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Logistics MANAGEMENT®

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2010 NASSTRAC Shipper of the Year

Armstrong brings it back in house

Page 20

Marcus Smith (L), manager of transportation procurement, and Howard Liddic (R), manager of outbound logistics, Armstrong World Industries

Management UPDATE

AN EXECUTIVE SUMMARY OF INDUSTRY NEWS

P&G set to get comfortable in China. Consumer product giant Procter & Gamble has broken ground on a new distribution center in the Guangzhou region of China. According to media reports, the company said the DC will cost more than $100 million and be its largest DC in Asia and second largest globally. Investment costs for the facility will be split between P&G and the Guangzhou government, with Guangzhou overseeing acquisition and construction of the warehouse and P&G investing in logistics equipment. Reports also stated that the facility will offer storage area leasing and third-party logistics management, while P&G will create its first real-time transportation management system at the center.

Up, up, and away? The air cargo industry has made unexpected gains in recent months, but analysts are not yet predicting that the trend will continue into 2011. The International Air Transport Association revised its 2010 industry outlook and is now projecting a profit of $8.9 billion (up from the $2.5 billion forecast in June). In its first look into 2011, the Association estimates that profitability will drop to $5.3 billion. "The industry recovery has been stronger and faster than anyone predicted," said Giovanni Bisignani, IATA's Director General and CEO in Geneva. "The $8.9 billion profit that we are projecting will start to recoup the nearly $50 billion lost over the previous decade."

August retail sales show modest gains. August retail sales (that include non-general merchandise like automobiles, gasoline, and restaurants) came in at $363.7 billion, up 0.4 percent from July and up 3.6 percent year-over-year, according to the Department of Commerce (DOC). DOC officials added that total retail sales from June through August of this year were up 4.7 percent year-over-year. The National Retail Federation reported that August retail sales (which exclude automobiles, gas stations, and restaurants) increased 3 percent unadjusted year-over-year and increased 0.5 percent seasonally-adjusted compared to July. Even though slight gains in retail sales were recorded, it's clear that high unemployment and sluggish consumer spending are still having an impact on retail sales, and subsequently freight volumes.

UPS rolls out new LCL service. A new less-than-container (LCL) service between Japan and the United States will provide up to 20 percent faster door-to-door delivery service than other competitive services, according to UPS officials. Entitled Preferred LCL Ocean Freight, UPS said that this new service meshes its North American ground network with containerized ocean services for Container Freight Station (CFS) to door delivery from Japan to the U.S. in 11 to 18 days. For shipments arriving at a West Coast port, preferred LCL shipments will move to a UPS-operated trucking network to support air freight, with faster transit and day-definite delivery to multiple U.S. destinations, said UPS.

Port of New Orleans targets Houston. Having proved its resilience in the face of Hurricane Katrina and the recent BP spill, officials at the Port of New Orleans said that the port is ready to compete with some of its regional neighbors for more cargo in the future. Gary LaGrange, the port's president and CEO, highlighted recent gains made in new cargoes during his annual address sponsored by the International Freight Forwarders and Customs Brokers Association of New Orleans, and issued a warning to the Port of Houston. "Check your rearview mirror gentlemen, we're coming," he said with a laugh. "The port is in the process of investing more than $100 million into facilities, with $67 million being spent on recovery projects either completed, under construction, or in the design phase. Another $44 million is currently being spent on capital projects," he added.

China truck sales hitting top speeds. A report from ACT Research Inc. and China's State Information Center indicates that heavy-duty truck sales in China hit 316,725 units in the second quarter of 2010, marking an 83 percent annual increase. The report said that due to very strong demand in the first half, the forecast of full year

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Management UPDATE

continued

heavy-duty truck and tractor sales has been boosted above a million units, a 62 percent increase over 2009 sales. But it also noted that the sales volume is expected to decline from the second quarter peak over the second half of the year and into 2011 as China's economy eases towards slower growth.

■ **USPS begins union negotiations.** At a time when the United States Postal Service (USPS) is facing severe financial challenges, it recently kicked off negotiations with the National Rural Letter Carriers Association (NRLCA) this week. The current contract for the NRLCA expires at midnight on November 20. The NRLCA is comprised of 67,000 career employees and 48,000 non-career employees that deliver mail in rural and suburban areas. Earlier last month, the USPS kicked off negotiations with the American Postal Workers Union, AFL-CIO (APWU), the largest of the Postal Service's four unions, representing 211,000 employees, including clerks, mechanics, vehicle drivers, custodians, and some administrative positions, whose contract is also set to expire on November 20. "The Postal Service needs flexibility to adjust to the nation's changing mailing trends," said Anthony Vegliante, USPS chief human resources officer and executive vice president.

■ **Forwarder consolidation.** Damco, the logistics arm of A.P. Moller-Maersk and one of the world's Top 20 freight forwarders, announced that Maersk Distribution Services Inc. (MDSI) would be integrated into Damco. In an interview with *LM*, Rolf Habben-Jansen, CEO of Damco, elaborated on the new strategic direction: "The addition of MDSI to Damco allows us to now offer a 100 percent controlled end-to-end solution from purchase orders placed with a vendor in a country in Asia to delivery at the final destination," he said. "Beyond that, it also provides end-to-end item visibility and many opportunities to redirect goods throughout the supply chain."

■ **Greener SoCal.** The ports of Los Angeles and Long Beach released the 2010 San Pedro Bay Ports Clean Air Action Plan (CAAP) Update that sets even more aggressive goals and strategies for reducing air pollution and health risks from goods movement. The draft 2010 CAAP Update was released in April. This final version of the 2010 CAAP Update incorporates comments and changes and is scheduled to be considered for approval in a joint meeting of the two ports' boards of harbor commissioners this month. The original CAAP and the 2010 CAAP Update were developed with significant input and collaboration among the ports, the U.S. Environmental Protection Agency, California Air Resources Board, and South Coast Air Quality Management District.

■ **The Heartland Corridor is open for business.** Last month, Class I railroad carrier Norfolk Southern (NS) officially opened its long-awaited Heartland Corridor. The project is a public-private partnership between NS and Virginia, West Virginia, Ohio, and the federal government to create the shortest, fastest route for double-stack containers moving between the Port of Virginia and the Midwest. The route stretches across Virginia, through southern West Virginia, and north through Columbus. NS added that the route improves transit times from Norfolk to Chicago from four days to three days and is 250 miles shorter than previous routes for this line.

■ **New transpacific service.** Matson launched its expanded China to Long Beach Express service last month, with the first departures from Hong Kong and Yantian and a new second weekly call at Shanghai. According to Matson, the new weekly service allows the carrier to extend its geographic reach to the South China region, including Hong Kong and the Pearl River Delta. With the second string of vessels, Matson will now offer twice weekly service from Shanghai and weekly service from Hong Kong, Yantian, Xiamen, and Ningbo to Long Beach. "Our smaller vessels allow faster loading and unloading of cargo," said Dave Hoppes, senior vice president of ocean services. He also noted that Matson's fixed day arrivals and next day cargo availability is extended to all shippers—not just for a select few.

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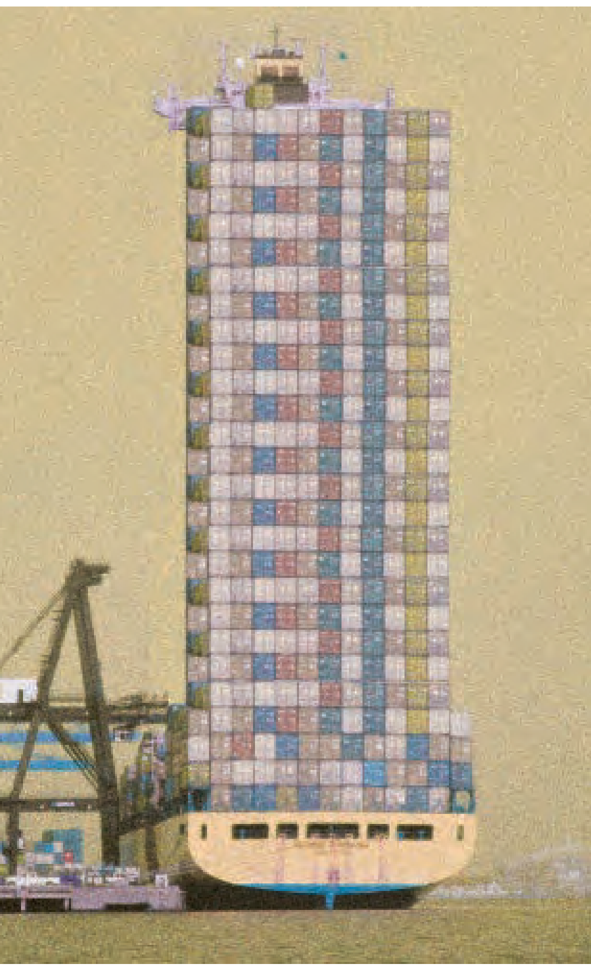
departments

SPECIAL REPORT: WAREHOUSE & DC BEST PRACTICES

Three ways to prepare for growth while containing costs

How do you prepare your operation for growth while still keeping a close eye on controlling costs? We asked a panel with more than 75 years combined experience in logistics and distribution to identify three best practices that improve the distribution network, reduce the work, and leverage the most important asset in any organization—its people. **48S**



SPECIAL REPORT:
TOP 30 OCEAN CARRIERS

Top 30 turn up the volume

Now that pricing has been restored and capacity restrained, the leading vessel operators are staging a comeback. What lessons have they learned from the recent recession and dismal earning cycles? Here's what the top analysts are saying. **41S**

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VIEWPOINT

Bringing it back in house

IT WOULD BE TOUGH TO ADD UP the actual pages that the business-to-business press has written, printed, and posted on the advantages that a successful outsourcing relationship can bring to a logistics operation.

When a shipper fully understands his needs and a third-party logistics provider (3PL) is attentive and responsive to those needs, that partnership has the potential to result in service levels and cost savings that could make even the stingiest CFO crack a smile. In fact, the *LM* staff has, time and time again, revealed case study examples of just that scenario. It often starts with transportation costs spiraling out of control and ends with a 3PL stepping in to redesign the distribution network, bringing order to the kingdom.

The story we've yet to tell involves a shipper that's wise enough, and confident enough, to admit when he's made a bad outsourcing decision—and, in turn, bring logistics and transportation back in house. Enter Marcus Smith, manager of transportation procurement of Armstrong World Industries, a 150-year-old manufacturer of flooring, ceilings, and cabinets—and this year's NASSTRAC Shipper of the Year. Armstrong's bold success story begins on page 20.

Smith will be the first to tell you that he still believes in the power of a properly outsourced arrangement, and his story certainly isn't designed to bash 3PLs. Instead, what I liked most about Smith's tale is that it represents a tight-knit logistics operation that fully understands its customer's needs—and its diverse modal mix—and was ready to respond quickly when it realized that those needs weren't being met.

In fact, it took Smith and company just under a year after they outsourced their transportation (January 2007) to realize that things weren't going to pan out. "New carriers were just sprung on us," Smith tells Contributing Editor John Schulz. "And as we got into the summer of 2007, it got very busy and the problems started magnifying."

Complaints, late deliveries, and missed pick-ups mounted, and Armstrong customers told Smith that they wanted the familiar faces back in the cabs. According to Smith, it all boiled down to a failure by the 3PL to understand their customer requirements—and he's willing to shoulder some of the blame.

"Perhaps we just didn't properly communicate on the front end, or our 3PL failed to understand how critical the service was," says Smith. But any way he sliced it, he and the logistics and transportation team knew the poor performance couldn't continue.

What unfolds in the cover story by Schulz is a step-by-step process that brings transportation and logistics, now one of Armstrong's core competencies, back in house. Smith and company created a seven-person in-house transportation department that consists of three new hires along with four Armstrong employees who are familiar with the company's processes and culture. And the results have been stunning.

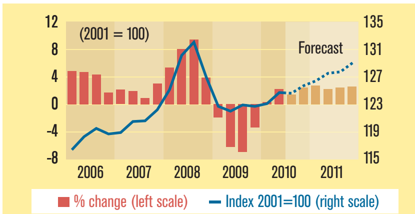
"A good 3PL definitely serves a great purpose, and I still recommend them," Smith adds. "We just have a business with a lot of specialized needs…and we're better served being on the team internally."

Michael A. Levans, Group Editorial Director

Comments? E-mail me at mlevans@ehpub.com

PRICE TRENDS

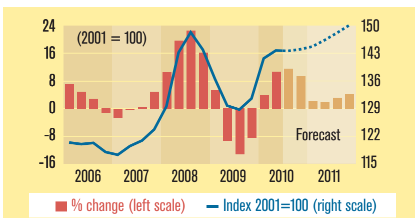
Pricing Across the Transportation Modes



% CHANGE VS.:	1 month ago	6 mos. ago	1 yr. ago
General freight - local	-0.7	-0.7	-0.1
Truckload	0.4	1.6	2.5
Less-than-truckload	0.1	0.0	-0.2
Tanker & other specialized freight	0.2	0.1	1.6

TRUCKING

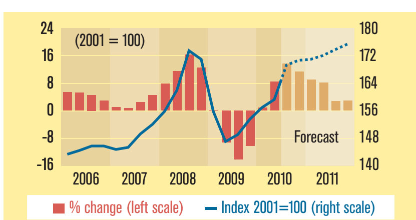
The trucking industry eked out a 0.17% increase in transaction prices from July to August. That meager average price hike was because long-distance TL companies pushed their average prices up 0.4% from a month ago and up 2.5% from August 2009 levels. LTL prices also increased 0.09% from a month ago, but remained 0.19% below a year ago. A business cycle turnaround in pricing already clearly happened for TL carriers in the second quarter of 2009 when prices increased 3% from a year earlier. That's in sharp contrast to the 8.7% year-ago price cut that TL truckers reported in Q2 of 2008. Our latest forecast sees TL prices up 1.8% in 2010 and 2.3% in 2011. LTL tags are forecast to be up 0.5% in 2010 and 3% in 2011.



% CHANGE VS.:	1 month ago	6 mos. ago	1 yr. ago
Scheduled air freight	0.1	0.4	11.4
Chartered air freight & passenger	-7.1	4.8	18.5
Domestic air courier	-0.4	0.1	8.1
International air courier	1.4	1.8	7.8

AIR

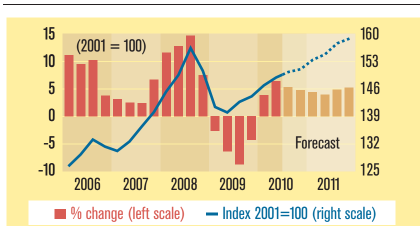
The average price for flying cargo and mail on scheduled U.S.-owned airline flights increased 0.1% from a month ago. That left prices up 11.4% from the recession-scarred low of August 2009. Taking back only a portion of the 16.8% one-month price hike that cargo planes reported in July, U.S.-owned cargo planes, meanwhile, cut their prices from a month ago by 7.1% in August. That left air cargo prices still 18.5% above year-ago levels. Because of the unexpectedly strong price ramp-up so far this year, our new annual inflation rate forecast for air cargo transportation prices (on scheduled flights) has been raised slightly to 8.8% in 2010 and lowered slightly to 2.8% in 2011.



% CHANGE VS.:	1 month ago	6 mos. ago	1 yr. ago
Deep-sea freight	0.0	8.0	16.7
Coastal & intercoastal freight	-2.2	14.8	15.2
Grt. Lks.-St. Lawrence Seaway	0.7	-3.7	4.5
Inland water freight	2.8	6.8	13.1

WATER

Average prices for shipping on inland waters increased 2.8% in August on the heels of a 2.9% hike in July. Excluding inland waterways towing, which increased only 0.8% from July to August, then inland waterways prices actually registered a one-month 3.1% increase and same-month-year-ago price jump of 15.5% in August. So, even though August also saw a 2.2% decline in coastal and intercoastal freight transport, no change in deep sea prices of U.S.-owned companies, and a 0.7% hike in Great Lakes - St. Lawrence Seaway freight transportation, we've raised the aggregate water transportation price forecast to 8.4% in 2010 and 5.5% in 2011.



% CHANGE VS.:	1 month ago	6 mos. ago	1 yr. ago
Rail freight	-0.6	1.4	4.6
Intermodal	-0.6	1.3	4.9
Carload	-0.6	1.4	4.7

RAIL

Less than stellar economic conditions have helped to put fresh pressure on rail operators. After rising for 14 straight months, overall rail rates edged down 0.67% in August. Rates for carload service led the path downward by slipping 0.62%, following two consecutive months of price hikes. Intermodal rail rates weren't far behind, down 0.58%, but that one followed June and July price declines. In aggregate, the rail industry pushed transaction prices up 4.6% from year-ago levels. Ever since hitting a deflationary low point in Q2 of 2009, rail prices have been growing on a fairly predictable trajectory. We now forecast a 5.1% annual price hike by the time 2010 closes and another 4.6% increase in 2011.

Source: Elizabeth Baatz, Thinking Cap Solutions. E-mail: ebaatz@alertdata.com

Obama rolls out six-year, $50 billion transportation infrastructure plan

Proposal pledges to work in tandem with a long-term framework to reform and expand U.S. transportation investment

By Jeff Berman, Group News Editor

WASHINGTON, D.C. — President Barack Obama is putting a major emphasis on transportation infrastructure to help get the United States economy back on track.

At a labor rally in Milwaukee last month, Obama introduced a transportation infrastructure plan focused on expanding and upgrading U.S. roads, railways, and runways, that, he said, can enable the country to have the "best infrastructure in the world."

The wide-ranging, six-year, $50 billion plan proposed by Obama is comprised of: rebuilding 150,000 miles of roads; constructing and maintaining 4,000 miles of rail, which is enough to stretch from coast-to-coast; and rehabilitating or reconstructing 150 miles of runways along with installing a nextgen system that will reduce travel time and air delays.

The White House said that President Obama intends to mesh this proposal with a long-term framework to reform and expand the nation's investment in transportation infrastructure, which could prove to be very timely as Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), the primary source for surface transportation funding, expired on September 30, 2009. SAFETEA-LU was then kept afloat by a series of continuing resolutions to keep funding at current levels. In March, Congress passed a measure to keep SAFETEA-LU funding intact through the end of 2010.

A major source of SAFETEA-LU revenue comes from "user fees" on the federal tax on fuel that last was raised in 1994 and is currently at 23.4 cents for diesel and 18.4 cents per gallon of gasoline. In recent years, SAFETEA-LU has had to receive funding from the United States General Trust Fund to remain solvent and enable states to work on surface transportation projects.

On the funding front for this proposal, the White House said that a $50 billion up-front investment, which represents a significant share of new infrastructure resources, would be required. But specific details on where the funding would come from are thin, with the White House saying it is committed to working with Congress to fully pay for the plan.

A *New York Times* report said that if Congress were to reauthorize the now-expired SAFETEA-LU and accounted for inflation, it would cost about $350 billion over the next six years, plus the additional $50 billion up-front investment that would be offset by eliminating tax breaks and subsidies for the oil

In Milwaukee last month, Obama introduced a transportation infrastructure plan focused on expanding and upgrading U.S. roads, railways, and runways.

and gas industries. "If we are to enjoy the benefits that come from a world-class transportation system, Congress must enact a long-term reauthorization that reforms and expands our infrastructure investments and returns the transportation trust fund to solvency," said White House officials.

Also touted as part of this plan is a pledge for an infrastructure bank that would increase the funding that's needed for surface transportation projects by leveraging private, state, and local capital to invest in projects critical to economic success—rather than relying on the more traditional federal government approach of spending through earmarks and formula-based grants.

"The White House clearly seems ready to engage on the subject of infrastructure funding," said Mort Downey, senior advisor at infrastructure firm Parsons-Brinkerhoff and chairman of the Coalition for America's Gateways and Trade Corridors. "The proposed $50 billion infusion in a sense continues the enhanced levels that were provided under the American Recovery and Reinvestment Act that had nearly $50 billion committed to transportation infrastructure investment."

And with the economy not fully recovered yet, Downey said enhanced investment is needed and could segue into long-term funding. He added that the nature of the White House's approach seems to follow with its strategic plan, and that the type of investment they have made in the Department of Transportation's $1.5 billion Transportation Investment Generating Economic Recovery (TIGER) Discretionary Grant Program can create jobs.

House Transportation and Infrastructure Committee Chairman James Oberstar made it clear that he supports the White House's plan: "I am very pleased that the President wants to build on the success of the American Recovery and Reinvestment Act with further investment in our national transportation infrastructure," said Oberstar. "I am also pleased that the President shares the Committee's objectives of restoring our surface and air transportation systems to a state of good repair, increasing energy efficiency, and relieving the road and rail congestion that is crippling our economy."

Feedback for this proposal has been mixed to date, with those opposing it saying it amounts to just another economic stimulus that will not bolster the economy in a meaningful way.

"I think most people just view it as another tax-and-spend proposal," said U.S. Rep. John Mica (R-Winter Park) the ranking Republican on the House Transportation and Infrastructure Committee, in a *St. Petersburg Times* report. Mica added that this proposal comes at a time when "billions of stimulus dollars for transportation and infrastructure projects sit idle or are tied up in red tape."

RAIL

Senate report calls out railroads for excessive rates

WASHINGTON, D.C.—Senator John D. (Jay) Rockefeller (D-WV) released a report last month entitled "The Current Financial State of the Class I Freight Rail Industry" that takes Class I railroads to task for what he describes as earning record profit margins at the expense of shipper customers.

The report drafted by the Senate Committee on Commerce Science and Transportation, which Rockefeller chairs, highlights how since the Staggers Rail Act of 1980 was enacted, the goal of restoring financial stability to the U.S. rail system has been achieved.

According to the Rockefeller report, the objective of the Staggers Act was to allow freight railroads to eliminate unprofitable lines and consolidate operations and to allow railroads to charge lower rates to customers operating in a competitive environment and higher

Sen. John D. Rockefeller (D-WV) released a report last month that takes Class I railroads to task for what he describes as earning record profit margins at the expense of shipper customers.

rates to customers captive to one rail carrier for transportation service.

The report goes on to claim that the objective of the Staggers Act—to restore financial stability to the U.S. rail system—has been achieved, with the four U.S.-based Class I railroads "dominating the U.S. rail shipping market and achieving returns on revenue and operating ratios that rank them among the most profitable businesses in the U.S. economy."

At a recent committee meeting on Commerce Science and Transportation on the "The Federal Role in National Rail Policy," Rockefeller voiced his opinion on changes he thinks need to happen in the freight railroad industry. "They act like it's still 1980," he said. "They say they're barely making enough money to keep the lights on. But when they're on their quarterly calls with Wall Street investors, it's a very different story. These companies tout their high profit margins and their power to dictate prices to their customers. And at the same time they're telling Congress that they don't have enough money to invest in needed capital projects, they're using billions of dollars of their profits to reward their shareholders with dividends and stock buybacks."

This mindset is at the core of legislation introduced by Rockefeller in 2009, entitled "S.2889, The Surface Transportation Act of 2009," that could have a significant impact on how freight railroads operate and conduct business. The objective of this bill is to address the longstanding concerns of rail shippers regarding rates and service and making the railroad industry more competitive—points which are addressed in the report.

The legislation includes a wide-ranging array of action items that could significantly alter processes commonly viewed as "business as usual" in the railroad industry, including: raising the number of STB board members from three to five; establishing the STB as an independent agency; giving the STB investigative authority; creating a strong rail customer advocate to help resolve shippers' concerns; protecting rail shippers and maintaining reasonable rates in non-competitive situations, among others.

"They (Class 1 railroads) still act like its 1980. They say they're barely making enough money to keep the lights on. But when they're on their quarterly calls with Wall Street investors, it's a very different story. These companies tout their high profit margins and their power to dictate prices to their customers"

—Senator John D. (Jay) Rockefeller, D-WV

Class I railroad executives say that this bill fails to satisfy their needs, with several noting that they cannot support the bill in its present form. Most pressing among their concerns, according to independent rail analyst Anthony Hatch, principal of New York-based ABH Consulting, were the ability to earn returns and the lack of language regarding replacement costs, the undefined nature on costs of bottlenecks, along with related access issues in the form of caps on rates and returns.

In an interview with *Logistics Management*, Association of American Railroads President and CEO Edward Hamberger said the Senate version of the antitrust bill introduced by Senator Herb Kohl (D-WI) would undo—or open to challenge—mergers, line sales, or other things that have been approved by the STB and undo "years of progress in making the industry as efficient as it is and have a real impact on the railroad industry's ability to serve its customers."

—Jeff Berman, Group News Editor

TRUCKING

Network changes, higher rates on deck for FedEx Freight

MEMPHIS, Tenn.—On its fiscal first quarter earnings call last month, FedEx announced some significant changes for FedEx Freight, its less-than-truckload (LTL) unit.

FedEx said it will combine its FedEx Freight and FedEx National LTL operations, effective January 30, 2011, in an effort to increase efficiencies and reduce operational costs.

Company officials said that the move will provide shippers with a choice of priority of economy LTL freight services "across all lengths of haul from one integrated company," adding that the move will substantially improve profitability for FedEx Freight in fiscal 2012. FedEx said that the estimated costs of this effort is $150 million to $200 million and will include severance costs related to personnel reductions, lease terminations, and certain proceeds from asset sales. Headcount is expected to be reduced by roughly 1,700 employees while about 100 facilities will be closed.

According to FedEx Chairman, President, and CEO Frederick Smith, the effort surpasses any project the company has ever done and is real a paradigm change in the LTL market—and may not have been possible a few years back without the advanced IT capabilities that enable FedEx Freight terminals to run more efficiently. "Regional and national networks have been kept separate in the past because the ability to cross-utilize facilities was next to impossible," said Smith.

In the fiscal first quarter, average daily shipments at FedEx Freight were up 29 percent year-over-year, while yield fell three percent due to what FedEx cited as recent yield management initiatives to improve pricing.

According to Alan B. Graf, the company's executive vice president and chief financial officer, the LTL market remains highly competitive due to excess capacity and discounted pricing, which led to quarterly yield declines. But Graf added that FedEx Freight yields were up four percent compared to the fourth quarter of 2010 as a result of the company's fuel management initiatives, more disciplined contract pricing, and reviews of lower-performing accounts that await adjustments.

Combining the networks will increase efficiency and reduce operational costs, said Graf, although he declined to disclose how it would impact the bottom line for FedEx.

FedEx Freight President Bill Logue said FedEx has been closely examining its LTL network and the LTL market in an effort to determine how to get back to double-digit margins, explaining that FedEx believes it has the "formula" to do that.

"Recent trends showing yield coming up is very good for our business although volumes were flat, as we moved some volume out of our system to improve yield," said Logue. "I think we are well-positioned. This is really changing our business model and offering [shippers] a choice for every length of haul, which is what customers are asking for." When asked how combining regional and long-haul LTL networks will impact service, Graf said it will return FedEx Freight to profitability but declined to discuss specifics on yield improvements.

Robert W. Baird analyst Jon Langenfeld wrote in a research note that this restructuring was expected, and he also commented that this is positive news for other LTL carriers, because FedEx Freight is expected to cede share and focus on raising freight rates.

—Jeff Berman
Group News Editor

On January 30, 2011, FedEx will combine its FedEx Freight and FedEx National LTL operations in an effort to increase efficiencies and reduce operational costs.

TRANSPORTATION REGULATION

Shippers fearing HOS changes will affect their costs, services

WASHINGTON, D.C.—As the trucking industry collectively holds its breath over a possible loss in productivity as a result of the long-awaited proposal to change truck driver hours of service (HOS), shipper interests are worried about the repercussions from such changes along with other regulations coming out of Washington.

Shippers fear that their rates will rise and service will suffer if the legal hours of service a truck driver has is reduced. The current rule allows 11 hours of driving within a 14-hour on-duty period, followed by a mandatory 10-hour rest break. There are concerns the government may reduce that to 10 hours of driving, or less.

Trucking and shipper advocates believe that the recently announced news that the trucking fatalities dropped 20 percent last year to 3,380—making 2009 the safest year for trucking since the government began compiling those statistics—buoys their case for keeping the current HOS where they are.

That 3,380 figure compares with more than 5,200 truck-related fatalities in 2004, the last year before the current HOS regulations were adopted.

Shipper interests say once the Federal Motor Carrier Safety Administration (FMCSA) proposes its final rulemaking on HOS and opens a comment period on its proposal, they will be making what they believe is a strong safety case for maintaining the status quo. John Cutler, general counsel for the National Shippers Strategic Transportation Council (NASSTRAC) and the Health and Personal Care Distribution Conference, two prominent shipper groups, said that the recent news about the drop in truck-related fatalities issued by the National Highway Traffic Safety Administration helps shippers in their HOS appeal.

"What's newsworthy is that we have

this significant drop in truck fatality rates," Cutler told *LM*. "We're waiting for our opportunity to make our pitch. We've been saying this all along; that the alarmists' claims that HOS allow excessively dangerous conditions aren't borne out by the data. To us, this is more strong evidence of that point. This is a more powerful argument in favor of the status quo."

While productivity and on-time deliveries are shippers' bread-and-butter, Cutler says safety advocates' claims that shippers don't care about highway safety is nonsense. "We all use the highways, and so do our families," said Cutler. "It's not that we don't care about safety, it's that we feel the case has not been made that the rules have to be changed to increase safety on the highways."

Major trucking companies and the American Trucking Associations (ATA) would largely like to leave the current HOS rules in place. They say that the current HOS rules have resulted in improved productivity as well as industry safety.

The government's own heavy truck vehicle crash rate data show the industry has never been safer while per-mile truck fatality figures are at an all-time low. Transportation Secretary Ray LaHood said as much when he recently attended the National Truck Driving Championships in Columbus, Ohio.

ATA President Bill Graves said that the greater rest opportunities afforded drivers under the 2005 HOS revisions have created a "more circadian-friendly" approach to a truck driver's work-rest cycle and have contributed to driving down the truck fatality numbers. Top trucking industry executives backed Graves up on that assessment. They worry about lost productivity and higher costs associated with planning and implementing yet another change in HOS.

"Obviously any modification to the drive-time or on-duty time will have an effect on the entire transportation industry and the appropriate adjustments would need to be made by shippers and carriers," Ron Uriah, vice president of safety for Pittsburgh-based Pitt Ohio Express," said. "Those adjustments most likely would only affect pick-up, delivery, and transit times."

Jim Germak, president and owner of Jagtrux, echoed that sentiment, adding that any proposed HOS changes increases a trucking company's costs immediately. "It's a major concern," said Germak. "We have to alter our operations whenever there's a change. Nobody is going to be prepared. There weren't any changes in HOS for 65 years (from 1935 to 2000). Now we've had about five revisions in the last 10 years. They seem to want to jump around and try to make everybody happy, but that's not going to happen."

—John D. Schulz, Contributing Editor

Procurement risk management: What it takes to be a leader

RISK IS PART OF BUSINESS. It's a significant, permanent reality faced by virtually every organization. Without risk, business as we know it might not exist. To compete, grow, and capture benefit, companies need to take chances. It's what businesses do.

Still, the risk environment is different in the 21st century. According to a 2009 Accenture Study, seven out of 10 companies acknowledge that business risk has grown due to financial stresses, and corporate buyers in almost all industries have seen risk incidents, factors, and consequences increase significantly.

In recent years, procurement has become a frequent topic in the risk management conversation. Given the variety and impact of procurement risks (see graphic), it's not surprising that such concerns are increasing. However, Accenture has observed that few companies are translating their trepidations into formal procurement risk management capabilities.

To find out why—and to launch a dialog about what companies might do differently—we undertook a procurement risk management research study. The effort's primary mission was to discover what high performers (leaders) in procurement risk management do differently than other companies.

First, we found that compared to survey respondents as a whole, procurement's high performers are more apt to address supplier and price volatility risks when developing their procurement strategies—as opposed to later on. Leaders also excelled at integrating risk management into their category strategies, developing innovative ways to monitor risk, and implementing practices and tools to mitigate risk.

A good example is that leaders frequently apply dual-sourcing and risk-sharing initiatives to anticipate supplier quality risks. To anticipate supplier bankruptcy risks, they also do a great deal of dual sourcing and supplier negotiations.

In addition, a significant disparity was found in the area of risk-sharing clauses and back-to-back contracts—formal agreements stipulating that buyers can share, or even transfer, the cost of unforeseen problems across suppliers or sub-suppliers. Leaders are far more likely than the survey population as a whole to deploy these clauses/contracts.

A second area of note is sourcing. Survey results confirmed that integrating risk management initiatives with a company's strategic sourcing process (e.g., during supplier evaluation) can help companies procure more effectively.

There are many tools and approaches for controlling procurement risk in this area, including supplier market analyses; current supplier portfolio analyses; supplier audits; supplier scorecards; supplier process failure mode and effects analyses; historic and forecast pricing analyses; and logistical and transportation risk analyses.

Among these, one of the most interesting may be supplier market analysis, an activity that is frequently practiced by procurement leaders. Supply market analysis involves a thorough assessment of supply market industry dynamics, (supply, demand, industry structure, industry profitability, supplier capacity utilization, etc.) in order to anticipate commodity price evolution and potential supply shortages.

Third, procurement risk-management leaders tend to be supplier relationship masters. Not only do they form deep, symbiotic connections with vendors, they work together to rapidly detect risk (e.g., through early warning systems) and neutralize risk-related issues before those issues become incidents. High performers also adapt their supply relationships to specific geographies and cultures.

And fourth, Accenture determined that procurement leaders often benefit from the use of a "risk management framework." Many such structures are feasible; but what is most important is a comprehensive, end-to-end approach for

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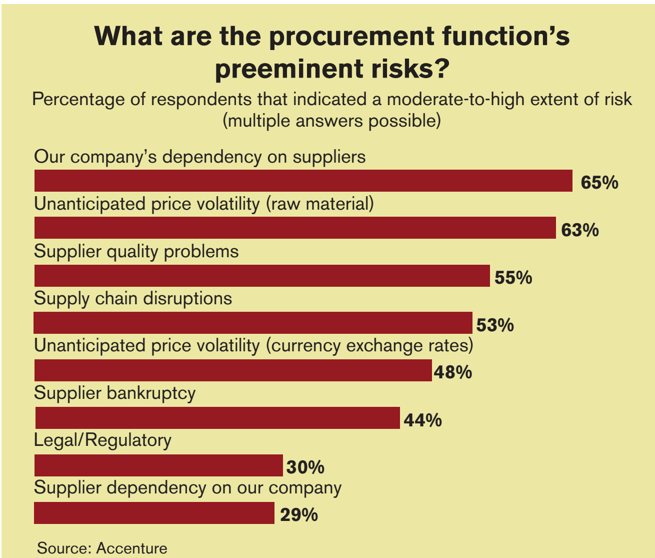


anticipating, monitoring, and mitigating risk and then applying those activities to the key parts of a procurement organization (e.g., strategy, sourcing and category management, requisition to pay, supplier relationship management and so forth).

This clear segmentation of risk-related processes (anticipate, monitor, mitigate) allows companies to develop formal plans and responses that help whittle down procurement risk's otherwise daunting impacts. At the anticipation stage, for example, leaders align risk programs with category strategies, make use of risk-sharing clauses, excel at predictive analytics, and apply value engineering concepts to look at alternative materials.

At the monitoring stage, they work closely with select suppliers, design formal supplier relationship management programs, make maximum use of external data sources, and identify and assess the level of risk at key stages of the strategic sourcing process. For mitigation, leaders stand out in the formation of decision processes (e.g., who makes and follows through on a mitigation decision) and the use of formal metrics and measurements.

Chances are good that procurement risks will only continue to grow. However, companies that excel at procurement risk management will, in all likelihood, continue to grow as well. ☐

Armstrong brings it back

MICHAEL PILLA/GETTY IMAGES

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

Sometimes it's best to control your own destiny. Just ask the transportation team at Armstrong World Industries, a 150-year-old flooring, ceiling, and cabinet manufacturer based in Lancaster, Pa.

After outsourcing its transportation functions to a major third-party logistics provider (3PL) in January 2007, the logistics department of the $2.8 billion company quickly realized—in less than a year—that the new partnership was not going to pan out. In short: The arrangement was not meeting Armstrong's established cost and service goals.

"The biggest flaw was that our 3PL took a one-size-fits-all approach," says Marcus Smith, Armstrong's manager of transportation procurement. "We have specialized needs, especially in truck equipment. We use flatbeds, dry vans, driver-assisted vehicles, and short, straight trucks in and out of New York City. They didn't appreciate the complexity of our business."

Managing transportation was once a core competency of Armstrong. According to Smith, it used to take pride in prequalifying its carriers, negotiating rates, and managing its own logistics relationships. "Carriers were almost an extension of us," Smith says. And that personal touch was lost under the 3PL's management.

According to Smith, it was evident pretty much from the start that it wasn't going to work. Armstrong has 32 plant locations operating out of its four divisions with 10,800 employees. Under the arrangement with the 3PL, it was using as many as 120 different trucking companies to service those locations. According to Smith, it got to be too many.

"New carriers were just sprung on us," says Smith. "And

After outsourcing its transportation functions to a 3PL in January 2007, the 150-year-old manufacturer decided to bring logistics and transportation back under its own roof to tighten controls, establish carrier measurement, and rack up the savings.

in house

as we got into the summer of 2007 it got very busy and the problems started magnifying." There were complaints about service. There were late deliveries. Carriers were not on time for pickups. Customers didn't recognize Armstrong's new carriers and wanted some of the familiar faces back. But mostly, says Smith, there was a failure by the 3PL to understand Armstrong's customer requirements.

"Perhaps we just didn't properly communicate on the front end, or our 3PL failed to understand how critical the service was," says Smith. "But no matter how we looked at it, we just couldn't afford delays in shipments and there was a fundamental failure to recognize our service demands."

Smith and his team knew that enough was enough. It was time to bring its transportation function back in house. In fact, Armstrong's bold move has earned Smith and company the 2010 NASSTRAC Shipper of the Year Award.

"When we evaluated the recent initiatives at Armstrong, it became immediately clear that their transportation is closely aligned with their various business units," says Brian Everett, NASSTRAC's executive director. "Through carrier performance measurement via a monthly scorecard, and their own cost performance, they significantly improved service and reduced costs—something that most shippers are trying to accomplish in the 'new reality' of our economy. Their initiatives are extremely impressive and certainly worthy of this year's award."

PULLING IN THE REINS

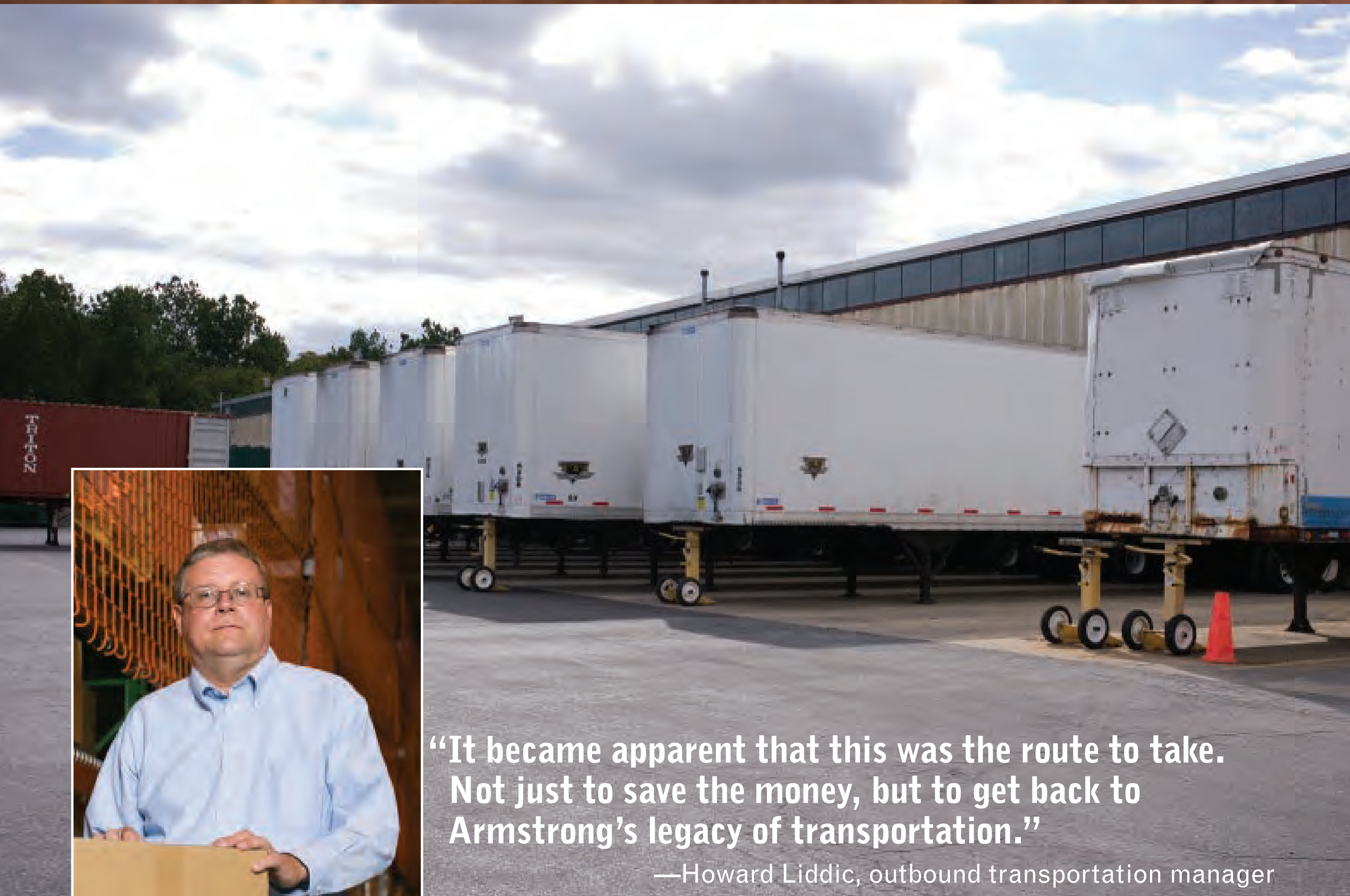
After outsourcing the transportation function in January 2007, it became almost immediately apparent that the decision was a mistake. Armstrong senior management began reviewing its decision and in late 2007, four rival 3PL bids were solicited along with a cost analysis for re-establishing the in-house transportation department.

Armstrong decided to pursue an in-house transportation strategy based on excellence in the management of the transportation processes, balancing the cost against fully meeting customer requirements. Bidding commenced; and according to Smith, the in-house model came in 60 percent lower than the current 3PL provider and more than 40 percent less than the lowest cost 3PL bidder.

"When we priced it out we were shocked that we were less than

"The biggest flaw was that our 3PL took a one-size-fits-all approach. We have specialized needs, especially in truck equipment... and they didn't appreciate the complexity of our business."

—Marcus Smith, manager of transportation procurement



"It became apparent that this was the route to take. Not just to save the money, but to get back to Armstrong's legacy of transportation."

—Howard Liddic, outbound transportation manager

half what everybody else was charging," says Smith. "Every 3PL comes in and says that they'll save us between 7 percent and 10 percent off the top. We knew we were different. We struggled with it. We said: 'Can this be real? Can we do it better?'"

It turns out that the Armstrong team could. Smith huddled with Howard Liddic, the company's long-time outbound transportation manager, and brainstormed. The team revisited Armstrong's past best transportation practices on how it reviewed carriers and benchmarked them against the best.

In order to do the job right, Armstrong created a seven-person in-house transportation department to replace the 10-person staff employed by the 3PL. The new staff consisted of three new hires to augment four Armstrong employees. According to Liddic, there was a very nice mix of skills, including some outside people with a broader view of logistics and transportation to complement the Armstrong folks who were very familiar with the company's processes and culture.

"We just didn't bring it back in house," says Smith. "We set up a very strong, formal process for managing carriers, score-carded them, and increased business with the good ones."

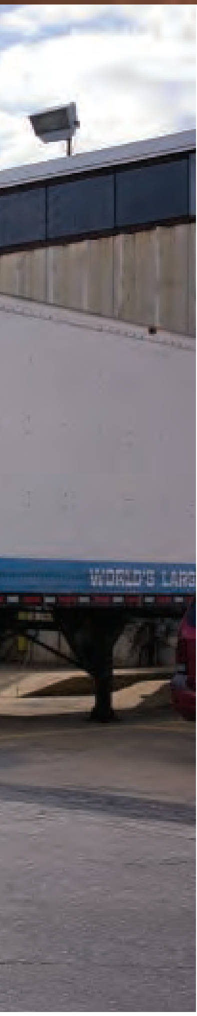
This group was charged with a phased transition over a two month span in late 2008. The transition was completed on Jan. 1, 2009.

PUTTING THE NEW PROCESS TO WORK

Changes had to be made almost immediately, both in planning and processes. Armstrong officials knew what they wanted out of their new in-house transportation department, but assuring that success took some painstaking work. A commitment to deliver the service at the best cost was integral to Armstrong's new transportation strategy. In order to do that, metrics were established to measure service versus cost performed by all of its 90 trucking partners.

It also began twice-a-year benchmarking initiative using Chainanalytics' software to get a true apples-to-apples comparison of carrier performance. According to Smith, the Chainanalytics data is utilized to target specific cost reduction opportunities and to communicate results to management.

Once a carrier is qualified, freight rates and contracts are negotiated to Armstrong's standards. Rates are loaded in both the SAP and Manhattan Associates' transportation planning and execution software systems. There are weekly tender monitoring reviews and department meetings to ensure that



the team is proactively identifying problem areas.

Under this new system, Smith says freight costs and associated drivers are analyzed monthly, both by budget and by lane. This enables Armstrong to quickly identify variances and prompt quick follow-up action. "We have weekly monitoring on which carriers are getting which shipments," Smith says. "That turns into a monthly monitoring cycle in which we're tracking our spend per shipment. We track service by plant, by customer, and by carrier."

The carrier scorecard assigns every carrier a numerical rating based on seven key metrics. Those scorecards are reviewed monthly. Any carriers performing below expectations are identified and follow-up actions are established. These can include a formal performance review, a reduction in business, or the removal of a carrier from Armstrong's network.

"The implementation of carrier scorecards is designed to make the carriers more robust in their service," Liddic explains. "Our carriers take them very seriously because they know they are directly tied to their standing with Armstrong."

Armstrong began refocusing on asset-based carriers to support its plant and customer process, and the team implemented an "elite" carrier program to reward high-performing carriers. It also made a strategic decision to refuse to bring new carriers with unknown service levels into its carrier base without first properly vetting their service abilities.

SOLVING PROBLEMS

One of the issues that made Armstrong's transportation situation unique—and put additional stress on its original 3PL relationship—was its need for different types of equipment and its varying services requirements. In New York City, for example, it began using 40-foot straight trucks instead of typical 53-foot trailers due to their ability to negotiation city streets.

Instead of utilizing just one type of equipment, Armstrong uses various types of trucks to haul its dizzying array of raw materials and finished products. It now uses multiple types of equipment from its various carriers. This equipment includes flatbed trailers, dry vans, taut liners (those soft-sided "curtain" trucks) and other specialized equipment, depending on customer need. "Our network is very complex," says Liddic. "We are very integrated with our carriers now—a level of integration we were not able to achieve with a 3PL."

For example, many Armstrong customers do not have a loading dock. Instead, Armstrong's carriers now know that they must unload those trucks in parking lots. "Our carriers all know that," says Liddic. "They know our customers as well as we do. Our carriers are now very committed on the customer end."

For example, under the 3PL, Armstrong was shipping some of its floor covering rolls via more expensive flatbed equipment. That required a handling crew to secure it and then cover the load, all costing time and money. "We spec'd equipment just for them," says Jim Germak, president and owner of Jagtrux, a 40-truck, 250-trailer fleet—and one of Armstrong's 90 core carriers.

"We run curtain-sided trailers in the Northeast that eliminates the need for flatbed. They're saving all that handling. Not only that, we provide for finished product on one end and are able to bring back raw materials on the way back," says Germak.

One other issue that needed to be overcome was that many Armstrong distributors in the Northeast had little storage space for its recycled material. Germak suggested dropping one of Jagtrux's trailers and their location. When used products came back, they placed them in that trailer. When it was full, Jagtrux swapped it out with an empty one. "We do that with half dozen of its distributors in the Northeast, and it's worked out very well," adds Germak.

Another problem revolved around an Armstrong supplier of Perlite, a white volcanic rock used in making floor coverings. In the past, it had to use spotty rail service out of its Delaware location. Jagtrux was able to replace those rail shipments by utilizing what's called a hopper trailer—a double 42-foot trailer, similar to a rail grain hopper car. It now runs eight hopper trailer loads a week out of that location instead of rail.

"And we did it at a cost comparable to rail," adds Germak.

BENEFITS ABOUND

According to all of Smith's calculations, Armstrong has benefited both in cost and service. He says bringing transportation back in house has resulted in an overall cost reduction of 15.4 percent per unit shipped last year—a number that has surpassed Smith's own internal estimates.

"We definitely thought there were savings out there, but we were surprised by the magnitude of the savings," Smith says.

In addition, transportation has become more disciplined with better service. On-time delivery improved from 95.2 percent in 2008 to 96.7 percent last year. The number of missed items in deliveries fell from 396 in 2008 to 177 last year. "We've been very satisfied," says Smith.

Besides the savings, there is the pride that comes from managing a job well. In decades past, Armstrong traditionally had managed its own transportation. "This was not a radical change for us," adds Liddic. "Our internal customers were very used to it. It became apparent that this was the route to take. Not just to save the money, but to get back to Armstrong's legacy of transportation."

Smith emphasizes that he does not want to be seen as a 3PL basher. "A good 3PL definitely serves a great purpose, and I still recommend them," he says. We just have a business with a lot of specialized needs. We're better served being on the team internally." ☐

—John D. Schulz is a Contributing Editor for Logistics Management

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Rail/Intermodal Roundtable: FULL HEAD OF

The nation's railroads have pulled out of the downturn in solid fiscal shape, proving that they've mastered the art of cost management. To offer a comprehensive look at the new state of the rails, we've gathered four top analysts to share how volumes, rates, and game-changing regulation could alter how shippers manage the mode.

BY **PATRICK BURNSON,** EXECUTIVE EDITOR

While the recent recession has been declared the worst economic downturn in nearly a century, the nation's freight railroads never missed a beat. In fact, they continued rolling on a bullish path, spending $21.8 billion of their own private capital in 2008 and $20.2 billion in 2009. As a consequence, the 140,000-mile rail network serving shippers has not only been maintained—it's been modernized.

But now there's a new worry in the shipping community: new regulatory laws. Opponents argue that unbalanced legislation will result in lower rates for some, while penalizing others. Add to this the concern that railroads will suddenly put a halt to new investment as a hedge against more unforeseen intervention.

To put the rail market into better perspective, we've gathered four leading analysts to share their perspectives and help rail shippers better understand how they'll need to plan their rail and intermodal moves heading into 2011.

Joining us are: Tony Hatch, principal of New York-based ABH Consulting, a transportation and financial advisory firm; William J. Rennicke, a partner in Oliver Wyman's corporate finance practice; Brooks Bentz, a partner in Accenture's supply chain management practice; and Jay Roman, president of Escalation Consultants, Inc., an energy and rail advisory firm. Here's where they see the market today and a few years down the line.

LONNIE BUSH/THIRD EYE

LM: *How would you define the current state of the rail business?*

Bill Rennicke: On the revenue side, the carriers are gradually pulling out of the downturn with traffic growth outpacing the overall economy. Improved service levels and tight truck capacity support both traffic and revenue growth. The railroads continue to make significant strides in efficiency and cost control. In fact, improved service levels and tight truck capacity support both traffic and revenue growth.

Jay Roman: I agree, but what's interesting about the current market is that railroads have not been in lock step with the business models they're using to increase profits. Some railroads are aggressively going after competitive business where shippers have options for moving traffic. These railroads are primarily looking to increase profits by protecting and improving their market share. Other railroads still have a business model that is geared to increasing profit by going after pre-determined profit levels from their customers.

LM: *So, they've chugged out of the storm and are in pretty good shape?*

Tony Hatch: I would say yes. It's kind of like *Great Expectations*. The rails thrived in the last cycle but really proved the "rail renaissance" thesis during the "great recession" when they held margins so well. Wall Street, while generally optimistic about the rails, has missed earnings expectations both all the way up (2003-2007) and all the way down (2008-2010) as they will again in the recovery.

The rails have a great opportunity in front of them, and they have certainly spent capital dollars—through the recession—to get themselves in position for the brave new world of market share opportunities. Now they only have to execute to achieve it.

Brooks Bentz: I would characterize it as fairly remarkable. You have what is arguably the worst economic climate since 1929, which was devastating to the industry, and yet all of the carriers have come through very well. There have been no bankruptcies or even conditions approaching financial failure. It's been quite the contrary. The carrier community has proven that it has mastered cost management and has been able to maintain—and in some cases improve—profitability.

LM: *What's been the biggest driver to the increase in volumes?*

Bentz: I think you can subdivide it into two major buckets: carload and intermodal. Intermodal volume has recovered very nicely. The question is whether it is sustainable over the next six months to nine months. There is some thought that it is mainly a replenishment of inventory that had been drawn precipitously low and that a weak peak season will cause it to sag significantly in the first quarter.

The other element driving intermodal growth (or recovery) is that shippers are looking at it much more seriously from the standpoint of additional capacity. The trucking industry pared back capacity in a fashion similar to the railroads and has not added it back as rapidly as volume has risen. The other factor is the carbon footprint impact. It makes good press, as well as good ecological sense, to use intermodal more.

The carload recovery seems to be driven by some of the same factors, but is less robust. The acid test will be what happens in the first quarter and what the winter weather will do to coal loadings.

Rennicke: Brooks is right. In recent months one of the fastest growing segments of rail volume has been domestic intermodal. It's quite possible that truck capacity may lag demand particularly where the new investment is required. The large number of motor carrier failures has reduced bank appetite for motor carrier investments.

Roman: Yet, all of the railroads appear to have been hedging their bets on a vibrant and growing economy. This is best shown with the change in the average revenue per car, excluding fuel surcharge revenue.

Hatch: But let's admit that the recovery in the general economy is still bigger than the secular story here. When examining the short term, we see a big year-over-year volume gain well over the past.

LM: *What should rail shippers keep their eyes on over the next 12 months?*

Hatch: I am not hearing anything about a double-dip, but it will be shippers who will tell us about that. Over the longer term, shipper worries can be broken down into two related things. First, getting what some are wishing for in terms of the Rockefeller bill that could choke off capacity investment. The second concern is the rail's ability to execute in terms of service.

Domestic intermodal growth is entirely dependent on a higher level of service than the rails have ever shown before, at least consistently; however, they've proven that they're up to it. That service level is also the key to making investors happy, not just from above-GDP volume growth, but for creating operating leverage and making regulators content.

Rennicke: I would suggest that shippers keep their eyes on the fundamental changes in capital markets' credit processes, which underpin the North American rail network. While the government, railroads, and shippers recognize that the North American freight network is almost totally funded by the private sector, there is no coordination on what could be the public policy role in fostering access to low-cost private capital. The $400 billion of installed infrastructure and year 2035 and beyond growth requirements, even without modal share growth, will require continuing access to large amounts of private capital.

"The railroads continue to make significant strides in efficiency and cost control. In fact, improved service levels and tight truck capacity support both traffic and revenue growth."

—Bill Rennicke, Oliver Wyman

LM: *Are there any particular regulatory obstacles shippers may be facing?*

Rennicke: One of the most troubling obstacles to the ability of rail to keep up with demand is the growth of local resistance to railroad expansion both in the form of increase frequency on a line or the building of new facilities.

Not in my backyard (NIMBY) resistance, law suite, local permitting issues, and political pressure may create capacity shortages that might not have been expected by shippers. From Massachusetts to California, railroad expansion projects are being blocked. Even in blighted areas of the rust belt, residents are blocking not only the rail facilities but shipper distribution and transload facilities.

Roman: Most shippers have been very interested in the proposed rail legislation S.2889, which would re-authorize the Surface Transportation Board and update federal rail policy. Nothing has been heard about this legislation lately and it has been off the front burner in the press and in Congress.

Hatch: Well, the obstacles would be fairly large for most shippers if the subgroup of shippers in chemicals, coal, and a few other commodity categories actually prevail in Washington and get S.2889 passed. We can remember the dis-investment cycles of the 1970s, but I do not think that is likely.

"The rails have a great opportunity in front of them, and they have certainly spent capital dollars to get themselves in position for the brave new world of marketshare opportunities. Now they only have to execute to achieve it."

—Tony Hatch, ABH Consulting

LM: *But the Rockefeller bill could throw a wrench in the works?*

Bentz: It's safe to say that the Rockefeller bill may potentially change the rules of the game, but no one knows for sure how or when. If some form of re-regulation forces rail rates lower, which is usually the intent, then the investment options will be more limited

and the capital shortfall that is anticipated will be greater—unless the funding comes from somewhere else. I also don't think it's entirely clear or entirely settled as to what the security regulations will be for import cargo, but a supposition that costs will not go down is probably not misplaced.

Could you do big-box retailing without big boxes from China on a railroad? On cross-border, rails already operate on a North American, continental network; and as border issues get ever more complicated, rails have yet another modal share opportunity.

As for outsourcing and globalization, in various parts of the supply chain without having the shipper make a large investment in a remote operation.

Roman: I'd quickly add that shippers need to decide what they want from railroads before they get into competitive traffic.

"The carrier community has proven that it has mastered cost management and has been able to maintain—and in some cases improve—profitability."

—Brooks Bentz, Accenture

LM: *With this outlook in mind, what advice can you offer shippers that will help them better manage freight over the next 12 months?*

Bentz: I think shippers need to be observant, and, if they're not already doing so, begin to plan for the long term. I don't think we'll see any radical shifts in the next year or two, although I do expect freight rates will rise, regardless of mode. Despite some who think or expect otherwise, they can't go down forever.

Over the long haul, however, capacity will be an ever-present issue and it won't just be things like "are there enough trailers, tractors, drivers, railcars, locomotives, ships or planes?" It will also be is there enough infrastructure capacity to accommodate the predicted growth of the population. Between now and 2050 we're predicted to grow from 300 million to 420 million people, mostly in the coastal areas (East, West, and Gulf), where the greatest congestion already exists.

Transportation operators know that efficiency is driven by asset utilization or asset turns and congestion is anathema to that. So, barring anything dramatic, efficiency will degrade and costs will rise unless something is done on a broad and meaningful scale—a scale beyond what private capital can finance. ☐

LM: *Considering these conditions and regulatory possibilities, how should rail shippers be re-adjusting their strategies on the rails?*

Hatch: I think shippers should consider adding rail service and "wallet share" to ensure capacity in the next cycle, reduce overall logistics expense, guard against another fuel price spike, and comply with coming carbon emissions changes. Rail is on a modal share upswing, and shippers need to be ahead of the coming wave if at all possible.

Rennicke: While shippers should continue hard negotiations with the rail carriers, their strategy must recognize that the maintenance of existing capacity and any future growth must come from the railroads cash flow and the ability to obtain low cost capital from the major financial markets.

Shipper/carrier partnerships are more in line with a constructive direction than adversarial positions. One of the most effective strategies that I've observed in the last several decades was from a utility that worked with the carrier to jointly engineer cost out of the services and obtained better rates and higher levels of service than their competitors in the end.

LM: *While we've focused on domestic issues, do you have any thoughts for shippers on how to improve cross-border and international trade?*

Hatch: Intermodal and globalization go hand in hand with one another; there really couldn't be one without the other. rails are prepared to continue their double-stack growth from either ocean's ports, west or east. International intermodal, including transload, will continue to grow well above the regular rate of economic growth. If near-sourcing does indeed take off, the rails are well positioned to handle that, too.

Bentz: I'd add that the international trade business is in something of a transitional stage with a lot of unanswered questions: Will the Panama Canal have any impact on trade routes and, if so, what? Slow steaming is lengthening already long supply chains, often significantly with vessels getting down to as slow as 10 knots. If labor in China continues to rise, and the supply chain gets longer, will near-shoring retake a significant portion of what left U.S. shores?

Rennicke: The domestic and intermodal carriers can combine in partnership with the shipper to build cross-border services. Often the carriers can provide effective process management

"Some railroads are aggressively going after competitive business where shippers have options for moving traffic. These railroads are primarily looking to increase profits by protecting and improving their market share."

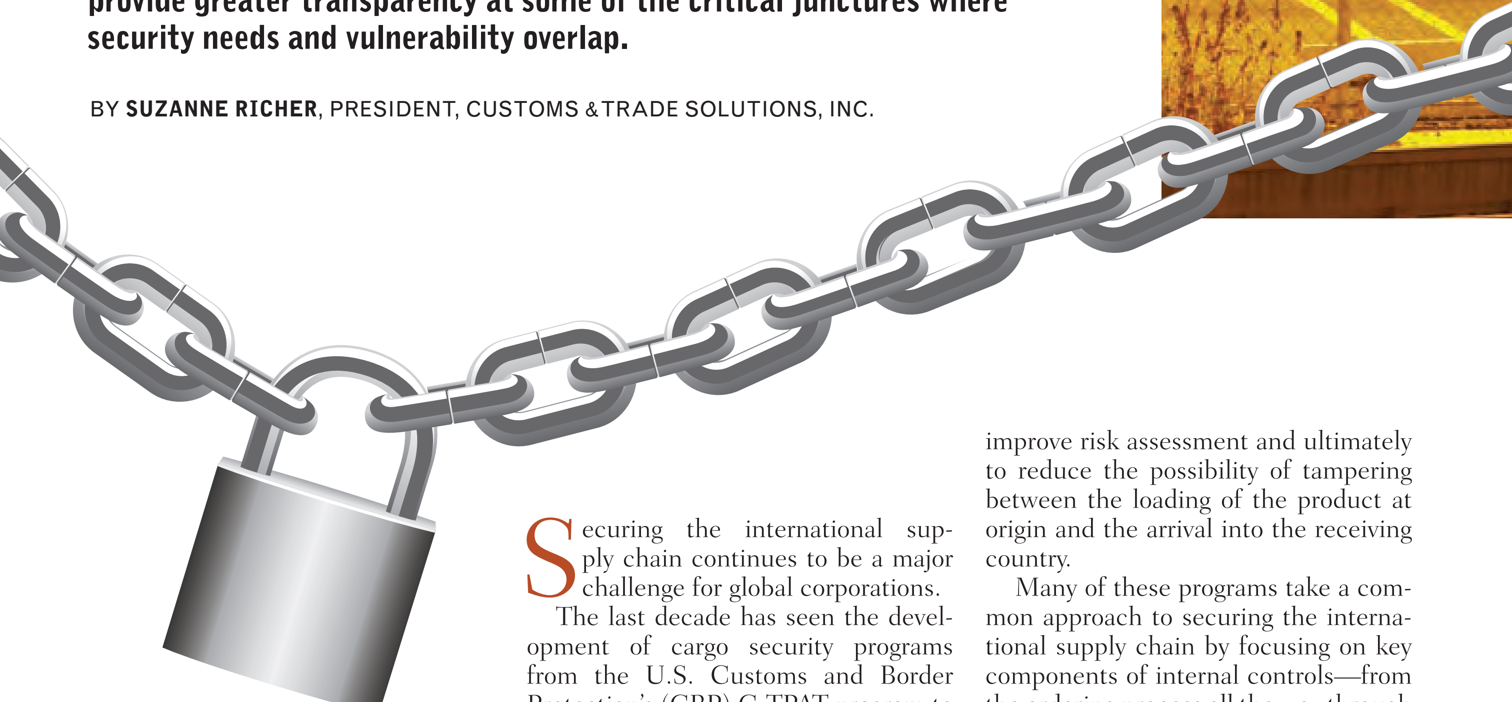
—Jay Roman, Escalation Consultants

—Patrick Burnson is Executive Editor of Logistics Management

SECURITY TECHNOLOGY: Closing the vulnerability gap

Successful integration of technology into a supply chain security strategy will expedite border crossing wait times and reduce insurance costs. Fortunately, new technologies continue to be introduced that provide greater transparency at some of the critical junctures where security needs and vulnerability overlap.

BY **SUZANNE RICHER**, PRESIDENT, CUSTOMS & TRADE SOLUTIONS, INC.



Securing the international supply chain continues to be a major challenge for global corporations.

The last decade has seen the development of cargo security programs from the U.S. Customs and Border Protection's (CBP) C-TPAT program to the European AEO program and similar global initiatives. These well-intended global programs seek to add transparency to the international movement of goods, tying in the sharing of electronic data between governments to improve risk assessment and ultimately to reduce the possibility of tampering between the loading of the product at origin and the arrival into the receiving country.

Many of these programs take a common approach to securing the international supply chain by focusing on key components of internal controls—from the ordering process all the way through to the distribution of goods. However, most of the activity between these two points is outsourced to business partners who then become responsible for the safety and security of the freight while it's in their possession.

As any global supply chain manager is well aware, this extended process heightens supply chain vulnerability and opens the door for tampering and fraud along the entire supply chain, creating a situation that's well beyond the scope of a corporation's internal controls and audit checkpoints.

We have found that companies that incorporate new technologies in conjunction with participating in these initiatives have created an opportunity to benefit by reducing their own costs and risks to the corporation. And fortunately, new technologies continue to be introduced that provide greater transparency at some of the critical junctures where security needs and vulnerability overlap.

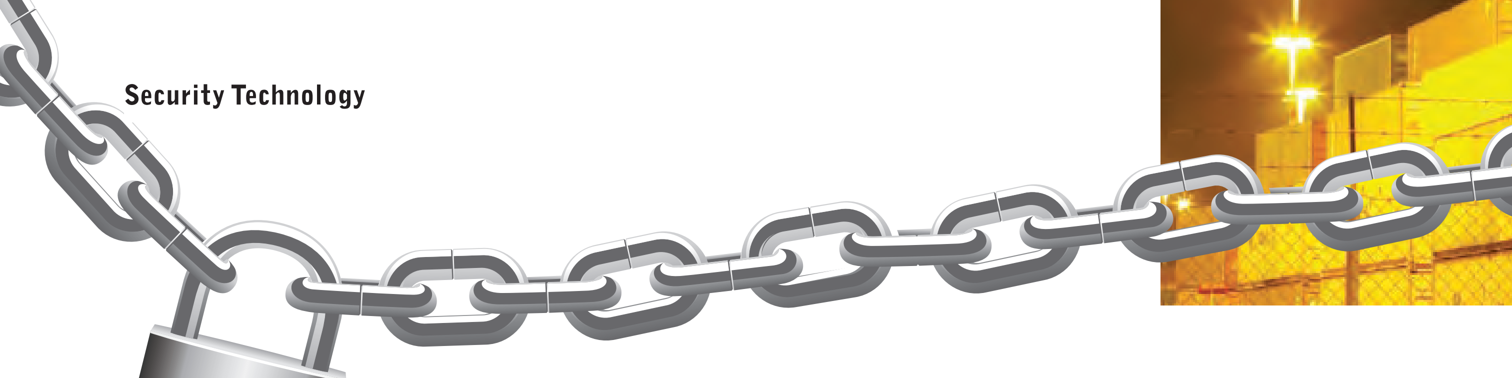
IMPROVED CONTAINER DATA SECURITY

CBP has successfully updated the management of data for risk assessment on full containers bound for the U.S. by implementing the Importer-Security Filing (ISF) requirements prior to loading in the foreign port.

While obtaining this data in advance of shipping has improved security targeting, tying it to the actual movement of the container will improve the visibility of the entire shipment. For example, the European funded INTEGRITY project is an IT data exchange platform titled the Shared Intermodal Container Information System, or SICIS. A recently introduced extended version of SICIS will track a container from origin to destination, linking the container monitoring data with vessel tracking information via satellite.

The result is a unique view of both the vessel and the container, marrying logistics and security data. SICIS is intended to integrate with the European cargo security program Authorized Economic Operator (AEO), similar to the U.S. version of Customs-Trade Partnership Against Terrorism (C-TPAT).

Currently in use for containers moving from China to Europe, the next proposed step will be able to link data from the container to the receiving CBP officials, allowing clearance capabilities to take place earlier in the supply chain, possibility while it is still on the water.



Both Chinese and European Customs have expressed interest in participating in these discussions, and the results may be an incentive for other trade lanes to be approved for this technology that is set to improve lead time for a product by reducing the time it remains at the border.

NEW TECHNOLOGY FOR PORTS

New and improved technology is now available for the marine industry to promote greater visibility of ports, offshore installations, and security zones. Designed for both military and civilian markets, updated diver detection sonars can pick up underwater swimmers or divers that are approaching a vessel.

New and improved range performance capabilities allow the sonar to detect an underwater diver through a "signal-to-noise ratio" using pulse compression or chirps. This same system can be adapted to fixed or mobile systems, whether for underwater detection near a vessel or placed near port entrances and exits where maneuverability is important.

For corporations moving product through international waters where piracy is still a major threat, anti-intrusion programs may prove beneficial to alerting the crew to immediate threats.

For corporations moving hazardous materials via ocean, a newly introduced chemical warfare detector with closed circuit TV cameras will soon be in place in the Port of Providence, R.I. Developed by Smiths-Detection, the video management system will alert authorities to chemical hazards in the port area, linking the data feedback to real-time video feedback.

This system will allow the port to remotely identify vessels with chemical spills, accidental or otherwise, and integrate data management and immediate warning systems, sending the data to emergency response teams for evaluation and crisis response capabilities.

SCANNING VANS

Since the discovery of shoe bombs and liquid explosives, the world of X-ray capabilities has continued to improve. X-ray scanners are in place in over 150 countries today, allowing customs officials the ability to scan for explosives, weapons, narcotics, and contraband in a non-intrusive way.

Body scanners are next in line, with the continued debate playing out on just how intrusive these machines are. But the most interesting scanner now available on the market has similar capabilities and is being driven through the streets of the U.S.—scanning vans.

American Science & Engineering (ASEI) is the developer of the Z Backscatter Van, or ZBV as its known in the business. ZBV capabilities mounted inside a van can move past parked or moving vehicles and scan the interior in the same way one can see the contents of a purse at an airport X-ray machine. Recent sales to the Department of Defense have allowed the government to search for road-side bombs in Afghanistan and check for vehicle-based explosives here in the U.S.

The ZBV is a powerful tool for scanning vehicles for drugs, human bodies, or other illegal items, making it a desired technique of security programs for law enforcement and border control activities. The company has reported the sale of 89 of the vehicles through June of this year, delighting law enforcement and shareholders while raising alarms with privacy advocates.

For supply chain professionals, knowledge of which ports are utilizing this tool for stronger targeting of enforcement will be helpful when outlining their risk assessment strategies by trade lane.

BIOMETRICS AND ACCESS SECURITY

Biometric identification via a hand or fingerprint has been a long established system, but not widely used in industries outside of pharmaceuticals or similar businesses.

Updates to the reading mechanisms now allow the full hand to be scanned, capturing data on the width, length, and size of the hand, palm, and fingers. The systems, which can be established at port gates or at the entrance ways to distribution facilities, no longer need to capture the actual fingerprint, as the unique size of the hand, tied to an individual code, will accurately verify identification.

These systems work whether the hands are clean or dirty, allowing for ease of use for many industries. The unique pin can be tied to payroll or

The Z Backscatter Van moves past parked or moving vehicles and can scan the interior in the same way one can see the contents of a purse at an airport X-ray machine.

used to track employees as they move from one building to another. Taken to the next level of security and technology progress, the biometric capabilities mixed with smart cards can move from opening doors to opening sensitive files, allowing for greater confidentiality of proprietary company information.

Supply chain managers may find these updated biometric capabilities supportive in both access and IT security elements—at the cost of a single system update.

Supply chain and security professionals who focus only on doors or files miss the most important objective—securing the business.

TIGHTENING BORDER CROSSINGS

Recent outbreaks of violence south of the border are pushing CBP officials to increase exams for U.S. bound shipments, especially by truck. To help defray the risk, CBP has completed the full implementation of the Border Detection Grid. Under development since 2008, the project uses a grid of advanced sensors and detection capabilities to monitor cross-border activities.

The program allows the classification of the incident to reflect the level of risk, rating the detected movement to be from friendly forces, small animals, or even the weather. This capability supports the border patrol unit to establish a reaction plan based on the risk identified and allows one person to monitor up to 10 miles of border.

With enhanced security capabilities using fewer resources, supply chain professionals can focus on the risk to the shipment earlier in supply chain planning and apply resources to lowering the risk of intrusion farther from the border.

START BY ASSESSING RISK

Risk within global supply chains continues to be influenced by external factors, most of which are out of the control of the supply chain professional. Those with best-in-class programs keep cargo security programs at the top of the CEOs focus by tying risk to other corporate objectives, such as branding and intellectual property rights.

Supply chain and security professionals who focus only on doors or files miss the most important objective—securing the business.

Working with cross-functional teams to ensure all threats are identified, from procurement to counterfeit products, will protect a company's reputation, as well as its people, customers, suppliers, and contractors. The challenge is to integrate the security programs with the physical and logistical risk management programs.

Successful integration of new technologies may expedite border crossing wait times, and reduce insurance and other associated costs to the company. Luckily, there is no shortage of new technology programs to help corporations reach that goal.

Suzanne Richer is president of Customs & Trade Solutions Inc., a consulting firm specializing in international trade and cargo security programs (smricher@ctsiadvisors.com).

Developing a strategy: Put a security integrator to work

DEVELOPING NEW STRATEGIES FOR COMBATING SECURITY threats within the supply chain continues to be at the top of the list for most logistics professionals, especially those moving freight across borders and around the globe.

From our experience working with global shippers, collaboration with business partners outside the organization is the key to success. Threats can only be reduced by the ability of the port, security force, police, or other enforcement officials to reduce the risk associated with an identified vulnerability in the supply chain.

Implementation of many of the new and upcoming technology capabilities will depend on the company's established security budget as well as the threat and vulnerability assessment of the global supply chain.

One essential best practice to consider while exploring new security technology opportunities includes working with a security integration partner for any new construction project. Many corporations forget to include security groups during the design and construction stages of new buildings such as warehouses and distribution centers.

The opportunity to reduce the cost of implementing security programs could be greatly reduced when integrated into the planning, yet could be cost prohibitive post construction.

The role of the security integrator should include analyzing, designing, and building a technology plan for current operations with an eye on where the company will be in five or 10 years. Assessing needs with a future view will lower costs of integrating various levels of technology. *—Suzanne Richer*

LIFT TRUCKS

BY **SARA PEARSON SPECTOR,**
EDITOR AT LARGE

Toyota Industries Corp. (TICO) launched an internal combustion hybrid lift truck in the Japanese market in 2009.

Regardless of the style, lift truck suppliers are developing technologies that drive productivity improvements for users. With emissions control regulations and an increasing desire among users to be more environmental and cost-conscious about energy use, a number of trends have surfaced in the industry.

"Suppliers are looking at technology to improve productivity," says Jeff Bowles, product marketing manager for Mitsubishi Caterpillar Forklift America, manufacturer, marketer, and distributor of CAT, Mitsubishi, and Jungheinrich lift truck brands. "Typical truck and warehouse designs, as well as regulations, can limit things like maximum truck speed, for example. So the trucks have to become smarter to become more productive."

Developments include increased use of AC and alternative power sources, green technologies, better monitoring of fleets, and outsourced maintenance. If you're ready to make a move on a new fleet or upgrade what you currently have, here are five of the hottest trends that you need to take into consideration.

1. ELECTRIC OVERTAKES INTERNAL COMBUSTION

More electric lift trucks are sold in the United States than internal combustion trucks, at a ratio of approximately 60:40, according to Martin Boyd, national product planning and marketing manager for Toyota Material Handling, U.S.A. This represents a reversal of the

GET SMARTER

New technologies and usage practices can help you maximize your fleet's productivity and longevity while reducing your carbon footprint.

ratio from 30 years ago, says Boyd.

"Electric drive-train technology has gotten much better with the introduction of AC power in the U.S. market, and fast charging technologies have also improved," he explains. Other reasons for the shift include growing environmental awareness, volatile fuel prices, and legislative pressures from the Environmental Protection Agency (EPA) and California Air Resources Board (CARB) to control emissions, Boyd adds.

With 2009's economic downturn, electric truck purchases spiked to 67 percent of the market, an anomaly Boyd attributes to the continued sale of non-durable goods—such as food and beverage—that are typically handled by electric trucks. "Durable goods like home improvement supplies and luxury items are primarily handled by internal combustion lift truck products, so as the economy improves and people start spending again, electric truck market share will likely return to the 60 percent level," says Boyd.

2. ALTERNATIVE POWER SOURCES

While more battery-powered lift trucks are in service than ever before, they still require dedicated space for change outs and recharging. They're also prone to performance degradation over time: As the battery's power is depleted, lift truck performance declines.

For those reasons, lift truck suppliers and a few users are in the process of evaluating alternative power sources, including hydrogen fuel cells. The fuel cells are identical in size to lead acid batteries, converting hydrogen to electricity, with water as the only emission. Unlike batteries, fuel cells produce constant voltage until the hydrogen is depleted. While they are available now, their initial cost and infrastructure requirements make them inaccessible to most users.

"We're working with a large number of customers and fuel cell suppliers to make sure the trucks work and customers are satisfied with the vehicle's overall functionality," says Dave Norton, corporate product engineering manager for The Raymond Corp. "As to when we'll be seeing widespread use of fuel cells in lift trucks, my guess would be within a five- to 10-year timeframe."

Norton suspects that tax breaks and incentives from the government will encourage more users to exchange their batteries for fuel cells, but points out that—for now—the justification for their infrastructure depends on the user's size.

In addition to the emissions, space savings and continuous power benefits of fuel cells, they also offer enhanced safety, says Jonathan Dawley vice president of marketing for NACCO Materials Handling Group, the manufacturer of Hyster and Yale lift truck brands.

"We deployed fuel cells in 250 trucks for a Chicago-area grocery distributor last year, and their return on investment came not only from the elimination of a dedicated battery changing room and personnel, but also enhanced safety and productivity," says Dawley. "People no longer had to drive outside their designated work areas to get new batteries; instead they were able to refuel or top-off when they had downtime."

Another future option may be hybrid diesel/electric or propane/electric powertrain systems, adds Toyota's Boyd. "We're currently monitoring Toyota's recently introduced hybrid diesel/electric forklifts in Japan. Hybrids deliver 50 percent better fuel economy, and a 50 percent cut in emissions."

3. SUSTAINABILITY

Both electric lift trucks and alternative power sources contribute to many companies' sustainability goals. With "being green" on everyone's mind, lift truck suppliers are unveiling a variety of features that conserve energy while at the same time maximizing productivity.

"In all trucks—diesel or electric—there's a finite energy source: battery capacity or fuel tank size," says MCFA's Bowles. "The emphasis in the last generation of trucks has been how to best make use of that finite level of energy."

New technologies that offer better energy efficiency include regenerative lowering in high lift equipment, such as turret and reach trucks, that feeds energy back to the battery, and a toggle-on fuel saver mode for LPG trucks that lowers the vehicle's performance to 92 percent of full power, but conserves 20 percent more fuel, says Bowles.

"Even component placement can improve energy usage, such as repositioning the motors, hydraulic pump, and valve to the front of a three-wheeled truck to shorten some power cables and hoses and eliminate others to gain more energy efficiency by pushing oil and current through shorter distances," he says.

4. ANALYTICS AND FLEET MANAGEMENT

While the amount of data available from the vehicles themselves is practically boundless, it's taken users a while to figure out how to best gather and analyze the information. Enter improved data and fleet management software to help streamline the process.

"Wireless systems gather data, collate, and crunch it, and then put it in a format that's easy for the user to use for better management of operators and fleets," says Matt Ranly, senior marketing product manager for Crown Equipment. "The data includes fuel or battery usage, impacts, and their severity, truck operation, speeds, cycles, productivity and checklists."

As a paperless approach, many systems offer dashboard reporting to filter the information and convert it into useful metrics that can be shuffled to reflect a period of time—from comparisons of one day's shift to another, or several weeks, or months of information for trend reporting.

5. MAINTENANCE AND LEASING PROGRAMS

More users are shying away from handling their own lift truck maintenance, says David Spears, manager of business development for NACCO.

"By moving away from buying and owning equipment to leasing with full periodic maintenance contracts, users can focus on their core business," says Spears.

Many users simply don't have the time or energy to be a lift truck expert, agrees Patrick Duhaime, director of brand management for Hyster. "That's an evolution that started a long time ago, but it's certainly accelerated lately," he said.

With the growth of Web-based analytics and fleet management—and the use of more reliable components that last as long as 1,000 hours before maintenance is required—it's become easier for suppliers and distributors/service providers to remotely monitor a vehicle's condition and flag it for service on an as-needed basis.

Additionally, suppliers are developing new technologies to improve durability and reduce maintenance and downtime, adds Raymond's Norton. For example: "Many of the systems within the trucks now are monitored by temperature sensors, preventing the vehicle from overheating and reducing damage," says Norton. □

Sara Pearson Specter is an Editor at Large for Logistics Management

Cheese supplier reduces lift truck impacts

After increasing its fleet to 19 reach-fork and stand-up counterbalanced vehicles and upping the size of its main warehouse from 40,000 to 110,000 square feet, Masters Gallery Foods prioritized addressing lift truck impacts and reducing vehicle, product, and facility damage.

The cheese product supplier, with headquarters in Plymouth, Wisc., has 50 lift truck operators working during three shifts each day.

To manage vehicles and operators, the company installed the iWarehouse fleet optimization system from The Raymond Corp. As operators weren't always timely in reporting impacts, the initial goal was better management through better monitoring.

"Lift trucks required premature maintenance to hoses or wheels as a result of impacts," says Dan Murphy, warehouse manager. "We needed to find out when impacts were occurring so we could assess the cause and determine if additional training was required or if something in the facility was contributing to incidents."

The system draws real-time information from on-board vehicle computers. Data is accessible to warehouse managers through a Web portal, and managers are immediately alerted about impacts as well as their severity. Additionally, the system monitors the average uptime and productivity of the trucks—even at a second facility 20 miles away.

"Our goal is to have 80 percent of our fleet in operation," adds Murphy. "I can evaluate times of the day when usage is exceeding or not meeting that target, to determine if we need more trucks or if we should hire additional operators during a particular shift."

Within five months of installing the fleet optimization system, impacts were reduced by 88 percent, Murphy reports. Further, the tracking encourages accountability and efficiency, manages new employee vehicle speeds, streamlines maintenance, and eliminates paperwork for the OSHA-required, pre-operation checklists—all of which have contributed to the company's pursuit of increased productivity, he adds.

Lift truck suppliers are developing new technology to improve durability and reduce maintenance and downtime.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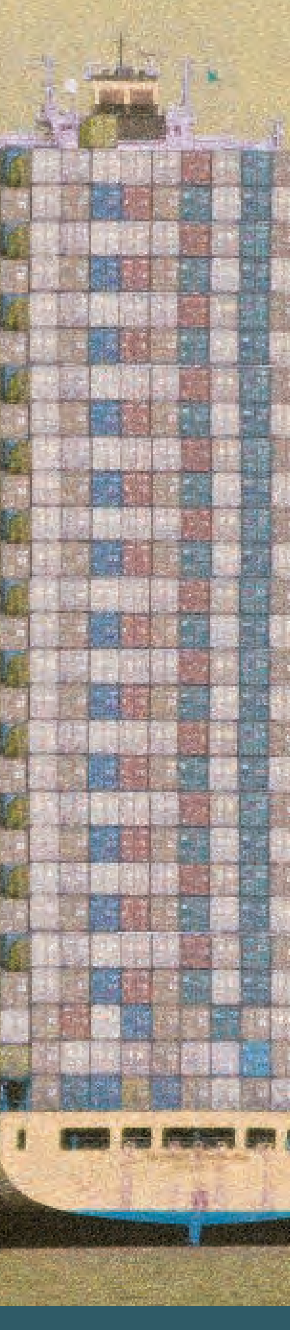
A SPECIAL SUPPLEMENT TO
Logistics MANAGEMENT

SPECIAL REPORT:
Top 30 Ocean Carriers

TOP 30
Turn up the volume

Now that pricing has been restored and capacity restrained, the leading vessel operators are staging a comeback. What lessons have they learned from the recent recession and dismal earning cycles? Here's what the top analysts are saying.

By Patrick Burnson, Executive Editor



Special Report: Top 30 Ocean Carriers

In the school of hard knocks, the tough will survive. Those who prevail, however, are the ones who hit back harder. That's what shippers should be expecting from the Top 30 ocean carriers this year; and analysts are warning shippers that when it comes to contracting in 2011, the gloves are off.

Shippers saw evidence of this on October 1, when Mediterranean Shipping Co. (MSC) began increasing freight rates on its services between North America and Europe and the Mediterranean. The Geneva-based carrier, the second largest container shipping line, says that the general rate increases are necessary "to preserve the existing comprehensive range of services" and "to advance freight rates towards a sustainable level."

This blow was delivered just after MSC imposed a peak season surcharge on all shipments from the Far East to the U.S. East and West Coasts. However, MSC was hardly alone in making this move. Maersk Line—the largest carrier of U.S. imports—had warned shippers in mid-summer that it was going to impose a similar surcharge to ensure space in the Asia-U.S. trade lanes.

What Peak Season?

While it may appear to shippers that there's less space aboard ocean vessels, it's not necessarily the case, say analysts at Alphaliner, a Paris-based ocean cargo consultancy. They note in a recent report that capacity has simply been moved from one trade lane to another as demand dictates.

During the first six months of 2010, the active containership volume had risen by 15.3 percent, jumping from 11.5 million twenty-foot equivalent units (TEU) on January 1 to 13.32 million TEU at the end of June.

The 178 million TEU increase includes new ship deliveries (0.74 million TEU) and the reactivation of idle ships (1.16 million TEU), while 0.12 million TEU of cellular capacity was removed through scrapping and conversions. The total cellular fleet (active and idle) has reached 13.67 million TEU, up from 13.06 million TEU at the beginning of January.

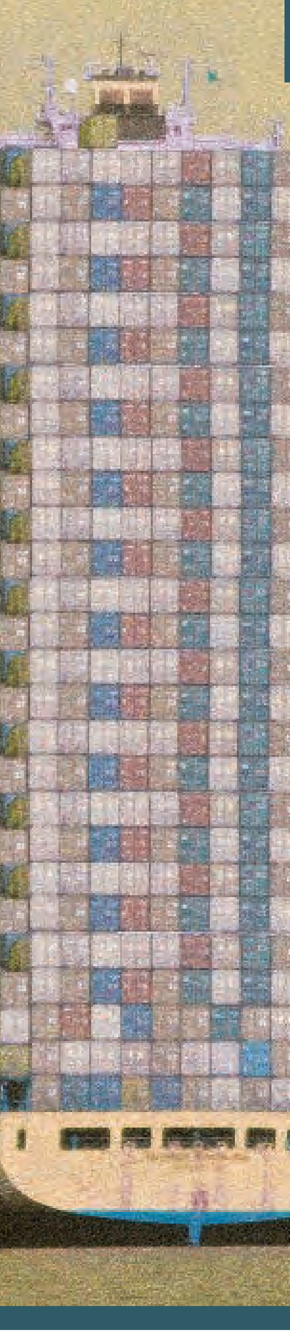
Despite the influx of new buildings, the idle capacity dropped from 1.51 million TEU at January 1 to 0.35 million TEU at the end June. According to Alphaliner analysts, this was largely due to the higher-than-expected recovery in demand in the first half of the year and to the impact of "extra slow steaming," which has absorbed an additional

Top 30 Ocean Carriers

(Operated fleets as per August 10, 2010)

Rank	Operator	Teu*	Share (%)
1	APM-Maersk	2,098,945	14.6
2	Mediterranean Shg Co	1,726,269	12.0
3	CMA CGM Group	1,136,112	7.9
4	Evergreen Line	615,295	4.3
5	Hapag-Lloyd	603,447	4.2
6	APL	598,134	4.2
7	CSAV Group	534,760	3.7
8	COSCO Container L.	530,859	3.7
9	CSCL	464,384	3.2
10	Hanjin Shipping	404,141	2.8
11	MOL	381,662	2.7
12	NYK	369,351	2.6
13	Hamburg Süd Group	358,709	2.5
14	OOCL	349,180	2.4
15	K Line	318,409	2.2
16	Yang Ming Marine Transport Corp.	315,798	2.2
17	Zim	310,306	2.2
18	Hyundai M.M.	282,272	2.0
19	PIL (Pacific Int. Line)	250,284	1.7
20	UASC	207,806	1.4
21	Wan Hai Lines	179,776	1.3
22	HDS Lines	99,617	0.7
23	MISC Berhad	80,268	0.6
24	TS Lines	76,641	0.5
25	Sea Consortium	58,619	0.4
26	CCNI	55,857	0.4
27	RCL (Regional Container L.)	53,411	0.4
28	Grimaldi (Napoli)	52,459	0.4
29	KMTC	48,219	0.3
30	SITC	37,453	0.3

*Twenty-foot equivalent units
Based on existing fleet and orderbook TEU capacity available on board operating ships. All figures are consolidated.
Source: Alphaliner



0.32 million TEU in six months.

"The pace of scrapping has slowed down considerably since last year's highs," says Alphaliner analyst Stephen Fletcher. The number of container vessels scrapped in the first six months of this year has reached 111,000 TEU. He adds that another 8,500 TEU were removed through conversions of cellular ships into other ship types (bulk carriers and sheep carriers).

"All major carriers saw their active capacity increase in the last six months," states Fletcher. "NYK was the only carrier in the Top 30 to have recorded a decrease in active capacity as it embarks on its new strategy of reducing its exposure to the liner trades."

While shippers may be heartened to hear that fewer ocean cargo vessels are being scrapped, and newbuildings are ramping up, some analysts are beginning to doubt if demand will sustain growth. The good news released recently by Alphaliner about more carrier activity had been countered by Drewry Shipping Consultant's latest Container Forecaster, which posits the idea that an inbound "Peak Season" may fail to materialize.

Top performing ocean carriers according to AgTC members:

1	APL
2	Hamburg Sud
3	OOCL
4	Hapag-Lloyd
5	Evergreen
6	Yang Ming
7	Maersk
8	K-Line
9	MOL
10	U.S. Lines

Source: Agriculture Transportation Coalition (AgTC) Annual Survey

"By no means do we see a precipitous fall, but there will be an impact," says Neil Dekker, editor of the quarterly *Container Forecaster*. "The danger of a weaker recovery has been concealed by the fact that ocean carriers believe they have entered a real recovery phase."

Furthermore, warns Dekker, there is every possibility that utilization factors will decline, "which in turn will have a knock-on effect on freight rates."

Outbound incentives

With the Obama Administration putting new emphasis on exports, carriers serving the Transpacific westbound lanes may have a different story to tell. According to Michael Gargaro, senior vice president for ocean freight at cargo consolidator Agility Logistics, carriers are not moving fast enough to accommodate a surge in outbound freight this autumn.

"Capacity shortfalls will continue into 2011," says Gargaro, adding that he directs these comments towards agricultural shippers doing business in Asia. He warns them that this trend will continue as long as carriers deploy capacity based on higher-valued eastbound vessel strings.

Meanwhile, the removal of the limited ocean carrier anti-trust immunity seems to be gaining support, says the National Industrial Transportation League's ocean cargo committee chair, Michael Berzon. "At the NITL's Washington Freight Transportation Policy Forum, Congressman Jim Oberstar (D-Minn.), chairman of the U.S. House of Representatives' Transportation and Infrastructure Committee announced that in response to practices by ocean liner carriers serving the U.S. trades, he would propose legislation ending the limited anti-trust immunity that remains in effect," he says.

Currently, says Berzon, it permits the ocean carriers in the U.S. trades to join in discussion agreements where they can compare notes on rates and capacity issues. "If enacted, the end of the limited anti-trust immunity would follow the action taken by European regulators. Since the elimination of the EU Block Exemption, it prohibits consultation by groups of carriers to discuss rates in the European trades," he says.

New players?

Meanwhile, other shippers may be wondering if the barrier to entry for new ocean vessel operators has been lowered. If so, a "no frills" carrier plying the transpacific may lead the way.

Introduced last April, The Containership Co. (TCC) began a "no-frills" service from China to Los Angeles, competing directly with the Top 30 carriers operating in the transpacific. With weekly sailings from Taicang, 40 miles downriver from Shanghai, the bold new company hopes to capture market share by using economies of scale.


YANG MING
The fresh aroma of early morning coffee
fills the air and your senses.
But, behind the scenes, the very source,
the voyage of those coffee beans,
is another story of itself.
The hard work of so many people teaming up
to make sure that each and every day in life
can have that same aroma
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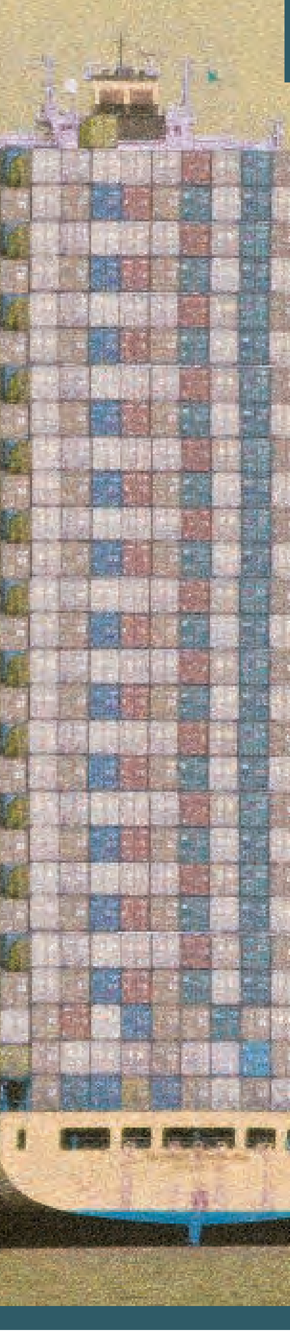


For example, by moving boxes by barge rather than truck, TCC can skirt hauling expenses on the outbound side. Once the containers are loaded on to its fleet of five chartered 2,800 TEU vessels, the deployment is point-to-point.

"We don't care to get involved with the inland movement of goods," says TCC chief operating officer Franck Kayser. "Our model is very simple. As a non-asset-based carrier we can charge a fixed price based on a fixed volume commitment. Our customers are the NVOs (non-vessel operators) and BCOs (beneficial cargo owners), so it's a more flexible and agile business model."

So far it's yielding mixed results. TCC's "Great Dragon Service," that operates as a charter with a customer base of about 55, reported a $3 million net loss on $21.2 million in revenue during the first half of its first year in business. Kayser says that TCC still has plenty of cash to carry on; however, he notes that they've added a second route from Ninbo to Los Angeles. "And we have room to grow beyond that," Kayser adds.

Next year may also be the year foreign-flagged vessels will be able to penetrate the domestic market, say analysts. In a move that was widely embraced by U.S. shippers, Sen. John McCain (R-Ariz.) recently introduced legislation again to fully repeal the Jones Act of 1920. This is the law that restricts domestic waterborne transportation to U.S.-built, flagged, and owned ships crewed by Americans.

"The free market economist in me says that this is an idea whose time has come," says Rosalyn Wilson, author of the annual "State of Logistics" report and blogger for sister publication *Supply Chain Management Review*. "Protectionism rarely produces the optimum economic outcome."

She maintains that there is a valid argument for a phased "sunsetting" of the Act to enable our Merchant Marine to restructure and become more competitive. "For instance, relaxing the U.S.-built requirement would enable carriers to purchase ships on the worldwide market, dramatically lowering costs for new vessels," Wilson adds.

Wilson notes that the U.S. went through similar stages with the deregulation of the trucking and rail industry in the 1980s. "We increasingly rely on foreign economies for our goods, and U.S. companies have shown that they can adapt and compete profitably in the global marketplace," says Wilson. "I believe our merchant marine industry could do the same." ☐

> "Our model is very simple. As a non-asset-based carrier we can charge a fixed price based on a fixed volume commitment. Our customers are the NVOs (non-vessel operators) and BCOs (beneficial cargo owners), so it's a more flexible and agile business model."
>
> *—Franck Kayser, CEO, The Containership Co.*

Ag shippers rank carriers

For the past four years, the Agriculture Transportation Coalition (AgTC) has been asking its members to rank ocean carrier's performance in its national survey. The full list of ocean carriers was recently released, together with the complete rankings from the three previous years' survey findings at AgTC's 23rd Annual Conference in San Francisco last June.

"This provides a useful overview of agriculture shippers' view of carrier performance over an extended period," says AgTC executive director Peter Friedmann.

The objective of the AgTC Ocean Carrier Performance Survey is to recognize those carriers that consistently perform well and to "incent" the others to focus their company, personnel, and resources on improvement.

The AgTC has each year extended an invitation to carriers to work with its members to address documentation and other performance practices in order to enhance the shipper-carrier relationship.

"A demonstration of the positive potential of the survey has been the effort of Maersk to address documentation issues," says Friedmann. "Maersk met with agricultural shippers at the AgTC Mid-Year Conference and established a documentation initiative. The carrier heard directly from the AgTC members and discussed the specific documentation metrics required for the shipper to perform under their contracts to their foreign customers," Friedmann adds. As a result, Maersk accepted the invitation to work directly with individual AgTC shippers to improve the documentation function.

A SPECIAL SUPPLEMENT TO Logistics MANAGEMENT

Three ways to prepare *for* GROWTH (while containing costs)

We asked a panel with more than 75 years combined experience in logistics and distribution to identify three warehouse/DC best practices that improve the distribution network, reduce the work, and leverage the most important asset in any organization—its people.

By Maida Napolitano, Contributing Editor

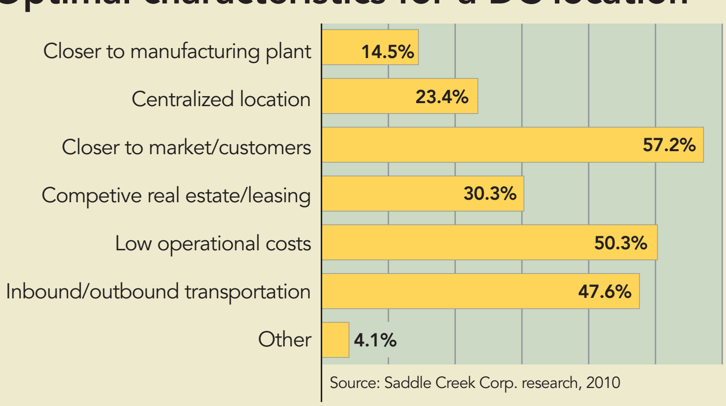
Economic conditions may be much improved from the dismal depths from which they emerged, but we're not quite out of the woods yet. A status quo of high unemployment, sagging consumer demand, and lingering financial constraints has kept controlling costs the prevailing theme in warehouse and distribution management.

As Vice President of IT Business Systems for Tommy Hilfiger USA, Inc. and president of the Council of Supply Chain Management Professionals (CSCMP), Bob Silverman says he's seeing this scenario play out firsthand. "The recession has forced companies to do more with less, and often capital isn't available," he says. "Even when a solid ROI can be demonstrated with a project that would improve distribution operations, the project sponsor can't get it funded."

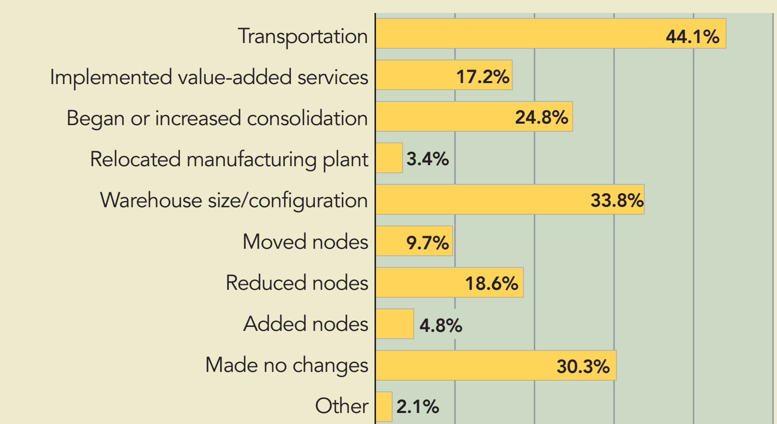
Ann Elliott, CEO of Solertis Logistics Consulting, agrees that money remains tight across the board. "Many operations have been challenged to perform with fewer people and a smaller payroll." Unfortunately, a smaller team can sometimes compromise the ability for a company to provide the highest levels of service that customers have been expecting.

In fact, the effects of this economic

Optimal characteristics for a DC location



Changes made to the distribution network



Source: Saddle Creek Corp. research, 2010

tsunami reverberate far beyond the four walls of the warehouse/DC to the entire distribution network. In a recent survey conducted by Saddle Creek Corporation on distribution network trends, two-thirds of the 235 responding logistics professionals confirmed that they have made changes to their supply chain distribution network design as a result of recent economic challenges.

"Companies have had to reevaluate their supply chains carefully in an effort to identify opportunities to create efficiencies and cut costs," explains Tom Patterson, senior vice president of warehouse operations for Saddle Creek Corporation. "Adjusting network strategies has allowed many companies to accommodate marketplace demands and significantly impact their operating costs while maintaining strong service levels."

That said, here's the $64,000 question for logistics management professionals: How do you prepare your operation for growth while still keeping a close eye on controlling costs?

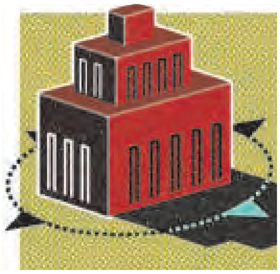
To help answer this daunting question, we assembled this panel of experts who have more than 75 years combined experience in logistics and distribution. They've identified three warehouse/DC best practices that steer clear from fancy equipment investment and, instead, focus on tried-and-tested solutions that improve the distribution network, reduce the work, and leverage the most important asset in any organization—its people. But better yet, these three best practices have a history of resulting in substantial benefits with minimal costs.

So, pay attention because these solutions may not only cut your costs today, but may serve as a point of differentiation for your business as the economy slowly but surely improves.

1 Redesign your distribution network to match today's needs.

With such a fluid economy, changes to your business and your customers' requirements are inevitable. It's always a smart move to regularly improve and update your network. Of course, the 25 percent reduction in distribution costs that many companies realize from a network study doesn't hurt either.

So, where should you locate your DCs so as to optimize your network? Respondents to the Saddle Creek survey clearly had their preferences. Most said that they valued a location closer to their market or customers (57.2 percent) rather than a location closer to the manufacturing plant (14.5 percent), suggesting the priority placed on last-mile distribution.



"That last mile can be a challenging and costly segment of the supply chain for many companies because economies of scale break down due to smaller shipment sizes and traffic congestion in urban settings," explains Saddle Creek's Patterson.

Low operational costs and readily available inbound/outbound transportation also rated highly when selecting a geographic location (50.3 percent and 47.6 percent respectively). Patterson believes that this is because managers are looking more closely at their total cost, recognizing the value of a more holistic approach to their business.

The survey also reveals how companies are zeroing in on three key areas for change in their distribution network design: transportation (44.1 percent), warehouse size and/or configuration (33.8 percent), and consolidation of shipments from suppliers (24.8 percent). And when asked which network changes were most effective, respondents cited changes in transportation such as modal shifts, re-negotiating fuel surcharges, and transportation network restructuring. Some are changing packaging and product design to help increase freight density and lower freight costs.

At the warehouse level, many companies, particularly those with $2.5 billion or more in gross global sales, have reported changing the size/configuration of their warehouses. Other changes at the warehouse level include: improving inventory control, reconfiguring warehouse layout/racking and slotting, adding small parcel shipping lines and stations, adding a slow-moving section to a DC, simplifying warehouse processes, renegotiating real estate leases, and right-sizing regional nodes.

To prepare for growth in such an unpredictable market, Patterson suggests a shared-space approach to strike a better balance between fixed and variable space as a way to improve supply chain effectiveness. In a shared-space approach, a third-party provider manages two or more client operations in a single facility with overflow capacity. This allows companies to bring products closer to market without increasing overhead, manage seasonal or promotional fluctuations, and accommodate business growth.

Companies are able to adapt more quickly to changes in the marketplace and better serve their customers without investing in permanent personnel, space, and equipment. Patterson cites an example in their Lakeland, Fla., campus where a shared-space approach works very effectively for two of Saddle Creek's customers: a well-known beverage producer and a leading food manufacturer.

"These two companies share space in a 487,000-square-foot warehouse that offers fixed space for each customer on opposite ends of the facility and a central area to handle any overflow on an as-needed basis," he says. "The arrangement allows the beverage customer to improve efficiencies by reducing its number of distribution centers while accommodating seasonal business fluctuations. At the same time, it gives the food manufacturer a cost-effective, centrally-located space to accommodate anticipated growth."

Patterson adds that neither customer pays for unused space, and both now have the flexibility to handle whatever the future might bring.

Changes made to the distribution network by company size

	Less than $100 million	$100 to $500 million	$500 million to less than $1 billion	$1billion to less than $2.5 billion	$2.5 billion or more
Changes to transportation	48.5%	43.9%	62.5%	42.1%	38.7%
Implemented value-added service	30.3%	19.5%	0.0%	10.5%	12.9%
Began or increased consolidation	27.3%	31.7%	18.8%	15.8%	25.8%
Relocated manufacturing plant	0.0%	2.4%	0.0%	0.0%	12.9%
Changed warehouse size/ configuration	27.3%	31.7%	50.0%	10.5%	45.2%
Moved nodes to new locations	6.1%	12.2%	0.0%	0.0%	22.6%
Reduced nodes	6.1%	14.6%	18.8%	21.1%	38.7%
Added nodes	3.0%	9.8%	0.0%	0.0%	6.5%
Made no changes	33.3%	34.1%	25.0%	31.6%	22.6%

Source: Saddle Creek Corp. research, 2010

Special Report

2 Leverage technology to improve efficiency.

In many industries the trend has been towards smaller, more frequent orders. Retailers who used to place bi-monthly bulk orders for their distribution centers are now placing thrice-weekly orders for individual stores. These types of orders have put more of a burden on what is already the most labor-intensive area in the warehouse: picking.

Tommy Hilfiger's Bob Silverman suggests utilizing technology to reduce the amount of work expended by pickers to get their jobs done. "Often by studying profiles of how work flows, similarities can be uncovered to improve productivity," he explains. With pickers spending 80 percent of their time travelling and only 20 percent on picking, Silverman proposes batch-picking orders requiring significant travel distances to dramatically reduce unnecessary travel.

Small orders would be combined one of two ways—either a master pick list would be generated for the aggregation of orders still allowing them to be individually picked, or the SKUs for multiple orders would be consolidated into a batch and individual orders could be subsequently picked downstream.

"Some warehouse management systems (WMS) have the functionality to intelligently aggregate orders or other tasks," says Silverman, "but often it's easier to have a programmer develop a small application to combine orders to create a wave based on a criteria that is most appropriate to your operation." For example, orders with the same SKU, one-line or one-piece orders can be combined and batch picked separately from the rest of the orders.

This same concept of uncovering similarities in picking can also be applied to replenishment tasks. Let's say a DC has four sizes of the same product. If this product was stored in reserved storage by size, four different pallets would have to be retrieved to replenish the product in a forward-pick area. If the sizes were mixed on the pallets, perhaps only two pallets would have to be retrieved to fulfill the replenishment.

What benefits can be expected?

Guide to best practices in picking and packing

The chart below is an excerpt from Warehousing Education and Research Council's (WERC) *Warehousing and Fulfillment Process Benchmark & Best Practices Guide*. WERC uses this guide in their recently launched WERC Warehouse Certification Program in which the organization can certify an individual warehouse facility's capabilities and ability to perform core warehousing functions. For more information about this program, go to werc.org.

Pick & Pack	Best Practice
Strategy and methods	Picking strategy supports current and forecasted customer requirements and will include multiple optimized pick/pack processes. Optimized wave picking and task interleaving.
	Review pick processes and strategy for each product at least once per quarter. Modeling and simulations are run frequently.
Tactics and equipment	Pick areas are optimized to support current and flexible enough to handle future demand.
	Conveyors or other automated MHE to bring orders into each required pick zone, eliminating travel time for pickers (Pick to Light, AR/AS, flow rack, auto pick equipment, may be used).
	Operator pick efficiency and travel time are system managed and optimized.
	All pick/pack areas laid out ergonomically to reduce employee fatigue and injury.
	Excellent housekeeping.
Pick documents	Pick travel path minimization through order picking in travel path sequence using serpentine approach.
	Batch picking of the same SKUs for multiple orders, or wave pick sequencing to plan picks per zone in advance.
Transactions	RF terminals, wireless speech system, or similar 2-way data transfer system enables automated order communication to personnel, portable printers used.
	Transactions are in real time.
	Single system of record, no data redundancies.
	RFID tag/Electronic Product Code tracking integrated into pick process when required.
Performance	Record of daily activity by major task and staffing levels displayed on warehouse floor. Employees are included in continuous improvement programs.
	Productivity targets set and measured, showing an improving trend and/or meeting goals.
	Customers can review performance activity level via on-line reporting.

Source: Supply Chain Visions & WERC, 2010

Special Report

Silverman reports significant productivity savings often in the range of 20 percent to 30 percent for the tasks that are consolidated. "Of course, you'll ultimately need to confirm to the WMS that these orders have been correctly picked, so everything reconciles properly—sometimes this can be accomplished by the external program electronically confirming the picks." He adds that for operations without a WMS, this external application can provide the systemic picking intelligence that is often otherwise lacking.

3 Cross-train your "All Stars"

To weather the storm, a typical knee-jerk reaction in many companies has been to significantly reduce staff and batten down the hatches. "Getting out the hatchet and chopping staff levels is never a good long-term strategy," says Solertis' Elliott. "A better response that we observed in several of our clients was to avoid layoffs by freezing wages and implementing salary reductions of up to 10 percent."

As a best practice, she suggests cross-training your top people. "Pick some of your best performers and most reliable staff members and rotate them through areas that interest them and through areas that you want to increase your pool of talent," she explains.

If you don't already have a formal cross training program in place, she recommends that you create one with prestige, visibility, and accolades to acknowledge and reward your best performers without adding additional cost to your operation. "This will demonstrate that you are investing in your staff and will further engender their loyalty, trust, and support—encouraging your best people to stay through the lean times."

When the going gets tough, good managers are those who step up to become better leaders. It's the responsibility of these leaders to innovate creative solutions to everyday problems, instead of doing things the way they always have. That's what "best practice" is all about. ☐

Maida Napolitano is a Contributing Editor for Logistics Management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Plan your work and then work your plan

By Wayne Bourne

YOU FINISHED YOUR BUDGET almost a year ago. At that time you forecasted what your volumes were going to be, you determined your origin and destination city pairs, and then set the levels of service that you're going to provide internal customers and partners. You rolled it all up into the overall supply chain budget and then presented it to management.

You and your team were glad that cumbersome process was complete for another year. It was now time to operate within the parameters set by the new process. In fact, your KPI's, your bonus, and your reputation as a fiscally responsible manager pretty much depend on it. And, hopefully, you then developed a strategic operating plan that will deliver the value proposition associated with the numbers that your team crunched.

Every year about this time I hear about the manager who didn't think that the market conditions would actually change that much since the budget was put into place. Could that manager have predicted that transportation rates would now be moving steadily into the higher ranges? Well, he should have.

Could he have forecast that equipment capacity would suddenly evaporate like water on your lawn on an August afternoon. Did that manager follow the carrier industry's economic reports and analyses that have been prepared for them by the likes of *Logistics Management*. If he had, he would have learned that the carrier's worsening financial condition was brought on by years of low rates and higher expenses.

The tough questions

Quite a few events have already occurred over the past 12 months that will have a considerable negative impact on your budget. So, it's time to ask a few tough questions: How good was that plan that you created directly after your budget process? Did you consider that you might encounter a capacity issue when the economy takes an upturn? How about the laws of actions and reactions? Keep in mind that as capacity tightens up the rates go up appreciably on all non-committed equipment.

Even if you planned for higher rates to occur, did you think it also might portend an absolute shortage of tractor/driver availability? All indications I have seen and heard suggest that this is going to be a great holiday season—maybe not world class, but very good despite the recession. And that can mean only one thing: You'd better have a plan.

Carriers have not added any capacity in the past two years; in fact, many of the larger carriers have actually taken capacity out of their system to stem their losses on fixed expenses. Less equipment in the pool (supply) coupled with higher inventory volumes (demand) will push equipment shortages to very tight limits, particularly on disproportionate markets like the major ports of the U.S.

Rates will be higher as a result, and you can bet that transit times will be a bit slower as carriers with outlying capacity need to reposition their equipment for your pick-ups. Those repositioned drivers will not necessarily arrive at your location fresh and ready to roll. Considering the hours of service rules today, some, if not all will have to regenerate their driving hours before they depart or shortly thereafter, further slowing down typical transit times.

Look, everyone knows the old inventory adage about having the right product at the right place at the right time. However, in the past 10 years I learned that the old adage is fiscally incomplete. It should state: The right product, at the right place, at the right time, in the right quantity, and at the right price. If you can hit the last two performance indicators in that new list you'll have a solid chance of achieving the objectives surrounding your budgets and your service level agreements.

And while you can't predict the future, you can certainly develop a few "what-if" scenarios and prepare solutions in the event that they occur. They should cover, as a hedge against costs and performance, everything that can set you off course.

If your plan is insufficiently prepared and you are swimming against the tide, go to finance and ask them to re-forecast the remainder of the year for your department—and be prepared to explain why. Then take my advice and plan your work, then work your plan. □

Wayne Bourne is founder and president of The Bourne Management Group, a consulting firm specializing in supply chain, logistics, and transportation network creation, economics, organizational development, and process analysis. A recipient of several industry awards, he has nearly three decades of experience in transportation and logistics management. Mr. Bourne may be reached at WLB1144@aol.com.