PMSA

West Coast Trade Report

August 2021

July's Early Returns: TEU Numbers from the Ports

Note: *The ports we survey take from a few days to a few weeks to report their container trade statistics. Because West Coast ports are generally much more agile in compiling and releasing their monthly TEU counts than are ports elsewhere in the country, these "First Glimpse" numbers are necessarily incomplete and may give a misleading indication of the latest trends.*

The Port of Long Beach was the first major seaport to report its July container trade numbers. For a month where leading pundits like the National Retail Federation's Global Port Tracker expected a 15.1% bump in import TEUs over a year ago, Long Beach's gain was a mere 1.6% (+6,133 TEUs). Next door at the Port of Los Angeles, import loads were up by a slender 2.9% (+13,332 TEUs), leaving the two San Pedro Bay ports with a combined year-over-year gain of 2.3% (+19,465 TEUs). Imports actually took a dip at the Port of Oakland, where the number of inbound loads actually subsided by 1.7% (-1,675 TEUs). Altogether, the three major California ports saw their loaded inbound TEU numbers increase by 1.9% (+17,790 TEUs) over last July.

Up the coast, the import trade through the Northwest Seaport Alliance Ports of Seattle and Tacoma was much more robust, with import loads up 22.8% (+22,243 TEUs) from a year earlier. Further north, though, the import numbers were not positive. The Port of Vancouver recorded a 13.9% (-22,337 TEUs) decline in inbound loads from last July, while Prince Rupert reported its containerized import traffic was down 10.7% (-6,897 TEUs) from July 2020.

Clearly, then, if the Global Port Tracker forecast is to be realized, ports elsewhere in North America are going to have to rise to a sizeable challenge.

To some extent, that may be happening. The July numbers from two big mid-Atlantic Coast ports provided a stark contrast to the early returns from out West. Charleston posted a staggering 46.5% jump (+37,915 TEUs) in inbound loads, while Savannah recorded a very respectable 22.8% (+42,328 TEUs) gain. Boston, the only other East port for which July statistics are available, saw a 44.8% (-5,484 TEUs) fall-off in inbound loads from last July. Our running tally, therefore, shows the three reporting East Coast ports with a July over July gain of 74,759 TEUs (26.8%). On the Gulf Coast, Houston posted a 34.1% (+34,858 TEUs) increase in inbound loads over last July.

Some observers may assume that the data so far furnish compelling evidence of the growing ascendancy of East Coast ports over their formerly dominant West Coast rivals. Others, however, may conclude that it merely takes a month longer for the chaos at Asian ports to be visited upon America's Atlantic Coast maritime gateways.

As for the containerized export trade, outbound shipments continued to be disappointing in July. Outbound loads were down year-over-year at Los Angeles (-34,914 TEUs), Long Beach (-28,651 TEUs), Oakland (-3,374 TEUs), the NWSA ports (-7.714 TEUs), Vancouver (-27,160 TEUs), and Prince Rupert (-3,598 TEUs). On the East Coast, Savannah and Charleston both bucked the trend by posting a combined year-over-year increase of 14,635 TEUs. Even so, the two Southeastern ports shipped 5,189 fewer TEUs this July than they had in July 2019. Export loads from Houston this July were down 23,052 TEUs from a year earlier.

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Documenting the June 2021 TEU Numbers

Please note: *The TEU tallies cited 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 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.*

Because of the pandemic's effect in skewing year-over-year comparisons of container trade, we will again be offering Exhibits 1-3 which display columns comparing the container numbers for this June with the same month in the two preceding years. We are also taking steps to acknowledge the containerized trade that passes through some of the smaller U.S. West Coast ports by including the container trade numbers for the Port of Hueneme in Exhibits 1-3. We are also adding the YTD numbers for total container volumes at the Port of Portland (the one in Oregon) and Washington's Port Everett to Exhibit 3. We had hopes of including TEU data from the Port of San Diego, but its June tallies have not yet been made available to us.

Exhibit 1 displays the complete inbound loaded container traffic numbers for June as reported by the seventeen mainland U.S. and two British Columbian ports we track. Inbound loads for all nineteen ports totaled 2,404,575 TEUs, up 29.6% from June 2020 and up 16.6% from the pre-pandemic June of 2019.

The brunt of the inbound surge in June fell on East Coast ports, which collectively saw a 42.4% (+300,845 TEUs) jump in inbound loads since a year earlier. By contrast, the USWC ports we now track handled 23.7% (+203,844 TEUs) more inbound loads than in June 2020. Containerized import loads through the nine East Coast ports we monitor totaled 1,010,797 TEUs, up from 709,952 loads a year earlier. The two Gulf Coast ports we watch posted a 55.5% increase in import loads (+53,970 TEUs) over last June and a 29.5% (+34,449 TEUs) over June 2019. Things were not so buoyant up in British Columbia, where some dreadful numbers from Prince Rupert overcame a gain at Vancouver.

Exports, as the red ink in **Exhibit 2** illustrates, generally continued their downward spiral on the West Coast while showing strong year-over-year gains along most of the Eastern Seaboard. Collectively, the U.S. and British Columbia ports we track shipped just 0.1% more outbound loads this June than last year. The Port of Los Angeles shipped 13,519 fewer loaded TEUs than in June 2020 and is now 31.0% (-43,251 TEUs) below its June 2019 level. While outbound loads through Long Beach were down very slightly (-591 TEUs) from a year earlier, it was 12.6% below June 2019. Collectively, the two San Pedro Bay ports shipped 60,137 fewer outbound loads this June than they had in the more salubrious climate of pre-pandemic June 2019. With export loads also down at the Northwest Seaport Alliance Ports of Seattle and Tacoma, the USWC ports we monitor saw a combined 7.3% reduction in export loads since June 2020 and a 19.6% decline from June 2019. USWC ports shipped 83,443 fewer loaded export TEUs this June than they had two Junes earlier.

On the other hand (or coasts), export loads through East Coast ports were up 12.2% over last June but down 1.0% (-4,051 TEUs) from June 2019. Meanwhile, export loads dwindled along the Gulf Coast by 10.2% and in British Columbia by 15.2%.

Exhibit 1 June 2021 - Inbound Loaded TEUs at Selected Ports

	Jun 2021	Jun 2020	% Change	Jun 2019	% Change	Jun 2021 YTD	Jun 2020 YTD	% Change	Jun 2019 YTD	% Change
Los Angeles	467,763	369,189	26.7%	396,307	18.0%	2,834,213	1,950,634	45.3%	2,260,267	25.4%
Long Beach	357,101	300,714	18.8%	331,617	7.7%	2,315,171	1,659,967	39.5%	1,813,810	27.6%
San Pedro Bay Totals	**824,864**	**669,903**	**23.1%**	**727,924**	**13.3%**	**5,149,384**	**3,610,601**	**42.6%**	4,074,077	**26.4%**
Oakland	95,060	82,464	15.3%	80,895	17.5%	544,642	454,362	19.9%	474,151	14.9%
NWSA	133,904	104,115	28.6%	122,645	9.2%	741,849	565,809	31.1%	692,318	7.2%
Port Huneme	9,500	3,002	216.5%	6,286	51.1%	63,528	28,578	122.3%	40,652	56.3%
USWC Totals	**1,063,328**	**859,484**	**23.7%**	**937,750**	**13.4%**	**6,499,403**	**4,659,350**	**39.5%**	**5,281,198**	**23.1%**
Boston	9,014	8,923	1.0%	13,874	-35.0%	54,759	67,258	-18.6%	73,198	-25.2%
NYNJ	386,771	264,054	46.5%	301,709	28.2%	2,241,180	1,708,731	31.2%	1,846,062	21.4%
Maryland	46,319	36,936	25.4%	38,839	19.3%	257,948	242,595	6.3%	261,021	-1.2%
Virginia	138,737	95,502	45.3%	112,664	23.1%	792,724	589,053	34.6%	673,676	17.7%
South Carolina	105,668	69,775	51.4%	86,076	22.8%	609,014	480,608	26.7%	520,409	17.0%
Georgia	219,840	161,363	36.2%	168,799	30.2%	1,363,723	988,575	37.9%	1,075,362	26.8%
Jaxport	26,805	24,555	9.2%	33,461	-19.9%	170,704	147,132	16.0%	176,802	-3.4%
Port Everglades	30,910	19,235	60.7%	22,463	37.6%	178,419	145,871	22.3%	163,988	8.8%
Miami	46,733	29,609	57.8%	34,226	36.5%	279,114	194,878	43.2%	215,101	29.8%
USEC Totals	**1,010,797**	**709,952**	**42.4%**	**812,111**	**24.5%**	**5,947,585**	**4,564,701**	**30.3%**	**5,005,619**	**18.8%**
New Orleans	11,793	10,408	13.3%	11,673	1.0%	64,764	69,664	-7.0%	68,617	-5.6%
Houston	139,488	86,903	60.5%	105,159	32.6%	749,446	569,718	31.5%	604,787	23.9%
USGC Totals	**151,281**	**97,311**	**55.5%**	**116,832**	**29.5%**	**814,210**	**639,382**	**27.3%**	**673,404**	**20.9%**
Vancouver	151,144	139,965	8.0%	137,495	9.9%	991,453	790,304	25.5%	843,768	17.5%
Prince Rupert	28,025	48,361	-42.0%	57,754	-51.5%	250,087	272,250	-8.1%	299,379	-16.5%
BC Totals	**179,169**	**188,326**	-4.9%	**195,249**	-8.2%	**1,241,540**	**1,062,554**	16.8%	**1,143,147**	8.6%
US/BC Totals	2,404,575	1,855,073	**29.6%**	2,061,942	**16.6%**	14,502,738	10,925,987	**32.7%**	12,103,368	**19.8%**
US Total	2,225,406	1,666,747	**33.5%**	1,866,693	**19.2%**	13,261,198	9,863,433	**34.5%**	10,960,221	**21.0%**
USWC/BC	1,242,497	1,047,810	**18.6%**	1,132,999	**9.7%**	7,740,943	5,721,904	**35.3%**	6,424,345	**120.5%**

Source Individual Ports

Exhibit 2 June 2021 - Outbound Loaded TEUs at Selected Ports

	Jun 2021	Jun 2020	% Change	Jun 2019	% Change	Jun 2021 YTD	Jun 2020 YTD	% Change	Jun 2019 YTD	% Change
Los Angeles	96,067	109,586	-12.3%	139,318	-31.0%	663,835	748,110	-11.3%	908,680	-26.9%
Long Beach	116,947	117,538	-0.5%	133,833	-12.6%	751,741	734,221	2.4%	732,225	2.7%
San Pedro Bay Totals	**213,014**	**227,124**	-8.2%	**273,151**	-22.0%	**1,415,576**	**1,482,331**	-4.5%	**1,640,905**	-13.7%
Oakland	71,192	70,638	0.8%	74,901	-5.0%	459,049	462,426	-0.7%	462,651	-0.8%
NWSA	56,930	70,431	-19.2%	76,559	-25.6%	365,278	411,340	-11.2%	453,730	-19.5%
Port Huneme	96	30	220.0%	64	50.0%	642	287	123.7%	412	55.8%
USWC Totals	**341,232**	**368,223**	-7.3%	**424,675**	-19.6%	**2,240,545**	**2,356,384**	-4.9%	**2,557,698**	-12.4%
Boston	5,833	5,114	14.1%	7,366	-20.8%	37,817	33,799	11.9%	40,199	-5.9%
NYNJ	112,987	97,769	15.6%	122,663	-7.9%	669,251	659,212	1.5%	741,518	-9.7%
Maryland	21,186	16,164	31.1%	20,127	5.3%	128,556	106,502	20.7%	115,293	11.5%
Virginia	78,853	71,591	10.1%	76,535	3.0%	541,188	465,832	16.2%	493,850	9.6%
South Carolina	68,990	57,935	19.1%	66,496	3.8%	430,028	389,335	10.5%	414,730	3.7%
Georgia	114,266	117,424	-2.7%	119,295	-4.2%	739,977	745,234	-0.7%	760,632	-2.7%
Jaxport	50,619	43,682	15.9%	38,424	31.7%	291,515	234,293	24.4%	248,279	17.4%
Port Everglades	31,505	21,915	43.8%	34,705	-9.2%	191,406	163,990	16.7%	210,271	-9.0%
Miami	28,828	25,679	12.3%	32,401	-11.0%	175,790	178,258	-1.4%	206,903	-15.0%
USEC Totals	**513,067**	**457,273**	12.2%	**518,012**	-1.0%	**3,205,528**	**2,976,455**	7.7%	**3,231,675**	-0.8%
New Orleans	21,847	20,890	4.6%	25,898	-15.6%	138,399	143,716	-3.7%	149,157	-7.2%
Houston	84,614	97,635	-13.3%	106,429	-20.5%	558,098	634,589	-12.1%	622,492	-10.3%
USGC Totals	**106,461**	**118,525**	-10.2%	**132,327**	-19.5%	**696,497**	**778,305**	-10.5%	**771,649**	-9.7%
Vancouver	76,484	83,970	-8.9%	101,715	-24.8%	502,160	528,646	-5.0%	582,068	-13.7%
Prince Rupert	9,224	17,113	-46.1%	15,254	-39.5%	81,934	100,556	-18.5%	101,648	-19.4%
BC Totals	**85,708**	**101,083**	-15.2%	**116,969**	-26.7%	**584,094**	**629,202**	-7.2%	**683,716**	-14.6%
US/Canada Total	1,046,468	1,045,104	0.1%	1,191,983	-12.2%	6,726,664	6,740,346	-0.2%	7,244,738	-7.2%
US Total	960,760	944,021	1.8%	1,075,014	-10.6%	6,142,570	6,111,144	0.5%	6,561,022	-6.4%
USWC/BC	426,940	469,306	-9.0%	541,644	-21.4%	2,824,639	2,985,586	-5.4%	3,241,414	-12.9%

Source Individual Ports

Documenting the June 2021 TEU Numbers Continued

Exhibit 3 provides the June year-to-date total container traffic figures for the U.S., Canadian, and Mexican ports we monitor. Owing to a surging import trade, all of the major ports we track saw substantial growth in total (loads + empties) over last year and the before that.

Weights and Values

Yes, we realize that the maritime industry likes its statistics delivered in TEUs. But here, we provide two alternative measures – the declared weight and value of the goods housed in those TEUs. The percentages in the following exhibits are derived from data compiled by the U.S. Commerce Department that are normally published with a five-week time-lag.

Exhibit 4: USWC Ports and the Worldwide Container Trade.

Exhibit 4 shows how the three major USWC gateways have been faring with respect to their respective shares of containerized imports discharged at mainland U.S. seaports in June. We again remind readers that, although it may look that way, the major USWC port complexes do not completely monopolize the movement of containers through ports in the states of California, Oregon, and Washington.

San Diego and the Port of Hueneme are both important conduits for refrigerated containers laden with fresh fruit imports from Central and South America. And Portland (the riverport in Oregon, not the seaport in Maine) is re-establishing itself as a container handler, with the number of total TEUs handled in June (10,278 TEUs) up from zero just two years ago. In Washington state, the Port of Everett handles several thousand TEUs a year, many on behalf of a local aircraft manufacturer.

Exhibit 3 June 2021 Total TEUs (Loaded and Empty) Handled at Selected Ports

	Jun 2021	Jun 2020	% Change	Jun 2019	% Change
Los Angeles	5,427,875	3,761,888	44.3%	4,538,639	19.6%
Long Beach	4,753,828	3,433,035	38.5%	3,685,635	29.0%
NYNJ	4,395,072	3,965,625	10.8%	3,652,841	20.3%
Georgia	2,740,546	2,091,401	31.0%	2,252,228	21.7%
Vancouver	1,963,047	1,564,479	25.5%	1,695,377	15.8%
NWSA	1,860,174	1,564,263	18.9%	1,915,250	-2.9%
Virginia	1,681,702	1,274,115	32.0%	1,454,453	16.6%
Manzanillo	1,651,217	1,404,215	17.6%	1,512,284	9.2%
Houston	1,607,793	1,427,809	12.6%	1,461,409	10.0%
South Carolina	1,335,093	1,096,216	21.8%	1,207,417	10.6%
Oakland	1,301,781	1,168,097	11.4%	1,254,986	3.7%
Montreal	839,497	826,704	1.5%	859,409	-2.3%
JaxPort	713,593	590,170	20.9%	669,706	6.6%
Lazaro Cardenas	689,864	523,589	31.8%	662,060	4.2%
Miami	636,563	497,511	27.9%	562,669	13.1%
Port Everglades	525,976	464,586	13.2%	522,238	0.7%
Maryland	525,000	497,707	5.5%	536,520	-2.1%
Prince Rupert	491,710	480,427	2.3%	555,083	-11.4%
Philadelphia	351,629	305,739	15.0%	297,879	18.0%
New Orleans	271,873	298,512	-8.9%	317,980	-14.5%
Port of Hueneme	114,948	89,838	28.0%	64,890	77.1%
Boston	110,548	131,121	-15.7%	148,822	-25.7%
Portland, Oregon	43,231	25,624	68.7%	20	
Port Everett (WA)	8,327	7,341	13.4%	7,190	15.8%
US/Canada Total	31,699,806	25,562,208	24.0%	27,660,641	14.6%
US Mainland Only	28,405,552	22,690,598	25.2%	24,550,772	15.7%

Source Individual Ports

Documenting the June 2021 TEU Numbers Continued

Exhibit 4 Major USWC Ports Shares of U.S. Mainland Ports Worldwide Container Trade, June 2021

	Jun 2021	May 2021	Jun 2020
Shares of U.S. Mainland Ports Containerized Import Tonnage			
LA/LB	27.0%	28.0%	29.2%
Oakland	3.4%	3.9%	4.5%
NWSA	5.4%	4.4%	4.8%
Shares of U.S. Mainland Ports Containerized Import Value			
LA/LB	32.5%	34.5%	38.2%
Oakland	2.9%	3.1%	4.2%
NWSA	6.4%	5.7%	5.8%
Shares of U.S. Mainland Containerized Export Tonnage			
LA/LB	18.0%	19.8%	20.9%
Oakland	6.3%	6.2%	6.2%
NWSA	6.7%	6.5%	7.3%
Shares of U.S. Mainland Conatainerized Export Value			
LA/LB	16.5%	18.3%	22.3%
Oakland	6.4%	6.3%	7.0%
NWSA	4.0%	3.7%	4.4%

Source: U.S. Commerce Department.

Exhibit 5 Major USWC Ports Shares of U.S. Mainland Ports Containerized Trade with East Asia, June 2021

	Jun 2021	May 2021	Jun 2020
Shares of U.S. Mainland Ports' East Asian Container Import Tonnage			
LA/LB	45.1%	47.9%	47.0%
Oakland	3.9%	4.4%	5.0%
NWSA	7.8%	7.1%	6.6%
Shares of U.S. Mainland Ports' East Asian Container Import Value			
LA/LB	49.8%	52.5%	54.8%
Oakland	3.4%	3.9%	4.7%
NWSA	9.6%	8.5%	7.8%
Shares of U.S. Mainland Ports' East Asian Container Export Tonnage			
LA/LB	31.2%	33.2%	31.2%
Oakland	9.3%	8.5%	8.0%
NWSA	11.5%	10.6%	10.5%
Shares of U.S. Mainland Ports' East Asian Container Export Value			
LA/LB	34.0%	37.7%	39.6%
Oakland	11.5%	11.2%	10.9%
NWSA	8.0%	7.7%	7.7%

Source: U.S. Commerce Department.

Together, ports along the U.S. West Coast handled 37.5% of all containerized import tonnage that moved through U.S. mainland ports in June. That share was smaller than in June of last year (40.2%) and in June of 2019 (38.4%). By themselves, the Big Five USWC gateways handled 35.8% of all containerized import tonnage through U.S. mainland ports in June, down from a 38.5% share a year earlier and from 36.8% in June 2019.

Measured by the value of the container contents, all USWC ports accounted for 43.0% of the containerized import trade through U.S. mainland ports in June. The smaller tier of USWC ports held a collective 1.2% share of the value of the containerized imports that arrived at mainland ports in June. The Big Five share was 41.8%.

All USWC ports handled 33.2% of all containerized export tonnage from mainland ports in June, down from 35.8% last June and from 36.7% in June 2019.

Exhibit 5: USWC Ports and the East Asia Trade.

Exhibit 5 displays the shares of U.S. container trade involving the Far East handled by the five major USWC ports. Collectively, these five ports handled 56.9% of all containerized import tonnage that entered U.S. mainland ports in June. That was down from last June, when the same five ports received 58.6% of all containerized import tonnage and from the 56.7% share in the pre-pandemic month of June 2019. Adding in the containerized import tonnage handled by the smaller ports of California, Oregon, and Washington, the overall USWC share amounted to 58.3%.

Documenting the June 2021 TEU Numbers Continued

On the export side of the ledger, USWC ports of all dimensions collectively handled 53.0% of all containerized export tonnage bound for the Far East from America's mainland ports in June. That was an improvement over their 50.3% share a year earlier but well shy of their 58.9% share in June 2019. Measured by dollar value, the overall USWC share of containerized exports was down from 55.0% a year earlier and from a 58.1% share in June of 2019.

Who's #1?

The Port of Los Angeles was the nation's busiest container port in June 2021, having handled 876,430 total TEUs (loads and empties) that month. The neighboring Port of Long Beach placed third with 724,297 total TEUs. Together, the San Pedro Bay gateway managed to move 1,600,727 TEUs, a 23.7% increase over last June's pandemic-suppressed 1,293,65 TEUs but also up 11.0% from the 1,441,944 total TEUs they had handled in June 2019. In second came the Port of New York/New Jersey (PNYNJ) with 749,400 TEUs. Fourth place went to Savannah with 446,814 total TEUs. The Northwest Seaport Alliance Ports of Tacoma and Seattle ranked fifth among the U.S. ports we track with a total of 344,280 TEUs in June. (For our friends elsewhere in North America, Vancouver handled 302,071 TEUs in June, while 280,006 TEUs crossed the docks at Manzanillo.)

Not surprisingly, the Port of Los Angeles was also the nation's busiest port year-to-date, with 5,427,875 total TEUs through June. Second was Long Beach with 4,753,828 TEUs, while PNYNJ placed third with 4,395,072 TEUs. Savannah handled 2,740,546 total TEUs through June of this year, while the NWSA ports processed 1,860,174 TEUs.

For sticklers who don't believe empty boxes should count, Los Angeles remained in the lead with 563,830 loaded TEUs in the month of June. However, PNYNJ ran second place with 499,758 loads ahead of the 474,048 loads handled at third place Long Beach. Savannah and Houston were well behind with 334,106 TEUs and 224,102 laden TEUs, respectively. (NWSA continues to present a statistical puzzle, being that it's the only major maritime gateway that distinguishes its international trade from its domestic services. NWSA reports handling 190,834 laden import and export TEUs in June but also 73,979 TEUs in traffic with Hawaii and Alaska. The problem is that NWSA doesn't tell us how many of those domestically traded boxes were full.)

In the category of inbound loads discharged in June, Los Angeles (467,763 TEUs) exceeded PNYNJ (386,771 TEUs) and Long Beach (357,101 TEUs). Inbound loads at Savannah meanwhile totaled 219,840 TEUs. Houston, with 139,488 inbound loads in June, nosed out Virginia (138,737 TEUs).

Export loads were again a different story. Long Beach led the pack with 116,947 TEUs, while Savannah (114,266 TEUs) again bested East Coast rival PNYNJ (112,987 TEUs). That left the Port of Los Angeles (96,067 TEUs) in fourth place, ahead of fifth place Houston (84,614 TEUs).

For the calendar year's first half, Long Beach shipped the most outbound loads (751,741 TEUs). Savannah was the runner-up with 739,977 TEUs. Third place PNYNJ (669,251 TEUs) nosed out Los Angeles (663,835 TEUs). Fifth place went to Houston (558,098 TEUs). Honorable mention goes to the Port of Virginia, which shipped 541,189 laden TEUs through June.

Who's #6 on the USWC?

Everyone knows the names of the five major U.S. West Coast container ports, but who comes sixth?

That would be the **Port of Hueneme**. During the first half of this year, the port on California's Central Coast between Los Angeles and Ventura handled a total of 114,948 TEUs, up 28.0% from the same period a year earlier. Next in line was the Port of San Diego, where 79,045 TEUs were moved through May, the last month for which data for that port are available. Then came the Port of Portland on the Oregon side of the Columbia River, which saw a total of 43,231 TEUs cross its docks in this year's first half. Finally, the Port of Everett in Washington State with 8,327 TEUs through June.

To be sure, the 250,000 or so TEUs these four ports handled in the year's first half is equivalent to the volume that moves through the Port of LA every couple of weeks. The USWC's top five ports handled 13,343,658 TEUs through June. But the trade through the smaller ports is hardly inconsiderable. After all, Hueneme is a busier container port than Boston.

Hueneme's big business involves shipments of automobiles and auto parts, but it is a major point of entry

Documenting the June 2021 TEU Numbers Continued

along with San Diego for fresh produce imports from Central and South America.

In terms of containerized tonnage, Port Hueneme handled 1,011,911 metric tons of containerized cargo, by far the most in its history. Although that is only one-eighth of the containerized tonnage handled by Tacoma or Seattle, it does represent a new trend stimulated by a recent shift by fresh fruit importers to refrigerated containers.

Exhibit 6 shows the growing importance of containerized shipping at Hueneme, especially with Del Monte's decision to transition from refrigerated ships to refrigerated containers in 2019.

Exhibit 7 reveals just how dramatic that shift was in the method by which the port's fresh fruit imports are transported.

So what's it all worth?

TEU numbers only tell us so much about the containerized trade passing through America's major seaports. From the data presented above in Exhibit 3, we know that more containers (loads + empties) move

Exhibit 6 **Port Hueneme: Containers vs. Bulk: 2005-2020**
Source: U.S. Commerce Department

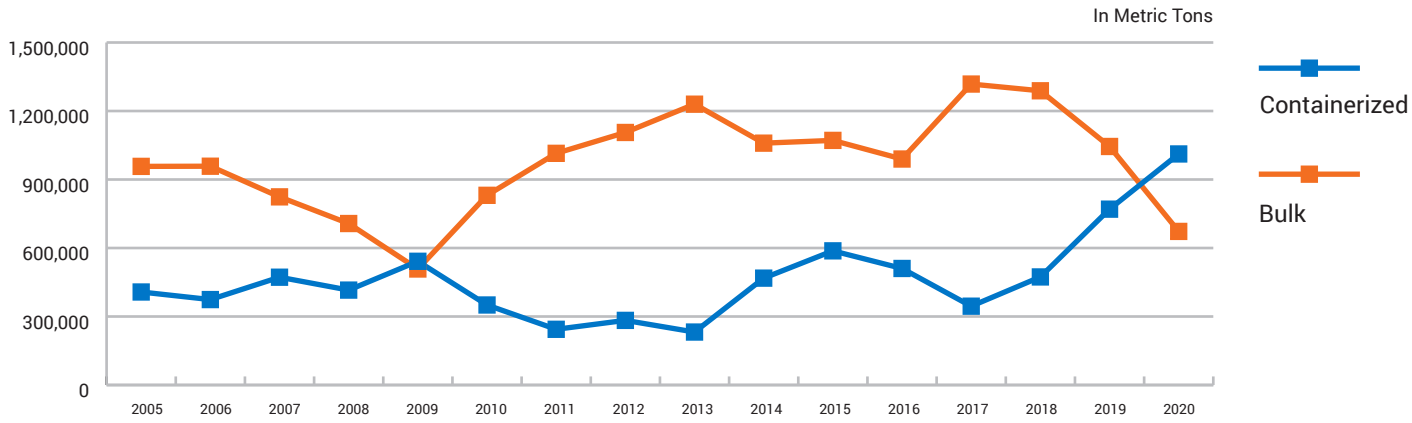
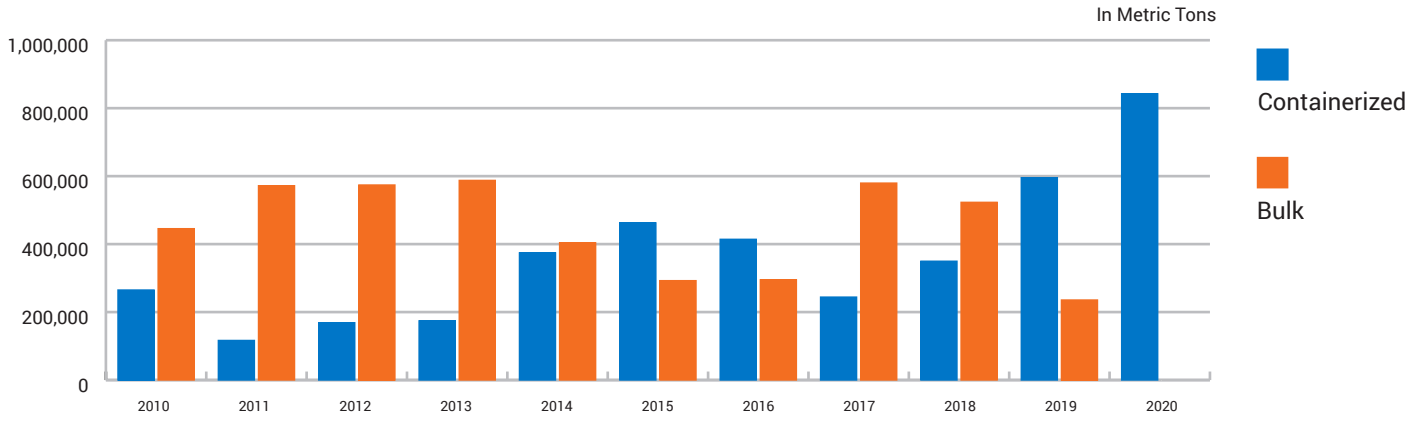


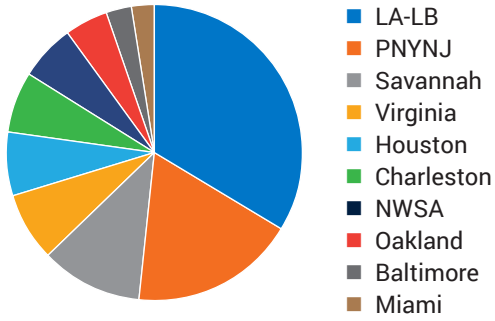
Exhibit 7 **Port Hueneme Fruit Import Tonnage by Mode: 2010-2020**
Source: U.S. Commerce Department



Documenting the June 2021 TEU Numbers Continued

Exhibit 8 **Port Shares of U.S. Container Trade, First Half 2021**
Source: U.S. Commerce Department (Dollar Value); Individual Ports (TEU Numbers)

Shares by Dollar Value



Shares by TEU Traffic

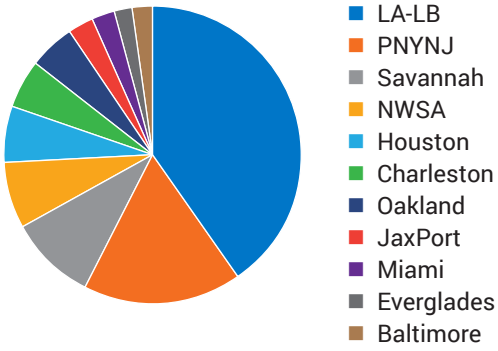
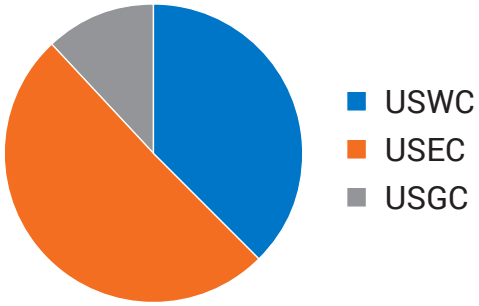


Exhibit 9 **Coastal Shares of Containerized Import Tonnage at Mainland U.S. Seaports: 2019 and 2021**
Source: U.S. Commerce Department

First Half, 2019



First Half, 2021

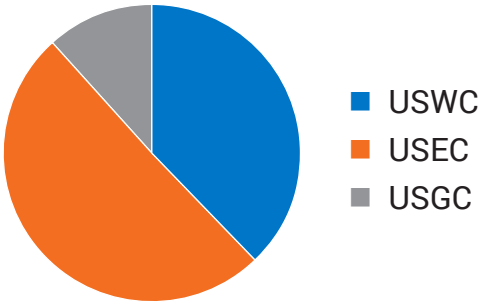
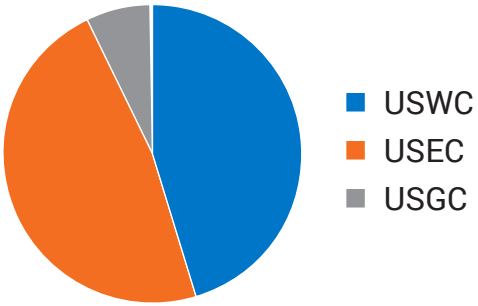
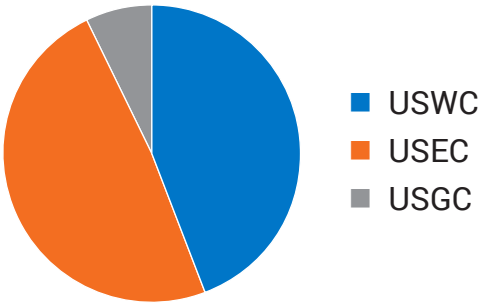


Exhibit 10 **Coastal Shares of Declared Value of Containerized Imports at Mainland U.S. Seaports: 2019 and 2021**
Source: U.S. Commerce Department

First Half, 2019



First Half, 2021



Documenting the June 2021 TEU Numbers Continued

through the neighboring Ports of Los Angeles and Long Beach than through any other U.S. maritime gateway. Their combined 35.9% share of the TEU traffic through the mainland U.S. ports in the first half of 2021 was considerably more than the 15.5% share held by PNYNJ or Savannah's 9.7% share. The NWSA Ports of Tacoma and Seattle held the next large share of boxes moved at 6.6%, followed by Virginia (5.9%), Houston (5.7%), Charleston (4.7%), Oakland (4.6%), JaxPort (2.5%), Miami (2.2%), Port Everglades (1.9%), and Baltimore (1.8%).

But how do the ports stack up when it comes to the declared value of the merchandise inside all those boxes? As it turns out, the ranking is a bit different.

Through the first six months of the year, ten of the nation's maritime gateways recorded two-way containerized trade valued in excess of $10 billion. As illustrated in **Exhibit 8**, the joint share held by the two San Pedro Bay ports amounted to 30.2%. That was significantly less than its 35.9% share of boxes moved, which reflected the unusually large number of empty containers shipped from the Port of Los Angeles. Still, the San Pedro Bay ports' share of the dollar value of the nation's oceanborne containerized commerce was considerably higher than the 16.2% share held by PNYNJ. Savannah was third with a 9.9% share, followed by Virginia (7.0%), Houston (6.4%), Charleston (6.0%), the NWSA ports (5.5%), Oakland (4.1%), Baltimore (2.5%), and Miami (2.1%).

Finally, **Exhibits 9 and 10** reveals how the coastal shares of both the tonnage and value of containerized imports have shifted between the first-half of pre-pandemic 2019 and the same period this year.

Jock O'Connell's Commentary:
Where's the Juice?

In charting a course for an emissions-free, all-electric future, California policymakers have tended to downplay certain down-to-earth issues that might hamstring the zealous pursuit of their not-to-be-doubted-by-mere-mortals air quality goals.

Among these issues is whether California will have the power-generating capacity to supply the juice needed to electrify the transportation conveyances the California Air Resources Board (CARB) wants to see deployed within the next few years.

Economists label such issues as "externalities" but to regulators and elected officials they are usually treated as "someone else's problem."

In the case of the state's quest to clean the air by electrifying the wide array of equipment used to move goods, the cavalier stance with respect to the state's inconsistent and potentially insufficient power supply brings to mind Tom Lehrer's ditty about a certain World War II German rocketeer the U.S. government saw fit to employ: "Once the rockets are up, who cares where they come down? That's not my department, says Wernher von Braun."

Anyone looking for an example of how California sometimes seems to operate in an alternate universe might start (and possibly finish) by reading two recent studies from impeccable sources. One is a February 2021 study from the Union of Concerned Scientists (UCS). It raises serious doubt about California's ability to provide all the electric power it will likely need later in this decade. The other is a June 2021 Moffatt & Nichol (M&N) analysis of the real-world challenges of supplying the volts the state's seaports and port drayage providers will need in order to comply with CARB's directives to transition their

Commentary Continued

cargo conveying equipment efficiently and economically from diesel to electric.

Both studies anticipate serious problems with regard to power generation and grid reliability by the second half of this decade as the state's rising demand for electric power outstrips its capacity for power generation.

Before delving into each report's specific findings and conclusions, let's look at the recent climate news, starting with what might be the first crack in the dike, so to speak. Just a few days ago, we learned that California's prolonged drought had taken down the Edward Hyatt Powerplant at the Oroville Dam due to a paucity of water in the dam's reservoir. As the *Los Angeles Times* soberly reported: "The loss of the hydroelectric power source at Lake Oroville, about 75 miles north of Sacramento, could contribute to rolling blackouts in the state during heat waves in coming months."

Ya think?

After the reservoir behind Northern California's Shasta Dam, Lake Oroville is second largest hydroelectric power source in the state. Jim Caldwell, a former assistant general manager at the Los Angeles Department of Water and Power, told the *Times*: "Replacing the lost power would cost far more than the hydroelectric power generated at Lake Oroville, and that replaced electricity would probably be less efficient, drive up emissions and deliver more pollution overall."

Not outcomes, in other words, that state policymakers in Sacramento want to see happen.

From here, unfortunately, not much in this story gets better.

The loss of hydroelectric capacity at Oroville came just weeks after the Bootleg Fire in Oregon threatened the California-Oregon Intertie, the transmission line that delivers power from the Pacific Northwest into California. (California generates only about 72 percent of the electricity it consumes. The rest it imports from other states, over long-distance transmission lines many environmentalists absolutely loathe.) That event temporarily reduced electricity supply into California by almost 4,000 megawatts, according to Governor Newsom's office. It also came shortly after the Northwest endured blast furnace temperatures that set historic records, opening the question of whether authorities in a region that has now developed a keen appreciation for air-conditioning will continue to be as generous in sharing power with California.

California's grid is both gargantuan and fragile. Power outages have become more and more common. Even more regular have been the so-called "flex alerts" when households and businesses are implored to reduce energy consumption. With average temperatures throughout California rising and with the number of days with highs over 100 degrees creeping up, demand for power to run air-conditioners and fans will only increase.

But increased demand induced by climate change and a proliferation of household gadgets and appliances is only part of the problem. While a persistent drought erodes the state's hydroelectric capacity, what most troubles the Union of Concerned Scientists is that the state's single biggest electrical generating plant is scheduled for closure within the next three or four years.

That would be California's last nuclear plant at Diablo Canyon, which itself supplies nearly 6% of the state's electricity. And, as the Concerned Scientists note, it does so without producing "planet-warming greenhouse gases or lung-scarring air pollutants."

But with just three or four years left until the Diablo Canyon plant begins to power down, California has no strategy to directly replace it, as the *Los Angeles Times* has persistently reported. Although the state has committed itself to replacing Diablo Canyon's energy without increasing global warming emissions, the UCS study concludes: "current plans are insufficient to achieve this goal." The irony, of course, is that there will likely be a lengthy period of increased greenhouse gas emissions as the state is obliged to burn more natural gas to offset the loss of Diablo Canyon's output.

The UCS report estimates California would emit an additional 15.5 million metric tons of planet-warming carbon over the next decade — roughly equivalent to keeping 300,000 gasoline-powered cars on the road over that same time period. At the same time, nitrogen

Commentary Continued

dioxide pollution, which can cause asthma attacks and reduced lung function, would also rise in communities near gas-fired power plants. The added pollution would be equivalent to operating 1,750 diesel school buses, the report finds. As UCS energy expert Mark Specht told the *Times*: "We should have figured this out by now."

In planning to compensate for the loss of Diablo Canyon's generating capacity, California committed itself to an initiative almost designed to fail. In 2018, the state legislature enacted Senate Bill 100, a measure requiring that zero-carbon energy resources supply 100% of electric retail sales to customers by 2045. This past March, the California Energy Commission, the California Air Resources Board, and the state's Public Utilities Commission jointly released a plan to achieve that goal through greater reliance on solar and wind power, implicitly minimizing the manifest reality that, in litigious California, nothing – no matter how virtuous – gets built on a timely basis, if at all.

If the concerned scientists are right, California's power grid is in for a couple of decades of exceedingly thin skating when all of us will be scrambling for the watts to run the nifty household gadgets and kitchen appliances we're being sold.

But suppose it's not a new air-fryer you're trying to power-up in your kitchen but a massive ship longer than three football fields that's just sidled up to your dock.

A June 2021 report from highly regarded infrastructure engineering firm Moffatt & Nichol looked into that question. Its summary warning, phrased in the anodyne language of engineering consultants is that: "Several challenges await California ports, terminals, and power suppliers in converting to all electric powered container and RoRo facilities."

The M&N study set out to determine the power requirement for the two giant San Pedro Bay ports of Los Angeles and Long Beach, the Port of Oakland, and the Ports of San Diego, Hueneme, San Francisco, and Richmond. With the grid already stretched to its limits, the report notes that there is considerable risk that the transition to all-electric power could outstrip the ability of utilities to reliably deliver power to California's ports. As the study cautions: "The consequences for not addressing the challenges could result in periodic shutdowns at the marine terminals or inability to continuously operate at daily capacity, resulting in breakdowns of the supply chain."

And that's not a far-down-the-road eventuality. In his July 30 Emergency Proclamation calling for energy conservation measures, Governor Newsom cited an anticipated shortfall of 3,500 megawatts during extreme weather events this summer and a "previously unforeseen" shortfall of up to 5,000 megawatts projected for next summer.

An equipment inventory developed in the M&N report finds that, in the San Pedro Bay and Oakland regions, there are nearly 3,000 pieces of heavy-duty cargo handling equipment that move containers on a regular basis. Most of these still require conversion to be zero-emission. In addition to the cargo handling equipment, port terminals

Commentary Continued

require substantial electrical power for refrigerated containers (reefers) and shore power as well as security lighting and normal business activities. Ship-to-shore cranes in the study regions are all powered through direct connection to the electrical grid. Rubber-tired gantry (RTG) cranes in the study region are predominantly diesel powered or diesel-hybrid. Testing is currently underway for RTGs with direct connection to the electrical grid. However, M&N advise that RTG cranes with direct connection to the grid tend to have lower operational productivities than diesel powered or diesel-hybrid.

Similarly, none of the port-registered drayage trucks serving the San Pedro Bay ports are currently battery-powered commercialized Class 8 type vehicles, though there are several demonstration units in operation. Conversion to battery power for Class 8 trucks providing drayage services will require charging capability that is not currently available and would be connected to the power grid.

Ultimately, the broader issue here lies with the inability of the relevant government agencies to transcend bureaucratic boundaries to better coordinate in implementing the state's environmental mandates. Although CARB is empowered to decree a greater reliance on electric power, the agency itself is not involved in generating that power or in making the juice flow through transmission wires. Instead, those tasks are performed by utilities such as PG&E, San Diego Gas & Electric and the Los Angeles Department of Water and Power, and by public agencies, notably the state's Public Utilities Commission, the California Energy Commission, and the California Independent System Operator.

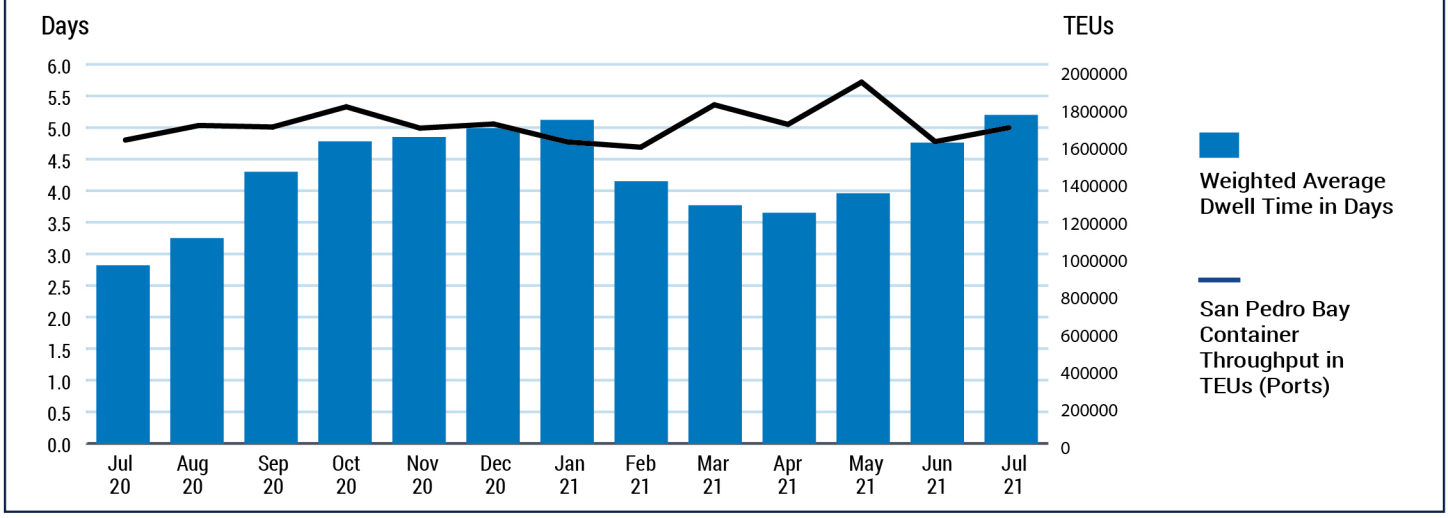
The State of California has long been accustomed to challenging private industry to develop the novel technologies needed to achieve the state's clean air goals. This time, though, it's less private enterprise but the government agencies responsible for generating and distributing electrical power in California that will likely face the stiffest challenge in abetting the drive to replace the internal combustion engine.

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

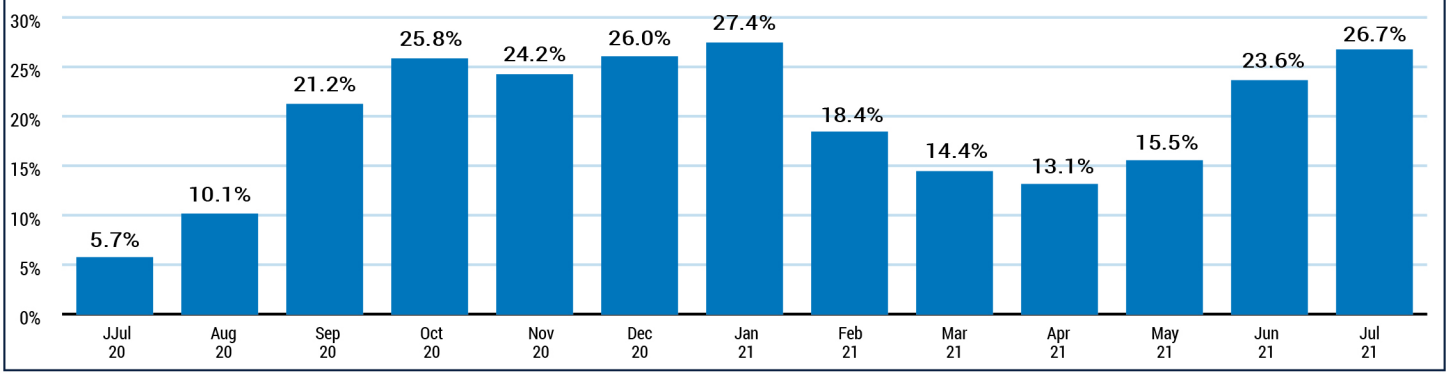
Interested in membership in PMSA?
Contact Laura Germany for details at: lgermany@pmsaship.com or 510-987-5000.

Import Dwell Time Is Up For July; Rail Dwell Time Is Slightly Down

San Pedro Bay Weighted Average Inbound Laden Container Dwell Time in Days



Dwell Time in Days % > 5 Days



Rail Dwell Time in Days