



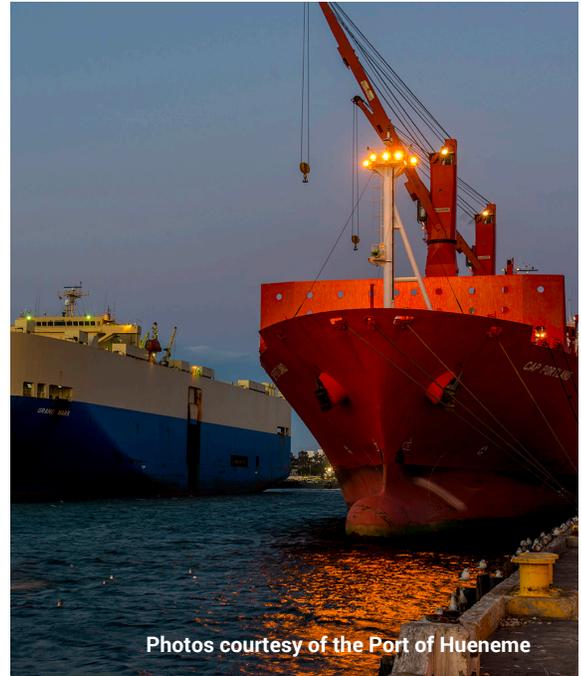
Assessing October's Numbers

Of course, we knew that October's TEU counts would be distorted due to the Hanjin bankruptcy that left many ships stranded offshore for much of September. Without that anomalous development, containerized trade volumes along the U.S. West Coast (USWC) would have been somewhat less impressive than they were.

Based on what the individual ports were reporting, the number of inbound loaded containers this October jumped 7.2% to 903,772 TEUs from 843,450 TEUs in October 2015. Things were even more robust on the export side of the ledger, where outbound loaded containers were up 13.9% to 471,412 TEUs from 413,880 TEUs last October.

As discussed in the adjacent commentary, recent containerized export growth is being driven to a very large extent by the continuing surge in exports of scrap paper products, principally to China. By weight, shipments of Waste and Scrap of Paper and Paperboard

Continued



Photos courtesy of the Port of Hueneme

Exhibit 1	October 2016 - Inbound Loaded TEUs at Selected Ports						
		Oct 2016	Oct 2015	% Change	Oct 2016 YTD	Oct 2015 YTD	% Change
	Los Angeles	417,311	358,602	16.4%	3,713,481	3,479,631	6.7%
	Long Beach	296,711	307,915	-3.7%	2,900,366	3,013,609	-3.8%
	Oakland	72,085	70,697	2.0%	736,236	701,277	5.0%
	NWSA	117,665	106,236	10.8%	1,134,829	1,094,832	3.7%
	NYNJ	N/A	269,674		N/A	2,713,424	
	Maryland	33,389	33,636	-0.7%	352,497	334,613	5.3%
	Virginia	114,093	100,230	13.8%	975,322	914,125	6.7%
	South Carolina	78,341	74,046	5.8%	738,611	705,332	4.7%
	Georgia	150,930	142,715	5.8%	1,397,716	1,386,418	0.8%
	Port Everglades	25,962	22,696	14.4%	277,117	267,856	3.5%
	Houston	80,276	68,416	17.3%	731,175	719,108	1.7%
	Jaxport	21,016	21,118	-0.5%	210,512	191,552	9.9%
	Vancouver	131,052	123,695	5.9%	1,257,631	1,308,029	-3.9%
	Prince Rupert	34,270	37,927	-9.6%	373,491	368,808	1.3%
	Manzanillo	72,806	63,590	14.5%	665,141	650,398	2.3%
	Lazaro Cardenas	41,133	40,797	0.8%	387,687	388,863	-0.3%

Source Individual Ports



Assessing October's Numbers Continued

(Harmonized System Code 4707) accounted for 43.2% of all USWC containerized exports to China this October, up from 29.3% a year earlier. October's shipments of HS4707 from USWC ports totaled 756,687 metric tons, up 90.6% from October 2015. Sizable increases in shipments of forage products such as hay (HS1214) also helped propel the increase in outbound TEUs.

The statistics reported by the major USWC container ports differ somewhat from those compiled by the Pacific Maritime Association. PMA's numbers show that inbound loaded TEUs increased 5.8% to 937,234 TEUs from 885,859 TEUs in October 2015, while outbound loaded TEUs rose 10.6% to 500,037 from 452,179 TEUs.

U.S. Commerce Department trade data published on December 6 permit an analysis using the declared value and weight of the contents of containers shipped during October. The data show that the USWC share of the declared value of containerized imports arriving at mainland U.S. ports was 49.4% in October. That's up

slightly from the 49.3% share last October, but it is down from the 50.2% share this September. USWC share of the declared weight of containerized imports in October was 40.2%, up from 40.0% a year earlier but less than the 40.5% share a month earlier.

On the export side, the USWC share of the declared weight of U.S. containerized goods outbound from mainland ports was 41.1% in October, greater than its 36.2% share a year earlier but below its 41.5% share the month before. The USWC share of the declared value of the contents of those outbound containers rose in October to 35.9% from 31.3% a year earlier and was also up slightly from 35.5% in September.

By weight, containerized imports through USWC ports continue to be dominated by furniture and auto parts, while scrap paper increasingly ruled our export trade.

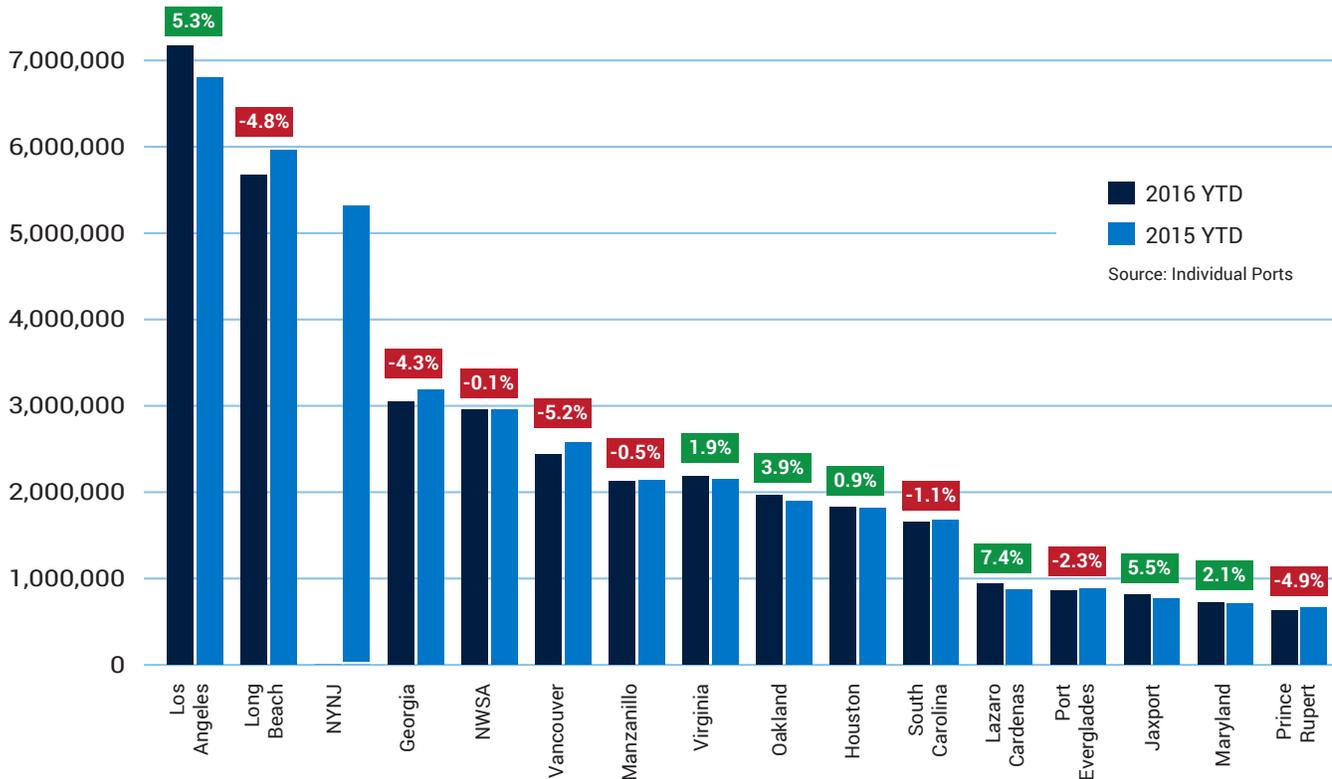
Exhibit 2		October 2016 - Outbound Loaded TEUs at Selected Ports				
	Oct 2016	Oct 2015	% Change	Oct 2016 YTD	Oct 2015 YTD	% Change
Los Angeles	166,406	134,964	23.3%	1,476,242	1,383,418	6.7%
Long Beach	126,770	128,308	-1.2%	1,285,669	1,274,721	0.9%
Oakland	89,473	74,293	20.4%	783,937	711,707	10.1%
NWSA	88,763	76,315	16.3%	802,343	711,930	12.7%
NYNJ	N/A	118,106		N/A	1,165,038	
Maryland	22,124	18,893	17.1%	197,155	182,886	7.8%
Virginia	88,796	78,780	12.7%	825,045	837,657	-1.5%
South Carolina	66,187	59,961	10.4%	620,992	620,193	0.1%
Georgia	100,636	102,975	-2.3%	1,063,033	1,063,789	-0.1%
Port Everglades	39,196	37,369	4.9%	343,843	353,452	-2.7%
Houston	73,905	76,046	-2.8%	770,978	803,566	-4.1%
Jaxport	29,471	27,861	5.8%	315,367	301,110	4.7%
Vancouver	101,110	91,298	10.7%	910,281	878,537	3.6%
Prince Rupert	15,362	12,597	21.9%	138,645	126,937	9.2%
Manzanillo	70,659	61,102	15.6%	647,264	641,915	0.8%
Lazaro Cardenas	42,911	42,760	0.4%	316,665	302,053	4.8%

Source Individual Ports



Assessing October's Numbers Continued

Exhibit 3 October Year-to-Date Total TEUs (Loaded and Empty) Handled at Selected Ports



Jock O'Connell's Commentary: Paper or Plastic?

There is a classic cocktail party scene in the 1967 film "The Graduate" when a family friend offers a bit of career advice to the befuddled-by-life character played by Dustin Hoffman: "I just want to say one word to you. Just one word...plastics."

Well, the one word I have for port officials up and down the West Coast isn't plastics, it's paper. Or, more specifically, Waste and Scrap of Paper and Paperboard (Harmonized System Code 4707).

Because that's been the chief driver of the surge in container exports we have been seeing the past several months. In fact, HS4707 alone accounted for more than

one-third of the jump in containerized export tonnage that sailed from U.S. West Coast (USWC) ports during this year's third quarter.

Measured in terms of the declared weight, containerized exports from USWC ports in the July-September period were up 31% over the same months a year ago. But shipments of HS4707 were ahead by 95%, nearly all of which (87%) went to China.

Trade in HS4707 has long benefited both foreign buyers and U.S. sellers. According to the WasteCare Corporation, cardboard is the single largest component of municipal solid waste that businesses in the United



Commentary Continued

States produce every year. Even with the huge increases in recycling efforts over the past few decades, the amount of cardboard disposed as municipal solid waste is still staggering. Enterprising exporters have long been diverting a portion of the paper waste that would otherwise have taxed the capacities of American landfills by making a few pennies on the pound selling it to the Chinese, who turned it into packaging for the finished goods they sent back to us.

It's not the hallmark export of a nation that prefers to celebrate its high-technology industries, but it is a perfect testament to our national propensity for excessive consumption.

The waste trade has had its ups and downs in recent years. Exports to China declined significantly in the wake of the Beijing's 2013 "Green Fence" initiative that brought greater scrutiny of the nasty surprises that are apt to pop up in shipments of scrap metals, plastics, and paper. The subsequent decline in China's imports of recycled goods was being lamented as recently as the May/June 2015 issue of *Scrap*, the magazine of the Institute of Scrap Recycling Industries. A leading article in that issue asked "What's Behind China's Declining Demand?"

Things started to turn around earlier this year.

One immediate reason was an apparent short-fall in China's domestic sources of scrap paper needed for recycling into product packaging. As reported in the October 2016 issue of *Recycling Today*: "Although paper consumption per capita in China has been increasing year after year, it is still way behind that of developed countries." Apparently, when it comes to scrap paper, the West is still king.

Still, the rise in HS4707 shipments to China raises some intriguing questions, not the least of which is whether it's just a short-term wrinkle in bilateral trade.

The current jump in scrap paper shipments to China comes at a time when overall U.S. merchandise exports to China have been in decline. From a peak in 2014 of \$123.6 billion, American exports to China fell by 6.1% to \$116 billion in 2015. So far this year, the value of America's China export trade is down a further 5.5%. Compounding

the conundrum, the value of the yuan has been sliding against the dollar for nearly two years now, something that would normally make China's imports of low-value merchandise from the U.S. economically imprudent.

Clearly, the upswing in HS4707 exports to China can't be explained as a suddenly soaring need for packaging for exports heading to the U.S. or to Europe, for that matter. U.S. imports from China in the third quarter were down 4.8% from the same period last year. Worldwide, exports from China fell 7.3% from a year earlier in October of 2016, following a 10.0% drop in September and reaching their lowest value in six months.

So what's going on here? Is the sharp increase in Chinese demand for HS4707 a short-term spike or a more lasting phenomenon?

One possibility is that Chinese paper recyclers have decided to stockpile the grist for packaging materials before transpacific shipping rates start rising next year with the greater consolidation of shipping line operations. That would suggest the current jump in demand will be short-lived and that West Coast container exports to China will start falling back.

But there is a more optimistic reading of the situation. The recent leap in HS4707 exports may actually be the result of the way China's retail sector is shifting rapidly away from traditional modes of business. For several years now, Chinese consumers have been increasingly emulating shoppers in the West, who have long come to



Photos courtesy of the Port of Hueneme



Commentary Continued

expect products to come in individual packaging (even if often impossible to open). The comparatively recent explosion of e-commerce has added to the demand for packaging materials, especially cardboard.

Chinese e-commerce juggernaut Alibaba brought in \$14.3 billion in total sales volume during China's Singles Day on November 11. This year's sales were up 60% from last year's total, which was \$9.3 billion. By comparison, Singles Day sales this year were more than double the total e-commerce sales from America's Thanksgiving, Black Friday, and Cyber Monday (\$2 billion last year) combined.

Running up huge sales is one thing. Alibaba's enormous logistical challenge following a record-breaking Singles

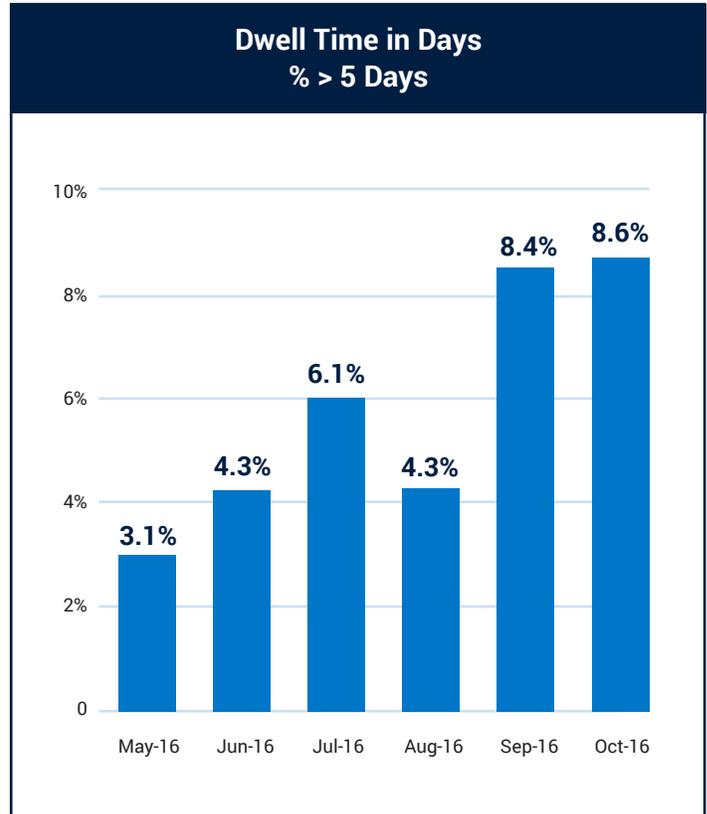
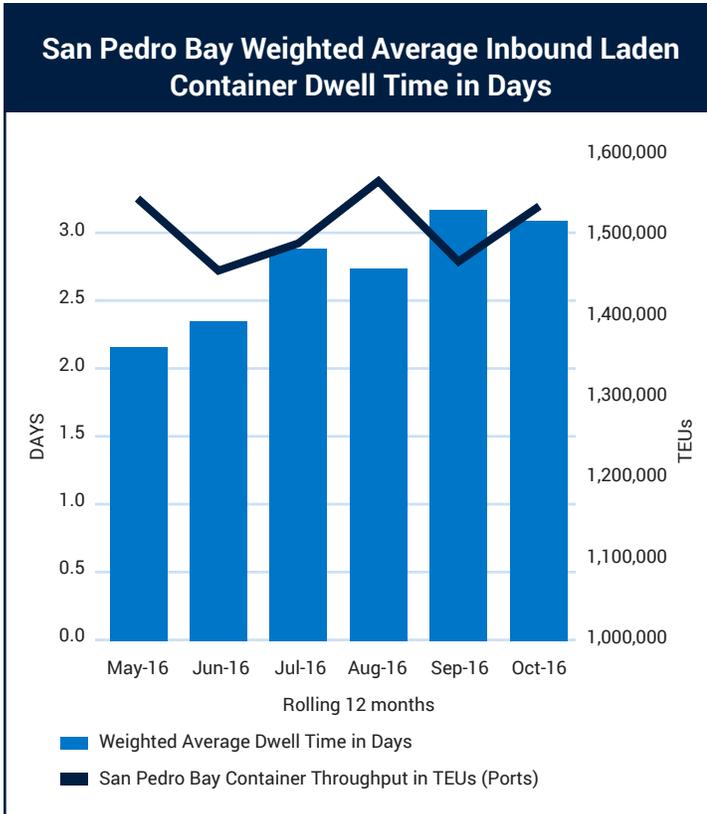
Day will be fulfilling all those orders. China's post office reported that Singles Day spawned nearly 800 million packages.

So, as long as Chinese consumers continue to go on-line in record numbers and domestic collections of wastepaper lag behind recyclers' demand, there should be a healthy market for the paper we Americans discard.

And finally, Benjamin, please tell Mrs. Robinson that containerized exports of U.S. plastic scrap to China edged up just 1.9% in the third quarter.

Happy holidays.

Container dwell time slightly dips but those over 5 days increasing





The Challenges Of The Clean Air Action Plan

By Thomas Jelenić
Vice President, PMSA

The ports of Long Beach and Los Angeles are setting out in a new direction in their recently released update to the Clean Air Action Plan (CAAP). Having largely accomplished their goals laid out in the original 2006 CAAP and updated 2010 CAAP, the ports are turning away from a focus on reducing emissions in order to help the region meet federal air quality attainment requirements and turning toward reducing greenhouse gases in the 2017 CAAP. California has made a strong commitment to reducing greenhouse gases, enacting SB32 this year, which requires a 40% reduction in greenhouse gas emission below 1990 levels by 2030. The 2017 CAAP is intended to support those goals.

There probably is no better example of a global issue than climate change and the challenge of reducing greenhouse gases. Even the State of California recognizes that it will have little impact on a global scale, but hopes to be leader that other governments can emulate. In the freight sector, the State is in the midst of its planning efforts with the recent adoption of the Sustainable Freight Action Plan. How that plan will manifest itself state-wide through the regulatory process is still unknown. Despite that uncertainty, the San Pedro Bay ports are attempting to make themselves leaders within the State through proposed commitments to zero-emission technology that does not currently exist on very ambitious time frames.

Prior versions of the CAAP focused on known technologies to achieve its emission reduction goals. By relying on known technologies, the original CAAP was able to define the timeframes for transition and estimate the financial cost of the proposals. This update seems to have thrown all the hard analysis, which is the basis of sound policy, to the wind. The CAAP appears focused on accomplishments by dates ending in round numbers than it does with developing a thoughtful analysis.

A great example of this new approach is the proposal to move all terminal equipment to zero emissions by 2030. In essentially 13 years, all cargo-handling equipment will need to be replaced. In an attempt to meet this time

frame and avoid stranded assets, the ports will work with marine terminals to develop procurement plans in 2020. Unfortunately, the feasibility assessment, which is arguably the heart of the proposal, happens in 2020 and 2025. Generally, procurement planning should follow the analysis of feasibility, not run concurrently or precede the feasibility assessment. Unfortunately, given the long life of cargo-handling equipment, if procurement planning followed a successful feasibility assessment as one would expect, there would be no magic date like “2030”.

By offering a plan devoid of the hard work of planning, the CAAP avoids dealing with troublesome and critical issues such as how much the effort will cost, who will pay, and how the plan will impact cargo volumes in San Pedro Bay. At this time, the only thoughtful examination of how much this will cost has not been provided by the ports or by the State of California, but by the Moffat & Nichol analysis commissioned by the Pacific Merchant Shipping Association (PMSA). The work looked at the cost of transitioning cargo-handling equipment on marine terminals to zero-emissions in San Pedro Bay and Oakland. The conclusion of that analysis was that the cost in San Pedro Bay alone would be between \$19 billion and \$29 billion. Some have welcomed the Moffat & Nichol assessment, others have called it inaccurate. In any case, it is the only such assessment publicly available.

For its part, PMSA would welcome a critical assessment from others – more grist for the mill. But based on the currently available data, if the CAAP is adopted in its current form, those billions would need to be spent in just 10 years, assuming a successful technology assessment in 2020. That would make today’s capital program look like child’s play by comparison.

Everyone in California knows where we are going with regard to slashing greenhouse gases. What remains lacking is a real debate about how we are going to get there.



Déjà Vu Ahead for West Coast Trade in 2017

By Mike Jacob

Vice President & General Counsel, PMSA

Barring a Trumpian trade war, in which case all crystal balls go dark, 2017 could be the year that West Coast ports finally restore their container throughput volumes to their pre-recession peaks.

That's the only bold change to predict for 2017, because otherwise not much will change in 2017 from 2016.

For instance, while transpacific freight rates should increase slightly from the historic lows we have suffered for the past several years, it will be a function of maintaining the new record highs in idled container ship capacity and vessel scrapping already reached in 2016. And, while 2016 saw a recovery of much of the cargo diverted in 2015 as a result of waterfront labor disruption, 2017 will continue this modest recovery trend.

This means that for more than a decade, the effective rate of growth for our California and Washington marine terminal operators, ocean carriers, port authorities, and the supply chains that rely on them, has been a cumulative 0%. Port authority press releases about record-breaking volumes notwithstanding, simply recovering your business to prior peaks is not a measure of financial health to brag about.

As we suffered through this decade of no functional growth, the rest of the world economy and the U.S. economy suffered through the great recession and recovered. But, the loss of West Coast market share we've experienced since our pre-recession container volume peaks of 2006 in California and 2005 in the Puget Sound was not abated post-recession.

If we could simply hang our market share woes on the tent-pole events of the recession and our 2014-15 labor dispute diversions, that would be easy to manage. But, it's not that easy to manage, because if it were, we likely would not be losing so badly.

Instead, we have a growth problem that is not driven by a single event or business cycle, but one which is driven by a confluence of factors that have been unfolding before our eyes for years.

Indeed, as our loss of market share was on full display post-recession, PMSA identified these challenges in a 2010 Journal of Commerce op-ed :

"We can recapture market share, but are starting from a point where West Coast ports' base operational costs are already high, and the entire supply chain is burdened with substantial additional expenses that simply don't exist in the rest of the country. ... So as the economy starts to turn around, and we see some modest gains at West Coast ports, our full recovery is not assured unless we demonstrate a desire to grow our trade volumes."

Sound familiar? That's because these challenges still exist:

- Our base operational costs are higher now than in 2010,
- There are few public dollars available for meaningful infrastructure projects to increase capacity, throughput, or cargo velocity,
- Privately-financed cargo-supporting infrastructure projects (i.e., Southern California Intermodal Gateway) have failed to clear environmental planning processes,
- and in 2017 we will only potentially be handling the same container volumes we last saw in 2006.

Toss in more ocean carrier consolidation, more Ultra-Large Container Vessels coming on-line despite weak demand, idle fleets, and weak global trade growth rates, and we'll have déjà vu ahead of us in 2017.

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