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February 2013

ASICS: Paperless perfection

Page 26

Kim Appling, director of DC operations, Kyle Koestler, DC planning director, ASICS

SPECIAL REPORT: U.S. PORTS UPDATE

Green roots take hold 46S

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LM management UPDATE

AN EXECUTIVE SUMMARY OF INDUSTRY NEWS

◆ **LaHood to step down as DOT Secretary.** United States Department of Transportation (DOT) Secretary Ray LaHood said last month that he would not serve a second term. As DOT Secretary, LaHood has helped develop and implement the Obama Administration's priorities and policies regarding all transportation modes and infrastructure. LaHood was very active on the transportation infrastructure and freight fronts, including establishing an effort focused on national domestic freight initiatives entitled the Freight Policy Council whose objective is to focus on improving the condition of the national freight network to better ensure the ability of the U.S. to compete in the global economy, as well as steering $48 billion allocated towards transportation funding as part of the American Recovery and Reinvestment Act of 2009. In 2011, LaHood was named Logistics Executive of the Year by the National Industrial Transportation League (NITL) and *Logistics Management* magazine. No immediate word on who will replace LaHood.

◆ **Not a bad end to 2012 for trucking volumes.** Trucking volumes finished 2012 on a fairly positive note, according to data released by the American Trucking Associations (ATA) last month. The ATA said that seasonally adjusted (SA) truck tonnage in December increased 2.8 percent following a 3.9 percent gain in November, which was the first monthly gain for the SA since January. The ATA also said that consecutive increases in November and December "were by far the best gains of 2012." But the news was not all rosy, with the ATA adding that the SA was down 2.3 percent compared to December 2011, which marks the worst annual result for the SA since November 2009.

◆ **ALK Technologies acquired by Trimble.** ALK Technologies, a provider of solutions for transportation, logistics, and mobile workforces, was acquired by Trimble, parent company of Trimble Transportation & Logistics, a provider of end-to-end technology solutions to for-hire motor carriers, private fleets, freight brokerage, and third-party logistics providers. Trimble officials said that bringing ALK into the fold is expected to augment and complement Trimble's transportation and logistics product portfolio. "The combination of ALK's routing, mapping, mileage, and navigation capabilities with our enterprise transportation management software and the mobile communications solutions under Trimble Transportation and Logistics supports our comprehensive and industry-focused technology approach," said Scott Vanselous, chief marketing officer of TMW Systems, a Trimble Company.

◆ **West coast ports have a decent 2012.** Despite a heavy amount of economic sluggishness and uncertainty in 2012, the Port of Los Angeles (POLA) and the Port of Long Beach (POLB) were not left wanting for volume in 2012. For all of 2012, total container volume for POLA—at 8,077,714 twenty-foot equivalents (TEU)—were up 1.7 percent compared to 2011. This marks the third time that POLA has cracked the 8 million TEU mark, with 2007 and 2006 being the other two years at 8,355,038 TEU and 8,469,853 TEU, respectively. And across San Pedro Bay at POLB, the port moved a total of 6.05 million TEU, down 0.3 percent from 2011. Imports were up 1.2 percent to 3.06 million TEUs; exports were up 2.2 percent to 1.54 million TEUs; and empties were down 5.6 percent to 1.44 million TEUs.

◆ **Rockefeller to retire from Senate.** Approaching nearly 50 years of public service, Senator Jay Rockefeller (D-WV) announced that he will not seek reelection to the U.S. Senate in 2014. Rockefeller was a familiar name to those in the supply chain sector, as he was a strong presence in various bills designed to have a significant impact on how freight railroads operate and conduct business. The objective of his Surface Transportation Act of 2009 bill was to address the long-standing concerns of rail shippers regarding rates and service and making the railroad industry more competitive. He also introduced the SAFE Port Act: Securing our Nation's Critical Infrastructure in 2010, which he stressed: "Maritime security is more than just protecting our ports from attack. It's protecting our ships—both military and commercial, preventing attacks in our communities, and keeping extremely hazardous materials from being used as weapons."

◆ **Do the robot.** At last month's ProMat show in Chicago, Henrik Christensen, KUKA chair of robotics and director of robotics at Georgia Tech, outlined present and future logistics applications for robots and automation. He also emphasized the increas-

Continued, page 4

LM management UPDATE

AN EXECUTIVE SUMMARY OF INDUSTRY NEWS

ingly competitive domestic labor market, citing a rapidly shrinking salary gap and efforts by Apple and Lenovo to bring more manufacturing jobs to the United States. Christensen discussed his successful efforts at the White House to convince lawmakers that automation and job growth were not mutually exclusive. Christensen suggested that 10 years from now, autonomous cars could be driverless and parcel carriers could use unpiloted drones to ship packages coast to coast. Inside a facility, robots serviced by their manufacturer are already providing intra-facility transportation services, with the customer no more involved with robot maintenance than they are in the upkeep of UPS trucks.

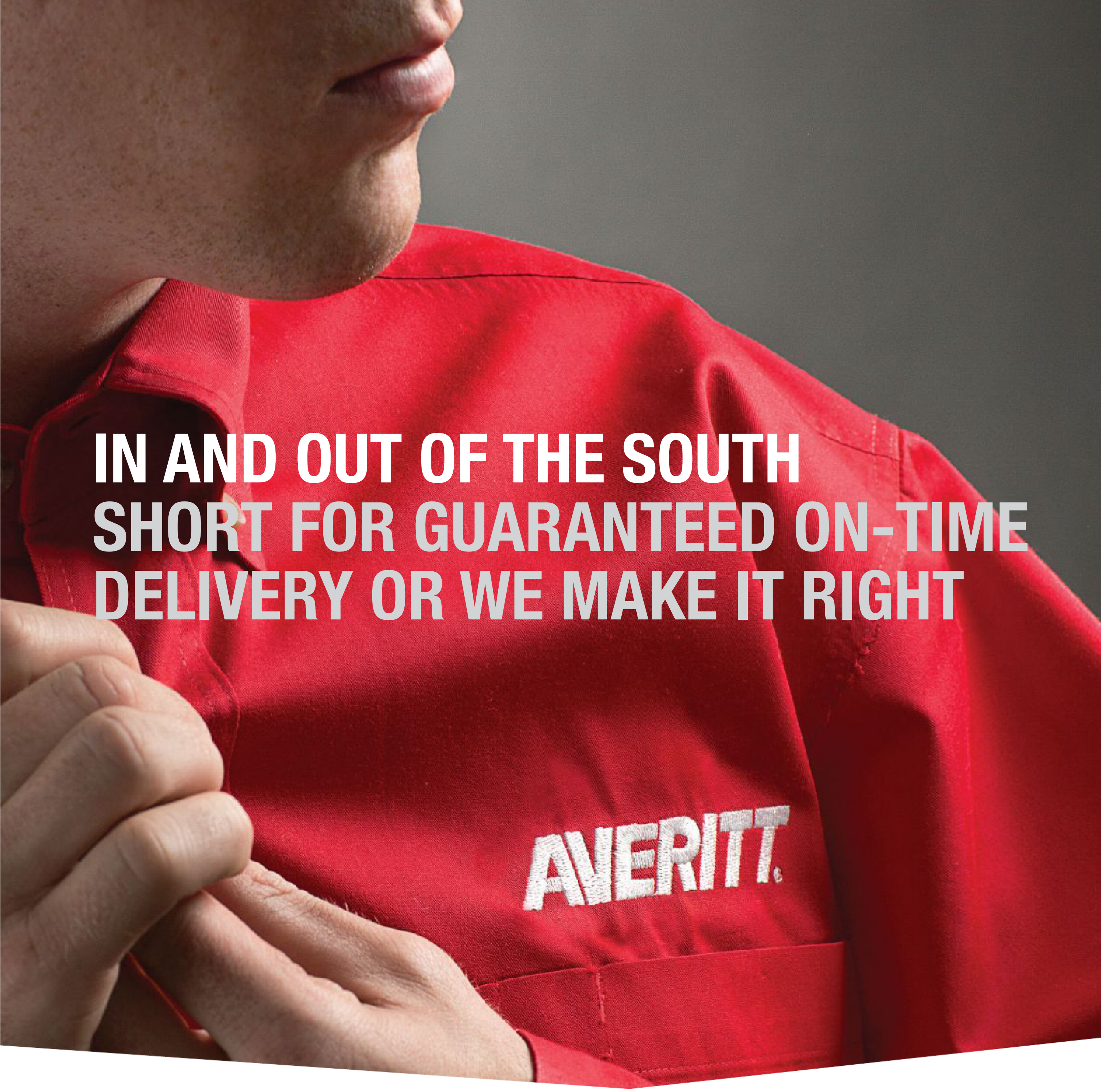
◆ **Coming up for air.** The International Air Transport Association (IATA) released traffic results for November 2012 that showed an improvement in airfreight demand, with volumes edging up 1.6 percent after declining 2.6 percent in October, year over year. "It is premature to consider this a turning point for air cargo markets in terms of bouncing back and regaining lost ground," said Tony Tyler, IATA's director general and CEO. "But when coupled with positive economic developments in the U.S. and an improvement in business confidence in recent months, the conditions are aligning to see a return to growth in 2013." Tyler added that in 2013 IATA expects that cargo volumes will grow 1.4 percent worldwide, reflecting a shift in seasonal shopping to online retailers that depend heavily on air cargo.

◆ **Class I railroads pony up heavy capital investments.** Long known as a sector whose capital expenditure investments are funded by private capital and not taxpayers, Class I railroads recently announced significant 2013 capital expenditure investments. These include: Norfolk Southern's committing $2 billion in 2013 for capital improvements to its rail transportation network; CSX planning to spend $2.3 billion to help meet the nation's long-term demand for freight rail and further the company's plans for long-term profitable growth; Union Pacific committing $3.6 billion on capex in 2013; and BNSF Railway allocation of about $4.1 billion on capex in 2013 for capital projects. Along with things like infrastructure, capacity expansion, employment, and technology investments, Class I railroads will continue to invest heavily on Positive Train Control systems that are designed to prevent train-to-train collisions, overspeed derailments, and incursions into roadway work limits, which is expected to take effect in 2015.

◆ **Transpac trend.** The Drewry Hong Kong-Los Angeles container rate benchmark, published in the latest Container Freight Rate Insight report, jumped 14 percent to $2,524 per forty-foot equivalent unit (FEU) as the January peak season surcharge (PSS) took effect. The $311 per FEU increase in the benchmark rate shows that Transpacific Stabilization Agreement member carriers' achieved around 50 percent of their intended $600 PSS price increase target. "Cargo demand and carrier load factors have strengthened in the run up to Chinese New Year," said Martin Dixon, Drewry's research manager for freight rate benchmarking. "The wild card remains the threat of strike action at U.S. East Coast and Gulf Coast ports that is also serving to strengthen rates."

◆ **Auto logistics.** Just a few years ago, the global automotive logistics sector was regarded as moribund at best, however, a new report suggests that demand from emerging markets are changing all of that. According to Transport Intelligence (Ti), a London-based think tank, the reversal of fortune may mean a wealth of opportunities for logistics service providers on a global scale. "The automotive world looks like it's evolving into one dominated by a few large global vehicle manufacturers with operations in markets such as China, Brazil, Russia, and India integrated into supply chains heavily rooted in North America, Western Europe, and Japan," said Thomas Cullen, Senior Analyst at Ti and author of *Global Automotive Logistics 2013.*

◆ **Greener vessels.** TOTE, Inc. announced it has committed to the construction of two new state-of-the-art containerships for the Puerto Rico trade, with options for three more vessels for additional domestic service. The agreement with General Dynamics NASSCO represents a major technological milestone in international shipping. The vessels will be the most environmentally friendly containerships in the world with CO_2 emissions-per-container that are 71 percent less than the vessels now in the Puerto Rican trade. According to the carrier, particulate matter will be reduced by 99 percent, sulfur oxides will be reduced by 98 percent, and nitrogen oxides will be reduced by 91 percent. □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February 2013 logisticsmgmt.com

LM Logistics Management

VOL. 52, NO.2

CONTENTS


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Logistics Management® (ISSN 1540-3890) is published monthly by Peerless Media, LLC, a Division of EH Publishing, Inc., 111 Speen St, Suite 200, Framingham, MA 01701. Annual subscription rates for non-qualified subscribers: USA $119, Canada $159, Other International $249. Single copies are available for $20.00. Send all subscription inquiries to *Logistics Management*, 111 Speen Street, Suite 200, Framingham, MA 01701 USA. Periodicals postage paid at Framingham, MA and additional mailing offices. **POSTMASTER: Send address changes to: Logistics Management, PO Box 1496 Framingham MA 01701-1496**.

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SPECIAL REPORT:
U.S. PORTS UPDATE

Green roots take hold

Port authorities at major cargo gateways on all three coasts are investing in infrastructure and strategic planning to become more sustainable corporate citizens—a positive trend that's making U.S. seaports more efficient and resilient than ever. 46S

LM VIEWPOINT

Put collaboration into action

THE CONCEPT OF COLLABORATION IS nothing new. The idea of opening doors, dropping defenses, and improving how shippers and carriers work together has been kicked around for decades as a surefire cure to the annual rate and capacity negotiation dance.

And while collaboration has been written about and discussed at conferences *ad nauseam* over the past several years, it's time to put this concept to work—especially for shipper/LTL relations.

After being battered by three years of recession that decimated profits, LTL carriers, not surprisingly, are now laser-focused on improving yields and profitability in order to make decent enough returns to recapitalize their businesses and rolling stock. In fact, some carriers are already showing margin expansion as a result of repricing in their poorest-yielding accounts.

Now that the LTL market has pretty much stabilized, it's no secret that shippers are coping with a new era of tighter capacity, higher rates, and tougher carrier negotiations. This month we offer a piece designed to help shippers get closer to their carriers and take that first step to better managing in this environment.

Titled "ABCs of improving LTL relations" (page 36), this practical how-to by Contributing Editor John Schulz offers shippers four time-tested methodologies to help carriers ease shipments through their systems. "Some of the tips that were shared with me by carriers and analysts are pretty simple," says Schulz. "but they're vital now that LTLs are focused on controlling customer expense and eliminating unprofitable freight."

According to Schulz, the shippers who heed the advice of this article are the ones who will have the capacity they need when they need it—at the right rate. Would you like to join them?

Editor's Note: Last month I used this column to announce the bold redesign of our print issue; and now I'd like to thank the many readers who dropped us a line over the past month to compliment our Creative Director, Mike Roach, on the fresh representation of our masthead, the updated feature and column layout, and the cleaner, crisper type.

The new columns by Group News Editor Jeff Berman and Executive Editor Patrick Burnson have met with positive early reviews as well. So if you haven't yet taken the time to digest these offerings, Berman's Newsroom Notes can be found on page 20 and Burnson's Pacific Rim Report is on page 64.

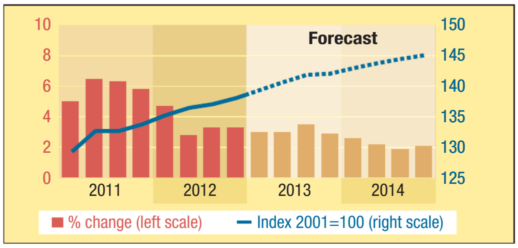
And while we've upgraded the print experience of *LM*, more and more shippers are turning to logisticsmgmt.com to supplement their learning. In fact, *LM*'s website set a new traffic record in January, and we now have more than 10,000 followers on Twitter (@LogisticsMgmt). During last month we also attracted more than 1,700 registrants for our 2013 Rate Outlook Webcast (logisticmgmt.com/2013RateOutlook)—that's more than half the number of in-person attendees at CSCMP's recent annual conference.

So, it's up to you on how you'd like to digest *LM*—print or online. We've simply made sure that regardless of the media you choose, the content is there to help you do a better job of managing your operations in today's new realities.

Michael A. Levans, Group Editorial Director
Comments? E-mail me at
mlevans@peerlessmedia.com

priceTRENDS

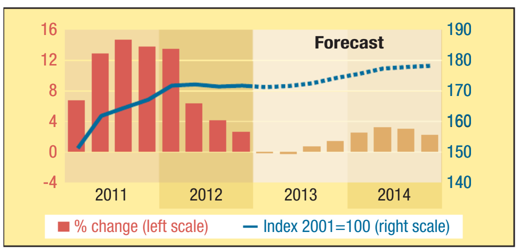
Pricing across the transportation modes



% CHANGE VS.:	1 month ago	6 mos. ago	1 yr. ago
General freight - local	0.0	3.2	3.3
TL	-0.3	0.3	2.6
LTL	-0.1	4.4	6.7
Tanker & other specialized freight	-0.2	-0.1	0.6

TRUCKING

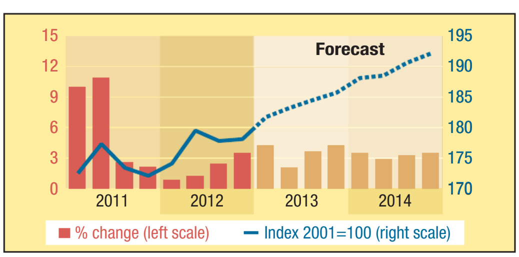
With 2012 data now complete, trucking's annual inflation rate scorecard shows TL prices up 4.7%; LTL, up 6.1%; and tanker and other special freight trucking up 1.3%. Altogether, trucking industry transaction prices grew 3.5% in 2012. Inflation rates in 2012 stood about two percentage points lower than 2011 inflation rates for all trucking categories. Most of the inputs truckers need to operate—most notably fuel—enjoyed even slower inflation compared to trucking prices. According to our cost model, the trucking industry's total costs increased only 2% in 2012. With costs mostly under control, our revised forecast shows average trucking prices up 3.1% in 2013 and up 2.2% in 2014.



% CHANGE VS.:	1 month ago	6 mos. ago	1 yr. ago
Air freight on scheduled flights	-0.1	-0.3	0.2
Air freight on chartered flights	-6.0	-3.7	2.9
Domestic air courier	-0.4	-0.4	6.5
International air courier	-0.4	-0.8	4.9

Air

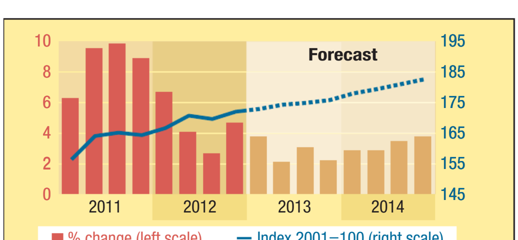
In the U.S. airline industry, average transaction prices increased 4.6% in 2012. That was a significant inflation slowdown from the previous two years when airline price tags jumped 7.6% to 7.7% annually. Prices for moving freight and mail on scheduled flights also slowed, but only to a 6.5% pace in 2012 from 12.1% in 2011. On the cost side of the ledger, meanwhile, we estimate the airline industry's total costs grew by a mere 0.3% in 2012. That was a startling turnabout from the previous year's 12.1% cost hike. With wages and other costs under control for now, U.S. airliners hauling freight in the belly of scheduled flights are forecast to increase their average prices only 0.4% in 2013 and 2.8% in 2014.



% CHANGE VS.:	1 month ago	6 mos. ago	1 yr. ago
Deep sea freight	0.0	-1.3	4.0
Coastal & intercoastal freight	-1.2	-2.5	3.8
Great Lakes - St. Lawrence Seaway	1.3	3.8	7.2
Inland water freight	0.9	3.5	3.2

Water

Companies that ply inland waterways increased average transaction prices 3.7% in 2012, slowing from the previous year's 11.3% inflation rate. Meanwhile, prices to move freight over the Great Lakes and St. Lawrence Seaway continued rising at a solid 9.8% pace as deep sea water transportation prices fell 1.8%. In aggregate, the U.S. water transportation industry netted an even 2% average annual price hike in 2012. We estimate total cost escalation in the water transportation industry sped up from 3.5% in 2011 to 4% in 2012. With cost pressures mounting, our revised forecast shows average water transportation prices up 3.6% in 2013 and up 3.3% in 2014.



% CHANGE VS.:	1 month ago	6 mos. ago	1 yr. ago
Rail freight & passenger	-0.2	0.3	4.8
Intermodal	0.1	1.2	2.9
Carload	-0.2	0.2	5.3

Rail

U.S. rail operators cut their monthly transaction prices in the final month of 2012 with carload rail tags dropping 0.2%. Nonetheless, the inflation damage was done as carload rail carriers ended the year with a 4.8% average annual price increase. Intermodal rail tried to keep up, but closed 2012 with a 2.9% price hike. The good news for rail carriers (and the lucky logistics manager with negotiation leverage): The railroad industry's materials and labor costs are estimated to have increased at only a 1% annual pace in 2012. That's a far cry from the previous year's 11.3% cost hike. Our forecast for rail industry price escalation remains unchanged: up 2.8% in 2013 and up 3.3% in 2014.

Also:

UPS' planned acquisition of TNT Express officially withdrawn

Lack of clearance from the European Commission halts the parcel giant's plans for "transformative" European expansion.

By Jeff Berman, Group News Editor

ATLANTA—UPS announced late last month that its planned acquisition of Netherlands-based TNT Express, the fourth largest global parcel operator, for roughly $6.8 billion is officially off.

This announcement follows a formal decision from the European Commission (EC), the executive body of the European Union, prohibiting the acquisition.

UPS officials said that as a result of the decision UPS and TNT have entered a separate agreement to terminate the merger protocol.

Many of the EC's concerns were due to the competitive parcel landscape in Europe, according to UPS. And while UPS said it proposed "significant and tangible remedies" to address these concerns—including a plan to sell some of its assets, together with some TNT assets—they did not pass the EC's litmus test.

"UPS believes that the combined company would have been transformative for the logistics industry, bringing meaningful benefits to consumers and customers around the world, while supporting much needed growth in Europe in particular," UPS company officials said. "While UPS is disappointed in the EC's decision, the company's focus is on the continued execution of its growth strategy."

Since March 2012, when UPS and TNT said they reached an agreement, the deal has seen more than its share of stops and starts. UPS said in December that the EC had told both UPS and TNT Express that "it is working on a decision to prohibit the proposed acquisition of TNT Express."

The EC's decision followed a series of competition-related obstacles coming from the EC and the European Union, going back the last several months, including:

- A November filing by the European Commission that cited the EU Competition Commissioner as saying UPS needs to offer "substantial remedies" to eliminate concerns of the deal, which would double its size in Europe.
- Multiple extensions of the Offer Period for the deal and a Statement of Objections (SO) put forth in late October by the EC. The SO addressed the competitive effects of the intended merger on the international express small package market in Europe.
- A *Bloomberg* report that said UPS received antitrust objections from regulators that listed potential problems with the deal, including how buying TNT would remove one of the few serious competitors in the European delivery services market.

A November *Wall Street Journal* report pointed out that given the antitrust concerns over this deal, UPS was separately working on several possible remedies as the November 29 deadline to offer concessions got closer. Among the concessions, according to the report, was UPS' U.S. group shrinking its existing presence in the international parcel delivery sector of Europe.

Stifel Nicolaus analyst David Ross later wrote in a research note that the EC and UPS/TNT appeared to differ on their understanding of the size of the parcel market, which Stifel believes is the "main basis for objection to this merger."

UPS said that upon prohibition by the EC, the Offer Condition relating to the EU Competition Clearance will not be fulfilled and UPS will pay TNT a termination fee of $267 million and withdraw the offer.

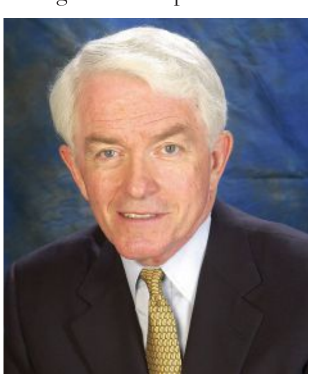
"Based on the maneuverings of TNT to configure the firm for an acceptable acquisition and the length of time all this has taken, I believe that the EU may now have dealt TNT a death sentence," said Jerry Hempstead, president of parcel consultancy Hempstead Consulting. "Because of all of the uncertainty, the customers made moves and many employees lost focus and energy. Now TNT has to rebuild, and I'm not certain the $200 million will be enough to save them in the long run." □

POLICY

Chamber of Commerce economic forecast: Slowly improving with debt threat

WASHINGTON, D.C.—The nation faces a balancing act between the need to spend more on infrastructure while finally addressing the ballooning national debt—something the nation's top business lobbyist calls the biggest single threat to the U.S. economic future.

In his annual State of American Business address last month, U.S. Chamber of Commerce President and CEO Thomas Donohue urged Washington to finally tackle the enormous fiscal challenges and build a new prosperity that offers opportunity for all Americans.


Thomas Donohue, U.S. Chamber of Commerce President and CEO

"The imperative of economic growth should not be an afterthought. It must be job one," said Donohue. "As a nation and a people, we must finally face up to the single biggest threat to our economic future—and that is our exploding national debt, driven by runaway deficit spending, changing demographics, and unsustainable entitlements.

Congress and the administration must make this a priority, Donohue said, because economic growth will not be strong enough to solve all of our problems. "But without growth, we will not be able to solve any of them," he warned.

Donohue also called for a slight increase in the federal tax on fuel—currently 18.4 cents on gasoline, 23.4 cents on diesel, and unchanged since 1993. He said that it's time to "quit fooling around" and sufficiently finance the Highway Trust Fund, which has been supplemented by revenue from the general treasury each year since 2008.

"You don't need a lot," Donohue said during a press conference after his speech. "You do a little bit a year for a couple years and it'll make a big difference."

Buoyed by recoveries in the all-importing housing and automotive sectors, the nation is in recovery and will not fall back into recession, Donohue predicted. In fact, the Chamber is forecasting growth of 1.5 to 1.75 percent for the first half of the year, gradually accelerating to 2.5 percent by the end of 2013.

As part of his address, Donohue unveiled the Chamber's 2013 American Jobs and Growth Agenda, a five-point plan to help generate stronger economic growth by producing more American energy, expanding American trade, modernizing our regulatory system, reforming immigration, and slowing growth of runaway spending through cuts in entitlement programs.

"The over-riding objective of this ambitious plan is to generate stronger economic growth in order to create jobs, lift incomes, and expand opportunity for all Americans," Donohue said. "America needs big solutions so it's time to put the smallness of politics aside. We call upon all of America's leaders in and out of government to put country first."

Donohue, a veteran Washington power broker, says he has "no illusions" that putting our country on a sound and responsible fiscal course will be easy. "Our government is divided and conflicted because the American people are divided and conflicted," he added. "But we cannot ignore this crisis any longer. Nor can our leaders."

—John D. Schulz, Contributing Editor

INTERMODAL FREIGHT

AAR reports mixed volumes for carload and intermodal in 2012

WASHINGTON, D.C.—As was the case for most weeks of 2012, U.S. railroad and intermodal volumes were mixed when the final count for the year came in from the Association of American Railroads (AAR).

Carload volume over the course of 2012 at 14,682,219 was down 3.1 percent compared to 2011 and down less than 1 percent compared to 2010. Intermodal volume at 12,267,336 trailers and containers in 2012 was up 3.2 percent compared to 2011 and up 8 percent compared to 2010's final numbers.

Since 1988, the only year that total U.S. rail carloads were lower than 2012 was 2009 when the number hit 13.8 million due to the impact of the recession, according to AAR reports. In the meantime, 2012 intermodal volume represents the second highest on record, with volume down just 0.1 percent from 2006's record high.

That intermodal output is impressive, with the AAR pointing out that a new annual record almost certainly would have been set in 2012 if not for the strike by harbor clerks at the Ports of Los Angeles and Long Beach beginning in late November, or for Hurricane Sandy that severely disrupted rail and port operations on the East Coast beginning in late October.

The AAR reported that 12 of the 20 commodities it tracks saw annual gains in 2012. Petroleum products led the pack, up 46.3 percent. Motor vehicles and parts were up 16.5 percent, while crushed stone, sand, and gravel rounded out the top three up 7.9 percent.

As expected, coal was the commodity seeing the single largest annual loss, due in part to the ongoing emergence of low-priced

natural gas. Coal, which represents 41 percent of total U.S. carload traffic, was down 10.8 percent. Grain was next, down 9.5 percent, while metallic ores fell 5.7 percent.

"Coal and grain typically account for around half of U.S. rail carloads, so when they're down, chances are good that overall rail carloads are down too, as we saw in 2012," said John Gray AAR's senior vice president. "That said, a number of key rail carload categories showed solid improvement in 2012, including categories like autos and lumber that are most highly correlated with economic growth. Meanwhile, intermodal just missed setting a new volume record in 2012."

AAR officials said that the

steep declines in coal and grain are a "serious concern" to railroads, but from the standpoint of the health of the economy these declines are less problematic because coal and grain carloads often rise and fall for reasons that have little to do with the state of the economy.

The coal declines, AAR explained, were due mainly to reduced demand from coal-fired power plants because of lower natural gas prices and more stringent environmental regulations. As for grain, AAR said that exports were down due largely to the severe summer drought that reduced production.

"Last year was not a great year for railroads in that they make money on the bulk commodities that were down," said Tony Hatch, principal of ABH Consulting. "But it wasn't a terrible year either as they produced solid annual gains. In the end, there was nothing the railroads could have done to change those numbers at all."

—Jeff Berman, Group News Editor

LOGISTICS TECHNOLOGY

GT Nexus and TradeCard announce definitive merger agreement

OAKLAND, Calif.—Last month's announcement of a merger between GT Nexus, a cloud-based logistics and global transportation control solutions provider, and TradeCard, a provider of cloud-based financial supply chain and production visibility solutions, is expected to result in the world's largest cloud-based business network for global trade and supply chain management, according to company officials.

With the meshing of these companies, GT Nexus and TradeCard said that they expect to cumulatively manage more than $100 billion in direct supply chain trade, adding that the merger is expected to close early in the second quarter.

The company will be based in Oakland, Calif., where GT Nexus is located, and have various regional offices in the U.S. and abroad. Officials said TradeCard CEO Sean Feeney will serve as CEO of the merged company, while GT Nexus CEO Aaron Sasson will serve as Chairman of the Board. Details regarding the company's name and leadership structure will be announced when the deal is finalized.

As cloud technology continues to replace licensed and installed traditional software in the corporate enterprise and global supply chain management, GT Nexus and TradeCard say it represents the next big opportunity for driving business agility and operational excellence.

What's more, they said the combined entity will become the world's biggest cloud information utility, with a global network of more than 20,000 businesses spanning various industries—ranging from retail and apparel to high tech, automotive, heavy industry, consumer products, pharmaceutical, chemicals, commodities, finance, and logistics.

"Both companies share a common technology vision that networked platforms, delivered in the cloud, is the path forward for companies that source and sell goods globally," said Feeney, TradCard CEO. "The strengths of each company are highly complementary and will offer customers a complete solution, covering the entire supply chain execution lifecycle, from sourcing of goods to final delivery and payment."

Adrian Gonzalez, director of Boston-based Logistics Viewpoints, applauded the news of this merger, explaining the two companies complement each other well. "They are both network-based solution providers, where connectivity to trading partners is at the core of their respective solutions," he said.

And the timing seems right too, added Gonzalez. "While I've been a big proponent of network-based solutions for a long time, particularly for cross-enterprise business processes, I believe more and more companies are starting to 'get it'—they're starting to understand the unique benefits a network-based solution can provide versus a traditional, stand-alone, behind-the-firewall solution."

—Jeff Berman, Group News Editor

GLOBAL TRADE

Port Tracker report calling for slow growth in 2013

WASHINGTON, D.C.—With labor negotiations between the International Longshoremen's Association and the United States Maritime Alliance at East and Gulf Coast ports still in flux, import volume growth is expected to show modest growth, according to the most recent edition of the Port Tracker report from the National Retail Federation (NRF) and Hackett Associates.

The Port Tracker report said 1.25 million twenty-foot equivalent units (TEU) were handled in November, marking a 2.8 percent decline from November 2011 and an 8.6 percent decline from October, the most recent month for which data is available. The ports surveyed in the report include: Los Angeles/Long Beach, Oakland, Tacoma, Seattle, Houston, New York/New Jersey, Hampton Roads, Charleston and Savannah, Miami, and the recent addition of Fort Lauerdale, Fla.-based Port Everglades.

Port Tracker reported that the first

half of 2012 accounted for 7.7 million TEU, up 2.9 percent annually and ahead of previous estimates in the 7.3 million TEU range. And for all of 2012, the report is expecting 15.9 million TEU for a 2.9 percent annual gain, down from a previous estimate of 16.1 million TEU. The 2011 total was 14.8 million TEU, which was up 0.4 percent over 14.75 million TEU in 2010.

The report estimates that December volumes hit 1.33 million TEU for a 6.5 percent annual gain, with January forecasted for a 2.3 percent bump. February is expected to increase by 6 percent, while March is expected to head up 0.5 percent.

"The strike deadline came and went at the end of December, but the threat of closing down nearly half our nation's port capacity has only been postponed, not eliminated," said Jonathan Gold, NRF vice president for supply chain and customs policy. "The uncertainty of what will happen in February has retailers implementing expensive contingency plans yet again, and it is a burden our economy cannot afford."

Contract talks between the ILA and USMX were extended from December 29, 2012 to February 6, 2013 on the heels of previous strike deadlines in September and October of 2012.

In preparation of a possible strike, many shippers have had contingency plans in place to re-route freight to ensure supply chain operations and planning are not altered or compromised.

This was verified in the latest Hackett Associates report. According to Ben Hackett, there were indications that retail shippers brought freight into the U.S. early when the ILA December 29, 2012, deadline was looming. He added that there was a rise in the level of the retail inventory-to-sales ratio, which may be a reflection of importers stocking up ahead of the East/Gulf Coast strike that was expected even though the run-up occurred well ahead of that.

"Uncertainty was the main reason for this," said Hackett. "First, there was the Fiscal Cliff concern, which has since been resolved somewhat. But tax increases will take disposable income out of the system. Growth i s also slowing down due to things like globalization coming more into balance and consumers being more hesitant and qualified in terms of what they're buying. The boom days seem to be over."

"The uncertainty of what will happen in February has retailers implementing expensive contingency plans yet again, and it is a burden our economy cannot afford."

—Jonathan Gold, VP, supply chain and customs policy, NRF

—Jeff Berman, Group News Editor

Newsroom Notes
with Jeff Berman

Jeff Berman is Group News Editor for the Supply Chain Group publications. If you want to contact Jeff with a news tip or idea, please send an e-mail to jberman@peerlessmedia.com.

A long and winding road ahead for the USPS

In early January, the United States Postal Service (USPS) called on Congress for postal legislation in an effort to become solvent—a statement that comes on the heels of the USPS saying that it many not be able to wait for Congress to act.

Given the myriad financial issues that the USPS is up against, coupled with the glacial-like pace that legislation moves, this is probably a good decision for the USPS, an organization that is currently losing $25 million per day and recently defaulted on $11.1 billion in Treasury payments and exhausted its borrowing ability. For fiscal year 2012, the USPS incurred a record net loss of $15.9 billion, compared to a $5.1 billion loss in fiscal year 2011.

The $11.1 billion of the $15.9 billion loss is attributed to mandated prefunding health retiree benefits that are part of a Congressionally-mandated 10-year payment schedule at an average of about $5.5 billion per year to pay future retiree health benefit premiums.

So, what's the plan for the USPS now that it has decided it cannot afford to wait around for Congress? The USPS said that the Postal Service Board of Governors met last month to talk about various accelerated cost cutting and revenue generating measures. A main edict coming out of that meeting was that the Board of Governors has directed management to accelerate the restructure of USPS operations to reduce costs and improve its bottom line.

They said that this would occur through restructuring initiatives in conjunction with the USPS revising its 2012 five-year comprehensive plan to account for current financial and liquidity conditions.

However, it's not like the USPS has been simply waiting around for good ideas to pop up. Many industry experts maintain that they put themselves in this position with the prefunding of retiree health benefits, and it's certainly hard to dispute that conjecture.

But at the same time, it has reduced its annual cost base by about $15 billion since 2006 and reduced the size of its career work force by 168,000 staffers, or 24 percent.

Despite its record-setting fiscal year 2012 losses, there were some positives on display for the USPS. Fiscal year 2012 shipping and package services business revenues for the USPS were up $926 million—or 8.7 percent—at $11.6 billion, and volumes were up 201 million pieces at a 6.6 percent annual growth clip.

These services include Priority Mail, Express Mail, Parcel Select, and Parcel Return services and account for 2.2 percent of total USPS volume and 17.8 percent of total revenue. USPS officials pointed to e-commerce fulfillment and last-mile services as drivers for its strong performance.

The upswing in shipping and package revenues is helping to counter the ongoing losses the USPS continues to experience on the mailing services side due to the ongoing diversion to electronic alternatives. But first class mail revenue for fiscal year 2012, said the USPS, dipped 3.9 percent to $28.867 billion, with volume down 5.3 percent or 3.826 billion pieces.

The USPS is currently losing $25 million per day and recently defaulted on $11.1 billion in Treasury payments and exhausted its borrowing ability. For fiscal year 2012, the USPS incurred a record net loss of $15.9 billion, compared to a $5.1 billion loss in fiscal year 2011.

In order to regain its financial footing, the USPS is keen on coming up with a plan to counter its current dilemma, which it describes as "an inflexible business model that hinders its ability to be self-sufficient."

That is where legislation is needed and will eventually have to factor into its long-term survival plan. And while its Board of Governors said that they cannot wait around indefinitely for legislation, that will not put a stop to the USPS calling on Congress to make postal reform legislation an urgent priority either.

Jerry Hempstead, president of parcel firm Hempstead Consulting, could not agree more.

"Congress needs to man up," said Hempstead. "They can, now that the election is behind us, pass legislation that allows the USPS to operate as a commercial business. It's nuts that the government operates a monopoly and the monopoly looses money. That speaks volumes about how we run our fiscal house." □

Moore on Pricing

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Re-imagining the shipper/carrier relationship

I RECENTLY HAD THE HONOR of facilitating workshops for large shippers and their current and prospective carriers in the midst of major contract RFPs and renewals.

It was terrific to see private conferences where a shipper and multiple carriers openly discussed the shipper's business and really thought through how best to find a solution. These types of events enable the selection of "best fit" partners based upon complementary networks and business cultures.

For companies that are serious about sustainability and creating "mutual incentive," an ideal solution is to change to a new contract model that makes cost transparent and establishes a minimum base margin and incentives for innovation. This, of course, means ripping up the old procurement-driven methods, killing reverse auctions, and investing time in learning new partnership-building methods.

Kate Vitasek at the University of Tennessee has multiple books out on "vested outsourcing" and the "vested way" of contracting. I recently spoke to Kate about "vested transportation" as a concept and she agreed that this area really needs a new model.

She shared stories of shippers who burned out their top carriers by beating them up on price and later found themselves seeking service from second-tier service providers. According to Vitasek, what would enable a mutual partnership arrangement is the ability for carriers and shippers to flex in their daily transaction prices—even on a shipment level—to reward innovation and creativity in capacity utilization.

This means throwing out the fixed-rate tables in our TMS tools and having machines and people interact much like the airlines systems do on capacity-available pricing. These types of models and web-based tools are coming to market.

Imagine a service provider having shipping forecasts from the shipper so equipment location and capacity could be planned. Imagine the carrier flexing pricing to react to capacity shifts. Image a single source for the shipment price as we have in passenger air and parcel—this would reduce pre- and post-auditing expense and allow for faster settlement.

Or image the carrier knowing the cube of pick-ups so routing and final delivery can be planned even as the products are being picked up. In fact, carriers continue to tell me that better information in these areas saves them money.

Shippers need to step up their game to help the carriers with information that in turn can provide information on transit and delivery. And as lead times shrink and performance metrics make the difference for buyers in evaluating suppliers, those who rely on carriers to have flawless operations need confirming data—these are the shippers who will be most competitive in the market.

> **"This means ripping up the old procurement-driven methods, killing reverse auctions, and investing time in learning new partnership-building methods.**

They need carrier partners in executing their strategy; thus, the planning workshops with full network disclosure and transparency in target areas such as service, safety, and cost act as a first step in building new, long-term, more dynamic contracts. These agreements are designed to flex with the changes in either the shipper's or the carrier's networks.

Breaking the cycle of reverse auctions and arms-length "commodity buying" will be tough. However, other areas of logistics, such as warehousing, technology, and value-added services are blazing the trail.

I believe we can envision this change for the huge transportation services market, starting with dedicated carriage and then with truckload and less-than-truckload eventually following suit. I look forward to encouraging this trend. ☐

Pearson on Excellence

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Insight to action: The eyes of dynamic operations

IN OUR PREVIOUS COLUMN we introduced the concept of "dynamic operations:" supply chain networks that respond quickly and smoothly to changing business conditions. We also identified dynamic operations' four enabling capabilities and looked briefly at how they work together to help companies identify, accommodate, and even benefit from supply chain disruptions. The first of these capabilities is "insight to action."

Think of insight to action as the ability to sense, capture, and analyze external and internal data, and turn it into usable business intelligence. In effect, you're using information to react swiftly to both threats and opportunities—buffering risk while leveraging risk's upside.

The foundation of insight to action is often a command center that emphasizes real-time monitoring and visibility, while constantly simulating scenarios that may or may not happen. Think of it as a streak-free window through which companies can see potentially disruptive events (weather anomalies, supply disruptions, demand drops) as well as fast-breaking opportunities (evolving markets, technology innovations, favorable currency swings, information about competitors' actions).

Zara—one of the world's most innovative clothing retailers—provides a textbook illustration. Zara's entire operations strategy is built around speed to market—delaying production and even product design until market-signal information is available.

Toward this end, store managers use command-center-like capabilities to tightly monitor sales and market trends and then make appropriate, last-minute manufacturing, product assortment, and inventory decisions. Leveraging these attributes, Zara's time to market, from design to store shelf, is two weeks to five weeks compared to the industry average of six months.

In the fashion world, this is a huge competitive advantage. When Madonna performed one evening in Spain, an outfit identical to the one she wore at the concert was selling in Zara's stores three weeks later.

Advanced risk-management capabilities are equally important in the world of insight to action. This means not only identifying supply chain risks, but understanding trigger points, assessing their impact, formulating mitigation strategies, and developing mechanisms for minimizing exposure over the long term.

Insight to action depends heavily on predictive analytics and simulation engines. Unlike descriptive analytics that helps companies understand what already happened, predictive analytics uses sophisticated statistical modeling, forecasting, and optimization to predict potential outcomes and assess the operational impacts of prospective supply chain decisions.

Analytics and simulation also help companies improve demand planning, evaluate the "cost of risk" and compare production-allocation scenarios based on product profitability.

Consider the case of a global high-tech manufacturer that uses a "resiliency scorecard" to help predict, quantify, and respond to risks associated with manufacturing, supplier manage-

The basics of "insight to action"

Key Components	Principle Capabilities
Command center that emphasizes real-time monitoring and visibility	• Control tower for monitoring critical data (weather, port activity, geopolitical events, currency fluctuations, supply/demand, etc) • Formal group tasked with managing risk • Defined trigger points that help sense activity and prepare responses
Predictive analytics and simulation engines	• Priority placed on leveraging talent, achieving process excellence, and deploying leading-edge technology • Tools/processes that evaluate "cost of risk" and the most economical response • Continuous re-analysis: asking the right questions and collecting the right data
Advanced decision science and reporting capabilities	• Firm-wide emphasis on rapid, accurate analysis of large amounts of disparate data • Alerts that trigger systemic responses, thus minimizing human intervention • Enablement of fast response based on time-phase variables and options

ment, component quality and integrity, and testing. The company associates manufacturing resiliency with the existence of viable alternative sites, qualified manufacturers and likely delivery response times should a disruption occur.

Similarly, insights developed from analyzing a supplier's behavior—using financial information about public companies and correlating the data with supplier performance metrics such as lead times and service levels—allow the organization to develop a "supplier score" and formulate contingent actions.

Making it happen

There are many ways to build insight-to-action capabilities:

- Enhance your organization's modeling capabilities to simulate high/low-probability events and gain a better understanding of how the supply chain reacts under each scenario.
- Develop a command center to monitor weather patterns, port activity, consumer behaviors, geo-political events, and currency fluctuations—any event that might signal a market opportunity or cause an adverse supply chain reaction.
- Develop tools and processes that help evaluate the cost of risk and determine the most economical responses.
- Focus IT staff on the ability of systems to talk to one another in real time.
- Develop real-time metrics and align them with alert mechanisms.

Insight to action's overarching benefit may be the chance to concurrently reduce costs and increase revenue. On the cost side, companies can improve their ability to anticipate and respond quickly to disruptions—leveraging "better eyesight" to rapidly understand, respond to, and even leverage, supply chain disruptions.

Cost-related results can include greater cost transparency, better process management, enhanced material sourcing, improved labor utilization, and higher capital efficiency.

On the revenue side, superior market and supply chain insights can help companies: 1) recognize and adjust to disruptions more quickly than competitors; 2) make rapid, rational pricing adjustments as circumstances shift; and 3) accelerate speed to market to capture new opportunities. In short, the cost-lowering, revenue-enhancing potential of dynamic operations begins with insight. ☐

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Cheating to win: Some lessons from the Tour de France

LANCE ARMSTRONG AND GREG LEMOND HAVE BOTH stood atop the Tour de France podium on numerous occasions, but that's not all that they have in common. They were both obsessed with winning, and, in a way, they both cheated.

Whereas Armstrong used banned substances to cheat his competitors, LeMond used aerodynamic handlebars (aero bars) to maintain a more aerodynamic body position and "cheat" the wind.

The final stage of the 1989 Tour de France was a time trial race against the clock, and LeMond's choice of equipment helped him to surmount a 50-second deficit to overall race leader Laurent Fignon. On that sunny July day in 1989, Fignon crossed the finish line and collapsed to the ground after learning that LeMond had bested him by 58 seconds on the final stage.

Aided by technology and driven to win, LeMond eked out an 8-second margin of victory for the three-week race, which is the narrowest win in the race's 100-plus year history. Had LeMond not used aero bars, he would have won the final time trial, but he would not have won the overall race.

But what does this have to do with logistics management, you ask? Plenty.

Above all else, bicycle racing is about energy management. The Tour de France is won during the time trials and mountain stages; and it's won by the riders who are best able to meter their efforts and overcome wind resistance, inertia, and the unrelenting pull of gravity.

Truckers face similar challenges, and those that best manage fuel consumption enjoy a competitive advantage over the rest.

According to the American Trucking Research Institute (ATRI), fuel costs account for roughly 35 percent of average marginal costs per mile, and with diesel prices expected to remain high, competitive advantage will be bestowed on trucking companies who are best able to manage fuel consumption and contain fuel costs.

Overall, aerodynamics may account for 15 percent to 22 percent of energy losses for a fully loaded Class 8 truck traveling at highway speeds. Significant fuel savings can be realized by matching cab height to trailer height, reducing the gap between the cab and the trailer, and installing fairings on the chassis and the trailer.

Additional savings can be had by rounding the corners on trailers, installing wheel covers, removing sun visors and auxiliary mirrors, and installing aerodynamic primary mirrors or rear facing video cameras.

Rolling resistance accounts for another 13 percent to 16 percent of energy losses for the average Class 8 truck travelling at highway speeds and 8 percent to 12 percent of energy losses for Class 8 trucks operating in the city. These losses provide a clue as to why nearly all fuel tanker trucks and trailers are equipped with super-single tires instead of the standard dual variety.

Super-single tires reduce total vehicle weight by 1,000 pounds or more when paired with aluminum wheels. In cases where the truck is not cubed-out, as is the case with tanker trucks, these weight savings allow for higher payloads. They also generate significant improvements in fuel consumption per ton-mile.

> **The difference in fuel economy between the best and the worst driver can be up to 25 percent. And with the contraction in drivers the population of fuel-efficient drivers is declining.**

In cases where trucks are cubed out, meaning that they become filled before reaching the maximum weight restrictions, the reduction in weight reduces rolling resistance associated with sidewall and tread deformation. Of course, because the number of sidewalls is nearly halved by swapping super-singles for dual wheels, rolling resistance due to sidewall deflection is already significantly reduced.

According to statistics published in the Transportation Energy Data Book, Edition 31, the average fuel economy for dual-tire tractor-trailer combinations was 6.73 miles per gallon in 2011, and fuel economy for super-single tractor-trailer combinations was 7.35 miles per gallon. This equates to 9.2 percent savings, or more than 1,500 gallons per 125,000 miles—which is the average number of miles driven per truck per year. At $4 per gallon, that pencils out to $5,000 in savings per 100,000 miles, and $600,000 per year for a fleet of 100 trucks.

Super-single tires also offer better brake cooling and better traction in snowy conditions, both of which are definite benefits—especially in mountainous regions. Maintenance is also easier and cheaper, and labor costs for tire replacement is cut in half. Another benefit of super-singles is that they are marginally more aerodynamic than dual wheel/tire combinations.

Fuel savings are not restricted to reducing rolling resistance and wind drag, however. On average, 5 percent of fuel consumed by Class 8 trucks is burned while idling. Of course idling cannot be completely eliminated, but it can certainly be reduced. Doing so, however, requires drivers to change their behaviors—and as long as this is an option, I see no reason to restrict behavior modification to idle-time reduction.

In cycling, if two riders are of equal ability, the one that best manages energy output throughout the race will have the stronger kick during the final meters. And according to Brian Daniels, the powertrain products manager for Daimler Trucks of North America, drivers are directly responsible for 30 percent of the factors that affect fuel economy.

So the message is clear for private fleet managers: Managing costs clearly requires investment in both equipment and worker training.

Chief among the fuel efficiency recommendations for drivers is to reduce highway speeds. In this regard, the amount of horsepower (HP) required to overcome wind resistance increases 50 percent, from 120 HP to 180 HP as a fully loaded class 8 truck increases its speed just 10 miles per hour, from 60 mph to 70 mph.

In addition, the driver should focus on maintaining steady speed and low rpm as it is more efficient to take advantage of torque down low rather than horsepower up high. There is, of course, an exception to the rule of maintaining steady engine speed, and that is to "drive with momentum" on undulating terrain.

When I used to race bicycles at the collegiate level, I was told that races are never won on the downhill, and this holds true for trucking as well. In anticipation of upcoming hills, drivers should accelerate gently in advance of the hill, and allow the truck to decelerate on the incline and work gravity to their advantage on the backside of the hill.

According to Michael Roeth of the North American Council for Freight Efficiency, the difference in fuel economy between the best and the worst driver can be up to 25 percent. And with the contraction in drivers that has resulted from the volatile economic times of late, the population of fuel-efficient drivers is declining.

Greg LeMond did not decide to use aero bars until the morning of the time trial, and there is no better time than the present for carriers to invest in driver training and equipment that will allow them to cheat gravity, inertia, and the wind—and win. Similarly, there is no better time for shippers to demand carriers to make these cost-reduction investments or use this knowledge in negotiations with carriers. □

ASICS finds

Kim Appling, director of DC operations and Kyle Koestler, director of DC planning for ASICS America.

When the athletic footwear maker flipped the switch on its 520,000-square-foot paperless DC it completely transformed the way it processed orders. Today, its mobile equipment affords real-time inventory management, improved communication among floor supervisors, and new efficiencies in shipping operations.

BY **MAIDA NAPOLITANO**, CONTRIBUTING EDITOR

Japan-based ASICS Corporation—an acronym from the Latin phrase, *Anima Sana In Corpore Sano* ("a sound mind in a sound body")—employs the latest in scientific research for the sole purpose of staying ahead of the curve when manufacturing some of the most advanced athletic products in the world. Since being introduced to the U.S. in 1977, the manufacturer has gained tremendous ground as the go-to footwear in this country's burgeoning population of running aficionados.

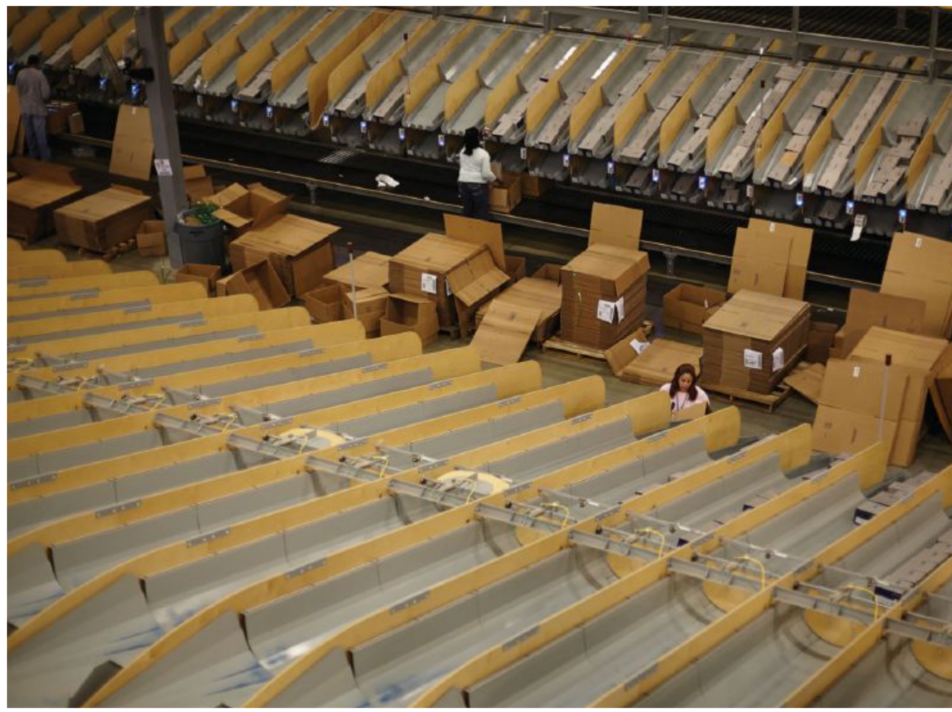
Today, its American subsidiary, ASICS America Corporation, distributes athletic footwear, apparel, and accessories to a vast array of customers—including major sporting goods stores, department stores, family footwear retailers, and specialty stores in the U.S., Canada, and Brazil. The company has been growing rapidly; reporting double-digit gains in net income in 2012. With such impressive growth comes great responsibility, and ASICS America's distribution team has kept a close eye on its distribution infrastructure so that it can continuously and seamlessly support revenue growth while efficiently meeting customer requirements.

Since 1996, the team had operated what was in its day a state-of-the art distribution center (DC) with pickers using mobile radio frequency (RF) devices to zone-pick orders from traditional pick modules to cartons on conveyors. Initially designed to support $500 million in sales, this old DC began feeling the pain as sales—predicted to grow to $1 billion by 2015—began exceeding its capacity. The DC operations team knew it had to step up in order to keep pace with growing demands as well as corporate expansion plans.

So in August 2011, the team flipped the switch on a new, technologically advanced, 520,000-square-foot paperless, wireless DC in Marshall County, Miss., to process the company's footwear product line that drives the majority of its business. Over the next few pages we'll detail how ASICS completely transformed the way it processed footwear orders to accom-

the perfect fit

modate rapid growth using a high-capacity unit sorter. We also take note of how it's using mobile equipment to keep a real-time check on inventory; improve communication among floor supervisors; and efficiently manage assets, resources, and shipping operations.



Getty Images/Phillip Parker

The cross-belt unit sorter automatically sorts each footwear unit to the proper chute. Workers then pack the accumulated units into outbound cartons and then push completed cartons to a takeaway conveyor.

Outgrowing the old DC

After years of aggressive growth, it wasn't until 2007 when Kyle Koestler, ASICS America's director of DC planning, knew something had to give. "The capacity of the old DC was about 50,000 units per day, but we needed to ship an average of 65,000 units per day. We basically had to work 22 of 24 hours, and during our peak season, overtime hours were especially severe," he says.

Continued SKU proliferation didn't help matters. While the old DC had only 12,000 total pick faces, including apparel, it was potentially processing in excess of 20,000 SKUs. "Whatever SKUs that we weren't picking for the day we pulled out and replaced with whatever SKUs we needed," recalls Kim Appling, director of DC operations. "We would do this at night so that when the workers came in they could just start picking."

Most of its business drove outbound processing and shipping to the end of the month, but because it couldn't keep up, the DC had to process a number of its end-of-the-month orders by the middle of the month. That compounded the challenge of finding additional space to hold packed orders in a facility that was already bursting at the seams—in fact, the team was already using 224,000 square feet of off-site warehouse space.

The final test of the old DC's mettle was how quickly it could handle its "at-once" or high priority orders. "We're extra sensitive to the 'at-once' business because the better we are at responding to them, the faster we get product to the store shelf to fill the need," explains Koestler. But unfortunately, "at-once" was taking between 3 to 5 business days, and Koestler and Appling knew they could do much better.

Time for change

In early 2008, the ASICS team began the transition to a distribution strategy that could better address its needs. With the existing facility landlocked with development on all three sides, the group came to a decision not to expand the existing DC, but to open a new DC in nearby Marshall County just 20 miles from the original DC.

In 2009, they presented their business case to ASICS Japan. "After we got the approval from Japan, we began initial design sessions between ASICS operations, engineering, and our external partners," says Appling.

The team established business requirements and investigated potential technologies. Much of the initial design discussion revolved around whether to stay with the traditional pick modules or move towards a unit sorter. The planning team did an in-depth analysis of each current distribution channel along with other potential channels of growth and quickly decided that the cross-belt unit sorter could better meet future business needs.

"The unit sorter doesn't really care how many SKUs you're actually processing," says Appling. "And that fits the picture for our 5-year to 15-year growth plan while saving us time, efficiency, and space." Tours to other DCs deploying similar unit sorters reinforced the decision and greatly aided the team in the design process. The team eventually selected a cross-belt sorter that best fit ASICS America's business requirements and long-term goals.

Building construction started in February 2010 with the unit sorter installation beginning in November 2010. Testing and training occurred

Wearable ring scanner is used to scan chute barcode.

How ASICS uses mobile devices to drive its wireless, paperless DC

1 At receiving, containers arrive and are offloaded, scanned, and verified against the advance shipping notice (ASN) from the factory using handheld RF devices. Using extendable conveyors, cartons are manually unloaded and another handheld RF device is used to scan each inbound carton to the proper pallet.

2 Once palletized, tasks are automatically generated to drivers on reach trucks equipped with onboard RF scanners to pick up the pallet from the designated receiving lane and deliver it to the appropriate pick-up-and-delivery (P&D) location. Turret trucks, also with onboard scanners, pick up the loads and store them in reserved locations in very narrow aisle (VNA) storage, based on that product's movement. Once stored, it is now "allocatable" within the ASICS WMS.

3 Each day a wave planning team analyzes the different orders received for the day, using an array of control variables to organize orders into waves. "Not only do they make sure that they're not overloading any one particular area, they also have to balance the needs of shipping and what they have scheduled to go out the door," says Kim Appling, director of DC operations.

4 Once a wave is determined, tasks are automatically generated through the WMS to have individuals on lift trucks, or on foot with wrist-mount RF scanners, to pick the necessary products for a wave from pallet, case, or unit reserved storage. Picked product is then transported to a wave bank "staging area" where it awaits the release of a wave to the cross-belt unit sorter.

5 Once a wave is released, cartons are placed on conveyors that travel through a pre-sort area. Full case orders—about 25 percent of total volume—are diverted directly to shipping, while the rest of the cases to be distributed continue on to one of four induction stations. At each induction station, a worker scans a case and "feeds" the unit sorter the required number of units. Any partial cases are placed back on another conveyor for transport to a residuals area where it again gets scanned and put away to a WMS-designated location.

6 In the meantime, the unit sorter automatically sorts each unit to the proper chute. Once all the units for an outbound carton have been diverted to the chute, a light on the chute starts blinking, indicating that the items are ready to be packed out. A packer goes to the chute and scans the chute with another wireless device, telling the worker what size outbound carton to use.

7 The carton's LPN is scanned, and all the units are packed into the carton with UPCs stacked face-up. Once packed, the outbound carton is pushed to a takeaway conveyor underneath the pack stations. The packer scans the chute again, clearing it for the next sort.

8 The completed outbound carton travels to an in-line camera scan that snaps a photo, validating that all the UPCs in that carton are what should be associated with that carton's LPN. Any inconsistencies are diverted to a resolution area. Cartons requiring additional processing—such a special ticketing—are diverted to a value-added-service area, while others continue on to taping and print-and-apply stations where shipping labels are automatically affixed to the carton. Outbound cartons then continue to one of 18 shipping lanes where they can be either directly loaded onto waiting trailers or palletized and staged for later loading.

"For 1,000 cartons on the wave, probably 996 go without issue," says Kyle Koestler, director of DC planning for ASICS America. As a result, both Appling and Koestler have set up their own proprietary procedure that reconciles all loads on a wave within an hour after closing the wave on the sorter. Problem cartons are diverted to a resolution area where another stream of processes and tasks are automatically generated to get the problem cartons back on track.

—Maida Napolitano, Contributing Editor

simultaneously as the sorter was being built. "Our single largest problem was getting our full-time employees to 'unlearn' what they thought they knew," recalls Appling. "Everything was so different from what we did at the old DC that it became a running joke within the facility to just unlearn the old process."

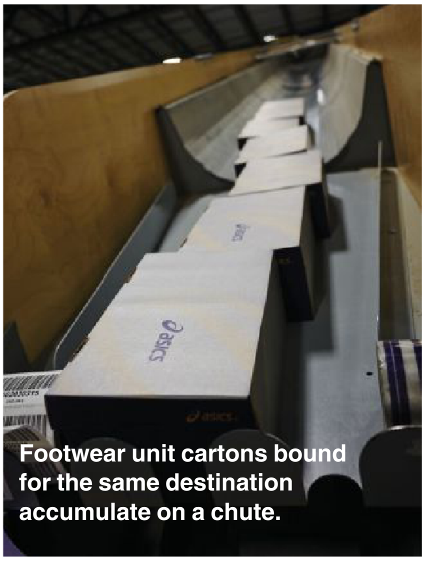
Koestler agrees. "It was a total change, even for management."

In April 2011, ASICS took ownership of the facility and immediately began moving off-site storage into the new DC. With four million pairs of shoes to transition over, management knew it couldn't happen overnight. Preparations began for a phased-in approach, first shipping only seven customer accounts in a "soft go-live" event in May.

"We built the inventory to support the first seven accounts," says Koestler. "We stayed in as close communication as possible with customer service, sales, and the customers involved, resolving issues as quickly as we could," he says. By August 2011, ASICS had completely transitioned the processing of all footwear accounts into the new facility.

The old facility remains open to process apparel and accessories. According to Appling, because apparel has such different product characteristics than footwear, the apparel chutes would require a completely different pitch. "In the next five years we're looking to see what needs to happen to retrofit this facility

The entire inventory at ASICS is tracked in real time using a variety of wireless RF devices with scanners that are handheld, mounted on wrists, or onboard lift trucks.



Footwear unit cartons bound for the same destination accumulate on a chute.

so that we can consolidate apparel and accessories into the new DC."

Mobility in the DC

From receiving through shipping, the entire inventory at ASICS is tracked in real time using a variety of wireless RF devices with scanners that are hand-held, mounted on wrists, or onboard lift trucks. "If you move it you scan it; if you scan it you move it," quips Koestler.

Real-time scanning has not only increased inventory accuracy levels, but it has also improved real-time decision making. "It's helped us get quick resolution to issues," Koestler adds. "If a carton is out of place, workers can scan it and immediately put it in the correct location."

Other types of mobile devices have also been invaluable for fostering effective communication. Supervisors use radios to keep in constant contact on the floor, while managers use smart phones. "We're actually experimenting with some tablet devices, trying to see how it can best fit the operation," says Koestler. He envisions floor supervisors using the tablets primarily for inventory control as mobile workstations or to track productivity and staffing levels throughout the DC.

Benefits pouring in

With the old pick-pack operation, Koestler and Appling estimated that picking accuracy levels were about 98.5 percent. With the new DC, accuracy levels have dramatically improved to 99.99 percent.

The old system allowed the DC to process 65,000 units per day by working multiple shifts with excessive overtime. "Now we are able to basically double that all on one shift," says Appling.

As a result, overtime percentage, which hovered around 10 percent in the old DC, has dropped down to 2 percent in the new DC, while labor cost per unit has decreased by 43 percent.

Processing time for "at-once" orders has also reduced dramatically from 3 to 5 days to just under 2 days for both DCs. For footwear alone, the DC can now process "at-once" orders within one business day.

Both Koestler and Appling have been getting plenty of positive reviews from ASICS customers. "Not just for the quicker order turn time, but the accuracy percentages and the ease of doing business with the two DCs," says Appling.

Koestler credits the DC's success to every person involved—from the planning and implementation team to the ASICS sales group who dealt directly with any customer issues. "Despite the new automation and equipment, we still needed good people to set it up right, then monitor it to make sure things are working the way they should be."

Appling agrees. "We didn't have egos in the room. It was a collaborative, collective effort."

Maida Napolitano is a Contributing Editor to Logistics Management

Static pallet racks in reserved storage area.

System Providers:

System Integrator: Fortna Inc. (www.fortna.com)

Warehouse Management System: Manhattan Associates (www.manh.com)

Lift Trucks: The Raymond Corporation (www.raymondcorp.com)

Cross-Belt Unit Sorter: Beumer Group (www.beumergroup.com)

Print and Apply Equipment: Panther Industries, Inc. (www.print-n-apply.com)

Mobile Devices: Motorola Solutions, Inc. (www.motorola.com)

Reverse Logistics: Closing the global supply chain loop

Ongoing economic "volatility" and the growing global focus on sustainability are placing more pressure on logistics managers to establish a strategic, alternative distribution network. Here's some food for thought before establishing yours.

BY **PATRICK BURNSON**, EXECUTIVE EDITOR

The ongoing economic "volatility" is teaching manufacturers and retailers a great deal about squeezing the margins of inventory and creating a viable and sustainable alternative distribution network, says a prominent reverse logistics expert.

According to Dr. Dale Rogers, professor of logistics and supply chain management and co-director of the Center for Supply Chain Management at Rutgers University, logistics managers are under more pressure than ever before because of this new reality. "Rising transportation costs along with global uncertainty and shifting demand patterns have increased the complexity of their missions," he says.

One trend Rogers points to is less reliance on China. "With the wage structure rising there, and added expenses associated with the reverse cycle, we see a gradual move away from the massive manufacturing sourcing of the past," he adds. This will not happen suddenly, cautions Rogers, who maintains that the first temptation for U.S. shippers might be to simply send aftermarket goods into landfills. But with the growing global focus on sustainability, that tactic will not last long.

"Environmental pressures will be exacerbated by commercial forces as well," adds Rogers. "With the shortage of precious, and rare earth metals, the need for reuse will be enormous. And you can't return old electronic goods to China—those days are coming to an end."

At the same time, Rogers says, Brazil and other emerging nations are drafting laws to require manufacturers to recycle unsold goods. This will further complicate a supply chain based on point-of-sale imperatives. "The lack of infrastructure in some of the more remote regions of Brazil makes it almost impossible to regain any margin on the reverse cycle," he says.

The traction that "near-shoring" is gaining will have an impact in the long-term as well, says Rogers, with more sourcing going to cross-border factories in Mexico. "It will make local refurbishment less costly eventually. This is especially true of high-tech products that require a high yield rate in the secondary market," he says.

Edgar Blanco, research director at the MIT Center for Transportation and Logistics, says shippers should also keep their eyes on the Caribbean Basin for reverse logistics services.

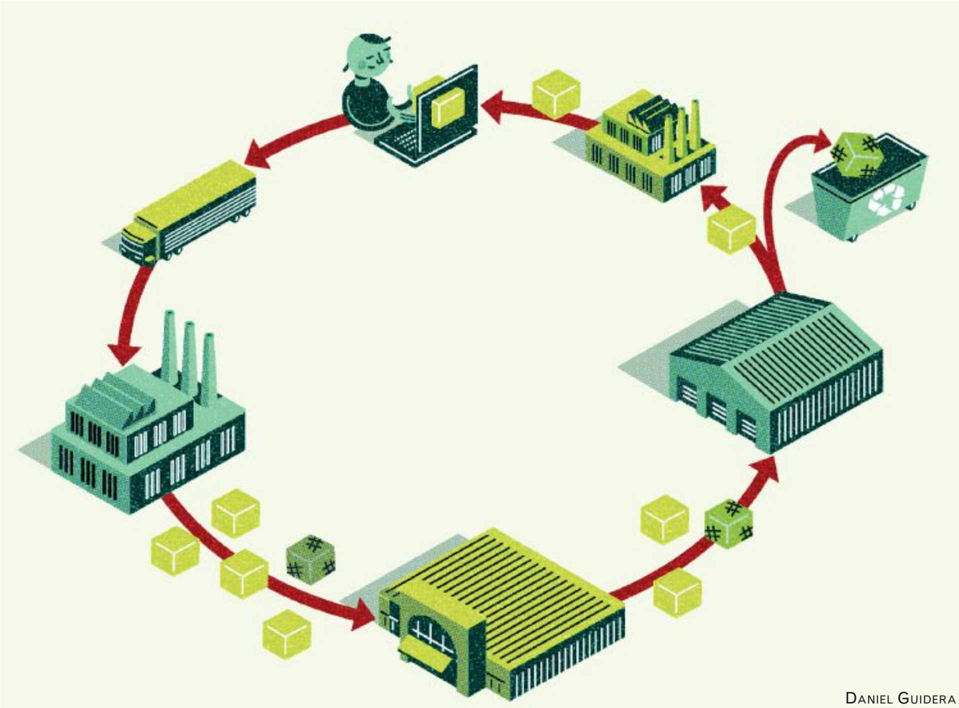
"The Panama Canal expansion is going to be a game-changer," says Blanco, "driving a great deal of logistical activity in the region. We are keeping a keen eye on Columbia, for example. Electronics manufacturers there are recycling batteries and cartridges on a massive scale. This is a very aggressive reverse process that neighboring countries are going to emulate."

Blanco, who also serves as the executive director of the MIT SCALE Network (an international alliance of leading research and education centers) in Latin America says that U.S. manufacturers may even move some repair and repackaging operations in the coming years.

"Miami is already feeling the impact of this, and other major U.S. cities in the Gulf may be next," says Blanco. "At the same time, however, a secure network of suppliers has to be put in place. This means complete transparency between first-, second-, and third-tier partners. Without that, there's too much risk."

Inventory management is paramount

Supplier transparency is key to any reverse cycle. But supply chain scholars note that other risks must be examined as well.


DANIEL GUIDERA

Diane Mollenkopf, Ph.D., McCormick Associate Professor of Logistics in the department of marketing and logistics at the University of Tennessee, says the tsunami disaster in Japan highlighted the vulnerability of being too lean in terms of inventory protection levels. “One also runs the risk of having too few suppliers, especially when geographically concentrated,” she says. “Shippers will surely be reconsidering how much inventory is really needed in the supply chain, and where that inventory should be located.”

Mollenkopf notes that from a reverse logistics perspective, some shippers may find that they can increase their inventory protection by more effective and timely recapture of return goods. “So an effective reverse flow may help mitigate some of supply risk,” she says.

However, finding a third party logistics (3PL) provider capable of managing an offshore reverse process is still difficult. According to Mollenkopf, the economics of forward and reverse flows pose different challenges. “A good 3PL not only handles transportation, but also has a network of facilities for sorting return goods,” she says. “This is a very specialized type of business, and shippers must make sure that the skill sets are in place before committing.”

Reverse as strategy

According to Michael Blumberg, a certified management consultant and president of the Blumberg Advisory Group, shippers should seek 3PLs offering a “reverse logistics management” (RLM) program tailored to their specific needs.

“It’s not a ‘one size fits all’ type of business,” says Blumberg.

Blumberg contends that RLM also contributes to the bottom line by reducing cost and protecting revenue and should be considered part of your organization’s greater mission. “When you consolidate your administration, you have liability protection and resource optimization,” he says. “Then there are gains in productivity and efficiency. Ultimately, shippers provide customer service and good will that translates into more orders.”

Other analysts maintain that being a good “world citizen” also comprises customer service. According to Gary Cullen, chief operating officer of 4PRL LLC, the reverse logistics arm of The Georgetowne Group, a growing trend of being “cheaper and nearer” seems to fit well within the cost sensitive and “eco-conscious” reverse logistics chain of events.

“Much efficiency can be found in near-sourcing third party service providers who specialize in redeployment, repair, reuse, recycling, reclamation and resale,” says Cullen. “This appears to be a successful business model in today’s fuel conscious and green minded environment.”

Cullen contends that these third party service providers are typically targeted to be near-shore to the originator of equipment being returned, reused, or recycled, and that this new model has many additional benefits.

“A closer country allows for use of cheaper modes of transportation as well as less overall time and movement,” says Cullen. “The goal for near-sourced reverse logistics operations is to reduce movement and handling, and being able to find service providers in the country with the lowest wage and processing costs. Combine this with the improving of your environmental image and you have a ‘win-win’ for your clients, consumers and shareholders.”

Furthermore, says Cullen, 3PLs can protect shippers from “volume unpredictability” and an idle and unproductive labor force. “These near-shore service providers receive their workload from several clients and the total volume received is typically what dictates the amount of labor and facility space required,” says Cullen. “This seems to be a best-cost solution for managing and moving low-revenue and no- revenue used, surplus, and obsolete goods.”

Tips for outsourcing reverse

Cullen says he gives shippers two tips for signing a contract with a 3PL when outsourcing reverse logistics. First, make sure that there are clear terms and conditions for running the operation and billing. And second, have a framework to dismantle the operations if it fails.

Curtis Greve, principal at Greve Davis, a reverse logistics consultancy, agrees. “Many companies that outsource reverse don’t seem to think about what they are going to do if they have to fire the service provider,” he says. “Make no mistake, terminating a contact with or without cause can cost millions.”

Greve advises shippers to think about what happens to the inventory, the capital equipment, the building, ongoing worker compensation issues, shut down and closing costs, and the plan for after the 3PL is gone.

“Once they have decided to end the relationship, they could save a lot of money if the contract addresses the shut down process correctly,” he says.

Patrick Burnson is Executive Editor of Logistics Management

ABCs of improving LTL relations

LTL carriers are looking to squeeze profit out of better-managed margins, and shippers will play a huge role in this movement. Here are four time-tested methodologies to help carriers ease shipments through their systems—and help you get the right rates and capacity.

BY **JOHN D. SCHULZ**, CONTRIBUTING EDITOR

The less-than-truckload (LTL) sector of the trucking industry is in a holding pattern. It produced $32 billion in revenue in 2012, about the same as 2006. But last year's figure is actually up substantially from the recession-battered $28 billion the LTL carriers scored in 2009.

Since UPS acquired Overnite in 2005 for $1.3 billion and rebranded it UPS Freight (following FedEx's foray into the LTL field a few years earlier), the exodus of LTL freight to the huge parcel carriers has mainly stopped. That has certainly helped the LTL carriers on the revenue side, but they report that they now need to focus on profits more than ever.

"LTL market conditions have stabilized," says Satish Jindel, who closely tracks LTL trends as principal of research and advisory firm SJ Consulting. "The LTL guys are not bleeding as much. Simply put, they are looking for ways to make people pay for what they are moving on a truck."

To do that, LTL carriers are looking to squeeze profit out of better-managed margins—and of course, shippers will play a huge role in this movement. Through conversations and interviews with carriers, experts, and analysts, *Logistics Management* has distilled many ideas into four concrete steps shippers can take now to help them better manage their LTL relationships in the face of rising rates and tighter capacity.

Some of these may seem pretty basic, but most LTL carriers are focusing on controlling customer expense and eliminating freight that's not compensatory for the cost of handling it. And as capacity tightens, carriers will give the best rates—and preferred capacity—to those shippers who manage the business relationship in order that both the shipper and carrier benefit from highly efficient processes. Here's what you can do to join them.

A Provide an accurate and complete bill of lading.

Carriers will continue to increase the number of bills that are audited and corrected. That's because many are not done correctly the first time. To show the size of the problem, Cass Logistics, a major freight bill payment third party, examines $22 billion in freight charges every year. It wouldn't have all that business if the industry did not cry out for greater accuracy.

It sounds simple, but accurate freight billing is endemic in the trucking industry, says Donald Broughton, the respected trucking analyst for Avondale Partners and whose first job in the industry was as a freight billing analyst.

"Carriers look at everything," Broughton explains. "Is the number of miles correct? Is it the rate we negotiated? Did we get the correct discount? What about accessorials? Is it the right class? It makes sense to the shippers to make sure the rate they're paying is the rate they negotiated. On the trucker side, the carriers have spent a lot of money on technology to make sure your weight class is accurate."

It's simple stuff, but a lot of carriers aren't taking the time or effort to access a rebilling charge for mislabeled freight charges, Jindel says. "However, they ought to," he adds. "They're afraid that the customer is going to complain and take their business elsewhere. I say make people pay. If I'm paying the correct charges and someone else is not, I am subsidizing another customer. How do you think Lowe's would feel if it knew it was subsidizing Home Depot?"

"Giving carriers as much information as possible about one's freight will get a shipper his best price," says David Ross, LTL analyst for Stifel Nicolaus. If a shipper has all this data, he says, it will also help shop the business around and get the best rate in each lane.

"The hardest part is putting the systems and procedures in place to capture and maintain accurate data on your freight, and then it's easy to keep it going," Ross adds. Any blanks left for carriers to fill in will result in higher rates, he says, because they would want to be conservative about unknown variables.

B Weigh your shipment accurately the first time.

Carriers re-weigh about 80 percent of shipments today because there are so many inaccuracies. Correcting the customer's mistake increases expenses and makes load planning less accurate and efficient for the LTL carriers.

Jindel says that parcel carriers routinely capture the distance, weight, and cubic dimensions of all freight to ensure proper billing. The LTL industry still relies on the honor system—and it's costing plenty.

He estimates that if LTL carriers weighed every shipment accurately the industry as a whole could add 4 percent improvement to its operating margin. In other words, those carriers with a so-so 95 operating ratio (OR) could be running at a healthy 91 OR. Jindel adds that in this era where everything is automated and measured, there is no excuse for LTL carriers to leave this revenue on the table.

"You'll find that some shippers give you a right weight for every shipment," says Jindel. "Then there are those who give you incorrect shipment for every shipment." And the mistakes are not intentional. Sometimes, shippers are used to shipping 800 pounds in 20 boxes every day—and they assume it must be 800 pounds in 20 boxes every day.

"But if the carrier doesn't penalize you and nobody catches you there's no penalty," Jindel notes. "Carriers don't have to nickel-and-dime shippers for every pound, but they shouldn't be routinely giving away 50 pounds or 100 pounds on every shipment. A 10-pound threshold for accuracy would be reasonable."

"Boring is boring, but you can get bored all the way to be bank," adds Broughton.

> **"Easy to handle, data-rich freight is desirable to carriers. So rather than price-shop among carriers and 3PLs, shippers should reexamine their own freight first, and doing so will result in the best possible cost savings."**
>
> *—David Ross, LTL analyst for Stifel Nicolaus*

C Package and secure your freight properly.

When carriers have to re-shrinkwrap a pallet or take extra steps to handle improperly packaged freight, it increases the expense of handling that account. This is mainly an issue for customers with shipments that aren't traditional pallets. Shipping flagpoles, engines, or transmissions "loose" and without crates should come with a penalty.

Some carriers try to build it into the rate—but often the rate penalty is not enough to offset a carrier's additional costs. For instance, if an LTL carrier charges $20 for a loose shipment, but it costs them $40 to put a crate around the engine, that's no bargain. "Carriers don't realize the cost to them," says Jindel. "They need to have a charge that creates an incentive for the customer and not just give it away."

For the carrier, the other potential negative is what happens to a shipment if that loose freight causes damage. What is the risk? "If you don't charge the full amount, then you expose yourself to a claims charge," Jindel says.

Today, palletized freight can make up as much as 70 percent of all LTL shipments. Most will have class rates between 55 and 70, and they tend to be boxes on a pallet, which often moves at the best rate. Shippers should take advantage of these bargain rates by shipping more freight on secured pallets, experts say, to avoid the chance of having to file a cargo claim.

"It's an issue for carriers because they don't want to damage this freight or other freight they're hauling," adds Broughton. "Nobody wants a cargo claim. That's the consolation prize. Let's do it right the first time."

D Don't incur accessorial charges.

Through sophisticated technology, LTL carriers are exponentially improving their understanding of customers and products. Through increasing use of these analytics, carriers will adjust the minimum prices that they will accept based on the costs of handling that customer's goods.

The LTL industry has been late in coming to the accessorial game, but they are trying to catch up to the parcel giants in this regard. UPS' small package unit has some 45 accessorial charges for everything from home delivery to Saturday service. The LTL industry has perhaps as many as 15 such charges for thing such as residential service, liftgates, appointments, and inside delivery.

Experts say that the LTL industry needs more incentives for shippers to avoid these charges. And they need to put some teeth in the accessorials they do have.

For example, Old Dominion Freight Line, the leader in profitability in the LTL sector, charges just $15 for non-discounted bill of lading correction on an LTL shipment. That could be on a shipment that costs $2,000. UPS, on the other hand, charges a $10 fee for an incorrect parcel shipment that might cost just $12.

"Accessorials at the parcel level are related to residential delivery and targeted at unsophisticated shippers," Broughton explains. "Your Aunt Sally doesn't know how to negotiate a rate, so she gets hit with an accessorial charge. But if I'm distribution manager for Dell and UPS tells me there's an accessorial charge, I'm immediately on the phone with FedEx threatening to move my account. Accessorials are related to unsophisticated shippers and unsophisticated demands."

Know your ABCs

All this may be very old school and not very sexy, but the lack of accuracy by shippers, their use of old tariffs, fuel surcharges that don't properly move with fuel costs, waivers that substantially reduce price, inaccurate bills of lading, incorrect weights, and poor packaging are all now identified and captured by high service carriers—and a cost assigned to each.

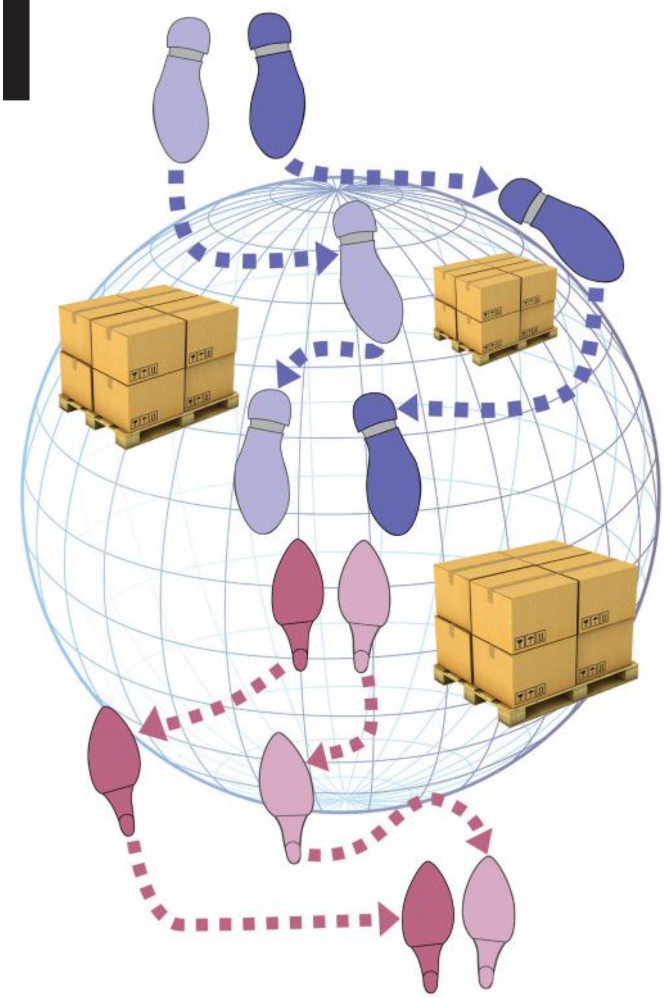
"Basically, the easier it is for the carrier to handle the freight, and the more they know about it, the better price and better service the shipper will get," adds Ross. "Easy to handle, data-rich freight is desirable to carriers. So rather than price-shop among carriers and 3PLs, shippers should reexamine their own freight first, and doing so will result in the best possible cost savings."

Carrier executives say that all of these factors are being placed into models that normalize the price the shipper is paying. Their shipments will be priced on these normalized factors so all of the inaccuracies that increase costs for carriers and drive down efficiency will be reflected in their price.

The basic lesson for shippers: Make your freight as carrier-friendly and cost-efficient to handle and process as possible. Those who do will get the best rates and will be slotted first in line for capacity as it tightens.

John D. Schulz is Contributing Editor for Logistics Management

GTM: Perfecting the global dance



As more companies move into expanding markets, more logistics professionals are turning to global trade management (GTM) solutions to help manage the increasingly complex import and export landscapes.

BY **BRIDGET MCCREA**, CONTRIBUTING EDITOR

Choreographing the movement of global trade is no easy task. Just ask any shipper that jumped into the world market and quickly learned that the typical international transaction involves up to 30 different parties, 200 data elements, and 40 or more documents.

Shippers not only have to juggle those 270-or-so different elements for every transaction, but they're also tasked with making sure shipments arrive on time, intact, and within budget. To achieve that goal, shippers are replacing their traditional spreadsheet- and fax-based systems in favor of global trade management (GTM) solutions. GTM automates trade activities by seamlessly performing restricted party screenings and embargo checks; assigns export and import licenses; creates and files trade documents; and communicates electronically with customs authorities.

GTM software can also facilitate product classification; manage customs processes and transit procedures; facilitate restitution handling; and determine preferential trade eligibility. It comes in both on-premise and software-as-a-service (Saas) models and helps shippers get their arms around complicated export processes that—when handled manually—can create delays and expose shippers to fines for non-compliance.

Over the next few pages we'll take a look at the new role GTM solutions play in the management of international supply chains and transportation networks. Then we'll hear from a telecommunications services company using GTM to reduce its corporate risk, liability, and exposure to prohibited transactions.

Getting closer to visibility

When Gartner recently conducted a survey of 259 senior supply chain executives to find out their top trends and priorities regarding GTM, the research firm learned that trade compliance ranked as the respondents' fifth most important supply chain execution (SCE) application. About 25 percent of responding companies have fully deployed GTMs, 10 percent are actively investigating trade compliance solutions, and another 32 percent told Gartner that they partially deployed such solutions.

"We found that most enterprises do have some kind of application in place to manage global trade compliance," says Bill McNeill, senior research analyst for Gartner. "But the data is skewed somewhat by small to mid-sized operations that don't currently use GTM or that outsource the process to a third party. They tend to drag the adoption rate numbers down."

Of the shippers that have embraced GTM, McNeill says most rely on their solutions to provide automated compliance and visibility over international shipments—the latter of which allows companies to better control their inventory levels, make better decisions, and provide higher levels of customer service.

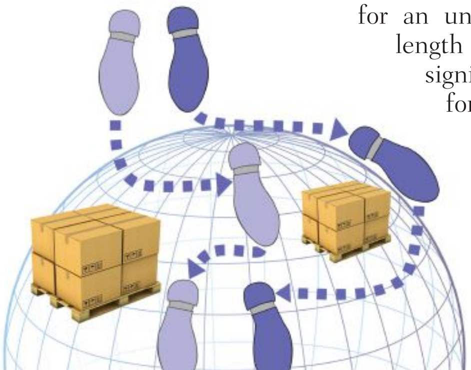
On the compliance side, McNeill says shippers turn to their GTM software to handle import and export support, and in particular restricted or "denied" party screening. Such screening involves individuals or countries (or, "restricted parties") to whom the U.S. government has denied export privileges. Companies that go against the rules and ship to these entitles can be fined or penalized, and may also lose their export privileges.

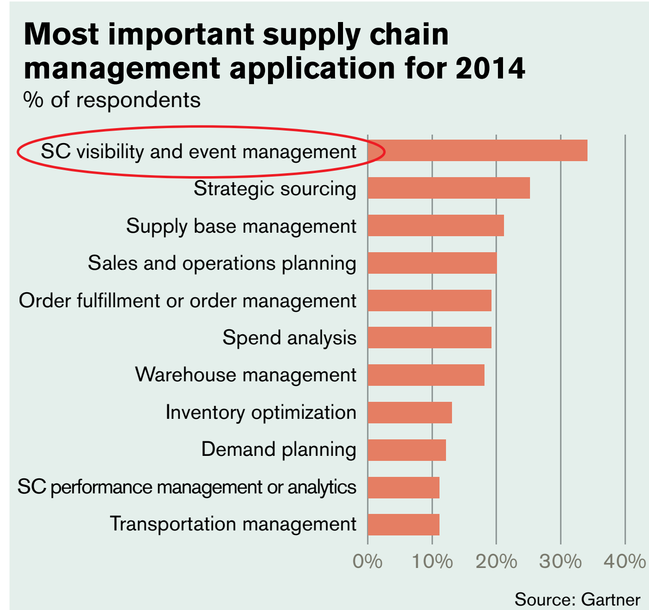
By automating the trade compliance function, shippers can avoid those fines and penalties while also reaping the benefits of a streamlined global trade management setup—something that the typical exporter can't achieve using spreadsheets, phone calls, and faxes.

"GTM helps shippers establish more stringent import-export compliance programs, and set up dashboards that clearly outline the risk involved with entering and maintaining trade relations with specific countries," says Tom Wrobleski, vice president for Capgemini Consulting.

From their deployed GTM, shippers also gain cross-organizational accountability and established processes that allow for easier audits and accountability. "When you use this software you're creating an audit trail," Wrobleski adds. "And that's far easier to track and review than the pieces of paper and spreadsheets that companies used in the past."

Companies that combine their GTM's effective restricted party screening with that cross-organizational accountability and improved audit trail wind up one step closer to the supply chain holy grail: improved visibility. "A container that's stuck in port for an unknown reason or length of time can create significant problems for a shipper," says





Respondents see supply chain visibility and event management as the most important SCM application for 2014, followed by strategic sourcing and supply base management.

Wrobleski. "Global trade software can help companies head off these and other issues by providing improved visibility via dashboards and other tools."

Inevitable growth

As more companies move into the global market, McNeil expects the GTM market to gain traction both among new users and for those who may be currently outsourcing the function to a third party, such as a third party logistics provider (3PL).

"Our data is pointing to pretty robust growth in this sector," says McNeil, who hints that GTM sales growth could be in the "low double digits" this year. The continuing economic rebound will buoy sales in the sector, says McNeil, as will shippers' growing affinity for affordable, easy-to-install SaaS versions of their favorite supply chain software.

"Web-based, hosted options definitely give companies an easier, faster way to get into GTM applications," says McNeill. "That's certainly contributing to growth in this particular sector."

The fact that shippers are ultimately responsible for any fines, delays, or other interruptions of service on the global front will also help to drive the GTM space in 2013, according to McNeill. "Any company that wants to be more

> **"Any company that wants to be more customer-centric and provide higher levels of service really needs to take control over the global trade process with technology. Plain and simple."**
>
> *—Bill McNeil, Gartner*

customer-centric and provide higher levels of service really needs to take control over the global trade process with technology. Plain and simple," says McNeil.

CTDI: Streamlining international screening

Communications Test Design, Inc., (CTDI) is one company that has already reduced its corporate risk, liability, and exposure to prohibited transactions by using its GTM to handle denied party screening across 50 worldwide locations.

A telecommunications service company that provides maintenance and product service solutions to the global telecommunications industry, CTDI of West Chester, Pa., services original equipment manufacturers (OEM) and carriers with 50 international strategic repair and logistics locations that are supported by a team of over 5,000 telecommunications professionals worldwide.

CTDI's core business includes wireline/wireless repair and logistics, engineering and installation services, global supply chain solutions, and product engineering and manufacturing. As the company's level of global business has expanded, so has the shipper's need for a reliable, automated way to handle denied party screening.

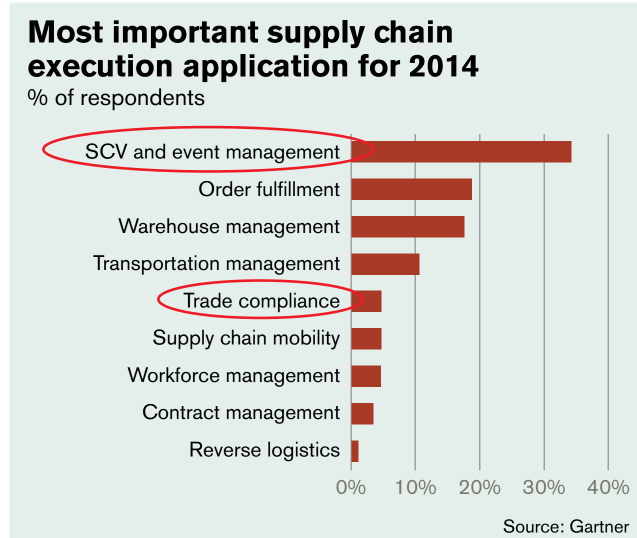
"We're doing third-party repairs in very large volumes that have to be handled in an expedient manner and by many different locations," says Greg Pugh, customs compliance manager. Up until a few years ago, CTDI's exports were sent only to its company-owned facilities overseas. "There was no need for screening so we basically handled it all manually," says Pugh.

CTDI's international business changed in 2008 when a major customer began requesting direct shipments to its own facilities. Similar requests from other European Union, Asia-Pacific, and Australian clients followed, and would push CTDI to look for a software solution that could manage the compliance aspect of that growing international component. "We looked at quite a few different options to help us ship without delays while still meeting all compliance requirements," Pugh recalls.

From its GTM, CTDI needed an automated process for restricted party screening when shipping products across international borders for its customers. The software would help CTDI establish whether a party to a shipment was listed on any official denied persons or illegal trans-shipper list, blocked from import or export transactions, or sanctioned by a government for illegal acts. "We needed to prevent any illegal transactions with restricted entities or trade parties," Pugh adds, "and avoid potential fines and penalties for CTDI and its telecom customers."

After exploring its options, CTDI selected Amber Road's RPS On-Demand solution and installed it five years ago. The company uses the solution to screen customers, vendors, and other trading partners against all restricted party lists from worldwide governmental institutions.

Pugh says the application also includes collaboration tools and discussion boards that multiple users from different CTDI locations use to stay in touch as shipments are screened for restricted parties. For example, team members can use the system to access live reports, maintain contact with global branches, and keep users up to date on potential denied party screening matches.



With supply chain visibility and event management ranking as shippers' most important SCE applications for 2014, trade compliance comes in at 5th place after order fulfillment, warehouse management, and transportation management.

The application can also be "trained" to reduce the number of false positives (or mistakenly assuming Osama Smith and Osama Bin Laden are the same person, for example) that it identifies. "We're able to configure the system to recognize the problems after one or two potential matches," says Pugh, "and to minimize the occurrence of false positives."

CTDI faced some challenges when implementing its on-demand GTM. For example, the fact that the firm's shipping system is homegrown and doesn't integrate with outside software made the process tricky, says Pugh, who continues to handle daily downloads of trade party lists manually. "That's something we probably could have had customized for the GTM," he says, "but we felt it was more economical to just upload those trade party lists to the server on a daily basis."

Such challenges aside, Pugh says CTDI is happy with its GTM, which has allowed the company to remain compliant with minimal disruption to its normal business process. The company can accommodate its high volume of shipments; ship directly to international customers with confidence; and reduce any risk, liability, or exposure to prohibited transactions.

"We've pretty much centralized an entire process across 50 locations worldwide," says Pugh. "If one of our locations ships a part to a denied party, we know about it here at headquarters immediately and can take action."

—Bridget McCrea is a Contributing Editor to Logistics Management

State of Emerging Markets: Resurgence

The recovery in Asia's rapid growth markets is gradually leading the world out of recession. In many developing economies, output is already above pre-crisis trends and logistics investment is vigorous—suggesting that expansion is under way.

BY **PATRICK BURNSON,** EXECUTIVE EDITOR

While emerging markets felt the slowdown in global economic growth in 2012, they generally continued to grow at a faster pace than traditional developed ones. Indeed, U.S. shippers can continue to concentrate on this area of enterprise say a variety of consultancies and research firms.

However, among the revealing facts contained in the *Emerging Markets Logistics Index*, compiled by prominent London-based think tank Transport Intelligence (Ti), is that shippers are still taking a cautious approach to investment.

"Trade and logistics professionals surveyed for the index remain wary about prospects for global growth in 2013," says Jon Manners-Bell, Ti's chief executive officer. "Forty-six percent said they believe there will be modest expansion, with 47 percent predicting global GDP would be flat. Prospects for the European Union (EU) continue to look bleak."

Tellingly, 68 percent of the survey respondents said the Eurozone would experience no growth or continue to contract in 2013, while only 2 percent foresee growth in Eurozone economies. By contrast, 59 percent see a year of modest growth for the U.S., while 6 percent see resumption of strong growth in the U.S.

"China, India, and Brazil, three of the so-called BRIC countries, remain the most dominant emerging markets for investors, exporters, producers of consumer goods, and logistics providers," says Manners-Bell. "For the second consecutive year, logistics and trade professionals ranked these countries as the likely places to emerge as logistics hubs over the next five years."

But it is worth noting that this year's index had Indonesia climbing to No. 5 from No. 10; Bangladesh shot to No. 12 from No. 25; and Thailand rose to No. 14 from No. 29. Manners-Bell adds that this means that the BRICS can't afford to let their guards down.

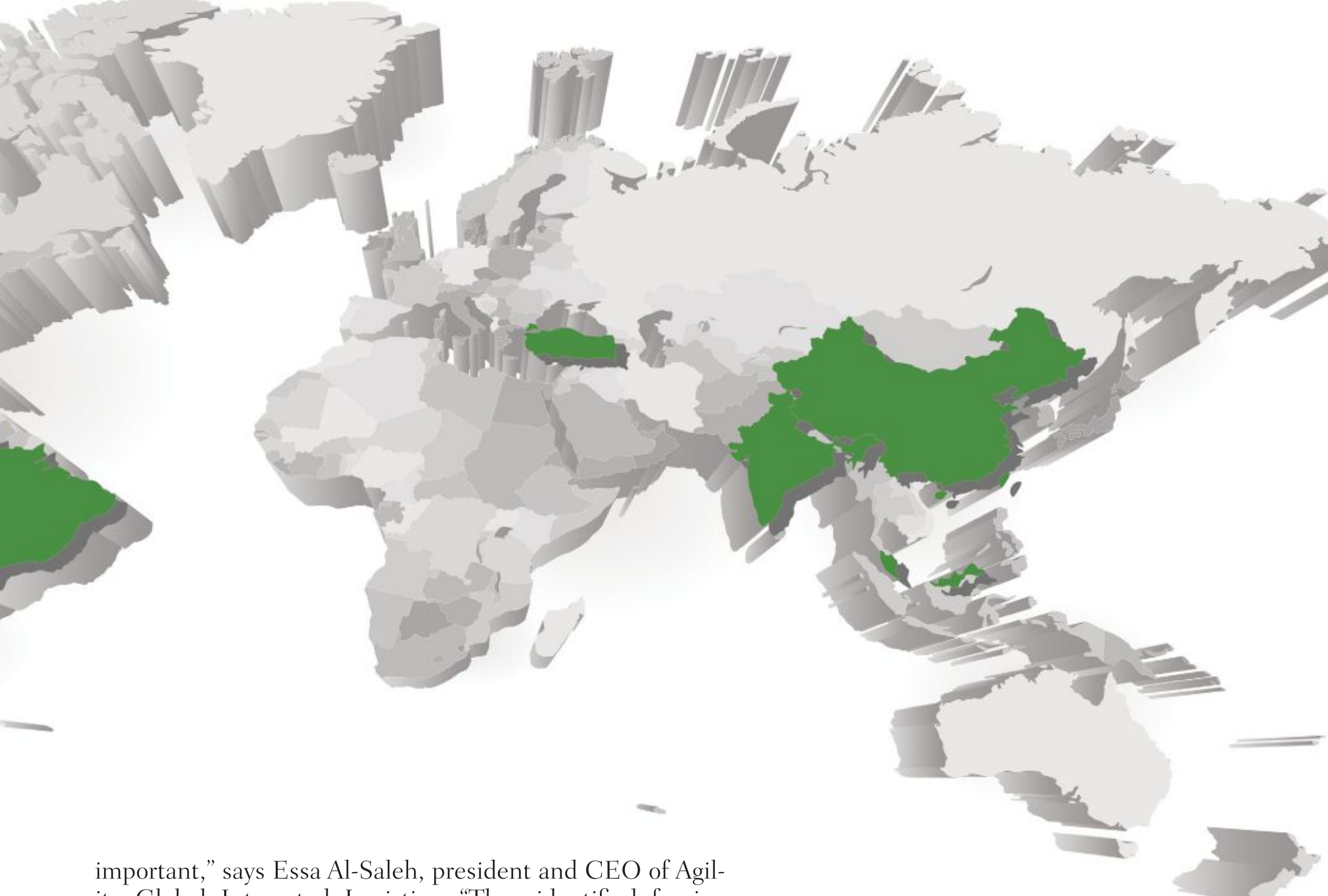
Despite their size, growth, and relatively sophisticated logistics networks, China, India, Brazil, and Russia need to do more to address underlying weaknesses that could hurt performance and dim their attractiveness as an increasingly competitive group of second-tier markets—Saudi Arabia, Indonesia, UAE, Malaysia, Mexico, and Turkey—become more alluring.

"China confronts rising labor costs, a skills shortage, and a growing gap in income disparity," says Manners-Bell. "India's weak infrastructure and bureaucracy threaten its prospects. Brazil's export sector is slowing, and Russia remains overly dependent on energy exports."

Strategic sourcing evolves

U.S. manufacturers face an increasing dilemma when it comes to locating production, say Ti analysts. The savings and efficiencies gained by "near-sourcing" on the doorstep of large developed markets—such as producing in Mexico to be close to the U.S. or in Turkey for proximity to the EU—must be balanced with their ability to tap into the growing consumer class in the emerging markets of Asia, the Middle East, Latin America, and Africa.

In fact, 62 percent of trade and logistics professionals surveyed for this year's *Emerging Markets Logistics Index* see production eventually going away from China to other emerging markets. "According to respondents, economic growth remains the leading driver of a country's prospects as a logistics market, but cheap labor is no longer as



important," says Essa Al-Saleh, president and CEO of Agility Global Integrated Logistics. "They identified foreign investment and trade volumes as greater barometers of a country's potential than labor costs."

Agility, which has sponsored the index for the past four years, notes that ongoing political unrest has done grave damage to the "Arab Spring" countries of Egypt, Bahrain, and Tunisia, leaving them less competitive and less attractive as markets and destinations for investment. Egypt was the biggest loser, plummeting nine spots in the index country rankings. Bahrain fell five places while Tunisia dropped three spots.

Mark Pearson, managing director of Accenture's Supply Chain Management practice, and a regular contributor to *Logistics Management*, maintains that by 2020, 57 percent of the world's economic growth could come from emerging markets.

"Emerging market household incomes are expected to increase by a total of $8.5 trillion between 2010 and 2020," says Pearson. "And if emerging-market-to-emerging-market exports continue to increase at their current rate, they will outpace developed-country-to-developed-country volumes this year."

Accenture analysts say that at the company level, their findings were no less striking. There are now 117 emerging market companies in the Fortune Global 500, a six-fold increase since 2000. Twenty-two emerging market multinationals replaced companies from more developed markets over the past two years.

Technology advances support growth

It comes as no surprise that "cloud" technology is helping small- to medium-sized businesses penetrate the emerging marketplace. TradeCard, which recently merged with industry innovator GT Nexus, announced that purchase order volume on the TradeCard Platform reached $32 billion in 2012—a 47 percent increase over 2011.

Growing trade volumes in emerging sourcing hubs such as Vietnam, Indonesia, Bangladesh, Sri Lanka, Thailand, and Malaysia largely drove the increase.

"We're seeing rapid growth in trade flows into Southeast Asia," says Sean Feeney, TradeCard's CEO. "We just recently opened an office there to support our growing business, and we're seeing some big numbers on business volume in Vietnam crossing our platform."

According to Feeney, more than 418,000 orders, valued at $2.7 billion, moved through Vietnam on the TradeCard Platform from January 1 through October 31, 2012—a 92 percent increase in order volume versus full year 2011. Using TradeCard, 304 suppliers in Vietnam processed 639 million items and 494 million cartons during this time period.

Alexis Karklins-Marchay, co-leader of the Emerging Markets Center at Ernst & Young, notes that even with the introduction of new technology, slower expansion in the rapid growth markets (RGM) is likely this year. However it will "only be a blip" before returning to significant growth towards the end of the year.

"Soaring domestic demand in economies starved, for some time, of investment and consumption will offer business exciting new markets for goods and services in the years ahead," says Karklins-Marchay.

As well as having the option of easing fiscal and monetary policy to accelerate growth, rapid growth markets are also fortunate enough to have a growing middle class with increasingly higher incomes and an appetite to spend.

Proximity matters

Ernst & Young's quarterly *Rapid Growth Markets Forecast* noted that the number of households in RGMs enjoying higher incomes will grow sharply over the next 10 years. In that time, the number of RGM households receiving an income of over $30,000 will more than double, reaching 149 million by 2020, overtaking the U.S. and the Eurozone.

The growth in household incomes, contends Ernst & Young analysts, will naturally lead to increased consumer spending. Up to now, two-thirds of consumer spending across the world has come from the advanced economies, with the remaining third coming from the emerging markets. However, in 25 years time, emerging Asia alone will have overtaken the advanced economies as the key source of consumer spending, responsible for almost 40 percent.

"Consumer demand from RGMs will eventually replace the advanced economies as the key driver of global growth," says Karklins-Marchay. "The shift in import demand should also assist in rebalancing the economy."

The rapidly growing Asian countries are enjoying more prominence in the world economy, and this places greater importance on the role these countries must play in efforts to rebalance the global economy. Those countries that have run surpluses in recent years must adjust their growth patterns toward more reliance on domestic demand and should allow greater exchange rate flexibility.

"Rebalancing Asian RGMs will not only make the world economy more stable, but will also help the Asian countries themselves, making higher growth rates more durable," says Karklins-Marchay.

Walter Kemmises, chief economist for transportation engineering company Moffatt & Nichol, agrees, noting that rising wages in China make South Asia more attractive for outsourcing. "But U.S. shippers should consider Mexico as a sourcing point for consumers in both North and South America," he says. "With a shortened supply chain, the savings can be considerable."

Third-party logistics market analyst firm Armstrong & Associates make a similar argument in their recently released report, *Mexico: Trucking, Railroads, and the Third-Party Logistics Market*.

"Automotive logistics has grown dramatically in Mexico since 1994," says Dick Armstrong the company's chairman. "There are 25 automotive assembly plants spread out from Mexico City north, and there are now over 1,000 Tier 1 and Tier 2 suppliers located in Mexico. Over two million automobiles and light trucks will be exported from Mexico in 2012."

The major companies in Armstrong's Top 45 list include TUM, Jaguar, TMM, Trans-Mex (Swift), and Ryder.

Mexico's $68 billion trucking industry is now lead by 10 companies with revenues ranging from $90 million to $220 million. The largest, Autotransportes de Carga Tres Guerras, handles general freight including less-than-truckload and packages. Power is supplied by 563 tractors and 93 straight trucks.

Other significant U.S. and international companies play important roles in Mexican logistics. For example, DHL/Exel, Werner, and Ryder are heavily involved in value-added warehousing, transportation management, and trucking in the region. APL/VASCOR, Kuehne + Nagel, and Menlo have also carved out significant third-party logistics niches in automotive, tires, and high-tech. Kansas City Southern and Ferromex (UPS) are the major railroads, while intermodal and car hauling are important and growing service lines.

"Shippers must align goals in Mexico and other countries for the both the long-term and short-term. That means that they must develop a mutual understanding of value chain goals, as well. In other words, there is no single solution. Each emerging market demands a customized logistics strategy."

— Ed Fieitzinger, president of contract logistics and distribution for UTI

However, Ed Fieitzinger, president of contract logistics and distribution for UTI, observes that technology and proximity can only achieve so much if local expertise is not fully implemented.

"Shippers must align goals in Mexico and other countries for both the long term and short term," says Fieitzinger. "That means that they must develop a mutual understanding of value chain goals, as well. In other words, there is no single solution. Each emerging market demands a customized logistics strategy."

Patrick Burnson is Executive Editor of Logistics Management

A SPECIAL SUPPLEMENT TO:
Logistics MANAGEMENT

U.S. Ports Update: Green roots take hold

Port authorities at major cargo gateways on all three coasts are investing in infrastructure and strategic planning to become more sustainable corporate citizens—a positive trend that's making U.S. seaports more efficient and resilient than ever.

By Patrick Burnson, Executive Editor

With ocean carriers raising the bar on environmental sustainability, will 2013 finally be the year for a greener and more vibrant U.S. port scenario?

Keeping pace with the greener, slow-steaming strategies employed by vessel operators, sustainable growth seems to be a consistent pattern. And while import volume still has not returned to 2007 or 2008 levels, Zepol Corp., a leading trade intelligence company, has seen a large spike from 2009 to 2010 and then a plateau-like trend for the past three years. Still, 2012 was an especially unique year for U.S. imports.

U.S. Imports, by Selected Port Regions

TEUs	2011 Q4	2012 Q1	2012 Q2	2012 Q3	2012 Q4
Los Angeles, CA/ Long Beach, CA	1,784,156	1,617,708	1,872,975	1,931,343	1,687,489
New York, NY/Newark, NJ	678,072	671,262	721,765	788,006	597,313
Seattle, WA/Tacoma, WA	330,850	312,421	366,278	378,777	331,028
Savannah, GA	259,922	270,894	291,481	296,212	236,199
Oakland, CA	194,976	179,556	206,322	204,275	175,378
Charleston, SC	149,497	154,944	166,491	173,274	150,963
Houston, TX	151,881	155,005	162,162	173,270	144,594
New Orleans, LA	21,915	21,503	20,288	20,965	17,222
All other ports	750,016	768,961	815,664	827,430	731,684
TOTAL	**4,321,286**	**4,152,255**	**4,623,426**	**4,793,552**	**4,071,870**
Shipments	**2011 Q4**	**2012 Q1**	**2012 Q2**	**2012 Q3**	**2012 Q4**
Los Angeles, CA/ Long Beach, CA	870,563	806,272	919,478	959,970	852,960
New York, NY/Newark, NJ	421,891	406,155	438,642	481,607	370,067
Seattle, WA/Tacoma, WA	160,524	149,369	175,719	187,526	159,543
Savannah, GA	106,515	109,822	115,795	121,217	99,504
Oakland, CA	87,644	78,307	90,798	93,356	82,276
Charleston, SC	72,626	75,026	80,773	83,363	72,153
Houston, TX	70,082	74,417	79,583	86,793	70,002
New Orleans, LA	9,729	10,302	9,977	10,575	8,935
All other ports	357,050	354,644	375,425	384,352	350,455
TOTAL	**2,156,624**	**2,064,314**	**2,286,190**	**2,408,759**	**2,065,895**

Source: Zepol

Zepol reports that U.S. vessel imports climbed a slight 1.2 percent in 2012. This represents a total of over 17.6 million twenty-foot-containers (TEUs) imported, or roughly 200,000 more containers than 2011.

"In the past 12 months there have been strikes at the ports, hurricanes, and shifts in manufacturing," says Paul Rasmussen, U.S. trade expert and CEO of Zepol, "Not to mention that in a post-recession economy, U.S. companies are running their businesses much more conservatively, so it's no wonder that 2012 imports were less than dramatic and certainly not back to the massive consumption seen in 2007."

He also notes that inbound shipments in the Port of Houston, for example, have shown a significant increase in the last year, with volume up 11 percent over year-to-date. "The Port of Charleston has also seen big increases in imports for the two consecutive years," says Rasmussen. "Still, about 40 percent of all imports go through the Ports of Los Angeles and Long Beach, while imports to New York and Newark dropped to a low-point late last year due to Hurricane Sandy."

Investment in infrastructure gained the national spotlight due to that catastrophe, as a rapid response to restoring cargo operations became an immediate priority after the storm had passed. However, many logistics managers understand that ports have been spending all along to remain competitive partners in today's more strategic, sustainable supply chain. Here's a comprehensive look at how some of the nation's leading gateways are keeping up with new global shipper demands.

Brownfield development

In the case of the Port of New York/New Jersey, Prologis, Inc. a global owner, operator, and developer of industrial real estate, announced late last year that it's converting a former New Jersey landfill site into a LEED-certified logistics property. In the wake of Sandy, the company signed two leases totaling 740,000 square feet prior to the start of construction.

"This is an important development project for Jersey City that will transform this former waste disposal site, help to advance economic conditions, and improve the local community," says Jay

Cornforth, president of the east region for Prologis Americas. "By identifying strategically-located properties, applying our brownfield development and redevelopment expertise, and bringing Class-A facilities to market, we're able to offer our customers a key location in northern New Jersey, which is one of the most dynamic and land-constrained infill areas in the U.S."

A wholesale packaging distributor will occupy 395,000 square feet of the development, while an e-commerce food retailer will occupy 345,000 square feet. An additional 140,000 square feet of speculative space will also be developed.

Extensive environmental clean-up work has been completed at the site under the supervision of state and federal regulatory agencies. Since acquiring the 50-acre site in 2008, Prologis has worked in close partnership with the U.S. Environmental Protection Agency and the New Jersey Department of Environmental Protection to implement a development plan that returns the site to productive use and will result in permanent capping and closure of the landfill.

It's a somewhat different story at the South Carolina Ports Authority (SCPA), where the "greening" emphasis has been placed on dockside drayage. While the port grew volume across business segments in 2012, it closed a year marked by

"We have very ambitious goals and a $1.3 billion capital plan to implement in this decade, so we must continue to grow above the market."

— Jim Newsome, president and CEO of the SCPA

new carrier services, progress on the inland port in Greer, and major advancements on Charleston's harbor deepening project.

Container volume in Charleston was up 9.6 percent in calendar year 2012, with 1.5 million TEUs handled at the port's two container terminals. Volume was up 13 percent in December compared to the same month last year, with 124,120 TEUs traded across the docks. Charleston was also the fastest-growing East Coast container port January through November based on the latest month of volume data available from competing ports.

"These results are encouraging," says Jim Newsome, president and CEO of the SCPA. "However, we have very ambitious goals and a $1.3 billion capital plan to implement in this decade, so we must continue to grow above the market."

Midway through the fiscal year that began July 1, container traffic has grown nearly 12 percent on

Logistics professionals to rely more heavily on inland ports

The growth of U.S. exports, especially to countries such as China, has put a spotlight on the need for strategic inland ports across the U.S., according to commercial real estate service provider Jones Lang LaSalle. Inland ports that traditionally focus on moving and handling imports are also facilitating the effective movement of goods outside the U.S.

According to studies conducted by Jones Lange LaSalle, three factors driving inland port demand include:

• **Exports riding high.** Shipments to emerging markets continue to rise and U.S. agricultural products are in high demand from China.

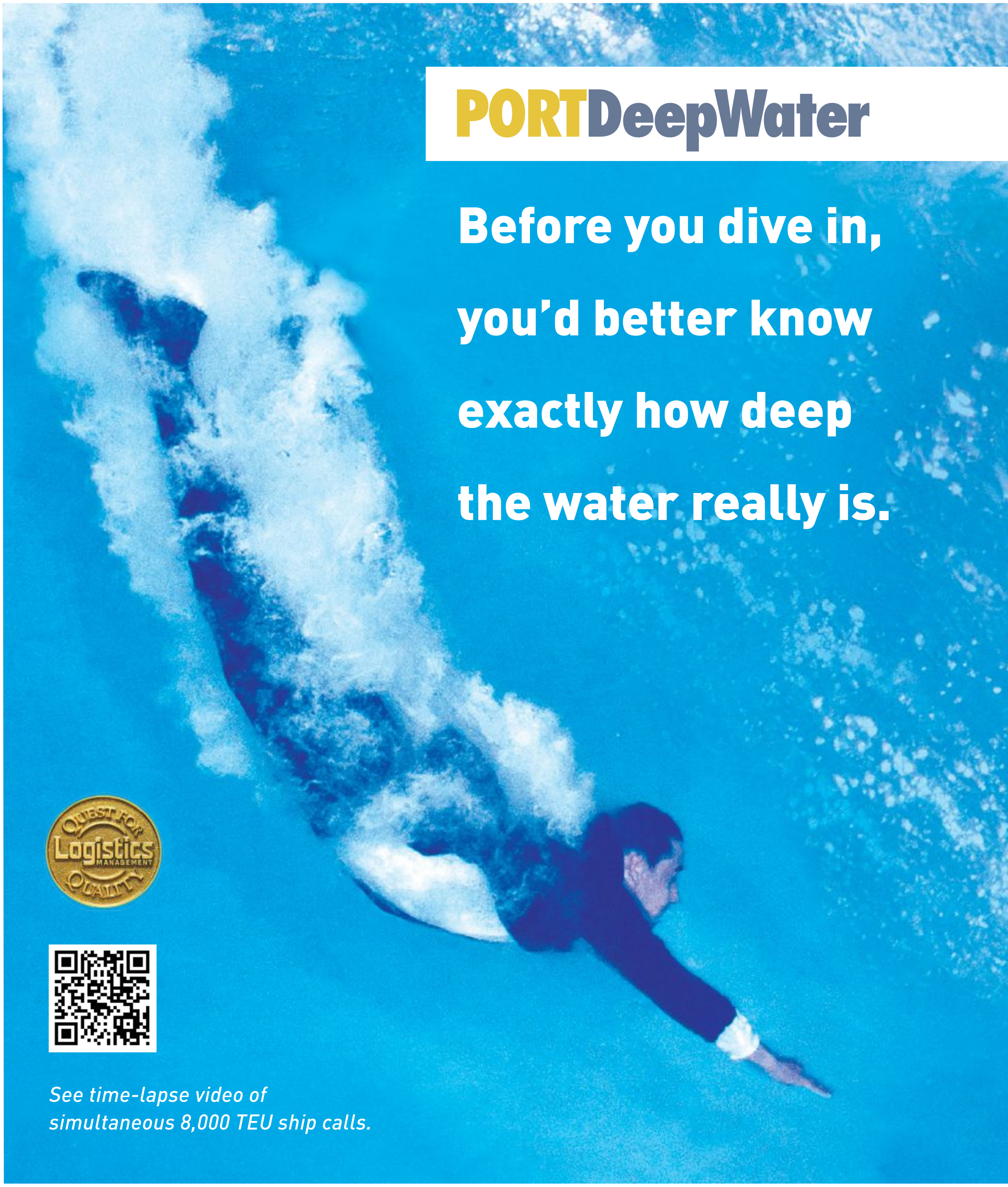
• **Rising fuel costs driving rail and intermodal.** Inland ports offer cost-effective intermodal access and are critical components in the rapid movement of goods to and from seaports.

• **Growth in global containerized shipping.** Savvy shippers make use of import containers arriving at inland ports to export goods back overseas.

"Inland ports are becoming a critical part of the nation's import/export cycle and the country's competitive position on the world stage," says John Carver, head of Jones Lang LaSalle's Ports Airports and Global Infrastructure (PAGI) group. Inland ports are hubs designed to move international shipments more effectively between maritime ports and locations throughout the U.S. interior and are connected by dedicated rail lines to one or more seaports.

"Shippers are using inland ports to move their goods to market as efficiently as possible," says Carver. "And with fuel costs rising, they provide intermodal and rail options to bypass expensive and costly trucking methods." He adds that given the rise in containerized shipping methods, inland port shippers are also re-using overseas containers after they are emptied—yet another method of supply chain optimization.

—Patrick Burnson, Executive Editor



The deepest channels in the Southeast are in Charleston, South Carolina, the only port in the region that routinely handles 8,000+ TEU post-Panamax ships drafting up to 48 feet.

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the strength of loaded exports and the performance of new carrier services that have expanded Charleston's reach to foreign markets, such as Vietnam and Australia.

Newsome says that the SCPA is continuing its aggressive approach to cargo development across segments, including transloading operations of agricultural and forest products, growing refrigerated cargo, and imported containers related to e-commerce retailers.

At the same time, the port is encouraging local truck owners to replace their older trucks with newer, cleaner rigs and is doubling the financial incentive for their participation. Eligible truck owners can now get a $10,000 incentive, plus the scrap value of their pre-1994 truck, to use toward the purchase of a 2004 or newer model.

"There will also be a mobile office set up at the port's Wando Welch Terminal each week to make it even easier for truckers to learn more about the benefits of upgrading their rigs, such as improved fuel efficiency, lower maintenance costs, and decreased air emissions," adds Newsome.

Electric cranes

More evidence of a greening dockside trend emerged late last year when The Georgia Ports Authority (GPA) unveiled its first four electrified rubber-tired gantry cranes (ERTG), making the authority the first in North America to introduce this cleaner and more efficient method of operation. The new technology reduces fuel consumption by an estimated 95 percent.

"This transition to electrified ERTGs is an important milestone for the GPA and our industry," says Executive Director Curtis Foltz. "This project is the latest in a series of GPA initiatives designed to increase the productivity and capacity of the port in environmentally responsible ways."

The new ERTG system was developed with the help of partners Konecranes, Conductix-Wampfler, and Georgia Power, which provided the cranes, the

China hungry for U.S. agricultural produce

The move to more inland port usage is being seen in one of the country's fastest growing export industries, agriculture. The last two years have been the strongest for U.S. agricultural exports in history. China has a growing appetite for raw agricultural products such as wheat, soybeans, corn, and hay.

"The current challenge for U.S. producers and suppliers is to have an effective supply chain infrastructure in place to manage the growth in export volume, both in the near future and for the long run," says Rohan àBeckett, vice president of Lang LaSalle's Ports Airports and Global Infrastructure (PAGI) group.

"Shippers are beginning to take advantage of this glut of empty containers in the U.S. as a low-cost solution for shipping exports to China. Not only does this contribute to economic growth by helping close the trade gap with China, but it will boost industrial real estate prospects as demand for storage and distribution space will rise," adds àBeckett.

According to all reports, the agriculture industry will continue to be a major contributor to overall export volume from the U.S., thereby providing a long-term user base for inland ports and their outbound containers.

New inland players

Critical to the success of inland ports is their connectivity to rail and seaports as well being able to provide manufacturers with smooth and quick intermodal transloading.

Many of the country's inland ports are located in the Midwest, including Chicago, Memphis, St. Louis, and Kansas City. There are a number of new locations under development such as the 4,000-acre Florida Inland Port in St. Lucie, Fla., and the 580-acre Inland Port Arizona in Casa Grande, Ariz., which will become the first inland port to serve the ports of Los Angeles and Long Beach.

"There are multiple real estate prospects as the logistics industry and exporters focus on hubs with immediate proximity to empty import containers and to distribution hubs for shipment by rail to deep-water ports," adds àBeckett. "The trend toward establishing and expanding inland ports will continue, and there are major opportunities for private-sector development and investment to support the country's growing export trade."

—Patrick Burnson, Executive Editor

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new power system, and the electrical infrastructure, respectively. Through efforts such as electrifying ship-to-shore cranes and refrigerated container racks, the Port of Savannah avoids the use of more than 5.4 million gallons of diesel annually. The new cranes will further reduce the GPA's fuel demand.

Bill Sutton, general manager of GPA, has also been praising the environmental advantages of using advance terminal technology when it comes to "greening" operations. "Because land is held at such a premium here, the effective use of terminal space is crucial," he says.

As a consequence, the GPA has joined scores of other international ports in implementing the Navis SPARCS N4 terminal operating system. Navis is an Oakland, Calif.-based third-party terminal technology partner that provides software designed to help ports accommodate the growing number of mega container ships entering the market with real-time modeling configurations of yard operations.

"With Navis as our lead engineer we help conduct 12,000 gate transactions per day," adds Sutton.

Additionally, the GPA has modified the process of handling refrigerated containers to include the construction of 34 refrigerated cargo racks containing 816 container slots powered from the electrical grid. This has eliminated the use of close to three-quarters of a million gallons of diesel fuel due to the removal of 14 diesel-powered generators.

Greening Gulf gateways

At the dawn of this new century, the Port of Houston Authority became the first U.S. port authority to attain—and be recertified—to the international standard for environmental management systems, known as ISO 14001. Today, adhering to the standard remains the cornerstone for business decisions made by the port.

"The environmental staff also works with Port Authority tenants through an assessment program that evaluates compliance with environmental regulations," says Ricky Kunz, the Port of Houston Authority's vice president for origination.

The assessments occur on a quarterly, semi-annual, or annual basis and include reviews of documentation, records, and best management practices subject to federal, state, and local environmental laws as well as Port Authority tariffs. An educational component of this effort concentrates on applicable environmental laws so that tenants can remain in compliance.

More evidence of a greening dockside trend emerged late last year when The Georgia Ports Authority (GPA) unveiled its first four electrified rubber-tired gantry cranes (ERTG).

"For example, the Bayport Container Terminal at the Port of Houston has been developed to be one of the greenest terminals in the U.S.," adds Kunz. "Innovations to control storm water pollution, noise, and lighting are a few of the outstanding features." In fact, its administration building is built to LEED standards, and two stevedore buildings were constructed using shipping containers.

Meanwhile, the Port of New Orleans set records for container traffic in 2012 while completing more than $100 million in new infrastructure projects port-wide. According to Gary LaGrange, the port's president and CEO, this Gulf gateway is well positioned for another stellar year. In addition to investments in new projects, as of the end of the 2012 fiscal year, the Board had completed $94 million worth of repairs to facilities damaged by the storms of 2005.

"I must credit our customers and tenants, whose investments in equipment and facilities port-wide is sure to top the $100 million mark," says LaGrange. A few of those projects include Folgers' $70 million investment to consolidate its operations from two other states in New Orleans; construction of 300,000 square feet of warehousing space for London Metal Exchange cargo, as well as Transportation Consultants Inc. expansion at the Gov. Nicholls

Street Wharf to provide value-added services for chemical exporters.

As far as making the port more sustainable, officials here are not resting on recent successes. Work will begin in 2013 on the Napoleon Avenue Intermodal Terminal to improve rail service and efficiency and capitalize on the six Class 1 railroads that service the port. The project will be mostly funded by a $16.7 million TIGER grant that the U.S. Department of Transportation awarded the port. The project will transform a 12- acre site into a modern, freight rail terminal and create additional container storage area.

Pacific Rim responsibility

Because the West Coast gave birth to the green movement in the last century, it should come as scant surprise that ports here continue to lead the way in social responsibility. At the same time, shippers will be seeing more efficient operations and faster cargo throughput.

The Port of Los Angles, for example, broke ground last month on a new intermodal storage railyard that will improve a vital link in the national freight network and make the nation's largest ocean cargo gateway even more sustainable. The new yard will function as a critical link between the Port of Los Angeles and the Alameda Corridor, providing staging and storage for trains using the corridor.

Construction of the $137.7 million rail project at Berth 200, also known as the West Basin Railyard, will move cargo more safely and efficiently, reduce truck traffic on roads and freeways, and improve regional air quality while strengthening the Port of Los Angeles' position as the nation's No. 1 trade gateway.

"The West Basin Railyard is a model project for how government is supposed to work," says Harbor Commission President Cindy Miscikowski. "We are pooling federal and state grants with port revenues to improve a critical link in the nation's supply chain and support the kind of sustainable solutions we need to meet our most pressing needs."

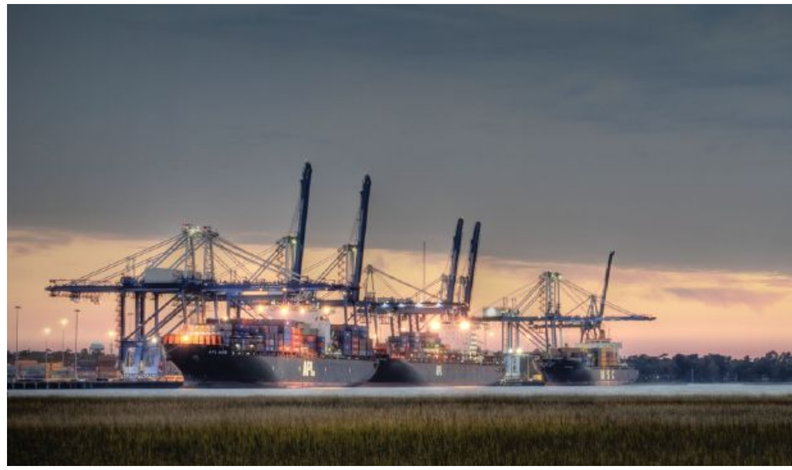
At the neighboring Port of Long Beach, clean air programs slashed air pollution from port-related sources for the fifth year in a row, including a dramatic 75 percent reduction in airborne diesel particulates, according to an "emissions inventory" analysis of key pollutants that compares the data with the baseline year of 2005.

"Our clean air programs are effectively reducing pollution from port sources," says Long Beach Board of Harbor Commissioners president Susan Anderson Wise. "The numbers clearly demonstrate that, but we're not done. With cleaner fuels, more shore power and other programs, we're on track to continue to further reduce air pollution from the port."

According the Environmental Protection Agency, all of the key air pollutants from port-related sources were reduced from 2005 to 2011. In addition to the drop in diesel emissions, smog-forming nitrogen oxides and sulfur oxides have been cut 50 percent and 80 percent respectively from 2005 levels. Greenhouse gases were lowered by 23 percent. Meanwhile, containerized cargo activity fell by 10 percent in the same period.

The use of lower-sulfur, cleaner fuels by all waterfront equipment—especially the oceangoing ships—and the phasing out of the oldest drayage trucks were the primary contributors to the air quality improvements. The port of Long Beach implemented the "Green Ship Incentive Program" last year that offers cash incentives to shipping lines for bringing in the newest, cleanest cargo vessels.

In a related development to the north, the Port of Oakland reached another milestone in the



implementation of its shore power program with maritime partner Hapag-Lloyd and the successful completion of a final test of the shore-to-ship connection.

Late last year, the port conducted an initial test of the shore connection system on the vessel Dallas Express. A final test was conducted successfully at the Port's Oakland International Container Terminal (operated by Stevedoring Services of America) on Dec. 1. "Shore power," also known as "cold-ironing," is a shore-to-ship connection that provides electrical power to the ship, thereby reducing diesel and other air pollutant emissions from ships while they are at berth.

"The Port of Oakland's Shore Power Program is currently estimated to cost approximately $70 million," says Deborah Ale Flint, the port's acting executive director. "This significant financial commitment demonstrates the port's environmental leadership and overall commitment toward improving air quality."

The total combined cost of the port's shore power infrastructure and similar improvements being made by the private sector at the port is estimated to be about $85 million. Significant additional cost is being borne by the private sector to retrofit the vessels so that ships can plug into the shore-side system.

To meet the California Air Resources Board (CARB) regulation for "vessels at berth," one-half of a fleet's vessel calls at California ports will be required to use shore power beginning in 2014, while 80 percent of a fleet's visits must be shore powered by 2020. Some use of shore power is already taking place, with retrofitted vessels currently docking at terminals already equipped with shore power.

PNW partners

Owing to a remarkable cooperative regional effort, the competing Pacific Northwest ports of Seattle and Tacoma have been drastically reducing air pollution in cargo operations. According to an independently funded "Puget Sound Maritime Air Emissions Inventory," maritime-related air pollution has decreased as much as 40 percent, depending on the type of pollutant, since 2005.

"The results of the Emissions Inventory are significant, with substantial pollution reductions across the board for the Port of Seattle," says Gael Tarleton, president of the Seattle Port Commission. Meanwhile, the ports of Seattle and Tacoma are updating their "Northwest Ports Clean Air Strategy" goals based on the inventory results.

The inventory estimated greenhouse gases, diesel particulate matter, and a number of other pollutants, such as sulfur dioxides and volatile organic compounds. It focused on pollutants related to ships, harbor vessels, cargo-handling equipment, rail, heavy-duty trucks, and other fleet vehicles associated with maritime activities.

Much of the clean air progress is due to significant, voluntary investments of the maritime industry and government agencies in cleaner technology, cleaner fuels and more efficient systems of operation, adds Tarleton.

And as noted in the beginning of this feature, maritime industry partners continue to seek ways to reduce emissions from all sources—with particular attention to ships.

"While ship-related emissions have dropped, they account for 63 percent of the maritime-related diesel particulate matter emissions," notes Jon Monroe, president of Seattle-based Monroe Consulting. "That number is coming down fast, though, and ocean cargo is still going to be cleanest and greenest form of international transport."

—Patrick Burnson is Executive Editor of Logistics Management

AAPA chief Nagle praises LaHood's focus on ports as DOT Secretary

At the end of last month, United States Department of Transportation (DOT) Secretary Ray LaHood announced that he would not serve a second term in the position.

In an e-mail to DOT staffers announcing his decision, LaHood listed a number of accomplishments made by the DOT under his watch—among them was significant investments made into U.S. ports.

But when it came to ports, LaHood's tenure as DOT Secretary went beyond just investment, according to Kurt Nagle, president and chief executive officer of the American Association of Port Authorities (AAPA).

"AAPA and the public port industry have greatly appreciated Secretary LaHood's recognition of the importance of ports as a critical link in our transportation system as well as his overall support for port related infrastructure investment during his term as Secretary," Nagle told *Logistics Management.*

In terms of infrastructure funding and short-sea shipping, Nagle pointed to how LaHood was instrumental in supporting the port industry in its quest for TIGER (Transportation Infrastructure Generating Economic Recovery) grants and short-sea shipping legislation.

Nagle also observed how LaHood established the formation of a Freight Policy Council to oversee the condition and performance of the National Freight Network, as defined by the latest surface transportation authorization—known as "Moving Ahead for Progress in the 21st Century" (MAP-21)—which was recently signed into law. Chaired by Deputy Transportation Secretary John Porcari, the Council includes DOT leadership from the relevant modes that handle highways, rail, seaports, and airports, said Nagle.

AAPA has advocated for a multimodal approach on freight at DOT, and Nagle said he believes LaHood's leadership in establishing the council was a very positive step, particularly as DOT develops a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National Freight Policy and implements the freight provisions included in MAP-21.

"In short, Secretary LaHood has been vocal in highlighting the vital role ports play and a strong supporter of the needs of ports during his time as transportation secretary," said Nagle. "We have very much appreciated his role in raising awareness in the U.S. of the value that ports bring to jobs creation, business development, economic recovery and international trade."

—Jeff Berman, Group News Editor, Supply Chain Group

Transpacific ocean cargo rates remain stable…for now

The Drewry Hong Kong-Los Angeles container rate benchmark, published in its latest *Container Freight Rate Insight* report, jumped 14 percent to $2,524 per forty-foot equivalent unit (FEU) late last month, as the January peak season surcharge (PSS) took effect.

The $311 per FEU increase in the benchmark rate shows that Transpacific Stabilization Agreement (TSA) member carriers' achieved around 50 percent of their intended $600 PSS price increase target.

"Cargo demand and carrier load factors have strengthened in the run up to Chinese New Year," said Martin Dixon, Drewry's research manager for freight rate benchmarking. "The wild card remains the threat of strike action at U.S. East Coast and Gulf Coast ports, which is also serving to strengthen rates."

The latest price increase brought Drewry's Hong Kong-Los Angeles container rate benchmark back to the same level it was in October, but the index remains 12 percent off last year's peak reached in August. The transpacific has proved more resilient than the Asia-Europe trade to the overcapacity plaguing the industry.

Drewry's Transpacific Eastbound Freight Rate Index, a weighted average of freight rates across multiple trades between Far East Asia and North America, climbed 8 percent in December compared with the previous month, to reach $3,357 per FEU. It now stands just 2 percent off last year's high reached in September 2012.

Though given the increase in capacity on the trade compared with a year ago, the stability in spot rates may not prove sustainable.

"The U.S. East Coast and Gulf Coast strike threat notwithstanding, we expect spot rates to soften following Chinese New Year," added Dixon. "However, we caution that shippers should expect some increase in their 2012-13 contract rates on the eastbound transpacific, given the stronger state of the market compared to last year."

—Patrick Burnson, Executive Editor

Pacific Rim Report

By Patrick Burnson

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Port Logistics, Pacer, and Prologis concentrate on "location"

LOCATION: SAY IT THREE TIMES and you have the real estate mantra. However, shippers and providers are beginning to understand what it means to their long-term plans, especially when it comes to improving service on the West Coast.

Port Logistics Group, a leading provider of gateway logistics services, recently announced that it has completed the acquisition of Pacific Distribution Services, a regional warehousing and transportation provider serving the ports of Seattle and Tacoma. The acquisition adds 600,000 square feet of multi-client warehouse space and several new national retail clients to Port Logistics Group's U.S. gateway logistics presence.

"Pacific Distribution Services is a well-respected and well-run warehouse operator with a great client base and an experienced leadership team," says Bob Stull, CEO of Port Logistics Group. "They've been a long-term partner of ours, and we're very pleased to add them to Port Logistics Group. They fit our acquisition growth model of adding strong, regional providers with knowledge and experience of their local port operations."

Meanwhile, Dale Scott—the former president and owner of Pacific Distribution Services—will continue to lead his team as the general manager of the Seattle/Tacoma gateway for Port Logistics Group.

In other West Coast news, Pacer International, Inc. tells *Logistics Management* that its subsidiary Pacer Distribution Services, Inc. is helping freight forwarder Pro-Line Shipping save up to 50 percent on its supply chain costs through an innovative cross-docking strategy designed to deliver solar panels from the Port of Long Beach to installation sites throughout southern California, Arizona, and Nevada.

Pro-Line's customers are solar panel manufacturers and contractors who import the panels from China and other parts of the Far East. Demand for solar panels is increasing dramatically due to improvements in energy effectiveness, but higher volume has pushed prices down an estimated 20 percent in the past year.

"Instead of the standard practice of transporting the panels to our warehouse for unloading and storage, we closely coordinate delivery by aligning with outbound shipping schedules and transloading of the panels directly from ocean containers into domestic trailers that Pacer then delivers to job sites," says Jeff Lindner, vice president of sales for Pacer Distribution.

San Francisco-based Prologis, Inc. a global owner, operator, and developer of industrial real estate, announced its inclusion in the *2013 Global 100 Most Sustainable Corporations in the World* list at the recently concluded World Economic Forum in Davos, Switzerland.

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Recognized as the world's most credible corporate sustainability ranking, the Global 100 consists of the top-performing companies worldwide based on a range of sector-specific "sustainability" metrics.

Prologis was recognized for its comprehensive approach to sustainability encompassing three dimensions: environmental stewardship, social responsibility, and governance.

Steve Campbell, senior vice president and director of environmental, engineering and sustainability, says that he views sustainable operations as a "vital component" to long-term business success. Campbell adds that Prologis will continue to develop, own, and operate a global portfolio of energy-efficient facilities that minimize their environmental impact. □


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