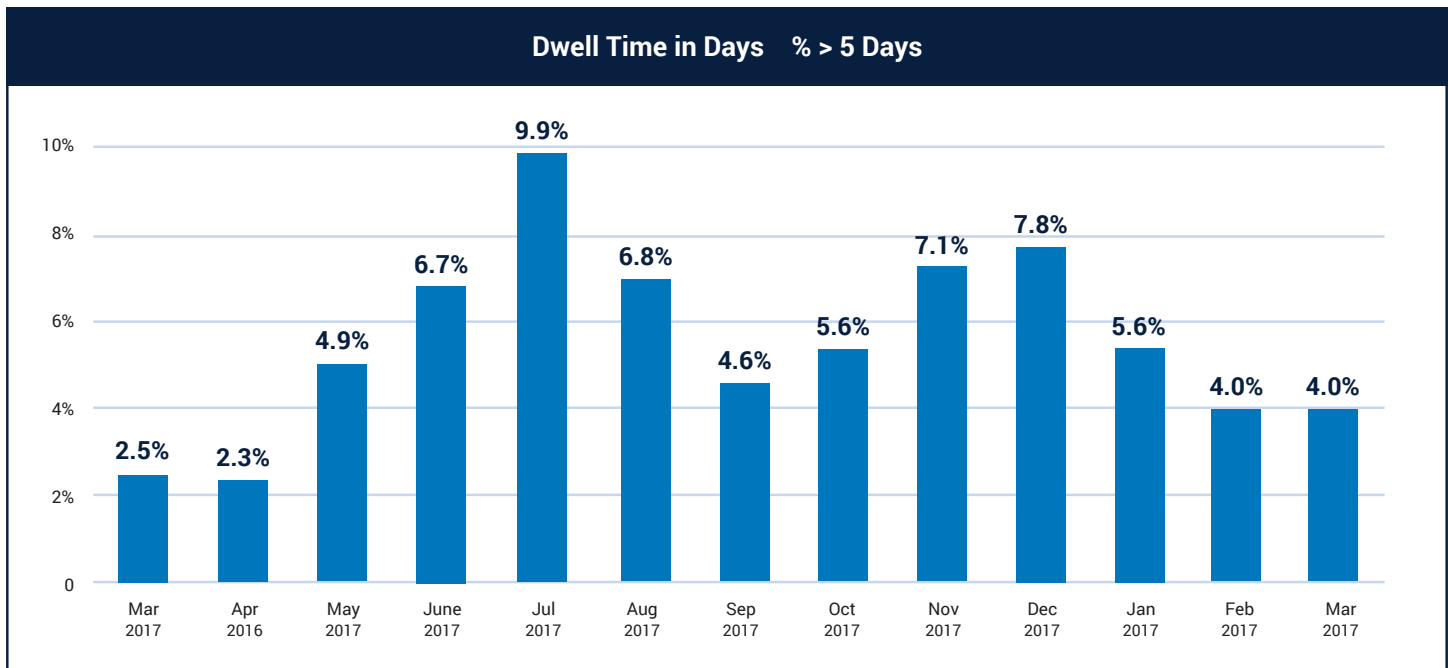
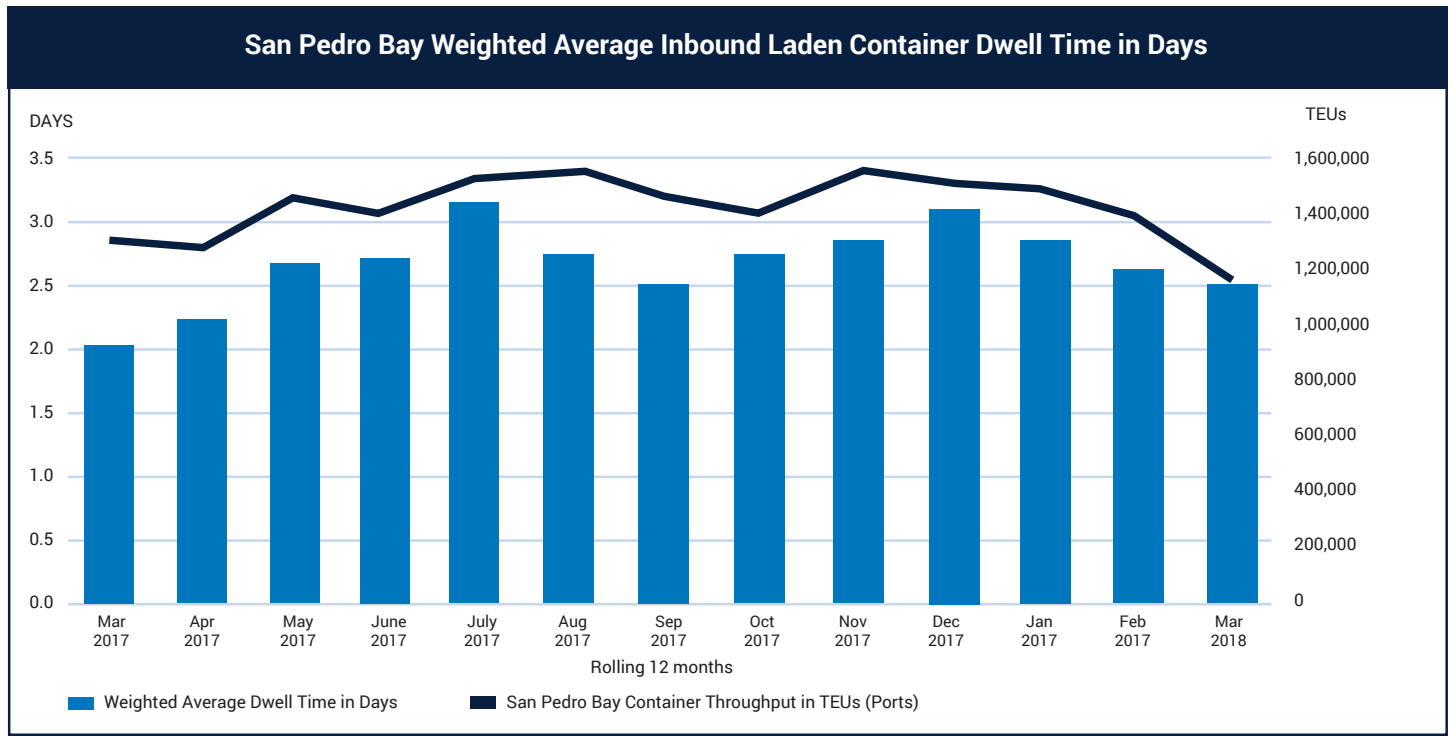
Photos courtesy of the Port of Hueneme

Interested in membership in PMSA?

Contact Laura Germany for details at: lgermany@pmsaship.com or 510-987-5000.



March Dwell Time Numbers Continue to Decline



PMSA Copyright © 2018

It is prohibited by law to forward this publication to any other person or persons. This material may not be re-published, broadcast, rewritten or distributed without written permission from PMSA.

Follow PMSA on Twitter @PMSAShip and Facebook.

INVITES YOU TO PARTICIPATE:



Advanced Clean Transportation Expo
May 2-3, 2018
Long Beach Convention Center

PMSA has partnered with the Advanced Clean Transportation (ACT) Expo to provide a forum for terminal operators and other port stakeholders to learn about the future of cargo handling equipment, including the latest regulatory projections, technological advancements, and infrastructure challenges.

Unquestionably, 2017 was an exciting year for new zero and near-zero emission product announcements; from drayage trucks, yard tractors, and other cargo handling equipment. The forthcoming year will be no different with several new product announcements already made in early 2018.

Join PMSA for a two-day event that includes access to relevant panels and keynote presentations, a packed show floor featuring the latest battery electric, hydrogen and natural gas technologies, and networking opportunities.

Register for a Two-Day PMSA pass

\$150 for PMSA members | \$185 for non-members

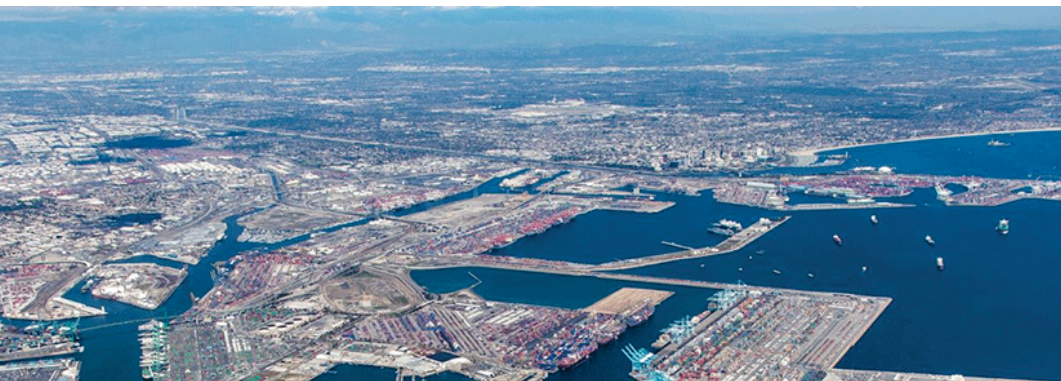
Featured Workshop:

The Ultra-Clean Cargo Handling Equipment Summit

Thursday, May 3 | 9:00am – 12:30pm

Join PMSA for this three part workshop that will cover:

- Part I: The Policy Push for Ultra Clean Equipment & Vehicles
- Part II: Dueling Technologies for Cleaner Cargo-Handling Equipment
- Part III: Challenges of Near-Zero and Zero Emission Infrastructure at Ports, Rail Yards and Logistic Warehouses



Learn more and register at www.actexpo.com/pmsa

Featured Speakers:



Chris Cannon

Director Environmental
Management Division



Heather Tomley

Director of Environmental
Planning



CAPACITY
REV GROUP

Vincent Illia

Regional Sales Manager-West



David Gully

Regional Sales Manager,
Western Region



Damon Hannaman

Senior Account Manager



A Sempra Energy utility

Kevin Maggay

Program Manager

WA State Board of Pilotage Commissioners

Industry Update: May 17, 2018 Meeting

Vessel Non-Tank Arrivals Fall YTD

✚ Non-tank (cargo) arrivals **down 13 YTD**

- ✓ Bulkers up 2
- ✓ Containers even
- ✓ RO/RO down 7
- ✓ Car Carriers down 11
- ✓ General down 2
- ✓ "Others" up 5

✚ Tankers/ATB's **increased 40 YTD**

- ✓ Partially due to comparison to a very low February in 2017
- ✓ Recall the downward trend over past two decades
- ✓ ATB's represent more than 10 percent of assignments

✚ Grays Harbor **up 2 YTD**

Vessel Traffic Assessments

✚ Transboundary Forum(s) Discussions Continue...

- ✓ Ecology conducting a study per the recent legislation
- ✓ Harbor Safety Committee & PACMAR (Canada) meeting May 30th in Vancouver
- ✓ U.S. & Canada continue to meet on Response & Vessel Traffic Management
- ✓ Orca Protection (ECHO Program, lateral displacement on outbound lane in SJDF, Changes in Haro... will explain more verbally)
- ✓ Governor Inslee Task Force meets on May 24th
- ✓ Canada Oceans Protection Plan continues to roll out

- ✚ **Seattle Head Tax:** Businesses scratching their heads over policy, costs and "what's next" questions. PMSA, ILWU, BNSF and many others submitted letters of concern urging the council and mayor not to proceed (terminals would supposedly be caught up in this increasing terminal costs). Referendum effort has been initiated.



Long Beach Cargo Volumes Ahead of Record Pace

Maritime Logistics Professional

The 2.5 million twenty-foot equivalent units moved by the Port of Long Beach in the first four months of 2018 is more than 17 percent above last year's record pace. In April, Long Beach dockworkers handled 618,438 twenty-foot equivalent units (TEUs), a 10.8 percent increase above the same month last year.

Import containers grew 8.4 percent to 312,376 TEUs compared to last April. The number of exports moved through Long Beach jumped 22 percent to 141,799 TEUs, and empty containers sent overseas to be filled with goods totaled 164,264 TEUs, up 7 percent.

New Generation of Diesel Power Delivers Cargo and Cleaner Air to America's Ports

Latest-generation Diesel Technologies Deliver More than 80 Percent Emission Reductions **Globe Newswire**

The newest generation of diesel technologies offer innovative and sustainable options that help America's ports achieve near-zero emissions, today. "America's sea and river ports underpin roughly 26 percent of the U.S. economy, generating \$4.6 trillion in economic activity, and providing jobs for 23 million workers. [Moving this trade requires many diesel-powered trucks, trains, ships, cargo handling equipment, barges and marine workboats](#)," said Allen Schaeffer, executive director of the [Diesel Technology Forum](#). "It's important that we do so in the most economic, environmentally friendly way possible. By using new-technology diesel engines and ultra-low-sulfur diesel fuel, port administrators and equipment operators can be sure to deliver fuel efficiency, power, performance and reliability, along with [significant emission reductions](#) for the communities near our nation's ports." Starting in 2015, new diesel engines used in large equipment were required to meet Tier 4 emissions standards which, relative to previous generations of technology, reduces emissions of nitrogen oxides (NOx) and fine particle emissions (PM) between 88 and 95 percent.

Port of Oakland cargo volume up 2.9 percent from a year ago

April was the Port's best month ever for imports in its 91-year history

Oakland, Calif. – May 14, 2018: The Port of Oakland's total cargo volume is up 2.9 percent over the same period a year ago. The Port today reported that terminals handled 791,371 TEUs between January to April 2018. A TEU is the equivalent of one container that is 20 feet long. During the same period in 2017, the volume was 768,789 TEUs. Total volume includes loaded and empty containers. April 2018 was the Port's best month ever for imports in its 90-year history. The volume for loaded imports was 75,369 TEUs. The previous record was in April 2006 at 75,243 loaded imports.

Prince Rupert is solution to West Coast market-access issues

By Bud Smith, The Province

A headline in a recent issue of The Financial Post raised the alarm: Fears grow, Canada missing the boat on expanding vital West Coast ports. The story went on to highlight concerns about constraints on growth and Canada's ability to capitalize on future opportunities and transport goods in and out of the West Coast, especially given the additional billions in trade volumes expected following ratification of the Comprehensive and Progressive Trans-Pacific Partnership (CPTPP). The solution to Canada's current West Coast market-access issues is the Port of Prince Rupert.

Japan Catches Up With Shipping Consolidation

MOL, K-Line and NYK Line pump \$3 billion into Ocean Network Express, which is now world's sixth-largest container operator

By Costas Paris and Chieko Tsuneoka, Wall Street Journal

TOKYO—Japan has caught up with a wave of consolidation sweeping the shipping industry, with its three biggest carriers merging their container operations to compete with bigger rivals in Asia and Europe. Mitsui O.S.K. Lines (MOL), Kawasaki Kisen Kaisha Ltd. 9107 1.20%▲, (K-Line) and Nippon Yusen Kabushiki Kaisha NPNYY -0.23%▲ (NYK Line) pumped \$3 billion into the merged company called Ocean Network Express (ONE) that kicked off operations last month as the world's sixth largest container operator, with a combined fleet of 230 vessels.

Maersk to Cut Services as It Battles Shipping Glut

The container operator's first-quarter loss widened amid falling freight rates and rising trade risks and fuel costs

By Costas Paris and Ian Walker Updated May 17, 2018 10:16 a.m. ET

A.P. Moller-Maersk AMKBY -8.21%▲ A/S said it would cut back on capacity to combat falling freight rates and rising fuel costs, after the Danish shipping giant reported a weak first quarter that sent its shares down about 8%.

The world's biggest container operator said its underlying loss widened to \$239 million from a loss of \$139 million a year earlier, with Chief Executive Soren Skou blaming rampant overcapacity as the main culprit and warning that a trade war between the U.S. and China would dash any hopes of a recovery in the shipping industry after a long down cycle.

"In the short term we will be closing down some services," Mr. Skou said in an interview. "Overcapacity is the biggest defect."

Maersk shares were down 7.9% to 9,350 Danish kroner (about \$1,480) on the Copenhagen Stock Exchange.

Maersk reported a net profit of \$2.75 billion, compared with a profit of \$245 million in the same period last year, but the gain came from the sale of two units, Maersk Oil and Maersk Tankers.

Mr. Skou said higher fuel prices had added \$70 to the cost of shipping a container from Asia to Europe and across the Pacific. Maersk currently moves more than 4 million containers, or 19% of global capacity.

Freight rates between Asia and Europe hover around \$780 per box, about half the \$1,500 break-even level.

Maersk reiterated previous guidance that it expects 2018 underlying profit to be above the 2017 figure of \$356 million, but Mr. Skou said that depends on growing geopolitical risks.

"A trade war between the U.S. and China would be very, very bad," he said, adding that new U.S. sanctions on Iran are "a driver" for rising oil prices.

"Costs are rising overall and becoming inflationary. That's not what we are used to," Mr. Skou said.

He said Maersk leases or charters around 400 ships from a total of 750 in operation and that a number of them would be returned to their owners.

Maersk bought German competitor Hamburg Süd for \$4 billion last year, which expanded its capacity by around 30%, while cargo volumes have grown by 24%.

Mr. Skou said Maersk would stop moving cargo to and from Iran, fearing repercussions from Washington.

“No shipping line that operates globally will be able to do business in Iran if the sanctions come to full force the way they intend to,” he said.

Container ships move the vast majority of manufactured goods and Maersk’s performance is seen as a barometer of the health of global trade.



Around the Docks

Satsop Business Park Westport Marina Coastal Innovation Zone Bowerman Airport PGH Pilotage Services Friends Landing & Sterling Landing

PGH Mission: To best utilize our resources to facilitate, enhance and stimulate international trade, economic development and tourism for the region.



Improving Waterfront Access

28th Street Landing & Boat Launch to close for improvements

Long awaited improvements at the popular 28th Street Landing and Boat Launch will kick-off next week, closing the facility from May 1, 2018 through mid-September, 2018.

The project will include demolition of the existing boat ramp, construction of a new, wider ramp, a permanent restroom, a second boarding float, improved lighting, and paving and striping of the parking lot. In-water work will take place after the fish window opens in mid-July.

"We are excited to see this important waterfront access improvement project get underway and are confident it will be completed in time for the beginning of fall fishing season for the community to enjoy," shared Port Commissioner Stan Pinnick.

Local contractor Rognlin's, Inc. was awarded the contract in February and will begin work on May 1st. The project was awarded grant funding through the Recreation Conservation Office Boating Facilities Program.



Partnerships for a Stronger Economy

Gary Nelson participates in Congressional waterways roundtable



Port of Grays Harbor Executive Director Gary Nelson (second from right) addresses the importance of maintaining our nation's waterways at the U.S. House Subcommittee on Water Resources roundtable discussion in Coos Bay, OR.

The maintenance of our nation's waterways, including the Grays Harbor Navigation Channel and its aids to navigation, is critical to ensuring US grown and manufactured goods reach their markets throughout the globe.

On April 20th, at the U.S. House Subcommittee on Water Resources roundtable discussion in Coos Bay, Oregon, Port of Grays Harbor Executive Director Gary Nelson addressed the importance of maintaining our nation's waterways and how a unified industry agreement for full-use of the Harbor Maintenance Tax revenues could help achieve this.

"At the Port of Grays Harbor, we depend on the maintenance of our

federal navigation channel to ensure our customer's products, which are grown and manufactured in the U.S. Midwest and Intermountain Region, can safely and efficiently reach their markets throughout the Pacific Rim," stated Mr. Nelson. "Our customers recognize the strategic advantage of our Port and have invested millions of dollars in their facilities to take advantage of our location and proximity to Pacific Rim markets."

The Port of Grays Harbor ranks 37th in the nation for export cargo volumes. The U.S. Army Corps of Engineers conducts annual maintenance of the Grays Harbor navigation channel to support this nationally significant trade infrastructure.

PGH welcomes new Director of Finance and Administration

Earlier this month the Port welcomed Mike Folkers to the senior management team as the new Director of Finance and Administration.

Mr. Folkers brings a solid background of effectively leading municipal finance departments throughout Grays Harbor County over the past two decades. He holds an MBA from Washington State University and a BA in Aeronautics and Astronautics Engineering from the University of Washington.

Mike will replace Mary Nelson when she retires this June after 23 years with the Port.



Elma Transit Center	Satsop Business Park	Elma Transit Center
6:40 EW	6:55	7:10 W
7:15	7:30	7:45 S
10 Min Break and Shuttle Dial-A-Ride		
8:10 EN	8:25	8:40 W
8:40 W	8:55	9:10
9:30	9:45	10:00 EWS
10:20 EWN	10:35	10:50 W
3:15 E	3:30	3:45 W
3:45 W	4:00	4:15 W
4:15 E	4:30	4:45
4:45	5:00	5:15 E
10 Min Break and Shuttle Dial-A-Ride		
5:40	5:55	6:10 EW
6:10-7:25 Shuttle Dial-A-Ride		
7:25	7:40	8:05 EW

GH Transit to service Satsop Business Park beginning May 7th

With nearly 400 employees reporting to work daily at the Satsop Business Park, Grays Harbor Transit has announced it will begin shuttle service to the Park from the Elma Transit Center beginning May 7th.

"As businesses continue to locate and expand at the Park, we are so pleased Grays Harbor Transit is able to offer this important transportation option so that residents throughout Grays Harbor County may consider employment options here," noted Satsop Business Park Business Development Manager Alissa Shay.

The service fare will be \$1 each way and transfers are free. Grays Harbor Transit offers hundreds of routes throughout Grays Harbor County.

For more information and the complete shuttle schedule, visit www.ghtransit.com

Calendar

April 27-29	GH Shorebird Festival
April 30	<i>Siem Plato</i> @ T4
May 3	<i>Gemini Leader</i> @ T4
May 5	<i>New Legacy</i> @ T2
May 7	PGH Commission Meeting, PGH Offices @ 9am <i>Imperial Fortune</i> @ T2
May 8	<i>Metis Leader</i> @ T4
May 11	<i>CSAV Rio Grande</i> @ T4
May 17	<i>Sunny Hope</i> @ T2
May 21	<i>Hojin</i> @ T4
May 24	Satsop Walking Tour, SBP @ 3pm <i>Siem Socrates</i> @ T4

Around the Docks

is a publication of the

Port of Grays Harbor
On Washington's Pacific Coast



It is available online at
PortofGraysHarbor.com

To join our mailing list contact
Kayla Dunlap at kdunlap@portgrays.org

23rd Annual GH Shorebird Festival this weekend

Each spring hundreds of thousands of shorebirds stop to rest and feed in the Grays Harbor estuary, some coming from as far south as Argentina. And for the 23rd year in a row, the Grays Harbor Shorebird Festival will offer a weekend full of shorebird viewing and education for the whole family.

The Grays Harbor National Wildlife Refuge, adjacent to and accessible from the Port of Grays Harbor's Bowerman Airport, is a prime viewing location to see these spectacular migrating birds.

For more information on this year's Shorebird Festival events, visit www.shorebirdfestival.com



Pictured above is the 2018 Best of Show from the grade school shorebird poster contest entitled "I'm youth I'm joy, I'm a little bird that has broken out of its egg" by Ezri Carroll, Grade 5, St. Mary School

**Port of Grays Harbor - Pilotage Services Division
2015-2017 Financial Data**

	2015	2016	2017
Vessel Arrivals / Pilot Assignments	82 / 200	99 / 229	109 / 258
OPERATING REVENUES			
Pilotage Services	1,178,081	1,398,041	1,620,293
Misc Revenues	1,200	1,950	1,201
TOTAL OPERATING REVENUES	1,179,281	1,399,991	1,621,494
OPERATING EXPENSES			
Personnel			
PGH Regular Wages	559,102	532,030	542,710
PGH Overtime Wages	-	-	-
Incremental Duty Pay	78,000	43,034	11,440
Gain Sharing Distribution	-	81,631	65,332
Benefits	218,892	168,016	188,005
Sub-Total Wages & Benefits	855,994	824,711	807,487
Seminars/Confs./Training	6,784	375	9,575
State Pilot License Fees	16,250	13,000	13,000
Total Personnel	879,028	838,086	830,062
Purchased Services			
Advertising	50	53	53
Insurance	1,821	1,684	1,684
Legal	1,117	957	1,133
Pilot Launch Services	237,499	309,229	330,437
Printing/Maps/Photos	81	-	160
Outside Repair/Maint. - Equipment	60,318	1,442	139,015
Pilot Trainee Stipend	71,667	16,800	-
Other Purchased Services	7,780	287	600
Total Purchased Services	380,334	330,452	473,081
Utilities			
Telephone	3,225	5,597	4,347
Supplies			
Office Supplies	287	669	271
Operating Supplies	761	3,394	1,505
Repair/Maint. Supplies	7,535	1,504	6,490
Small Tools/Equipment	1,338	125	6,057
Total Supplies	9,922	5,692	14,323
General / Administration			
Miscellaneous	121	386	386
Taxes	19,690	19,270	24,777
Travel, Lodging, Meals	7,319	13,286	13,512
Allocate Port G&A	85,328	70,910	87,052
Total alloc. GA/Public Fac.	85,328	70,910	87,052
TOTAL GENL/ADMIN	112,459	103,852	125,727
TOTAL OPERATING EXPENSES	1,384,968	1,283,680	1,447,540

**Port of Grays Harbor - Pilotage Services Division
2015-2017 Financial Data**

	2015	2016	2017
Vessel Arrivals / Pilot Assignments	82 / 200	99 / 229	109 / 258
OPERATING INCOME (LOSS) BEFORE DEPRECIATION	(205,687)	116,311	173,954
Direct Depreciation	(17,033)	(18,009)	(20,156)
Allocated Depreciation	(2,524)	(2,408)	(2,028)
TOTAL DEPRECIATION EXPENSE	(19,557)	(20,417)	(22,184)
OPERATING INCOME (LOSS) AFTER DEPRECIATION	(225,244)	95,893	151,770
PASS THROUGH CHARGES			
Pension Charges (Paid to PS Pilots for payments to GH retirees of the GH Pilot Assoc.)	80,600	106,027	136,224
Travel Allowance (Paid to pilot on a per job basis)	22,545	22,260	27,300

State of Washington
Pilotage Commission
May 17, 2018

Grays Harbor District Report

Arrivals YTD April 30, 2018 were 36 for a total of 89 jobs. We had 10 arrivals for the month of April for 23 jobs. Captain D/Angelo was on duty in April and Capt. White is on duty this month. We anticipate 10 arrivals in May, 5 dry bulk and 5 RoRo. We have revised our vessel arrival estimate for the year from 100 arrivals to 108 arrivals based on the strength of dry bulk shipments.

Activity Report

Grays Harbor Navigation Channel Dredging

The Corps is wrapping up the maintenance dredging at the entrance. The Yaquina has departed and the Essayons should be done before the end of the month. In the upper reaches we are seeing the channel adjusting to recently complete deepening. Some areas are self scouring and won't need as much maintenance but there are other areas of shoaling that will need more effort as the channel finds a new equilibrium. There is also planning being done on the Cow Point turning basin to mitigate the increased rate of shoaling within existing authorities. We are looking at whether removing or modifying an old structure there could reduce sedimentation and ongoing maintenance dredging in that area.

Plans are being made to increase Pilot involvement in the dredging planning to help setting work priorities within the context of the many challenges the USACE faces in their annual maintenance. Things like working within fish windows, UA fishing seasons, contract constraints, additional environmental monitoring and always funding and federal budget challenges to contracting. So like the challenges of piloting in a dynamic channel there are challenges in administration and planning work in an ever changing political and regulatory climate. We hope by expanding pilots' scope of planning channel maintenance we will improve the process and make more informed decisions about channel maintenance.

We are seeing a change in NMFS policy for annual maintenance permit activities. Seems they have an agency initiative to discontinue the practice of granting informal consultation on maintenance permitting and ask for formal consultations. The result could delays in permitting which compounded with fish work windows make berth maintenance very challenging.

USACE Notice of Outer Harbor Dredging

We did have trouble at the start of outer harbor dredging with crab gear but eventually word got out and gear was removed from work areas. It seems that no matter how much pre-work notice we give the fisherman nothing works quite like the dredges actually showing up to get action.

Pilot Boat Maintenance

We have selected camera gear for mounting on pilot boat but are still working with pilots on what angle will offer them the best coverage. Planning for annual summer maintenance and marine survey of the Chehalis. Also looking at replacing external lighting with LED lighting.

Business Development

We continue to work on export potash facility. It seems like it is taking forever for customer select a preferred Port. Guess we should solace in being one their final sites. In any case it sounds like by this time next year they will make a preferred site selection.

Planning continues on a new OCC pulpmill in Hoquiam on former mill site. Could mean a couple of project cargo calls with equipment and with any luck some outbound break bulk of pulp.

We have seen slight increase in interest for rail served waterfront. This is typical when bulk markets heat up and shippers have access issues they begin looking at alternatives. The problem is they are looking for quick cheap fixes that typically don't exist for waterfront facilities.

PUGET SOUND PILOTAGE DISTRICT ACTIVITY REPORT

Apr-2018

The Board of Pilotage Commissioners (BPC) requests the following information be provided to the BPC staff **no later than two working days prior to a BPC meeting** to give Commissioners ample time to review and prepare possible questions regarding the information provided.

Activity

Total pilotage assignments:	533	Cancellations:	8		
Total ship moves:	525	Cont'r:	171	Tanker:	163
				Genl/Bulk:	128
				Other:	63
Assignments delayed due to unavailable pilot:	0	Total delay time:	0		
2 pilot jobs:	34	Reason:	PSP GUIDELINES FOR RESTRICTED WATERWAYS		
Day of week & date of highest number of assignments:	WED 4/25	28			
Day of week & date of lowest number of assignments:	SUN 4/1	MON 4/2	8		
Total number of repositions:	120				

Comp Days

Beg Total -	2851	Call Backs (+)	70	Used (-)	78	Ending total	2843
-------------	------	----------------	----	----------	----	--------------	------

Pilots Out of Regular Dispatch Rotation (pilot not available for dispatch during "regular" rotation)

A. Training & Continuing Education Programs

Start Dt	End Dt	City	Facility	Program Description	Pilot Attendees
13-Apr	23-Apr	Port Ilawa Poland	Ship	Manned Model	HUP, MYE

B. Board, Committee & Key Government Meetings (BPC, PSP, USCG, USACE, Port & similar)

Start Dt	End Dt	City	Group	Meeting Description	Pilot Attendees
3-Apr	3-Apr	Seattle	PSP	BOD	BOU, CAI, COL, NEW, SEM, THG
3-Apr	3-Apr	Seattle	PSP	UTC	CAI, COL, KLA
4-Apr	10-Apr	Seattle	PSP	President	COL
5-Apr	5-Apr	Seattle	PSP	Salish Sea Eco Conf	MAR
6-Apr	6-Apr	Seattle	PSP	Transboundary Harbor Safety	COL, KAL
10-Apr	13-Apr	Seattle	PSP	West Coast Pilot Conference	ANT, CAI, COL
11-Apr	11-Apr	Seattle	PSP	Harbor Safety	ANT
17-Apr	17-Apr	Seattle	BPC	TEC	ANT, MAY, SCR
17-Apr	17-Apr	Seattle	BPC	BPC Prep	ANT, SCR
19-Apr	19-Apr	Seattle	BPC	BPC	ANT, SCR
20-Apr	30-Apr	Seattle	PSP	President	CAI
24-Apr	24-Apr	Seattle	PSP	Trainee Orientation	ANT, SCR, HUP
26-Apr	25-Apr	Anacortes	PSP	Fidalgo Yacht Club	MAR
30-Apr	30-Apr	Lacey	PSP	SRKW (Killer Whale Task Force)	KAL

C. Other (i.e. injury, not-fit-for-duty status, vacation)

Start Dt	End Dt	REASON	PILOT
1-Apr	30-Apr	Not Fit	BOU
3-Apr	10-Apr	Vacation	BUJ, HAR, MAR, THG
17-Apr	24-Apr	Vacation	ANA, CAW, KAL, KEA
27-Apr	28-Apr	Vacation	COE

Puget Sound Pilots - Income & Expense Line Item Comparison of Audited Financials								
THE BPC makes no representations regarding the correctness of the data on these pages or the validity and/or relevance of how the data are presented. The Board staff has attempted to present the data in a format that provides a mechanism for analysis in a manner requested by some Board members.	% Δ 2017/2016	1/1/2017 +0%	1/1/2016 +0%	2015 1/1/15 Rev Neutral 7/1/15 ~+ 2%	1/1/2014 +0%	@ 1/1/2013 +3%	1/1/12 +0%	no Tariff change (18 mo tariff)
		12/31/2017	12/31/2016	12/31/2015	12/31/2014	12/31/2013	12/31/2012	12/31/2011
Number of Pilots	1.0%	52.4	51.9	53.2	54.2	53.1	51.9	52.6
Number of assignments	-5.4%	7250	7662	7788	7616	7819	7769	7619
% Δ			-1.6%	2.3%	-2.6%	0.6%	2.0%	3.8%
Revenue Per Assignment	1.5%	4,369	4,304	4,068	4,128	4,038	3,941	3,903
% Δ			5.8%	-1.5%	2.2%	2.5%	1.0%	2.0%
Puget Sound Tariff Revenue	-4.0%	\$ 31,675,135	\$ 32,980,938	\$ 31,680,997	\$ 31,439,243	\$ 31,573,640	\$ 30,617,682	\$ 29,738,725
Grays Harbor pension tariff paid to PSP	30.2%	137,004	105,247	80,600	100,274	87,360	49,020	41,920
Tariff Transportation Revenue	-6.2%	1,029,520	1,097,109	1,119,406	1,083,551	1,136,816	991,743	955,188
Pilotage Revenue-Total	-3.9%	\$ 32,841,659	\$ 34,183,294	\$ 32,881,003	\$ 32,623,068	\$ 32,797,816	\$ 31,658,445	\$ 30,735,833
<i>Per Pilot share of Pilotage Revenue</i>	-4.8%	626,291	658,201	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Total Charge for Operating Expenses	1.5%	\$ 12,292,655	\$ 12,116,494	\$ 12,055,872	\$ 11,799,524	\$ 11,152,645	\$ 10,648,130	\$ 10,799,204
% change			0.5%	2.2%	5.8%	4.7%	-1.4%	23.8%
Per Pilot Share of Operating Expenses	0.5%	\$ 234,421	\$ 233,324	\$ 226,614	\$ 217,570	\$ 209,898	#DIV/0!	#DIV/0!
% change			3.0%	4.2%	3.7%	#DIV/0!	#DIV/0!	30.4%
Tariff Revenue less Operating Expenses	-6.9%	\$ 20,549,004	\$ 22,066,800	\$ 20,825,131	\$ 20,823,544	\$ 21,645,174	\$ 21,010,315	\$ 19,936,629
% change			6.0%	0.0%	-3.8%	3.0%	5.4%	-1.8%
APPROX per Pilot Share Revenue less Operating Exp	-7.8%	\$ 391,857	\$ 424,934	\$ 391,450	\$ 384,198	\$ 407,630	\$ 404,823	\$ 379,168
Other deductions from Tariff Revenue								
Transportation Paid Directly to Pilots	-6.2%	\$ 1,029,520	\$ 1,097,109	\$ 1,119,406	\$ 1,083,551	\$ 1,136,816	\$ 991,743	\$ 955,188
Individual Business Expense Allowance paid to Pilots	13.8%	589,932	518,306	530,881	547,415	534,070	646,939	651,548
Total Charge for Other Expenses	0.2%	\$ 1,619,452	\$ 1,615,415	\$ 1,650,287	\$ 1,630,966	\$ 1,670,886	\$ 1,638,682	\$ 1,606,736
% change			-2.1%	1.2%	-2.4%	2.0%	2.0%	
Revenue Less Operating Expenses & Direct Pays to Pilots		\$ 18,929,552	\$ 20,451,385	\$ 19,174,844	\$ 19,192,578	\$ 19,974,288	\$ 19,371,633	\$ 18,329,893
Annual Earnings per Pilot (per audited stmt)	-8.3%	\$ 360,975	\$ 393,826	\$ 360,429	\$ 354,107	\$ 376,164	\$ 373,249	\$ 348,610
			9.3%	1.8%	-5.9%	0.8%	7.1%	14.2%
3-year Average		\$ 371,744	\$ 369,454	\$ 363,567	\$ 367,840	\$ 366,007	\$ 342,394	\$ 322,376

Puget Sound Pilots - Income & Expense Line Item Comparison of Audited Financials								
THE BPC makes no representations regarding the correctness of the data on these pages or the validity and/or relevance of how the data are presented. The Board staff has attempted to present the data in a format that provides a mechanism for analysis in a manner requested by some Board members.								
	% Δ	1/1/2017	1/1/2016	2015	1/1/2014	@ 1/1/2013	1/1/12	no Tariff change
	2017/2016	+0%	+0%	1/1/15 Rev Neutral 7/1/15 ~+ 2%	+0%	+3%	+0%	(18 mo tariff)
		12/31/2017	12/31/2016	12/31/2015	12/31/2014	12/31/2013	12/31/2012	12/31/2011
Number of Pilots	1.0%	52.4	51.9	53.2	54.2	53.1	51.9	52.6
Number of assignments	-5.4%	7250	7662	7788	7616	7819	7769	7619
%Δ			-1.6%	2.3%	-2.6%	0.6%	2.0%	3.8%
Revenue Per Assignment	1.5%	4,369	4,304	4,068	4,128	4,038	3,941	3,903
%Δ			5.8%	-1.5%	2.2%	2.5%	1.0%	2.0%
Puget Sound Tariff Revenue	-4.0%	\$ 31,675,135	\$ 32,980,938	\$ 31,680,997	\$ 31,439,243	\$ 31,573,640	\$ 30,617,682	\$ 29,738,725
Grays Harbor pension tariff paid to PSP	30.2%	137,004	105,247	80,600	100,274	87,360	49,020	41,920
Tariff Transportation Revenue	-6.2%	1,029,520	1,097,109	1,119,406	1,083,551	1,136,816	991,743	955,188
Pilotage Revenue-Total	-3.9%	\$ 32,841,659	\$ 34,183,294	\$ 32,881,003	\$ 32,623,068	\$ 32,797,816	\$ 31,658,445	\$ 30,735,833
Per Pilot share of Pilotage Revenue	-4.8%	626,291	658,201	618,064	601,902	617,661	609,989	584,554
SEATTLE - expenses								
Attorney fees	27.5%	\$ 95,458	\$ 74,855	\$ 51,605	\$ 96,244	\$ 11,578	\$ 28,043	\$ 8,396
Commission - SILA		150,000						
Comp day expense - see Notes on f/s				163,120	407,238	760,596	603,785	290,385
adjust to match 2016 & 2017				(163,120)	(407,238)	(760,596)	(603,785)	(290,385)
Computer maintenance or system	12.0%	181,189	161,841	329,568	278,310	203,166	209,101	203,750
Computer programming	242.1%	139,579	40,804	4,862	4,466	3,541	7,041	5,531
Conferences	-44.1%	40,284	72,024	34,347	76,749	24,063	3,561	2,946
Consulting services	129.0%	84,790	37,029	284,359	91,942	155,342	96,568	149,231
CPA fees	2.5%	78,028	76,104	56,665	63,512	67,249	72,656	76,440
Depreciation	-6.2%	355,567	379,135	320,884	308,493	87,706	151,056	233,620
Drug testing	-13.4%	3,398	3,922	6,737	5,381	7,007	6,770	5,434
Dues	1.9%	165,910	162,884	169,583	154,715	150,739	143,150	138,425
Employee benefits	0.2%	191,127	190,681	295,484	341,201	333,115	279,626	243,396
Employee salaries	1.5%	842,741	830,582	851,238	702,636	693,674	746,246	750,043
Equipment leases	22.1%	4,877	3,993	2,915	1,596	1,565	1,077	1,496
Gifts	-55.4%	3,228	7,239	13,127	-			
Grays Harbor retirees, Gross - Note 6	-8.1%	100,861	109,739	109,739	109,739	109,739	109,739	109,739
Memo: Grays Hbr payment to pension: see above	30.2%	(137,004)	(105,247)	(80,600)	(100,274)	(87,360)	(49,020)	(41,920)
Memo: Grays Harbor pension expense to PSP, Net	-904.6%	(36,143)	4,492	29,139	9,465	22,379	60,719	67,819
Insurance	-0.8%	182,141	183,676	197,078	223,602	220,120	205,032	194,355
Interest	-35.9%	13,763	21,462	17,660	23,266	7,277	8,702	21,381
License fees - see Notes on f/s	1.9%	344,500	338,000	344,500	357,500	357,500	351,000	346,138
Lobbyist	25.4%	67,336	53,717	112,294	106,099	121,007	113,478	109,159
Medical insurance - pilots - see Notes on f/s	-4.1%	1,453,478	1,515,117	1,604,390	1,625,825	1,529,975	1,547,037	1,455,769
Office maint/repair	90.0%	10,171	5,353	6,042	7,634	9,700	7,136	8,633
Office supplies	-6.8%	30,162	32,379	31,432	43,994	38,459	34,824	41,388
Pilot training	-23.1%	233,351	303,640	164,232	370,187	419,487	296,007	220,644
Political contributions								2,200
Printing/pubs	-30.0%	19,045	27,217	5,532	24,615	25,108	23,086	33,258
Rent/parking	2.9%	121,206	117,845	113,957	110,502	107,692	104,566	145,097
Retirement -PSD see Notes on f/s	-0.8%	4,172,153	4,206,583	3,885,653	3,288,449	3,044,158	2,695,219	2,610,203
Former Director retirement	0.0%	69,502	69,502	5,792	-			
Taxes on payroll	-3.8%	53,757	55,883	61,007	50,737	50,751	51,398	51,968
Taxes, other (Personal Property)	-62.2%	2,224	5,889	9,662	1,081	1,169	1,060	1,500
Taxes on revenue	-4.7%	536,464	562,762	536,666	536,164	575,613	604,765	586,721
Travel/Entertainment/Promotion	21.6%	121,041	99,532	171,926	144,285	165,956	187,145	146,462
Telephone/communications	-9.8%	35,935	39,833	39,956	40,235	44,942	42,314	41,713
Uncollectable AR		53,581					2,296	11,000
Total SEATTLE total expenses	1.7%	\$ 9,956,847	\$ 9,789,222	\$ 9,838,892	\$ 9,189,159	\$ 8,567,398	\$ 8,127,403	\$ 7,945,036
PORT ANGELES STATION - expenses								
Depreciation	-4.1%	\$ 46,615	\$ 48,609	\$ 52,397	\$ 55,036	\$ 54,552	\$ 54,069	\$ 86,767
Education	-100.0%		405					
Food	23.2%	104,390	84,766	93,855	85,609	92,548	95,184	85,270
Insurance	-0.7%	36,583	36,857	38,580	58,450	14,347	20,303	14,664
Lodging - P.A.				219	-		161	12,001
Maint/repair	655.7%	217,227	28,747	34,460	48,760	35,878	41,122	96,027
Rent, tideland lease	7.7%	4,310	4,001	3,679	3,562	3,685	3,893	3,681
Reposition pilots	10.2%	242,870	220,376	229,830	245,478	246,945	244,011	242,870
Supplies	-24.2%	19,447	25,657	18,994	25,915	23,682	26,288	27,878
Taxes on property	-2.0%	12,241	12,488	13,668	13,527	13,191	12,619	11,581
Telephone/communications	59.2%	21,624	13,581	12,847	12,958	10,945	9,549	8,462
Training					405			
Utilities	7.2%	24,807	23,141	22,771	22,672	20,275	20,279	19,113
PA Station total expenses	46.4%	\$ 730,114	\$ 498,628	\$ 521,300	\$ 572,372	\$ 516,048	\$ 527,680	\$ 615,787
PILOT BOATS - expenses								
Depreciation	0.0%	28	28	28	28	28	28	285,834
Employee benefits	-0.9%	233,318	235,524	237,200	233,357	219,482	213,048	203,067
Employee salaries	6.7%	802,534	751,901	750,119	773,729	800,699	802,040	795,317
Fuel-Juan de Fuca	6.0%	136,721	129,025	128,517	166,737	219,873	222,781	209,130
Fuel-Puget Sound	60.6%	164,639	102,487	135,906	250,022	205,993	245,321	222,646
Insurance	-2.2%	91,064	93,080	104,574	98,317	115,380	86,232	128,222
Operation-Juan de Fuca	-16.4%	49,693	59,447	115,482	374,751	133,265	220,285	69,844
Operation-Puget Sound	-84.4%	61,569	394,394	160,031	76,235	306,756	134,084	241,516
Taxes on payroll	6.1%	62,299	58,714	59,512	60,428	62,674	63,179	64,666
Taxes on property -	-5.3%	3,829	4,044	4,311	4,389	5,046	5,725	6,162
PILOT BOATS total expenses	-12.2%	\$ 1,605,694	\$ 1,828,644	\$ 1,695,680	\$ 2,037,993	\$ 2,069,196	\$ 1,993,047	\$ 2,238,381
Total Charge for Operating Expenses	1.5%	\$ 12,292,655	\$ 12,116,494	\$ 12,055,872	\$ 11,799,524	\$ 11,152,645	\$ 10,648,130	\$ 10,799,204
% change			0.5%	2.2%	5.8%	4.7%	-1.4%	23.8%
Per Pilot Share of Operating Expenses	0.5%	\$ 234,421	\$ 233,324	\$ 226,614	\$ 217,570	\$ 209,898	\$ 205,166	\$ 205,386
% change			3.0%	4.2%	3.7%	2.3%	-0.1%	30.4%
Tariff Revenue less Operating Expenses	-6.9%	\$ 20,549,004	\$ 22,066,800	\$ 20,825,131	\$ 20,823,544	\$ 21,645,174	\$ 21,010,315	\$ 19,936,629
% change			6.0%	0.0%	-3.8%	3.0%	5.4%	-1.8%
APPROX per Pilot Share Revenue less Operating Exp	-7.8%	\$ 391,857	\$ 424,934	\$ 391,450	\$ 384,198	\$ 407,630	\$ 404,823	\$ 379,168
Other deductions from Tariff Revenue								
Transportation Paid Directly to Pilots	-6.2%	\$ 1,029,520	\$ 1,097,109	\$ 1,119,406	\$ 1,083,551	\$ 1,136,816	\$ 991,743	\$ 955,188
Individual Business Expense Allowance paid to Pilots	13.8%	589,932	518,306	530,881	547,415	534,070	646,939	651,548
Total Charge for Other Expenses	0.2%	\$ 1,619,452	\$ 1,615,415	\$ 1,650,287	\$ 1,630,966	\$ 1,670,886	\$ 1,638,682	\$ 1,606,736
% change			-2.1%	1.2%	-2.4%	2.0%	2.0%	
Revenue Less Operating Expenses & Direct Pays to Pilots		\$ 18,929,552	\$ 20,451,385	\$ 19,174,844	\$ 19,192,578	\$ 19,974,288	\$ 19,371,633	\$ 18,329,893
Annual Earnings per Pilot (per audited stmt)	-8.3%	\$ 360,975	\$ 393,826	\$ 360,429	\$ 354,107	\$ 376,164	\$ 373,249	\$ 348,610
			9.3%	1.8%	-5.9%	0.8%	7.1%	14.2%
3-year Average		\$ 371,744	\$ 369,454	\$ 363,567	\$ 367,840	\$ 366,007	\$ 342,394	\$ 322,376

PUGET SOUND PILOTS

201720162015201420132012201120102009

Unrecorded Liabilities -info from Audited Financial Statement Notes

Comp day value --- approx	\$ 5,583,894	\$ 6,206,368	\$ 4,985,068	\$ 4,850,700	\$ 5,406,896	\$ 5,845,008	\$ 5,889,408	\$ 5,425,434	\$ 5,875,584
Pilot vacation --- approx	\$ 935,990	\$ 1,018,326	\$ 926,526	\$ 950,950	\$ 973,955	\$ 951,096	\$ 898,923	\$ 843,930	\$ 868,227
Buy-out	\$ 3,083,739	\$ 3,340,809	\$ 3,785,415	\$ 2,755,276	\$ 2,877,162	\$ 2,397,602	\$ 2,287,956	\$ 3,037,845	\$ 1,638,999
PSP Retirement	4.2M x ?yrs	4.2M x ?yrs	3.9M x ?yrs	3.3M x ?yrs	3.0M x ?yrs	2.7M x ?yrs	2.6M x ?yrs	2.3M x ?yrs	2.0M x ?yrs
Former Ex Director Retirement	69,500 x ?yrs	69,500 x ?yrs	69,500 x ?yrs	NR	NR	NR	NR	NR	NR

NR = not reported



PUGET SOUND PILOTS

Protecting Puget Sound Since 1935

Financial Statements Presentation

to

Washington State Board of Pilotage Commissioners

May 17, 2018

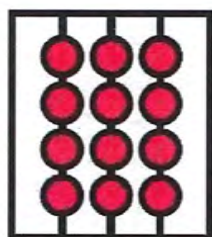
Engagement in Financial Statements



PUGET SOUND PILOTS
Protecting Puget Sound Since 1935



Certified Public Accountants
Management Consultants



HALE &
ASSOCIATES P.S.

Puget Sound Pilots Overview

- ❑ Audited Financial Statements on a Modified Accrual Basis (not Generally Accepted Accounting aka GAAP)
- ❑ Puget Sound Pilots taxed as a Partnership
- ❑ Figures consolidated with Pilot Technology Services



Continuous Improvement in Reporting

- Goal: Improve financial statements reporting, efficiency and alignment with normal and customary financial statements reporting practices
- Objectives:
 - maintain alignment with normal and customary financial statements practices and compliance with RCW 88.16.035(1)(f)
 - continue to enhance fiscal and schedule notes to increase transparency and understanding of information provided
 - continue to preserve and secure pilot personal information
 - administer and report new Board of Pilotage Commission (BPC) self-insurance liability account (SILA) tariff charge in alignment with BPC training surcharge

Continuous Improvement in Reporting



□ Changes:

- Financial Statements Note 3 – Funds Held in Trust: enhanced and added reference to Senate Bill 5096 provisions and new BPC self-insurance liability (SILA)
- Financial Statements Note 12 – Subsequent Events: included reference to events related to Pilot Technology Services, Inland Boatmen’s Union of the Pacific, Grays Harbor pension and Senate Bill 6519.
- Supplemental Information Schedule “Schedule of Days of Service and Distribution of Pilotage Revenue and Expense”: enhanced and clarified schedule notes

Audit Process & Modified Accrual Basis

Audit Process

- ❑ Risk Based Audit
- ❑ Test tariff rates
- ❑ Sample of invoices recalculated and tested
- ❑ Sample of bills paid
- ❑ Review of process and internal controls

Modified Accrual Basis

- ❑ Records revenue (income) at the time it is earned (the day job is completed)
- ❑ Expenses are recorded when paid (in general)
- ❑ Depreciation expense is normal and customary
- ❑ **Unrecorded Liabilities (Note 10)**

Unrecorded Liabilities (Note 10)

- Comp Days – Estimated Value at December 31, 2017 is \$5,583,894 and 2016 was \$ 6,206,368
- Vacation Payable – Estimated Value at December 31, 2017 is \$935,990 and 2016 was \$1,018,326
- Major Medical – amount not determined
- Retirement Buy Outs at December 31, 2017 was \$3,083,739 and 2016 was \$ 3,340,809.
- Pilot's Pension – amount not determined

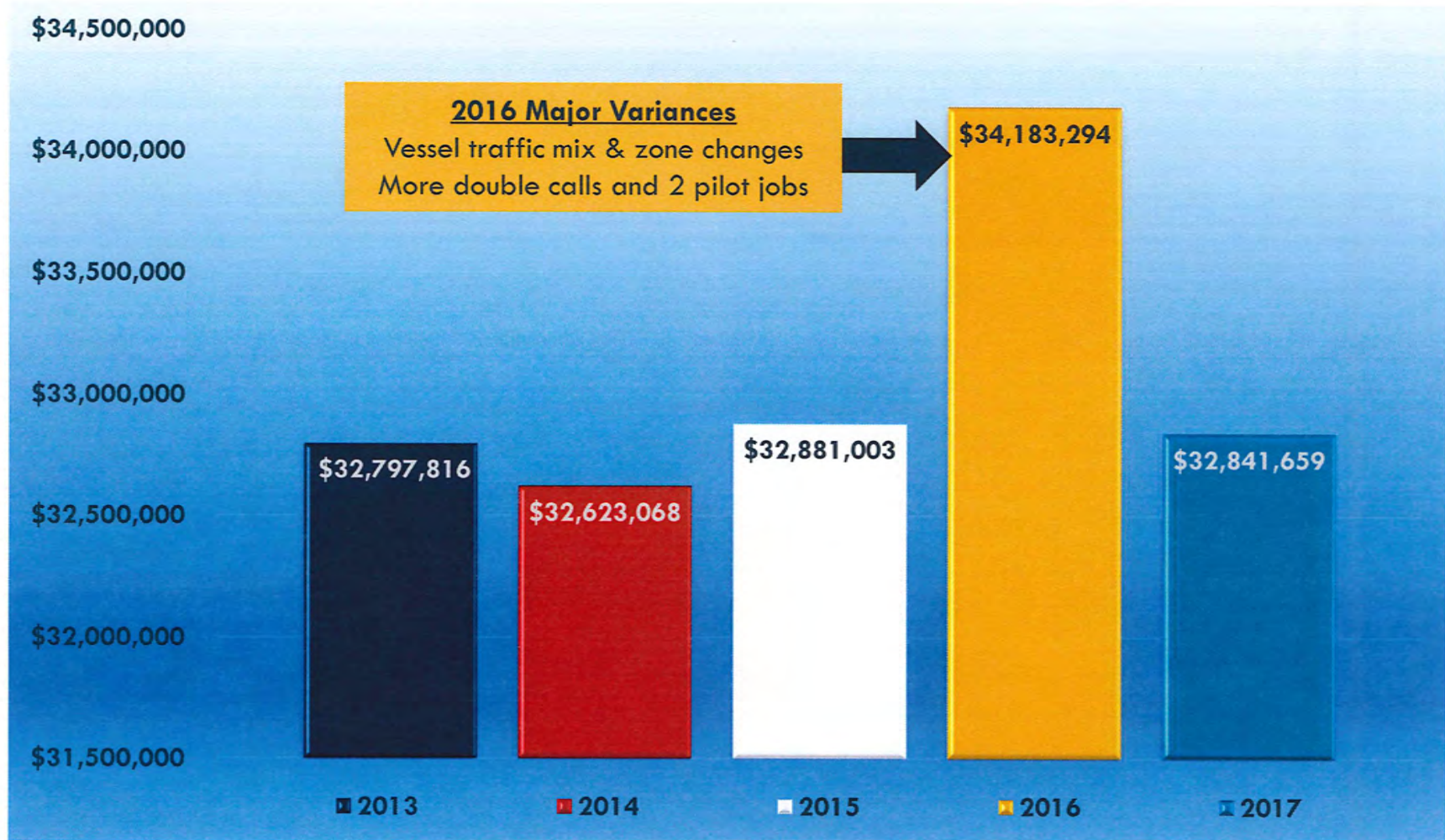
Pilots' Equity

- Total Pilots Equity – page 6 of Financial Statements

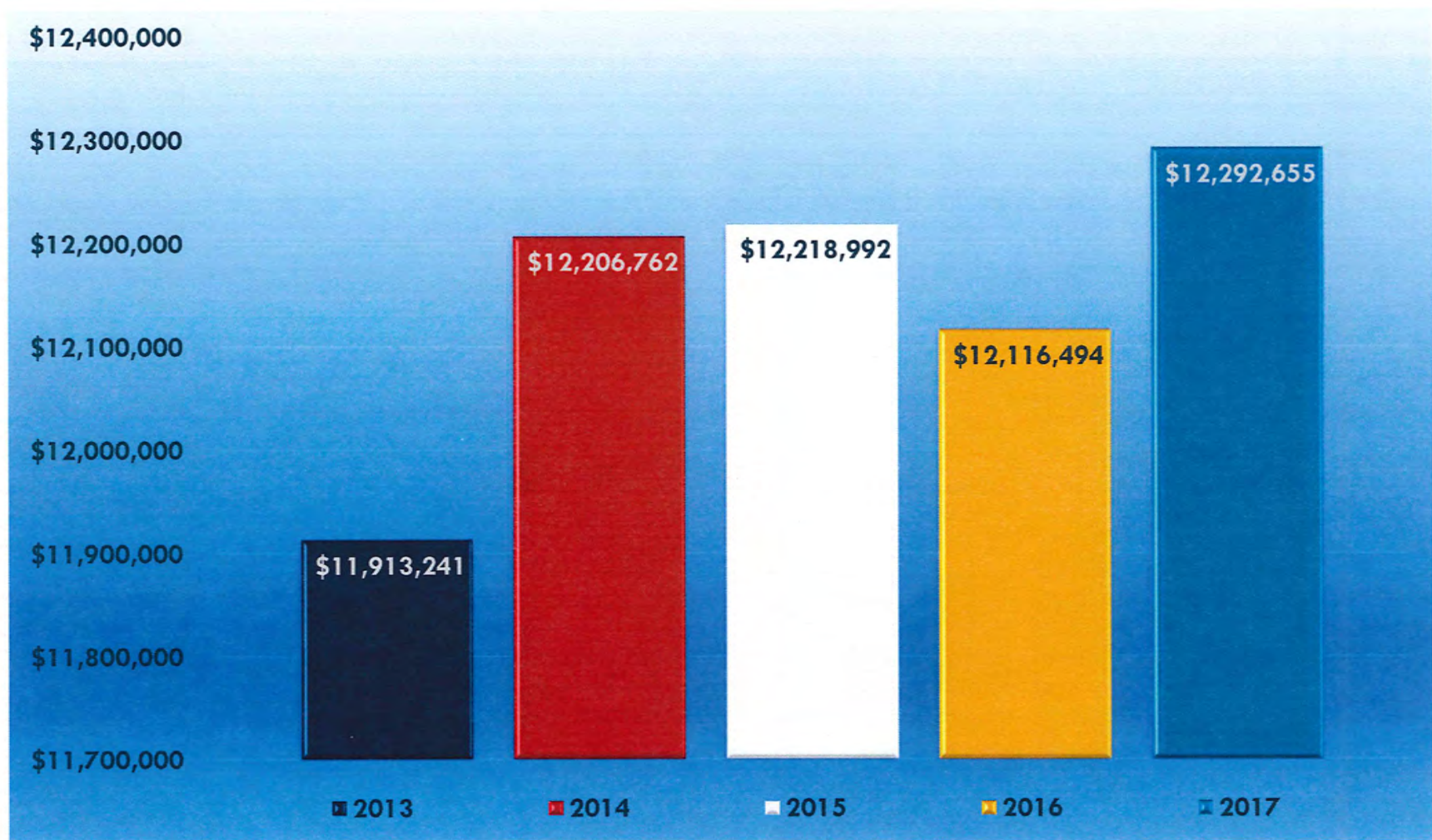
Page 6	PILOTS' EQUITY	2017	2016	Increase (Decrease)
26.	Total Pilots' Equity	4,633,137	4,778,447	(145,310)

- Less **Unrecorded Liabilities (Note 10)** creates a negative equity balance. If PSP were to cease operations each pilot would be responsible for a portion of the negative equity to satisfy liabilities in excess of assets.

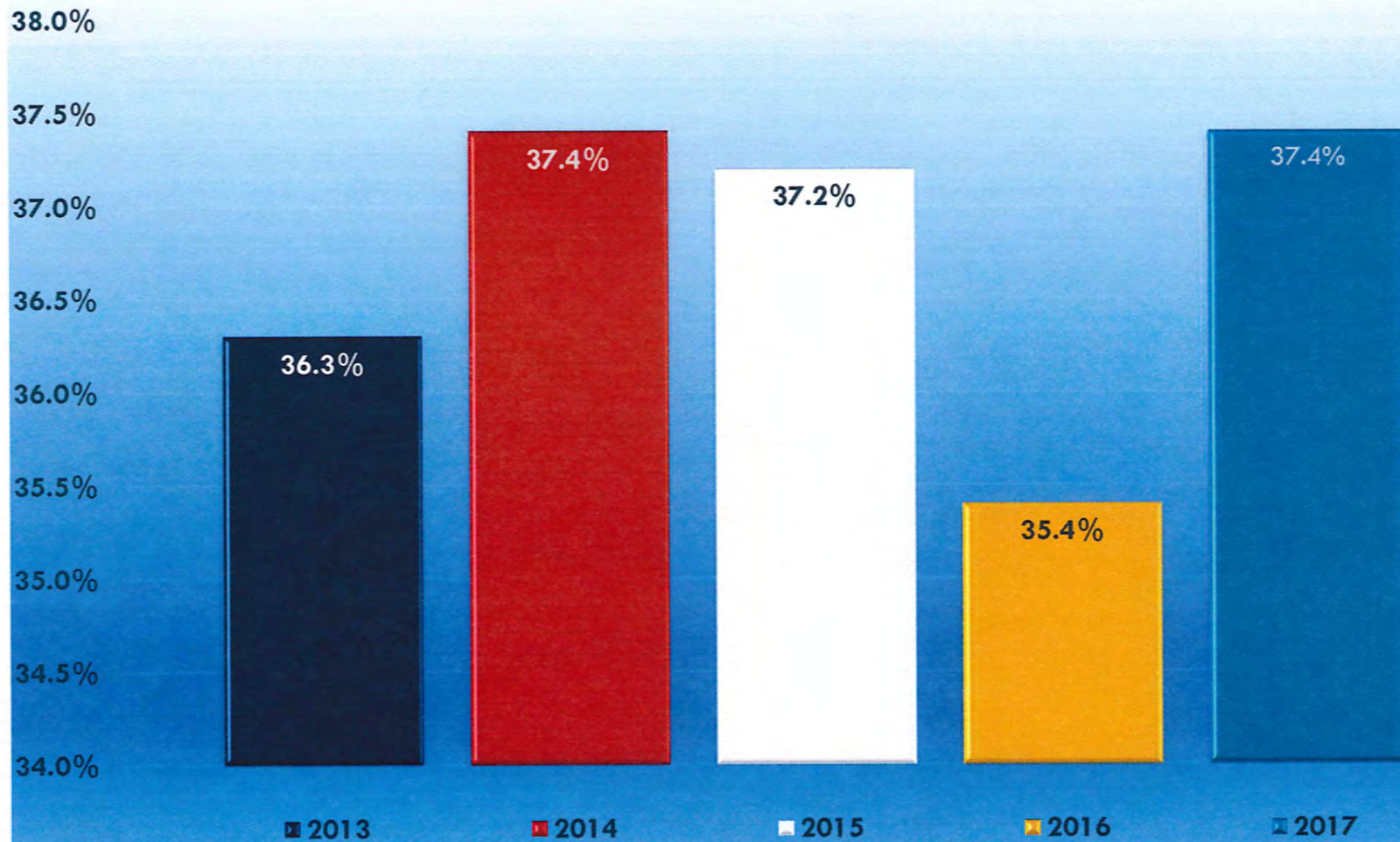
Pilotage Revenue



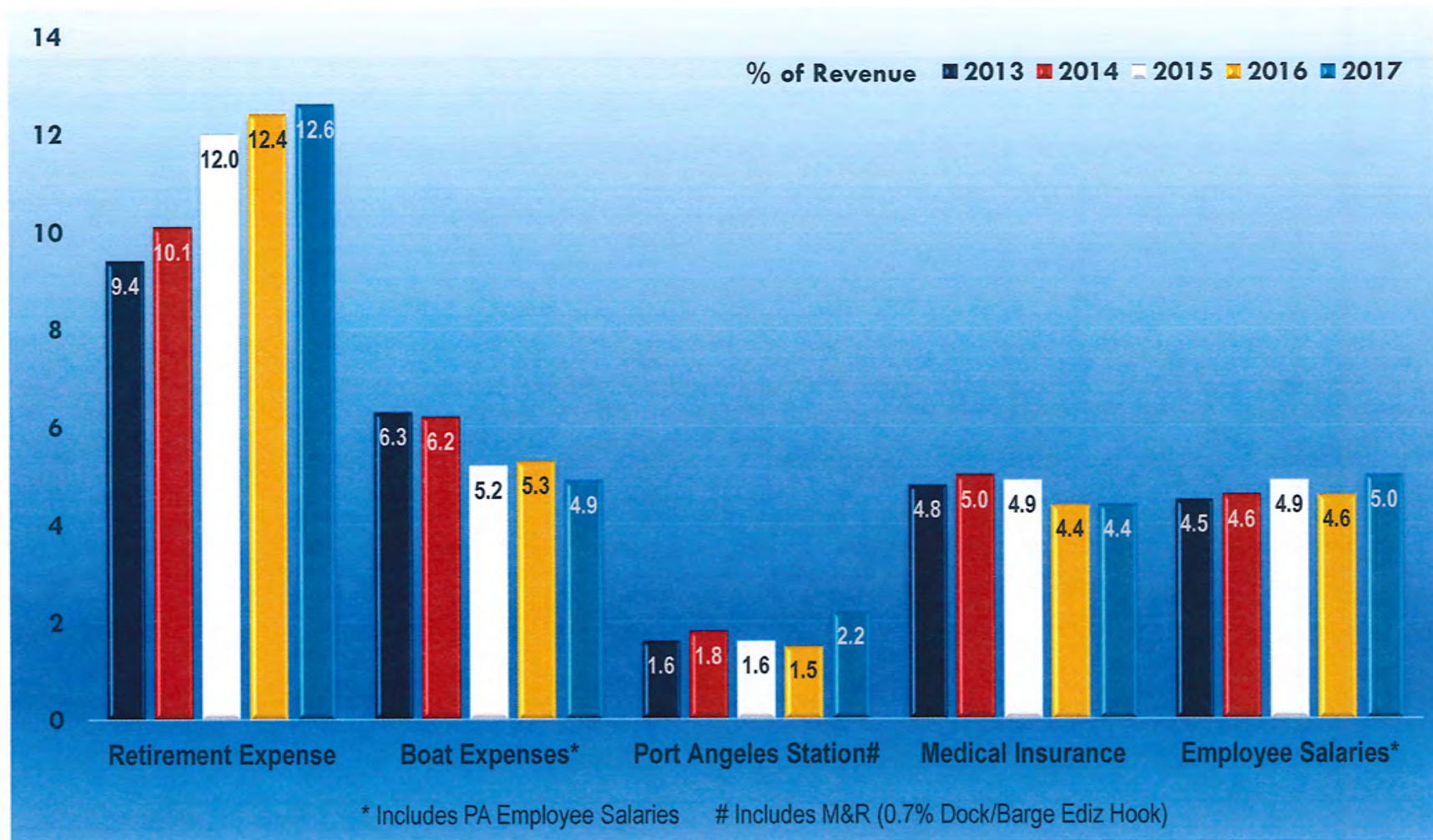
Total Operating Expenses



Total Operating Expenses % of Revenue



Comparative Operating Expenses



Understanding Distribution of Pilotage Revenue and Expense

Column	Source	Total
(1) Days of Service	Calculated as total days in a year for each individual pilot. If a pilot is new or retires during a year his days of service will be less	19,140
(2) Credit for Pilotage Revenue	Page 7 of Financial Statements, Line 1	32,841,659
(3) Charge for Operating Expense	Page 7 of Financial Statements, Line 6	12,292,655
(4) Charge for Other Expense	Page 7 of Financial Statements, Line 7 plus IBE (see next slide)	1,619,452
(5) Share of Balance of Pilotage Revenue Pooled	Column (2) minus (3) minus (4)	360,987*

* For pilots with 365 days of service. Column (5) Total annual earnings after deductions for all pilots = 18,929,552
Does not include individual income and social security taxes; does not include Port Angeles transportation payments

Individual Business Expense (IBE)

Description	Amount
Disability Insurance	\$5,328
Physical Exam	\$426
Outport Subsistence and Lodging (GSA Anacortes 1 st and last day meal only per diem x 75 inbound workdays at \$45.75)	\$3,450
Outport Subsistence and Lodging (GSA Anacortes lodging allowance twice per watch @\$91)	\$2,046
Total IBE (per pilot)	\$11,250

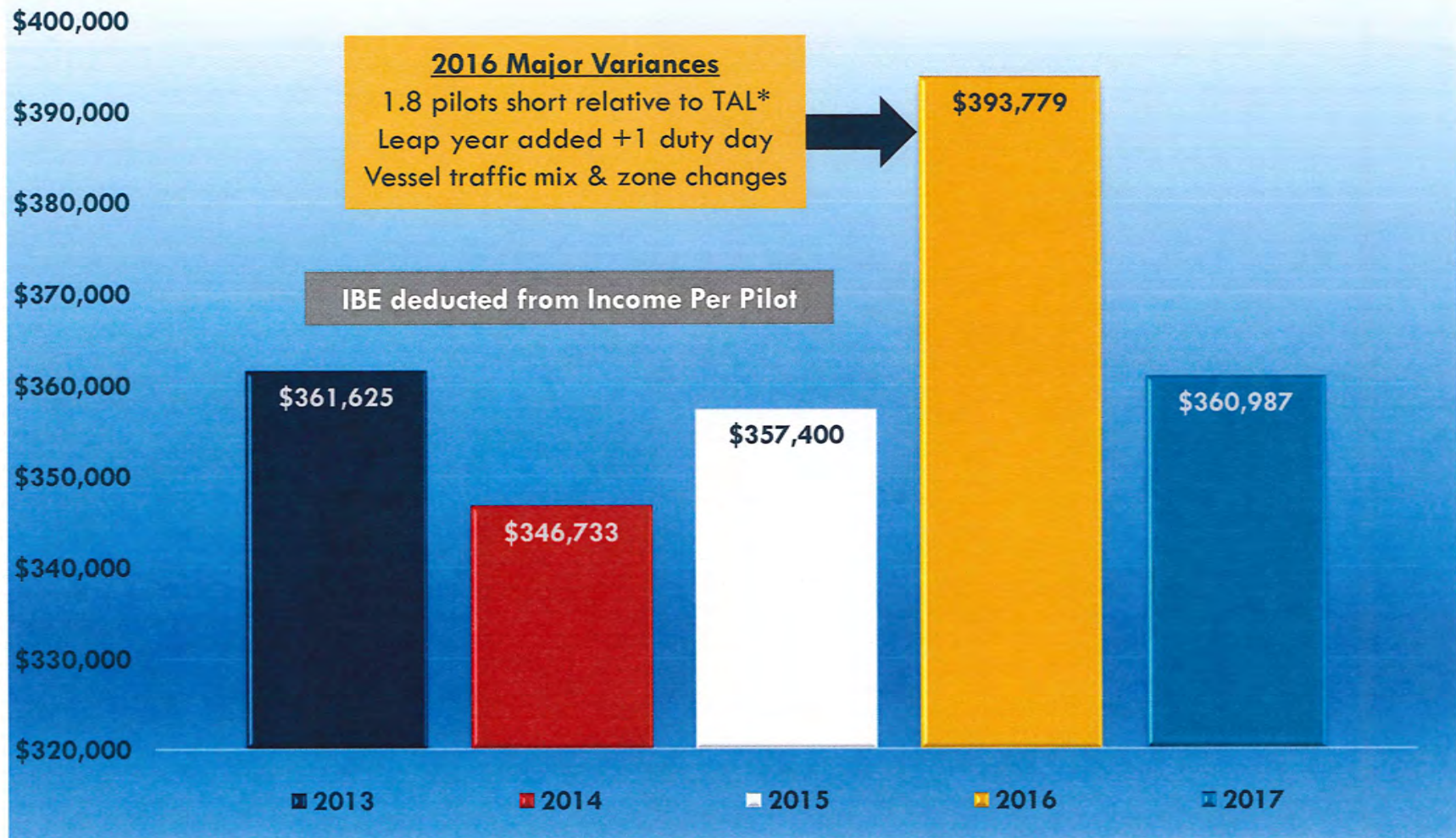
What is IBE?
*business/pilotage
expenses that
pilots pay
personally*

Treatment:
*deducted from
income per pilot*

Calculating Pilot Income (Pool Share)

Description	Reference	Amount
Share of Balance of Pilotage Revenue Pooled	Schedule of Days of Service and Distribution of Pilotage Revenue and Expense total Column (5)	\$18,929,552
Total Duty Days	Schedule of Days of Service and Distribution of Pilotage Revenue and Expense total Column (1)	19,140
Days in Year	Schedule of Days of Service and Distribution of Pilotage Revenue and Expense Column (1)	365
Rounded Working Pilot Roster	Duty Days / Days in Year	52.4 (rounded)
Income Per Pilot	Share of Balance of Pilotage Revenue Pooled / Working Pilot Roster	\$360,987

Income Per Pilot



* TAL – Target Assignment Level for pilots set by the Board of Pilotage Commissioners

Capital Plan Outlook 2018-2023

Capital Projects (dollars in millions)	2018	2019	2020	2021	2022-23	Total
Pilot Boat Replacement Puget Sound (MY 1999)				3 - 7		3 - 7
Pilot Boat Replacement Juan de Fuca (MY 2001)					4 - 8	4 - 8
Total Capital Projects				3 - 7	4 - 8	7 - 15

Major Maintenance & Repair Projects (dollars in thousands)

Pilot Boat Engine Rebuild	***	350				350
---------------------------	-----	-----	--	--	--	-----

***Pilot boat, Juan de Fuca, engine block rebuild planned in 2019 however, there is risk an emergency rebuild may be required in 2018 adding 340K expense in 2018.

Selected Comparatives Summary

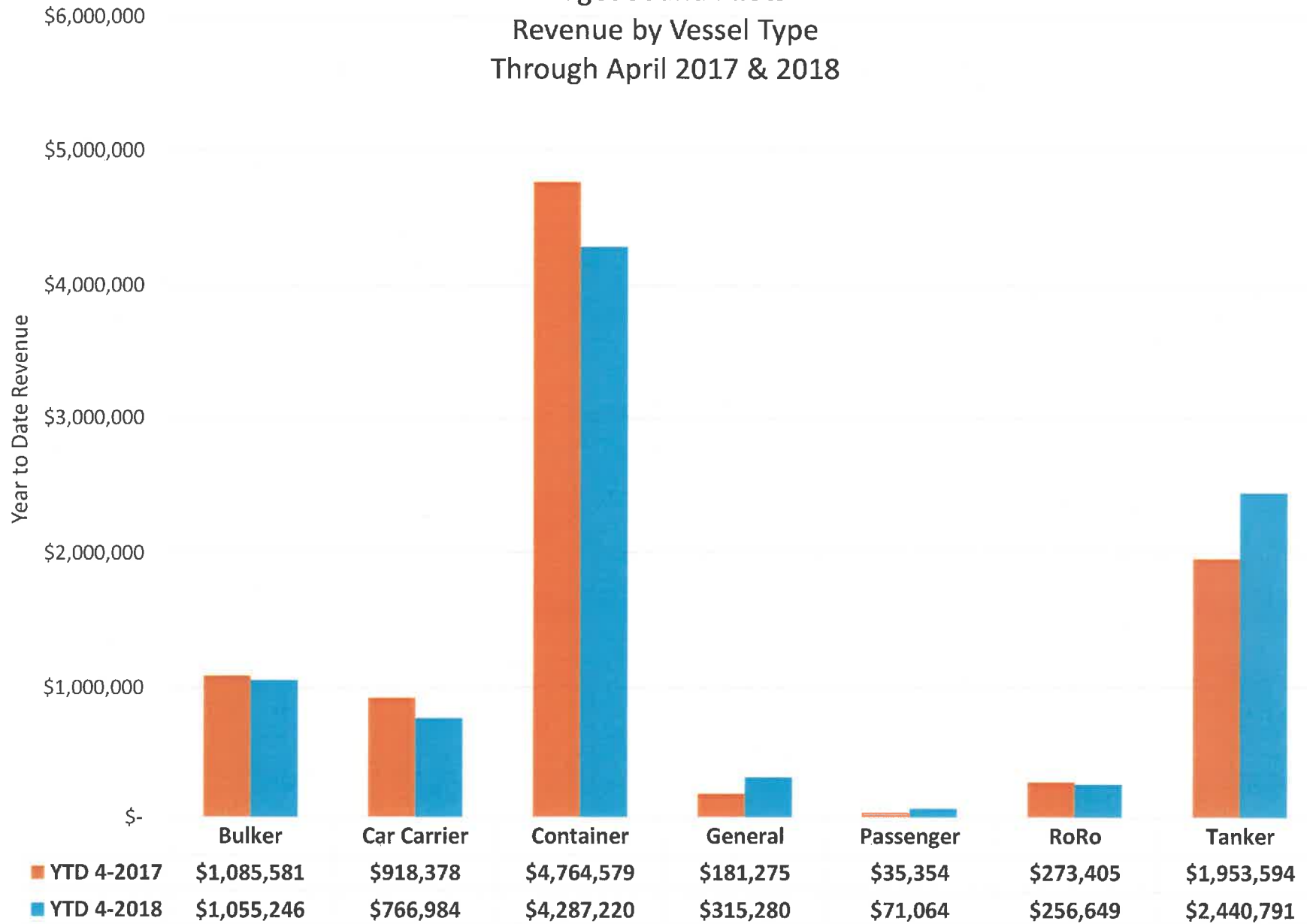
PSP 2018	January	February	March	April	Apr to prev Apr	4 mo to date	compared to previous year
Tariff Revenue-Trans	\$2,371,509	\$2,279,245	\$2,357,526	\$2,197,452	-5.1%	\$9,205,732	-0.6%
RPA-Revenue per Assign	\$3,939	\$4,099	\$4,044	\$4,123	0.6%	\$4,049	-0.7%
# of licensed pilots w/o Pres	50	50	50	50		50	
Average Assgn/pilot on rotation	12.30	11.35	11.90	10.88		11.61	
# pilots with < 6 jobs (+1=Pres)	3 + 1	2 + 1	5 + 1	8 + 1			
Assignments	602	556	583	533	-5.7%	2274	0.2%
Assignment change	-4	27	13	-32	68.4%	4	
Moves	579	542	563	525	-4.5%	2209	-0.1%
Moves change	-15	22	15	-25	8.7%	-3	
Cancellations	23	14	20	8	-46.7%	65	12.1%
Tonnage Revenue	\$1,364,136	\$1,306,390	\$1,350,510	\$1,278,904	-2.0%	\$5,299,940	0.4%
Tonnage Revenue per Move	\$2,356	\$2,410	\$2,399	\$2,436	2.7%	\$2,399	
Gross Tonnage Moved	27,962,363	26,106,585	27,303,886	25,704,844	-7.6%	\$107,077,678	-5.9%
PSP 2017	January	February	March	April	Apr to prev Apr	4 mo to date	compared to previous year
Tariff Revenue-Trans	\$2,488,326	\$2,183,031	\$2,273,861	\$2,315,825	-1.5%	\$9,261,043	-2.3%
RPA-Revenue per Assign	\$4,106	\$4,127	\$3,989	\$4,099	1.9%	\$4,080	0.7%
# of licensed pilots w/o Pres	51	51	51	51			
Average Assgn/pilot on rotation	11.88	10.37	11.18	11.08		11.13	
# pilots with < 6 jobs (+1=Pres)	2 + 1	5 + 1	3 + 1	5 + 1			
Assignments	606	529	570	565	-3.3%	2270	-3.1%
Assignment change	1	-18	-37	-19		-73	
Moves	594	520	548	550	-4.0%	2212	-3.4%
Moves change	5	-18	-43	-23		-79	
Cancellations	12	9	22	15	36.4%	58	11.5%
Tonnage Revenue	\$1,456,699	\$1,256,480	\$1,261,965	\$1,305,187	-1.3%	\$5,280,331	-0.2%
Tonnage Revenue per Move	\$2,452	\$2,416	\$2,303	\$2,373	2.8%	\$9,545	3.2%
Gross Tonnage Moved	31,303,842	27,225,601	27,446,553	27,831,924	-2.9%	\$113,807,920	-1.7%
PSP 2016	January	February	March	April	Apr to prev Apr	4 mo to date	to previous year
Tariff Revenue-Trans	\$2,443,846	\$2,269,624	\$2,419,887	\$2,350,195	9.2%	\$9,483,552	8.4%
RPA-Revenue per Assign	\$4,039	\$4,149	\$3,987	\$4,024	15.9%	\$4,050.00	8.7%
# of licensed pilots w/o Pres	51	51	50	51			
Average Assgn/pilot	12.26	10.73	12.14	11.45		11.64	
# pilots with < 6 jobs(+1=Pres)	6 + 1	8 + 1	3 + 1	7 + 1			
Assignments	605	547	607	584	-5.8%	2343	-0.4%
Assignment change	28	30	-32	-36		-10	
Moves	589	538	591	573	-4.2%	2291	0.1%
Moves change	23	37	-32	-25	-0.5%	3	6.4%
Cancellations	16	9	16	11		52	
Tonnage Revenue	\$1,329,440	\$1,296,111	\$1,345,308	\$1,322,435	23.1%	\$5,293,294	12.9%
Tonnage Revenue per Move	\$2,257	\$2,409	\$2,276	\$2,308	28.4%	\$9,250	12.3%
Gross Tonnage Moved	29,609,106	27,830,304	29,667,076	28,676,198	9.9%	115,782,684	7.8%
PSP 2015	January	February	March	April		4 mo to date	
Tariff Revenue-Trans	\$2,202,588	\$2,024,841	\$2,365,096	\$2,153,086	-12.6%	\$8,745,611	-9.7%
RPA-Revenue per Assign	\$3,817	\$3,917	\$3,701	\$3,473	-11.2%	\$3,727	-4.7%
# of licensed pilots w/o Pres	53	53	52	52			
Average Assgn/pilot	10.89	9.75	12.29	11.92		11.21	
# pilots with < 6 jobs(+1=Pres)	7	9	4	2		22	
Assignments	577	517	639	620	-1.6%	2353	-4.9%
Assignment change	-62	-66	16	-10		-122	
Moves	566	501	623	598	-3.7%	2288	-6.3%
Moves change	-65	-71	6	-23		-153	
Cancellations	11	16	16	22		65	
Tonnage Revenue	\$1,216,397	\$1,132,850	\$1,263,220	\$1,074,585	-25.6%	\$4,687,052	-16.7%
Tonnage Revenue per Move	\$2,149	\$2,261	\$2,028	\$1,797	-22.7%	\$8,235	-10.6%
Gross Tonnage Moved	27,588,264	24,671,828	29,034,609	26,097,422	-14.9%	107,392,123	-12.0%

2018			Jan	Feb	Mar	Apr	2018			
Pilot Code	Actual Trips PSP Earned Revenue Report Detail		Lic or Ret Date	Actual Assign	Actual Assign	Actual Assign	Actual Assign	YTD Actual Assign	Average Assign 145/12=12.1	(under) over TAL
5	ANA	Anacker, D.S.	Lic. 3/27/12	11	9	15	5	40	10.0	(8)
5	ANT	Anthony, Michael	Lic. 7/24/12	16	8	13	10	47	11.8	(1)
5	ARN	Arnold, J. E.		6	14	19	15	54	13.5	6
5	BOU	Bouma, Blair		16	15	0	0	31	7.8	(17)
4	BRO	Brouillard, Dan	Lic. 7/31/13	14	9	19	13	55	13.8	7
5	BRU	Brusco, David		10	5	12	11	38	9.5	(10)
5	BUJ	Bujacich, J.P.		12	11	9	14	46	11.5	(2)
5	CAW	Carley, W. Bud	Lic. 1/10/13	11	9	15	3	38	9.5	(10)
5	CAI	Carlson, I.J.		12	13	4	4	33	8.3	(15)
2	CAJ	Carstensen, J	Lic. 9/30/15	15	13	10	13	51	12.8	3
5	COE	Coe, F.A.		6	11	8	1	26	6.5	(22)
3	COL	Coleman, S	Lic. 8/27/14	11	6	9	6	32	8.0	(16)
4	COR	Coryell, T.D.	Lic. 12/13/13	17	8	16	17	58	14.5	10
5	EME	Emerson, L. P.		19	14	14	13	60	15.0	12
5	ENF	Engstrom, F. E.	Lic. 11/15/12	14	12	10	14	50	12.5	2
3	GAL	Galvin, Jamie	Lic. 11/11/14	13	9	16	11	49	12.3	1
5	GRD	Grobschmit, D.W.		15	11	15	16	57	14.3	9
5	HAI	Hannuksela, J		0	0	8	15	23	5.8	(25)
5	HAR	Harris, J. B.		17	12	12	11	52	13.0	4
0	HEJ	Henderson, J. David	Lic. 7/6/17	11	7	5	14	37	9.3	(11)
5	HEN	Henshaw, B. F.		14	11	13	12	50	12.5	2
0	HUP	Hunter, P.V	Lic. 10/13/17	8	10	6	6	30	7.5	(18)
3	JEN	Jensen, Brian	Lic. 12/22/14	15	11	12	6	44	11.0	(4)
5	KAL	Kalvoy, J.E.		14	16	12	2	44	11.0	(4)
5	KEA	Kearns, J.		13	14	19	10	56	14.0	8
1	KEN	Kelleher, N.T.	Lic. 4/14/16	7	11	7	12	37	9.3	(11)
5	KEP	Kelly, P.S.		19	5	14	9	47	11.8	(1)
5	KLA	Klapperich, E.C.		10	11	15	11	47	11.8	(1)
3	LIC	Lichty, E.C.	Lic. 5/1/14	6	14	6	16	42	10.5	(6)
2	LOB	Lowe, Brad	Lic. 9/23/15	16	12	7	13	48	12.0	(0)
4	LOW	Lowery, W.W.	Lic. 2/11/13	17	14	8	20	59	14.8	11
5	MAR	Marmol, E.		9	11	12	11	43	10.8	(5)
5	MAY	Mayer, D. W.		13	12	20	11	56	14.0	8
5	MOT	Moreno, S.		13	19	10	10	52	13.0	4
0	MYE	Myers, R	Lic. 11/28/17	15	7	8	4	34	8.5	(14)
5	NEW	Newman, A. J.		3	17	23	15	58	14.5	10
0	ROU	Rounds, Chris	Lic. 7/11/17	12	10	8	13	43	10.8	(5)
5	SAN	Sanders, D. A.		18	12	8	11	49	12.3	1
5	SCO	Scoggins, J		14	14	17	12	57	14.3	9
5	SCR	Scragg, J.		11	5	9	8	33	8.3	(15)
5	SEM	Semler, J. R.		8	12	10	9	39	9.8	(9)
5	SES	Semler, S.		12	15	14	11	52	13.0	4
5	SEY	Seymour, L.		14	13	12	12	51	12.8	3
5	SHA	Shaffer, D. L.		10	15	22	15	62	15.5	14
5	SHJ	Shaffer, J. A.		13	16	16	9	54	13.5	6
5	SHU	Shuler, M.		2	6	2	3	13	3.3	(35)
5	SLI	Sliker, W.J.		14	9	13	13	49	12.3	1
5	SOR	Soriano, D. B.		7	14	14	12	47	11.8	(1)
5	THG	Thoreson, George		13	11	13	16	53	13.3	5
5	VON	vonBrandenfels, E. M.	president	0	0	0	0	0	0.0	President
5	WIG	Wildes, G. R.		16	13	4	15	48	12.0	(0)
Total Assignments/ Month				602	556	583	533	2274	569	
Number of licensed PS pilots				51	51	51	51	51		
Pilots on rotation				49	49	49	49	49	12.1*12*51=	
Average Assgn/pilot on rotation				12.3	11.35	11.90	10.88		=7405 assigns/yr	
PSP LOA Report (MOVES)				567	532	563	525	2187		
Move w/o tonnage charge				12	11			12		
Cancellations				23	13	20	8	64		
# of Pilots with < 6 jobs(+1=Pres)				3 + 1	2 + 1	5 + 1	8 + 1			
Pilots w/>5 trips & their avg # of trips				47 12.6	48 11.6	45 12.6	42 12.2			
Medical circumstances:				1	1	1	1			

Just the Basics
2018-2015

MONTH								Year to Date							
2018 Month		Revenue(Trans)		Assignments		RPA for month		YTD Revenue		YTD Assgn		YTD RPA			
	Jan	-4.7%	2,371,508	602	-0.7%	3,939	-4.1%						-0.7%		
	Feb	4.4%	2,279,245	556	5.1%	4,099	-0.7%	\$ 4,650,753	-0.4%	1,158	2.0%	4,016	-2.4%		
	Mar	3.7%	2,357,526	583	2.3%	4,044	1.3%	7,008,279	0.9%	1,741	2.1%	4,025	-1.2%		
	Apr	-5.1%	2,197,452	533	-5.7%	4,123	0.6%	9,205,731	-0.6%	2,274	0.2%	4,048	-0.8%		
	2018	32.5%	9,205,731	2274											
2017 Month		Revenue(Trans)		Assignments		RPA for month		YTD Revenue		YTD Assgn		YTD RPA			
	Jan	1.8%	2,488,326	606	0.2%	4,106	1.7%								
	Feb	-3.8%	2,183,032	529	-3.3%	4,127	-0.5%	\$ 4,671,358	-0.9%	1,135	-1.5%	4,116	0.6%		
	Mar	-6.0%	2,274,287	570	-6.1%	3,990	0.1%	6,945,645	-2.6%	1,705	-3.1%	4,074	0.5%		
	Apr	-1.5%	2,315,825	565	-3.3%	4,099	1.9%	9,261,470	-2.3%	2,270	-3.1%	4,080	0.8%		
	May	-2.3%	2,968,949	664	-1.2%	4,471	-1.1%	12,230,419	-2.3%	2,934	-2.7%	4,169	0.4%		
	Jun	-4.8%	3,060,089	636	-12.3%	4,811	8.5%	15,290,508	-2.8%	3,570	-4.5%	4,283	1.8%		
	Jul	-2.6%	3,235,074	664	-4.3%	4,872	1.8%	18,525,582	-2.8%	4,234	-4.5%	4,375	1.8%		
	Aug	-5.3%	3,089,703	657	-4.2%	4,703	-1.1%	21,615,285	-3.2%	4,891	-4.5%	4,419	1.4%		
	Sep	-2.4%	2,948,218	608	-6.9%	4,849	4.9%	24,563,503	-3.1%	5,500	-4.7%	4,466	1.7%		
	Oct	-8.3%	2,357,919	564	-8.6%	4,181	0.3%	26,921,423	-3.5%	6,064	-5.1%	4,440	1.6%		
	Nov	-9.6%	2,370,766	597	-9.7%	3,971	0.1%	29,292,188	-4.1%	6,661	-5.5%	4,398	1.5%		
	Dec	-2.5%	2,383,967	589	-3.4%	4,047	0.9%	\$ 31,676,155	-4.0%	7,249	-5.4%	4,370	1.5%		
	2017	-4.0%	31,676,155	7249	-5.4%					(412)					
2016 Month		Revenue(Trans)		Assignments		RPA for month		YTD Revenue		YTD Assgn		YTD RPA			
	Jan	11.0%	2,443,846	605	4.9%	4,039	5.8%								
	Feb	12.1%	2,269,624	547	5.8%	4,149	5.9%	\$ 4,713,470	11.5%	1,152	5.3%	4,092	5.9%		
	Mar	2.3%	2,419,890	607	-5.0%	3,987	7.7%	7,133,360	8.2%	1,759	1.5%	4,055	6.6%		
	Apr	9.2%	2,350,195	584	-5.8%	4,024	15.9%	9,483,555	8.4%	2,343	-0.4%	4,048	8.9%		
	May	2.7%	3,039,515	672	-13.2%	4,523	18.3%	12,523,070	7.0%	3,015	-3.6%	4,154	11.0%		
	Jun	0.1%	3,215,179	725	-8.3%	4,435	9.2%	15,738,249	5.5%	3,740	-4.5%	4,208	10.5%		
	Jul	12.2%	3,320,803	694	9.8%	4,785	2.2%	19,059,052	6.6%	4,434	-2.5%	4,298	9.4%		
	Aug	-0.9%	3,261,886	686	-1.0%	4,755	0.1%	22,320,938	5.4%	5,120	-2.3%	4,360	8.0%		
	Sep	9.5%	3,019,483	653	8.7%	4,624	0.8%	25,340,421	5.9%	5,773	-1.2%	4,389	7.2%		
	Oct	-3.3%	2,571,409	617	-7.4%	4,168	4.4%	27,911,830	5.0%	6,390	-1.8%	4,368	7.0%		
	Nov	5.8%	2,622,922	661	2.6%	3,968	3.1%	30,534,752	5.1%	7,051	-1.4%	4,331	6.6%		
	Dec	-6.6%	2,446,187	610	-4.8%	4,010	-1.8%	\$ 32,980,939	4.1%	7,661	-1.7%	4,305	5.9%		
	2016	4.1%	32,980,939	7,661	-1.7%					(134)					
2015 Month		Revenue(Trans)		Assignments		RPA for month		YTD Revenue		YTD Assgn		YTD RPA			
	Jan	-13.8%	2,202,588	577	-9.7%	3,817	-4.5%								
	Feb	-10.5%	2,024,842	517	-11.3%	3,917	1.0%	\$ 4,227,430	-12.2%	1,094	-10.5%	3,864	-2.0%		
	Mar	-1.6%	2,365,096	639	2.6%	3,701	-4.1%	6,592,526	-8.7%	1,733	-6.1%	3,804	-2.8%		
	Apr	-12.6%	2,153,086	620	-1.6%	3,473	-11.2%	8,745,612	-9.7%	2,353	-4.9%	3,717	-5.0%		
	May	-2.5%	2,959,296	774	15.4%	3,823	-15.5%	11,704,908	-8.0%	3,127	-0.6%	3,743	-7.4%		
	Jun	5.8%	3,210,995	791	14.6%	4,059	-7.7%	14,915,903	-5.3%	3,918	2.1%	3,807	-7.3%		
	Jul	-2.1%	2,960,243	632	-4.7%	4,684	2.7%	17,876,146	-4.8%	4,550	1.1%	3,929	-5.9%		
	Aug	2.2%	3,291,439	693	1.2%	4,750	1.1%	21,167,585	-3.8%	5,243	1.1%	4,037	-4.9%		
	Sep	3.8%	2,756,533	601	0.7%	4,587	3.1%	23,924,118	-3.0%	5,844	1.1%	4,094	-4.0%		
	Oct	9.4%	2,659,033	666	4.2%	3,993	5.0%	26,583,151	-1.8%	6,510	1.4%	4,083	-3.2%		
	Nov	13.9%	2,479,703	644	8.8%	3,850	4.7%	29,062,854	-0.7%	7,154	2.0%	4,062	-2.7%		
	Dec	20.2%	2,618,146	641	6.1%	4,084	13.3%	31,681,000	0.8%	7,795	2.4%	4,064	-1.5%		
	2015	0.8%	31,681,000	7,795	2.4%					179					

**Puget Sound Pilots
Revenue by Vessel Type
Through April 2017 & 2018**



CHARGES BY VESSEL TYPE
Jan - April
2018 and 2017

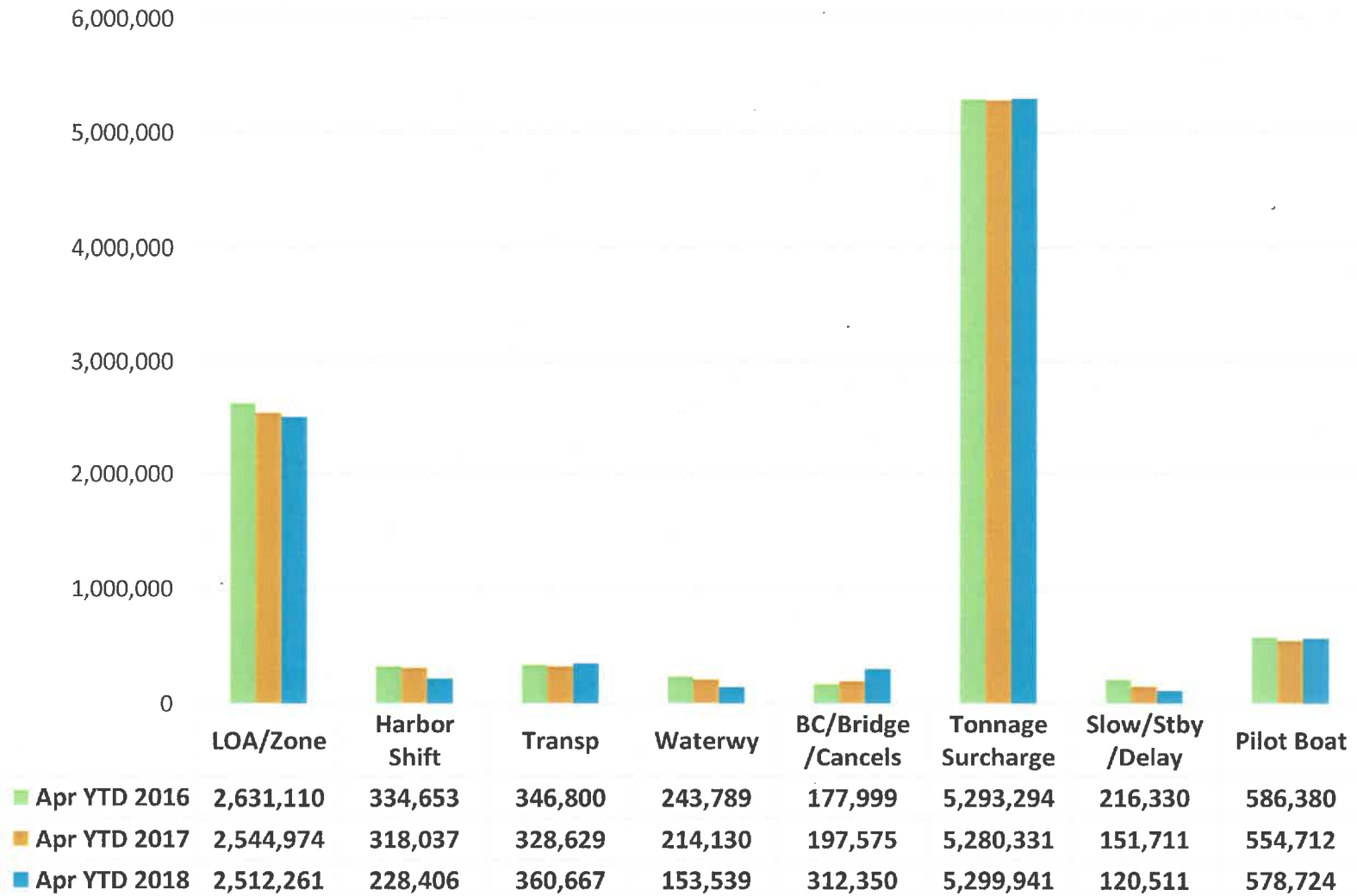
2018	Jan-18				Feb-18				Mar-18				Apr-18			
Type of vessel	Jan-18 Charges	Jan moves	Avg Jan \$ / moves	Tonnage	Feb-18 Charges	Feb moves	Avg Feb \$ / moves	Tonnage	Mar-18 Charges	Mar moves	Avg Mar \$ / moves	Tonnage	Apr-18 Charges	Apr moves	Avg Apr \$ / moves	Tonnage
Bulker	\$ 247,217	104	\$2,377	3,439,902	\$ 237,832	90	\$2,643	2,998,709	\$ 268,260	97	\$2,766	3,452,959	\$ 301,937	120	\$2,516	4,056,297
Car Carrier	\$ 173,216	30	\$5,774	1,789,883	\$ 193,799	33	\$5,873	1,983,484	\$ 228,934	41	\$5,584	2,435,273	\$ 171,035	31	\$5,517	1,912,131
Container	\$ 1,105,464	191	\$5,788	12,733,269	\$ 1,044,454	184	\$5,676	12,346,595	\$ 1,103,605	198	\$5,574	12,815,720	\$ 1,033,697	171	\$6,045	11,645,863
General Purpose (Westwood)	\$ 106,365	14	\$7,598	27,776	\$ 114,404	17	\$6,730	35,464	\$ 38,762	8	\$4,845	11,610	\$ 55,749	8	\$6,969	35,906
Naval	\$ -	0		0	\$ -	0		0	\$ -	2	\$0		NR	2		9,800
Other	NR	22		343,750	NR	20		352,415	NR	9		200,361	NR	7		55,338
Passenger	\$ 4,539	3	\$1,513	12,592	\$ -	0			\$ -	0			\$ 66,525	7	\$9,504	649,109
Reefer	\$ -	0			\$ -	0			\$ -	0			\$ -	0		
Ro-Ro (Tote)	\$ 66,351	15	\$4,423	704,729	\$ 56,149	16	\$3,509	630,344	\$ 73,614	20	\$3,681	690,659	\$ 60,535	16	\$3,783	573,200
Tanker	\$ 661,848	200	\$3,309	8,910,462	\$ 627,963	182	\$3,450	7,759,574	\$ 639,901	188	\$3,404	7,697,304	\$ 511,079	163	\$3,135	6,767,200
	\$ 2,365,000	579	\$4,085	27,962,363	\$ 2,274,601	542	\$4,197	26,106,585	\$ 2,353,076	563	\$4,180	27,303,886	\$ 2,200,557	525	\$4,192	25,704,844

2017	Jan-17				Feb-17				Mar-17				Apr-17			
Type of vessel	Jan-17 Charges	Jan moves	Avg Jan \$ / moves	Tonnage	Feb-17 Charges	Feb moves	Avg Feb \$ / moves	Tonnage	Mar-17 Charges	Mar moves	Avg Mar \$ / moves	Tonnage	Apr-17 Charges	Apr moves	Avg Apr \$ / moves	Tonnage
Bulker	\$ 278,216	110	\$2,529	3,598,299	\$ 265,054	93	\$2,850	2,601,920	\$ 284,837	107	\$2,662	16,040,517	\$ 257,474	99	\$2,601	3,130,116
Car Carrier	\$ 237,945	43	\$5,534	2,601,920	\$ 201,209	36	\$5,589	2,168,144	\$ 242,161	44	\$5,504	2,522,814	\$ 237,063	45	\$5,268	2,707,280
Container	\$ 1,263,325	220	\$5,742	16,040,517	\$ 1,161,460	209	\$5,557	14,860,771	\$ 1,184,431	215	\$5,509	14,905,690	\$ 1,155,363	203	\$5,691	14,368,420
General Purpose (Westwood)	\$ 53,488	11	\$4,863	25,203	\$ 36,449	10	\$3,645	16,208	\$ 76,020	18	\$4,223	35,875	\$ 15,318	1	\$15,318	27,790
Naval	NR	5		227,040	\$ -	0		0	NR	3		180,000	\$ -	0		0
Other	NR	4		54,307	NR	6		41,730	NR	3		17,979	NR	5		59,529
Passenger	\$ 1,150	1	\$1,150	5,841	\$ 1,150	1	\$1,150	5,841	\$ -			0	\$ 33,054	4		337,156
Reefer	\$ -	0			\$ -	0			\$ -	0			NR	2		11,982
Ro-Ro (Tote)	\$ 68,966	17	\$4,057	676,105	\$ 62,405	17	\$3,671	531,502	\$ 76,754	21	\$3,655	700,643	\$ 65,280	18	\$3,627	619,009
Tanker	\$ 575,241	183	\$3,143	8,074,610	\$ 445,345	148	\$3,009	6,202,672	\$ 394,443	137	\$2,879	5,541,137	\$ 538,565	173	\$3,113	6,570,642
	\$ 2,478,331	594	\$4,172	31,303,842	\$ 2,173,072	520	\$4,179	26,428,788	\$ 2,258,645	548	\$4,122	39,944,655	\$ 2,302,117	550	\$4,186	27,831,924

PSP Source of Revenue

April YTD

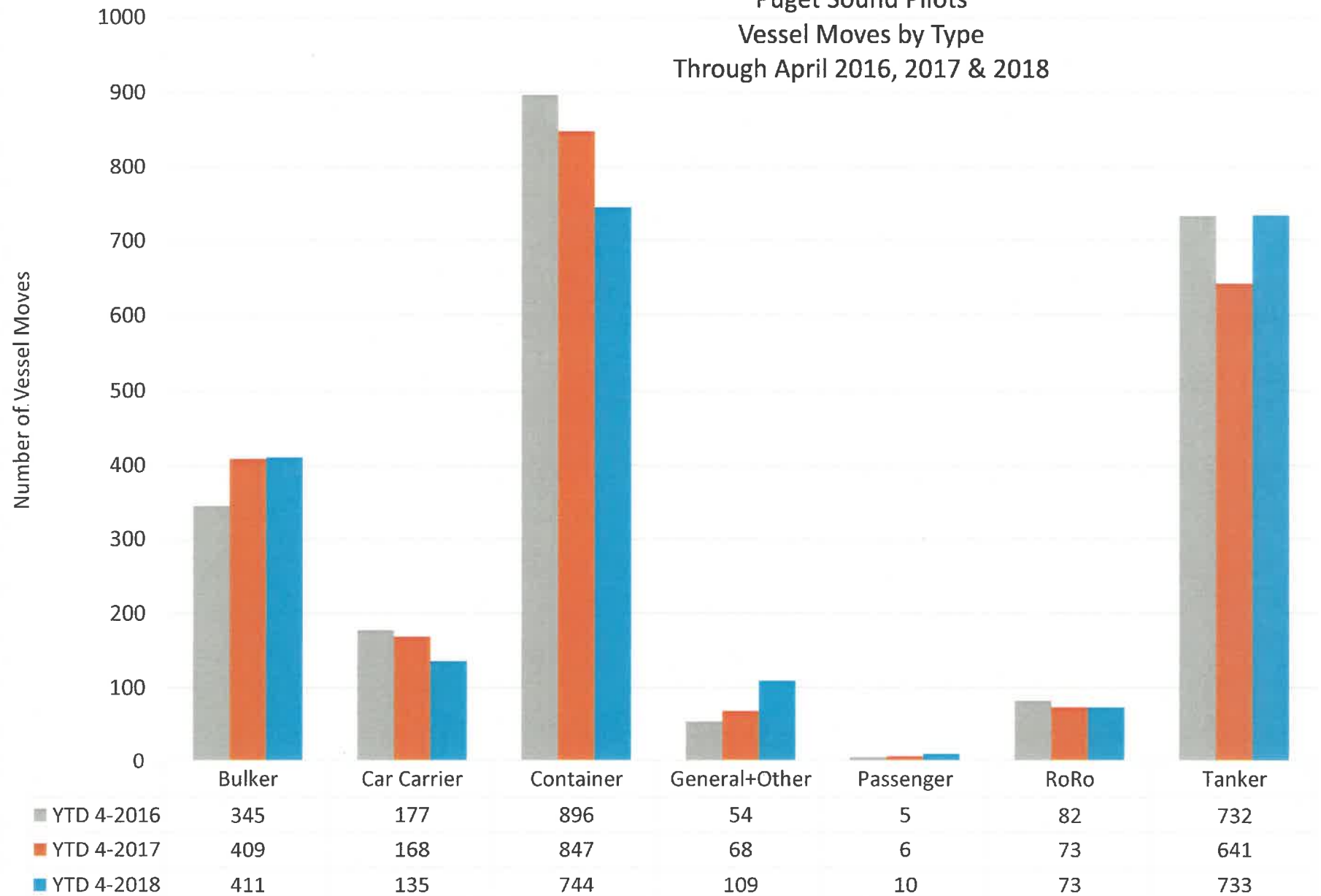
2018, 2017, 2016



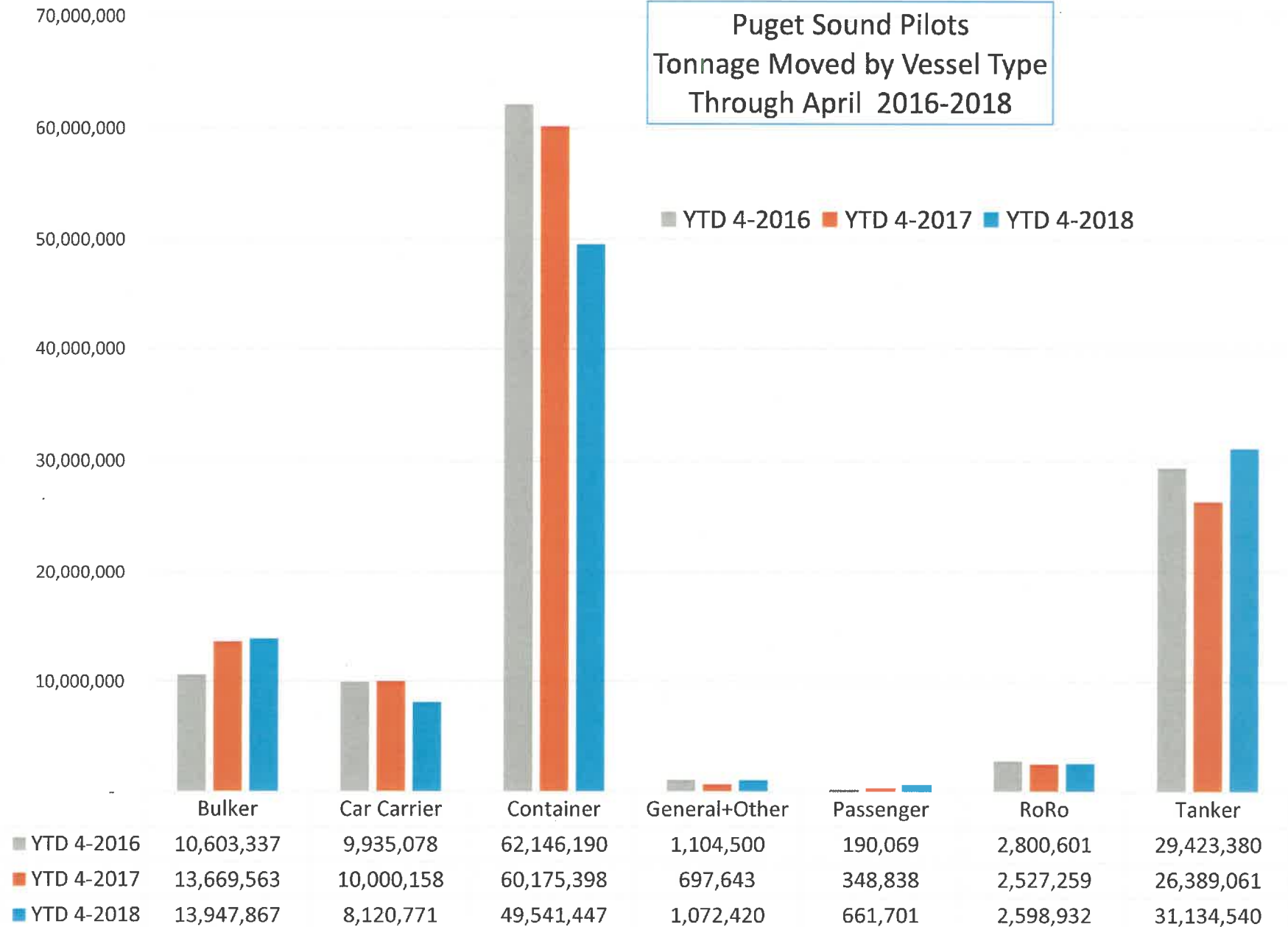
Source of Revenue Breakdown
January - April 2018, 2017, 2016

SUMMARY OF PSP																	
Earned Revenue Rpt																	
Calendar Year																	
						2018 1st Qtr YTD	Apr-18	2018 YTD		2017 1st Qtr YTD	Apr-17	2017 YTD		2016 1st Qtr YTD	Apr-16	2016 YTD	
--Counters & Misc Totals--									YTD Change				YTD Change				
Seattle Assigns						382	-8.4%	147	529	417	0.5%	152	569	415	128	543	
Ship Assigns						1,741	2.1%	533	2,274	1,705	-3.1%	565	2,270	1,759	584	2,343	
Pilot Boat Assigns						1,241	1.9%	422	1,663	1,218	-2.9%	377	1,595	1,254	431	1,685	
Tonnage Surcharge/Moves						1,661	-0.1%	525	2,186	1,662	-3.3%	550	2,212	1,718	573	2,291	
Surcharge Revenue						\$4,021,037	1.2%	\$1,278,904	\$5,299,941	\$3,975,144	0.1%	\$1,305,187	\$5,280,331	\$3,970,859	\$1,322,435	5,293,294	
--Source of Revenue Breakdown--							Qtr end change		YTD Change		Qtr end change		Revenue		YTD Change		
LOA/Zone (*)						\$1,900,570	-0.3%	\$611,691	\$2,512,261	\$1,906,628	-3.3%	\$638,346	\$2,544,974	\$1,971,175	\$659,935	2,631,110	
Harbor Shift (*)						176,530	-26.8%	51,876	228,406	241,232	-5.4%	76,805	318,037	255,129	79,524	334,653	
Transportation (**)						289,148	19.1%	71,519	360,667	242,747	-6.2%	85,882	328,629	258,844	87,956	346,800	
BC Surcharge (***)						132,741	70.3%	23,177	155,918	77,959	5.7%	40,033	117,992	73,745	29,498	103,243	
Bridge Transit (***)						13,844	-30.0%	6,163	20,007	19,771	-18.2%	9,795	29,566	24,180	7,046	31,226	
Waterway (***)						116,660	-26.2%	36,879	153,539	158,042	-15.0%	56,088	214,130	185,991	57,798	243,789	
Tonnage Surcharge (***)						4,021,037	1.2%	1,278,904	5,299,941	3,975,144	0.1%	1,305,187	5,280,331	3,970,859	1,322,435	5,293,294	
Cancellations (***)						36,165	32.2%	5,296	41,461	27,352	11.4%	9,417	36,769	24,548	5,765	30,313	
Compass Adj (***)						718		1,077	1,795	718	-33.3%	359	1,077	1,077	359	1,436	
Standby/Sail Delay (***)						57,612	-17.0%	21,152	78,764	69,412	-21.7%	19,827	89,239	88,610	18,650	107,260	
Slow Down (***)						12,640	-13.0%	5,206	17,846	14,522	-73.2%	1,644	16,166	54,252	2,466	56,718	
Salmon Bay (***)						2,532	1100.0%	211	2,743	211	0.5%		211	210	422	632	
Lk Union/Washington (***)						328	100.0%	164	492	164	0.0%		164	164		164	
Sea Trials (***)						86,866	2236.4%		86,866	3,718	0.0%		3,718	3,718	7,267	10,985	
Delayed Arr & Dock Delay (***)						15,115	-43.7%	8,786	23,901	26,852	-38.0%	19,454	46,306	43,310	9,042	52,352	
Miscellaneous (***)						3,054	5353.6%	14	3,068	56			8,078	0		0	
Pilot Boat (***)						431,868	1.9%	146,856	578,724	423,864	-2.9%	130,848	554,712	436,392	149,988	586,380	
Total-Source Section						\$7,297,428	1.5%	\$2,268,971	\$9,566,399	\$7,188,392	-2.8%	\$2,401,707	\$9,590,099	\$7,392,204	\$2,438,151	9,830,355	
-----Revenue-----									YTD Change								
Mileage (LOA/Zone) (*)						\$2,077,100	-3.3%	\$663,567	\$2,740,667	\$2,147,860	-3.5%	\$715,151	\$2,863,011	\$2,226,304	\$739,459	2,965,763	
Trans (**)						289,148	19.1%	71,519	360,667	242,747	-6.2%	85,882	328,629	258,844	87,956	346,800	
Special (***)						4,931,179	2.8%	1,533,885	6,465,064	4,797,785	-2.2%	1,600,673	6,398,459	4,907,056	1,610,736	6,517,792	
Total -Revenue Section						\$7,297,428	1.5%	\$2,268,971	\$9,566,399	\$7,188,392	-2.8%	\$2,401,707	\$9,590,099	\$7,392,204	\$2,438,151	9,830,355	
RPA Including transportation						\$4,192			\$4,207	\$4,216	0.3%		\$4,225	\$4,203			
Revenue/Assignment, w/o Transp						\$4,025	-1.2%	\$4,123	\$4,048	\$4,074	0.5%	\$4,099	\$4,080	\$4,055	\$4,024	4,048	
Other Stats									YTD Change								
Pilot Boat Charges						\$431,868	1.9%	\$146,856	\$578,724	\$423,864	-2.9%	\$130,848	554,712	\$436,392	\$149,988	586,380	
Pilot Boat Assignments						1,241	1.9%	422	1,663	1,218	-2.9%	377	1,595	1,254	431	1,685	
Avg						348		348	348	348				348		348	
Tonnage Surcharge Revenue						\$4,021,037	1.2%	\$1,278,904	\$5,299,941	\$3,975,144	0.1%	\$1,305,187	\$5,280,331	\$3,970,859	\$1,322,435	5,293,294	
Tonnage Surcharge Charge # moves						1,661	-0.1%	525	2,186	1,662	-3.3%	550	2,212	1,718	573	2,291	
Avg Tonnage Surcharge/Move						\$2,421	1.2%	\$2,436	\$2,424	\$2,392	3.5%	\$2,373	2,387	\$2,311	\$2,308	2,310	

Puget Sound Pilots
Vessel Moves by Type
Through April 2016, 2017 & 2018



Puget Sound Pilots
Tonnage Moved by Vessel Type
Through April 2016-2018



	SHIP MOVES BY ZONE/DISTANCE										SHIP MOVES BY TYPE											Totals
	Moves YTD	Moves/ Month	MEMO 2 Pilot jobs	MEMO Pilot Reposition	IntraHbr 1	≤ 30 mi 2	≤50 mi 3	≤75 mi 4	≤100mi 5	101+ mi 6	Bulker	Car Carrier	Container	General	Naval	Other	Passngr	Reefer	Ro-Ro	Tanker	ATB	
Jan		579	34	NR	108	99	65	150	157	0	104	30	191	14	0	22	3	0	15	131	69	579
Feb	1,121	542	34	112	89	94	69	156	134	0	90	33	184	17	0	20	0	0	16	144	56	560
Mar	1,684	563	35	129	74	90	64	165	170	0	97	41	198	8	2	9	0	0	20	151	49	575
Apr	2,209	525	34	120	77	87	52	160	149	0	120	31	171	8	2	7	7	0	16	128	35	525
2018		2209	137	361	348	370	250	631	610	0	411	135	744	47	4	58	10	0	67	554	209	2239
@2018/2017 Δ	change	(3)	(75)		(35)	(10)	45	28	(31)	0	2	(33)	(103)	7	(4)	40	4	(2)	(6)	(60)	23	54
Jan		594	63	NR	111	114	53	150	166	0	110	43	220	11	5	4	1	0	17	153	47	564
Feb	1,114	520	46	NR	80	101	52	144	143		93	36	209	10	0	6	1	0	17	154	46	526
Mar	1,662	548	51	NR	95	90	51	143	169	0	107	44	215	18	3	3	0	0	21	160	40	571
Apr	2,212	550	52	NR	97	75	49	166	163		99	45	203	1	0	5	4	2	18	147	53	524
2017		2212	212		383	380	205	603	641	0	409	168	847	40	8	18	6	2	73	614	186	2185
@2017/2016 Δ	change	(79)	(12)		(38)	23	(21)	2	(45)	0	64	(9)	(49)	3	4	5	1	2	(9)	75	(75)	87
Jan		589	57		121	84	61	157	166	0	88	39	232	14	4	1	1	0	19	124	76	522
Feb	1,127	538	54		91	102	43	139	163	0	90	45	212	7	0	0	2	0	18	146	54	520
Mar	1,718	591	58		102	92	58	150	189	0	97	52	236	8	0	1	0	0	20	133	67	547
Apr	2,291	573	55		107	79	64	155	168	0	70	41	216	8	0	11	2	0	25	136	64	509
2016		2291	224		421	357	226	601	686	0	345	177	896	37	4	13	5	0	82	539	261	2098
@2016/2015 Δ	change	3	incomplete data		0	31	26	(84)	41	(5)	(25)	11	10	(21)	2	(73)	3	0	(4)	(26)	26	(123)
2015	Moves YTD	Moves/ Month			IntraHbr 1	≤ 30 mi 2	≤50 mi 3	≤75 mi 4	≤100mi 5	mi 6	Bulker	Car Carrier	Container	General	Naval	Other	Passngr	Reefer	Ro-Ro	Tanker	ATB Memo	Totals
Jan		566			88	93	51	189	144	1	102	35	219	23		4	1		18	137	63	539
Feb	1,067	501			67	88	40	154	144	4	70	43	209	5		7	1		21	149	51	505
Mar	1,690	623			139	85	50	168	179	0	120	45	234	14	1	38			23	147	53	622
Apr	2,288	598			127	60	59	174	178	0	78	43	224	16	1	37			24	132	68	555
2015		2288			421	326	200	685	645	5	370	166	886	58	2	86	2	0	86	565	235	2221

TONNAGE, NUMBER OF MOVES -- BY VESSEL TYPE
2018 - 2015

	Bulk		Car Carrier		Container		General		Naval		Other		Passenger		Reefer #		Ro-Ro		Tanker		ATB		Total Tonnage #	
	Tonnage	# moves	Tonnage	# moves	Tonnage	# moves	Tonnage	# moves	Tonnage	# moves	Tonnage	# moves	Tonnage	# moves			Tonnage	# moves	Tonnage	# moves	# moves	% all Tankers	Tonnage	# moves
January	3,439,902	104	1,789,883	30	12,733,269	191	27,776	14	-	-	343,750	22	12,592	3	-	-	704,729	15	8,910,462	131	69	35%	27,962,363	579
February	2,998,709	90	1,983,484	33	12,346,595	184	35,464	17	-	-	352,415	20	-	-	-	0	630,344	16	7,759,574	126	56	31%	26,106,585	542
March	3,452,959	97	2,435,273	41	12,815,720	198	11,610	8	-	2	200,361	9	-	-	-	0	690,659	20	7,697,304	139	49	26%	27,303,886	563
April	4,056,297	120	1,912,131	31	11,645,863	171	35,906	8	9,800	2	55,338	7	649,109	7			573,200	16	6,767,200	128	35	21%	25,704,844	525
2018	13,947,867	411	8,120,771	135	49,541,447	744	110,756	47	9,800	4	951,864	58	661,701	10	-	-	2,598,932	67	31,134,540	524	209	29%	107,077,678	2,209
Δ 2018/2017	278,304	2	(1,879,387)	(33)	(10,633,951)	(103)	5,680	7	(397,240)	(4)	778,319	40	312,863	4	(11,982)	(2)	71,673	(6)	4,745,479	69	23		(6,730,242)	(3)
January	3,598,299	110	2,601,920	43	16,040,517	220	25,203	11	227,040	5	54,307	4	5,841	1	-	0	676,105	17	8,074,610	136	47	26%	31,303,842	594
February	3,398,733	93	2,168,144	36	14,860,771	209	16,208	10	-	-	41,730	6	5,841	1	-	0	531,502	17	6,202,672	102	46	31%	27,225,601	520
March	3,542,415	107	2,522,814	44	14,905,690	215	35,875	18	180,000	3	17,979	3	-	-	-	0	700,643	21	5,541,137	97	40	29%	27,446,553	548
April	3,130,116	99	2,707,280	45	14,368,420	203	27,790	1	-	0	59,529	5	337,156	4	11,982	2	619,009	18	6,570,642	120	53	31%	27,831,924	550
2017	13,669,563	409	10,000,158	168	60,175,398	847	105,076	40	407,040	8	173,545	18	348,838	6	11,982	2	2,527,259	73	26,389,061	455	186	29%	113,807,920	2,212
Δ 2017/2016	3,066,226	64	65,080	(9)	(1,970,792)	(49)	(842,877)	3	338,975	4	85,063	5	158,769	1	11,982	2	(273,342)	(9)	(3,034,319)	(16)	(75)		(2,395,235)	(79)
January	2,919,918	89	2,194,663	40	16,169,580	232	338,644	14	68,065	4	17,845	1	5,841	1	-	-	577,341	19	7,399,311	115	76	40%	29,691,208	591
February	2,896,362	90	2,552,002	44	14,781,234	212	162,009	7			-	-	11,682	2	-	-	711,930	18	6,703,933	110	54	33%	27,819,152	537
March	2,862,643	96	2,906,891	52	16,038,829	236	201,028	8			17,845	1	-	-	-	-	701,124	20	7,077,922	110	67	38%	29,806,282	590
April	1,924,414	70	2,281,522	41	15,156,547	216	246,272	8			52,792	11	172,546	2	-	-	810,206	25	8,242,214	136	64	32%	28,886,513	573
2016	10,603,337	345	9,935,078	177	62,146,190	896	947,953	37	68,065	4	88,482	13	190,069	5	-	-	2,800,601	82	29,423,380	471	261	36%	116,203,155	2,291
Δ 2016/2015	(1,272,371)	(25)	411,656	11	7,663,722	10	(444,411)	(21)	64,165	2	(741,123)	(73)	178,387	3	-	-	(139,781)	(4)	3,090,788	74	26		8,811,032	3
January	3,331,935	102	2,071,601	35	13,748,321	219	436,506	23			61,474	4	5,841	1			600,566	18	7,332,020	101	63	62%	27,588,264	566
February	2,392,118	70	2,490,846	43	12,417,478	209	136,892	5			125,628	7	5,841	1			648,961	21	6,454,064	94	51	54%	24,671,828	501
March	3,812,507	120	2,584,770	45	14,696,583	234	347,064	14	-	1	279,395	38					812,290	23	6,502,000	95	53	36%	29,034,609	623
April	2,339,148	78	2,376,205	43	13,620,086	224	471,902	16	3,900	1	363,108	37					878,565	24	6,044,508	107	68	39%	26,097,422	598
2015	11,875,708	370	9,523,422	166	54,482,468	886	1,392,364	58	3,900	2	829,605	86	11,682	2	-	-	2,940,382	86	26,332,592	397	235	152%	107,392,123	2,288

2018	APRIL 2018						
YTD	Totals	LOA	IntraHbr 1	≤ 30 mi 2	≤50 mi 3	≤75 mi 4	≤100mi 5
135	26	Up to 500	5	8	9	3	1
189	46	500-599	9	6	3	22	6
660	156	600-699	18	41	28	33	36
333	88	700-799	15	14	3	23	33
235	64	800-899	7	13	5	19	20
549	115	900-999	22	5	4	33	51
108	30	1000--	1			27	2
moves	525		77	87	52	160	149
YTD totals		2209	348	370	250	631	610
YTD Averages		552.3	87.0	92.5	62.5	157.8	152.5

2018	MARCH 2018						
YTD	Totals	LOA	IntraHbr 1	≤ 30 mi 2	≤50 mi 3	≤75 mi 4	≤100mi 5
109	36	Up to 500	3	10	13	7	3
143	42	500-599	7	7	4	17	7
504	167	600-699	15	38	32	40	42
245	91	700-799	12	12	3	22	42
171	57	800-899	5	7	9	13	23
434	148	900-999	32	15	3	45	53
78	22	1000--	0	1	0	21	0
moves	563		74	90	64	165	170
YTD totals		1684	271	283	198	471	461
YTD Averages		561.3	90.3	94.3	66.0	157.0	153.7

2018	FEBRUARY 2018						
YTD	Totals	LOA	IntraHbr 1	≤ 30 mi 2	≤50 mi 3	≤75 mi 4	≤100mi 5
73	40	Up to 500	14	7	13	6	0
101	46	500-599	5	11	2	21	7
337	159	600-699	18	45	37	29	30
154	73	700-799	13	6	0	21	33
114	58	800-899	7	11	12	15	13
286	141	900-999	31	14	5	40	51
56	25	1000--	1	0	0	24	0
moves	542		89	94	69	156	134
YTD totals		1121	197	193	134	306	291
YTD Averages		560.5	98.5	96.5	67.0	153.0	145.5

2018	JANUARY 2018						
YTD	Totals	LOA	IntraHbr 1	≤ 30 mi 2	≤50 mi 3	≤75 mi 4	≤100mi 5
	33	Up to 500	13	5	11	3	1
	55	500-599	11	16	3	16	9
	178	600-699	29	34	37	37	41
	81	700-799	14	14	1	18	34
	56	800-899	8	16	6	13	13
	145	900-999	31	14	7	36	57
	31	1000--	2	0	0	27	2
moves	579		108	99	65	150	157

2017	APRIL 2017						
YTD	Totals	LOA	IntraHbr 1	≤ 30 mi 2	≤50 mi 3	≤75 mi 4	≤100mi 5
89	28	Up to 500	1	6	10	11	0
231	52	500-599	17	6	1	18	10
620	160	600-699	18	33	29	38	42
344	82	700-799	10	10	3	26	33
287	68	800-899	10	8	6	22	22
328	91	900-999	19	5		28	39
313	69	1000--	22	7		23	17
-23	550		97	75	49	166	163
YTD totals		2212	383	380	205	603	641
YTD Averages		553.0	95.8	95.0	51.3	150.8	160.3

2017	MARCH 2017						
YTD	Totals	LOA	IntraHbr 1	≤ 30 mi 2	≤50 mi 3	≤75 mi 4	≤100mi 5
61	27	Up to 500	0	8	10	9	0
179	54	500-599	12	8	4	18	12
460	150	600-699	19	33	28	28	42
262	88	700-799	10	20	3	21	34
219	61	800-899	11	7	5	17	21
237	83	900-999	16	5	1	25	36
244	85	1000--	27	9		25	24
moves	548		95	90	51	143	169
2017 YTD totals		1662	286	305	156	437	478
YTD Averages		554.0	95.3	101.7	52.0	145.7	159.3

2017	FEBRUARY 2017						
YTD	Totals	LOA	IntraHbr 1	≤ 30 mi 2	≤50 mi 3	≤75 mi 4	≤100mi 5
34	22	Up to 500	0	6	5	8	3
125	69	500-599	3	11	4	13	38
310	140	600-699	12	42	25	30	31
174	79	700-799	9	22	5	25	18
158	80	800-899	12	5	12	17	34
154	66	900-999	15	7	0	24	19
159	65	1000--	29	8	1	27	0
moves	520		80	101	52	144	143
YTD totals		1114	191	215	105	294	309
YTD Averages		557.0	95.5	107.5	52.5	147.0	154.5

2017	JANUARY 2017						
YTD	Totals	LOA	IntraHbr 1	≤ 30 mi 2	≤50 mi 3	≤75 mi 4	≤100mi 5
	12	Up to 500	1	4	7		
	56	500-599	25	7	2	16	6
	170	600-699	13	51	32	34	40
	95	700-799	13	19	3	22	38
	78	800-899	13	13	9	23	20
	89	900-999	15	8		28	38
	94	1000--	31	12		27	24
moves	594		111	114	53	150	166

Apr-16	APRIL 2016						
YTD	Totals	LOA	IntraHbr 1	≤ 30 mi 2	≤50 mi 3	≤75 mi 4	≤100mi 5
63	28	Up to 500	11	3	8	6	0
253	55	500-599	19	6	3	17	10
660	168	600-699	17	35	44	34	38
303	69	700-799	6	12	1	18	32
276	72	800-899	11	7	8	22	24
414	104	900-999	17	8	0	33	46
322	77	1000--	26	8	0	25	18
-25	573		107	79	64	155	168
YTD totals		2291	421	357	226	601	686
YTD Averages		572.8	105.3	89.3	56.5	150.3	171.5

2016	MARCH 2016						
YTD	Totals	LOA	IntraHbr 1	≤ 30 mi 2	≤50 mi 3	≤75 mi 4	≤100mi 5
35	15	Up to 500	1	4	8	2	0
198	65	500-599	15	11	2	28	9
492	176	600-699	20	38	35	35	48
234	71	700-799	7	13	1	14	36
204	78	800-899	9	11	10	18	30
310	106	900-999	21	6	2	29	48
245	80	1000--	29	9	0	24	18
moves	591		102	92	58	150	189
2016 YTD totals		1718	314	278	162	446	518
YTD Averages		572.7	104.7	92.7	54.0	148.7	172.7

2016	FEBRUARY 2016						
YTD	Totals	LOA	IntraHbr 1	≤ 30 mi 2	≤50 mi 3	≤75 mi 4	≤100mi 5
20	6	Up to 500	2	0	4	0	0
133	66	500-599	18	20	3	15	9
316	153	600-699	14	39	28	30	42
163	75	700-799	5	17	2	20	31
126	62	800-899	7	13	5	15	22
204	101	900-999	21	3	1	31	45
165	76	1000--	24	10	0	28	14
moves	538		91	102	43	139	163
YTD totals		1127	212	186	104	296	329
YTD Averages		563.5	106.0	93.0	52.0	148.0	164.5

2016	JAN 2016 2016						
YTD	Totals	LOA	IntraHbr 1	≤ 30 mi 2	≤50 mi 3	≤75 mi 4	≤100mi 5
	14	Up to 500	4	3	1	6	
	68	500-599	14	12	11	23	8
	163	600-699	20	35	34	31	43
	88	700-799	17	9	4	26	32
	64	800-899	17	7	9	13	18
	103	900-999	20	7	2	28	46
	89	1000--	29	11		30	19
moves	589		121	84	61	157	166

Strait of Juan de Fuca and Puget Sound Area Vessel Traffic Safety Report

Sara Thompson



Marine & Rail Oil Transportation
Study (2014)

Puget Sound Vessel
Traffic Study Update
(2015)

Salish Sea
Workshop
(2016)

Vessel
Traffic Safety
Report

E2SSB 6269

- Transboundary Forum
- Tug Escorts (manning)
- ERTV



Report Goal

Provide legislators and other decision makers the information needed to make informed, sound decisions on specific vessel safety measures:

1. Tug Escorts (tankers, ATB, towed vessels)
2. Emergency Response System for Haro/Boundary/Rosario
3. Etc.





Report Elements

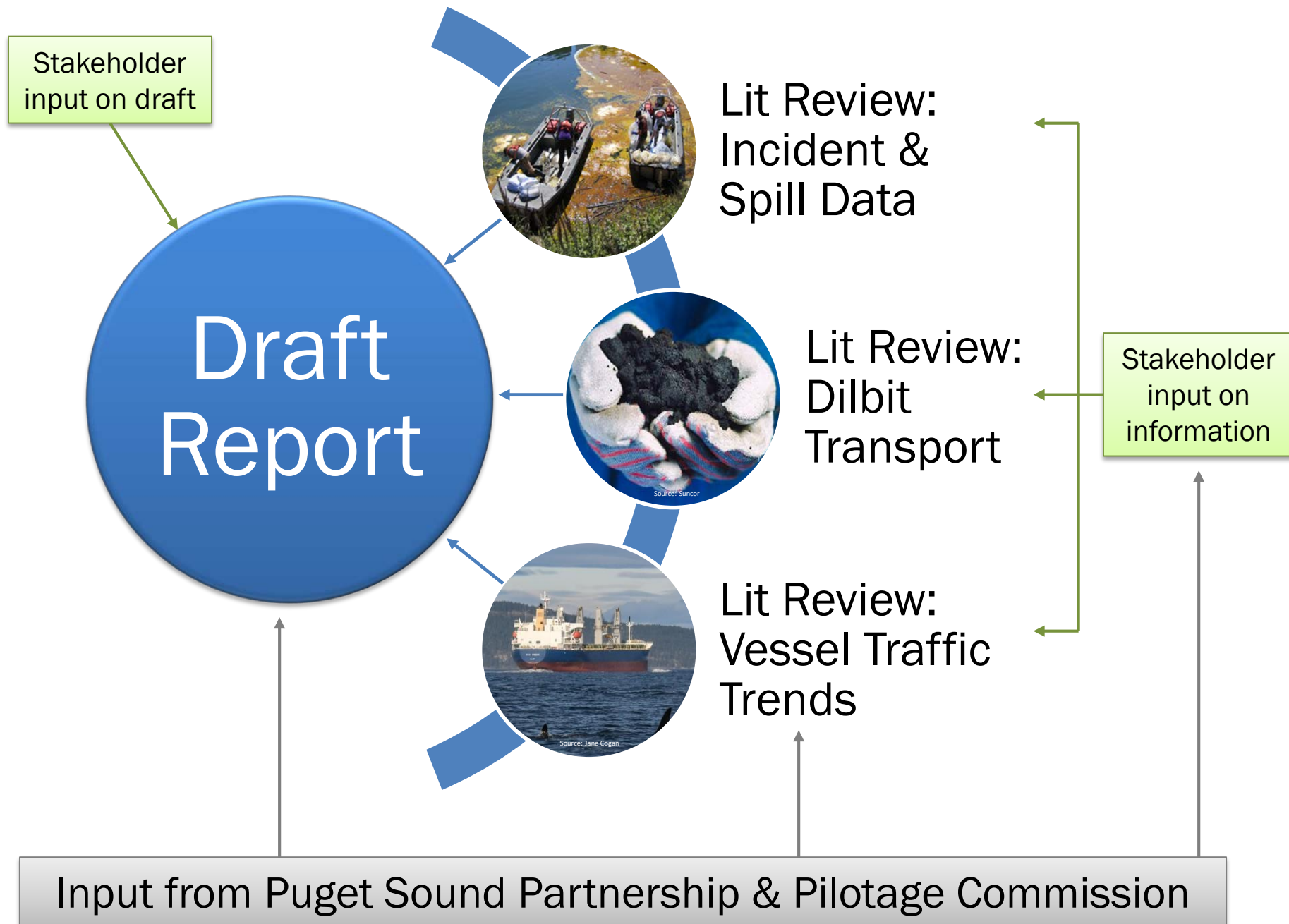
1. ATB, towed vessel incident, and spill data
2. Transport of Bitumen and Dilbit
3. Vessel traffic trends
4. Tug Escorts (tankers, ATB, towed vessels)
5. Tug capability requirements for escort tug
6. Emergency Response System for Haro/Boundary/Rosario
7. Difference between locations and navigational requirements
8. Economic impact of tug escorts and vessel size limitations
9. Oil weathering for oils that may sink or submerge
10. Other vessel traffic management and safety recommendations



Roles

- Project Manager – Coordinates and manages project
- Steering Committee – Provides direction to project manager and assigns staff
- Writing Lead – Drafts report and oversees editing
- Literature Reviewers – Leads and develops literature reviews





Current and Existing Information

Work developed preferably no earlier than 2005, from sources that are relevant and widely acknowledged as credible and reliable in their respective field.

Examples of such information, includes but is not limited to:

- Peer reviewed studies
- Published government studies
- Laws and regulations
- Reports that are commonly cited or used by academia and high level decision makers



Tribal and Stakeholder Involvement

- Webinar presentation (May 16th)
- Provide studies and reports (May 25th)
- Provide comments on draft report (August)
- Invite Ecology to present at meetings





Tribal and Stakeholder Groups

- United States Coast Guard
- Maritime experts (including covered vessels)
- Onshore and offshore facilities
- Environmental organizations
- Tribes
- Commercial and noncommercial fishers
- Recreational resource users
- Provincial experts
- Representatives of the Salish Sea Shared Waters Forum



Project Timeline

- April –
 - Develop project plan
 - Identify tribes and stakeholders
- May – Begin research/outreach to tribes and stakeholders for studies
- June – Complete literature reviews
- August – Draft report to tribes and stakeholders to review
- October – Present report at Salish Sea Shared Waters Forum
- October 1 – Finalize draft report for Governor review
- December 1 – Submit draft report to Legislature
- July 2019 – Submit final report sent to Legislature





Questions and Discussion