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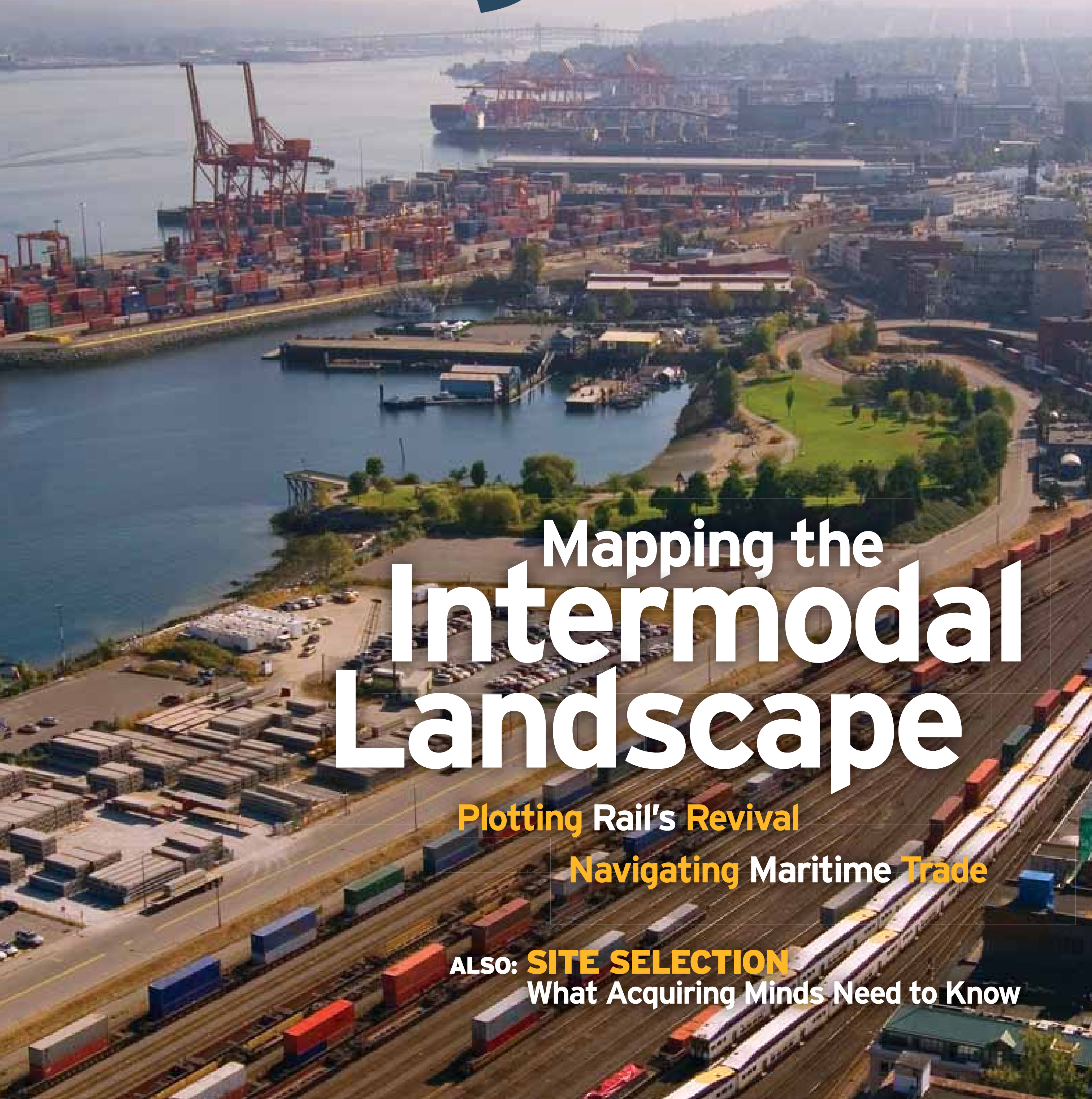

## Mapping the Intermodal Landscape

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LOGISTICS AT SEA LEVEL
*page 42*

**October 2007** • Vol. 27 • No. 10

## INFO



## INBRIEF



## INPRACTICE



## INDEPTH



DC SOLUTIONS
*page 77*


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**ROCKIN' RAIL**
*page 52*

**October 2007** • Vol. 27 • No. 10

## INSIGHT

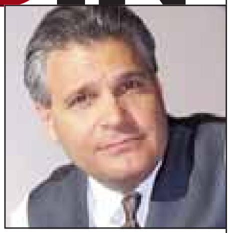


## INDEPTH



**DRUM BEATERS**
*page 60*

# CHECKINGIN



by Keith Biondo | **Publisher**

## Railroad RXR?

The nation is at a crossroads on how to handle the rail industry in the coming decades. While much attention has been paid to the state of the nation's highways in light of the I-35 bridge collapse, a new Association of American Railroads study indicates that U.S. railroads need an overhaul, too.

The *National Rail Freight Infrastructure Capacity and Investment* study *(www.aar.org/newsroom/Capacity_Investment_study.asp)* lays out in detail the need for major investment–to the tune of $135 billion over the next 30 years–to augment freight capacity to meet an expected doubling of rail freight demand. Investments would go toward constructing new track, signals, bridges, tunnels and terminals.

One proposed remedy is the bipartisan Freight Rail Infrastructure Capacity Expansion Act, introduced on Capitol Hill in July 2006 by Trent Lott (R-Miss.) and Kent Conrad (D-ND), and still bouncing around Congress. The bill aims to legislate a 25-percent tax credit for any transport business–shippers included–investing in new rail track, intermodal facilities, rail yards, locomotives, or other rail infrastructure expansion projects.

On the other side of the "how do we handle the railroads issue" is Rep. James Oberstar (D-Minn.), chairman of the House Transportation and Infrastructure Committee. Oberstar recently proposed legislation that would re-regulate the railroad industry by introducing price controls and controlling access to shared networks to reduce costs for freight shippers–an appealing proposition for some shippers with zero alternatives.

These converging and conflicting initiatives place rail shippers, specifically smaller players and captive shippers, between the rails. The promise of reduced freight costs in a market historically monopolized by a small number of large railroads spells welcome relief for some. But would reverting to pre-Staggers Act regulations stifle or stimulate private sector investment? The AAR argues that such legislation would cost the industry $5 billion in lost revenue annually and impede efforts to increase capacity. And we all know how regulation fared in the past.

Ultimately the railroad's complacency over the past three decades since deregulation is partly to blame for this current scenario. "Although the railroads have been increasing their capital expenditures, most of that capital is going to sustain existing capacity rather than toward expansion," reports a January 2007 position paper by the Railroad-Shipper Transportation Advisory Council *(www.stb.dot.gov/stb/rail/railshipper_council.html)*.

That both of these bills are garnering bipartisan support in Congress has laid down a gauntlet for the railroad industry. My view is that these initiatives are going nowhere while Bush is president. I think in 2008-09 we will be at an intriguing crossroads: to price-control railroads, give them tax credits, or both. Let's see who controls Congress and the executive branch next time around.

On which side of the track do your loyalties fall? Let us know. Email: editor@inboundlogistics.com ■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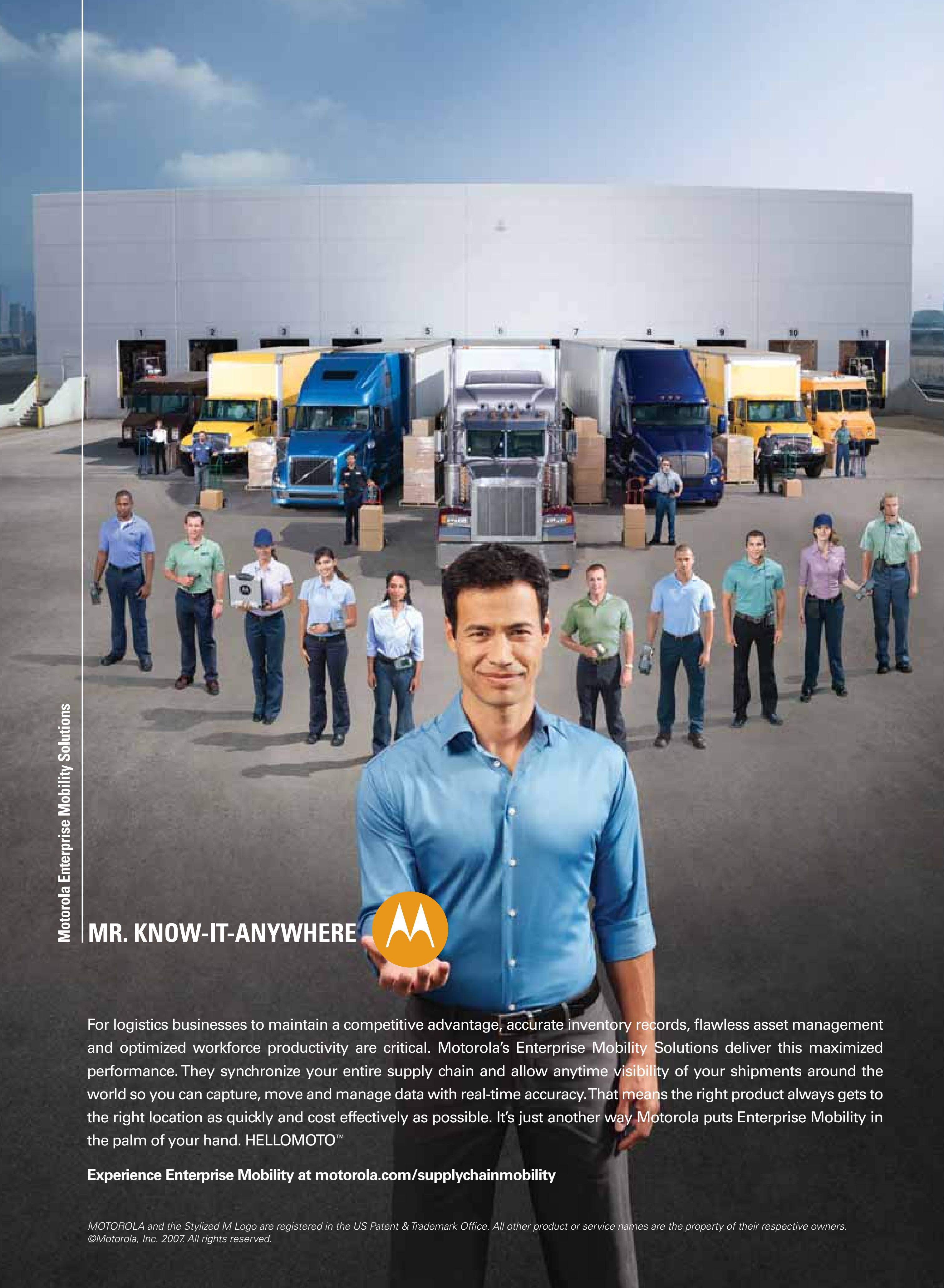
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# Suppose you could find the ideal logistics partner

# DIALOG

## LETTERS TO THE EDITO

### Readers Log in on Blog'n

Every month I look forward to receiving *Inbound Logistics*. Many of the articles have helped broaden my understanding of the shipping industry. However, my job primarily involves outbound shipping. I was wondering if you knew of any monthlies or blogs that focus on that?

**–Paul Cicchinelli,** operations manager, The Tub Connection

**Editor replies:** For a list of logistics blogs, just navigate to inboundlogistics.com and type "blog" in the search box. You'll see Amy Partridge's great article featuring more than 20 blogs spanning the logistics cybersphere. Also bear in mind that *Inbound Logistics* articles cover all facets of the supply chain, from inbound to outbound and all points in between. After all, everyone's inbound is someone else's outbound and driving efficiencies at that point of convergence is beneficial for all parties involved.

We read with interest your informal listing of logistics blogs (*Logistics in the Blogosphere, Feb. 2007*). While interesting, we would like to draw your attention to logbizindia.blogspot.com, which we write. This blog covers supply chain management and logistics in India–news, features, analysis, and data. We believe it is one of the better blogs on SCM and logistics in India, a country that everyone wants to be in. But understanding it from a supply chain management and logistics angle remains difficult.

**–The Logbizindia Team,** Mumbai, India

### L.A. Confidential, No More

I enjoyed the feature about Latin America very much (*Catching Up with Latin American Logistics, June 2007*). Most of us are guilty of thinking only horizontally about European and Asian activities. Too few take the time to think vertically and consider possibilities in Central and South America. We often don't even think much about the NAFTA realm.

I was surprised, however, to find no mention of the Latin America Logistics Center–www.lalc.org. This research organization, affiliated with Georgetown University, is a primary source of up-to-date perspectives on what's happening south–and far south–of the border.

**–Art Van Bodegraven,** partner, The Progress Group

**Editor replies:** Thank you for pointing out to our readers a wonderful resource: The Latin American Logistics Center, www.lalc.org. For inquiring minds, we also regularly feature articles and global trends that highlight some of the rumblings south of the border (see *Logistics Providers Sharpen Focus on Mexico, page 26*). We will also be certain to include more information on the LALC in our next Latin America supplement coming in June 2008.

### Transportation 'Rates'

Your articles are insightful, educational, and fun to read. My passion is transportation and there's nothing better than reading your articles, digesting them, then walking away feeling more well-rounded about the industry.

**–Peter Brown,** Northeast regional sales manager, PrePass

### Safety in Numbers

I wish to compliment *Inbound Logistics* on the June article, *Warehouse Safety: It's No Accident*, by John Edwards.

One of the ways we combat warehouse safety in the Lehigh Valley is through a partnership I started between OSHA, the Lehigh Career & Technical Institute, Indiana University, Pa., and local distribution centers. We meet every other month and advise each company on safety issues.

Walgreen's DC was the first company to sign the partnership; today nine companies have joined. I believe there is only one other partnership like this in the United States.

**–David Rubright,** workforce education coordinator, Lehigh Career & Technical Institute


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# 10TIPS

## STEP-BY-STEP SOLUTIONS

by Deborah Catalano Ruriani

# Managing Expedited Freight Costs

Too much expedited freight can turn profitable sales into losses. While most shippers expect to use some expedited service to meet customer requirements, the ultimate goal is to reduce that need. Thomas Phelps, president, Alloquor Consulting, Los Angeles, Calif., offers these tips for managing expedited freight costs.

1 **Determine why you need to expedite.** Take a good look internally. Is the use of some expedited freight due to poor planning? If it is, work on improving the root cause of the problem.

2 **Challenge the status quo.** Sales and logistics management need to work together. If sales insists that the customer expects immediate delivery, how about asking the customer to work with you on reducing expedited shipments? Maybe the customer could provide the order earlier, or would agree to non-expedited deliveries when acceptable.

3 **Make sure you have good data.** Good analysis starts with good data. If the data is not easily attainable, or is full of inaccuracies, then analyzing shipments to determine ways to reduce costs becomes an impossible task. Document a list of changes regarding transportation data, and meet with IT to make sure they understand the problem and take appropriate measures.

4 **Reduce fulfillment time.** How quickly can your warehouse get a fresh order out the door? Can the process be improved? If you cut order-to-ship cycle time, you can reduce expedited freight costs.

5 **Establish metrics.** As the saying goes, "what gets measured gets managed." So start measuring to start managing more effectively. If you've already established some metrics, make sure they're the right ones. If they're not, make changes.

6 **Hire good people.** Yes, this is obvious. But it's surprising how often this common-sense adage is not followed. Hire experienced and knowledgeable people, even if you have to spend more to get them. Good employees will nearly always save you more money than their additional salary.

7 **Share the metrics.** Make sure senior management understands how much money is spent on expedited transportation. Approach them with solutions. For example, "if we improve forecasting, we can cut transportation expenses in half."

8 **Polish the crystal ball.** If you had 100-percent accuracy in your sales forecasting, your expedited transportation costs might drop to zero. Although you may not have a crystal ball that will predict sales demand with 100-percent accuracy, you can strive to get as close as possible and reduce the need for expedited freight.

9 **Get help.** Some managers can't pull themselves far enough out of day-to-day activities to really focus on strategic issues, such as finding the true root causes of the need for expedited transportation. Some managers have done the work, but their suggestions have fallen on deaf ears. Consider hiring a consultant to conduct an independent analysis and provide some broader perspective on solutions that will work.

10 **Get the proper systems support.** Proper systems support will facilitate efficient processes and manage workflow. If your current system isn't up to the task, start documenting the gaps. Present your findings to your IT staff and see if they can provide the functions you need. ■

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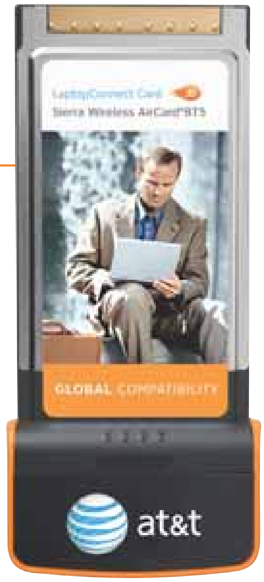


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READER
# PROFILE

by Merrill Douglas

## Smooth Operator

In the smoothie business, hot weather is a blessing; as temperatures rise, so does demand. But when the sun blazes too long over peach orchards or berry fields, it may ruin the crops. Then, bringing in the fruit needed to whip up a perfect healthy drink becomes a complicated puzzle.

That's why Greg Schwartz, vice president, supply chain management at Jamba Juice, Emeryville, Calif., clicks the weather report on the Web every morning right after the financial news sites.

Schwartz is responsible for sourcing all food and non-food products for Jamba Juice, and arranging to move these products to the company's retail outlets. With 660 stores in 22 states, Jamba is constantly rolling into new locations. Its rapid expansion gives Schwartz and his team plenty of opportunities to fine-tune supply chain operations.

The main challenge is finding the right product and securing the most effective distribution channels for the growing retail network. "The second critical challenge is dealing with the weather, trying to remain flexible, and having strong contingency plans in place," Schwartz says.

As the son and grandson of grocers, Schwartz has worked in the food business throughout his life. But his penchant for supply chain management came as a surprise. "I grew up wanting to work in marketing for a Fortune 500 food company," he says.

A college internship with Kraft Foods – pulling data to help the sourcing group negotiate contracts and choose suppliers – whet his taste for operations. Although he went on to earn an MBA in marketing, when he entered the workforce, he crossed over to the supply side.

One unusual challenge Schwartz encountered on his career path involved working with Oscar Meyer/Kraft Lunchables, and similar lunch products sold under the Safeway label, which bring together numerous components in a single package.

"Lunchables might require 10 different suppliers shipping their product to one location," he says. "That location reassembles those components into a final product," which might include an assortment such as crackers, cheese, turkey, a sauce packet, a drink, and a candy bar packed into a tray covered with film and an exterior carton.

Getting all those products to converge in the right place at just the right time isn't easy. "Having the appropriate systems, collaboration with partners, timely forecasts, and effective

### JUICY DETAILS

**NAME:** Greg Schwartz

**TITLE:** Vice president, supply chain management, since 2007

**COMPANY:** Jamba Juice, Emeryville, Calif.

**PREVIOUS EXPERIENCE:** Buyer, senior buyer, purchasing manager, division purchasing manager, Kraft Foods; director and vice president, strategic sourcing, Safeway; vice president, global procurement, Wal-Mart.

**EDUCATION:** University of Illinois, Champaign – BS, liberal arts and sciences, economics, 1987; MBA marketing, 1989.

scheduling are key," Schwartz says.

Schwartz is currently exploring ways to improve Jamba Juice's processes, and beef up its technology on both the sourcing and the distribution sides.

"I am especially interested in portals that can link the entire supply chain – from the supplier's supplier's supplier to the distributors to the stores," he says.

Besides examining opportunities to make improvements at the back end, Schwartz has taken a close-up look at how Jamba Juice works its magic on the front end. In August, he spent several days at a Jamba Juice store, starting at 5:30 a.m. He developed and received a product order, and whipped up his share of drinks.

"I did lots of mixing, scooping, and shaking, all the way to providing the finished product to eager consumers," he says. The experience gave him several ideas for improving the distribution process.

It also gave him a healthy respect for the experts on the front line who whip up smoothies with impressive speed.

"I had a hard time keeping up with them at first," he says. "That's when I found myself washing dishes." ■

## The Big Questions

**What do you do when you're not at work?**
I spend a lot of time with my two kids. I coach their soccer, baseball, softball, and basketball teams, and I drive them to practices and tournaments all over Northern California. It almost makes the logistics at Jamba Juice look easy.

**Ideal dinner companions?**
My grandfather and my father. My grandfather started selling fruits and vegetables on a pushcart in Peoria, Ill., then opened a corner market. The store was on the bottom floor, and they lived upstairs. My father earned his college degree and grew the business into a multi-store operation, which is where I started to get interested in retail, specifically food. Their vision, dedication, and drive for success allowed us to have a good life growing up.

**What's in your briefcase?**
Work, an empty slot for my laptop computer so I can take it home, some aspirin, and a reloadable Jamba Juice gift card.

**If you didn't work in supply chain management, what would be your dream job?**
I would like to be an economics or mathematics teacher and coach, developing and improving the lives of kids.

**Favorite Jamba smoothie?**
Strawberry Nirvana, extra thick, with the new Happy Heart boost.

LOGISTICS knowledgebase©

BY TIM CANTWELL
Director, MidAmerica St. Louis Airport
*(618) 566-5240 • director@flymidamerica.com*

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by Joseph O'Reilly

# A New York Minute: Kids, Ships, and Dolls

That a 40-foot container can fit 25,000 Barbie dolls may not be all that impressive unless you are a load planner or entertaining a group of 10-year-olds. Putting a new spin on career development, a consortium of public/private interests in New York City is fronting a program to introduce area youth to the Brooklyn waterfront and the world of maritime logistics. And Barbie dolls are a good place to start.

Manhattan-based Working Harbor Committee (WHC) took youth groups from all five New York boroughs on a "Special Youth Hidden Harbor Tour" in mid-August to educate children about the waterfront and its impact on the local economy, as well as to tease their interest in the types of employment opportunities available in the maritime shipping industry.

"We want everyone to know about the benefits of the port – what it means and how important it is," says Lucy Ambrosino of The Port Authority of New York and New Jersey, a guest speaker on the August 17 tour. Ambrosino highlighted the importance of staying in school and learning about the different types of maritime jobs.

The WHC started in 2002, and thanks to a partnership with tour operator Circle Line 42, began offering educational programs and tours for New York City youth in 2005. Ocean carrier Maersk Line became a partner of the program in 2006 and The Maritime Society of the City of New York is also a supporter. The tours are developed individually based on age, with programs for both elementary and high school students.

Meg Black, program director of the WHC, often uses a crane arcade game to explain the container loading and unloading process to children. Before each group takes the Harbor Tour, Black conducts a workshop to prepare the students for the trip. Children assemble Maersk Lego sets, then discuss what an ocean carrier is and what role it plays in driving the U.S. economy.

**A consortium of public/private interests in New York City is steering a unique educational experience that teaches area youth about the maritime logistics industry.**

CONTINUED FROM PAGE 19

Betsy Haggerty, a WHC board member who joined Ambrosino to narrate the tour, pointed out landmarks such as the World Trade Center site, and asked children if they could spot vessels that were on their checklist. She also explained to the group how a tugboat is able to push multiple barges and how to tell if a barge is carrying fuel or not. In no time, children were screaming and shouting in accomplishment as they located and identified tugboats, water taxis, and other vessels.

High School groups tour the New York Container Terminal and the WHC mentors students about in-house internships while also offering a resource for individuals to e-mail maritime employees with industry questions. The program also provides interested students with a list of trade schools, colleges, and scholarships available in North America to help them get started in the industry.

"It's extremely important to give youth options in life," says Black. "Many of them are not aware of what is out there."

With 239,000 jobs available in the New York/New Jersey maritime industry, people with all levels of education can find employment. "The maritime industry needs employees because of its growth," she adds.

Students are showing signs they are equally receptive to the WHC's mission. On the tour, Ambrosino asked: "Does anybody here like chocolate? Who drinks orange juice in the morning? Who has a cell phone? How do you think it gets here?" The children shouted back, "China!" ***– Mark Rowan***

## U.S. Ports to Profit From New Green Machine

Government and private sector efforts to green the supply chain and create a more efficient environment for moving freight have been bolstered by a recent project spearheaded by the Environmental Protection Agency (EPA). Plans to develop and test a new EPA-patented hydraulic hybrid technology on large equipment used to move products from ships to trucks (and currently utilized by some UPS vehicles) are moving full steam ahead at U.S. ports. Key partners in the project include The Port Authority of New York and New Jersey, A.P.M. Terminals, Kalmar Industries, Parker Hannifin Corporation, and the Port of Rotterdam–with whom EPA will share project information.


**Kalmar Industries, which manufactures heavy-duty material handling equipment, is among a group of maritime industry partners that is piloting a new EPA-patented hydraulic hybrid technology to reduce diesel engine emissions at global ports.**

These heavy-duty diesel machines, called yard hostlers, contribute to air pollution generated in ports throughout the world. The hybrid vehicles feature a unique hydraulic hybrid power train that can generate, recover, store, and reuse braking power with very little air pollution.

"We've made tremendous strides toward becoming an environmentally friendly port, but we need to do more if we are to continue to be recognized as a national leader in this area," says Richard M. Larrabee, New York Port Authority port commerce director. "The new program–coupled with existing programs to preserve environmentally sensitive land, build new rail facilities that will reduce our dependence on trucks, and retrofit ferries with cleaner-burning engines–will allow us to maintain a sustainable port well into the future."

Specifically, the hybrid vehicles use a diesel-hydraulic system that combines the cleanest available diesel engine technology with components that use hydraulic fluid compression to store energy. The hostlers feature hydraulic hybrid power trains to provide power to the drive axles. Hydraulic tanks are used to store energy, in contrast to the less-efficient batteries used in electric hybrid vehicles. Like other hybrid systems, energy saved when applying brakes is reused to help accelerate the vehicle.

The hydraulic hybrid technology is expected to improve the fuel efficiency of yard tractors by 50 to 60 percent, reduce or eliminate emissions during idling, and decrease brake wear. The same hydraulic hybrid technology that has shown dramatic energy efficiency improvements in delivery trucks can be applied to other equipment used to move goods. The UPS hydraulic hybrid truck, by example, shows potential savings of 1,000 gallons of fuel per year.

CONTINUED FROM PAGE 20

## Path to Collaboration

While the progression toward supply chain integration continues to break down operational and philosophical walls within enterprises, the promise of true collaboration is fleeting, finds a new CAPS research study, *Achieving World-Class Supply Chain Collaboration: Managing the Transformation*. Managers are spending more time evaluating supply chain-enabled business models, but have yet to fully grasp the nature of collaboration or the concept of what it takes to achieve a truly collaborative environment, the report suggests.

Supply chain collaboration remains ad hoc and fragmented in all but the most mature supply chain relationships and companies are still not sure how to piece them together into a coherent strategic plan. Given the real potential for global disruptions and the volatility of fluctuating demand and supply, businesses that aren't proactively investing in and growing supply chain partnerships are especially vulnerable.

To help companies better understand the forces that are driving changes in supply chain collaboration, the study provides a three-step process to identify, assess, and communicate a path toward collaborative advantage. These include:

**1. Introspection:** A company's philosophy, which consists of two building blocks: customer orientation and systems thinking orientation.

**2. Supply chain design:** A corporate methodology including these five steps: scanning, mapping, costing, competency/outsourcing management, and rationalization.

**3. Supply chain collaboration:** Practices employed to drive transformation, which include relationship alignment, information sharing, performance measurement, people empowerment, and collaborative learning.

## UP THE CHAIN
### PEOPLE ON THE MOVE

Berwyn, Pa.-headquartered **Tyco Electronics** named **Michael Robinson** *(pictured)* as the company's senior vice president of operations. Robinson joins Tyco Electronics after a 27-year career at United Technologies Corporation (UTC), where he most recently served as vice president of operations for the Residential and Light Commercial International business at UTC's Carrier Corporation. At Tyco he is charged with leading the company's strategic purchasing, manufacturing, logistics, and quality assurance functions as well as Six Sigma and lean process improvements. ■ In an effort to roll out a company-wide strategy focused on centralizing and optimizing the operational and financial performance of its supply chain, **Hertz Global Holdings** has appointed **John Thomas** as executive vice president, supply chain management. In his new role, he is responsible for procurement, including the worldwide car and equipment rental fleets, as well as logistics, asset disposition, and real estate. Thomas joins Hertz from R.R. Donnelley where he most recently served as group senior vice president, business process outsourcing. Prior to R.R. Donnelley, he managed the supply chain for two General Electric subsidiaries, including the company's flagship Aircraft Engines business. ■ **Collective Brands** has promoted **Darrel Pavelka** to executive vice president, global supply chain. In this new role, Pavelka oversees all aspects of getting products to market–including product development, sourcing, logistics, merchandise planning, allocation, and inventory management–for approximately 220 million pairs of shoes annually for the entire Collective Brands organization. Most recently, Pavelka served as senior vice president, global supply chain, for Payless ShoeSource.

# Freight payments a puzzle?

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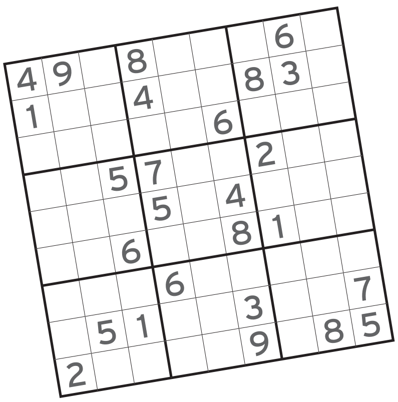
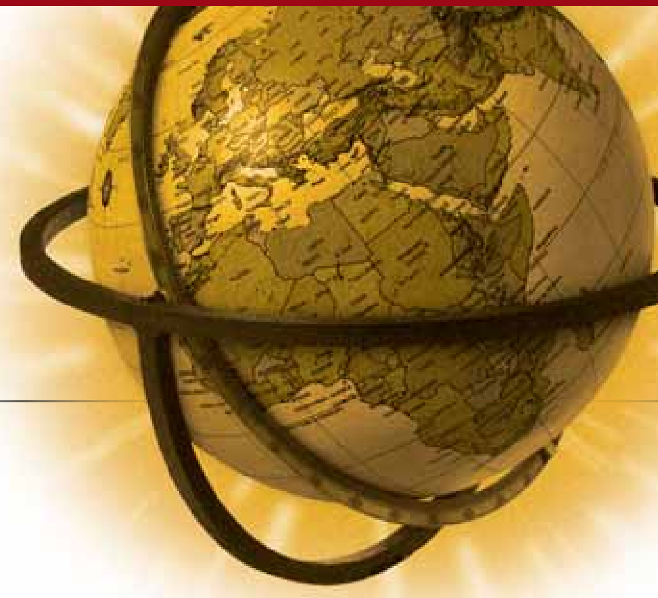




# GLOBAL LOGISTICS

by Joseph O'Reilly

## U.S. Ports Get Green Light For Global Green Ship Mandate

Plans to ensure that the international ocean freight industry pilots a sustainable course for the future received a shot in the arm recently. At its U.S. Legislative Policy Council meeting in Norfolk, Va., the American Association of Port Authorities (AAPA) got the go-ahead from its member ports to advocate for setting new, tougher air emission standards for both foreign and domestic ships. The emissions-limiting agenda sought by AAPA follows a U.S. government proposal for more stringent international rules for ocean-going vessels.

"As stewards of the coastal environment, our member ports feel strongly that their seaport operations should be the cleanest they can be, so they have empowered AAPA to advocate for limiting the emissions that ships produce," says Susan Monteverde, the AAPA's government relations vice president.

**U.S. ports and the U.S. Environmental Protection Agency are steering the International Maritime Organization toward adopting more stringent vessel emission requirements.**

"What AAPA recommended, and our members approved, is for the association to work with the Environmental Protection Agency (EPA) to support its proposal to the International Maritime Organization to adopt more stringent vessel emission requirements as part of the international MARPOL Annex VI treaty," she adds.

The recommendation calls for strict emission limits for particulate matter and oxides of sulfur, beginning in 2011; limits on new engines to achieve oxides of nitrogen reductions of at least 15 percent beginning in 2011 (compared to existing emissions levels); and phased-in requirements on "legacy" engines (built before Jan. 1, 2000) to achieve a 20-percent oxides of nitrogen reduction starting in 2010. The approach to cut emissions is through a combination of new fuel standards in certain coastal areas and new engine system standards.

AAPA members agreed to support the EPA in its quest to set new international standards for oxides of nitrogen for tier two and tier three ships' engines, new standards for particulate matter and oxides of sulfur for all vessels, and standards for oxides of nitrogen for existing vessels.

CONTINUED FROM PAGE 25

"Our member ports were clear that they want their association to take on the challenge of limiting ship emissions worldwide," adds Monteverde. "Considering that emissions from ocean-going ships are predicted to grow by more than 70 percent over the next 15 years with the expansion of global trade, our members believe it is imperative to take a strong stand on this issue."

## Dubai Goes to Maritime School

Capitalizing on its growing reputation as an intermodal global crossroads, Dubai is taking elementary steps to growing its human logistics resources in the maritime sector. Dubai Maritime City (DMC), the world's first purpose-built maritime center, recently announced plans to construct an academic center in concert with the International Association of Maritime Universities (IAMU). On completion, the Maritime Education University will be a fully comprehensive education, training, and research institute for maritime science, and will play a key role in creating a labor pool for the global maritime industry.

"The shortage of qualified manpower in the maritime industry today is of enormous concern, as it affects the industry's seagoing, management, and educational components," says Amer Ali, CEO of Dubai Maritime City.

Tentatively, the university will offer an array of full-time and short courses, covering at least 10 disciplines including maritime law, maritime engineering management, maritime IT and logistics, environment management, ship management and operation, and ocean energy technology, among others. The 88,500-square-foot facility will also be affiliated with a research and development institute to assist graduate students with their studies.


**Officials from Dubai Maritime City and the International Association of Maritime Universities recently signed a memorandum of understanding to complete a feasibility study for the construction of the Maritime Education University in Dubai, UAE.**

## Logistics Providers Sharpen Focus On Mexico

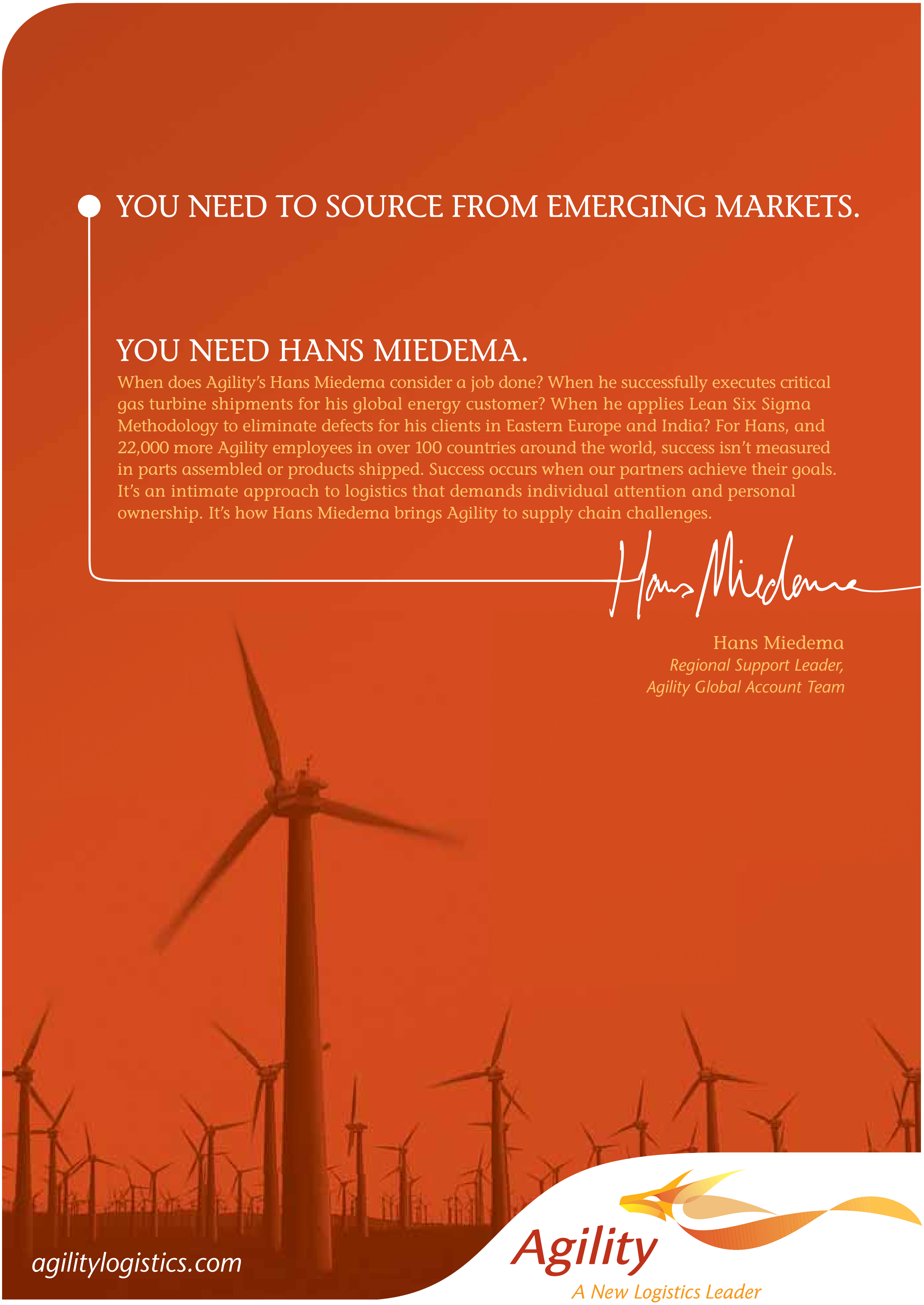
The quest to reduce global transport costs is causing stateside consignees and shippers to consider bringing outsourcing and procurement activities closer to home. In anticipation of a race for the border, logistics providers are expanding their services in Mexico.

Some 3PLs have already created a foothold in Mexico to help shippers move products across the border into the United States more seamlessly and with fewer administrative and operational headaches.

At the same time, some supply chain experts are hinting that in the wake of China sourcing scares and increasing logistics costs, Mexican suppliers may be seeing more business in the near future.

In either case, logistics service providers are making clear efforts to step up their offerings around the U.S.-Mexico border to facilitate transportation within the region. Among recent press rumblings:

- DHL introduced a new cross-border service based out of Harlingen, Texas, capable of handling triple the volume of its previous offering, as well as heavier palletized freight and non-conveyable material. The new service responds to growing logistics needs in the Rio Grande Valley and Northern Mexico regions.
- Con-way Freight recently acquired CFI in an effort to combine the truckload carrier's network and expertise with its own resources, as well as Menlo's in-country and border-based logistics operations.
- Averitt Express opened a new supply chain facility in Pharr/McAllen, Texas–four miles from the U.S./Mexico border. The center's proximity to Mexico enables Averitt to process customer freight and transload goods for nationwide distribution more quickly and efficiently.
- FedEx has expanded its FedEx Transborder Distribution service for cross-border trade between Mexico and the United States by opening new facilities in Ciudad Juarez, Mexico, and El Paso, Texas, to help facilitate the flow of goods.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# Tibet Transportation Reaches New Heights

Marking yet another major notch in China and Asia's expanding transportation and logistics infrastructure capabilities, Tibetan authorities have begun building the region's largest logistics facility to further exploit the potential of the Qinghai-Tibet Railway.

The logistics center, covering 1,317 acres, is located next to a railway station at an altitude of 14,763 feet in Nagqu, northern Tibet. The facility is scheduled for completion within 15 months, at a cost of nearly US $200 million, reports Hao Peng, executive vice chairman of the Tibet Autonomous Region.

The center will handle 2.23 million tons of cargo by 2015 and 3.1 million by 2020, including raw minerals, construction materials, and commodity goods.

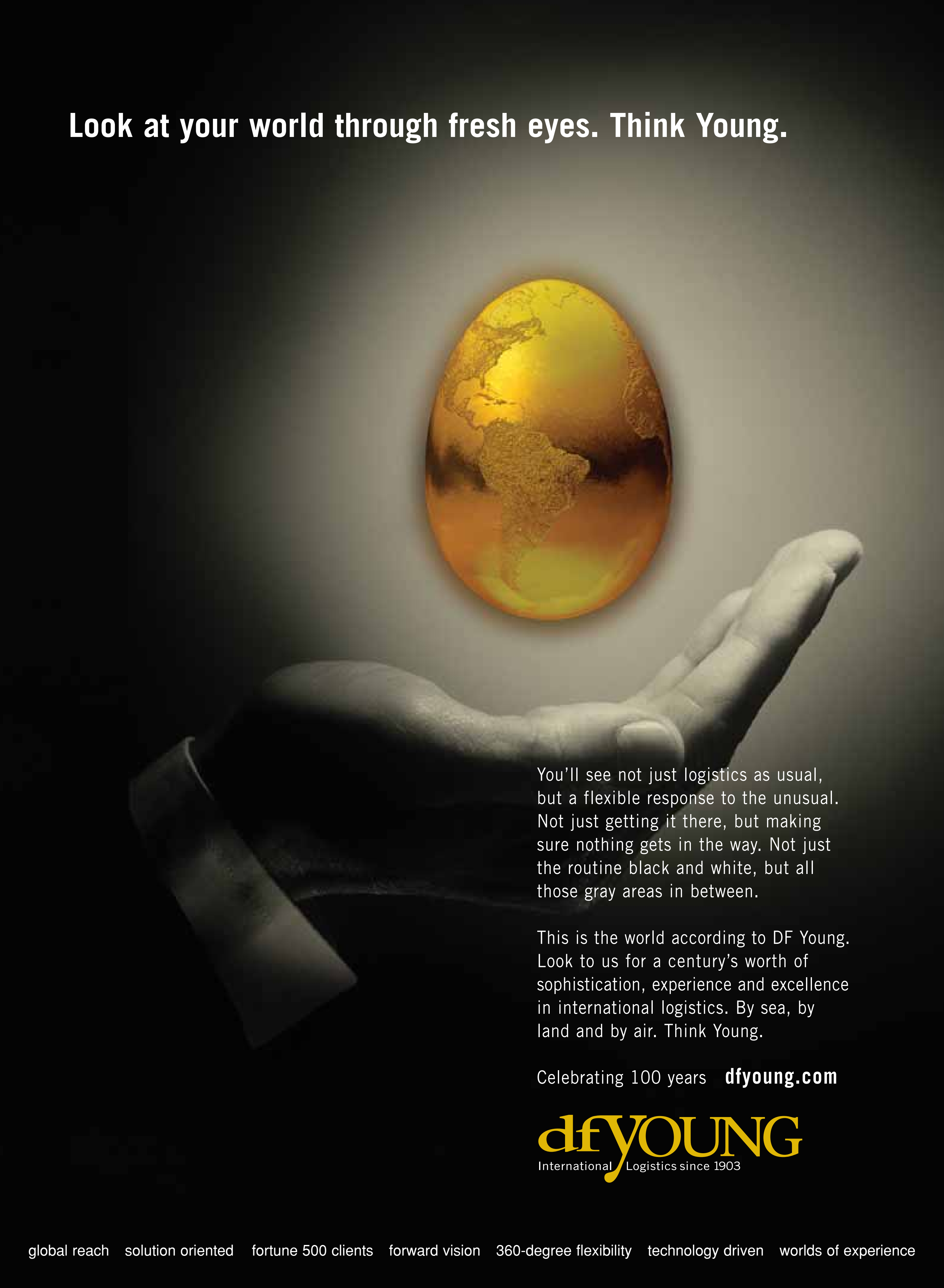
"The northern part of Tibet is rich in natural resources, and the Nagqu logistics center will provide easier access to the resources, which will drive the area's industrial development and trade, and raise its self-development capabilities," says Lu Chunfang, vice minister of railways.

The 1,215-mile Qinghai-Tibet Railway, which opened in July 2006, links Tibet with the rest of China and has greatly expanded the region's economic prospects. Tibet's GDP posted 14.7-percent growth to reach US $1.84 billion in the first half of 2007, the highest increase in the past decade, says the Tibet Regional Statistics Bureau. ■



## GLOBAL SPIN

**Guess Who's Rocking in the Free World?:** The world's freest economy for the 11th year running is Hong Kong, according to the Cato Institute's *Economic Freedom of the World: 2007 Annual Report*. The study ranks 141 economies on policies that promote freedom in five broad areas: size of government; legal structure and security of property rights; access to sound money; freedom to trade internationally; and regulation of credit, labor, and business. Hong Kong is followed by Singapore, New Zealand, and Switzerland. The United States ranks fifth along with Canada and the United Kingdom. The study is released in conjunction with Canada's Fraser Institute and the Economic Freedom Network, a group of independent research and educational institutes in 70 nations ● **Orange Takes on Red Dragon:** In an effort to grow its presence in China, Schneider Logistics recently purchased key operating assets of BaoYun Logistics. The acquisition allows Schneider to further expand its supply chain consulting and transportation and logistics service offerings specifically focused on the domestic Chinese market ● **UPS Digs Into Shanghai:** Elsewhere in China, UPS and the Shanghai Airport Authority have broken ground on the new UPS air hub at Pudong International Airport. Located at the southern end of the West Cargo Terminal Area, the facility will cover one million square feet and be up and running by next year. With an expected sorting capacity of 17,000 pieces per hour, the hub will link all of China via Shanghai to UPS' international network, including direct service to the Americas, Europe, and Asia. It also will connect points served in China by UPS through a dedicated service provided by Chinese all-cargo airline Yangtze River Express.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Deane C. Foote, CEcD, is senior project manager
for economic development and
real estate services, Carter & Burgess.
602-253-1200 • Deane.Foote@c-b.com

# ECODEV

ISSUES AFFECTING ECONOMIC DEVELOPMENT

by Deane C. Foote

## Know Your Freight Costs

Warehousing and distribution continue to be the hottest sectors in site selection. In fact, when researching a five-state region for a client to determine the most active industry sectors, warehousing and distribution topped the list.

This location pattern is taking place nationwide. It is a trend that will continue as retail expansion drives more and more warehousing and distribution center locations.

The economic development world is paying close attention to this trend. What community wouldn't want, for example, the location of a one-million-square-foot distribution center (DC) with its 600 to 800 jobs and $60-million to $80-million capital investment?

As you might expect, competition among communities for these high-profile facilities is fierce and incentive stakes are high.

Eager economic developers constantly ask, "what drives DC location decisions and how can my region do a better job of attracting good projects?" My answer: Understand the industry and sell toward your region's strengths with the right tools.

Part of selling toward your region's strengths means understanding the costs that drive location decisions. These costs include:

- Labor
- Freight
- Land and building
- Taxes
- Utilities

Most economic development groups do a great job providing typical demographic information – work force, wages, taxes, and utility costs – to companies looking to locate. Many, however, do a lousy job of understanding and providing meaningful information regarding transportation costs, the second most important cost factor.

Granted, most large companies looking to locate a warehouse or DC will not turn to an economic development agency to provide a freight cost model. They do this internally, or turn to a professional logistics consulting company for the answers.

But, to compete effectively for a project, economic developers do need to understand freight cost modeling and the differences between their area and other competitor communities. For example, what costs do they need to make up through rate reductions or incentives?

Economic developers can learn all this and complete the modeling with

### A Model DC Model

What goes into a good retail DC freight model? Key components include:

- Service radius definition – generally in the 300- to 400-mile range
- Inbound and outbound ZIP code-to-ZIP code data
- Product volumes (cases, pallets, weight)
- ZIP code, latitude, longitude, city populations
- Rail, LTL, TL, small parcel freight rates

**Inbound parameters include:**

- Sales
- Transportation mode mix (rail, TL, LTL, small parcel)
- Distance from suppliers
- Units per mode
- Rates per mile

**Outbound parameters include:**

- Sales
- Mode mix
- Discount rates
- Units per mode
- Area allocation sales by mode
- Weight per unit
- Product classifications

Once the freight model is complete, and if the right questions are posed, this important data should be available from the company seeking the location.

## What drives DC location decisions? How can regions attract good projects? Understand the industry and sell toward your strengths with the right tools.

the help of a good logistics/site selection consultant.

Many small distribution companies that have not done their own freight modeling, or need to verify their own model numbers, could benefit from the help of a savvy economic developer who understands and can provide freight cost modeling. This professional consultation could mean the difference between winning and losing an important project.

The results of your freight cost modeling will reveal a number of factors that are valuable to economic developers helping companies seek or verify freight data and/or try to understand freight costs that they are competing against. These factors include:

- Overall inbound and outbound costs vs. select competitors
- Total costs by mode
- Total costs by mileage range
- Weight and unit comparisons
- Insights into inbound costs
- Sales volume (units monthly/yearly)
- Mode volume and distances
- Mode rates
- Insight into outbound costs
- Mode mix
- Discount rates
- Sources, distances, and modes
- Sales allocations by region/mode
- Costs per pound/unit vs. competing regions

Along with model data, economic developers must have a good handle on other operating costs, and have the ability to display these costs in a spreadsheet and report format.

Data on competitors is also essential. Important comparison data includes:

- Wages and salaries
- Labor availability and quality
- Real estate availability and costs
- Taxes
- Utilities
- Cost of living/relocation
- Incentives

Armed with this valuable arsenal of information, professional economic developers are ready to go to battle to win the best DC prizes. Freight model tools may well make the difference. ■

Mike Sadowski is CIO of
Odyssey Logistics & Technology Corporation
203-448-3818 • mikesadowski@odysseylogistics.com

# ITMATTERS

by Mike Sadowski

## Web Services Add Sizzle to Shipper–LSP Integration

Emerging Web services promise to revolutionize the way companies and logistics service providers (LSPs) integrate. I am not talking about accessing a Web site using a browser, but secure system-to-system service requests sent over the Internet that can link enterprises, allowing a company to utilize third-party Web services as a seamless part of its own business processes.

Using Web services, a shipper can access an LSP's functionality or data from within the ERP system and get a reply, typically in less than one second. The shipper then has the flexibility to integrate the Web service into its business process.

For example, a shipper's customer service representatives (CSRs) often need to quote freight costs. With an LSP's freight cost Web service, the shipper can issue a call from its ERP's order management module to the service provider's system. The LSP's system replies with the estimate, which the CSR can quote to a customer.

Additionally, the shipper has great flexibility in how it uses this data. If the shipper wants to apply a markup to the freight cost in its own system before quoting the cost to the customer, it's easy enough to do so.

Before Web services, the shipper might have had to ask for a quote by phone, then wait for a response. Or it might have used an estimated rate stored in its ERP system. This could differ from the real rate, resulting in surprises when the bill arrived. At worst, the shipper might have estimated conservatively, possibly jeopardizing a customer's business with an overpriced quote.

### IMMEDIACY AND ACCURACY

With a Web services-based integration to their LSP, shippers can access an accurate freight cost estimate when it counts most – when they are talking to customers. Such an approach also alleviates the need for shippers to store freight rates in their ERP system. Most ERP systems are ill-suited for this purpose.

Perhaps more importantly, managing a freight rates database is an onerous task that is not part of a shipper's competency. This task is best outsourced to the LSP who maintains accurate freight rates as a core business responsibility.

Consider another question customers commonly ask CSRs: "When will my freight arrive?" Again, service reps typically answer this question using static data stored in their ERP system. Transit times can vary across carriers (typically not modeled in the ERP system) and in the real world are constantly changing. The result is inaccurate delivery date promises to customers, possibly resulting in lost business.

Using Web services, shippers can tap into the most current and accurate information provided by their LSP and give customers up-to-date transit time information. Manufacturers can also use this information to improve the accuracy of material resource planning calculations, which are also based on static, and frequently conservative, lead-time estimates stored in an ERP system.

As these examples show, the emergence of Web services gives logistics service providers new opportunities to provide value to their customers; and shippers can more accurately and efficiently share this information with consignees. Web services allow the shipper-LSP partnership to grow more strategic by allowing shippers to integrate LSP-managed information at new points within their business processes.

These techniques can be used to achieve improved customer service by providing timely and accurate data from the LSP to the shipper, while eliminating less-efficient communication methods such as phone and fax. ■

John A. Fitzgerald is vice president,
global sales and marketing, SEKO.
630-919-4800
john.fitzgerald@sekoworldwide.com

# 3PLLINE

by John A. Fitzgerald

## Six Essential Strategies for Selecting a Global 3PL

Today's complex global business environment–with its rapidly advancing technologies, emerging world markets, and vastly extended supply chains–places increasingly critical decision-making demands on logistics professionals.

In a world gone global, the challenges of providing seamless supply chain solutions across geographical and cultural boundaries have increased exponentially. Overall logistical requirements, vendor choices, and other dynamic variables can make the outsourced 3PL decision-making process an exercise fraught with pitfalls if not conducted carefully and correctly.

Compounding the situation is the fact that global third-party logistics, driven by increasing international logistics cost factors, is estimated to be a $390-billion industry. There is no indication the number of players providing these service offerings will diminish. This makes partnership decisions for shippers even harder to grapple with.

With these caveats in mind, here are six critical essentials of global supply chain strategy you should weigh, analyze, and consider carefully before selecting your 3PL. Keep in mind: the 3PL's price is seldom the only selection criteria; you must also consider total supply chain costs.

**1. Cultural alignment.** The biggest challenges shippers face today are controlling international supply chain visibility, lead times, and total landed costs–including inventory carrying costs, obsolescence costs, and customer service. So, selecting a third-party logistics provider best suited to meeting their specific and unique global distribution needs, both culturally and operationally, is critical.

Every shipper should ask: "Does my company and the 3PL we will work with share the same values, such as ethics and responsibility; and can we understand and agree upon what the specific nature of the partnership arrangement will entail?" If the two parties cannot agree on these points, the rest of the criteria become moot.

**2. Company infrastructure.** With globalization and new technologies, it is critical that both parties have the physical resources and accessibility to shipment data to meet each other's needs.

In the age of customized one-to-one marketing, supply chain solutions become all about personalized service. If the two partners do not share common capabilities and company resources, a 3PL will not be able to provide proper supply chain visibility, and the shipper will not obtain the necessary capacity and services when delivery of goods is required. If you source from India, for instance, does the 3PL have its own offices in the region to work with your suppliers?

**3. IT capabilities.** IT capabilities work hand-in-glove with company infrastructure. If the shipper and 3PL cannot communicate on the operating platforms they already have in place–whether EDI, XML or the Web–and be responsive to each other's changes in IT structure, it is likely they will not be a good match.

Real-time data sharing and ongoing timely responsiveness is crucial to providing a seamless supply chain. IT compatibility is essential for providing global logistics services such as shipment documentation, purchase order visibility, cross-docking support, and advanced services including forecasting, inventory replenishment, and life cycle management. How fast can the 3PL respond to IT requests?

**4. Ease of doing business.** A supply chain partnership will only be as good as the skills and cooperation its participants bring to it. How flexible is each partner willing to be on items such as exceptions, scheduling, and services? If the supply chain is to be optimized, it's important that both partners work together to empower all participants.

A third-party logistics provider that is right for you will customize services to meet your specific supply chain needs. But it is essential that shippers work closely with their 3PL to share critical shipment and forecast information that will enhance visibility and help optimize the total value chain process.

**5. Metrics.** Cost is always important, as the success of any supply chain partnership ultimately relates back to customer satisfaction. This means that you and your 3PL partner must establish agreed-upon benchmarks for success, and frequently review measurement data to ascertain if the global logistics process is performing well or needs improvement.

This process can involve measuring on-time performance, damages, cost-per-touch, total landed costs, and other metrics. Your metrics should be the 3PL's metrics.

**6. Partnership intangibles.** Value-added customer service-related items can be further enhanced if both parties are able and willing to jointly invest in their common success. It is vital that each partner fully understand the meaning of "global collaboration."

As global trade and IT capabilities accelerate, and trade complexities increase with new cross-cultural regulations, it becomes even more imperative that you give great care to choosing a global 3PL. Selecting the right supply chain partner for your specific distribution needs will dramatically enhance your worldwide supply chain management results. ■

C. Daniel Negron is vice president,
TT Club •201-557-7320
*daniel.negron@thomasmiller.com*

# RISKS & REWARDS

## ISSUES AFFECTING LIABILITY MANAGEMENT

**by C. Daniel Negron**

# Your Services Are Expanding...Are You Covered?

**Q: I am the risk manager for a global logistics company that provides complete door-to-door service. A large part of our operation involves shipping goods by air. While we do have partners, our own employees perform most of our services, including airport consolidation and warehousing. We are insured through a global program that covers most of our logistics operations.**

**My company is now expanding into airport ground handling operations, and I am finding it difficult to work this new operation into our logistics insurance program. Can you explain why insurance companies see such differences in these operations, and can you suggest a solution to my dilemma?**

**A:** The logistics industry has been undergoing a significant transformation over the past few years. Through mergers and acquisitions, many operators have broadened the services they provide to their customers.

This increase in services has brought a corresponding change in the complexion of risks that insurers have been asked to cover. As an operation increases its services, the risks it faces tend to increase as well.

Logistics operators can provide an arsenal of services–forwarding, trucking, warehousing, packing, crating, and consolidating. They can also use any means of transport–land, sea, or air. Their operations and contractual relationships are multifaceted and complex. Add the need to insure their risks through domestic policies in foreign countries, and you can appreciate that structuring a comprehensive program creates a logistics problem of its own.

Then mix airport ground handling operations into the equation and you're bound to hit more obstacles.

Airport ground handling operators, typically called fixed-base operators (FBOs), provide a mixed bag of services, including aircraft loading/discharge, aircraft positioning and cleaning, catering, passenger boarding, ticketing, and numerous other related activities. Virtually every airport has a need for these services, which are insured separately from the risks of the airports themselves.

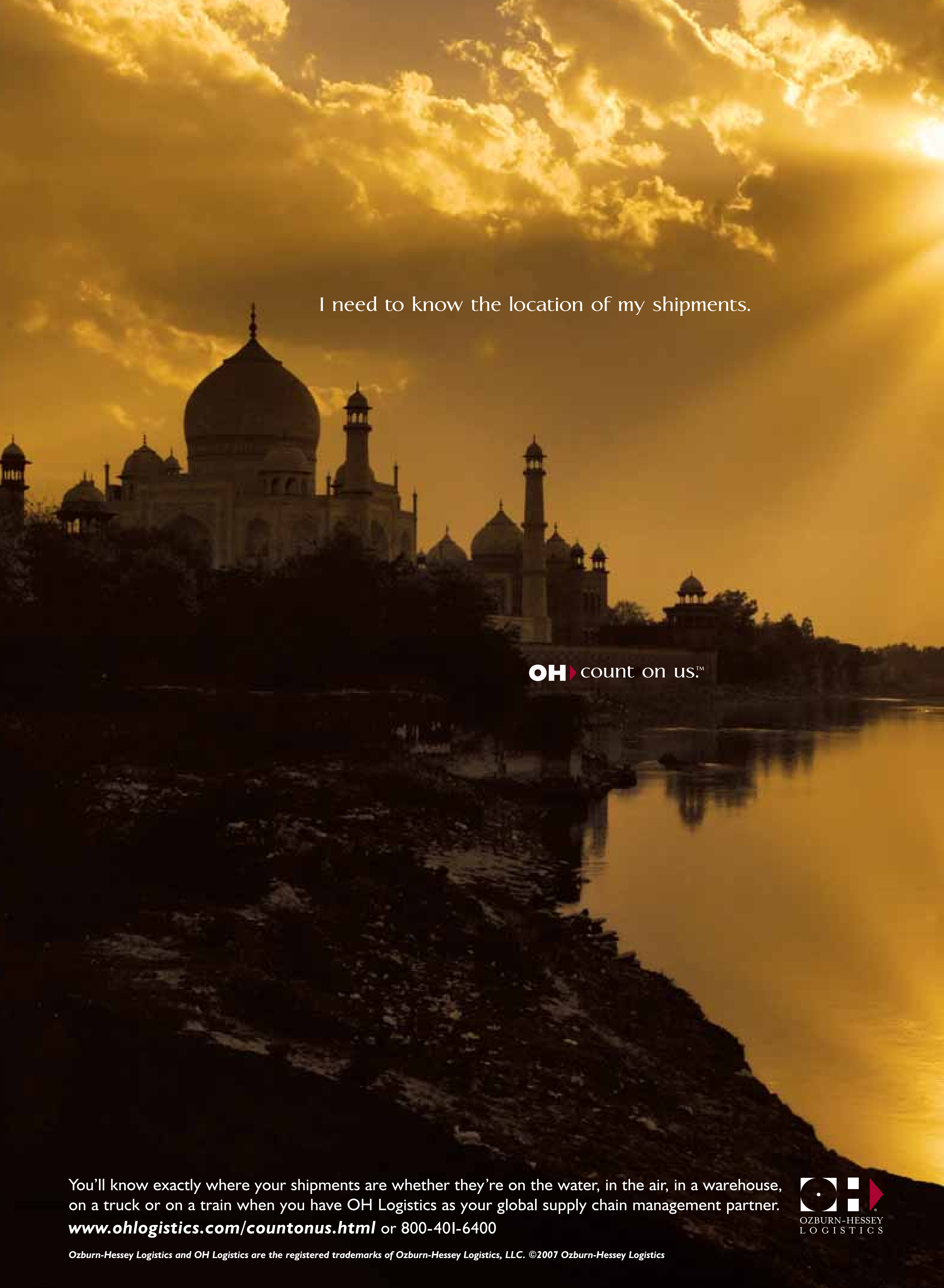
While logistics industry risks are generally insured in the marine insurance market, airport ground-based risks tend to be insured through the aviation insurance market. Although aviation has its roots in the marine industry, marine and aviation insurance operate independently of each other. This might be part of the reason for your dilemma.

But while airport ground-based operations differ from forwarding, warehousing, and other logistics activities, they do share maritime parallels. In the marine world, forwarders consolidate, warehouse, and transport cargo. Terminal operators transport passengers, operate lounges, provide ship catering, handle luggage, shuttle crews, clean septic systems, and provide other related activities. Ship agents provide husbandry, fueling, maintenance, and other vessel services to the steamship lines. Although the regulatory framework and verbiage may differ, these services are similar to those FBOs provide.

### THE AVIATION/MARITIME DIVIDE

Insurance for these operations also has its rough equivalents–hangarkeeper's liability for aircraft push-back operations, or a wharfinger's legal for ship mooring operations, for example. In the past, these risks were insured separately from each other, but this is changing. In an effort to provide a broader range of coverage, especially to companies whose services cross multiple disciplines, some insurers have become specialists in international trade and transport, and provide packages that straddle the aviation/maritime divide.

Ask your insurance agent to speak with an international trade and transport specialist. This will help you find an insurer who can satisfy your needs. ■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Richard Metzler is chief commercial officer,
Greatwide Logistics Services
*dick.metzler@greatwide.com* • 972-682-2250

# VIEWPOINT

by Richard Metzler

## The Shipper Empire Strikes Back

Sitting in the cab of a Class-8 truck provides a great real-time view of the country's landscape, as we saw in the American Trucking Associations' (ATA) recent ad campaign. Sitting across the table from a present or prospective shipper, however, may present the best view of the future for both carriers and shippers.

Today, transportation buyers and sellers are cautiously watching multiple indicators, trying to interpret how market metrics might impact shipping prices.

Some point to a recent positive swing of nearly four points in the Institute for Supply Management Manufacturing Index as a sign of better times to come for trucking. Yet, a negative 580 basis point drop in consumer confidence, according to the Conference Board, suggests rough roads ahead for trucking and 3PL providers.

While history will not provide a guaranteed view of our economic future, it does provide necessary perspective.

The beginning of this decade was largely defined by the Sept. 11 terrorist attacks. Beyond great personal tragedies, the general economy was impacted by the level of shock and surprise that engulfed the country. Yet, the market recalibrated following the attacks, and much like the overall economy, 3PL providers enjoyed significant growth.

Until mid-2006, one main challenge shippers faced was finding substantial truckload capacity, while worrying about potential cost and quality concerns. Across town, trucking companies were focusing on expansion of overall capacity, driver supply, and other issues to meet increasing customer demand. As every shipper vividly remembers, the intersection of tight supply, high demand, and wildly fluctuating diesel prices drove shipping costs up.

### TRUCKING DEMAND DROPS

More recently, this trend has decidedly reversed. Housing starts and consumer confidence have been down, and new car sales charts will look like a dead man's EKG until at least 2008. Diesel costs have risen significantly, weather has been a rollercoaster ride, and some view a presidential election without an incumbent as another uncertainty.

These conditions have collectively reduced demand for a wide range of commodities and finished goods and, by extension, for trucking.

No question about it, shippers are increasingly seeking to roll back transportation price increases of the past several years. That shouldn't be a surprise, and is somewhat understandable – "somewhat" being the key word.

If one accepts the overall cyclical nature of the U.S. economy, however, and that the national population is not declining, then one fact remains – demand for trucking and other 3PL services will increase over time. The ATA's prediction of 111,000 net heavy-duty truck driver vacancies just seven years from now – requiring 435,000 driver hires to cover the turnover factor – may be low. Further, ATA Chief Economist Bob Costello predicts a 31-percent increase in freight traffic by 2017, despite the driver shortage, increased traffic congestion, and stricter Hours-of-Service (HOS) regulation.

The heavy-duty driver shortage will begin returning toward summer 2006 levels by the end of this year, and the situation will get worse and never – let me reemphasize – *never* get better in our lifetime. You may think I also believe that tighter capacity of this nature is good for truckers because it drives prices up. Prices probably will rise, to some degree. Yet, I believe what's good for the shipper is what's best for trucking.

Political pundit James Carville

CONTINUED FROM PAGE 38

made a brilliant point during President Clinton's first campaign when he rallied his team around the mantra, "It's the economy, stupid." Today's economy is causing the shipper empire to strike back. C-levels are heavily pressuring their logistics managers to exact a pound of flesh from the trucking industry.

While not surprising, it may not be the way to optimize one's position in 2008 and beyond. You may not believe that some shippers are trading part or all of their short-term rate concessions for capacity commitments later on, but they are.

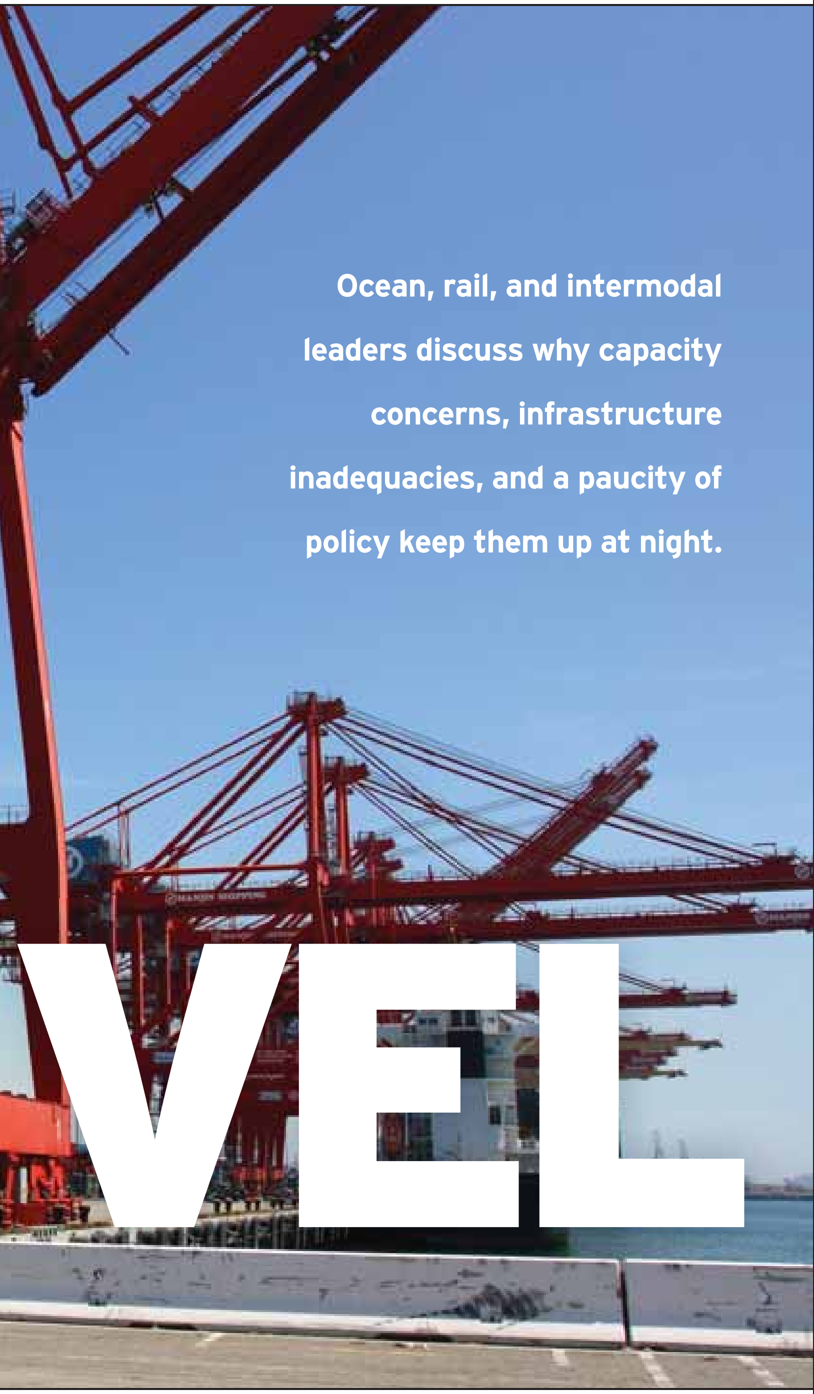
There are no silver bullets, but from my perspective, I'll settle for "sucking less" than what we saw in early 2006. Here's what you have to believe to think that capacity is not going to tighten soon and forever: that there's a fundamental weakness in the U.S. economy; that we'll be able to clone and attitudinally reprogram the white male 35- to 44-year-old demographic of today's heavy-duty drivers; that most of the "mossbacks" who see the romance of the road can be convinced to not retire; and that the government will add massive highway capacity and ease emission and HOS regulations. Anyone who believes all of that should seek immediate medical attention.

It's time to put aside uncontrollable macro economics and have trucking companies and shippers collaborate on business and financial relationships that extend beyond the next hill. Committed relationships between shippers and transportation providers can facilitate movement from the generic, commoditized low-value world to the collaborative, differentiated, and value-added shipping universe. Customers want their goods dependably and economically transported, regardless of 3PL supply-and-demand variables. Logistics providers want predictable loads and projectable revenue. Taking the longer view creates more shared wins.

This approach reduces the potential for disruptions that could result when shippers lose preferential positions in the transportation supply by making one or more tactical moves to save money, only to be in a "first out, last in" situation when supply and demand curves resync. For truckers and 3PLs, more strategic customer relationships mean increased focus on innovative solutions that bring better efficiency and effectiveness to the table.

While the Rebel Alliance and the Galactic Empire may make for exciting entertainment, the trucking and 3PL space is no place for battle. ■


# LOGISTICS AT SEA LE

# VEL

**Ocean, rail, and intermodal leaders discuss why capacity concerns, infrastructure inadequacies, and a paucity of policy keep them up at night.**

by Lisa Harrington

The U.S. intermodal container industry faces challenges that, if not met effectively, could negatively impact the nation's long-term economic well-being.

The first challenge is managing the ripple effect caused by a significant disparity in trade with China, the rest of Asia, and many other global trading partners.

"The United States' large inbound containerized trade, as opposed to small and lower-valued trade outbound, creates major imbalances in the flow of transportation assets," notes Richard Bank, president, Millennium International Consultants, Washington, D.C., and counsel to Thompson Coburn LLP.

The second challenge is the country's increasingly inadequate domestic infrastructure to support long-term global trade growth. And third, the United States offers little in the way of a national intermodal infrastructure policy, coordination, strategy, or means for development – "and we are, and will be, suffering the consequences," Bank says.

Intermodal leaders have a lot to say about these issues. In a series of interviews, they share their thoughts, concerns, and opinions about the present and future of the U.S. intermodal sector.

Analysts predict that **foreign imports will double** by 2017.

are slam-dunk, easy solutions. But without improved productivity across the supply chain, the rails will not be able to handle increased freight volumes for the foreseeable future.

## Supply Chain As a Team Sport

**PETER KELLER,** President, NYK Lines (North America)

How can the U.S. intermodal network continue to cope with freight volumes that grow in excess of 10 percent each year? Good question.

Unless we start to look at the supply chain as a team sport, we will not make serious progress in improving productivity. We are all trying to run a supply chain that starts in mid-China and ends in the mid-United States. We have to do that as a team.

It's time to take a fresh look at how supply chain partners deal with one another and manage handoffs. When we bring containers off-ship, for example, we need the railroad right there, on the dock. That is much more productive than having draymen haul individual containers to a container yard.

Shippers have a stake in this team. They can't continue to use the supply chain as a means to store inventory in transit. Suppose we have 10 containers coming in for a consignee. We know they'll arrive Tuesday, two weeks from today; the consignee knows that as well. But when the containers are delivered, the consignee does not vacate them for 10 days. That creates problems for carriers and service providers trying to redeploy those assets.

We are making progress, though. Organizations such as the Waterfront Coalition, chaired by senior professionals who have strong knowledge of the rails' role in the supply chain, understand that without cooperation, the rails' ability to continue to fuel this economy is in jeopardy.

The entire supply chain needs to work harder to become as productive as possible. No one is suggesting that there

## As Rails Evolve, Infrastructure Lags

**STEVE BRANSCUM,** Group Vice President, Consumer Products, BNSF Railway

Less than one year ago, the hot topic in the rail industry was how to handle the tremendous explosion in trade. Today, we're looking at a very different picture. The U.S. economy has slowed down, driven by a housing and automotive downturn, and high fuel prices. Today, the hot question is: 'How long, how deep is the slowdown?'

Despite the current economic downturn, intermodal's long-term prospects are bright. One major business driver during the past five years was the transition of manufacturing to China thanks to low wage rates. A large disparity between wages in China and the rest of the world still exists, creating a tremendous opportunity to better utilize the country's huge work force for some time to come. The benefits of China sourcing will continue for decades.

With regard to U.S. transportation infrastructure, the Minneapolis bridge collapse is a perfect example of what we have been saying for some time – we are not spending what we should on our infrastructure. The bridge collapse will, in all likelihood, effectively block the trucking industry's efforts to raise truck weight limits or allow longer combination vehicles on more roads. This means that ultimately, to handle increasing cargo volumes, more freight will have to move by rail.

For many reasons, more long-haul trucking business will shift to rail. Trucking will become more of a short-haul, pickup and delivery provider. Rail will play a bigger role in providing linehaul service.

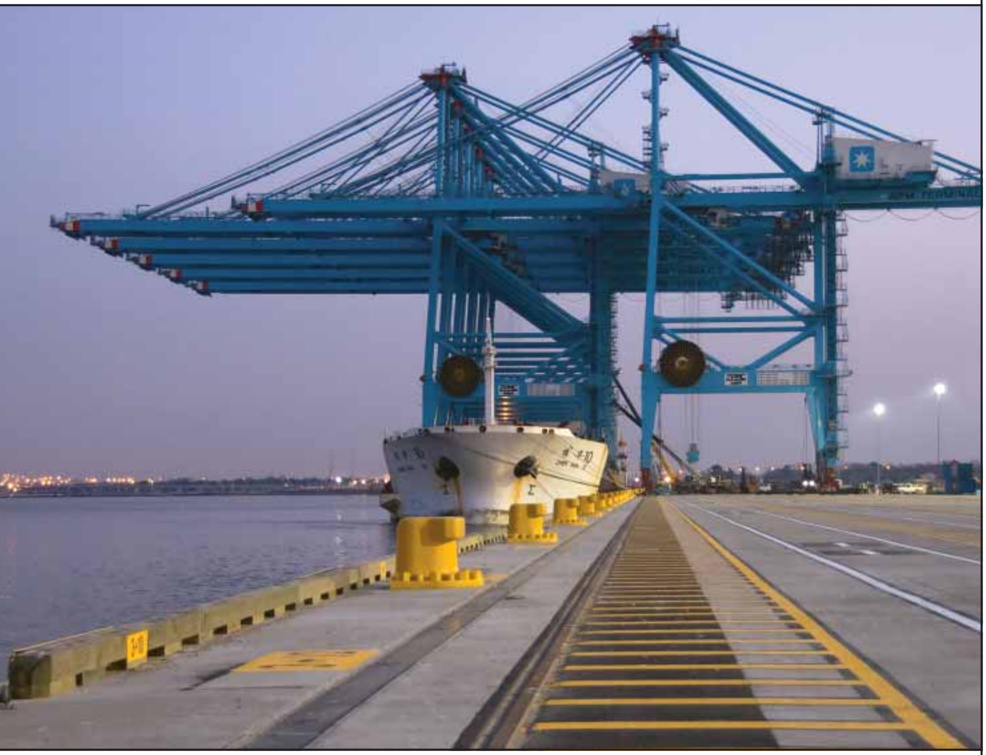
But the rails' current capacity is not sufficient to handle this evolution.

We need to focus on how the United States will build the infrastructure to support growth in transportation demand. The U.S. Department of Transportation must better coordinate planning across modes. The rails also should pursue mode-specific ideas for funding new infrastructure, and driving productivity both in individual modes, and across modes.

The industry is trying to reduce the congestion that results when ships arrive at ports at the same time. Ports and railroads are working to develop more on-dock rail, and to eliminate or reduce truck drayage traffic.

What many fail to recognize, however, is that U.S. port and freight activities are part of an immense network, and should be managed accordingly. This is not happening.

Yet, in the face of all these challenges, companies are getting smarter at managing risk. Companies that have been affected by risks such as hurricanes, trading scandals, earthquakes, and fires are building simulation scenarios to understand how these supply chain disruptions could play out. They are modeling the effects of those events so they can improve decision-making.



## Manage the Network

**JADE RODYSILL,** Senior Manager, Supply Chain Practice, Accenture

Forecasts show that many East Coast ports will hit capacity shortly after their West Coast counterparts. Charleston is predicted to be the third-most congested port by 2012. While added port development in Mexico and Canada will come online over the next few years, creating additional capacity, that is an incremental solution.

One by-product of greater congestion is a decline in carrier on-time performance. A recent study shows carriers operated 46 percent on time in 2007 (Q1), compared to 57 percent on time in 2006 (Q1), an 11-percent drop year to year.

This lack of predictability in a constrained environment will make matters worse. The truck driver labor market is very tight, forcing carriers to pay more for drivers. Most carriers are not making as much money as they used to, so they can't invest in transportation infrastructure.

Port facilities are constrained, and it takes longer to work the larger ships because they require more land and gantry crane time, often delaying departures. Many ocean carriers are making multiple port calls, and if they hit a constrained port first, the rest of the trip is delayed.

One by-product of port congestion is an **11% drop in carrier on-time performance** from 2006 (Q1) to 2007 (Q1).

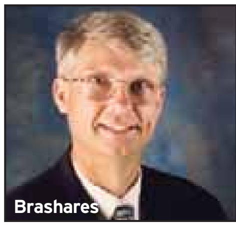
## Forecast Calls for More Planning

**JEFF BRASHARES,** COO, Pacer International's Logistics Segment

To be more efficient domestically, intermodal providers need better forecasting from customers about consumer demand. Without good forecasting, service providers have no effective way to plan box assets.

Forecasting is difficult, but to continue to take cost out of the intermodal supply chain, service providers have to find better ways to forecast the use of assets.

Shippers are better at planning now than they were 20 years ago. But we have much less capacity today than we did in the 1980s and 1990s.


Brashares

Back then, a shipper could call us and ask for 100 containers over the weekend. Today, there aren't 100 containers available. Planning has to improve or shippers won't get a box to move their products.

## The Watchword? Capacity


Hertwig

**JAMES HERTWIG,**
President, CSX Intermodal

Capacity continues to be the watchword for the transportation industry and intermodal sector.

Industry analysts predict that foreign imports will double by 2017. Foreign-produced goods currently enter the United States via West Coast ports and travel to the population centers of the East by rail and truck.

An increased burden on West Coast port facilities, driver shortages, and highway congestion – coupled with the increasing cost of doing business thanks to higher port access fees, Clean Air Act compliance, port security, and TWIC (Transportation Workers Identification Credential) cards – will cause steamship operators to change their business models. Freight volumes will migrate from West Coast ports to all-water services to the U.S. East Coast via the Panama and Suez Canals.

Much of the intermodal service growth will come from industry expansion in Western China and the Indian peninsula. These operational changes could add three to four days to the supply chain. Shorter inland transit times and reduced port congestion, however, could offset the lengthening chain.

Major intermodal interchange points for Class I rail carriers will see even more rail and intermodal traffic. Railroads are currently working to increase capacity at these points through projects such as double-stacking containers, lengthening rail sidings, and double-tracking main lines. Public-private partnership projects – such as CREATE in Chicago, which is designed to maximize the use of five train transportation corridors – also are addressing capacity expansion.

# THE 100% RULE

In the dog days of the Washington, D.C., summer, President Bush signed into law a piece of legislation with far-reaching ramifications for the ocean shipping community. *H.R. 1: Improving America's Security Act of 2007* states that within five years, 100 percent of all containers bound for the United States must be scanned for weapons of mass destruction before they depart their port of origin. The containers also must be secured with a seal that meets standards established by the Secretary of Homeland Security.

Ports that are unable to comply within the five-year time frame could receive a two-year extension from the U.S. Department of Homeland Security.

Just days after President Bush signed *H.R. 1* into law, László Kovács, European Commissioner responsible for Taxation and Customs Union, condemned it, insisting that it will damage trade, place an unfair and significant financial burden on European Union ports, and require major restructuring of port operations.

The World Shipping Council opposes the statute as well, charging that it:

- Fails to define who will perform the scanning.
- Fails to define who is to purchase, operate, and maintain the technology.
- Fails to address health and safety issues relating to the use of the scanning equipment.
- Fails to seek or obtain the necessary cooperation of other governments.
- Fails to "practice what you preach" – the U.S. government does not perform this function on export cargo, scans virtually no U.S. export containers, and has no plans to do so.
- Fails to define the scanning requirement – for example, what to do with the scanning data generated, whether or when to transmit the data from the scanning equipment to the U.S. government, or who is to analyze the data generated.
- Fails to address who is responsible for analyzing the scanning data.

"These are fundamentally important issues with difficult operating protocols and significant costs associated with them – all of which the legislation does not address," the World Shipping Council states.

## Rails Turn The Corner

**BRIAN MCDONALD,** Vice President-Intermodal, Union Pacific

After struggling with capacity issues for the past few years, the rails have turned the corner on their ability to handle trans-Pacific trade by investing heavily in infrastructure.

Long term, trans-Pacific trade will see significant growth. Short term, a continued need for inland point intermodal service, and service growth projections, indicate the rails will enjoy a robust market.

The railroads, ports, and ocean carriers have focused on maximizing on-dock loading. Our priority is to keep on-dock facilities fluid and resources flowing. We develop rail schedules that coincide with vessel schedules, and work with ocean carriers to optimize train length and train slot utilization.

At the same time, we see greater demand for transload service–the process of transferring product from ocean containers into domestic intermodal, or over-the-road trailers.

Transloading does have its down side, however. It removes the on-dock intermodal rail option, puts additional pressure on container handling capabilities, and increases demand for truck services in ports and port areas. This generates additional concerns about highway congestion, safety, security, air quality, and other issues.

> Terminals are not expanding as fast as demand for capacity, creating **a less reliable intermodal system** for a U.S. economy dependent on foreign sourcing.


## A Man on a Mission

**JOHN BOWE,** President, APL Americas

The U.S. economy has undergone dramatic change in the past few years, particularly regarding containerized imports, creating many challenges for the intermodal transportation system. Marine container terminals are not expanding as fast as the demand for capacity, while governmental, environmental, and physical factors limit their ability to grow.

This has created a less reliable intermodal transport system for supporting a U.S. economy ever more dependent on foreign sourcing. As a result, East Coast ports have grown rapidly, with ships coming all-water from Asia through the Panama Canal.

But the Panama Canal is just at capacity, marking yet one more route that has become congested and nearly saturated for handling containerized imports.

More recently, APL and other ocean carriers have begun to use the Suez Canal as an all-water option; APL recently launched a Suez Express service covering southeast Asia through the Suez Canal.

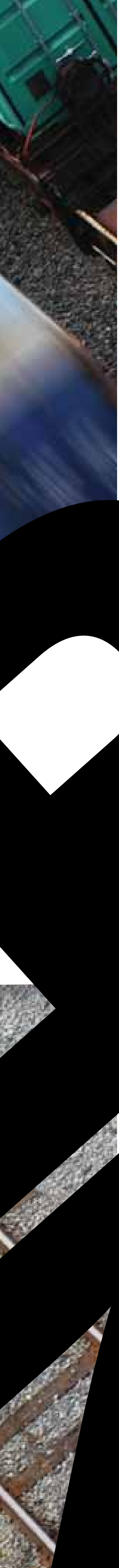

Bowe

Broad consensus shows that the U.S. government will not invest large sums to increase transportation fluidity. But the federal government could take the lead through tax policy to encourage private investment.

To get this message out, we visited federal agencies such as the Department of Transportation and branches of the White House domestic policy group. We brought some large shippers with us–those with many employees and billions of dollars in sales, representing major parts of the U.S. economy. Our message was: 'Something needs to be done. The lack of transportation fluidity affects our ability to serve customers, and will ultimately drag down the U.S. economy.'

# ROCK

**For years the rails sang the blues. Now they rock around the clock. Could rail transport soon be the leader of the pack?**



# RAIL

by John Edwards

For an industry with its roots in the 19th century, and that hit its heyday in the mid-20th century, railroads are still showing lots of life. New customers, emerging technologies, and a refreshed physical infrastructure are all helping to inject new energy into an industry that not so long ago appeared to be rolling into history.

"The railroad industry is probably as healthy today as it has been in the last 30 years," says Patrick Hiatte, general director of corporate communications for Burlington Northern Santa Fe Railway (BNSF), Fort Worth, Texas.

Yet as the nation's railroads ride the express track into the 21st century, they also face a series of fresh challenges that threaten to derail recent advancements. A year-long traffic slump, shipper complaints, and the threat of tighter regulations are among issues dogging rail carriers' future.

"The crystal ball is still cloudy," says Deb Butler, executive vice president of planning and chief information officer for Norfolk Southern, Norfolk, Va.


### Why Rail?

Commodity, volume, and geography typically mandate a shipper's decision to use rail.

"Rail is most often used to move bulk commodities such as coal, chemicals, and agricultural products shipped from origins and to destinations that are rail-served," says David A. Riddell, marketing manager, RSI Logistics, a third-party logistics provider headquartered in Okemos, Mich.

In recent years, improved intermodal service has made rail transportation a viable option for more products, helping rail carriers attract new customers. "Intermodal shipping can be utilized for all commodities, from consumer goods to bulk liquids traveling in specialized containers," he observes.

Likewise, an increase in transloading terminals has allowed rail carriers to service shippers who may have otherwise relied exclusively on truck transport.

"Many shippers are not rail-served, but are able to utilize rail by going through transloading terminals," says Riddell. Such terminals offer shippers the benefit of long-haul rail combined with the speed and flexibility of local truck delivery, he notes.

Cost is another major factor companies take into consideration when deciding whether to ship by rail. "There is a good chance that rail transit costs will be lower than truck for distances greater than 600 miles," Riddell says. "And, because of their weight or other handling requirements, many commodities are better suited to being moved via railcar."

Railcars can hold up to 220,000 pounds while trucks are generally limited to 44,000 pounds. "Railcars can also act as temporary storage for large quantities of material," he adds.

### Riding High

Thanks to decreased regulation, higher trucking costs, and increased Wall Street interest, railroads are basking in the glow of a new golden era. "Based largely on the effects of the Staggers Rail Act of 1980, railroads are able to get sufficient ROI to continue investing in business," says Hiatte.

The Staggers Rail Act essentially deregulated the rail industry, replacing a byzantine regulatory structure that had existed since the 1887 Interstate Commerce Act. For the first time in nearly a century, railroads were permitted to determine where they ran trains and how much to charge.

Yet it took railroads more than two decades to take full advantage of their deregulated market. Unlike the airline industry, which was deregulated just two years earlier in 1978, high up-front costs and limited profitability potential spared established rail carriers from price wars with startups. Instead, the Staggers Act spurred rail carrier consolidation and helped the then-struggling industry's remaining companies to control more miles of track and eliminate pesky competitors capable of driving down tariffs.

**The promise of greater intermodal efficiency and accountability has more shippers considering rail as a viable option for transloading container freight in and around congested ports.**


**A Competitiveness**

Bayport is projected to triple the container capacity of the Port of Houston. Providing efficient and cost effective service to customers, it uses the most modern fleet equipment to date in the industry.

**B Meeting demand**

By the end of 2007, Bayport is expected to have reached a capacity of 400,000 TEUs. At full buildout Bayport's peak capacity will be 2.34 million TEUs.

**C Respecting the environment**

Bayport opened as a ISO 14001 facility, setting a new stands for stormwater, noise, and emissions for Gulf Coast container facilities.



# the PORTfolio

Located in the industrial complex along the Bayport Ship Channel and adjacent to Galveston Bay, the Port of Houston Authority's Bayport Container Terminal accessibility to rail and highway transportation system will make it a preferred port of call. Bayport's additional phases will be built incrementally over the next several years.


**In an effort to increase speed, throughput, and capacity, U.S. railroads such as BNSF are looking at doubling track in high-volume corridors and investing in and utilizing more double-stack container trains.**

"Beginning in 2004, the demand for rail transportation exceeded the ability of the railroad industry to provide service, putting enormous pricing power in the hands of the railroads," says Robert G. Szabo, executive director, Consumers United for Rail Equity (CORE). The Washington-based organization is a coalition of rail freight customers seeking changes in federal law and policy that would require railroads to provide competitive pricing and more reliable service.

Steadily growing revenue enabled the remaining major rail carriers–CSX, BNSF, Norfolk Southern, and Union Pacific–to upgrade their physical and technological infrastructures, which were greatly neglected during the industry's long dark period.

"Improvements to tracks, railcars, terminals, intermodal centers, and other parts of the physical infrastructure have contributed significantly to rail's revival," Hiatte says. "We've had some room for expansion capital, which in recent years has amounted to several hundred million dollars, largely because investing in rail infrastructure is now seen as a competitive use of funds."

## Making Tracks

To boost both speed and capacity, railroads are currently on a track-building spree. "They are not covering new territory, but are doubling up on tracks in many areas," says Anthony B. Hatch, a New York-based independent rail industry analyst.

BNSF, for example, is currently laying in the final stretch of second track on its Chicago-to-Los Angeles transcontinental line.

"Two tracks cover the entire 2,200-mile distance, with the exception of about 50 miles," Hiatte says. "We will fill in that gap over the next few years."

Rail carriers are also moving quickly to catch up with technology. "Technology is becoming prevalent in the rail industry," says Matthew Menner, senior vice president of sales and alliances for Transplace, a 3PL based in Plano, Texas.

Most rail carriers have upgraded their internal information technology systems, installed wireless tracking and communications technologies, and are now using advanced locomotive and railcar management systems to slash maintenance costs and extend equipment lifetimes.

"Technology currently touches nearly every aspect of rail operation, right down to helping workers figure out where to repair tracks," Menner says.

BNSF views technology as a key competitive tool. "We have implemented technology that expedites shipments at the hub centers, for example," Hiatte says. "Gate workers use handheld devices that print tickets showing incoming drivers exactly where they need to drop off their trailer or container."

Outbound, drivers visit a kiosk to receive a printout telling them where they can find their trailer or container for pickup. BNSF also uses a variety of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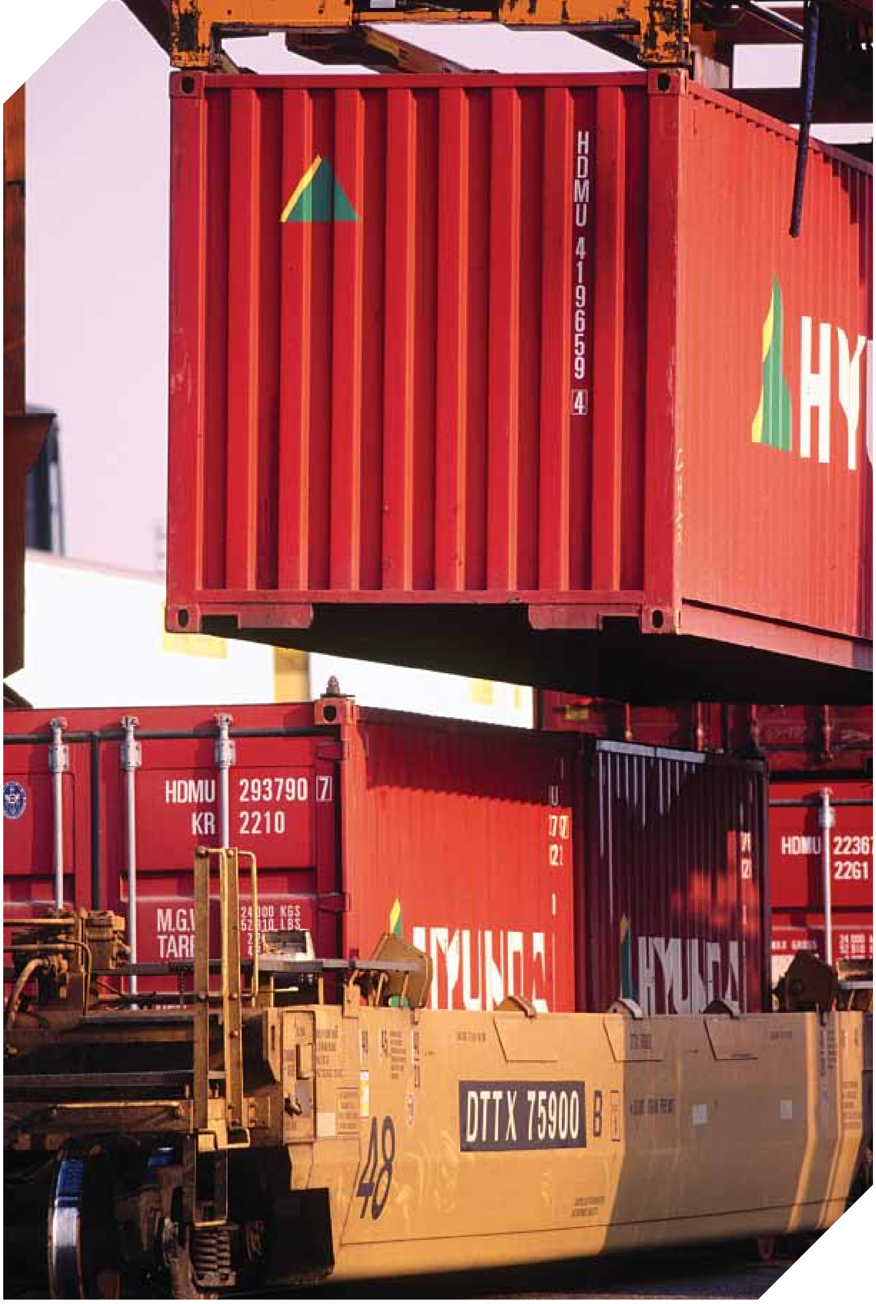



**Though the economy's downturn has reduced rail freight volumes, forecasted GDP growth of 3.4 percent for the second quarter of 2007 is an encouraging sign that traffic will rebound.**

Web-based e-commerce applications, RFID tracking, and a railcar ordering system protected by voice authentication security.

"Rail is going through a renaissance," Menner says. "Not only has it become fashionable to use rail for coal, grain, and other traditional commodities, it's also challenging trucking. Thanks to the evolution of intermodal, significant volumes of freight–usually high- to moderate-value products–are now moving at least part of the way by rail."

But not everyone is pleased by the railroads' new prosperity. Take industry critic Szabo, for instance.

"Today, the four major railroad companies are darlings of Wall Street simply because they possess the pricing power that comes when demand for rail service exceeds the ability of the railroads to provide that service," he charges.

Over the last few years, the four major railroads have spent $6 billion to buy back their stock. "Hedge funds are now buying into the railroads, and new aggressive investors are demanding that they double their rates in the next decade–because they have that kind of pricing power," Szabo adds.

### Traffic Slowdown

While rail's long-term potential appears bright to many observers, the industry's immediate outlook is somewhat dimmed by declining traffic. For the first eight months of 2007, total U.S. rail carloads were down 3.5 percent, reports the Washington-based Association of American Railroads (AAR).

Year-over-year traffic is down in most commodity categories, including crushed stone, sand, and gravel (down 10.6 percent); coal (down 1.6 percent); and motor vehicles and equipment (down 6.7 percent).

"While the current reluctant economy continues to soften rail traffic volumes, a recent preliminary GDP figure of 3.4 percent for the second quarter of 2007, up from 0.6 percent during the first quarter, is a hopeful signal of a return to more solid expansion," says Craig F. Rockey, vice president, AAR.

On the other hand, railroads aren't hurting too much from the diminished traffic because they have a free hand to raise rates, particularly on coal and chemical shippers who have limited or no other transport alternatives. "These firms are literally held captive by the rails," says Szabo.

Starting in early 2004, rail rates began to rise. "They're up because the railroads can raise the rates," Hatch says.

But shipper complaints may be unjustified because rates have stayed low for a long time. "Companies were used to paying less, and now that they're not, they have an axe to grind," he adds.

But higher tariffs may actually be contributing to the current slump. "Truck transport rates have become more competitive over the past year, and more shippers have converted lanes from rail to truck this year compared to previous years," says Riddell.

But despite recent rate increases, rail remains "the most cost-effective mode for transporting bulk materials over long distances," he says.

### Return to Regulation?

While rail carriers have been left to play free in the market since deregulation in 1980, some signs point to the government taking more of an interest in the industry and its practices.

"Proponents don't like to call it

're-regulation,' but it does come down to imposing regulatory barriers," says Norfolk Southern's Butler. "It would roll back the deregulation that came about in the 1980s, and add guidelines to the rates charged."

But changes in government oversight are already happening, including two significant Surface Transportation Board (STB) rulings this year, and more recently, Rep. James Oberstar's (D-Minn.) proposed legislation to introduce price controls and control rail network access. The first STB decision declared that it's unreasonable for railroads to compute fuel surcharges that do not correlate with actual fuel costs for specific rail shipments.

"This ruling led carriers to adopt mileage-based fuel surcharge programs for most publicly priced carload shipments," Riddell says. "While that made the system more fair, it also added an administrative burden as shippers needed to build the mileages into their freight cost models."

The second STB ruling on Sept. 5, 2007, changed the rail rate dispute process for small and medium-size shipments.

"Previously, only the largest shippers could afford to bring disputes before the STB," Riddell explains. "That is no longer the case. One facet of this ruling allows shippers of any size to use an expedited resolution process with a $150 filing fee to recover up to $1 million."

**Moving Forward, Not Backward**

Despite these recent decisions and Rep. Oberstar's pitch, Menner doesn't see a return to the days of tight government control over railroad pricing.

"Railroads have come under increased scrutiny over mergers and reciprocal switching, and some shippers do feel that the railroads 'have their way' with them," he says. "But I don't think we are heading back to anything even resembling the old days."

Still, one area where rail carriers would like to see more government involvement is the distribution of money. The railroads are currently asking Washington for a 25-percent tax credit for investment in expansion. Szabo describes the request as an "unneeded bailout"; Hiatte calls it "a necessary investment for the future."

If rail carriers play their cards right, they can make significant gains on the trucking industry over the next few years, Menner says. "Rail still has a lot to offer," he notes. "The United States faces significant roadway infrastructure challenges, as well as driver shortages, fuel supply issues, EPA emission requirements for engines, and more."

But Szabo believes that the outlook for businesses that rely on rail shipments isn't quite so rosy. "The rail industry in the next few years is likely to look a lot like the current rail system unless there is further consolidation, which will result in even less competition," he says.

For his part, Hiatte sees nothing that points to a reduction in demand for rail services: "Considering the issues truckers have to deal with–highway congestion, land use, and air quality–it seems evident there will be a continuing need to rely on rail transportation." ■

Bulk containers and 55-gallon drums continue to duke it out. Bulk containers are the heavyweight favorite, but the venerable drum has not yet gone down for the count.

# DRUMBEA

**by Gregory DL Morris**

After making slow progress against the traditional 55-gallon drum for moving small-volume liquid shipments, intermediate bulk containers (IBCs) and intermodal tank containers (ISO tanks) are starting to accelerate their gains. To be sure, drums are still the prevalent form for chemicals, food ingredients, lubricants, and coatings. But more than two decades after being introduced, IBCs and ISO tanks now account for as much as one third of the market.

Chemical producers say there are gains in safety, efficiency, and cost when they have to fill, move, and load fewer vessels. Distributors are also enthusiastically converting, at least

# ATERS

for inbound logistics. The sticking point seems to be consignees, especially smaller companies that are set up for receiving and handling drums. Many see the logic and potential for operational savings, but are hesitant to spend the time and money to reconfigure their plants and retrain personnel.

The tipping point, say container manufacturers, may be that slow growth has reached the point where their economies of scale in production are starting to reduce costs. Over the next few years, those lower capital expenses may accelerate the conversion of drum handling systems to IBCs.

"The 55-gallon drum is still our primary method for moving industrial chemicals, accounting for about 80 percent of shipments, but we are making a slow transition to IBCs," says Tom Meulendyke, purchasing manager for packaging, third party, and transportation at Ashland Inc., Columbus, Ohio.

"Choosing IBCs over drums is an economic, safety, and environmental trend," he says. "The volume of four or five drums fit into an IBC, which reduces the number of drums moving into the waste stream."

Container integrity is of paramount importance to both chemical distributors and carriers, even when the contents are not hazardous. A drum leaking a product as benign as corn syrup, for example, can still contaminate other shipments in a warehouse or trailer.

## Making the Choice

As both a major producer of industrial chemicals, solvents, and lubricating oils, and one of the largest chemical distributors in North America, Ashland is a large motor freight shipper.Meulendyke works with his LTL carriers to decide what type of shipping container to use.

"The choice is driven by economy–selecting the container that offers the lowest cost to the shipper, and the most efficient inventory management to the end customer," he says. "Yes, IBCs and other large containers provide potential cost savings. But often a small customer has been using drums for years and is not set up to handle IBCs. The container decision has to balance flexibility and efficiency, and be a win-win for both the shipper and customer."

Canada Colors and Chemicals, Don Mills, Ontario, is both a manufacturer and distributor of industrial chemicals. "Chemical producers often assume responsibility for transport of their own materials in tankers, barges, railcars, and trucks; they rarely handle packaged materials," notes Marty Byron, the company's manager of western operations.

"Over the years LTL carriers improved two vital parts of their business," he says. "First, they learned how to safely handle the various containers that distributors use daily. Second, they learned what to do when one is damaged. Twenty years ago, LTL carriers didn't know what to do with a leaking drum. Today they not only know what to do, but have over-pack containers available to mitigate any incidents."

That said, Byron notes that tote tanks now play a an important role in chemical distribution. "Where the standard-size drum leaves off, the tote tank picks up the slack," he says.

Tote tanks are available in steel, polymer, stainless steel, aluminum, single trip, and special shapes, sizes, and capacities. They are easily tuned to a customer's exact requirements for batch sizes. In commerce they are suitable for re-use without testing for extended periods, and are less susceptible to handling damage. And, it is easy to track a tote tank's usage history, leading to improved quality control.

IBCs account for approximately 25 to 30 percent of Canada Colors' business, Byron estimates, and could eventually reach as high as 40 percent of the company's total container traffic.

Specialized container makers are not shy about promoting their products, especially now that more shippers and carriers are familiar with them. Another leg up for container manufacturers is that economies of scale are starting to reduce costs. The entire IBC domestic market runs to about $1 billion, says Mike Spurrier, vice president of sales and marketing for Snyder Industries, Lincoln, Neb., one of the country's largest IBC makers.

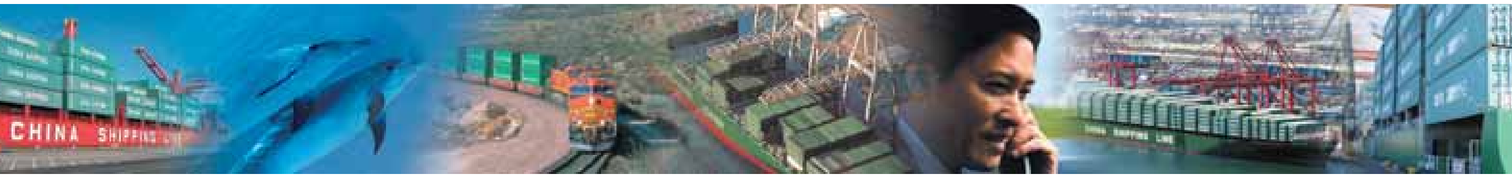
## Many Happy Returns

"We only make returnable containers, which deliver the best cost ratio over their lifetime. In 20 years, one returnable tote can make hundreds of trips," says Spurrier.

Returnable containers replace thousands of drums, and save the time and money to test, load, secure, and clean them. And, because IBCs are usually used in orbits–carrying the same commodity from the same manufacturer–they need less cleaning.

One of the most common IBC sizes is the 330-gallon unit. "It is equal to six

**Intermediate bulk containers (IBCs) are gaining popularity among shippers for economic, safety, and environmental reasons.**





drums," explains Spurrier. "It fits on one pallet and can be handled by one forklift. It has a bottom drain, and can be stacked for safe handling and loading."

Most disposable IBCs are made of polyethylene, but reusable units are made of polymer with walls up to half-an-inch thick.

"Reusable units are approved by the Department of Transportation (DOT) for hazardous materials," says Spurrier, "and are often used to carry corrosives, acids, and caustics. They are very light compared to steel or composite; that's important when shipping heavy products."

Rules covering IBCs have not been revised since the mid-1990s when the DOT harmonized domestic rules with United Nations regulations. The European Union, however, has allowed some limited re-use of disposable IBCs.

"The returnables have been most popular for moving chemicals, petrochemicals, solvents, paints, and electronics chemicals," Spurrier says. "They have been adopted more slowly for moving non-DOT-regulated materials such as foodstuffs and lubricants."

## Tanks Alot

Schneider National Bulk Carriers, Green Bay, Wis., runs approximately 1,500 tank trailers that have three or four discrete compartments for LTL bulk liquid shipments. About 5,000 of the carrier's 84,000 annual loads are compartment-sized shipments.

"We move a variety of materials in those compartment trailers," says George Grossardt, vice president and general manager of Schneider National Bulk Carriers. "The compartments have a variety of linings, from steel to rubber. We have also experimented with composite tank trailers, but they are very expensive to buy."

Drums or IBCs offer shippers more flexibility than compartmentalized tank trailers, Grossardt acknowledges. But the trade-off is having a driver certified and trained in handling hazardous materials, and the economies of scale of Schneider's national, long-haul system.

While LTL carriers are happy moving either IBCs or drums, some note that drums require extra work to pack and load.


**Lightweight, durable, and corrosion-resistant, IBCs can be made from either plastic or steel, and are available in a variety of shapes and sizes.**

For example, "a pallet of drums may be attached to the pallet with just shrink wrap," says Neil Smith, vice president of operations for Con-way Freight's western division. "That is usually not sufficient. Our drivers are trained to surround the sides and top of the load with plywood, and to block and brace it. A lot more work is involved."

The former custom of loading drums on pallets at the tail of the truck for safety reasons has also been revised. "The tail of the trailer is susceptible to forces three times that of the nose," Smith notes. "While the loads are easier to get to in the tail, we now load drums on pallets in the nose to reduce jostling."

Con-way has seen slow, organic growth in liquid and dry bulk traffic in recent years, from a small shipper base. "We do solicit some of this business, but it depends on the shipper and the region," says Smith.

## ISO Will Grow

One of the more interesting ideas in liquid containers has so far proven to be among the most challenging to implement. The intermodal tank container, or ISO, is a short, fat tank inside a steel frame that allows it to be moved like any 20-foot box container. ISO tanks are common in Europe and Asia, but have yet to make a breakthrough in North America.

Still, growth has accelerated, and later this year the largest operator of ISO tanks, Stolt-Nielsen, will promote its tank-container operations as part of a stand-alone subsidiary rather than its global tankers and terminals operation.

"We estimate the size of the ISO global fleet at approximately 200,000 tanks," says Michael Kramer, managing director and soon-to-be president of Stolt Tank Containers, Houston. "The fleet has been growing at an annual rate of about five to six percent since 2000."

Tank containers average an 18- to 20-percent savings over drums. "The main advantage of a tank container is that it can handle more cargo weight in a 20-foot box, compared to drums," Kramer says. "On average, a drum shipment weighs about 16 to 18 metric tons, versus a tank container, which ranges from 20 to 24 tons."

In addition, tank containers "require significantly less handling, are safer to move, and offer more security," Kramer notes. "Tank containers also eliminate waste in terms of lost product, and help reduce pollution because drums no longer have to be disposed of in land fills.

"Small containers, such as tote bins, are slightly more competitive than drums, but tank containers still represent significant savings," he adds.

Internationally, tank containers have been operating into and out of North American markets since the early 1970s. Volume is substantial and represented in every geographic region.

Globally, the United States represents approximately one-third of total demand, according to Kramer. That proportion has declined in recent years due to the increase in activity in markets such as Asia, South America, and the Middle East/Indian subcontinent.

A much different picture is painted in North America. It has long been thought that domestic tank containers, moved by truck/rail/truck, could represent a huge market and a means to meet customer requirements for shipments traveling more than 500 miles.

Stolt-Nielsen has tried to grow the U.S. domestic market since the early 1980s, with varying degrees of success.

"We made significant progress prior to the railroad consolidations," says Kramer. "But we lost ground to trucks as service on the rails eroded because we are competing in a just-in-time market with very high standards. Once we managed to regain service levels, rates became the issue, with higher rail costs making intermodal options less desirable."

Additional obstacles include "the rails dictating strict terms and conditions for moving on intermodal stack trains, access to rail ramps, and a recent move to push chemical cargo into trucks," he adds.

As with any transport mode, equipment is both generic and specialized. Tank containers are no different. There are small tanks for very heavy cargo; high-pressure or high-heat tanks for difficult cargo; gas and electric tanks for cargo that needs to be heated; and reefer tanks to handle cargo that needs to be cooled.

Another distinction between IBCs and tank containers is that IBCs are bought by the shipper and used or reused by the shipper's own logistics department. While some large chemical producers also own or lease a fleet of tank containers, it is most common for the shipper to contract with a global ISO tank operator to buy a turnkey transportation service.

"We own a majority of our tank containers," says Kramer. "We deliver the empty to the customer, buy all the services–highway, rail, or steamship transport–and deliver to the consignee's schedule."

Some industry players are surprised that ISO tanks have not become more popular in North America.

"I think that people will begin to see the benefits for shipments that are not time-sensitive," says Byron. "Our small branch brings in about 20 or 30 ISO tanks a year, and we save about $5,000 per unit over road transport." ■

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UASC vessel, *Al Abdali,* on her approach to the Port of Savannah
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# WMS

# PLUG IN & POWER UP

**As U.S. businesses look offshore for new opportunities to expand their enterprise, they are faced with the challenge of ensuring that stateside distribution centers and warehouses are properly wired.**

The U.S. DC has become a vital supply chain conduit, capable of matching demand currents to supply flows; or as the case may be, a supply chain circuit breaker that can detect demand fluctuations or exceptions and locate alternate channels to ensure seamless and efficient product movement. To meet these emerging requirements, WMS vendors are engineering solutions with the buyer in mind. So, for example:

- An automotive component distributor, with a lot of moving parts in its product line and within its supply chain infrastructure, can choose a WMS that integrates with its ERP system and can drive lean process protocol.
- Brick and mortar retailers staging inventory closer to supply may prefer a best-of-breed solution that has inbound tracking capabilities and automatic alerts to aggregate information and drive efficiencies in the truck, at the dock, and on the pallet.
- Beverage distributors with high-volume throughput may require a WMS with load management and optimization capabilities that can facilitate break-bulk consolidation at a cross-dock facility.
- Or an e-tailer, operating a mega DC, might opt for a more robust warehouse inventory system with sophisticated pick/pack and labor management capabilities to scale up for the holiday season.

Whether demands are vertical-specific, dictated by existing ERP systems, or based on cost and complexity, WMS vendors are saturating the market with solutions and implementation services to steer and facilitate warehouse investments.

At the same time, buyers need to be judicious and discrete as they research, pilot, and select the perfect WMS solution.

To help provide some clairvoyance, *Inbound Logistics* canvassed leading vendors to aggregate an informational directory of WMS solutions and capabilities. How can a WMS recharge your supply chain? Turn the page and find out.

# [WMS] PLUG IN & POWER UP

| COMPANY | PRODUCT | WHAT IT DOES |
|---|---|---|
| **Adonix**<br>*Sewickley, Pa.*<br>adonix.com<br>724-933-1377 | **Adonix Geode Warehouse Management System** | Meets the needs of mid-sized enterprises with large transaction volumes and sophisticated warehouse practices. An incremental step for companies needing more specialized functionality than available in standard ERP systems, but wanting to limit the number of vendors used to obtain back-office and warehousing capabilities. |
| **ASC Software**<br>*Dayton, Ohio*<br>ascsoftware.com<br>937-429-1428 | **ASCTrac WMS** | Engineered to support the demanding requirements of warehouse distribution and manufacturing operations, its modular design is an ideal fit for any size organization. ASCTrac interfaces to any financial system and is capable of covering the whole supply chain cycle from order entry, through pick, pack, and ship operations. |
| **Cadre Technologies**<br>*Denver, Colo.*<br>cadretech.com<br>866-25-CADRE | **Cadence WMS** | Helps manage receiving, put-away, location management, product/SKU management; lot, serial number, and date control; order processing; picking/packing; replenishment; cycle counting/inventory control; ERP interfaces; equipment interfaces to pick-to-light, conveyor and sortation; and WMS Web access to warehouse performance. |
| **CAPE Systems**<br>*South Plainfield, N.J.*<br>capesystems.com<br>908-756-2000 | **CAPE eWMS** | Allows users to incorporate best practices across all supply chain operations. Provides real-time insight into all warehouse operations and inventory availability and is designed for deployment in any industry. The system includes integral RF support as well as support for the CAPE Systems Order Fulfillment products. |
| **Catalpa Systems**<br>*Chicago, Ill.*<br>catalpa-systems.com<br>312-663-3658 x208 | **Core2–Warehouse Management** | Designed to efficiently schedule and execute dock activities; receive and put-away inbound shipments; pick and load outbound shipments; support and prioritize tasks; and manage inventory across multiple warehouses. |
| **Catalyst International**<br>*Milwaukee, Wisc.*<br>catalystinternational.com<br>800-236-4600 | **CatalystCommand Warehouse Management** | Manages all aspects of DC/warehouse operations from receiving and put-away to order selection, picking, loading, and shipping. Built on an open, modular technology platform, the system features standard interfaces for easier installation and tighter integration between user systems, applications, and equipment. |
| **CDC Software**<br>*Atlanta, Ga.*<br>cdcsoftware.com<br>770-351-9600 | **IMI Warehouse** | Plans, controls, and monitors all physical processes for warehouses or DCs. Performs all tasks in real time, adapting quickly to resource constraints and priorities as well as coordinating interdependent warehouse and transportation activities. |
| **Compliance Networks**<br>*Sugar Land, Texas*<br>compliancenetworks.com<br>877-267-3671 | **Retail Distribution Management Solution (rDMS)** | Built from the ground up as a retail-specific warehouse management solution, rDMS features retail industry best practices to give users a single software platform providing 360-degree visibility into the supply chain. From vendor docks to the showroom floor, it provides the information retailers need to compete effectively. |
| **Click Commerce**<br>*Chicago, Ill.*<br>clickcommerce.com<br>800-899-2641 | **Click Commerce WMX** | Based on service oriented architecture (SOA), it allows companies to efficiently integrate with third-party systems, reducing implementation time and costs. The solution incorporates configurable, rules-based business processes, which gives companies flexibility to adapt their warehouses to changing conditions. |
| **Datex International**<br>*Clearwater, Fla.*<br>datexcorp.com<br>800-933-4159 | **Datex EX WMS** | With its complete warehouse distribution operations functionality, it features RFID terminal support, extensive administration tools, and a drill-down approach to managing labor and requirements forecasting. |

| COMPANY | PRODUCT | WHAT IT DOES |
|---|---|---|
| **Epicor Software**<br>*Irvine, Calif.*<br>epicor.com<br>949-585-4000 | **Epicor Warehouse Management** | Provides the basic tools to create warehouses within its iScala warehouse management function and manage goods within those warehouses. It extends this capability by adding support for consignment and vendor-managed warehouses, containers, serial numbers, batches, quality control, bins and batch traceability. |
| **HighJump, a 3M Company**<br>*Eden Prairie, Minn.*<br>highjumpsoftware.com<br>800-328-3271 | **Warehouse Advantage** | Utilizes wireless and bar-code technology, such as RFID, for quick fulfillment through directed, optimized workflow. It executes processes such as receiving, put-away/flow-through, inventory management, order processing, replenishment/pick/pack, loading, and shipping. |
| **HK Systems**<br>*New Berlin, Wisc.*<br>hksystems.com<br>800-HKSYSTEMS | **HK Warehouse Management Software** | Addresses the needs of manufacturers, distributors, and their 3PL partners with the capability to track and control the flow of raw materials and finished goods across both production and distribution operations. The system prioritizes, directs, and confirms activities based upon real-time conditions and space constraints. |
| **Infor**<br>*Alpharetta, Ga.*<br>infor.com<br>800-260-2640 | **Infor SCM's Warehouse Management** | Enables users to see what inventory is or will be available, organize work and align resources and labor to satisfy customer requirements, and optimize fulfillment and distribution processes to ensure that products are delivered on time and in full. The result is supply chain management with end-to-end fulfillment. |
| **Infosite Technologies**<br>*Boisbriand, Quebec*<br>infositetech.com<br>888-395-0354 | **DM Warehousing** | Automates customer-specific charges by cycle; handles re-pack, cross-docking, and storage; manages customer inventory, perpetual counts, annual counts, and adjustments; controls stock rotations; allows user-defined warehouse planning; and generates all documents – packing slips, bills of lading, etc. |
| **Interlink Technologies**<br>*Perrysburg, Ohio*<br>interlinktech.com<br>800-594-5160 | **WHSe-LINK (Warehouse Link)** | Offers technology and functionality to support all warehousing activities. Specifically, it provides a turnkey solution that includes WHSe-LINK software, system integration, hardware, training, and support. |
| **IntelliTrack**<br>*Hunt Valley, Md.*<br>intellitrack.net<br>410-771-3060 | **IntelliTrack Warehouse Management System (WMS)** | Available in three versions, it maximizes efficiency and optimizes labor productivity in warehouses of all sizes. Each version provides the basic functions for warehouse operations, including physical inventory, shipping, receiving, and picking, as well as management features such as queries, reporting, and bar-code labeling. |
| **IQMS**<br>*Paso Robles, Calif.*<br>iqms.com<br>866-FOR-ERP2 | **IQMS Wireless Warehouse Management** | Simplifies inventory management by eliminating time-consuming data entry. Users manage inventory movement with wireless technology so they can enter the transaction as it happens on the plant floor, on the forklift, at receiving, at shipping, or anywhere in between. |
| **KNAPP Logistics & Automation**<br>*Kennesaw, Ga.*<br>knapp.com<br>678-388-2880 | **KNAPP Warehouse Logistics Software** | Helps increase warehouse picking performance up to 30 percent by using pick-by-voice and innovative RF terminal solutions. Myriad off-the-shelf features optimize all warehouse processes, and provide a standard interface to all common or home-grown ERP systems to ensure short implementation time and flexibility. |
| **LOG-Net**<br>*Red Bank, N.J.*<br>log-net.com<br>732-758-6800 | **LOG-Net Shipment and Warehouse Management** | Provides operational functionality to plan, receive, process, and invoice warehouse activities. It specifically facilitates: warehouse bookings, receiving, transfers, load plans, and manifests; worldwide view of on-hand inventories; and over, short, and damage exception processing. |

# [WMS] PLUG IN & POWER UP

| COMPANY | PRODUCT | WHAT IT DOES |
|---|---|---|
| **Made4Net**<br>*Paramus, N.J.*<br>made4net.com<br>201-645-4345 | **WarehouseExpert** | Enhances inventory accuracy, maximizes space utilization, and performs order fulfillment to ensure customer satisfaction. It specifically tracks and manages every unit from receiving to the warehouse through its storage, inventory management, replenishment/pick and pack, loading and shipping, and more sophisticated functionality such as billing, cross-docking, and RFID support. |
| **Manhattan Associates**<br>*Atlanta, Ga.*<br>manh.com<br>770-955-7070 | **MA WMS** | Improves warehouse facility layout; increases inventory accuracy; increases order fulfillment and accuracy; calculates item velocity to ensure inventory is optimally located; provides picking, packing, and replenishment tools; increases billing accuracy; and identifies hidden costs of doing business. |
| **Mincron Software Systems**<br>*Houston, Texas*<br>mincron.com<br>800-299-7010 | **Warehouse Manager** | Offers a menu of capabilities that can reduce inventory, fill orders more quickly, improve accuracy, prioritize the movement of the most profitable goods, maximize worker productivity, minimize wasted space, and ensure customer fulfillment. |
| **Motek**<br>*Beverly Hills, Calif.*<br>motek.com<br>323-653-4333 | **Priya WMS** | Controls the entire operation of any warehouse from 100,000 square feet to two million square feet. Using radio frequency mobile computers, it can support 10 to 500 concurrent users, and is engineered to meet all the requirements for retail and wholesale clients, including food and non-food items. |
| **Navis**<br>*Oakland, Calif.*<br>smartturn.com<br>888-667-4758 | **SmartTurn Inventory and Warehouse Management System** | Automates manual-based processes from purchasing to shipping; integrates purchasing with user inventory control to reduce unwanted carrying costs; accelerates the receiving and put-away process of goods from the shipping dock to preferred locations; provides real-time information on the quantity, location, status, and history of every inventory item within the warehouse; and enables companies to commit to more orders and increase profits without increasing the cost of doing business. |
| **Oracle**<br>*Redwood Shores, Calif.*<br>oracle.com<br>800-633-0737 | **Oracle Warehouse Management** | Automates and optimizes material handling processes to reduce labor costs, improve facility utilization, and increase order accuracy. Oracle Warehouse Management supports inbound, outbound, and reverse logistics; finished, raw, and work in process materials; and manufacturing and distribution environments. |
| **Quality Software Systems Inc.**<br>*Oldsmar, Fla.*<br>qssi.com<br>813-855-9416 | **Powerhouse** | Improves inventory accuracy; decreases order processing time; improves customer service levels; reduces put-away and picking errors; improves the use of human and warehouse resources; reduces inventory carrying costs; increases return on inventory investment; reduces shipping errors; and eliminates costly physical inventories. |
| **Radio Beacon/Accellos**<br>*Markham, Ontario*<br>accellos.com<br>905-695-9999 | **Radio Beacon WMS** | Tracks movement of stock into, out of, and within the warehouse thanks to the combination of radio frequency and bar-code technology with a three-tiered, Internet-based architecture. |
| **RedPrairie**<br>*Waukesha, Wisc.*<br>redprairie.com<br>800-990-9632 | **RedPrairie's Warehouse Management Solution** | Optimizes every move enabling lean distribution operations. That means lower distribution costs and happier customers. The WMS offers task optimization capabilities, including embedded 3D mapping and mature SOA technology. |
| **RF Pathways**<br>*Mississauga, Ontario*<br>rfpathways.com<br>905-565-6560 | **RF Pathways Warehouse Management System** | A configurable, standards-based, open architecture design facilitates time-sensitive, mission-critical, and high-volume environments. At home in food processing, manufacturing, apparel and textiles, and distribution industries, RF Pathways is suited to meet the unique needs and business processes of single-site manufacturing companies as well as multi-warehouse environments. |

| COMPANY | PRODUCT | WHAT IT DOES |
|---|---|---|
| **Robocom Systems International**<br>*Farmingdale, N.Y.*<br>robocom.com<br>631-753-2180 | **RIMS (Robocom's Inventory Management System)** | Satisfies the requirements of virtually any warehouse operation. As a browser-based system operating on a variety of platforms, it is an easily maintained application that incorporates the latest technology. It provides a rapid return on investment, immediate cost savings, and increased productivity. |
| **Royal 4 Systems**<br>*Long Beach, Calif.*<br>royal4.com<br>562-420-9594 | **W.I.S.E.** | Features bar-coding and RFID technology, database, hardware, and operating system independence, real-time WMS transactions, multi-site capabilities, as well as various inbound, outbound, and internal functions. |
| **Sage Software**<br>*Irvine, Calif.*<br>sageaccpac.com<br>800-975-5441 | **Sage Accpac WMS** | Automates inventory-handling and order-fulfillment processes, and helps users better manage the supply chain. It works as part of a complete distribution system by interfacing with radio-frequency hardware, bar-code technology, shipping systems, and other warehouse automation equipment. |
| **SAP America**<br>*Walldorf, Germany*<br>sap.com<br>866-379-4715 | **SAP Warehouse Management System** | Offers item management and queries and lets users define unlimited price lists and associate them with each customer or vendor. The software also records prices for unique customers or from unique vendors, and enables users to set quality-sensitive prices. Operates as a stand-alone WMS or in conjunction with SAP's ERP. |
| **Sterling Commerce**<br>*Dublin, Ohio*<br>sterlingcommerce.com<br>800-299-4031 | **Networked Warehouse Management** | Manages fulfillment and distribution across an entire network of diverse facilities, from regional distribution centers to behind-the-store stocking locations. It gives organizations the ability to see the location of all the inventory in their fulfillment network, in real time. |
| **Technology Group International**<br>*Toledo, Ohio*<br>tgiltd.com<br>800-837-0028 | **Enterprise WMS** | Stand-alone or fully integrated, handles environments ranging from electronic distributors to cheese manufacturers. The system architecture empowers users to achieve improved productivity and accuracy, while at the same time maintain ease of use. |
| **TECSYS**<br>*Montreal, Quebec*<br>tecsys.com<br>905-752-4550 | **EliteSeries Warehouse Management System** | Empowers companies to gain control over customer service levels, warehousing costs, order turnaround time, throughput volumes, and most importantly – profits. EliteSeries' integrated real-time WMS enhances enterprise visibility, enabling the warehouse to become an extension of the order desk. |
| **Westfalia Technologies Inc.**<br>*York, Pa.*<br>westfaliausa.com<br>800-673-2522 | **Savanna.NET** | Configurability allows users to choose only the material flow modules they require. Systems can be expanded incrementally with full or partial upgrades. Interface add-ons include pick-to-light, wireless/RF terminals, and pick-to-voice components. |
| **WITRON**<br>*Arlington Heights, Ill.*<br>witron.com<br>847-385-6000 | **WITRON Warehouse Management System** | Offers flexible implementation and comprehensive warehouse functions. Multi-language support for user interfaces enables the same platform to be used internationally. Its data structure drives transparency between all warehouse locations, while still maintaining warehouse-specific conditions. |
| **YRC Logistics**<br>*Overland Park, Kan.*<br>yrclogistics.com<br>877-246-4909 | **YRC Logistics Warehouse Management System** | Improves warehouse operations and optimizes labor, while supporting an enterprise's distribution strategy. It has full-function distribution capabilities, including flow-through, forwarding, and inventory management. And it is EDI, XML and FTP compatible, and can interface with ERP and TMS. |

# SETTING SITES ON TOMORROW

**Third-parties and economic development interests can help businesses look beyond the basics to find sites fit for today and tomorrow.**

WHEN RESTORATION HARDWARE RECENTLY DECIDED TO RESTRUCTURE ITS DOMESTIC DISTRIBUTION NETWORK to coordinate increasing online sales with a new foreign procurement strategy, it began looking for a location to set up a new DC. Following a profitable year, the Corte Madera, Calif.-based home furnishings and hardware specialty retailer wanted to move fast, integrating the new facility with existing distribution installations in Hayward and Tracy, Calif., and Baltimore, Md., while phasing out a third-party-operated DC in Nashville, Tenn.

Restoration Hardware turned to CB Richard Ellis (CBRE), a global leader in real estate services, to manage the site search and vet potential locations.

Partnering with a third party can help when conducting site selection due diligence. Case in point: CBRE helped Canadian food distributor Loblaw locate this DC in Toronto, Canada.

Because most businesses invariably have a regional sense of where they want to be, "we generally begin the process by evaluating states; then pitting them against each other," says Robert D. Hutson Jr., first vice president, CBRE global supply chain practice, Los Angeles, Calif.

The goal, Hutson adds, is to create the ultimate competitive environment with a minimum of two to three states, two to three counties within each state, two power companies if possible, and a minimum of three specific sites within each locale.

Most site selection projects require a minimum of two years to identify a location, build the facility, negotiate the lease, and take care of other administrative details. But Restoration Hardware wanted to push the deadline forward. CBRE began doing site analysis and identified three locations–Memphis, Tenn., Savannah and Atlanta, Ga.–and began sending out RFPs in these respective markets.

At the same time, Restoration Hardware was conducting its own internal audit of transportation costs and impacts. In May 2007, the company decided it needed to look farther north to best match its global growth initiative with domestic demand. CBRE rolled with the new requisition, found an appropriate site, then brokered the lease arrangement.

In August, Restoration Hardware signed a 15-year lease for a new 800,000-square-foot distribution center in West Jefferson, Ohio. Construction will begin this fall and the facility should be up and running by next summer. The DC will be used primarily for fulfillment to the company's East Coast retail stores and its non-furniture direct-to-customer business.

"The decision to locate outside Columbus, Ohio, is a significant step in the planned transformation of our supply chain and infrastructure," says Ken Dunaj, chief operating officer of Restoration Hardware. "Over the next three years, we'll be executing a sequenced plan to drive greater service and productivity in our supply chain and build a network that can support our long-term growth objectives."

## Looking Past the Present

Increasingly, companies such as Restoration Hardware look at investments in new DCs with an eye toward designing stateside distribution channels flexible and responsive to shifting sourcing strategies and emerging consumer markets. Businesses large and small need to consider the flexibility of their U.S. distribution networks, and this begins with individual sites.

For retailers such as Restoration Hardware, the stakes are greater because product fads and lifecycles are highly variable and unpredictable. Therefore, consumer drivers dictate where and how they locate warehouse sites. But given the high cost of transportation, companies need to consider their best options for bringing product inbound to the United States, then outbound to customers: whether they want a DC facility located near a major inbound port, or a warehouse farther inland, closer to demand.

While demand may dictate distribution strategy, companies need to be equally judicious scrutinizing locations through specific site selection filters. They need to consider "a balanced evaluation of transportation network cost – both inbound and outbound – and the effect location has on service levels and speed to market," says Hutson.

Aside from location and transportation infrastructure, acquiring minds should also consider the labor market and its fit with the company ethos; tax incentives; and whether to lease, buy, or outsource, among other factors.

Given these challenges, businesses often engage commercial real estate companies such as CBRE, 3PLs, economic development corporations, and even regional utilities to assist in navigating risk and cost assessment.

In Nebraska, for example, prospective companies can tap Nebraska Public Power District's (NPPD) economic development team to research available properties, energy and labor costs, community information, and industry profitability studies, says Dennis G. Hall, economic development manager, Nebraska Public Power District.

The utility's economic development consultants can key businesses in to the state's myriad tax incentives. NPPD also hosts a free, interactive, online database that provides community profiles featuring basic economic and demographic data for every incorporated town in Nebraska.

### Creating Contingency Options

But one criterion that often slips through the cracks in site selection is contingency planning. "For example, what role will the new DC play in different disaster scenarios? How flexible is the overall network? Is there room for expansion on the site? What if the company's foreign procurement strategy changes–will this new facility still be useful and efficient in that scenario?" asks Hutson.

Especially today, businesses need to be particularly aware of how their DCs can respond to contingency sourcing strategies in case of a supply chain exception or unexpected spikes in demand. Transportation flexibility and accessibility then become important considerations.

Mid-America St. Louis Airport has made it a point to sell prospective customers on this account. Having intermodal transportation access is becoming more important for shippers, notes Tim Cantwell, director of the Mid-America St. Louis Airport. "People listen to multi-modal discussions," he says.

With four Class 1 railroads, immediate access to I-64, I-44, I-55, and I-70, and an emerging air cargo business, the St. Louis region offers shippers and consignees multiple options to move product domestically and globally.

Given its central U.S. location, St. Louis has always been advantageous for businesses moving product in and out of the Midwest and contiguous markets in the East. Now it has the capabilities to be an international transshipment point for air cargo as well. The debut of a 3,600-acre foreign trade zone (FTZ 31) and an on-site U.S. Customs Service make global air cargo transfer more efficient by reducing time on the ground and cost of operations.

Currently, shippers are chartering cargo flights into Mid-America St. Louis Airport to serve as a backup for more congested air cargo hubs. The value proposition for alternative airports capable of handling international freight as well as facilitating domestic distribution is considerable, and ultimately part of Mid-America St. Louis Airport's long-term growth strategy.

Shippers are equally eager to find these sites. "Companies are looking for a central distribution point with transportation capabilities in place so they can come in and saddle up to the existing infrastructure," observes Cantwell.

But as Restoration Hardware can attest, maximizing the future potential of a DC yet to be seen requires a concrete understanding of an enterprise's long-term vision and, often, third-party expertise to provide objective due diligence. Even then, plans can change.

"Ultimately, you can't cookie-cut site selection," says Hutson. ■

by Amanda Loudin

# Blue Bell Creameries Licks Its Storage Shortage

**A new ASRS helps Blue Bell Creameries continue its long history as one of America's favorite ice cream producers. Here's the scoop.**

Nothing hits the spot on a hot summer day like a bowl of ice cream, and no one knows this better than people living in the South. That's what drove a group of Texans to establish the Brenham Creamery Company 100 years ago and begin producing ice cream for delivery to neighbors by horse and wagon.

In 1930, the company changed its name to Blue Bell Creameries after the native Texas bluebell wildflower. Since then, Blue Bell has become an American success story, carrying more than 50 ice cream flavors, numerous frozen snack items, and sugar-free/low-fat lines of ice cream. The company's products are available throughout the South, totalling about 20 percent of the nation's supermarkets. Even with limited availability, Blue Bell ranks as one of the top three best-selling ice cream brands in the country.

Blue Bell Creameries is celebrating its 100th anniversary throughout the year with a variety of activities. A traveling exhibit, a flavor-naming contest, special anniversary ice cream flavors, and a big birthday bash at the company's Brenham, Texas, headquarters round out the list.

With such a popular product, Blue Bell has to keep its production and distribution facilities in top shape. So when its main distribution center in Sylacauga, Ala., needed to grow with the company, the search began for the right solution and technology.

## THE COLD FACTS

The main Blue Bell DC covers the majority of a 15-acre campus. Some 200 employees work two shifts to move ice cream from the production line to storage, then out to customers and 17 smaller DCs. Customers include supermarkets, convenience stores, and restaurants. Blue Bell provides direct-store delivery, so the company has control of the product all the way to the end customer.

As you would expect with an ice cream DC, the majority of the storage space is kept extremely cold–at -20 degrees Fahrenheit. The DC aims to send orders out within two days of receipt.

CONTINUED FROM PAGE 77

The DC was operating with about 3,000 pallet spaces. Those spaces, however, were quickly filling up with Blue Bell's growing volume.

"Because of the anticipated increase in efficiency, and our space constraints, we knew that we needed to build up to gain more storage space," says Kevin Wood, Blue Bell's general manager. "We already operated a crane system in our Brenham production facility, so we were familiar with potential options for increasing space."

Wood and his team decided to focus on automated storage retrieval systems (ASRS), and explored various providers for the right solution. The combination of automation and experience in a freezer environment helped Blue Bell select Westfalia Technologies, York, Pa., as its partner.

The project was broken down into two phases. "The initial phase included a pallet conveying system, which was necessary to bridge the 400-foot distance between production and the new ASRS," explains John Hinchey, vice president of sales, Westfalia. The conveyors transport pallets from the production area to the ASRS in the freezer space.

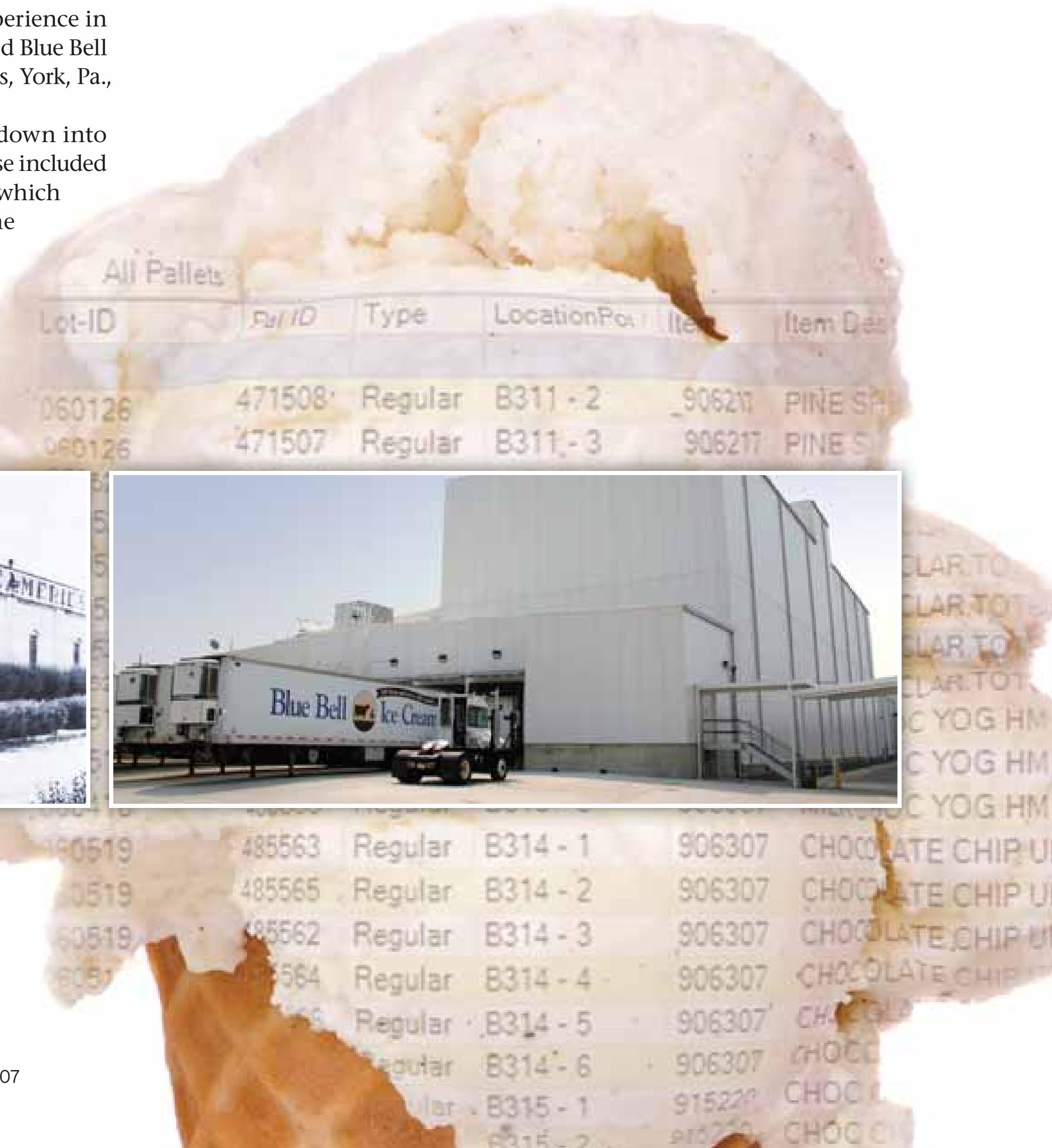
In all, the conveyor system includes an automatic label applicator, pallet transport and accumulation conveyors, and a transfer car (T-car) that distributes pallets two at a time toward the ASRS or to an existing conventional freezer.

## GOING UP

After completing the conveyor installation, Westfalia built the ASRS. "The system is nine levels high and comprises more than 7,000 pallet storage locations in 14,000 square feet of freezer space," says Hinchey.

The system is designed with two storage retrieval machines (S/RMs) operating in one aisle. Each S/RM operates in its designated working half with a safety zone mid-aisle to prevent collision. This design provides the benefit of redundancy so that if one machine is down for maintenance the other can gain access to the balance of the aisle. For this particular operation, each S/RM transports pallets two at a time, which provides a throughput capacity of 100 pallets per hour per S/RM.

The system is also designed to handle multiple pallet sizes. Blue Bell's pallets, for instance, measure 36 by 40 inches,





**THE BIG CHILL.** It has been 100 years since Blue Bell Creameries began delivering ice cream to neighbors in the South. Today, the company has optimized its cold-storage space with a new ASRS from Westfalia Technologies.

while the Grocery Manufacturers Association (GMA) pallets that also come through the facility are 48 by 40 inches.

In addition, the system was designed to provide three points of support for pallets when products are in the rack storage. "That adds a degree of reliability for Blue Bell because it eliminates pallet deflection," notes Hinchey.

The ASRS utilizes Westfalia's Satellite load transportation vehicle, which is designed to store pallets eight or 10 deep in the racks for a total of 7,000 positions.

"This is a huge improvement for us," says Wood. "During our busy summer season we don't use all of those spaces, but in the winter the extra storage capacity will be welcome."

Running the entire operation is Westfalia's *Savanna.NET* warehouse management system, which controls, tracks, and records product movement from system entry to exit. *Savanna.NET* replaced Blue Bell's legacy WMS, which operated in the mostly manual environment. The new WMS is modular, consisting of a central "base" of logistics functions, which can be expanded and adapted to specific customer needs by adding modules such as order picking.

The new system was installed seamlessly because it was an addition to Blue Bell's existing retrieval operation. It has changed the company's productivity for the better, according to Wood.

"We used to bring product to the palletizer and shrink-wrapper, then place it on the conveyors," he explains. "Then a forklift operator would pick up the product and place it in the racks."

Now, once the products have gone through the pallet and shrink-wrap stations, they move to the new conveyor, which transfers them to the ASRS and stores them automatically. When it comes time to pick, the WMS calls for the product, and the ASRS delivers it to the conveyor.

"The system helped us reduce forklift traffic by 80 percent," says Wood. "There is also less product damage and huge labor savings."

In the future, Blue Bell will further enhance its new system with a wireless inventory solution for its packaging material inventories. In addition, the company will replace manual palletizing operations with a robotic palletizer.

Overall, Wood is happy with the new system. "This is an excellent solution," he says. "We will use it to push company growth forward and increase sales."

And that's a delicious ending. ■

# L.I.T. TOOLKIT

by Merrill Douglas

## Creating Calm from Chaos

**By automating and reorganizing its warehouse, Red-L Distributors cuts costs and creates a cleaner, safer, less frantic work environment.**

When you're shopping for logistics software, should you choose a package that you can mold to the way you do business? Or should you revamp your business to take advantage of a great technology solution?

As with most weighty questions, the answer depends on whom you ask. Many logistics software vendors tout the fact that they can configure their software to accommodate the way you run your operation today; you don't have to change a thing.

Yet, some businesses are ripe for change, and the people who run them are glad to move mountains–or racks and bins–if that helps them operate more efficiently.

That's what happened when Red-L Distributors implemented the *Latitude* warehouse management system from PathGuide Technologies, Mukilteo, Wash., at its distribution center in Edmonton, Alberta, Canada.

"We had to reorganize to make the warehouse match the software, so it would work more efficiently," says Jason Delainey, the company's operations manager. "It took a while to organize."

But the effort paid off. "Inventory is easier to find, and the warehouse is more efficient," he says.

With the new capabilities *Latitude* provides, Red-L is accomplishing more in the warehouse with less effort. The system also has helped create a cleaner, safer, less stressful environment, making it easier to recruit, train, and hold on to good employees.

### GETTING HOSED

Red-L distributes hoses and hose fittings to customers in Alberta, British Columbia, and Saskatchewan. It also fabricates hose assemblies and sells a host of related products, such as hand and power tools, lubricants, lubrication equipment, janitorial and sanitation supplies, and skin care products. Its customers include resellers, equipment rental companies, and end users in manufacturing, forestry, oil field services, oil drilling, and agriculture.

Besides its main facility in Edmonton, Red-L operates from seven other

CONTINUED FROM PAGE 81

locations–each with a showroom and warehouse–and from a mobile trailer that delivers products to customers' work sites.

Red-L officials implemented *Latitude* to complement *Activant Prophet 21 (P21)*, an enterprise resource planning system for wholesale distributors that the company bought three years ago. It installed *P21* to replace a 20-year-old enterprise system that no longer provided all the necessary functions, says Guy Ludwig, Red-L's president of operations.

**Before implementing the *Latitude* system, workers were forced to make multiple trips across three facilities to pick orders. Today, workers in one building can pick goods for numerous orders in a single trip, using handheld terminals.**

Adding a WMS would help increase warehouse efficiency. "We knew we could do a lot better with the number of workers we have, and gain more effective inventory management," Ludwig says.

Officials at Red-L chose PathGuide to implement the WMS because of its experience integrating its system with *P21*. "There are other WMS vendors as well, but PathGuide seemed to be the best fit," Ludwig notes.

PathGuide specializes in providing and tailoring systems for industrial distributors. "We understand the business, it's all we do. We don't sell into manufacturing," says Eric Allais, the software company's chief executive officer.

PathGuide's executives also have long experience working with automated data capture systems, such as the radio frequency terminals its customers use with *Latitude*. Allais spent 18 years working in marketing at Intermec Technologies. His father David served as CEO and later chairman at Intermec before founding PathGuide.

PathGuide markets *Latitude* particularly to distributors with annual revenues in the $30-million to $300-million range, Allais says. The system manages all core WMS functions, such as receiving, putaway, cycle counting, picking, and shipping.

When companies install the system, they usually deploy 60 to 70 percent of the functions just as they come out of the box. For the rest, developers at PathGuide create custom functions, which the company then incorporates into future releases.

"Once we develop a function for one customer, we make it available to everyone," Allais says.

*Latitude* operates with a range of handheld terminals supplied by Intermec and Motorola/Symbol Technologies. PathGuide also can accommodate other brands as needed. "As long as the existing hardware is contemporary and programmable, we do what we can to preserve it," Allais says.

An important part of implementation is a three-day training session PathGuide offers at its Mukilteo facility. "We set up a warehouse environment that simulates the customer's own facility," says Allais. PathGuide developers integrate the WMS with the customer's chosen ERP, so personnel can practice using the system as they would at their own site.

## PHASING IT IN

Generally, PathGuide installs the software at the customer's site in two phases. The first phase covers base-level software and receiving functions. "That allows customers to label their product and bin locations and begin receiving product," Allais says.

In about 30 days, PathGuide returns to install phase two, typically a go-live scenario where the customer performs full putaway, picking, and shipping.

Red-L and PathGuide spent nearly four months getting the system up and running; it went live on April 1, 2007. Reorganizing the warehouse was a crucial early step. The facility actually comprises three buildings, and in the old days, pickers often had to make multiple trips among all three to fill an order.

"Forklifts were racing across the back yard at the best speed they could do," says Rick Lafrance, Red-L's vice president of information technology.

*Latitude* organizes its facility into zones. Guided by the display on an Intermec handheld terminal, a worker stationed in one building can pick goods for numerous orders in a single trip.

"Recently, a worker picked 15 orders at one time," Ludwig notes. "In the past, picking 15 orders would have required 15 round-trips."

Because the software manages supplier errors more accurately than the old, paper-based process could do, *Latitude*'s receiving functions have helped Red-L improve its quality assurance program. Now, if receivers find a shipment error, they send an instant message to the appropriate person in the purchasing department instead of filling out a mountain of paperwork.

"The purchaser can deal with an error before the order is even received, without the inefficiency of our receiver tracking down someone who can handle it," Delainey says.

Other functions that *Latitude* has automated for Red-L include serial number tracking and lot tracking for products that require it. By tracking serial numbers on drilling hoses, Red-L provides valuable information to customers–for example, giving an inspector information on how a unit fared during factory testing.

Lot tracking helps Red-L keep tabs on individual lengths of hose. If an order arrives for 15 feet of hose, and the system shows there's a 15-footer in stock, staff can pull that piece, rather than cutting a 20-foot piece and wasting the remainder. "We used to throw away about $100,000 a year in industrial hose," Lafrance says. "This year, I doubt we'll throw out even $15,000."

With the increased efficiencies that *Latitude* brings to Red-L, the software should pay for itself within one year, Ludwig predicts.

### SOFT BENEFITS

Along with hard benefits such as greater productivity and inventory control, *Latitude* provides the softer, but no less important, benefit of improved working conditions.

"Most days, the older system caused chaos," Delainey recalls. "Employees were working themselves to the bone, because they were running around inefficiently. The environment was stressful and tempers were blowing because workers had a lot to do and little time to do it."

Today, employees work at a steady pace, and the greater sense of order has promoted a cleaner, safer environment.

"Workers don't feel pressured to cut corners," Delainey says. "They actually have time to drive a forklift properly, or pull a product out safely."

Because *Latitude* promotes a pleasant work environment, and provides specific directions that make jobs easier to do, Red-L has also gained an edge in hiring and keeping good employees. Given Alberta's booming oil industry, that's no easy task. "You can't drive down one street in Edmonton without seeing a Help Wanted sign," Lafrance says.

With a tool such as *Latitude*, employees don't need extensive knowledge to do good work in the Red-L warehouse, he adds. And, because the software helps keep stress levels low, employees are more likely to stick with the company.

For the future, Red-L expects to extend *Latitude* to the warehouses in its branch locations. But first, officials plan to explore *Latitude* functions they haven't tapped yet, such as shipping, replenishment, and cycle counting.

"We've only scratched the surface," Ludwig says. ■

# TECHUPDATE

## THE LATEST | IN LOGISTICS TECHNOLOGY

### FKI Logistex

**WHAT'S NEW:** The addition of pick-to-light order fulfillment capability to the Warehouse Software Suite's (WSS) Pick Manager module.

**THE VALUE:** Pick Manager now coordinates order fulfillment operations using the FKI Logistex Trak3 pick-to-light system. WSS Pick Manager integrates Trak3 pick-to-light hardware with easy-to-use planning, execution, and monitoring software tools. With built-in features for wave picking, pick-and-pass, and productivity management, WSS allows users to add pick-to-light capability that maximizes productivity, speed, and accuracy.

www.fkilogistex.com
✆ 877-935-4564

## partnerships

### Avery Dennison and RedPrairie

**WHAT'S NEW:** A partnership to create an RFID solution for a pharmaceutical line.

**THE VALUE:** Avery Dennison's Monarch 9855 RFID printer/encoder and RFID supplies have been combined with RedPrairie's enterprise software to provide a solution for a leading pharmaceutical supplier. By integrating Monarch brand printers with RedPrairie software, the partnership ensures the supplier, and additional users, will have reliable RFID printing and encoding capabilities.

www.averydennison.com ✆ 626-304-2000
www.redprairie.com ✆ 414-915-6016

### ToolsGroup and INSIGHT

**WHAT'S NEW:** A partnership to drive value for Fortune 500 companies.

**THE VALUE:** ToolsGroup and INSIGHT Inc. have entered a partnership combining supply chain network and inventory optimization to drive value for large, global companies. ToolsGroup's DPM inventory optimization technology, integrated with INSIGHT's *SAILS* supply chain planning suite, enables companies to rationalize their end-to-end distribution network and simultaneously optimize inventory.

www.toolsgroup.com ✆ 617-494-0080
www.insight-mss.com ✆ 703-366-3061

## software

### Best Way Technologies Inc.

**WHAT'S NEW:** *ProShip ILS*.

**THE VALUE:** *ProShip ILS* enables fast, precise black-box implementation of shipping systems. *ProShip ILS* is both an application and an application programming interface. *ILS*, a .NET application, allows integrators to script and house a significant amount of carrier and shipping business rules outside of a host-client black box. By communication through Web services or a socket, *ProShip ILS* provides additional integration protocol options.

www.bestwaytech.com ✆ 312-203-3232

### Rand McNally

**WHAT'S NEW:** Nearly 70,000 updates to *IntelliRoute* and *MileMaker* software.

**THE VALUE:** To help shippers and carriers keep on top of highway changes, Rand McNally has enhanced its *IntelliRoute* and *MileMaker* software products with nearly 70,000 updates to its road network, toll roads, truck stops, and weigh station information. The 2008 update comes complete with new HHG miles and routes

CONTINUED FROM PAGE 84

based on the new Household Goods Mileage Guide rules established by the American Moving and Storage Association.

www.go.randmcnally.com/2008update
800-333-0136

## Accu-Sort Systems Inc.

**WHAT'S NEW:** *FAST Suite Enterprise*.
**THE VALUE:** This Web-based software tool provides quick and easy access to critical operational data about automated materials handling systems. *FAST Suite Enterprise* allows users to make informed decisions on how to improve efficiency and throughput by allowing access to operating information about their sortation and production systems from anywhere in the world.

www.accusort.com
800-BAR-CODE


## Brady Corporation

**WHAT'S NEW:** The IP Series printer system.
**THE VALUE:** Here's a thermal transfer industrial printer that utilizes smart cell technology, enabling the printer, material, ribbon, and software to communicate together. With these printing capabilities, users can load the material, click the software interface, and print a variety of labels, tags, and sleeves.

www.bradycorp.com
800-541-1686

## Prophesy Transportation Solutions

**WHAT'S NEW:** The addition of a real-time load-posting module to *Prophesy Dispatch* software.
**THE VALUE:** The addition allows users to post loads and equipment to multiple third-party posting sites and eliminates the time-consuming task of re-keying the same information to different sites. It also lets users flag and automatically post and un-post their loads and equipment directly from the *Prophesy Dispatch* software.

www.mile.com
800-776-6706

## PathGuide Technologies

**WHAT'S NEW:** The PathGuide *Latitude 8.0* slotting optimization module.
**THE VALUE:** PathGuide Technologies' new slotting software module helps small to mid-sized distributors benefit from increased pick productivity, improved warehouse safety, and maximized inventory efficiencies traditionally reserved for large-scale warehouse management installations. The *Latitude* slotting module identifies the most efficient location for inventory within the warehouse based on a number of product and storage characteristics, as well as product demand.

www.pathguide.com
888-627-9797

## SYSPRO

**WHAT'S NEW:** Enhanced CRM software.
**THE VALUE:** Enterprise software provider SYSPRO has enhanced its Customer Relationship Management (CRM) solution. The upgrades enable manufacturers to more easily comply with FDA regulations, in addition to promoting ease-of-use, increased efficiency, and added system security.

www.syspro.com
800-369-8649

## FastPic Systems

**WHAT'S NEW:** Optional 24/7 emergency technical support.
**THE VALUE:** FastPic Systems now offers 24/7 emergency technical support for its full line of inventory management software products. Calls for technical support are handled by its national call center, which dispatches a FastPic software technician to handle the issue. FastPic Systems provides complete technical product support at no charge during normal business hours, 8 a.m. to 5 p.m. Monday through Friday, as part of the software licensing agreement.

www.fastpicsystems.com
207-854-8663

## Sage Software

**WHAT'S NEW:** The release of *Sage PFW ERP 5.6*.
**THE VALUE:** A new version of *Sage PFW ERP* features key, customer-focused enhancements within its core business management, distribution, and manufacturing modules. *Sage PFW 5.6* provides many new ways for small and mid-sized businesses to improve user efficiency, increase system performance, and better manage their

To learn more, contact these companies directly. Remember to mention this issue date and page to get the right information.

operations, including new vendor and customer status and order hold features; new user efficiency features; improved overall system performance; and better auditing and data tracking.

www.sagepfw.com
800-477-5700

## web

### Jungheinrich Lift Truck Corporation

**WHAT'S NEW:** A free Web tool that compares total cost of ownership between various truck technologies.

**THE VALUE:** To help prospective forklift buyers see the appreciable cost advantages of owning an AC electric truck over a vehicle operating on an IC engine (LPG/diesel) or DC electric technology, Jungheinrich's free, simple-to-use tool calculates total cost of ownership. It further measures ownership associated with various kinds of forklifts over a five-year period.

www.lift-truck-cost-tool.com

### National Motor Freight Traffic Association (NMFTA)

**WHAT'S NEW:** The latest version of the *ClassIT* classification product.

**THE VALUE:** *ClassIT 2.0* is the latest version of the National Motor Freight Classification (NMFC) online pricing tool that evaluates and classifies all commodities shipped and handled by motor freight carriers moving in interstate, intrastate, and foreign commerce. The new release features enhanced capabilities including rapid response time, embedded search terms, expanded search options, page-through capability of NMFC content, and a single-item print function.

www.nmfta.org
866-411-6632

### ISCEA and University of Phoenix

**WHAT'S NEW:** A dedicated Web site to support ISCEA programs.

**THE VALUE:** The International Supply Chain Education Alliance (ISCEA) has added a University of Phoenix link to its Web site for members interested in online classes and programs offered by the largest private university in North America. ISCEA members worldwide now have access to various courses and degree programs in business, global management, operations, supply chain management, technology, and more. Courses will be offered through the University of Phoenix online format at nearly 200 campuses and learning centers.

www.phoenix.edu/info/iscea/00_Home.asp

### Infor

**WHAT'S NEW:** The availability of *Infor SCM Demand Planning 6.2*.

**THE VALUE:** *Infor SCM Demand Planning 6.2* is a Web-enabled, collaborative solution that provides an accurate picture of demand to drive production, inventory, distribution, and buying plans across the enterprise. The solution now includes role-based exceptions management to ensure users have immediate access to critical information. *SCM Demand Planning 6.2* also introduces Action Memos, which provide an embedded workflow leading to faster resolution of events.

www.infor.com
866-244-5479

## hardware

### Advantech

**WHAT'S NEW:** The release of the ARK-1000 series of box computers.

**THE VALUE:** The ARK-1000 series' small, powerful all-in-one fanless systems are designed for rugged and space-critical applications in automation control and wireless gateway applications. A solid, sealed aluminum case offers vibration and water resistance. The ARK-1000 series provides system integrators with a turnkey solution and versatile application development path without breaking the bank or missing time-to-market deadlines.

www.advantech.com
949-789-7178

# NEWSERVICES

## YOUR | BUSINESS LOGISTICS RESOURCE


### Nissan Forklift

**WHAT'S NEW:** Low-emission Platinum II Series lift trucks.

**THE VALUE:** The Platinum II Series from Nissan Forklift delivers emission results that far exceed EPA requirements established for 2007. In addition, Nissan has expanded its family of diesel industrial engines with the QD32 diesel engine, available in larger-capacity pneumatic Platinum II models. The powerful, clean-burning QD32 offers improved fuel consumption and emission levels below 2008 EPA diesel requirements.

www.nissanforklift.com
815-568-0061

### Menlo Worldwide

**WHAT'S NEW:** An expansion of operations in Amsterdam.

**THE VALUE:** Menlo Worldwide has opened a new 70,000-square-foot facility at the AMB Douglassingel Distribution Center near Amsterdam's Schiphol Airport. The multi-client center becomes the company's new European headquarters. Primary services provided at the new facility include: bonded warehousing; inventory control and supply chain flow management; receiving, storage, pick and pack, shipping, customer service; product staging, fulfillment and transportation management; and just-in-time or emergency response delivery.

www.menloworldwide.com
650-378-5418

### Waltco Truck Equipment Co.

**WHAT'S NEW:** The Waltco Direct Lift (WDL) Extra Tough (XT) rail-type liftgate.

**THE VALUE:** New design features enhance the performance, reliability, and ease of use of the Waltco WDL-XT. The liftgates, designed for demanding applications, are available in four weight capacities–3,500, 4,500, 5,500, and 6,500 pounds–and in both steel and aluminum platforms.

www.waltco.com 330-633-9191

### China Shipping Container Line

**WHAT'S NEW:** The first of five new vessels makes its maiden call at the Port of Los Angeles.

**THE VALUE:** The *Xin Ya Zhou* is the first in a series of five new environmentally friendly vessels to join China Shipping's fleet. The *Xin Ya Zhou* can accommodate up to 8,528 TEUs, including up to 700 refrigerated containers. The ship joins China Shipping's weekly Central Asia-America service with scheduled calls at Los Angeles, Oakland, Ningbo, Nansha, Yantian, and Shanghai.

www.chinashippingna.com 888-712-7811

### Schenker of Canada

**WHAT'S NEW:** An increase in air cargo capabilities and services across Canada.

**THE VALUE:** Earlier arrivals and later departures in each city currently being serviced, and the addition of a dedicated aircraft for the Schenker hub in Vancouver, British Columbia,

# NEWSERVICES

CONTINUED FROM PAGE 89

are among the improvements to Schenker of Canada's air fleet network services. The improvements affect services to and from the United States and within Canada.

www.schenker.ca ✆ 800-461-3686

## USF Holland

**WHAT'S NEW:** The launch of new guaranteed and expedited services.

**THE VALUE:** USF Holland, an operating unit of YRC Regional Transportation, has launched new guaranteed and expedited service offerings, including expedited next-day service up to a 750-mile range, and time-specific guaranteed delivery on standard transit times before 9 a.m., noon, or 3:30 p.m. All services are backed by USF Holland's no-hassle, claim-free guarantee to be on time and intact, or no invoice will be sent.

www.yrcreg.com ✆ 616-395-5000

## CTSI

**WHAT'S NEW:** A global expansion.

**THE VALUE:** CTSI, a supply chain information services provider, has established three new foreign offices to support increasing demand for global solutions. These CTSI-owned-and-operated offices are located in Limerick, Ireland; Chenai, India; and Xiamen, China. The company plans to open locations in Mexico and Brazil in the next few months; Venezuela, Panama, and Colombia will follow in the near future.

www.ctsi-global.com ✆ 901-766-1500

## New Age Electronics

**WHAT'S NEW:** The opening of an East Coast warehouse.

**THE VALUE:** Dayton, N.J., is home to New Age Electronics' fourth U.S. warehouse facility. The new distribution center enables New Age to maintain a greater quantity and assortment of consumer electronics products within the region, while providing resellers with same-day, next-day, and will-call delivery services. With the launch, New Age also provides increased staffing, transpor-

## APM Terminals Virginia

**WHAT'S NEW:** A 55-foot deepwater terminal in the Hampton Roads, Va., area.

**THE VALUE:** APM Terminals has officially opened its $450-million, 291-acre container terminal to serve the Hampton Roads region. This maritime center – the third-largest container terminal in the United States – is capable of handling one million TEUs annually. New technology at the terminal is designed to keep workers and drivers safe, while expediting cargo movement through use of advanced handling equipment.

www.apmterminals.com ✆ 973-514-5202

To learn more, contact these companies directly. Remember to mention this issue date and page to get the right information.

tation, and inventory management services, along with 30,000 square feet of dedicated warehouse space.

www.newageinc.com ✆ 888-234-0300

## Saddle Creek Corp.

**WHAT'S NEW:** The opening of a cross-dock operation in Florida.

**THE VALUE:** Third-party logistics company Saddle Creek Corp. has completed construction of a high-volume cross-dock at its Lakeland, Fla., headquarters. The 98,600-square-foot facility is designed to provide distribution services for a perishable foods manufacturer. Designing the new facility exclusively as a true cross-dock results in labor savings, as product is loaded continuously rather than being stored for several hours on the floor.

www.saddlecrk.com ✆ 863-665-0966

## BDP Italia SpA

**WHAT'S NEW:** A Malpensa, Italy, office.

**THE VALUE:** BDP Italia SpA, part of global logistics management company BDP International, has opened an office at the Avioport Logistic Park of Lonate Pozzolo-Malpensa (Varese). The office expands BDP's Italian network with headquarters in Milan and branches in Bologna, Florence, Turin, and Vicenza, and leverages its strategic location to support the entire BDP Italia organization.

www.bdpinternational.com

✆ 215-629-8493

## Bender Group

**WHAT'S NEW:** The activation of a Foreign Trade Zone.

**THE VALUE:** Third-party logistics provider Bender Group has activated FTZ operations at its Reno, Nev., facility. The initial footprint covers 191,125 square feet, of which Audiovox Electronics Corporation is using approximately 75,000 square feet for electronics, parts, and accessories. With potential to expand to 30 acres in authorized space, Bender can offer FTZ services to its existing and future clients operating in international trade while enhancing the growth of the Reno-Sparks and Lake Tahoe region.

www.bendergroup.com ✆ 800 621-9402

## Allyn International Services Inc.

**WHAT'S NEW:** The formation of a 3PL department within the logistics services division.

**THE VALUE:** Allyn's new 3PL team will initially focus on third-party transport and logistics, mainly servicing customers with specialized cargo requirements. The 3PL department offers a complete range of trucking, rail, air, and ocean transportion services. The cross-functional 3PL team, with offices in Fort Myers and Prague, will work closely with Allyn International offices worldwide to secure the best transportation solutions for international shipments.

www.allynintl.com ✆ 239-489-9900

## The Evans Network of Companies

**WHAT'S NEW:** A state-of-the-art trucking terminal in Chesapeake, Va.

**THE VALUE:** Unlike other transportation companies that rent a facility or yard space, Evans now has a permanent home in Chesapeake, opening a trucking terminal inside the Cavalier Industrial Park. The facility is fully fenced with a self-propelled, gated yard providing access via ID card 24 hours a day. The terminal also features an on-site repair shop.

www.evansdelivery.com ✆ 570-385-9048

## Arpin International Group

**WHAT'S NEW:** The opening of a customer service office in Houston.

**THE VALUE:** Arpin, a global household goods forwarder, has opened a customer service office in Houston. Driven by the company's global expansion, the Arpin Houston office has been established as the first to accommodate clients in the Central Time Zone.

www.arpinintl.com ✆ 281-880-4901

## 3PLs

### Agility Logistics • www.agilitylogistics.com

Let Agility manage the details of your international transportation. Choose from an array of highly configurable air and sea freight options, and road freight services that span Europe, the Middle East, North Africa, and Central Asia with more than 1,000 scheduled, weekly departures. Agility offers global expertise in commodity classifications and local government rules and regulations to ensure rapid clearance of your products through Customs.

### BNSF Logistics • www.bnsflogistics.com

BNSF Logistics creates, implements, and executes high-value logistics solutions for customers by utilizing experienced logistics professionals; leading logistics technology; multi-modal execution including LTL, truckload, intermodal, and rail; and a deep understanding of its clients' business. Ultimately, blending these factors together enables BNSF Logistics to become your most valued partner–the most critical link in your supply chain. Visit www.bnsflogistics.com for more details.

### Maersk Logistics • www.maersklogistics.com

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### Schenker • www.schenkerusa.com

The integration of Schenker AG and BAX Global has created a new global logistics and transportation solutions powerhouse. Enviable rankings in strategic industry mobility and logistics service sectors include: No. 1 in European land transport, No. 2 in worldwide air freight, and No. 3 in worldwide ocean freight, and No. 3 in integrated heavyweight freight in North America.

IN THIS SECTION:

# 3PL WMS – Ocean/Intermodal

## 3PL WMS


### 3PL Central • www.3plcentral.com

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## OCEAN/INTERMODAL

### China Shipping North America • www.chinashippingna.com


China Shipping services more ports around the world and boasts more connections within China. Customers look to us for reliable containerized transport, refrigerated services, and inland transportation. This site provides a company profile, sailing schedules, transit times, service maps, container tracing, tariff rates, and worldwide office contacts. We open the door to China and give you the world. China Shipping: Well Respected. Well Connected.

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Visit the Port of Houston's Web site and choose from a menu of items. Check out facilities, shipping and service directories, frequently asked questions, and transportation and shipping links. The site also features the latest economic impact information, container and booking information, and trade statistics. The Port of Houston, the world's eighth-largest port, is a 25-mile-long complex of public and private facilities, just a few hours of sailing time from the Gulf of Mexico.

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### Port of Oakland • www.portofoakland.com


We, the Port of Oakland, invest our resources in quality facilities and services for our airport, real estate, and seaport tenants and customers, so that through their activities we create economic vitality, jobs, and waterfront enjoyment for Oakland and the region while generating earnings to reinvest in our activities. The Port of Oakland's Web site offers users resources, news, and product updates on its maritime, aviation, and real estate divisions, as well as information on port meetings and events. Visit the site to learn more.

## RAIL/INTERMODAL


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## TRUCKING

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# CALENDAR



**Nov. 1-2, 2007, Optimizing Your Technology Investment: Supply Chain Execution Systems and Automation, Austin, Texas.** This Warehousing Education and Research Council seminar offers a comprehensive overview of supply chain information systems, including how to evaluate and select the right system based on functional requirements.

**630-990-0001**
**www.werc.org/education**

**Nov. 10-13, 2007, Intermodal Expo, Atlanta, Ga.** IANA's 2007 Intermodal Expo and annual membership meeting offers informative educational sessions, and showcases the latest intermodal equipment, service, and technological innovations. The Intermodal Expo is co-located with The National Industrial Transportation League's 25th TransComp exhibition and 100th annual meeting, and the Transportation Intermediaries Association's fall meeting.

**301-982-3400**
**www.intermodal.org**

**Nov. 26-29, 2007, Defense Logistics 2007, Washington, D.C.** Improving force effectiveness through enhanced logistics is the theme of this year's conference. Attendees will learn how to leverage commercial industry expertise to meet customers' changing needs, gain an understanding of Lean Six Sigma principles, and look to future developments that will impact logisticians and warfighters.

**888-482-6012**
**www.defenselog.com**

**Dec. 6-7, 2007, Supply Chain & Logistics Summit North America, St. Augustine, Fla.** Key topics include driving your financial supply chain to boost profits and cut costs; developing a green movement; and maintaining visibility through transparent best practices.

**416-214-3400**
**www.scmna.worldtradeco.com**

**Jan. 24-26, 2008, Operation Stimulus, Denver, Colo.** The Denver Transportation Club's annual forum features student debates about transportation topics. The event also provides networking opportunities, allowing students to learn more about day-to-day issues facing the transportation industry.

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- Labor Trends
- Forecasting Behavior & Execution
- Reverse Logistics
- Economics of Infrastructure
- The Emerging Use & Benefits of Carbon Credits
- Homeland Security & Supply Chain Implications
- State of the Ports
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- Integrating Global Sourcing
- Distribution Models—Europe vs. U.S.
- Planning Cycle and Visibility of Direct Imports/ Private Label

For more information, contact Bridget Anderson at 703-600-2038 or bridget.anderson@rila.org.

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## INDEX

# THE LAST MILE

## Raising Churchill's Last Ride

The railroad car that delivered UK Prime Minister Winston Churchill to his grave in 1965 recently got a new lease on life when it arrived in Southampton, England from Port Hueneme, Calif. The 1931 South Railway parcels and luggage van had been sitting in relative obscurity as a theme attraction at a Los Angeles resort, before a consortium led by the UK-based Swanage Railway Trust appealed to the Los Angeles City of Industry for its return home.

The six-week journey on Wallenius Wilhelmsen Logistics' ro/ro ship, *MV Tamberlane*, traveled 8,000 miles through the Panama Canal.

The van will be restored in Somerset and the Swanage Railway Trust will provide a new home for it in Dorset, West of England.

**1-3** **On arrival in Southampton, the roll trailers carrying the wheel chassis and carriage were placed in a warehouse for protection.**

**4-6** **On the day of transfer, the wheel chassis was removed from the roll trailer and placed on a truck using a forklift.**

**7-12** **Utilizing a 50-ft. forklift and spreader to evenly balance the weight, the carriage was carefully lifted and placed back onto its wheel chassis.**

**13-15** **Finally, the unit was covered in tarpaulin and lashed to the truck for transfer to Somerset.**

Photos courtesy of Bruce D. Williams/williams-pics.com