

Parsing the November 2019 TEU Numbers

Please note: The numbers here are not derived from forecasting algorithms or the partial information available from U.S. Customs and Border Protection but instead represent the actual TEU counts as reported by the major North American seaports we survey each month. The U.S. mainland ports we monitor collectively handle over 90% of the container movements at continental U.S. ports. Unless otherwise stated, the numbers in this portion of our analysis do **not** include empty containers.

Import Traffic

This is about the November front-loading surge that didn't happen.

On December 9, the National Retail Federation announced in a press release that "Retail imports surged in November ahead of December tariffs". Citing the most recent Global Port Tracker forecast, the NRF release alleged that, while "final numbers are not yet available, estimates indicate that November jumped to 1.95 million TEU, up 8 percent year-over-year as retailers frontloaded imports ahead of this month's scheduled tariffs."

These numbers were duly reported that very same day in the Journal of Commerce under the headline "November imports to pop on fresh tariff front-loading: retailers". Not surprisingly, the buoyant expectation soon popped up in other shipping industry publications.

But, almost immediately, a contrary story began to emerge.

Exhibit 1	November 2019 - Inbound Loaded TEUs at Selected Ports					
	Nov 2019	Nov 2018	% Change	Nov 2019 YTD	Nov 2018 YTD	% Change
Los Angeles	371,350	422,793	-12.2%	4,340,755	4,401,678	-1.4%
Long Beach	293,287	319,877	-8.3%	3,435,207	3,724,281	-7.8%
San Pedro Bay Totals	664,637	742,670	-10.5%	7,775,962	8,125,959	-4.3%
Oakland	77,350	83,364	-7.2%	893,900	878,496	1.8%
NWSA	94,978	116,607	-18.5%	1,263,428	1,313,750	-3.8%
USWC Totals	836,965	942,641	-11.2%	9,933,290	10,318,205	-3.7%
Boston	11,538	12,824	-10.0%	138,196	136,108	1.5%
NYNJ	301,123	301,826	-0.2%	3,482,007	3,358,777	3.7%
Maryland	38,940	42,794	-9.0%	482,847	467,800	3.2%
Virginia	103,410	112,218	-7.8%	1,262,673	1,215,845	3.9%
South Carolina	82,785	84,125	-1.6%	984,535	921,387	6.9%
Georgia	173,863	169,159	2.8%	2,046,531	1,904,927	7.4%
Jaxport	27,390	30,541	-10.3%	325,383	298,510	9.0%
Port Everglades	26,959	31,836	-15.3%	290,053	336,455	-13.8%
Miami	37,763	33,502	12.7%	405,593	379,358	6.9%
USEC Totals	803,771	818,825	-1.8%	9,417,818	9,019,167	4.4%
New Orleans	10,156	8,655	17.3%	125,187	110,791	13.0%
Houston	101,494	101,320	0.2%	1,144,516	1,079,296	6.0%
USGC Totals	111,650	109,975	3.3%	1,269,703	1,190,087	6.3%
Vancouver	123,918	151,585	-18.3%	1,568,839	1,604,759	-2.2%
Prince Rupert	58,181	44,843	29.7%	616,903	517,162	19.3%
BC Totals	182,099	196,428	-7.3%	2,185,742	2,121,921	3.0%
US/BC Totals	1,934,485	2,067,869	-6.5%	22,806,553	22,649,380	0.7%
US Total	1,752,386	1,871,441	-6.4%	20,620,811	20,527,459	3.6%
USWC/BC	1,019,064	1,139,069	-10.5%	12,119,032	12,440,126	0.7%

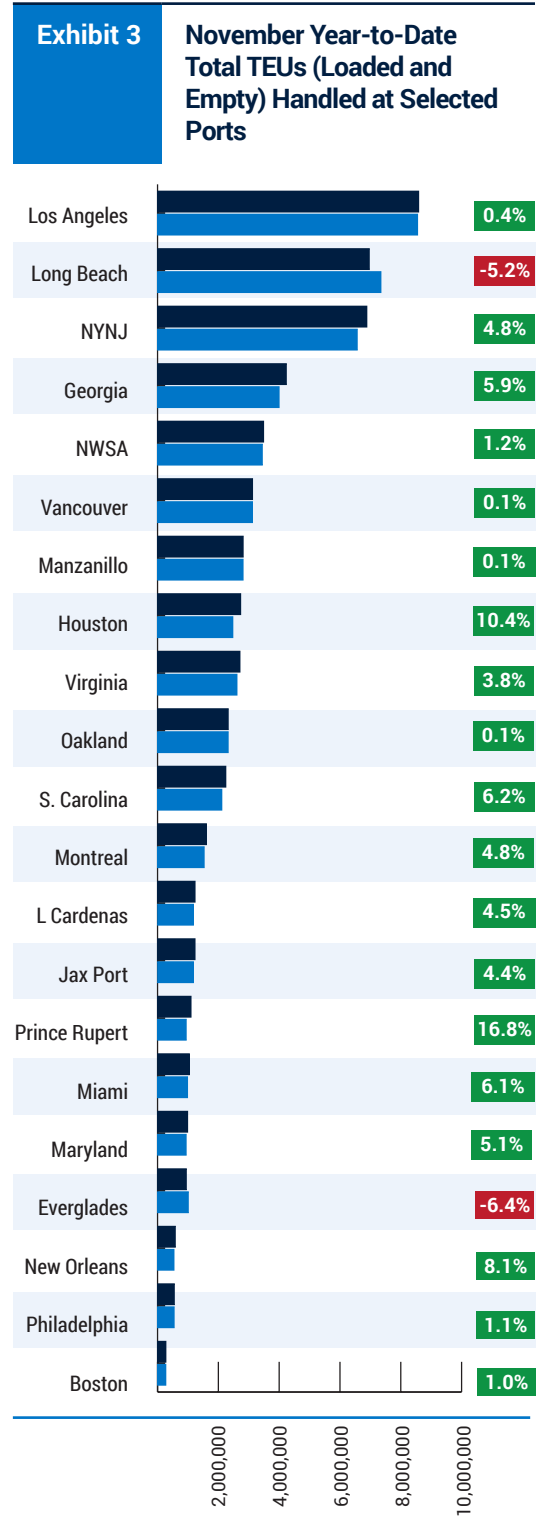
Source Individual Ports



Parsing the November 2019 Loaded TEU Numbers Continued

	November 2019 - Outbound Loaded TEUs at Selected Ports			November Year-to-Date Total TEUs (Loaded and Empty) Handled at Selected Ports		
	Nov 2019	Nov 2018	% Change	Nov 2019 YTD	Nov 2018 YTD	% Change
Los Angeles	138,545	152,527	-9.2%	1,625,948	1,756,090	-7.4%
Long Beach	123,705	115,774	6.9%	1,347,407	1,409,682	-4.4%
San Pedro Bay Totals	262,250	268,301	-2.3%	2,973,355	3,165,772	-6.1%
Oakland	81,781	77,285	5.8%	856,377	825,415	3.8%
NWSA	73,589	83,677	-12.1%	837,465	868,145	-3.5%
USWC Totals	417,620	429,263	-2.7%	4,667,197	4,859,332	-4.0%
Boston	6,128	6,737	-9.0%	75,856	74,293	2.1%
NYNJ	119,422	115,415	3.5%	1,349,679	1,360,853	-0.8%
Maryland	20,254	17,581	15.2%	215,100	212,051	1.4%
Virginia	77,241	77,789	-0.7%	887,839	902,269	-1.6%
South Carolina	62,831	61,903	1.5%	755,059	749,001	0.8%
Georgia	119,126	108,240	10.1%	1,359,049	1,345,896	1.0%
Jaxport	44,440	40,663	9.3%	459,136	451,196	1.8%
Port Everglades	39,665	39,077	1.5%	395,428	420,540	-6.0%
Miami	35,774	31,279	14.4%	381,432	362,372	5.3%
USEC Totals	524,881	498,684	5.3%	5,878,578	5,878,471	0.0%
New Orleans	23,322	19,211	21.4%	274,457	266,882	2.8%
Houston	107,927	89,400	20.7%	1,155,918	990,420	16.7%
USGC Totals	131,249	108,611	20.8%	1,430,375	1,257,302	13.8%
Vancouver	91,707	99,075	-7.4%	1,035,082	1,024,037	1.1%
Prince Rupert	15,250	16,068	-5.1%	174,724	190,377	-8.2%
British Columbia Totals	106,957	115,143	-7.1%	1,209,806	1,214,414	-0.4%
US/Canada Total	1,180,707	1,151,701	2.5%	13,185,956	13,209,519	-0.2%
US Total	1,073,750	1,036,558	3.6%	11,976,150	11,995,105	-0.2%
USWC/BC	524,577	544,406	-3.6%	5,877,003	6,073,746	-3.2%

Source: Individual Ports



■ 2019 YTD
■ 2018 YTD

Source: Individual Ports



Parsing the November 2019 Loaded TEU Numbers [Continued](#)

On December 10, the Ports of Los Angeles and Oakland both posted their November container numbers. Big year-over-year gains? No. Inbound loads at LA dropped 12.2% (-51,443 TEUs), while Oakland saw a 7.2% (-6,014 TEUs) fall-off.

The next day saw the Port of Long Beach announce an 8.3% (-26,590 TEUs) decline in November's tally of inbound loads.

On December 19, the Northwest Seaport Alliance Ports of Tacoma and Seattle announced their inbound loads in November had plummeted by 18.5% (-21,629 TEUs).

Back East, the nine ports from Boston to Miami that we monitor combined for a 1.8% (-15,054 TEUs) dip in inbound loads. Only Savannah (+2.8% or +4,704 TEUs) and Miami (+12.7% or +4,261 TEUs) posted year-over-year gains.

Down along the Gulf Coast, import loads at the Port of New Orleans jumped by 17.3% (+1,501 TEUs), but the Port of Houston managed just a 0.2% (+174 TEUs) gain. Together, the two Gulf Coast ports saw a 3.3% (+1,675 TEUs) bump in their import loads.

Up in British Columbia, Vancouver reported a sharp 18.3% (-27,667 TEUs) drop in import container traffic, but Prince Rupert ran up a 29.7% (+13,338 TEUs) increase, leaving the two with a combined loss of 7.3% (-14,329 TEUs).

Clearly, the predicted surge failed to materialize, demonstrating if nothing else how hazardous the already perilous business of trade forecasting can be in the age of Trump.

The seven major Pacific Coast ports in Canada and the U.S. handled 1,019,064 inbound loads in November, down 10.5% (-120,005 TEUs) from the previous year. The USWC share of that trade slipped to 82.1% from 82.8% a year earlier.

Collectively, 1,934,485 loaded TEUs were discharged in November at the 18 U.S. and Canadian ports we monitor, down 6.5% (-133,384 TEUs) from a very busy November a year earlier. With 836,965 loaded import TEUs, the Big Five USWC ports accounted for a 47.8% share of containerized imports through our collection of U.S. mainland ports, down from their 50.4% share in November 2018.

Through the first eleven months of this year, 22,806,553 loaded inbound TEUs entered the eighteen U.S. and British Columbia ports tracked by this newsletter. That represented a gain of just 0.7% or 157,173 TEUs over the same stretch in 2018.

For the record, on January 10 the National Retail Federation issued a press release noting that November import volumes at the ports monitored by the Global Port Tracker were actually down 7.5% – not up eight percent as predicted in the NRF press release a month earlier.

Export Traffic

Tariffs, both the ones we've imposed and the ones other nations have imposed against us, had a highly varied impact on containerized exports in November. At the Port of Los Angeles, export loads slumped by 9.2% (-13,982 TEUs) from a year earlier, but export loads were actually up 6.9% (+7,931 TEUs) next door at the Port of Long Beach. Exports were also up at the Port of Oakland by 5.8% (+4,496 TEUs). However, the number of export loads at the NWSA ports plummeted by 12.1% (-10,088 TEUs). Collectively, the Big Five USWC ports saw a 2.7% (-11,643 TEUs) decline in loaded export containers from a year earlier.

Outbound loads at our nine U.S. East Coast ports, while generally up, varied from port to port. Baltimore (+15.2%), Miami (+14.4%), and Savannah (+10.1%) posted strong gains, while Charleston and Port Everglades (both +1.5%) had numbers that were less inspiring. Virginia was down 0.7%.

Once again, exports were again strongest along the Gulf Coast. Houston's 18,527 TEUs leap in outbound loads represented a 20.7% jump from the previous November. New Orleans was up by a 21.4% (+4,111 TEUs).

November also saw a notable slide in export loads at the two British Columbia ports. At Prince Rupert, outbound loads were down by 5.1% (-818 TEUs), while Vancouver recorded a 7.4% (-7,368 TEUs) decline. Together, the two ports registered a 7.1% (-8,186 TEUs) fall-off in outbound loads.

Looking solely at the sixteen U.S. mainland ports that we monitor, November's container export trade rose by 3.6%



Parsing the November 2019 Loaded TEU Numbers *Continued*

Exhibit 4 USWC Ports Shares of Worldwide U.S. Mainland Container Trade, November 2019

	Nov 2019	Oct 2019	Nov 2018
Shares of U.S. Mainland Ports Containerized Import Tonnage			
LA/LB	27.2%	26.8%	29.5%
Oakland	3.9%	3.7%	4.0%
NWSA	5.1%	5.0%	6.2%
Shares of U.S. Mainland Ports Containerized Import Value			
LA/LB	34.6%	34.4%	37.2%
Oakland	3.6%	3.5%	3.6%
NWSA	6.9%	6.5%	7.6%
Shares of U.S. Mainland Containerized Export Tonnage			
LA/LB	20.3%	21.2%	23.8%
Oakland	6.6%	6.5%	6.3%
NWSA	8.5%	8.2%	9.7%
Shares of U.S. Mainland Containerized Export Value			
LA/LB	20.4%	20.3%	22.1%
Oakland	8.1%	7.4%	6.9%
NWSA	5.0%	4.4%	4.7%

Source: U.S. Commerce Department.

Exhibit 5 USWS Ports Shares of U.S. Mainland Trade With East Asia, November 2019

	Nov 2019	Oct 2019	Nov 2018
Shares of U.S. Mainland Ports' East Asian Container Import Tonnage			
LA/LB	44.0%	42.4%	45.5%
Oakland	4.5%	4.4%	4.2%
NWSA	7.7%	7.4%	8.6%
Shares of U.S. Mainland Ports' East Asian Container Import Value			
LA/LB	51.4%	50.0%	53.2%
Oakland	4.3%	4.1%	4.0%
NWSA	10.0%	9.4%	10.7%
Shares of U.S. Mainland Ports' East Asian Container Export Tonnage			
LA/LB	35.1%	35.9%	38.3%
Oakland	9.3%	9.2%	8.6%
NWSA	14.5%	13.4%	15.3%
Shares of U.S. Mainland Ports' East Asian Container Export Value			
LA/LB	41.4%	41.8%	44.6%
Oakland	13.1%	11.8%	11.5%
NWSA	10.2%	8.9%	8.9%

Source: U.S. Commerce Department.

(+37,192 TEUs) from a year earlier, largely on the strength of the export surge through the Gulf Coast. The Big Five USWC ports accounted for a 38.9% share of all loaded outbound TEUs shipped out of U.S. mainland ports, down from a 41.4% share a year earlier.

Looking now just at outbound loads from the seven major container ports on the Pacific Coast of the U.S. and Canada, export traffic dwindled by 3.6% (-19,829 TEUs) from last November. The USWC share of the binational Pacific Coast container export trade amounted to 79.6%, up from 78.82% a year earlier.

Through November, 13,185,956 loaded TEUs sailed from the eighteen ports in the U.S. and British Columbia we

monitor. That was a decline of 0.2% (-23,563 TEUs) from the same point in 2018.

Total TEUs to date. Just two of the twenty-one U.S., Canadian and Mexican ports we track failed to register gains in the total number of loaded and empty TEUs handled through November – the Port of Long Beach (-5.2% or -382,607 TEUs) and Florida's Port Everglades (-6.4% or -65,024 TEUs). The 8,590,883 TEUs that crossed the docks at the Port of Los Angeles in the year's first eleven months represented just a 0.4% (+35,393 TEUs) increase over the same period in 2018. Together, the two San Pedro Bay ports handled 15,557,654 total TEUs, 347,214 fewer TEUs (-4.8%) than they had by the same point a year earlier.



Parsing the November 2019 Loaded TEU Numbers *Continued*

The Port of Oakland eked out a 0.1% (+1,542 TEUs) year-over-year gain in total boxes, while the NWSA ports managed a 1.2% (+43,281 TEUs) increase.

Altogether, the Big Five USWC ports handled 303,391 fewer TEUs (-1.4%) than they had through November of the preceding year.

Weights and Values. Even though the TEU is the shipping industry's preferred unit of measurement, we present two alternative metrics – the declared weight and value of the goods contained in those TEUs – in hopes of further illuminating recent trends in the container trade along the USWC. For the most part, these numbers contain little good news for USWC port officials.

Exhibit 4: USWC Ports and the Worldwide Container Trade. Exhibit 4 documents the continuing erosion of the USWC share of containerized imports (regardless of nation of origin) entering mainland U.S. ports. The two San Pedro Bay ports saw their combined percentage of containerized import tonnage slide in November to 27.2% from 29.5% a year earlier. The two experienced a parallel drop in the declared value of containerized imports to 34.6% from 37.2% last November. Oakland saw its share of import value remain unchanged from a year earlier, but its import tonnage share slipped to 3.9% from 4.0%. The NWSA ports meanwhile sustained sizable year-over-year declines in both value and tonnage shares.

On the export side, the Southern California ports continued to lose market share, whether measured in tonnage or dollar value. Oakland fared much better, with year-over-year gains in both export tonnage and value shares. The NWSA ports' export shares trended downward in tonnage but upward in value.

Exhibit 5: USWC Ports and the East Asia Trade. Here are the numbers that most trouble USWC port officials – the figures on containerized imports arriving at U.S. mainland ports from East Asia. In November, the Ports of Los Angeles and Long Beach saw their combined share of import tonnage continue to slide to 44.0% from 45.5% a year earlier, while their collective share of import value slipped to 51.4% from 53.2%. Elsewhere along the coast, Oakland improved both its tonnage and value shares. Meanwhile, the NWSA ports saw declines in both tonnage and value terms.

On the export side, the San Pedro Bay ports' share of containerized export tonnage to East Asia shrank to 35.1% from 38.3%, while their combined share of the value of those containerized imports slipped to 41.4% from 44.6%. Oakland saw a bump in both its share of import tonnage and value tonnage. Outcomes were more mixed at the NWSA ports, with a decline in tonnage share but an increase in value share.

Oakland: Nothing If Not Consistent

In 2003, the Ports of Los Angeles and Long Beach handled 28.8% of all containerized cargo tonnage passing through U.S. mainland ports. The Ports of Seattle and Tacoma collectively handled 7.6%, while the Port of Oakland's share was 4.8%.

Fifteen years later, in 2018, the Ports of Los Angeles and Long Beach handled 26.9% of all containerized cargo tonnage passing through U.S. mainland ports. The Ports of Seattle and Tacoma (rebranded as the Northwest Seaport Alliance) handled 6.9%, while the Port of Oakland's share was...exactly the same as it was in 2003, 4.8%.

Oakland has not only maintained its share of the nation's maritime trade against growing competition from other North American ports, it has also increased its share of containerized goods passing through the five major USWC container ports, from 10.9% in 2003 to 12.0% through first eleven months of 2019.

Much of the reason for its consistency is that Oakland has been much less dependent on serving a national market. As a July 2019 forecast developed for the SF Bay Conservation and Development Commission observed: "Future volume through Bay Area seaports will be determined by economic activity in the Bay Area itself, and in the broader Central and Northern California market." And the Bay Area and its surrounding hinterland have been doing exceptionally well, economically.

Although a vibrant regional economy should continue to buoy the port's growth prospects, there is at least one frowning cloud on the horizon. That would be President Trump's threat to impose a 100% tariff on European wines, about 113 metric tons of which came into the port through the first eleven months of 2019. Imposition of that levy could dampen a few spirits.



Parsing the November 2019 Loaded TEU Numbers [Continued](#)

First Glimpse at November's Numbers

Given the burst of imported goods that came through U.S. ports in December 2018, forecasters almost uniformly expected that December 2019 would see much slimmer volumes. That seems to be playing out among the early-reporting U.S. mainland ports we track. But it's a scenario playing out with a particular vengeance along the U.S. West Coast.

At the Ports of Los Angeles and Long Beach, December import loads tumbled by 17.3%. The Northwest Seaport Alliance Ports of Seattle and Tacoma saw their inbound loads plunge by 23.8%, while inbound loads through the Port of Oakland's fell 6.6% from a year earlier. Altogether, the Big Five USWC ports handled 184,069 fewer loaded import TEUs than they had in December 2018.

Four other U.S. ports (Boston, Virginia, Charleston, and Houston) have thusfar reported their December container statistics, and not one shows year-over-year gains on their import ledgers. That, however, is not the case in British Columbia, where Vancouver posted a modest 1.8% increase while Prince Rupert's inbound load tally swelled by 19.2%.

As for outbound loads, there were some surprises in December, perhaps none more notable than the 10.6% increase in export traffic at the Port of Long Beach. That continues a five-month streak of year-over-year gains in export loads through the port. While both the Port of Los Angeles and the NWSA ports showed sizable declines (12.0% and 11.1%, respectively), Oakland reported a 3.1% increase in outbound loads.

Jock O'Connell's Commentary: Chasing the Chimera of Market Share

"There's been a loss of market share for a generation on the West Coast. Seventeen years ago, 80 percent of the cargo within the trans-Pacific theater moved over the West Coast. Today, it's about 60 percent."

That's what Port of Los Angeles Executive Director Gene Seroka told the Port Performance North America Conference hosted by the Journal of Commerce in Newark, New Jersey in early December.

Well, since things have gotten worse, almost as if "The March to the Scaffold", Hector Berlioz's big hit tune of 1830, might be a fitting soundtrack for a contemporary documentary on U.S. West Coast ports.

Year-end numbers out of the two Southern California ports paint an unhappy picture. Total container traffic in 2019 at the Port of Los Angeles was not only down by 1.3% (-121,117 TEUs) from 2018 but was also down from the year before that. At the Port of Long Beach, total container volume dropped by 5.7% (-458,991 TEUs) from 2018. Taken together, the two San Pedro Bay ports – by far the nation's premier container trade gateway – suffered a 3.3% year-over-year fall-off in container traffic,

a decline amounting to 580,108 fewer TEUs. But perhaps even more disconcerting is that the two ports last year managed just a 0.5% (+82,263 TEUs) increase in total box traffic over 2017.

Import loads at LA for the year were the lowest since 2016. Export loads were the lowest since 2015. Traffic in empty containers, mercifully, was up 6.8% from 2018. Next door at Long Beach, dockworkers handled fewer inbound as well as outbound TEUs than they had a year earlier. (It should be noted, though, that outbound loads from Long Beach have been up in each month since August. But, except for April, inbound loads in 2019 were below 2018 levels in every month all year.) Unlike its neighbor, Long Beach saw a decline in the number of empty boxes last year of 2.8%.

Elsewhere along the U.S. West Coast, the Port of Oakland experienced a more modest stumble, with total TEUs down 1.8% from 2018, but still up 3.3% from 2017. Meanwhile, the Ports of Seattle and Tacoma (operating as the Northwest Seaport Alliance) combined to handle 0.6% fewer TEUs than they had in 2018 but 2.0% more than in 2017.

Commentary Continued

Altogether, containerized trade through the five major USWC container ports in 2019 totaled 23,245,402 TEUs, down 649,346 TEUs from a year earlier. Inbound loaded containers through those ports were down 5.0% (-568,980 TEUs) from the preceding year. Outbound loads were off 3.9% (-205,031 TEUs).

By comparison, 2019 saw the Port of Prince Rupert post a remarkable 16.9% jump in its total container volume over 2018. However, Vancouver eked out a bare 0.1% gain in total TEUs. In the warmer latitudes, the Port of Houston logged a 10.6% boost, while container traffic through the Port of New Orleans jumped 9.7%. Back East, the Port of Charleston saw its TEU traffic grow by 5.2% from 2018, while the Port of Virginia saw a more modest 2.9% increase. And, despite the distractions of a dreadfully disappointing baseball season, the small but proud Port of Boston nudged its 2019 container volume up by 0.8%.

Given the trading frenzies of 2018, when tariff-threatening tweets from the White House drove shippers to hasten imported goods past the Customs House, lower numbers were widely expected for 2019. According to some box-counters, that is indeed proving to be the case, as our friends at the esteemed Journal of Commerce reported on January 22 (“US East Coast port growth dragged to three-year low in 2019”. Yet, with the numbers at the Big Five USWC ports uniformly off while major ports elsewhere were turning in better if not spectacular numbers, the erosion of the USWC market share shows little sign of becoming less relentless.

Some readers of this newsletter have been suggesting that we should desist from the monthly recitation of what have become almost invariably gloomy TEU numbers at America’s Pacific Coast ports. After all, it’s been implied, we really shouldn’t be providing statistical ammunition to rival North American ports, who might then use our data to further their lobbying for even more billions of state and local tax dollars to bolster their container-handling capacities. (You know, to match the vast sums California, Oregon, and Washington State have been pouring into

projects to enhance the competitiveness of our ports.) But we’re not the only source of USWC box tallies, and we’re confident that ports elsewhere can do their own arithmetic without our help.

Still, regularly posting the raw numbers does serve as a useful counterweight to the credulity-straining efforts of the Kellyanne Conways the ports employ to serve up plates of sow’s ear in a creamy Dijon sauce. (“Port sets all-time record for empty container exports!!!”) While a cheerful headline in the local rag might salve the anxieties of port officials, do we truly want public officials, editorialists, and other opinion-molders – you know, people who might be helpful or at least less harmful to the ports – thinking that everything is just hunky-dory down along the waterfront?

Well, it isn’t, and we shouldn’t pretend otherwise.

Powerful developments, largely macroeconomic and demographic but also political in nature, have been and will continue to profoundly rechannel the global supply chains that have run through USWC ports these past few decades and upon which the ports have long prospered.

Which gets us back to what for too long has been a question we all might want to ponder: Is market share the best metric for gauging success in the changing environment of world of trade? If it isn’t, then are strategies that seek to recapture lost market share little more than strategies to recapture a world that no longer exists?

Over the next few issues of this newsletter, I hope to expand upon what a more excitable writer might term the tectonic shifts going on in global trade and the resulting challenges USWC ports face in accommodating themselves to these steadily changing realities.

Disclaimer: *The views expressed in Jock’s commentaries are his own and may not reflect the positions of the Pacific Merchant Shipping Association.*



2020 Milestones Highlight Maritime Air Quality Improvements Globally and Locally

By Mike Jacob

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As we ring in the New Year, 2020 has already proven to be a year of hitting exceptional milestones for the maritime industry with respect to its ongoing investment in air quality and continued environmental progress. Globally, the January 1st implementation of the IMO 2020 fuel rules represented one of the single largest one-day air quality improvement events ever. In California, which is already home to the strictest suite of port and maritime air quality regulatory measures in the world, the state's cold-ironing regulations ratcheted up to their highest compliance requirements for nearly all container and cruise ship fleets for 2020 as well.

The results from the culmination of these global and local rules are dramatic.

The IMO 2020 rule reduced the allowable Sulphur content in ships' fuel from 3.5% to 0.5%. This means no longer burning standard bunker fuels and heavy fuel oils but instead converting to marine gas oils, very low Sulphur fuels, or installing post-combustion exhaust scrubbers. For many of us living in coastal areas covered by IMO Emissions Control Areas (ECAs) and in California, we have already benefited from these and comparable significant reductions in Sulphur content, but those improvements pale in comparison to the dramatically improved air quality at scale across the globe represented by IMO 2020 as well as in high population coastal communities in Asia.

According to the IMO, this single fuel rule will result in a 77% overall drop in SOx emissions from ships, which in turn should result in a 68% overall reduction in shipping's negative effects on human health through air pollution in addition to the beneficial results of less acid rain and a reduction in ocean acidification. Such dramatic improvements in emissions are possible because vessel fuels currently account for about 90% of all Sulphur emissions globally. One study submitted to the IMO Marine Environment Protection Committee estimated that this reduction in marine fuels would translate to the avoidance of 570,000 premature deaths worldwide

between 2020-2050 from significant reductions in stroke, asthma, lung cancer, and cardiovascular and pulmonary disease symptoms.

In California, not only have vessels been investing in cleaner fuels ahead of the IMO and the North American ECA, but ships are also plugging-in to shoreside power when at-berth for the past six years. Over the course of the phase-in of this rule, which has not been without its hiccups, the industry has collectively been steadily underwriting the improvements necessary on vessels, through port infrastructure, and in terminals to first get fleets to a 50% compliance rate, then 70%, and now 80% statewide. And, under the applicable terms some state grants used to improve various berths, that number is actually now 90% for fleet calls in many locations.

2020 represents the culmination of 13 years of work to implement this ambitious and unprecedented shorepower regulation. The complementary benefits of cleaner fuels and shoreside power for vessels when at-berth in California is simply phenomenal: even if no other actions were taken to further adjust the shorepower rules, the California Air Resources Board (CARB) estimates that the total emissions reductions from 2006-2031 would be reduced from 1.43 tons per day of Diesel Particulate Matter to 0.10 tons per day. This is a 93% reduction in the emissions of the state's highest prioritized localized air pollutant, not to mention significant reductions in SOx, NOx, and GHGs.

This substantial progress does not come cheaply though. The 51,000 ships composing the global fleet demand some 2.1 billion barrels of fuel annually – that's 244 million gallons per day. To meet the IMO 2020 rule that means oil refiners worldwide will need to produce an additional 84 – 168 million gallons per day of cleaner fuels. According to Goldman Sachs estimates, this clean fuels shift will add approximately \$40 billion in increased direct shipping costs but due to higher competition for refined fuels IMO 2020 costs could also cascade through

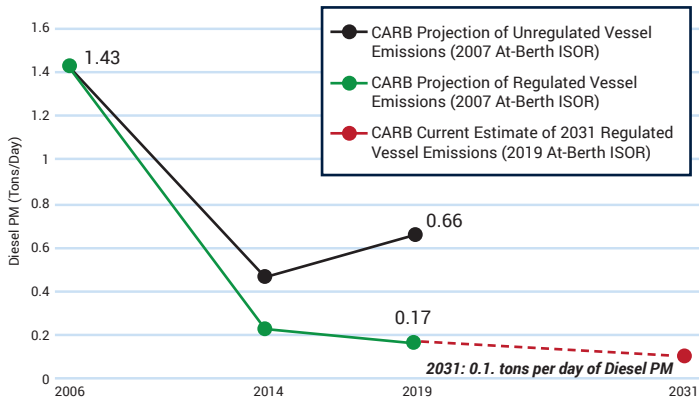


2020 Milestones *Continued*

Exhibit

Vessel At-Berth Emission Projection from CARB Regulated Fleets 2006-2031

Diesel PM (Tons per Day) - 2007 ISOR Projections for 2014 & 2020 with 2019 ISOR Projection for 2031



the entire economy, ending up costing as much as \$240 billion in overall impacts to consumers worldwide.

As for just the costs of vessels in California, achieving the clean air benefits shoreside while the vessel is at-berth also did not come cheap. The current regulation was forecast to cost the container and cruise industries

\$1.8 billion for shore power infrastructure and vessel improvements to comply over and above cleaner fuel costs.

As we move forward, there will be less and less “low-hanging fruit” in the regulatory world, which makes it imperative for everyone to work harder to find avenues for cleaner operations and investment in new technology which will foster results where costs and cleaner air are not mutually exclusive. To enact solutions which meet this criteria, we will need to continue to work to develop a level of trust and coordination between industry and our regulatory bodies and continue to educate the public of the benefits of both the long-term health of the industry as well as the environment.

But our partners should take solace, and as these two rules show, that the maritime industry is not afraid of committing resources to environmental clean-up efforts. And as a result of the billions of dollars of investments already being made in cleaner fuels and operations around the world, 2020 will be the cleanest on record for the maritime industry.

Happy New Year.





Washington State Embarks on First Pilot Rate Setting Under New Process

In 2018 a state legislative report found that the manner in which pilotage rates were set on the Puget Sound was “unclear,” “lacks methodological structure,” and was part of an “unnecessary” annual revision process which “provides no rationale for this annual requirement and very little guidance.” To fix these problems, the 2018 report recommended that moving to a public utility commission model would lead to fewer pilotage rate disputes with the benefit of “a clearly defined, transparent, rigorous, and enforceable timeline and process.” Ultimately, the Washington Legislature agreed, with PMSA support, and Washington joined several other states in using a public utility commission model for setting pilotage rates.

Moving this process to a public utility commission model at the Washington Utilities and Transportation Commission (WUTC) isn’t just better for ratepayers and the public for all of the obvious reasons associated with improving the methodologies of setting monopoly rates but it also created another important benefit: more time,

resources, and staff capacity at the Washington state Board of Pilotage Commissioners for it to focus on its key mission of improving navigational safety through pilot licensing, oversight, training, and discipline.

Late in 2019 the Puget Sound Pilots filed the first petition for a rate increase under the new model, and that process is now underway. PMSA is participating in this rate-hearing process as an interested party intervenor and is looking forward to working closely with the WUTC staff and industry stakeholders as the pilots’ rate increase request works its way through the new procedures.

The WUTC has set the dates for a hearing on the petitions for June 2020. In the meantime the Puget Sound Pilots, PMSA, and the staff of the WUTC will be participating in a series of new evidentiary processes meant to create the transparency and rigor envisioned to create the best possible rate setting process, as envisioned by the Legislature.

Interested in membership in PMSA?

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

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December Dwell Time Numbers Are Slightly Up

