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2010 STATE OF LOGISTICS:

Make your move

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Management UPDATE

AN EXECUTIVE SUMMARY OF INDUSTRY NEWS

■ **UPS gets behind Obama on trade.** President Barack Obama said his administration is committed to resolving outstanding issues regarding the United States-Korea Free Trade Agreement (KORUS FTA) by November when he visits the country. While this trade agreement remains at a standstill, UPS soundly endorsed the prospects of getting a deal done. UPS spokesman Norman Black told *LM* that the carrier unequivocally supports this and all other pending trade pacts. "This is heartening in light of the President's goal of moving the economy forward through the National Export Initiative," said Black. "We all need to understand the value of trade and what it can do to create jobs and improve the U.S. economy despite complaints from critics who sometimes say it does nothing but remove jobs."

■ **Global supply chains not prepared for the upturn.** According to a new survey conducted by global supply chain management consultancy PRTM, senior management is bullish about economic recovery, but their global operations are not prepared to meet a significant upturn in demand. The findings are part of PRTM's *Global Supply Chain Trends 2010–2012 Survey*, the largest annual survey of global supply chains ever conducted by the firm. While optimism abounds—more than half of survey respondents expect average gross margins to surpass 10 percent over the next three years—three-quarters of respondents cite demand and supply volatility, coupled with poor forecast accuracy, to be the biggest roadblocks they face in capturing profits from the economic upturn.

■ **Yet another mixed forecast.** The recent Beacon Economics' forecast for the U.S. economy continues to be optimistic, at least in the short run. "We expect overall national growth to continue in the 2 percent to 3 percent range for the second half of 2010," said a Beacon's spokesman. "One reason is that a large proportion of federal stimulus

dollars have yet to hit the economy. As they find their way to Main Street, 2010 could end up being a very strong year." But that's the short run, the analysts added, and a solid 2010 does not necessarily mean the same for 2011 or 2012. Indeed, Beacon Economics is growing more pessimistic about the medium run: "The positive signs we're seeing in the here and now are due primarily to monetary and fiscal policy and not because the U.S. economy has moved beyond the issues that plagued it two years ago."

■ **Cheaper canal?** The Cabinet Council of the Republic of Panama approved a proposal to modify the Panama Canal pricing structure last month, following a recommendation from the Panama Canal Authority (ACP) Board of Directors. The proposal modifies the pricing structure for all segments: container, dry bulk, liquid bulk, vehicle carriers, reefers, passenger, and general cargo. Specifically, the ACP will calculate container segment tolls with a slight price adjustment to the capacity charge and an additional new charge that would apply to the number of loaded containers aboard the vessel at the time of transit. The newly approved pricing structure includes one amendment to the original proposal that will delay the implementation of the reefer segment increase.

■ **10 in the CIO Top 100.** Transportation and logistics services providers are beacons of technology according to *CIO* magazine. Nearly 10 cargo-moving concerns made the cut for the magazine's 2010 CIO 100 List. This prestigious list honors companies that exemplify the highest level of operational and strategic excellence in information technology. Among this year's honorees from the logistics and transportation space include: Old Dominion Freight Line, Con-way, FedEx, YRC Worldwide, Port of Long Beach, Pitt Ohio Express, and Greatwide Logistics Services.

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Management UPDATE

continued

■ **ATA tonnage takes a seasonally-adjusted dip.**

The American Trucking Associations (ATA) reported that its advance seasonally adjusted (SA) For-Hire Truck Tonnage Index slipped 0.6 percent in May, the first decline since February. However, the ATA's not seasonally-adjusted index (NSA), which represents the change in tonnage actually hauled by fleets before any seasonal adjustment, was up 5.8 percent year-over-year. ATA Chief Economist Bob Costello said in a statement that despite the month-to-month drop in May, the trend line is still solid. "This doesn't take away from the fact that freight volumes are quite good, especially considering the reduction in truck supply over the last couple of years," said Costello.


■ **Get back to supply chain basics.** Join Group Editorial Director Michael Levans, Editorial Director Frank Quinn, and Executive Editor Patrick Burnson during an exclusive virtual conference entitled *Supply Chain Fundamentals: The Building Blocks of Success* that will go live on Thursday, August 5. The conference will concentrate on those core supply chain activities that translate directly to higher productivity and lower costs. Our keynote session and conference workshops will focus on the basics of the four key components of supply chain management: Purchasing, Transportation Management, Warehouse/DC Management, and Reverse Logistics. Go to logisticsmgmt.com for more details.

■ **Box prices soar.** The shortage of containers has reached critical levels, with lines blaming the situation on "exceptional" high demand that has developed since the Chinese New Year in February, noted analysts for Alphaliner. According to the Paris-based container shipping consultancy, prices for new containers have soared to their highest levels in almost 20 years as both carriers and container leasing companies rush to place fresh orders to meet the new demand. "The current price for 20-foot dry containers has reached \$2,750/unit compared to less than \$2,000/unit at

the end of last year," wrote an analyst in the report. Even at these higher prices, demand will still outstrip supply for the current peak season. Take a deeper dive in to the state of ocean shipping on page 31.

■ **Believe it or not, air cargo is soaring.** Global air cargo traffic is back to pre-recession levels, declared Giovanni Bisignani, director general and CEO of the International Air Transport Association (IATA). Speaking at its 66th Annual General Meeting and World Air Transport Summit in Berlin, he provided a snapshot of the market that suggested new hope for the sector. "Our resilience has been tested by disease, war, terrorism, spiking oil prices and even a volcano," he said. "The worst economic recession in 80 years saw revenues drop by \$81 billion and losses of almost \$10 billion in 2009," he said. "But today we are upgrading our global industry forecast to a full-year profit of \$2.5 billion. This is the first global profit since 2007. It is a reason to celebrate." Get a 30,000-foot view of the current state of the air cargo market on page 32.

■ **Hold that tiger.** The recent crisis has underlined the emergence of Asia as "a global economic powerhouse," said Anoop Singh, director of the International Monetary Fund's Asia and Pacific Department. As a consequence, he added, "Asia is moving into a leadership role in the world economy." According to the IMF, several dynamic economies in the region are generating growth outcomes that register on a global scale and are helping pull the world economy out of recession. China and India are leading the way, but the phenomenon is by no means limited to these two countries. Asia's economic importance is "unmistakable and palpable." Based on expected trends, within five years Asia's economy will be about 50 percent larger than it is today, account for more than a third of global output, and be comparable in size to the economies of the United States and Europe.



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COVER STORY

2010 State of Logistics: Make your move

The cost of the U.S. business logistics system declined 18.2 percent in 2009—the largest drop in the history of the State of Logistics Report. But

as the economy slowly improves, shippers will need to be more cautious and tactical as they face increasing volumes, tight capacity, and higher rates.

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COVER ILLUSTRATION BY RAPHAEL RICOY



TRANSPORTATION TRENDS

2010 Mid-year rate outlook: Paying a premium

34 While the extent of the recovery remains uncertain, shippers will continue to be hit with rate increases across all modes.

SUPPLY CHAIN & LOGISTICS TECHNOLOGY

RFID/Wireless: Race to Utopia

37 Our technology correspondent examines where RFID and wireless communications currently stand as logistics and supply chain management enablers and then defines the remaining barriers to adoption. Just how far are we from real-time visibility?

WAREHOUSE & DC: VOICE

Three voices, three solutions

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SPECIAL REPORT

U.S. Port Security Update: A work in progress

Port authorities contend that without a method of enforcement, supply chain security has little chance of truly enhancing safety. Here's a closer look at the different paths U.S. ports are taking in route to establishing standards and adhering to new regulation mandates. **46S**

Join Group Editorial Director Michael Levans, Editorial Director Frank Quinn, and Executive Editor Patrick Burnson in this exclusive virtual conference on how to execute those core supply chain activities that translate directly to higher productivity and lower costs.

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Make your move

BY NOW, MOST READERS have already digested the top line data from the *21st Annual State of Logistics Report* (SoL) that was officially released back on June 9. And if for some reason you missed the news, I'll cut to the chase.

According to the findings gleaned by author and economist Roz Wilson, the cost of the U.S. business logistics system declined 18.2 percent in 2009, the single largest year-over-year drop in the history of the report. And while the market was more than prepared for a drop in that number due to the long-running and savagely-ruthless recession, I can't help but think that most of us were a little surprised when we actually saw all the figures in black and white.

Without giving away too much of the data from Patrick Burnson's excellent analysis of the report (Page 22), here are some of the telling takeaways: Business logistics costs fell to \$1.1 trillion in 2009, a decrease of \$244 billion from 2008. In fact, logistics costs as a percentage of our nominal GDP—an annual SoL measure that analysts believe gives us the best historical snapshot of the market—fell to 7.7 percent, the lowest level since that measure has been recorded (see chart on page 26).

Just how brutal was the recession's blow to the U.S. logistics system? If you combine the \$244 billion drop in 2009 with the drop recorded in 2008 (\$49 billion) you'll find that total logistics costs have declined nearly \$300 billion since the recession started. In 2009 alone, money spent on overall freight transportation dropped 20.2 percent.

I think you're getting the picture.

In our annual analysis of the report, Burnson sits down with Wilson to put some perspective behind this data in an effort to help shippers navigate the

current and upcoming freight environment. And as Wilson points out in the conversation, it's important to keep these figures in perspective since they do paint a historical portrait.

Indeed, transportation analysts and the vast majority of our sources are in firm agreement that all trends are pointing to an improving economy; which in turn is leading to increasing volumes and better times ahead for beleaguered carriers across all the modes. In fact, many shippers may be surprised to read in our mode-by-mode breakdowns (starting on page 28) and John Paul Quinn's mid-year rate outlook (page 34) just how quickly volumes are increasing, capacity is tightening, and rates are shooting skyward.

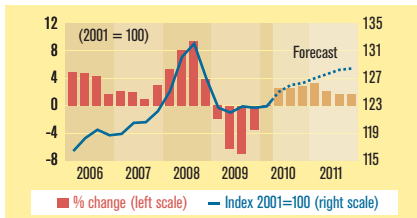
"Shippers were shell shocked last year due to low volumes and extreme rate pressures, and very soon became risk adverse," says Wilson. "This year, they would be wise to be first at the table negotiating rates and capacity...guaranteeing a minimum level of business in return for guaranteed carriage and limited rate hikes two or three years out."

And while the worst of times may be behind us, adds Wilson, shippers will be faced with a brand new set of tactical challenges as the economy inches forward on its slow recovery path. It's time for shippers to heed Wilson's advice and make their move.

Michael A. Levans, Group Editorial Director

Comments? E-mail me at
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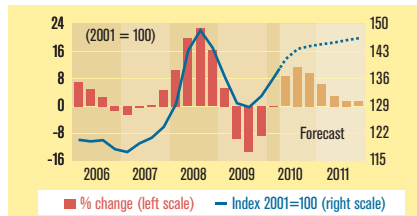
Across the Transportation Modes



% CHANGE VS.:	1 month ago	6 mos. ago	1 yr. ago
General freight - local	0.0	-0.4	1.5
Truckload	0.9	2.5	3.6
Less-than-truckload	1.2	3.0	0.7
Tanker & other specialized freight	0.9	2.5	3.2

TRUCKING

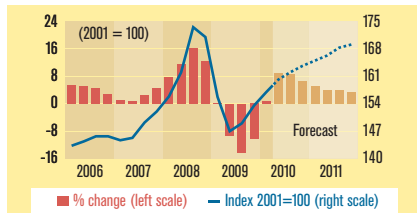
Average transaction prices charged by all types of trucking companies increased 0.8% from a month ago and 2.7% from the same month a year ago in May 2010. Sadly, with trucking industry costs up 8.9% from April 2009 to April 2010 due primarily to a 61% jump in fuel costs, prospects for a turnaround in industry margins look as bleak as ever. Our forecast for trucking industry prices, in aggregate, has now been increased to 2% in 2010 and 2.2% in 2011. After 2009's debilitating 4.6% price plummet in trucking tags, shippers and carriers alike may be relieved to see some measure of stability return to inflation rates in the truck transportation sector.



% CHANGE VS.:	1 month ago	6 mos. ago	1 yr. ago
Scheduled air freight	7.1	8.5	10.1
Chartered air freight & passenger	-5.9	-12.8	2.6
Domestic air courier	1.4	7.0	15.9
International air courier	1.4	6.5	11.8

AIR

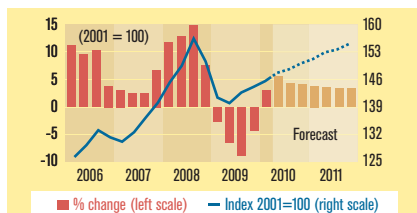
The average price for flying cargo on scheduled flights via U.S.-owned planes took off a surprising 7.1% from a month ago and 10% from same-month-year-ago in May 2010. Chartered air cargo companies in the U.S., meanwhile, reported that they cut their average transaction prices 5.9% from a month ago, albeit that was up 2.6% from a year ago. For air cargo on scheduled flights, the past month's price jump got the inflation trajectory for this market back on a path more like the one last seen in 2005. As a result, our forecast for this transportation market has been increased to a 7.3% inflation rate in 2010 and 3% in 2011. On the cost side, airline wages will continue to bear the brunt of pain from lower than average industry margins.



% CHANGES.:	1 month ago	6 mos. ago	1 yr. ago
Deep sea freight	1.5	9.6	16.1
Coastal & intercoastal freight	-0.7	-0.3	8.0
Great Lakes - St. Lawrence Seaway	0.0	-6.6	5.3
Inland water freight	3.1	0.6	6.5

WATER

U.S. owned water transportation companies, like every other mode, endured an unprecedented sharp drop in its transaction prices charged to shippers in the mid-2008 to mid-2009 time period. But unlike other modes, this sector is seeing its prices rebound more quickly now. In May 2010, deep water, inland water, and Great Lakes-St. Lawrence seaway freight carriers managed to pump up their respective transaction prices from year-ago levels by 16.1%, 6.5% and 5.3%. For the water transportation industry as a whole, prices increased 10.5% from a year ago, which was the largest such hike since the end of 2008. The annual inflation rate forecast for the U.S. water transportation market now calls for a 6.2% price gain in 2010 and 4% in 2011.



% CHANGES.:	1 month ago	6 mos. ago	1 yr. ago
All rail transportation	1.6	2.7	6.2
Intermodal rail freight	2.7	4.4	10.1
Carload rail freight	1.6	2.5	5.9

RAIL

Both intermodal and carload rail carriers have displayed a quick reaction to even slight gains in demand for service. In May 2010, intermodal rail owners hiked their transaction prices up 2.7% from a month ago and 10.1% from a year ago. Carload rail likewise displayed 1.6% and 5.9% price increases over the same time periods. The inflation trajectory for rail cargo service appears once again to be on a steady and probably predictable path. After a 5.6% annual price drop in 2009, overall rail industry transaction prices are forecast to increase 4.2% in 2010 and 3.5% in 2011. That will leave rail prices at the end of 2011 just 1.4% below the rail industry's price peak set in August 2008.

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



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Carrier executives concerned about future driver shortage

Industry says legislation will only exacerbate looming driver shortfall; FMCSA says it will weed out the "bad apples."

By Jeff Berman, Group News Editor and John D. Schulz, Contributing Editor

ATLANTA—A looming truck driver shortage, driven to a large degree by a piece of unpopular legislation, appears to be a matter of "when" rather than "if," according to trucking and third party logistics (3PL) executives speaking at last month's eyefortransport 3PL Summit in Atlanta.

The Federal Motor Carrier Safety Administration (FMCSA)-backed legislation, dubbed CSA 2010, is being bandied about at a time when trucking capacity continues to tighten and supply and demand is ostensibly reaching a tipping point. CSA is a procedure that will dictate how the federal government rates trucking companies and drivers. It will be rolled out in November and continue in phases into 2011. The FMCSA decided to delay it due to concerns from the trucking industry over fairness concerns.

As *LM* has previously reported, shippers should be concerned about the new safety-rating program for one major reason: it could raise their trucking rates. That's because the program could potentially reduce the available driver pool by as much as 7 percent, thus reducing truck capacity at a time when the economic recovery is expected to stress the already reduced over-the-road capacity of many fleets.

"If left unchanged, CSA 2010 is one of the worst pieces of legislation to come into the trucking industry, perhaps ever," said Werner Enterprises COO Derek Leathers at the 3PL Summit. "If CSA is not changed, the 5-percent to 8-percent estimate of drivers eliminated from the market is too low. But CSA is so broken I cannot imagine it won't be changed, and I encourage shippers to get involved. The driver shortage will be one of our biggest issues going forward."

Leathers added that Werner has two drivers who have driven a cumulative 7.4 million miles over 71 years without ever getting into an accident; but under CSA 2010 guidelines they would be terminated. The reason for this, Leathers explained, is that warnings issued to truck drivers are the same as a getting a ticket under CSA 2010 even though highway patrol officers often use warnings as a way to inspect driver logs and equipment.

"CSA 2010 will definitely shrink the supply of eligible drivers," said Sid Brown, CEO of NFI Industries, a Cherry Hill, N.J.-based 3PL. "What I find amazing right now is that with

a slight pickup in the economy there is 10 percent unemployment and yet all carriers are struggling now to hire quality drivers. When CSA really kicks in next year you will see the results of that even more in 2011."

Brown added that unlike in the past, there is not as much activity now with drivers in construction-related industries switching over to trucking. And with unemployment high, he said there is further pressure on the available sup-



DRIVER SHORTAGE, *continued from page 13*

ply of drivers, leading to a strong possibility that carriers will have to raise the level of driver pay to attract more drivers into the industry. This will subsequently create pressure for big carriers to raise rates charged to shippers.

Despite carriers being less than thrilled about the current state of CSA 2010, FMCSA Administrator Anne Ferro said earlier this month at the National Industrial Transportation League's Spring Policy Forum that

"If you're a good motor carrier driver today you're going to be a good motor carrier driver under CSA 2010."

—Anne Ferro, FMCSA Administrator

CSA will weed out "bad apples" from the industry and that there was a "great deal of exaggeration" regarding some forecasts of drivers who will be ineligible once CSA is fully implemented.

"If you're a good motor carrier driver today you're going to be a good motor carrier driver under CSA 2010," Ferro said. "CSA 2010 is designed to set up a warning system to someone who is trending toward unsafe driving behavior. The warning process and data it gives carriers is the same process I think motor carriers should be using to identify high-risk behavior."

Transportation Corporation of American CEO Keith Klein testified on behalf of the American Trucking Associations (ATA) to the House Transportation Infrastructure Subcommittee on Highways and Transit, saying that the ATA supports CSA 2010 initiative because "it is based on safety performance rather than compliance with paperwork requirements; it focuses limited enforcement resources on specific areas of deficiency rather than on comprehensive on-site audits; and because it will eventually provide real-time, updated safety performance measurements."

But he added in his testimony that the ATA has a number of serious concerns relating to how CSA 2010 will work—and if not addressed these concerns could have a dramatic impact on motor carriers and highway safety. □

RAILROADS

LaHood says Class 1 rail cooperation essential to "jump start" high-speed rail

ARLINGTON, Va.—High-speed rail is coming to America—but not without the cooperation of five Class 1 freight railroads in North America, says the nation's top transportation official.

Transportation Secretary Ray LaHood recently held what he termed a "very good" meeting with representatives of the freight railroads who are currently seeking compensation for giving up some rights of way along their network of track.

"We need a strong freight railroad sector," LaHood said after his speech at the National Industrial Transportation League's (NITL) Spring Policy Forum held out outside Washington on June 10. "But we also need them to jump-start high-speed rail."

When asked what specifically he wants the freight railroads to give up in exchange for rights, LaHood said: "It's not a matter of giving anything up." Rather, he said, he was seeking the freight railroads' cooperation in jump-starting the nation's first high-speed rail network along four major corridors.

"We can't get into the high-speed rail business without the cooperation of our friends in the freight railroad sector," LaHood said in his speech to NITL members. "Between freight and passenger rail, America is getting into the high-speed rail business."

The Department of Transportation (DOT) has already allocated \$8 billion for high-speed rail. Another \$2.5 billion is on the table to be invested this year, LaHood said. "We're at the same point now where we were during the Eisenhower administration when the Interstate Highway System was in its infancy," the DOT secretary said.

On another major concern, LaHood said there is progress and consensus on the next highway bill, although not on how to fund it. House Transportation and Infrastructure Committee Chairman Rep. James Oberstar, D-Minn., already has proposed a \$500 billion program to replace the current five-year, \$286 billion highway bill that expired last Sept. 30.

"As soon as we can find \$500 billion, we'll have a bill on the President's desk to sign," LaHood said. The current system of funding the Highway Trust Fund through the federal tax on motor fuels—18.4 cents on gasoline, 23.4 cents on diesel that is unchanged since 1993—is "deficient," he added. "The Obama administration has resisted raising that tax as the nation struggles with the aftermath of the recession."

By John D. Schulz, Contributing Editor



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GOING GREEN

Senate rejects amendment to prevent EPA from regulating GHG emissions

WASHINGTON—Last month, the United States Senate voted down a push led by Senator Lisa Murkowski (R-Alaska) that would have prevented the Environmental Protection Agency (EPA)

contributing to that threat.

The Senate voted 53-47 against an amendment proposed by Murkowski, who said on the Senate floor that “the sweeping powers being pursued by the EPA are the worst possible option for reducing greenhouse gas emissions. It would reduce emissions at an unreasonably high cost.”

Had the amendment passed, many industry experts contend that it would have been vetoed by President Barack Obama. And with the recently introduced American Power and Energy Act currently stalled for Congress, there is the possibility that any energy-

related legislation will not be passed by the end of this year.

Regardless of what happens with this legislation, it's clear that this type of legislation will need to be watched closely by shippers and carriers alike, as it has the potential to increase the cost of doing business—while, at the same time, it could reduce the nation's

dependence on foreign oil, with the U.S. currently running a near-\$1 billion per-day tab.

What's more, in January 2011, the EPA plans to begin requiring certain manufacturers to obtain permits for their new facilities that exceed 75,000 tons of greenhouse gas emissions with other facilities of different sizes being phased in.

“When the December 2009 final ruling was proposed, it set a very dangerous precedent to give one agency within the government the ability to arbitrarily do this,” said Kevin Smith, president and CEO of Sustainable Supply Chain Consulting. “It could become a problem if we find ourselves in a situation where government agencies are able to make these declarations. The next logical step is to say government agencies have the ability to levy fines, fees, and taxes associated with whatever they're ruling on.”

As an example, Smith explained that a trucking company using diesel to power its trucks could have the EPA assigning it an algorithm as to how much CO2 the trucking company is emitting into the air. This could serve as a mathematical formula to calculate a tax, which is just going to translate into increased prices for shippers and consumers.

While the Murkowski amendment would have likely been vetoed by the White House, the question being debated in Washington is whether or not changes to GHG emissions should be regulated under the Clean Air Act or if the EPA has the right to regulate GHG ever since the EPA ruled GHG emissions pose a danger to public health, according to Brittain Ladd, a supply chain consultant and lecturer on green supply chain strategies for a consulting firm.

“If the vote is taken prior to the mid-term elections odds are that the bill will make it through Congress and President Obama will sign the bill into Law,” said Ladd. “However, if the mid-term elections take place prior to a vote on a Climate bill than odds are that the bill will fail as most Republicans are against a Climate bill, and the Republicans are on track to win enough seats in the House and Senate to make passage of such a bill nearly impossible.”

By Jeff Berman, Group News Editor



“When the December 2009 final ruling was proposed, it set a very dangerous precedent to give one agency within the government the ability to arbitrarily do this.”

—Kevin Smith, president and CEO of Sustainable Supply Chain Consulting

from regulating greenhouse gas emissions standards under the Clean Air Act.

The EPA's push to regulate GHG emission standards began in December 2009, when the EPA issued a final ruling indicating GHG gases threaten the public health and welfare of the American people, with GHG emissions from on-road vehicles also con-

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FREIGHT RATES

Trucking spot market rates continue their ascent

BOSTON—As truckload capacity continues to tighten, spot market rates continue to rise. That appears to be the consensus based on research released by Avondale Partners and TransCore.

In a recent research note, Avondale analyst Donald Broughton wrote that since the Avondale Truckload Spot Market Index went positive year-over-year in November 2009 for the first time in more than a year, the index continues to rise at a very impressive—in fact, record setting—rate.



“The result suggests that in the spot market, the ratio of the number of loads available versus the number of trucks available has improved so dramatically that contract market pricing has to move up materially.”

—Donald Broughton,
Avondale analyst

May from April, following 25 percent and 44 percent month-to-month gains in April and March, according to published reports. Even though May was down sequentially, TransCore said load volume in May reached its highest level for the month in ten years.

“Spot prices have moved up dramatically, and I expect that by the end of the third quarter if will show up in data from publicly traded carriers,” said FTR Associates Partner Noel Perry. “And it takes time for price changes to mature [which impacts pricing]. If you sign a contract in December, prices won’t change until the next December.”

By Jeff Berman, Group News Editor

The Avondale report stated that its index continued to show steady improvement on a three-month average basis, coming in at a 253 percent increase in May, which was down slightly from April’s 260 percent gain. Despite the significant increases, Broughton noted that the year-over-year strength is somewhat exaggerated by the severe weakness in last year’s index.

“On a nominal basis the index reported a stronger reading than all historical levels reached for the month of May, as it did in April,” wrote Broughton. “The result suggests that in the spot market, the ratio of the number of loads available versus the number of trucks available has improved so dramatically that contract market pricing has to move up materially.”

TransCore reported that its North American Freight Index saw a 3.2 percent decline in



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Supply chain strategies for an oil-challenged world

IN LAST MONTH'S COLUMN, we discussed volatile fuel prices and the imminence of permanently pricy fuel. We also looked at the impact of fuel prices on companies' transportation operations and identified some fuel-savvy transportation moves that shippers may wish to consider.

However, transportation is hardly the only area affected by oil's capriciousness. Changes to other supply chain processes—network strategy; sourcing and procurement; planning and forecasting; and distribution—may also be needed to handle today's price swings and tomorrow's highly likely price increases.

NETWORK STRATEGY

Fuel woes will make flexible network strategies more important than ever. Short-term, the reason is obvious: accommodating fluctuating oil prices. However, long-term flexibility is equally vital since companies can't really predict the combined effects of high fuel prices, new products, new markets, new technologies, and new competitors. But they can learn to respond quickly and economically by:

Designing more flexible supply chain infrastructures. Plants and warehouses generally will need to produce and store multiple products—not just to serve the goal of “larger and fewer facilities,” but to ensure that shifting local and regional needs can be met without getting hammered by ballooning fuel costs.

Building regional networks. Businesses may find that customized—regional—network strategies offer attractive benefits. This could be particularly true for entities that make or buy in a few far-shore locations for supply to many countries.

Working more closely with third parties. A key advantage here is reducing assets, while

enhancing the ability to rapidly scale logistical capabilities and relocate inventory.

SOURCING AND PROCUREMENT

Fuel costs affect the sourcing and procurement of most products and services. For this reason, new practices, such as the application of advanced risk-management principles to sourcing and procurement, may be in order.

Companies may also wish to avoid long-term sourcing contracts in order to adapt more swiftly to changing market conditions that affect fuel usage. In this context, a dual sourcing strategy could be desirable, with multiple suppliers for

Traditional planning and forecasting goals (maximum accuracy, minimal cost and error) won't change in the face of fluctuating or higher fuel costs.

hedging against changing transportation cost structures.

Hemispheric supply management—rebalancing near- and far-shore sourcing venues—also bears mention. U.S. companies, for example, may find that Mexico or Brazil offer slightly higher materials prices and cost of labor than Vietnam or South Korea, but that working with the former can dramatically reduce shipping costs. Businesses may also wish to seek higher levels of procurement control and transparency, such as moving from prepaid freight to collect or demanding to see what percentage of vendors' freight costs are the result of fuel-cost increases.

PLANNING AND FORECASTING

Traditional planning and forecasting goals (maximum accuracy, minimal cost and error) won't change in the face of fluctuating or higher fuel costs. However, planning and forecasting considerations, parameters and interactions (e.g., with sourcing, procurement, transportation, ware-

Mark Pearson is the managing director of the Accenture's Supply Chain Management practice. He has worked in supply chain for more than 20 years and has extensive international experience, particularly in Europe, Asia and Russia. Based in Munich, Mark can be reached at mark.h.pearson@accenture.com.

housing, and network design organizations) could change significantly.

Take order management for example. Companies will need to be even more diligent about avoiding small and rush orders. To make that happen, leading-edge planning tools and processes can help anticipate last-minute changes and minimize or transfer their transportation cost impact. Spares and service operations are a particularly large target,

given their propensity for last-minute, small-volume shipments.

Advanced reporting tools that interpret demand signals, resolve plan deviations, reallocate resources, ensure accountability, and raise supply-chain-wide visibility will

also be vital. For example, fuel price shifts may alter planning decisions about where inventory should be held—closer to the manufacturer or closer to the customer. Inventory optimization modeling is needed to make these decisions.

DISTRIBUTION

Fuel-price fluctuations will affect every distribution operation differently. Small unit shippers can't ship in bulk to a customer who orders one item. However, these businesses could reformulate their storage, consolidation, and inbound-supply strategies to potentially reduce shipment quantities and limit materials handling expenses.

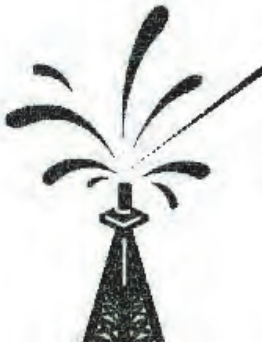
Bulk shippers, on the other hand, could spread cost increases over larger quantities, redo most of their distribution strategies by changing inbound and materials management practices, and package or palletize fewer, yet larger, outbound shipments.

Unfortunately, the distribution function requires many inflexible assets (property, buildings, systems) that require long-term commitments to generate acceptable ROI. But higher-fuel prices can still be buffered by increasing flexibility—e.g., rethinking cost/service paradigms and implementing new WMS applications and advanced sortation systems.

EXCELLING IN A DIFFERENT WORLD

As noted earlier, volatile and rising fuel prices won't change supply chain management's key priorities: integrated, flexible operations that respond quickly and economically

to shifts in customer, market, and competitive behavior. However, companies whose investments were designed to accommodate fluctuating (and ultimately higher) fuel prices may succeed where others don't. □



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2010 STATE OF LOGISTICS:

Make your move

The cost of the U.S. business logistics system declined 18.2 percent in 2009—the largest drop in the history of the *State of Logistics Report*. But as the economy slowly improves, shippers will need to be more cautious and tactical as they face increasing volumes, tight capacity, and higher rates.

BY PATRICK BURNSON, EXECUTIVE EDITOR

During World War II, the U.S. Navy enlisted world champion chess player Reuben Fine to calculate—on the basis of positional probability—where enemy submarines were most likely to surface. Years later, Fine was asked about the project's outcome, and modestly replied: "It worked out all right."

While logistics managers may not be consulting with chess masters these days, they are posing one big question to economic theorists willing to take it on: Is "The Great Freight Recession" finally coming to an end? Analysts and industry insiders are telling us that things are indeed getting better for shipper organizations, but that the tenuous business climate and tightened credit controls will make it difficult for carriers to rapidly expand capacity for the remainder of 2010.

The shipper imperative, then, will be to collaborate with carriers like never before. With capacity tightening, a new urgency should be placed on mitigating risk and controlling cost.

The 21st Annual *State of Logistics Report* (SoL), released by the Council of Supply Chain Management Professionals (CSCMP) and presented by Penske Logistics at the National Press Club last month, confirmed what many shippers had been suspecting. The worst may be over, but as the economy

continues its slow recovery, shippers are going to be faced with an entirely new set of tactical challenges.

"We are definitely seeing a recovery," says Rosalyn Wilson, the report's author, "but not the kind that will generate a lot of new business this year. Granted, shippers have already made a great many sacrifices—that shouldn't change suddenly in the short term."

Indeed, according to Wilson's research, the cost of the U.S. business logistics system declined 18.2 percent in 2009—the biggest drop in the history of the report. Meanwhile, business logistics costs fell to \$1.1 trillion, a decrease of \$244 billion from 2008. Combined with the drop in 2008, total logistics costs have declined almost \$300 billion during the recession. In fact, 2009 logistics costs as a percent of the nominal Gross Domestic Product (GDP) hit a historic low at 7.7 percent.

"Both major components of the cost models declined in 2009," explains Wilson. "Inventory carrying costs fell 14.1 percent in 2009, and this decrease in carrying costs was due to both a 4.6 percent drop in inventories and a 10 percent drop in the inventory carrying rate." Transportation costs, she adds, plummeted 20.2 percent from 2008 levels. Trucking, which comprises 78 percent of the transportation component, declined 20.3 percent while all other modes combined declined 20.5 percent.



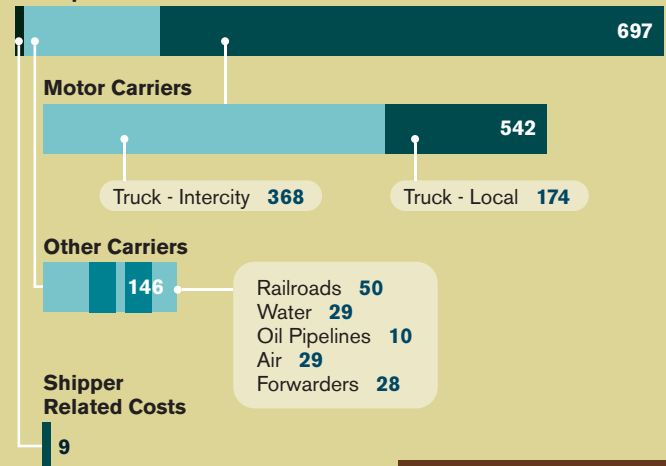
Snapshot of the U.S. Logistics Market 2009

\$ billions

Carrying Costs - \$1.851 Trillion All Business Inventory **Down 14.1% from 2008**



Transportation Costs **Down 20.2% from 2008**



Logistics Administration

42

Total logistics cost
\$1,095 billion

Down 18.2% from 2008

Source: CSCMP's 21st Annual *State of Logistics* Report

CAPACITY GAMBIT

The recession—which began in December of 2007 and continued through more than half of 2009—had a negative impact on all segments of the logistics system.

The entire industry felt the negative effects of the downturn more than most other industries since the slump in each individual sector translated into a loss in shipment volume. According to Wilson, inventories continued to climb for the first half of 2008 fill-

ing warehouses and retail shelves. In mid-2008, bloated inventories began to be drawn down until they reached pre-recession levels in late 2009.

“Throughout the period, orders for

new goods dropped off substantially and carriers competed for a dwindling volume of shipments,” Wilson says. “Spot rates for some modes fell below costs, further adding to financial

decline. Excess capacity in the system was rationalized—or reduced—particularly in the trucking and air cargo industries. Some was the natural result of carriers that went out of business, but much of the reduction was the result of business decisions.”

And with the economy showing stronger signs of new life as we move into the second half of 2010, Wilson and others maintain that it’s likely that we’ll have capacity problems in many areas by year’s end.

“Shippers were shell shocked last year due to low volumes and extreme rate pressures, and very soon became risk adverse.”

—Rosalyn Wilson, author of the *State of Logistics Report*

As in modern chess, the typical response to a moderately sound gambit is to accept the material (be it made by bishop, knight, or rook) and give the material back at an advantageous time. Vincent Harnett, Jr., Penske’s president, suggests that this board play can work for logistics managers as well, taking what carriers will offer now and negotiating for balanced rates later.

“Shippers are striking up strategic alliances with logistics services providers that can respond quickly to market changes and are capable of reducing costs rapidly,” Harnett says. “At the same time, providers are looking out for best practices and shippers with the most agile supply chains.”

KEEP PUSHING PAWNS

But it wasn’t as if shippers hadn’t been trying this all along. In an interview with *LM*, Wilson tells us that after rising more than 50 percent in

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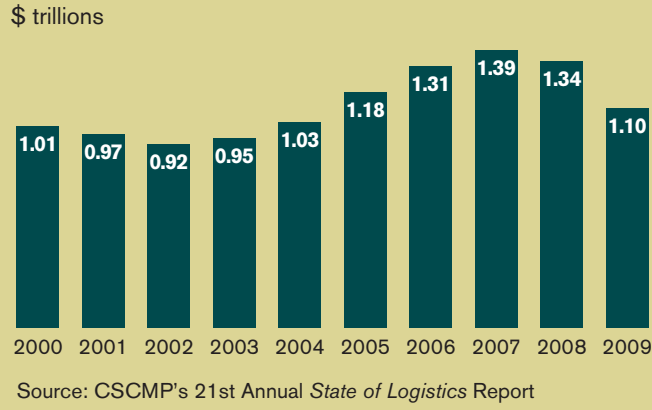
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the five years leading up to the recession, total logistics costs fell in 2008 and 2009. Transportation costs were down more than 20 percent in 2009.

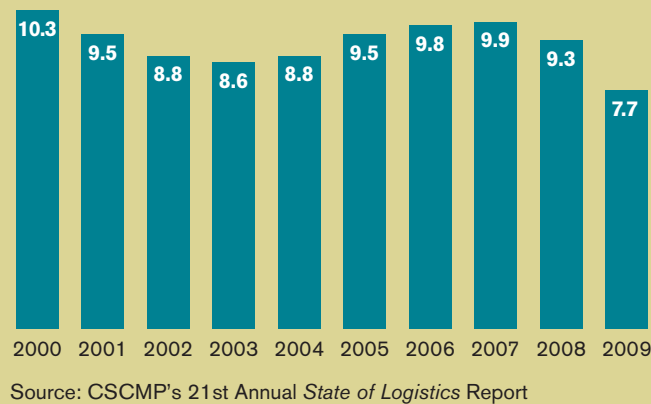
“Shippers were shell shocked last year due to low volumes and extreme rate pressures, and very soon became risk adverse,” Wilson says. “At the same time, interest rates continued their downward spiral while inventory levels dropped off, leading to another double digit drop in inventory carrying costs. Logistics as a percent of our nominal GDP fell to 7.7 percent to the lowest level measured since the series started in 1981.”

Although virtually every shipper and carrier involved in the supply chain slashed costs and increased productivity, this precipitous drop was caused more by the rapid decline in shipments and the cut-throat rate environment. Revenues for most carriers were depressed

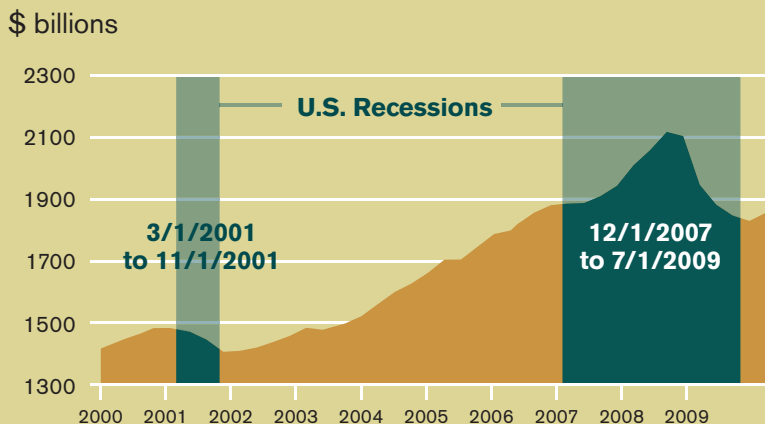
U.S. Business Logistics Costs



Logistics Cost as a Percent of GDP



Total U.S. Business Inventories



in 2009 and some—like Maersk Line—had losses for the first time in their firm’s history. However, many ocean carriers are forecasting a better revenue picture for 2010. (See Ocean Cargo synopsis page 31.)

Having hit rock bottom, inventories are slowly “inching up,” says Wilson. She also notes that orders are being placed and commodities are moving again. In addition, interest rates have been steadily rising. “With volumes picking up, capacity tightening, and higher rates on the way, much of the drop in transportation costs should reverse itself. Although it will probably be 2011 before we see pre-recession levels,” she says.

For carriers who have survived these hard times, adds Wilson, the future looks relatively bright, but it’s still not time for them to let their guard down. They will have emerged in a seriously weakened state and will depend on their ability to capitalize on growing market opportunities to bolster their position. This poses a fresh challenge for shippers: “They would be wise to be first at the table negotiating rates and capacity,” says Wilson. “Guarantee a minimum level of business in return for guaranteed carriage and limited rate hikes two or three years out. Consider offering assistance, perhaps in the form of new terms, to weaker links in your supply chain to ensure carrier survival.”

In other words, keep pushing pawns until a tactical goal is made and strategic models are developed. “We need to continue to mind the bottom line and keep costs in check,” says Wilson.

Patrick Burnson is Executive Editor of Logistics Management



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LTL: Carriers upbeat on rates

No sector of the transportation industry was hammered harder over the last year than the \$25.6 billion less-than-truckload (LTL) sector. When industry leaders such as FedEx Freight and Con-Way began posting quarterly losses and laying off workers for the first time in their companies' history, that proved times were tough.

Battered by the twin demons of having high fixed costs and demand levels that fell nearly 30 percent during the peak of the recession last year, most LTL carriers simply hunkered down and were in "survival mode," as one carrier executive put it.

Some analysts estimated that there was as much as 25 percent overcapacity in the LTL sector last year. Making matters worse, analysts say, was the precarious financial position of YRC Worldwide that holds about a 20-percent LTL market share. Some rival carriers, sensing YRC was on its last leg, went on an all-out pricing war, dropping rates as much as 80 percent off the listed tariff price.

Fast forward one year later: YRC is still in business, and also still losing money. But shipment volumes are rising, overcapacity is easing, and some LTL carrier executives are reporting brisk demand for their services.

"It's fairly strong and has been since the beginning of February," says Charles Hammel, president of Pitt Ohio Express, a leading LTL carrier. "Revenue, shipments, and tonnage are up with tonnage being up the most."

But is it sustainable? "The jury is still out on that question," Hammel

says. "Business in the marketplace today would suggest that it is, since we continue to be busy with no slowdown in sight."

But Hammel and other industry executives and analysts say there are still unanswered questions about the economy. For instance, what happens to the U.S. economy after the government stimulus money ends? Another unanswered question revolves around how tight the credit markets will be going forward.



ing chart illustrates, LTL revenue per hundredweight has declined for eight straight quarters. Those declines hit 6.7 percent in the first quarter of this year.

But analysts say a combination of increasing freight volumes, better carrier discipline, expiring contracts, and concerns over capacity are all creating a better overall pricing environment in LTL.

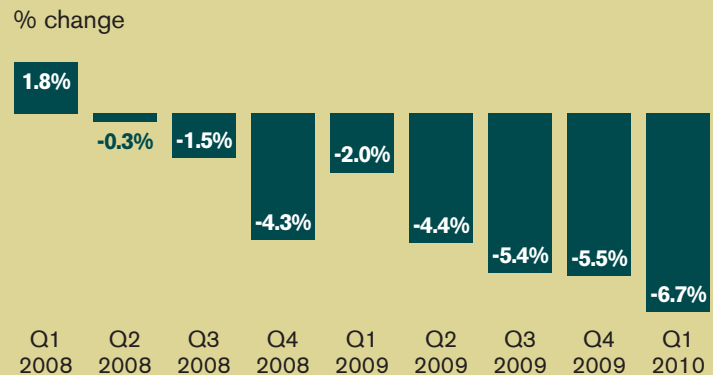
"The LTL industry has shown a little more pricing discipline," says Satish Jindel, principal of SJ Consulting. "They've taken some drivers out of the network which has helped balance. Demand is up in the low-single digits and excessive overcapacity is coming out. There is still overcapacity but not so much that it will limit them seeking some marginal rate increases between 2 percent to 4 percent."

That jibes with Hammel's advice for shippers. Noting that most shippers have rates locked in through contracts, Hammel says he's expecting LTL rates to rise between 3 percent and 5 percent in the coming year.

"I would advise shippers to lock in the capacity they think they will need moving forward in their contract," Hammel says. "What good are great rates if your carrier can't or won't give you the capacity that you need?"

*By John D. Schulz,
Contributing Editor*

Average YOY % change - LTL revenue per hundredweight



*Weighted average for public LTL carriers
Source: Company reports and SJC estimates

However, a major carrier bankruptcy or cessation of business is not out of the question. Many analysts believe banks were reluctant to shutter YRC because of the low demand for used trucks during the recession. How will lenders react if the used truck market bounces back, as it appears to be doing?

No shipper or carrier knows the precise answer to all those questions. But carrier executives and analysts seem to agree that LTL rates are rising. They almost have to. As the accompany-

Truckload: Bargain rates disappearing

The truckload (TL) sector, which accounts for more than 90 percent of the \$542 billion trucking industry, is rebounding from its three-year freight recession. In fact, it all boils down to this: Shippers should be prepared to pay more as the TL capacity tightens.

In its recent *Business Expectation Survey*, Transport Capital Partners (TCP) found that 88 percent of TL carriers surveyed expect volumes to increase over the next year and 84 percent expect rate increases over the same period.

"The clear message from all the respondents was that their outlook for our industry has improved tremendously," says Richard Mikes, a partner at TCP, a leading transportation mergers and acquisitions advisory firm.

When it comes to rates, it's important to remember that about 75 percent of TL freight moves under contract or under dedicated service arrangements. Many of those contracts, usually a year long, have not expired yet. So those shippers will likely retain the bargain rates they negotiated when volumes were low.

But when those contracts expire, shippers can expect carriers to look for 1 percent to 3 percent rate increases, depending on geographic lane, volume, and other factors. At press time, spot market rates were already rising from what analysts say were unsustainably low levels last year.

Freight demand for TL services has continually grown since it hit bottom in the second quarter of 2009. Both

dropped to 1.23—a low number that signals greater demand for trucking services.

Truckload carriers are showing a "high level of optimism that is reflected in the general upward swing of the economy," says Lana Batts, managing partner for TCP and a longtime analyst and TL industry official. Revenue, tons, and miles are all increasing, according to various industry sources.

The TCP survey in the most recent quarter showed that 45 percent of TL carriers had raised rates, compared with only 9 percent in the previous quarter. Finally, analysts say, supply and demand dynamics are lining up in favor of the carriers once again.

"It's easier in the TL sector than the LTL sector which has higher fixed costs so that when the LTL industry eliminates revenue, they don't reduce their costs," says Satish Jindel, a principal of SJ Consulting. "In TL, you move point to point. Rates are going to vary by region, but if shipment volumes continue as they have for the next few months, I would expect yields to be 1 to 2 percent higher in TL than LTL."

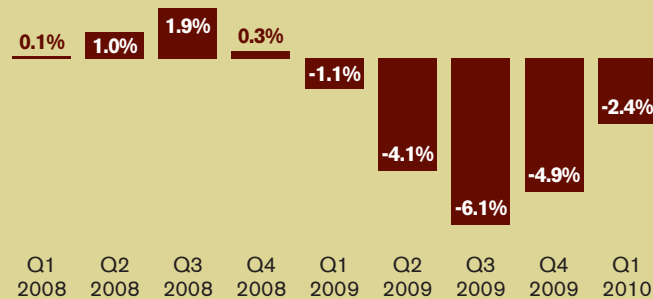
The reasons for this are numerous, analysts say. The overall economy is improving. Government stimulus money is flowing. The housing market, while not robust, is off the floor. Auto sales are rising. Plus, there are seasonal issues helping TL, as volumes usually grow sequentially through the third and early fourth quarters.

As the construction market improves, that could exacerbate the driver shortage, which could limit TL capacity, analysts say. Already one leading transport economist, Noel Perry of FTR Associates, is predicting driver shortages beginning this year and continuing into 2010—reaching 400,000 next year.

By John D. Schulz,
Contributing Editor

Average YOY % change - TL revenue per hundredweight

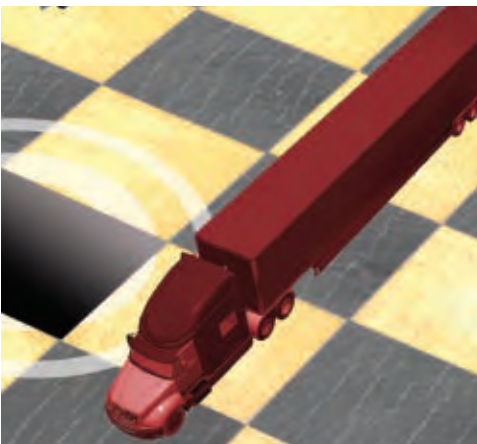
% change



**Weighted average for public LTL carriers
Source: Company reports and SJC estimates

large and small TL carriers are reporting brisk demand for services, and concerns about tight capacity have already started. More importantly, U.S. business is starting to destock inventories, which hit record high levels last year as both manufacturers and retailers were unsure how deep the recession would be.

In her 2010 *State of Logistics Report*, analyst Rosalyn Wilson notes that the inventory-to-sales ratio began "skyrocketing" from 1.26 in late 2007 to 1.48 early last year. By the end of last year, the ratio had returned to 1.26. The most recent inventory-to-sales figures available showed that it had



Rail: Volumes on track

Compared to a year ago, volumes for all modes of freight transportation currently look healthy and encouraging. But when you think about just how bad the economy was last year it puts things into a different perspective—that's particularly true when it comes to the freight railroad industry.

In 2008, when most freight transportation business was witnessing earnings and volume freefall, the railroads moved down the line with strong pricing

power and financial returns intact, even though volumes dipped compared to the record-breaking years of 2006 and 2007. But in 2009, it was clear that market conditions had changed and the recession had indeed caught up to the railroads.

However, in the first half of 2010, it appears to be a different story, with strong first quarter earnings serving as an indication that the railroad industry is kicking back into higher gears. But

be at least decent improving volumes trending toward previous levels. They are still well off of the peak, but they are heading in the right direction."

While volumes are not reaching the same levels from recent years, it appears that the railroad industry is on solid footing, with Class I railroads taking the required steps to invest in their operations and infrastructure, as evidenced by a \$9.95 billion cumulative investment by Class I railroads in 2009, according to the Association of American Railroads.

These investment tallies are impressive, considering that 2008 was a record year for Class I investment at \$10.2 billion while 2006 and 2007 hit \$8 billion and \$9.4 billion, respectively. While impressive, these investments are also vital as rail carriers are financially responsible for track upgrades and improvements while barely earning above their cost of capital.

Despite this situation, the railroads are not getting any sympathy from shippers, many of whom have maintained over the years that rail rates are too high, coupled with low service levels. "We hear continued complaints for escalating railroad pricing and poor service," says Bob Szabo, executive counsel for Consumers United for Rail Equity (CURE). "People are continuing to have trouble with the railroads and complaining about robust pricing."

But as has been the case in the past, rail carriers have made it clear that prior to the last six years, rail rates were largely flat or down year-over-year since the industry was effectively deregulated in 1980.

While many of the differences between railroads and shippers largely remain the same, legislation focusing on STB re-authorization, known in the industry as "railroad re-regulation," may end up paving the way for shippers to gain rate relief and more transparency regarding rate disputes as well. But with several more well-known pieces of legislation ahead of it in line, it remains to be seen how that will play out.

By Jeff Berman,
Group News Editor

U.S. rail cargo volumes

2009

Total carloads



13,812,989

18%
decrease
from 2008

Total intermodal loadings



9,880,602

14.1%
decrease
from 2008

January-May 2010

Total carloads



5,923,332

23.5%
increase
from the first five months of 2009

Total intermodal loadings



4,333,559

10.3%
increase
from the first five months of 2009

Source: Association of American Railroads (AAR)

even though 2010 volumes are ahead of 2009, they are still lagging 2008 levels by roughly 10 percent to 12 percent on the carload side and 7 percent to 10 percent on the intermodal side.

"A year ago, the biggest issue was not just the volume drop but the lack of visibility in terms of how far it was going to drop," says Anthony Hatch, principal of New York-based ABH Consulting. "And it appears that now, with volumes returning, railroads can plan over the intermediate term because customers are indicating that there is going to

Ocean: Capacity comeback

Shippers are scrambling for space and may be squeezed for higher rates when they find it. According to the Paris-based container-shipping consultancy Alphaliner, the shortage of containers has reached critical levels, with lines blaming the shortage on the “exceptional” high demand that developed since the Chinese New Year in February.

A recent Alphaliner newsletter states that prices for new containers have soared to their highest levels in almost 20 years as both carriers and container leasing companies rush to place fresh orders to meet the new demand. The report adds that the current price for 20-foot dry containers has reached \$2,750/unit compared to less than \$2,000/unit at the end of last year.

Even at these higher prices, demand will still outstrip supply for the current peak season. In the meantime, container manufacturers are facing difficulties in restoring full capacity following the halt in production of dry containers since October 2008, the report states. Total capacity at the main container producers have been cut back signifi-

cantly since late 2008, as production lines were shut and twin-shift operations reduced to single shifts.

Although annual production capacity at the two largest container manufacturers, CIMC and Singamas, is over 3.5 million twenty-foot equivalent units (TEUs), these two suppliers are expected to produce only 1.35 million TEUs this year. The global output of new containers is estimated at 1.5 million to 2.0 million TEUs for the full year, well down from the peak of 4.2 million TEUs produced in 2007 and a global capacity of 5 million boxes.

Meanwhile, demand has picked up significantly since the beginning of the year. CIMC is reporting sales of 102,900 TEU of dry van containers in the first quarter alone, compared to 60,400 TEU in the whole of 2009.

In terms of rates, spot prices for transpacific shipping services have grown by more than 180 percent during the past 12 months to reach a five-year high. Experts describe the increase as a



“mini container-shipping boom.”

Shipping consultant Drewry’s Hong Kong-Los Angeles container rate benchmark hit \$2,607 per 40 foot (FEU) container in June—19 percent higher than the previous month and 182 percent higher than year-to-date 2009. But Drewry pointed out that the trade had been suffering with “serious overcapacity and price discounting” in 2009.

Analysts also note that the jump in transpacific container rates reflected new peak season surcharges, very tight eastbound transpacific ship capacity, and a shortage of boxes that is becoming an issue in China as well as in the U.S.

Drewry says that eastbound transpacific freight rates, under annual contracts signed in May and June for the 2010/2011 season, were also more than twice the previous low levels of the 2009/2010 season.

“The rebound in spot container freight rates has been phenomenal, as rates now substantially exceed pre-crisis levels of about \$2,000 per 40-foot box,” says Philip Damas, editor of the *Drewry Container Freight Rate Insight Report*. “Whether you look at Hong Kong-to-Los Angeles, Shanghai-to-Los Angeles, Shanghai-to-New York or Shanghai-to-Chicago, all our weekly container rate benchmarks from port to port or from port to inland point show year-on-year increases of more than 60 percent.”

By Patrick Burnson, Executive Editor of
Logistics Management

AXS-Alphaliner Top 20 operated fleets-2010

Operated fleets as per June 16, 2010

Rank	Operator	TEU	Share
1	APM-Maersk	2,067,734	14.6%
2	Mediterranean Shg Co	1,675,777	11.8%
3	CMA CGM Group	1,117,302	7.9%
4	APL	595,269	4.2%
5	Evergreen Line	571,201	4.0%
6	Hapag-Lloyd	544,361	3.8%
7	COSCO Container L.	506,268	3.6%
8	CSAV Group	494,744	3.5%
9	CSCL	451,790	3.2%
10	Hanjin Shipping	448,051	3.2%
11	MOL	383,042	2.7%
12	NYK	365,927	2.6%
13	OOCL	359,764	2.5%
14	K Line	336,753	2.4%
15	Hamburg Süd Group	335,464	2.4%
16	Zim	320,461	2.3%
17	Yang Ming Marine Transport Corp.	317,197	2.2%
18	Hyundai M.M.	282,109	2.0%
19	PIL (Pacific Int. Line)	227,841	1.6%
20	UASC	204,100	1.4%

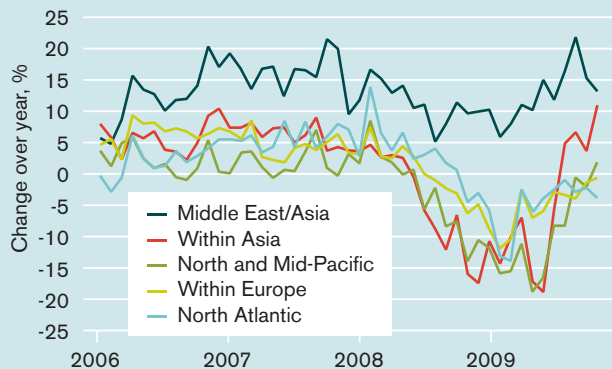
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Air Freight: Back up in the air

All of a sudden the airways seem to be calming for the airlines. Back in March, the International Air Transport Association (IATA) projected a \$2.8 billion loss in 2010 for the industry. The IATA now forecasts a \$2.5 billion profit, with cargo volume growth now projected to hit 18.5 percent from the previously forecast 12 percent. To top it off, IATA expects airline revenues to reach \$545 billion, up from \$483 billion in 2009.

“Six months ago there was hope for a strong recovery,” exclaims Michael Goentgens, Lufthansa Cargo spokesman. “Now it’s a reality.”

Strength of upturn varied substantially by market



Source: IATA

Still, IATA warns that revenue projections are below the \$564 billion achieved in 2008.

“The recovery remains fragile,” says Giovanni Bisignani, IATA’s director general and CEO. “Net margins hover around 0.5 percent while a major part of the global industry is still posting big losses.”

In Europe, the stagnating economy, strikes, natural disasters, and the Euro crisis have left carriers struggling with an anticipated \$2.8 billion loss. For its fiscal year 2010 (April 2009 – March 2010), British Airways World Cargo (BAWA) reports commercial revenue decreased 18.2 percent, and, excluding the impact of favorable exchange rate movements, com-

mercial revenues were down 26.1 percent.

“This shows the fragility and criticality of air freight,” comments Brian Clancy, managing director of global transportation analyst firm MergeGlobal.

A number of issues such as market and currency volatility and security issues (TSA rules for domestic air freight and exports on passenger aircraft goes into effect August 1) continue to be critical concerns for carriers and shippers alike. There’s also traffic directionality, the industry’s resistance to adapt e-freight, and continued volatility for oil prices. “Due to these factors I don’t think we will get back to normal or peak-year levels until 2012,” says Clancy.

Ram Menen, divisional senior vice president of cargo for Emirates Airlines, sees the air cargo market getting stronger in the second half of 2010. “We’ve seen particular strength on volumes out of China and India,” says Menen. “Traffic is strong on transatlantic and African routes as well.”

According to Goentgens, it’s the same for Lufthansa Cargo, which added service to Tianjing effective June 2010. “Demand from Europe to China is also increasing,” says Goentgens, who adds that just about all routes are performing very well for the carrier this year.

Boosting the Lufthansa group’s capacity and service flexibility is AeroLogic, a start up company that’s jointly owned by Deutsche Lufthansa AG and Deutsche Post DHL through subsidiaries Lufthansa Cargo and DHL Express. This year, AeroLogic will employ a new Boeing 777F that will join the fleet of Lufthansa Cargo’s MD11 aircraft and Jade’s 747. Goentgens emphasizes that the group will be the only carrier offering customers three different modern freight aircraft.



Many carriers are also strengthening intra-Asia business where markets are intensifying. Korean Air is making China its second base outside of Korea and established Navoi, Uzbekistan, as a hub for central Asian.

“Navoi has great potential,” says Ilk-won (Justin) Jung of Korean Air’s Cargo Strategy and Alliance Team. “Novoi is within six hours flying time to Europe and Southeast Asia and offers multimodal transportation links to neighboring countries.”

Still, U.S. and European economic conditions and the possibility of over capacity—the result of reactivation of grounded aircraft and the introduction of new fleets—remains a concern for carriers.

But Neel Shah, vice president of cargo for Delta Air Lines, asserts that today air carriers are more rational about capacity, as was made evident by the Delta-Northwest merger. Delta, for one, now offers a broader range of mission capabilities. It discontinued the B747-200 freighter operations, continues to expand its global footprint, and recently launched a number of new high profile flights.

“Carriers will continue to take measured actions, like mergers, to maintain that approach,” Shah says.

However, MergeGlobal’s Clancy contends that the industry faces structural issues that will limit long-term freight growth. In particular is the cost of air freight relative to other modes, complicated by diminished price points on traditional air freight commodities such as electronics.

Add to this the trend toward near-shore production. All manufacturers are taking a hard look at logistics costs, he says. Consequently, Clancy sees express carriers like UPS and FedEx being the net winners overall.

By Karen Thuermer,
Air Freight Correspondent

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2010 MID-YEAR RATE OUTLOOK:

Paying a Premium

BY JOHN PAUL QUINN, CONTRIBUTING EDITOR

While the extent of the recovery remains uncertain, shippers will continue to be hit with rate increases across all modes.

In the earlier stages of the downward economic trend of the past two years, analysts were initially reluctant to use the dreaded “R-word.” But now it seems as if they’re equally wary about using another “R-word,” but this time it’s “recovery.”

“We seem to be enjoying a burst of growth, but the fundamentals aren’t there,” says David Jacoby, president of supply chain consulting firm Boston Strategies International. “The job growth is largely in temp work and there has even been a slowing of this as we approached the middle of the year.”

Jacoby adds that corporate investment is also lagging as companies are conservatively hedging their bets since many don’t see this as a sustainable growth situation—at least not yet. “This is not necessarily a dangerous scenario, but it’s a disappointing one,” he says.

Forecasts of GDP growth are hesitant and cautionary as well, according to Paul Bingham, managing director of trade and transportation at IHS Global Insight. According to Bingham, real growth is forecast to be up 3.4 percent this year in contrast to the negative 2.4 percent of 2009, but the pace is expected to slow back to 2.8 percent in 2011.

And there’s another critical factor missing this time around, says Bingham: “In the past, there was a good deal of debt-financed consumption on the part

of households and small business that enabled economic expansion to proceed faster, but that won’t be repeated because people can’t get that kind of credit anymore.”

In addition, there is the perennial volatility of fuel pricing to consider, exacerbated by the undetermined long-term impact of the Gulf oil spill that could cause fuel prices to rise more precipitously than usual.

And as shippers move through these perilous next few months they’ll continue to be hit with rate increases while the extent of the projected recovery of their businesses remains uncertain. To help get a better handle on just how high your rates will be heading over the next six months, here’s a breakdown of where they stand at midyear.

ON THE WATER, IN THE AIR

Drewry Shipping in London reported some fairly stark figures in mid-June, noting that the rate of \$2,607 per 40-foot equivalent container unit for shipments from Hong Kong to Los Angeles was 183 percent higher than the rate of \$929 posted for the second week in June a year ago.

Factors contributing to this situation include the fact that space on vessels remains tight, there’s a shortage of containers, and peak season surcharges are already being implemented by a number of carriers.



"Rates are going up as ocean carriers are trying to make up for the money they lost in 2009," says Jacoby. "While a lot of supply-demand disciplinary adjustments have been made in ocean transport, shippers should expect rates to return to pre-crash 2008 levels. But the wild card, as in all modes, will be the threat of increasingly escalating fuel pricing."

Global Insight's Bingham believes that if the economic recovery remains sluggish, then ocean capacity will exceed demand to a certain extent, and shippers may be able to rate-bargain with carriers. If this occurs, shippers who have made it through the first half shouldn't have as difficult a time during the second.

"Air cargo rates will also be on the rise," states Chuck Clowdis, IHS Global's managing director for North America. "As shippers see economic recovery they will start flying things again like high-end designer goods from Asia which they've been content to ship by water during the slowdown. But so far consumer spending spurts seem to be on an as-needed basis in a sporadic pattern."

Drewry Shipping has reported that first quarter 2010 traffic for Asia-Pacific air carriers surged 33.8 percent year-over-year, and that in some cases air freight rates out of Asia to the U.S. West Coast jumped 18 percent from March to April of this year.

PARCEL PROBLEMS

There are a few significant developments in the parcel sector that have been developing simultaneously, and none of them bode well for shippers.

FedEx and UPS continue to consolidate their virtual duopoly in parcel transportation that began with the exit of DHL from the field a year ago last January, observes Jerry Hempstead, president of Hempstead Consulting.

"The rhetoric out of both FedEx and UPS is shot through with phrases like 'yield improvement,' 'rational pricing,' and 'discounting integrity,' all of which

mean higher rates," says Hempstead. "Both companies are delighted that the U.S. Postal Service is losing billions of dollars and is applying for a January 2011 rate increase of perhaps 25 percent for parcels under a pound. If that happens, then it's probably more economical for shippers to see if they can negotiate a discount rate with FedEx or UPS."

In addition, fuel surcharges have mounted as well. A year ago, the surcharge at both companies for an air package was 0 percent. It's now 10 percent. For a ground package it was 2.25 percent. It's now 6 percent.

Finally, both carriers have made moves to exclude shippers' third-party consultants from contract renewal negotiations. "The plan is for them not to bid if a third party is called in," Hempstead notes. "This is like going to court without a lawyer, or a tax audit without your accountant."

Altogether, says Hempstead, the carriers know that some growth is occurring, so their capacity will be filled by organic growth and they don't have to compete rate-wise on the street to attract business. "There is just no pretty news for parcel shippers right now," he adds.

BY TRUCK AND RAIL

By comparison with the other modes, trucking and rail seem relatively stable as far as rates are concerned.

"Over the first half of 2010, truckload has recovered about a third to half of the volume lost over the past three to four years," observes John Larkin, managing director of the transportation and logistics group at analyst firm

"The wild card in all modes will be the threat of increasingly escalating fuel pricing."

—David Jacoby, Boston Strategies International

Stifel, Nicolaus & Co., Inc. "So there's much more of a balanced supply-demand situation, although there have been a few examples of \$2 to \$3 per mile spot rates above contract rates. I don't think there are widespread across-the-board rate increases coming," adds Larkin.

In the less-than-truckload sector, the remarkable financial survival of YRC, which has about 20 percent of LTL market share, has led to more than adequate capacity, leaving carriers little room to impose rate hikes.

However, Larkin continues to encourage shippers to look at intermodal seriously and consider using it in long-haul, high-density lanes where savings can be quite considerable.

On the rails, Brooks Bentz, Boston-based partner in Accenture's supply chain management practice, believes that rates shouldn't vary much and conventional wisdom is that there may be 3 percent to 5 percent price hikes coming down the line. However, according to Bentz, rail shippers should have no capacity constraints when moving freight by intermodal or carload.

By the end of August, as seasonal traffic is flowing in from Asia, shippers will get some indication of what the peak picture is going to be like this year—and how the traffic patterns will develop in whatever modes they employ.

"I've been watching the logistics industry for 30 years," says Clowdis, "but I've never seen anything like a slow economic period that has lasted this long and with this much uncertainty. I have to say it's kind of scary." □

—John Paul Quinn is a Contributing Editor for Logistics Management

"There is just no pretty news for parcel shippers right now."

—Jerry Hempstead, Hempstead Consulting

"I've never seen anything like a slow economic period that has lasted this long and with this much uncertainty."

—Chuck Clowdis, IHS Global Insight

RFID/Wireless: *Race to Utopia*

BY BRIDGET MCCREA, CONTRIBUTING EDITOR

Our technology correspondent examines where RFID and wireless communications currently stand as logistics and supply chain management enablers and then defines the remaining barriers to adoption. Just how far are we from real-time visibility?

It's no secret that mobile and wireless devices are handling more and more data and communications for businesses across all sectors.

Within the supply chain, everything from smart phones, to voice-enabled devices, to RFID is changing the way logistics and transportation operations are being managed. And with quick-messaging devices and mobile Internet usage skyrocketing, the supply chain is bound to benefit even more from this largely "untethered" business environment over the coming years.

Over the next few pages we'll look at how far RFID and wireless communications have come in the supply chain, where these technologies currently stand as logistics enablers, and then examine what barriers to adoption still remain. We'll also attempt to show shippers just how close we are to achieving real-time supply chain management and logistics visibility—and just how far we need to go to realize that utopian vision.



RFID: SPENDING TO INCREASE DRAMATICALLY

Radio-frequency identification (RFID) stands as one of the original technologies designed around supply chain processes. Rewind back about eight years, says Simon Ellis, practice director for supply

chain strategies at IDC Manufacturing Insights, and RFID was one of the most hyped technologies in logistics and supply chain management.

"Unfortunately, back in 2002, RFID was incapable of meeting shipper expectations," says Ellis.

DANIEL GUIDERA



“Companies have come to realize that RFID is right for some things—such as monitoring the shipment of ocean-going containers—while GPS and bar codes are appropriate for others. The hype and disillusion are gone.”

—Simon Ellis,
IDC Manufacturing Insights

At issue was the high cost of individual RFID tags that are an essential element of the tracking and identification process. As time progressed and technology improved, Ellis says that shippers learned to view RFID not as a “cure all,” but rather as another weapon in their arsenals. “Companies have come to realize that RFID is right for some things—such as monitoring the shipment of ocean-going containers—while GPS and/or bar codes are appropriate for others,” says Ellis. “The hype and disillusion are gone.”

Despite shippers’ acceptance of RFID’s limitations, challenges surrounding the technology persist. Ellis says RFID usage in the vicinity of metal and water (depending on the frequencies being used) continues to be plagued by problems. There’s also the issue of physical tag damage—something that tag makers have yet to completely resolve.

Then there’s the cost issue. “The cost of RFID doesn’t always make sense,” says Ellis, “nor does it always provide incremental benefit over less costly alternatives.”

A new report from VDC Research on RFID investments estimated the average 2009 investment in the technology at \$1.1 million. Survey respondents expect that number to increase more than 200 percent this year and reach nearly \$7 million next year. According to VDC, respondents currently investing more than \$250,000 say they are expecting to invest more in RFID over the next two years in support of scaling

their deployments and further integrating their solutions.

Like Ellis, Timothy Zimmerman, principal analyst with Gartner, says RFID has made strides over the last eight years. Reliability has improved, he says, as has the technology’s ability to perform to “the expected levels for supply chain data collection.” Whereas eight years ago a company shipping to three different regions would require three tags, says Zimmerman, today a “global tag” would be able to handle the geographic diversity.

“When you can go from three tags down to one, you gain major cost benefits,” says Zimmerman. The number of tags needed has also been reduced at the item level, where shippers can now “service more usage scenarios with a single tag and realize better reliability and programmability.”

Expect to see more improvements in RFID technology in the near future. Dean Frew, CEO at item-level RFID solutions provider Xterprise in Carrollton, Texas, says developers right now are focused on item-level (versus box or container) management and on item-level identification. “There’s a growing set of requirements around managing at the item level, as well as identifying each of those items so that they can be accessed through an RFID reader,” says Frew, who sees RFID as far superior to any previous tracking technologies. “Shippers would never be able to do that with bar codes.”

Frew says up-and-coming RFID uses in the supply chain include the tracking

and management of reusable transport items such as pallets, bins, and racks. “There’s a million of these items running around the world today, and they remain the underworld of the supply chain,” says Frew. “We’re seeing growing interest in helping to manage these products, which tie up hundreds of millions of dollars in shippers’ assets.”

To companies looking to take advantage of RFID’s benefits, Frew says the first step is to establish a strong value proposition and to ensure that the investment in money and resources are supported by a true ROI. Understand, for example, that when you are managing the supply chain at the item level, you are creating entirely new business processes that will require change management in order to succeed.

“RFID is not a replacement for bar codes,” Frew explains. “RFID is a path to innovative business processes that you couldn’t achieve with bar code. That makes the change management component very significant.”

WIRELESS: ENTER THE GOLDEN AGE

People are getting pretty comfortable with wireless technologies, both in their personal and work lives. That alone has helped the technologies along in the supply chain space, where shippers striving to work better, smarter, and faster are increasingly turning to wireless options to help them get there.

“We’re starting to see more adoption of wireless in the supply chain, with new usage scenarios going beyond what

we've traditionally seen," says Zimmerman. Take data collection, for example. Zimmerman points to the increased use of voice and video, and the standardization of the 802.11N wireless networking standard, as some of the key drivers of wireless in the supply chain.

Ellis says wireless is a "big topic" among logistics and supply chain managers right now, and points to its application as a communication and data collection tool in warehouses and on the factory floor as just two of wireless' many benefits.

"As shippers strive to implement more and more automation with fewer employees, being able to network them together wirelessly becomes vital," says Ellis, who sees the link between the shipper and carriers as an area that's ripe for even more wireless usage. "Using wireless, shippers will be able to access carrier information faster, and then provide more real-time delivery estimates and receipts for their customers."

With wireless continuing to proliferate throughout the supply chain, Zimmerman says logistics managers should be aware of new innovations like dual mode, smart phone functionalities that are connected to physical, Wi-Fi hot spots. As a truck pulls into a facility for example, an onboard computer would "dock" with the hot spot and start downloading pertinent data automatically.

"That could mean switching from cellular to a wireless, over-land solution to convey the data," says Zimmerman. "At that point, the vehicle becomes an 'intelligent' truck that can prioritize data, use it more readily, and transfer it as needed."

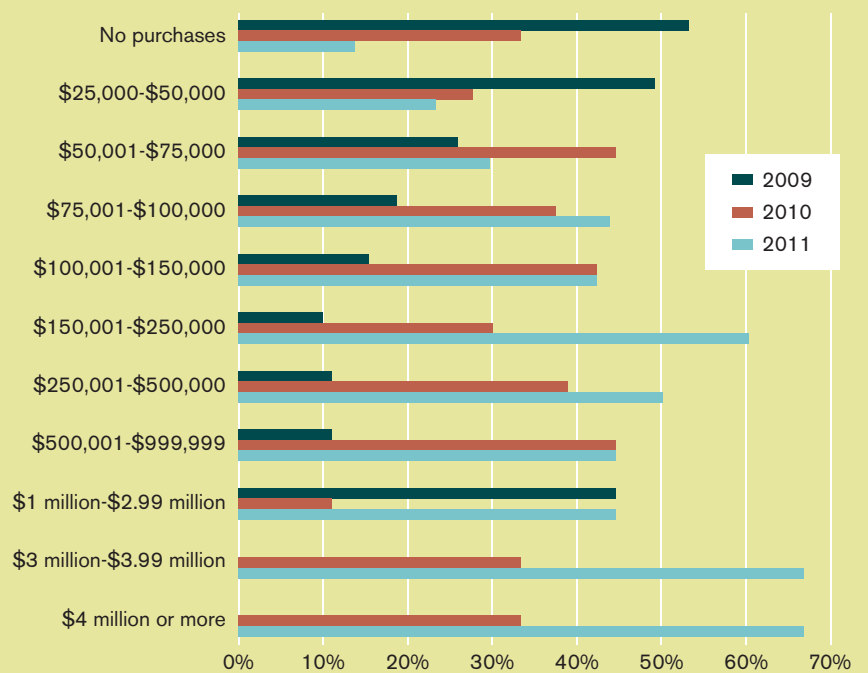
THE COURSE AHEAD

Drew Nathanson, director of research operations for VDC Research, expects wireless and RFID to become even more ubiquitous within the supply chain, thanks to its ability to circumvent the "line of sight" component of bar coding. That today's solutions are more robust and advanced—and able to interact with various legacy systems—also makes the push to wireless enticing for shippers, says Nathanson.

RFID is also driving shippers to work in new ways, according to a recent VDC

RFID investment plans are being funded

Pilot-to-deployment times to decrease; significant scaling to begin Q4 2010 or earlier



Source: VDC Research Group, Inc.

Research report, which highlighted managed services as a new business model for RFID. In the report, VDC outlined the advantages of an RFID managed service model, citing risk and infrastructure being transferred to the service provider; a variety of service cost models (i.e., subscription options versus large investments in purchase-and-install software); and the fact that support and upgrades are included in the service costs as just a few of the advantages.

Nathanson points to the Savi/Lockheed Martin project as a good example of how managed services can work in the RFID space. Last year, the provider of RFID-based supply chain products and solutions was awarded orders totaling \$6.6 million for standards-based active RFID tracking technologies and accompanying services under the U.S. Department of Defense (DoD) RFID III procurement contract.

The RFID tags, which are affixed to cargo containers and other supply chain assets, comply with the ISO 18000-7 standard (also called DASH7), enabling near real-time supply visibility and interoperabil-

ity with allied defense forces and government organizations. "Savi has been able to set up its entire infrastructure on the DoD's dime because of the Lockheed Martin (government contracting) connection," says Nathanson. "Now that the infrastructure is in place, Savi can offer management services to nearly any point in the world."

Shippers should also expect to see more system convergence in the future, according to Nathanson, who cautions companies not to "shut anyone out by doing completely RFID." Instead, consider the existing client and vendor base, and opt for convergent, open systems that anyone can hook into and utilize. "Take into account all of the options that are coming into play right now, and focus on hybrid, convergent solutions that are continually evolving," says Nathanson. "Companies that adopt this strategy will be the ones that most effectively create global value chains." □

Bridget McCrea is a Contributing Editor of Logistics Management

THREE VOICES, THREE SOLUTIONS



BY MAIDA NAPOLITANO, CONTRIBUTING EDITOR

Order picking with voice is undergoing yet another transformation. Since its pioneering days in the 1990s, voice picking consisted of predominantly proprietary hardware and software solutions, such as those by Vocollect, using mobile computers embedded with speaker-dependent speech engines.

Then in the early 2000s, vendors such as Voxware started moving away from proprietary hardware and shifted to more open architecture solutions that they embedded in commercial, off-the-shelf mobile computing devices such as those marketed by Motorola and LXE. This open hardware era saw an increase in speaker independent technologies and the rise in multi-modal functionality allowing devices to capture data multiple ways, whether via voice, scanning, or RFID.

Both “proprietary solutions” and “open hardware” approaches physically require a mobile computer when picking. But over the past three years, the proliferation of high-performance wireless networks and Voice over Internet Protocol (VoIP) phone systems has ushered in what could be a new era in voice. Coca-Cola Enterprises, partnering with Cisco (a leading provider of wireless networks) and Datria (a Lockheed Martin spin-off specializing in packaged voice-enabled enterprise mobility applications) helped to innovate this network-based approach.

“It’s the era of intelligent networks,” says Daniel Hong, lead analyst of customer interaction practice with research firm Ovum and author of the *The Guide to Voice Solutions in Warehouse Environments* (February 2009). “Voice goes through a physical router

that is also connected to a back-end server where all the speech recognition and intelligence resides,” he explains.

With this approach, there’s significant savings in hardware costs, because a company doesn’t have to buy expensive wearable computers for each of its users. Instead, pickers can use a less expensive wireless phone to call a phone number to connect to warehouse management systems (WMS) and other enterprise systems.

Steve Banker, service director of supply chain management for the ARC Advisory Group, is also watching this development very closely. “It has the potential to change the dynamics of this market, but it has not done so yet.” He notes that vendors providing proprietary solutions still dominate.

Over the next few pages, we showcase the stories of three companies that

Our warehouse/DC engineer takes a look at three distribution operations employing three unique approaches to voice picking. But no matter how different each solution may be, these operations illustrate how the benefits of picking with voice remain largely the same.

are currently working with voice providers to employ three different approaches to voice picking. But no matter how different each approach may be, these distribution operations clearly illustrate how the benefits of picking with voice remain largely the same.

COCA-COLA: INTO A NEW FRONTIER

Coca-Cola Enterprises (CCE) is the world's largest marketer, producer, and distributor of Coca-Cola products, distributing more than two billion cases in 2009 from more than 300 distribution centers.

Over the past few years, however, changing consumer tastes for flavored water, new juices, and energy drinks resulted in a four-fold increase in SKUs, many with similar packaging. This made the assembly of mixed pallets challenging, with accuracy levels dropping below the desired 99.8 percent set by Wal-Mart and other customers, even with the use of additional checkers.

"We are a lean, six-sigma company," says Michael Jacks, CCE's senior manager for logistics and transportation systems. "Additional checking is waste and we had to eliminate waste. We needed a solution that improved accuracy."

But accuracy wasn't the only issue. There was also the pressure to handle larger volumes without increasing headcount or square footage. It didn't help that warehouse picking positions were not exactly the easiest jobs. "It's hard, it's hot, and most of our picking is done at night. We are constantly hiring and retraining," notes Jacks.

In 2007, the business presented Jacks and his team with a solution: voice picking. While they agreed that voice is the way to go, navigating the different technologies to find the voice solution that best fits CCE's

vision was a completely different story. "We took a step back, did our due diligence. We looked at all the vendors in the system in addition to talking to our strategic partners."

Since 2005, the company had been working with Cisco, standardizing and upgrading wireless networks in many of its DCs. The team wanted to leverage this wireless network investment as part of its voice solution. As an SAP company, CCE's Jacks also wanted a truly enterprise solution that could voice-enable any SAP transaction—the implications of which could go beyond the warehouse.

Cisco introduced CCE to Datria in March 2007 and together they innovated a new approach using regular VoIP-based wireless phones and wireless networks. Pickers used a Cisco 7921 wireless IP phone to call into a server and in real-time receive spoken instructions on where, what, and how many cartons to pick, while speaking confirmations when tasks are correctly completed.

In June and July 2007, CCE deployed two side-by-side pilots at two separate facilities, pitting this new approach against the traditional approach of using wearable computers. They eventually selected the VoIP-based approach after the second pilot.

By October 2008, CCE had successfully deployed a ground-breaking VoIP-based voice-picking solution to 2,600 pickers in 100 of its largest facilities—each with more than 5 million cases shipped.

But, of course, there were lessons learned along the way. To effectively design the network for voice, about 40 percent more access points had to be installed. Matching the power settings of the phones to those of the access points enabled CCE to get 10-hour shifts out of standard batteries. The

team is now looking to replace corded headsets with Bluetooth devices.

But according to Jacks, it's been a gift that keeps on giving. By going with the less expensive wireless phones and off-the-shelf headsets, CCE reported savings of \$2 million to \$4 million in capital expenses. Accuracy has been at a consistent 99.9 percent with some locations reporting a 100 percent accuracy rate.

As a result, 80 percent of checkers were deemed redundant and consequently re-assigned; and being a speaker-independent system, there was no need to record voice templates—further reducing training time from days to hours.

But the best part? Last year, CCE was actually named Wal-Mart's Supplier of the Year.



By October 2008, CCE had successfully deployed a ground-breaking VoIP-based voice-picking solution to 2,600 pickers in 100 of its largest facilities—each with more than 5 million cases shipped.

**ZONDERVAN:
NEW DAY FOR ACCURACY**

Zondervan, a Christian publication and communications company, distributes books, Bibles, CDs, DVDs, and other multimedia resources from its 250,000-square-foot DC in Grand Rapids, Mich. Although mostly a full-carton pick operation, productivity and accuracy issues in its paper-based, less-than-full carton pick area drove management to consider other order fulfillment methods in the fall of 2009.



Zondervan's \$240,000 voice investment is clearly paying off. In the first 13 days that the system was up and running, accuracy improved by 56.7 percent.

In fact, an in-motion scale installed to catch discrepancies was already kicking off an average of 40 to 50 cartons of orders per day.

With the company's vice president of distribution, Keith Swann, helming the project, a team decided to check out voice, RF (used by sister company, Harper-Collins), and pick-to-light to see how those technologies could improve accuracy. "The main reason we like voice is because it isn't hard-wired or confined to a specific location such as pick-to-light," says Swann. "We also find voice to be faster than RF and not as cumbersome; but perhaps the best part was that it is hands-free and eyes-free."

The decision was made to go with Vocollect's Talkman T5 mobile computers, SR-20 headsets and software solutions. Implementation took three and a half months. And by January 2010, Zondervan had voice-enabled its broken-case picking operation and pickers were using speaker-dependent voice solutions to batch pick up to ten orders at a time in a conveyor-based, pick-and-pass configuration. To ensure that the correct product was picked, pickers had to read a few digits of the book's ISBN when they got to their pick location.

Today, the company's \$240,000 voice investment is clearly paying off. Productivity savings are up 12.6 percent,

well over the projected 10 percent. And now only 21 pickers are required to run the operation—down from 30—with extra headsets on hand for replenishers and returns personnel to jump in as pickers during peak periods.

According to Swann, in the first 13 days that the system was up and running, accuracy improved by 56.7 percent and the in-motion scale check is now kicking out only 10 cartons to 12 cartons of orders per day—mostly due to weight discrepancies in the system rather than picking errors.

Plans for expansion of voice are already underway. In fact, 10 additional voice units have been purchased to voice-enable full-carton picks and replenishment, followed by putaway and cycle counting.

"When you've got an investment that returns in 10.2 months, you actually start saving money in the same year that you spent it," says Swann. "How can you not do it?"

**PIERRE'S ICE CREAM:
ICE COLD SOLUTION**

Pierre's Ice Cream Company distributes approximately 1,000 ice cream products and frozen treats from its 40,000-square-foot, all-freezer warehouse in Cleveland, Ohio. And as one can expect, picking cartons of ice cream using paper picking tickets in tempera-

Evolution of Voice Picking Technology

Proprietary solutions

- Speaker-dependent speech recognition
- Vendors provided their own embedded speech recognition technologies
- Thick client applications requiring mobile computing devices
- Business model built on being a hardware and software provider and proprietary technologies

Open hardware

- Speaker-independent or -dependent speech recognition
- Business model based on software and off-the-shelf computing devices plus commercial (or open source) thick client speech applications emerge in the market
- New vendors enter the voice picking market driving competition
- Industry best practices emerge in application design and management

Intelligent networks

- Speaker-independent or -dependent speech recognition
- New business model based on a thin client approach emerge (software, hardware and speech technology agnostic), more intelligence placed in network
- Integration of speech recognition with other AIDC technologies is common
- Solutions no longer limited to four walls of warehouse and voice becomes enterprise-wide SOA resource for multiple forms of mobile workers

1990s

2000s

2010s

Pioneering days of voice picking

Moving away from proprietary hardware

Entry of thin clients

Source: The Guide to Voice Solutions in Warehouse Environments (Strategic Focus) February 2009, Ovum (www.ovumkc.com)

tures of -20 degrees Fahrenheit clearly presented its own set of challenges.

For example, the dexterity of the company's 15 pickers was already being compromised by the multiple layers of clothing, ski masks, and gloves they needed to wear to protect themselves from the cold.

Just how cold is it? It's so cold that carbon in regular pencils can't imprint an image on paper, while ink in pen cartridges just freezes. Pickers were using "grease" pencil—a crayon-like marker—to check off products they picked. It wasn't uncommon to misplace both the paper and pencil that they put aside to pick cartons with both hands. "It took a long time and it was open to errors," recalls Dave Cillian, Pierre's manager of operations.

With no WMS, Pierre's distribution team had been using their own RF-based inventory tracking system for receiving, putaway, and cycle counting. "Being a small company, we didn't want to tear everything down and go back to square one," says Todd Kaup-

pila, Pierre's comptroller and project manager. "We had a good shell for the infrastructure and a voice solution seemed to fit best with that." In addition, voice's paper-and-pencil-free disposition certainly made it a "weatherproof" solution.

In November 2007, both Cillian and Kauppila took the time to observe voice solutions in similar freezer environments, directly asking pickers on the floor what they liked and disliked about their systems. In March 2008, the company selected Voxware's speaker-dependent software operating on LXE's rugged, freezer-proof HX3 unit. Access points were added to beef up RF coverage, and in June 2008, voice picking at Pierre's went live.

Productivity quickly skyrocketed, reducing the need for pickers from 15 to 9. Order accuracy went from 99.7 percent to a consistent 99.96 percent and above. And training is now a piece of cake. Previously, it took workers anywhere between a week to two weeks to learn how to pick product efficiently;



Productivity quickly skyrocketed inside Pierre's all-freezer warehouse, reducing the need for pickers from 15 to 9.

today, the learning curve is down to four hours or less.

"Eventually we're looking to Voxware to put this all under one umbrella as we plan to expand the use of voice in other areas of the warehouse," adds Kauppila. □

Maida Napolitano is a Contributing Editor to Logistics Management

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View from the Top

Time to Assess Risk and Become More Secure

This is a good time for the logistics industry to take a new look at how it provides security. Technology is changing and what can be accomplished today — and in the near future — goes well beyond what was possible only a few years ago.

Also, the timing is right as federal government stimulus funds are being invested to make improvements to secure the roads, highways, ports, rails and airports that freight forwarders count on to keep their businesses running.

Between grants from the Department of Homeland Security and other agencies, the country is spending about \$4 billion annually on activities that help protect against terrorist threats. These include strengthening infrastructure against explosive attacks, preparedness, planning, equipment purchase, training, exercises, security management and administration costs. Much of this will benefit the logistics industry.

Meantime, advancements in electronic security, mobile technology and IP-based networks have made it possible and financially practical to achieve a higher level of security that logistics providers and the country need. The combination of government investment to secure the infrastructure along with these new technologies makes this an ideal time for logistics companies to invest in new and upgraded security systems.

Today, we can put wireless mobile cameras on trucks, trains, utility poles and streetlights. Global Positioning Systems can be placed on vehicles, and on every piece

of freight to monitor movement, access and other analytics. From anywhere in the world through a broadband network and the Internet freight can be better tracked and supplies chains can be more closely managed. The vast territory served by freight forwarders and third-party logistics companies is growing smaller as vital security information from offices a continent away is now no farther than the nearest computer.

We can see more than before with high-resolution cameras combined with the use of ubiquitous IP-based broadband networks. Video analytics warn us when virtual perimeters have been breached. Access control systems are better than ever at letting us know who is in our facilities, while helping us deny entry to unwanted persons.

And our ability to do even more is just around the corner. For example, we will soon be able to transmit live, real-time streaming video from vehicles as they move throughout a city. That would be possible by taking advantage of the latest and soon-to-come broadband technology, using 3G and 4G cellular or wireless mesh networks already in place in many locations across the country. The video could be monitored by company personnel or at a central monitoring station operated by a security integrator.

But before beginning any system investments or upgrades, contact an experienced security systems integrator to conduct a risk assessment. A thorough risk assessment can pinpoint strengths and weaknesses in a current security plan and show cost-effective rec-



ommendations for making improvements. It will also review the processes and procedures for handling emergencies — times when lives and property are at risk.

As the logistics market makes its move into the future, the security industry will be there to help protect it with the products, best practices and services required.

Larry Mays is group director for transportation and logistics for ADT Security Services. He brings 31 years of transportation information management experience, helping to develop strategic network-based solutions for companies such as Unisys and Pan American World Airways. Mays can be contacted at lmays@adt.com.



**Transportation
Solutions**

View from the Top



Craig Fiander
Vice President, Marketing
PC*MILER Solutions
ALK Technologies, Inc.



► Technology That Drives Transportation™

Technology plays an important role in maintaining efficient operations of most successful businesses and is especially important for the transportation industry. Because transportation costs are a critical component of a shipper's bottom line, we encourage them to negotiate freight rates using the same mileage as more than 98% of the top motor carriers.

In the 24 years since its introduction, PC*MILER® has grown with the industries it serves by creating forums for the exchange of ideas. Our goal is to listen to our customers and develop new products that will best serve their needs. ALK Technologies has recently released two applications, PC*MILER | Tolls Auditor and PC*MILER | Tolls Manager, which document toll costs by customer for reimbursement or rate negotiation, monitor the use of toll facilities by drivers, and validate the charges invoiced by toll authorities.

Another industry first is PC*MILER Web Services, which delivers all PC*MILER functionality á la carte via a simple web interface. Our latest version, PC*MILER 24 has a number of new features and enhancements including Least Cost Routing and free quarterly updates of U.S. ZIP Codes. The only product of its kind, PC*MILER | Rail is utilized by all Class 1 Railroads and is widely deployed for rate and fuel surcharge determination, rail car mileage auditing and carrier selection.

Providing drivers with voice guided driving directions and safe routes from dock-to-dock is more important than ever. CoPilot® Truck, the ultimate tool for drivers and fleet managers, is the only turn-by-turn GPS navigation system to provide industry standard PC*MILER-based truck-legal routing. More efficient drivers enhance the efficiency of the entire supply chain.

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View from the Top



Paul Joseph, President
of Americas and AP
Commercial & Operations



Few factors impact the success of a company as much as the performance of its supply chain and Caterpillar Logistics Services, Inc. recognizes this. It doesn't matter in what industry or region of the world you do business, your supply chain is as integral to your success as your products, services and people.

In 1987, Caterpillar Logistics Services, Inc. (Cat Logistics), a wholly owned subsidiary of Caterpillar Inc., was formed to build on the global distribution experience of its parent company to help other companies lower distribution costs while improving customer service and brand loyalty. Our heritage as a world-class distributor of Caterpillar products enables us to provide integrated solutions from managing transportation, inventory, and distribution centers to sophisticated forecasting, information management and network consulting services.

Cat Logistics is a technology-based company providing customized solutions that transform distribution to a source of competitive advantage. We're a solutions provider offering end-to-end supply chain management. Cat Logistics does this efficiently and effectively for our parent company from end-to-end. We are then able to take that expertise and consult other companies on their supply chain management.

Our clients benefit from the strength of Caterpillar and the capabilities Cat Logistics continually gains from our experience in the aerospace, electronics, automotive industries, to name a few. Today, Cat Logistics serves more than 60 client companies, globally, in these different market sectors. Our mission is to be the low-cost provider of differentiated supply chain solutions delivering competitive advantage and attractive returns for Caterpillar and our customers.

View from the Top



Jim Ritchie
Group President
CHEP Americas

Shared Values

- All things begin with the customer
- We have a passion for success
- We are committed to safety, diversity, people and teamwork
- We believe in a culture of innovation
- We always act with integrity and respect for the community and environment

CHEP

8517 South Park Circle
Orlando, FL 32819
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www.chep.com
info@chep.com

When you think of CHEP you may only think of the blue pallet. But at CHEP, pallets are just the tip of one amazing logistical iceberg. If you could see what's behind it, you'd see thousands of dedicated people, working hard to make sure things get where they need to be in a more streamlined manner than other platform options. If you could imagine its extensive network, you'd see 46 countries working together to create seamless supply chains around the world. If you could see the value, you'd see thousands of companies saving millions on logistics, and as a result, having more money to invest in other areas to make things a bit better. Maybe a lot better. If you could see the technology, you'd see a mega trillion bytes of information whizzing through the electronic universe between CHEP and its customers. And if you could see everything it shipped, you'd see the products we all use every day moving around the world more efficiently than ever before. Soap, shampoo, coffee, produce, auto parts, ice cream, batteries, electrical components. You name it, CHEP pallets help move it. So next time you look at a CHEP pallet, don't be fooled by its modest appearance. This environmentally sustainable solution is a powerful catalyst in the global economy and it touches our lives everyday.

CHEP. HANDLING THE WORLDS MOST IMPORTANT PRODUCTS. EVERYDAY.

WHAT WE DO:

Everyday, CHEP issues, collects, conditions and reissues more than 300 million pallets and containers. These durable platforms help manufacturers and growers transport their valuable products to distributors and retailers throughout the supply chain safely and efficiently.

OPERATIONS:

More than 500 service centers around the world are key to the successful collection, repair and issuing of pallets and containers.

CONTROL:

Our asset base is 385 million pallets and containers strong. And we handle more than 3.0 million equipment movements everyday.

SAVINGS:

Our unique pooling system enables users to reduce the need for capital expenditures and concentrate on both their day-to-day operations and core business competencies.

SERVICE:

We service more than 345,000 customer locations including many of the world's largest companies: Procter & Gamble, SYSCO, Kellogg's, Kraft, Nestle, Ford and GM.

PEOPLE:

7,000+ experienced professionals

SCALE:

46 Countries and Growing

EXPERIENCE:

Established in 1954 (50+ Years of Pooling Experience)

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ADVANCED:

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Our Innovation Center delivers value to our Customers by testing and validating their own material handling practices and products as a complimentary service. Everyday.

LEARN:

Want to learn more? Give us a call or visit our website!



View from the Top

Con-way Inc.

Con-way Inc. (NYSE:CNW) is a \$4.3 billion freight transportation and logistics services company headquartered in San Mateo, Calif. Con-way delivers industry-leading transportation and logistics services through its primary operating companies of Con-way Freight, Con-way Truckload (formerly CFI), and Menlo Worldwide Logistics. These operating units provide high-performance, day-definite less-than-truckload (LTL); full truckload as well as logistics, warehousing and supply chain management services; and trailer manufacturing. Con-way and its subsidiaries operate from more than 440 locations across North America and in 18 countries.

Con-way Freight delivers superior less-than-truckload (LTL) performance, comprehensive coverage and service excellence across North America. Con-way Freight's single network of more than 365 operating locations ensures reliable and seamless coverage nationwide. This network, the largest in North America, enables Con-way Freight to provide improved exception-free delivery, better on-time service performance and faster transit times to markets of all sizes. Con-way Freight also extends our customers' reach by providing full-service LTL throughout Canada and cross-border service to and from Mexico. Exceptional, personal customer service at every level is supported by the most experienced people in the business and state-of-the-art technologies ensure visibility, help customers save time, and provide them with the confidence that their freight will be there — when and where they need it.

Menlo Worldwide Logistics designs and implements logistics solutions that become our customers' greatest competitive advantage in their global supply chains. Menlo helps our customers achieve their business objectives and improve performance while delivering the lowest total cost. Menlo provides consulting to determine optimal network design, and creates value when we carry this theory into practice. Menlo has developed and implemented this plan for some of the top companies around the globe. Coupling our leadership in lean logistics and extensive transportation management resources with the assets of more than 16 million square feet of warehouse space, Menlo designs, delivers and operates flexible and cost-efficient supply chain management programs for customers, globally and across industries.

Con-way Truckload is one of the industry's largest dry-van truckload carriers, providing exceptional service to our customers throughout the United States, Mexico and Canada. Con-way Truckload's asset-based operations provide consistently superior, on-time performance and industry-leading capacity. The company provides full-truckload transportation servicing the shipping needs of retail and manufacturing businesses. As part of Con-way Inc., Con-way Truckload can leverage a broad range of services to deliver integrated solutions that meet customers' complex global shipping needs. Additionally, Con-way's non-asset-based operation, Con-way Multimodal, provides truckload capacity where and when our customers need it, and delivery performance consistent with the high standards they have come to expect from a Con-way company. With a network of more than 15,000 carriers, Con-way Multimodal's options include dry van, intermodal and specialized services for any equipment combination needed throughout North America.

At Con-way Inc., we never settle for less. Delivering quality service and innovative solutions around the world is what we do best. It's our number one priority. As one of the industry's most recognized and trusted brands in freight transportation and supply chain management, we keep our word and deliver what we promise. For more information, visit us at www.con-way.com.



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View from the Top

CRST DEDICATED SERVICES

CRST VAN EXPEDITED

CRST MALONE

CRST LOGISTICS

CRST Looks Toward The Future

After a very difficult three year downturn, the trucking industry is beginning to see signs of recovery. While many carriers were going out of business, downsizing and struggling to stay afloat, CRST was busy laying the groundwork to maintain our industry leading position in our respective business niches and to serve the future needs of our customers.

Our highly skilled and tenured executive management team has done a tremendous job of focusing their efforts on increasing efficiency and maintaining strong profitability. We are continuing to build the infrastructure needed to meet our growth plans. In addition to \$100 million in incremental equipment additions planned over the next 15 months, CRST is building a \$15 million terminal in Riverside, Calif., and expanding our newly-built training center in Cedar Rapids, Iowa.

We believe our strong financial position, which includes a debt-free balance sheet, will allow us to capitalize on the improved freight conditions by growing our truck fleets to meet our customer's needs at a competitive cost. Our executive management team has a combined 125 years of transportation expertise solving the toughest supply chain challenges. Focusing on every aspect of product transfer, from long hauls to supply chain logistics, is what has allowed our four operating companies to lead the industry.

With more than 3,500 drivers, **CRST Van Expedited** operates the trucking industry's largest fleet of team drivers. The company provides customers with irregular or scheduled routes in long haul, short haul,

air cargo and dedicated fleets with secure, on-time, damage-free delivery.

CRST Malone is an industry leader in the management of flatbed freight with 1,600 trucks, independent contractors and drivers covering 48 states and 130 million miles annually. The company also has one of the industry's largest fleets with removable side kit equipment that provides weather protection for freight such as aluminum and high end steel.

CRST Dedicated Services provides customers with services ranging from a totally dedicated fleet to a single-source transportation network. Our services are available in any number of equipment types—van, solo or teams, to flatbed or bulk containers.

CRST Logistics is a full service asset based third party logistics (3PL) provider with big advantages to offer—from transportation brokerage services and freight management to complete transportation outsourcing. We leverage our buying power to the fastest, safest, most innovative ways to move your products, anywhere.

When it comes to serving customers, CRST's mission is clear: Never promise more than we can deliver; Always deliver more than we promise. Look to CRST International for service that goes beyond simply responding to your needs to a partnership that helps make your job easier.



Dave Rusch, President & CEO

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CRST THE TRANSPORTATION SOLUTION

View from the Top

PALLET 2.0

iGPS is meeting the changing needs of today's supply chain by operating the world's first pallet rental service that provides advanced all-plastic pallets with embedded RFID tags. A quantum leap beyond wood, iGPS pallets increase efficiency, decrease costs, improve accountability and greatly promote sustainability.

Lightweight Design

At less than 50 lbs, iGPS plastic pallets are 30% lighter than wood. This eliminates 25 lbs of dead weight per pallet and saves up to 2,000 lbs per truckload. How does that help? Shippers reduce their all-important fuel and transport costs to help their bottom line. Plus, they can boost worker productivity, as less weight means quicker and easier handling. iGPS provides the only rental pallet that meets GMA & NIOSH weight standards.

Strength & Security

iGPS plastic pallets aren't just lighter, they're stronger too. Their solid top-deck and unitary construction easily hold 2,800 lbs and they maintain 48 x 40 uniform size throughout their lifetime. Problems with splinters, protruding nails, and broken boards are now a thing of the past – leading to less product damage, less equipment damage and fewer rejected loads.

Safer Performance

Wood pallets can be a breeding ground for bacteria and pathogens, as well as insect infestation. Their splintering and breaking subject workers to serious injury. iGPS all-plastic pallets help avoid these concerns. Its high-density polyethylene is non-porous and bacteria resistant. Helping shippers to protect perishable goods and safeguard employees.

Built-in Smarts

iGPS customers can gain even more peace of mind with the industry's most advanced RFID technology. Four built-in RFID tags in every pallet allows unprecedented asset visibility, enabling customers to trace and track shipments throughout the supply chain. The world's first 100% RFID-tagged pallet



pool, iGPS helps shippers keep stock of inventory, locate missing merchandise, avoid 'lost pallet' charges, improve billing accuracy, retrieve goods for product recalls and uphold Sarbanes-Oxley compliance.

Eco-Sustainable

What's perhaps the greatest reason to choose iGPS versus wood pallets? Our planet. iGPS pallets help cut carbon emissions, lessen fuel usage, greatly reduce deforestation and eliminate millions of tons in landfill waste. An independent life-cycle study shows switching to iGPS could mean: 65% less impact on global warming, 90% less ozone depletion, and 75% less ecotoxicity. Simply, iGPS is the world's most environmentally responsible pallet.

Learn how iGPS can help advance your business. Visit us at igps.net

iGPS

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View from the Top

Lean Six Sigma Philosophy Drives Operational Excellence at Kenco

In 1950, Kenco opened its first warehouse in Chattanooga, Tennessee. Today, Kenco's core competencies include not only warehousing services but also transportation, real estate management and material handling equipment. The Kenco Family of Companies includes:

- *Kenco Logistic Services*
- *Kenco Transportation*
- *Kenco Material Handling Solutions*
- *Kenco Management Services*
- *JDK Real Estate*

Kenco has adopted Lean Six Sigma as its primary continuous improvement philosophy. Our emphasis is on gaining process and product knowledge with critical Lean thinking while reducing variability and non-value added activities. "Lean Thinkers" within Kenco focus on enhancing customer value through the reduction of cost, cycle time, waste and defect rates.

Kenco's Lean Six Sigma continuous improvement philosophy perfectly aligns with our Operational Excellence initiatives that are deeply instilled in our culture. Our vision of Operational Excellence is to leverage our most valued asset, our people, by bringing them together with the right processes and systems to ensure the highest level of execution possible for our customers.

Throughout our network, we are committed to providing the highest level of quality, service and continuous improvement in the following areas:

Warehousing

Kenco operates over 100 facilities totaling over 25 million square feet of warehouse space. We perform services that go far beyond the receiving and storage of freight. Site optimization, sequencing, raw materials management, product testing, vendor-managed inventory and regulated pharmaceutical destruction are just a few of the value-added services we perform.



*Andy Smith, President & COO
Kenco Logistic Services*

Information Systems

We stay abreast of, and utilize, all of the latest technology. Our proprietary WMS solution, Warehouse Efficiency System, is proven to reduce warehouse travel time and increase efficiency. Additionally, at many of our facilities, Kenco operates Tier-1 systems, such as SAP, Manhattan and Red Prairie.

Transportation Management

Kenco Transportation, LLC offers full-service transportation solutions, which include dedicated fleet management, freight management, transportation brokerage, over the road transportation, pool distribution, postal consolidation and transportation management systems. In addition, our transportation management division specializes in pre-audit and payment, post-audit and payment, regulatory services and educational seminars.

Real Estate Asset Management

Kenco offers one-stop shopping to locate and/or develop your facility. You benefit from our expertise in all functions required to build, equip and manage a distribution center.

Material Handling Equipment

Kenco Material Handling Solutions, LLC

(KMHS) has been providing material handling equipment (MHE) and maintenance services for over 45 years. In addition to 6 regional forklift dealerships, KMHS has the ability to provide your operations with on-site technicians that provide preventative maintenance and repairs. This service can substantially reduce equipment downtime and maintenance costs. We also offer a fleet strategy service that tracks MHE data to provide independent reports and service ticket auditing. This information allows management to make more informed MHE decisions.

Management Services

Kenco Management Services, LLC (KMS) takes a subject matter expert approach to drive consistency of execution across our network. KMS focuses on the key functional areas of IT, Engineering, Human Resources, Accounting, Safety, Quality & Best Practices, Finance, Training and Legal. This network of subject matter experts partners with a team of site-level advocates to deliver optimum services to our customers. The group collectively builds bench strength and provides an audit structure for long-term sustainability of all programs.

Whether it's highly-trained people, warehousing, systems, transportation, real estate or material handling equipment, if you need to reduce costs, increase efficiency and take your supply chain to the next level, Kenco is your one-stop solution provider.



KENCO
LOGISTIC SERVICES

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THE RIGHT SOLUTIONS**

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View from the Top

Flexibility and Experience to Meet Any Supply Chain Challenge

Landstar not only continues to provide safe, reliable truckload, LTL, heavy/specialized and expedited ground solutions for shippers throughout North America, but has evolved into a logistics provider with the flexibility and experience to meet any supply chain challenge worldwide.

Landstar has repositioned itself over the years to provide customers with a greater range of supply chain solutions, especially as it relates to technology. Combined with the personalized service provided by our independent agents and the wide array of transportation services, shippers have greater flexibility than ever before.

Landstar's advanced technology solutions — NLM and A3i — provide customers with supply chain management options that range from basic transportation to highly complex transportation order management.

For shippers facing the challenge of coordinating bidding, scheduling, shipping, tracking, invoicing and reporting, NLM offers web-based Software-as-a-Service (SaaS) designed to manage dynamic shipments.

As an independent supply chain systems integrator, A3i specializes in integrating a customer's existing material order management system utilizing a cutting-edge transportation management system to create a single, seamless, order-to-cash supply chain management system.

With Landstar's self-managed and automated applications, customers get the platform that best meets their supply chain needs, without the headaches associated with buying and maintaining software.



Henry Gerkens
Landstar Chairman,
President and CEO

Either way, Landstar's variable cost SaaS solutions can be tailored to meet the current and future needs of customers of all different sizes from mid-sized companies to large multinationals.

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View from the Top



Matt Ahearn
LeanLogistics Inc.
Chief Operating Officer

I have just returned from one of our customer strategy sessions and we continue to experience our customers increased concerns regarding the financial aspect of transportation management in today's new economy.

As we all know, rates have dramatically dropped over the last couple years as demand has been down and capacity has been readily available. The biggest concern stems around tightening capacity and the affect that it will have on rates. Everyone wants a crystal ball to look into the future to see what will happen.

We have worked closely with our clients over the last few years to develop technology that provides intelligence regarding capacity and rate fluctuations. LeanLogistics' network has well over \$5 billion in transportation spend flowing through the platform. Sophisticated logic based benchmarking tools have been created to evaluate the rates used and rates quoted over a multi-year basis. With access to these tools we find that our clients are gaining an advantage over others when trying to manage the ever challenging rate vs. capacity financial equation.

With all the advancements in transportation today, it is imperative for shippers to use the data that is available to equip their staff with the intelligence to make better strategic sourcing and partnership decisions. It is not about doing a bid annually, it is about using data and information to decide the proper time and strategy for a sourcing event. This uncertainty that we are experiencing is evidence of the need to utilize the innovations that have transpired over the last few years. We just can't keep doing things the same way.



View from the Top

What's Old Dominion's Business? Keeping Promises



David Congdon is President and CEO of Old Dominion Freight Line, Inc. With more than 35 years of experience in the transportation industry, Congdon has spent the majority of his career continuing the legacy of his grandparents, Old Dominion founders, Earl and Lillian Congdon.

A lot of people think Old Dominion is in the business of shipping freight, managing logistics, moving cargo and making deliveries. Some even know that we're a less-than-truckload (LTL) multi-regional motor carrier that provides next-day, second-day and one-to-five day service within the United States. All of which, on the surface, is true.



But, what we're really in the business of doing is keeping promises. Since 1934, Old Dominion has been in the business of "Helping the world keep promises™" with its employees, its customers and within the community.

We know that while it may look like a truck or a drayage container or maybe just a bunch of cardboard boxes, each one contains promises. A promise that manufacturers will get what they need to produce their product. A promise that retailers will receive the product by a certain date and have it on their shelves. And ultimately, it's a promise that consumers will be able to buy that product easily, whenever they need it.

We keep promises by continually finding innovative ways to simplify our customer's transportation process. Our four product groups: OD-Domestic, OD-Expedited, OD-Global and OD-Technology, provide our customers with all the products and services they need to deliver on our promise of simplified transportation solutions. We provide direct service to 48 states through 210 state-of-the-art service centers. Old Dominion also offers expedited, drayage and assembly and distribution services, as well as container delivery services to and from North America, Central America, South America and the Far East.

Old Dominion's dedication has been demonstrated for over 75 years in many ways such as having one of the best on-time delivery records in the industry and one of the lowest claims ratios in the industry. Old Dominion was honored this year as the first LTL carrier to earn the Automotive Service Excellence (ASE) training provider award and continues to be named LTL carrier of the year by several Fortune 500 clients.

For our sustainability efforts, we have been recognized by *Fleet Equipment* magazine and Citgo Petroleum Corp. as the Top Green Shop for 2009 and named to the *Inbound Logistics* magazine's annual 50 Green Supply Chain Partners list. By fulfilling our promises to our community, Old Dominion has received corporate citizenship recognition from organizations like the United Way and The Salvation Army. All of this was achieved while Old Dominion became the only publicly traded LTL carrier in our industry to continually profit throughout the economic downturn of the last several quarters.

You can have all the plans and strategies in the world, but it's all about people pulling together and focusing on the common vision, which for us is "Helping the world keep promises."

customer.service@odfl.com | 800.432.6335

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View from the Top



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Larry Strayhorn
President, TGW Systems

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View from the Top

VIEW FROM THE TOP



Dear Logistics Management Readers,

In good economic times, most businesses can maintain a sufficient profit margin. The businesses that are profitable in a challenging economic climate, however, are those that have identified internal and external strategies for growth, sustainability, and longevity. The difference between companies that can weather an economic storm and those that cannot is a business model driven by values, rather than dollar signs. Values-driven organizations ultimately achieve a higher level of performance that increases cost savings, improves service levels, and supports sustainability for continued business growth and success.



Ron Cain
Chairman & CEO

The most resilient companies display the following characteristics:

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- Shared goals for the future

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LEGACY is also the cornerstone of development for TMSi's leadership team, providing the tools necessary to evolve into highly functional teams for increased productivity and effectiveness. **LEGACY** allows us to help clients decrease costs and increase revenue through reduced downtime, faster turnaround, and superior dedication to the task at hand. Our leadership team uses **LEGACY** to enhance our performance-based culture while continuing to improve service levels and increase cost savings for clients across industries. **LEGACY** is also pivotal in developing TMSi's social responsibility by encouraging staff to take part in community service and enrichment to improve generations to come.

Thanks for taking an interest in the work that we do. I am always eager to talk about **LEGACY**, our values-driven culture, and how it can positively impact your supply chain. I invite you to contact me directly at 603-373-7233 or e-mail me at ronc@tmsilog.com.

Sincerely,
Ron Cain, *Chairman and CEO*

TMSi Logistics
Portsmouth, NH | Phone: 603.422.0777
Fernandina Beach, FL | Phone: 904.321.0507
Oak Brook, IL | Phone: 630.242.3400



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View from the Top

VALUE CREATION - NO MONEY DOWN -

As the economy emerges from the latest recession, both carriers and shippers will again have learned from the experience. Everyone will look into their daily operations and determine ways to insulate themselves from future occurrences. Producers will redouble their efforts to control capital expenditures and further look to reduce their exposure in areas that are not a function of their core business model. Focus on lean management practices relating to high inventory count and slow moving product lines will be prominent. Leaving capital tied up in non-core business related entities makes little sense in the new economy.

What this means to the Supply Chain Service Provider is that we should see a move to more demanding transit time requirements in order to handle "Just In Time" inventories. More than ever before, Flexible Warehousing, Expedited Services and Dedicated Driver Services will be in greater demand. Multiple mode providers will find themselves in a position to use comprehensive pricing programs to lure new customers into the fold by giving them the value proposition of single point contact. Producers will expect transparency of their supply chain process from single or limited sources.

Can you visualize this? Raw material transferred by rail, the rail car offloaded from an indoor rail spur and stored in a flexible/multiple use warehouse. Stock transfers and replenishment tracked with RFID technology and then delivered all the way to the end user on LTL, TL or Dedicated Driver Service trucks tracked by satellite technology. All this information provided through the web without tying up a single dollar of your own capital!

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U.S. Port Security: A work in progress



Port authorities contend that without a method of enforcement, supply chain security has little chance of truly enhancing safety. Here's a closer look at the different paths U.S. ports are taking in route to establishing standards and adhering to new regulation mandates.

By Patrick Burnson, Executive Editor

DANIEL GUIDERA

America's seaports are taking several different paths toward providing shippers with safe and secure commerce. And while some are more heavily reliant on sophisticated container screening systems, others are concentrating on vetting supply chain partners and intermediaries.

At the same time, all ports are mandated to comply with new U.S. regulatory rules while remaining poised to anticipate new changes in international law. Any way you slice it, security will continue to be a market differentiator and competitive tool for our ocean cargo gateways well into the future.

However, since there are an estimated 360 seaports in the U.S., no single security solution fits every gateway, says American Association of Port Authori-

ties (AAPA) spokesman Aaron Ellis. "Some ports are dealing solely with bulk and break bulk cargo, so container scanning is not going to work," he says. "And others may chiefly have roll-on/roll off and project cargo," he adds. "But for the major container ports, the standards are fairly uniform."

Joe Lawless, the Massachusetts Port Authority's (Massport) director of maritime security, agrees with Ellis, adding that 100 percent container screening will have to be customized to be effective. "Some ports will concentrate on screening for radiation, while others will place a higher emphasis concentration on routine inspection," he says. "In any case, it's one of the critical pieces that's only being worked out right now."

Lawless, who also serves as chairman of the AAPA's Port Security Committee, will be meeting with his colleagues in New Orleans this month to discuss other is-



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sues related to port protection. Seaports worldwide annually handle roughly 1.5 billion tons of cargo worth more than \$1 trillion, arriving in at least 11 million containers. They require deep-water access, sufficient land for staging and storage, and unrestricted access to highway, rail, inland waterway, and pipeline networks.

At this point in time, the Department of Defense (DoD) maintains only an informal business relationship with U.S. ports. However, the DoD plays a considerable role in the security plan to prevent attacks on the ports, prepare to respond to possible attacks, and to restore their services post attack.

“But the ports themselves have to help government determine what the priorities are,” says Lawless. “That’s why AAPA members must constantly network among ourselves and our overseas counterparts to share information.”

More fed support

The AAPA endorses the current federal strategies and supports even stronger protection measures, but not without some caveats and suggestions.

“The Port Security Grant program (PSGP) continues to be very valuable and serves as a partner with the Department of Homeland Security (DHS) to harden security at U.S. ports and to protect our homeland,” says AAPA president and CEO Curt Nagle. “But the cost must be shared.”

The PSGP funds are primarily intended to assist ports in enhancing maritime domain awareness, enhancing risk management capabilities to prevent, detect, respond to and recover from attacks involving improvised explosive devices as well as training and Transportation Worker Identification Credential (TWIC) implementation.

According to the AAPA, this can best be achieved with what it calls “Cost-share Waiver,” as ports do not have the money to contribute more than they are spending right now. Presently, says the AAPA, a 25 percent cost-share for public agencies is “a significant economic disincentive” to make security enhancements and implement regional maritime security plans.

In these tight economic times, the cost-share is an even greater problem as ports are cutting back in all areas to address economic shortfalls, authorities note. The Port Security Grant program is one of the few DHS grant programs that requires a cost-share. Transit grants and state homeland security grants, for example, are exempt from cost-share requirements.

At the same time, say port authorities, funding is key. They advocate a plan that will continue to appropriate \$400 million for the program as authorized in the SAFE Port Act. “All ports should be eligible for these funds to avoid a soft underbelly

that leaves this country vulnerable to terrorist threats,” says Nagle. “Grant funding should be better tied to port area strategic plans and funding should be made available for resiliency and business continuity projects.”

Part of this, of course, involves a quicker distribution of funds, too. Currently, there is a significant time delay between when DHS announces the awards and when FEMA finally completes all reviews and gives grantees authority to begin these security improvements. According to the ports, DHS should work to streamline their processes and get funding out more quickly.



“Some ports will concentrate on screening for radiation, while others will place a higher emphasis concentration on routine inspection. In any case, it’s one of the critical pieces that’s only being worked out right now.”

—Joe Lawless, director of maritime security, Massport

Command centers

Broader construction costs to improve security should be allowed if progress is to be made swiftly, according to the AAPA. “The current limits on construction projects—\$1 million or 10 percent of the total grant—should be eliminated. This is especially important for the stimulus funding, since Congress placed a priority on construction,” argues Nagle.

He further maintains that personnel costs should be an allowable expense, adding that DHS allow grant funds to be used for personnel costs, as provided in the Maritime Transportation Security Act and SAFE Port authorization legislation. This way, he says, DHS can mirror both the Urban Area Security Initiative and Transit Security Grant Programs.

In a recent statement, the AAPA urged legislators to consider allowing ports to hire new security personnel (staff for operations, fusion or emergency centers, planners, counterterrorism posts, etc.) for the term of the grant. Personnel costs, authorities further state, should also be permitted to backfill salaries for approved training programs.

Part of this manpower initiative also involves the U.S. Coast Guard. The SAFE Port Act calls for the U.S. Coast Guard to establish command centers. At the same time, some ports are developing their own centers. AAPA members argue that better coordination is needed between the Coast Guard and the Area Maritime Security Committees on the Coast Guard plans, as well as with those who are building command centers based on Port Security Grant funds.

“The U.S. Coast Guard must take a stronger role in controlling risk from small vessels that transit commercial port areas,” says Nagle. “While the Coast Guard has had several public meetings, more needs to be done to control this risk.”

Supply chain security reality check

Is it now time for a supply chain security reality check? AAPA certainly thinks so.

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Special Report

“While the DHS has attempted to address supply chain security under the various programs that have been promulgated by Customs and Border Protection (CBP), the reality is that no internationally agreed-upon minimum supply chain security standards have been established” says Nagle.

He contends that without this global baseline and a method of either enforcement or rewards, supply chain security is largely a voluntary notion that has little chance of truly enhancing safety. Nagle and his constituents suggest that a framework for minimum mandatory supply chain security standards that is recognized and accepted worldwide is necessary in order to begin the complex process of ensuring that goods moving through the supply chain are not compromised.

According to Nagle, this framework would cover five major areas:

1. Verification that a container is free of false compartments.

2. Verification that reasonable care and due diligence has been used in packing, securing, and manifesting goods.

3. Ensuring that the cargo has not been tampered with at any point along the route.

4. Ensuring that the integrity of the information and information systems associated with movement of cargo has not been compromised.

5. Ensuring that accurate data on the shipment is provided to Customs well in advance of the ship's arrival in the U.S.

In terms of policy, Nagle is hardly alone. Donald Masters, Ph.D., a board member of the Homeland Security Innovation Association (HLSIA), says that the U.S. should more proactively engage multilateral organizations to adopt reasonable and attainable international standards for detection equipment per-

formance as well as procedures for their effective use.

“The U.S.-EU Agreement calls for greater regional cooperation,” he says. “This needs to move forward with an operational protocol that specifies port requirements that meet the mutually agreed upon standards for secure transatlantic trade.”

According to Masters, a regional consensus on equipment standards and port procedures could then be expanded through the World Customs Organization. That, in turn, would make operational the already existing agreement known as the “Framework of Standards to Secure and Facilitate Global Trade.”

“Alternatively, the U.S. could make use of other regional agreements, possibly under ASEAN or APEC auspices, with major Asian trading partners,” says Masters. “Such negotiations will require patience and perseverance but if successful, they will make trading partner

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Special Report

countries fully responsible for the safety and security of their exports.” An offshore port security system, adds Masters, would be far more cost-effective for the U.S. than the current patchwork of bilateral agreements involving the deployment of CBP teams and costly U.S. supplied equipment.

The nuclear threat

As far as scanning equipment goes, ports are uniformly saying that CBP and the Department of Energy should work more closely with port facilities as they develop next generation detection systems. This, the ports add, would ensure that they work well with port operations.

AAPA encourages DHS to carefully evaluate the viability of the 100 percent scanning mandate and avoid instituting a system that will slow cargo movements or significantly increase the cost of shipping.

AAPA, of course, is also concerned about reciprocity. Will China, for example, require stricter standards on U.S.

exports if we go too far in complicating the supply chain?

The DHS Domestic Nuclear Detection Office has been working with ports on nuclear detection, but U.S. port authorities say more should be done to identify ways to mitigate the risk of nuclear weapons when such weapons are suspected in a shipment. As a best case scenario, DHS could work with ports on the protocols that they use and encase and shield a suspect container that is being shipped to an inspection area.

At the same time, AAPA continues to work with DHS on implementing the TWIC program, including monitoring and commenting on Coast Guard’s regulations for facility compliance with TWIC.

As the federal government seeks to apply its resources to port security issues, multiple programs and multiple agencies have become involved through homeland security programs. In order to ensure that these are adequately managing the risk

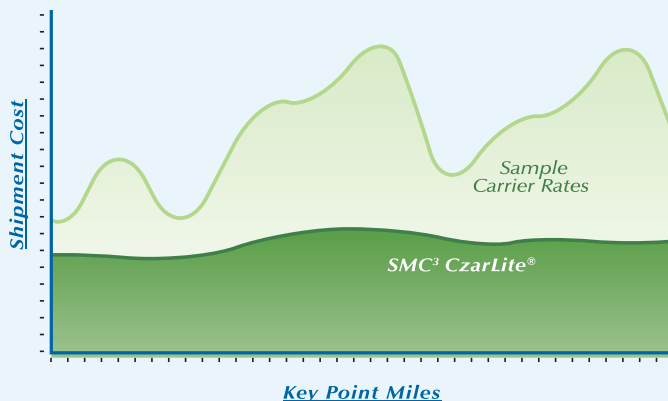
associated with port security, a security system model is needed to guide its partners/stakeholders, both government and private, in the effective and efficient development and implementation of holistic port security solutions.

According to port authorities and their private sector partners, this security system model should include a coordinated approach, employee business models, and be bi-directional. Federal plans should also encourage strategic plans for port security.

“Partnering with the port industry in the development of systems-based integrated solutions, the federal government can avoid vendor-driven programs by communicating with port stakeholders from concept to execution to ensure that the dynamic needs of ports are met through a team approach,” adds Nagle. □

Patrick Burnson is Executive Editor of Logistics Management

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Connecting the dots...

By John A. Gentle, DLP

IT'S HARD TO ATTRACT and retain carriers if you don't know what you want and what you stand for.

Chances are that carriers don't know what you want and value. And I'll make a bet that you don't know what your carriers want and value.

It's become very clear to me what I want and what I stand for. So, why does my wife give me that blank stare that suggests that she's unable to connect the dots that link my thoughts and desires into acceptance, understanding, and execution?

Can it be that shippers, too, have not done a good job of defining and communicating their needs and platforms to carriers or have failed to test to ensure that the standards that have been established are understood?

To be successful, shippers need to have a "fitness for use statement" (FFU), or a set of guiding principles and a process to test for carrier understanding. It's a generally accepted fact that an FFU is the primary tool used by most shippers to define what it is that they need and want from a provider.

For the last few years I have been encouraging shippers to create and publish their guiding principles as they relate to transportation management. If you've never created one it's not a difficult exercise.

I have seen FFU statements captured on a single page or on as many as five pages. The good news about a simple one-page statement FFU is that it only takes a few minutes to create and it's very straight forward—the creator does not have to think very hard or engage with carriers.

In contrast, detailed statements provide insight into the thoughts of the authors and their knowledge and expectations about such elements as plant safety and warehouse operations; customer requirements; administration (tendering); capacity commitments; performance requirements; risk management; and sustainability.

For the last few years I have been encouraging

shippers to create and publish their guiding principles as they relate to transportation management. If you've never created one it's not a difficult exercise. You simply list all the things that you believe in relative to transportation. A sample of these might include:

- Honor commitments and never lie or be misleading.
- Tenders should be complete, accurate, and timely for safe on-time pickup and delivery.
- Regularly scheduled performance reviews should be preformed for carrier and shipper teams and both will be accountable for performance and productivity.
- Company commitments should never surprise carriers or the customers.
- Respond promptly to carrier requests for information.
- Carriers have the right to receive and understand your FFU.
- Return authorizations are communicated within one hour and trailers loaded or loaded live within one hour of the drivers' arrival.
- Carrier personnel will be treated like professionals.
- Carriers will be recognized for superior performance.
- Company will drive for a clean environment and will invest in carrier education, productivity, driver retention, and recruiting.

One of the direct challenges logistics managers face is securing their team's unequivocal subscription to the defined guiding principles. While it's always nice to have team consensus on platforms, those who are accountable for the success are often called 'principals' and they need to establish, educate, and hold their teams responsible for adherence to the defined principles.

Lastly, establishing a proper measurement of an FFU is critical to marketplace recognition and to the continued support of the current carrier base. Key here is how the FFU and guiding principles are being communicated to the marketplace. Are you using the public speaking forums—blogs or web sites—to get your message out and is that message resonating favorably at all levels of management within the walls of each carrier, including their drivers?

The only thing worse than the absence of information is bad or misleading information. So, are your dots connected to create the desired synergistic impact? Or are they simply dangling out there doing nothing to help attract and retain the best carriers in the marketplace? □

John A. Gentle is president of John A. Gentle & Associates, LLC, a logistics consulting firm specializing in contract/relationship management and regulatory compliance for shippers, carriers, brokers, and distribution centers. A recipient of several industry awards, he has more than 35 years of experience in transportation and logistics management. He can be reached at jag@RelaTranShips.com.

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