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THE MAGAZINE FOR DEMAND-DRIVEN LOGISTICS • JUNE 2010

TWO SPECIAL SUPPLEMENTS

CHEMICAL LOGISTICS

AND

MEXICO TAKES FLIGHT

Sizing Up Sustainability

Benchmarking Progress

50 Green Supply Chain Partners


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June 2010 • Vol. 30 • No. 6

INFO

INSIGHT

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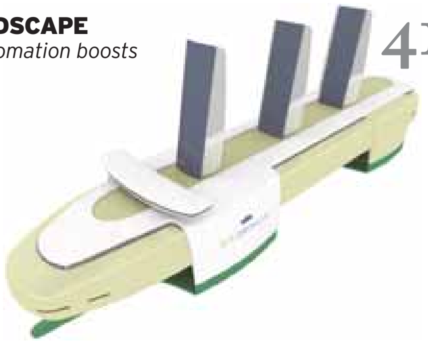

June 2010 • Vol. 30 • No. 6

INSIGHT

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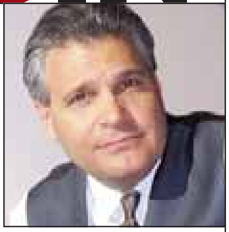

Keith Biondo

by Keith Biondo | **Publisher**

Shading Green

We know the positive arguments for embracing green. This magazine regularly demonstrates how shippers and service providers are developing sustainability practices across their supply chain touchpoints. Reducing fuel, cube, weight, packaging, waste, and power consumption in the supply chain blends the two shades of green–sustainability and profits. You'll find measurable examples of both in this issue.

But the green movement is not without its challenges, especially ones created by those who don't want to let a "serious crisis go to waste" by co-opting it to redistribute wealth. The carbon-offset concept, for example, presents rich companies with a free pass on emissions–just as the medieval church sold indulgences for sins. Offsets do not directly reduce carbon, but they do send carbon dollars to...where? And for what purpose? To nothing that can immediately limit carbon emissions by any significant amount. If EU examples are any guide, the carbon dollars sent and spent accomplish little. Maybe there really are two Americas–those who can afford to be carbon emitters and those who can't. This doesn't strike me as enlightened thinking.

Carbon culpability is driving legislation and EPA regulations. Yes, the Obama administration's cap-and-trade proposal threatens the very fabric of the U.S. manufacturing and transportation industries, and all those workers. But, more importantly, this mind-set will increase costs at every supply chain touch–raising prices on everything, not just for consumers, but for U.S. exporters as well. So, in addition to U.S. labor's wage handicap, we add a carbon handicap to selling U.S.-made products overseas. How is this helping?

Perhaps public policy makers can follow your example. You are solving the sustainability challenge through collaboration and cooperation, and using the profit motive. Because you can't fix what you don't know, you are using carbon calculators to diagnose the scope of the challenge inside your enterprise, and across your carrier and partner operations, to the far reaches of your supply chain activity. You are benchmarking, then measuring the progress of your sustainability actions. You are seeking out sustainable partners that are using new equipment, streamlining packaging, and collaborating to fill empty backhauls. You are sharing strategies and you are investing in technologies that work now to limit your collective footprints.

That's a grass roots, bottom-up approach, not some heavy-handed top-down dictum that presupposes the centralized planner driving all our green activities is infallible.

You can't run a company–and, by extension, a country–on only one shade of green, the purely ideological shade. From a business sense, that obviously wouldn't be sustainable. It's not sustainable as national policy, either. ■

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DIALOG

LETTERS TO THE EDITO

Railroad History Mystery

I found Perry Trunick's article, *Nation Building at Home* (April 2010), interesting. But the first military railroad was not the Centreville Military Railroad as he states; it was the Grand Crimean Central Railway, built by the British to supply their troops besieging Sevastopol during the Crimean War.

–**George G. Gounley,** DODX Fleet Manager, Military Surface Deployment & Distribution Command

Perry Trunick Responds: Thanks for the input. My source for the comment was an article in *Civil War Times* (June 2010) in which the author, Arthur Candenquist, stated, "The Confederacy made innovative use of the captured material, using it to build the world's first railroad designed solely for military purposes: the Centreville Military Railroad." The headline that had caught my eye declared "The World's First Military Railroad."

I may have been a victim of the attitude that first in America means first in the world. Or, in referring to the Confederate railroad, I abridged the statement "designed solely for military purposes," which may still qualify the Centreville Military Railroad for the claim.

In any event, the intent was to refer briefly to the importance of logistics to military operations and the innovative use of logistics tools by the military.

Deere in the Spotlight

I couldn't agree more with Keith Biondo's critique of *Bloomberg BusinessWeek* and his assessment of Deere & Company's lean supply chain strategy *(Checking In,* May 2010*)*. *BusinessWeek* put the cart before the horse, and the tractor under the bus, without properly addressing or explaining the real problem.

John Deere's production leveling was in response to slack consumer spending, and, like any sensible company, it took measures to reduce the amount of inventory in its pipeline. Dealers were practicing lean, as well, hedging against carrying inventory they might not sell. Now they're crying over spilled milk and lost opportunity.

Lean practice isn't the problem. If there is a failure here, it's in the communication between the manufacturer and its dealers and the lack of visibility to growing customer demand. Still, it's hard to believe that had John Deere's distributors recognized a surge in sales early enough and conveyed that information to the manufacturer, it wouldn't have responded in turn.

Sounds like Deere knows what it's doing. The manufacturer recently reported second-quarter profits were up 16 percent, and this is the second time it has raised its outlook this year.

–**Alston Goolsby,** via email

Evans on Target

John Evans' observations in the *3PL Line* column (April 2010) are right on target. I hope Michigan can make up some important lost ground. States, regions, and municipalities all over the country are pursuing logistics and supply chain initiatives designed to elevate and sustain economic performance.

In Ohio, the second-largest auto manufacturing state, the Columbus Region Logistics Council has been executing an aggressive agenda for logistics and supply chain development for a few years. With energetic participation–and leadership–from general business, governmental, academic, and supply chain communities, we are pursuing parallel, and integrated, objectives in infrastructure improvement, workforce development, business environment attractiveness, and technology support.

It's tough work, complicated by the number of constituencies involved and the layers of public sector resources needed, but it pays off. Among other benefits, we can marshal support for positive change, and communicate directly with the governmental entities involved.

–**Art van Bodegraven,** Practice Leader, S4 Consulting

10TIPS

STEP-BY-STEP SOLUTIONS

by Deborah Catalano Ruriani

Choosing Between Hosted And On-Demand Technology

Software-as-a-service (SaaS), otherwise known as on-demand, is becoming increasingly popular among logistics professionals. For some companies, however, a hosted managed service may still be a viable solution. Learn to differentiate between the two and determine which is right for your business with these tips from Sterling Commerce's Peter Wharton, manager, applications product marketing.

1 **Understand the difference.** An on-demand solution allows many users to share a single instance or copy of the software, resulting in lower subscription costs. A hosted service requires one software instance for each user, but the user typically owns it, which reduces long-term costs.

2 **Check out your in-house IT situation.** Both on-demand and hosted solutions appeal to companies that lack the IT resources to implement and support the solution. Leveraging the software vendor's expertise and/or infrastructure removes the need to invest in people and technology.

3 **Decide if you want a low upfront investment.** On-demand appeals to companies that require a faster time to value. Configuring instead of customizing software cuts implementation time, often making companies rethink their processes and adopt industry best practices.

4 **Evaluate the level of control you need.** A hosted solution provides more control over when upgrades and fixes are applied. For companies that require control due to corporate constraints regarding data security and availability, a hosted solution would be the best option.

5 **Consider flexibility.** Your company's business requirements can change rapidly due to market conditions or corporate strategies around acquisitions. Look for a vendor that offers deployment, consumption, and payment options.

6 **Select a vendor with a variety of customers.** A large, established customer community indicates a vendor who provides a strong solution with good service, backed by the required expertise. On-demand solutions offer the additional benefit of leveraging benchmarks on performance across the whole customer network.

7 **Check out your 3PL's solution—but be wary.** If you are outsourcing your business to a third-party logistics provider, consider using your partner's solution, but ensure the benefits apply to both parties. Implementing your own hosted solution provides the independence and opportunity to select the best solution for your needs.

8 **Insist on a service-level agreement with your contract.** Before outsourcing your mission-critical solutions, assess the risk to your business if the on-demand solution becomes unavailable. As you negotiate your contract, insist on a service-level agreement that provides commitments for availability, reliability, response time, security, and disaster recovery.

9 **Factor in the complexity of integration.** When companies choose on-demand solutions, they often overlook the complexities of integration. Look for a solution with strong integration capabilities and a vendor with expertise in managing integration into your ERP systems.

10 **Have an exit strategy.** At some point the relationship will come to an end. Before you sign the contract for a SaaS solution, establish an exit plan. Ensure that your selected vendor can export your data and offer migration services at agreed rates. ■

[INPERSPECTIVE]

BY PERRY A. TRUNICK
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Deregulation Amended and Upended

Dust off your legal textbooks. It's time to revisit transportation deregulation's rocky history and defend what we have.

Almost as soon as economic deregulation of air, motor, and rail transportation became the law of the land, some were voicing expectations that we would see re-regulation. The fear was that carriers would become large and predatory, and shippers–especially smaller ones–would become prey. The expected abuses didn't materialize, and what followed was a period of much-needed evolution in transportation and logistics functions.

Yesterday's transportation networks couldn't support what we are able to accomplish with today's supply chains, and much of the advance is due to the competitive markets that resulted from deregulation and sparked tremendous creativity and innovation.

Those predicting doomsday in the 1980s weren't entirely wrong about re-regulation. They were way off on the cause and scope, but there have been steady and frequent efforts to chip away at the market freedoms that have benefitted logistics and supply chain management over the years.

One case that reached the U.S. Supreme Court was *Rowe v. New Hampshire Motor Transport*. This case centered on a Maine law that would require carriers to obtain a signature and verify the age of anyone receiving shipments of tobacco products–an issue because of electronic commerce's growth as a new channel for distribution. Does a state have the right to preempt the Federal Aviation Administration Authorization Act (FAAAA)? The court struck down the Maine law because, it said, a state could not regulate a motor carrier's price, route, or service in interstate commerce.

A safety preemption is allowed, but public health, as was argued, was not a sufficient safety issue to let the state preempt the federal statute. That same argument came to the forefront when several West Coast ports attempted to enact laws that would have regulated motor carriers serving the ports. There, air quality (public health) and security (safety) did not prevail as arguments, and *Rowe v. New Hampshire Motor Transport* was cited as a precedent in the arguments supporting the FAAAA over the state law.

Now the ports are back. This time they are attempting to amend the FAAAA and forego the issue of states' rights. Joel Anderson, president and CEO of the International Warehouse Logistics Association (IWLA), is back in the trenches fighting the proposed amendments. The federal government controls trade and commerce for a reason, he says, dating back to the Articles of Confederation. The proposed amendments amount to local regulation of freight moving in interstate and foreign commerce, he argues.

Besides, he notes, efforts to improve air quality, security, and safety are on track or ahead of schedule without amending the federal law.

I have to agree that it is bad public policy to take those controls out of the hands of the federal government. We can't afford to wait for appeals to reach the new Supreme Court. A good place to start is with the same people who received Anderson's letter on behalf of IWLA members and the logistics community: Representatives Peter DeFazio and John Duncan, House Committee on Transportation and Infrastructure, Subcommittee on Highways and Transit.

As we learn repeatedly, you don't get to keep your rights if you don't defend them. ■

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by Merrill Douglas

Keeping the Wheels Turning

To most of us, "cycle counting" means taking stock of a portion of the goods in a warehouse. To Gregory Cross it means, literally, counting bikes.

Cross is director of logistics and operations for USA Cycling, the official governing body for all competitive bicycling in the United States. He tracks how many bikes he has on hand at the organization's headquarters in Colorado Springs, Colo., at its two training centers in Italy and Belgium, and at races around the world. The same goes for a slew of other gear – from wheels and spare parts to sponsor-provided riding clothes, sports drinks, and energy bars.

His job encompasses the whole racing supply chain, starting with suppliers–in this case, the companies whose logos adorn just about every product athletes take to a race. He also makes the arrangements for participating in World Championship and Pan American racing events and ensures that the right equipment arrives at the right race at the right time. Cross and his warehouse manager oversee inventory in Colorado Springs, and he also plans for future equipment needs.

Compared with a commercial operation, USA Cycling manages a small inventory. It supports about 150 racers each year, spread across five sports: road, track, mountain bike, BMX, and cyclo-cross. The Colorado warehouse is "the

CROSS COUNTRY

NAME: **Gregory Cross**

TITLE: Director of Logistics and Operations

COMPANY: USA Cycling, Colorado Springs, Colorado

PREVIOUS EXPERIENCE: Freelance graphic designer and photographer; mechanic, NYC Velo; mechanic for Team Lipton, Velocity Sports Management; service course mechanic for Team Lipton and Navigators Insurance Pro Cycling Team, EDJ Sports.

EDUCATION: Virginia Commonwealth University, BFA in communications arts and design, 2000

The Big Questions

What do you do when you're not at work?
I spend time with my wife and daughters and tackle a lot of home improvement projects. I commute about seven miles to work by bike and sometimes get out to ride on the weekends. I also hike, ski, and spend as much time outdoors as possible.

Ideal dinner companion?
Eddy Merckx, one of the top pro cyclists of all time. It would be great to hear his take on competition in cycling.

What's in your backpack?
My laptop, lunch, some spare clothes, a notebook, a bike toolkit, and a bike lock.

If you didn't work in supply chain management, what would be your dream job?
Travel and outdoor photography.

size of a large, three-car garage, on two levels," Cross says. But the logistics are complex enough that Cross recently implemented an inventory and warehouse management system (WMS) from San Francisco-based SmartTurn (recently acquired by RedPrairie) to gain a better view of the organization's equipment.

The big inventory challenge springs from the intricate flow of products around the world. "There are always shipments moving in different directions, and riders who come and go throughout the season," Cross says. Some items, such as clothing, are meant for riders to keep. Others, such as bicycles and spare wheels, are fixed assets that USA Cycling expects to get back.

Like his counterparts in the commercial world, Cross also must constantly balance the need for speed with the need to cut costs. Often, sponsors ship jerseys, helmets, gloves, and other gear directly to the race site. When that's not possible, it can be tricky to transport kits to riders without racking up big costs.

One recent new tactic was positioning some gear in Europe using an ocean carrier. "We worked with a few carriers this season to create pallets of packed equipment and ship them to our training center in Belgium," he says.

Now that he has the WMS configured to his needs, Cross plans to take better advantage of the technology. He wants to explore accessing the Web-based system through a smart phone. He'll also investigate the use of bar codes in the warehouse and bring new employees in Europe up to speed on the system.

"Training and optimization are our goals this year," Cross says. "We'll tweak the WMS to do even more, while requiring less work on our part." ■

NOTED

THE SUPPLY CHAIN IN BRIEF

GREEN SEED

▶ **Schneider National** has become the first motor carrier to install Deflecktor Aero Wheel Covers on the four drive positions of each truck in its fleet. By outfitting its 12,000-plus tractors with this new aerodynamic device, Schneider National expects to realize an additional fuel savings of 1.8 million gallons annually.

GENCO Supply Chain Solutions has acquired 25 GenDrive hydrogen fuel cell power units to run lift trucks at a 450,000-square-foot distribution center in Graniteville, S.C., that it operates for Kimberly-Clark Corporation. Funding was provided as part of a $6.1-million award from the U.S. Department of Energy's American Recovery and Reinvestment Act, which is intended to accelerate the commercialization of hydrogen fuel cell units and create jobs in fuel cell manufacturing, installation, maintenance, and support services.

Staples Advantage, the business-to-business division of Staples, is greening the procurement function with the launch of its Staples Green Guide online catalog. Featuring more than 1,100 products – ranging from paper and toner to furniture accessories, technology solutions, and facility and break room supplies – the Staples Green Guide enables companies to support environmentally sound procurement practices while driving greater convenience and efficiency.

NFI has created a new business division – NFI Solar – that will finance, own, and manage solar energy systems on commercial properties, with the intent of generating clean sustainable power. Initial efforts will focus on the company's real estate holdings and large warehouse facilities, with additional solar energy systems developed in its New Jersey operations, then expanding to Texas and California.

UP THE CHAIN

Office Depot appointed **Kevin Peters** president of its North American Retail Division. Previously executive vice president, supply chain and information technology for the office products and services company, Peters spent 16 years in supply chain management positions at W.W. Grainger and The Home Depot.

David Allen has been named executive vice president, operations for **Del Monte Foods**. Allen will oversee all of the company's operations and supply chain functions, including supply chain and pet operations, Del Monte consumer operations, international operations, and special markets.

Sysco Corporation has promoted **William B. Day**, currently senior vice president, merchandising and supply chain, to executive vice president, merchandising and supply chain. Day began his Sysco career in 1983 as a staff accountant in the company's Memphis office, became assistant controller in 1999, and was promoted to senior vice president, supply chain management in 2009.

sound*byte*

"30 percent of fuel economy is in the foot– and mind–of the driver."

– David Congdon,
president and CEO,
Old Dominion Freight Line


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NOTED

THE SUPPLY CHAIN IN BRIEF

SEALED DEALS

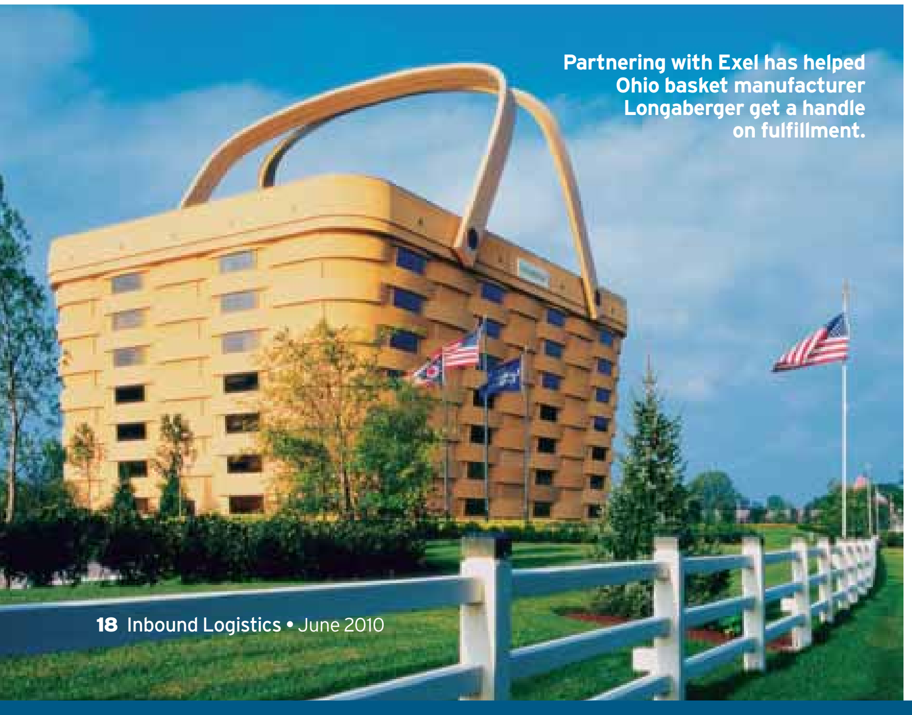
► Exercise equipment manufacturer **Life Fitness** has partnered with **LeSaint Logistics** to manage its global parts business. The company previously managed its warehousing and fulfillment functions in-house, but is looking for more efficient ways to employ inventory technology, ensure consistent operations, and best utilize its staffing and space to better serve customers and grow its business.

OHL has entered into a new contract with **National Geographic** to continue managing its direct-to-consumer products. Partners in the United States and United Kingdom since 2008, OHL provides fulfillment from one centrally located stateside distribution center, including value-added services such as map folding, gift boxing, and personal note insertion for customers.

TBB Global Logistics recently announced two new contracts with **Eastman Strings**, a high-quality musical instrument seller; and **FTCA**, the manufacturer of the Coleman Camping Trailer. TBB provides domestic and international supply chain management services for Eastman Strings and domestic transportation management for FTCA.

Damco has been appointed customs house broker by **The Children's Place**, extending an existing contract that includes management of the clothing retailer's purchase orders from global origins to four distribution centers in the United States and Canada.

▼ **Exel** has begun managing **The Longaberger Company's** customer fulfillment center in Frazeysburg, Ohio. In this role, the 3PL oversees all elements of the basket manufacturer's order fulfillment through major sales channels including the Web and 45,000 independent home consultants. Longaberger expects to increase order accuracy and reduce lead times, while improving packaging to provide better protection for products during shipping.



Partnering with Exel has helped Ohio basket manufacturer Longaberger get a handle on fulfillment.

recognition

Kenco Logistic Services CEO **Gary L. Mayfield** has been elected chairman of the **International Warehouse Logistics Association (IWLA)**. As chairman, his priorities will be increasing membership recruitment and retention; getting members more involved in the association; and improving communication of IWLA's government affairs activities at the federal and state levels, as well as its educational, product, and service opportunities.

EA Logistics has been recognized for its green freight practices in a new report from the **Environmental Defense Fund** entitled *The Good Haul*. The report, which offers a comprehensive overview of green innovations within the freight industry, specifically references the forwarder's shipment consolidation business model; anti-idling policies for trucks; driver efficiency training; and packaging reduction guidance to clients.

Under Armour named **FMI International** Logistics Service Provider of the Year in recognition of service excellence and contributions toward the sports apparel and footwear company's global supply chain initiatives. The award cites the technical and operational expertise provided by FMI at its San Pedro, Calif., facility.

American Airlines Cargo Division received the International Airline of the Year award from the **Express Delivery and Logistics Association (XLA)** at its AirCargo 2010 Conference in Orlando, Fla. The winner of the annual award is determined by a survey of XLA members who use air carriers for global express deliveries.

Pella Corporation selected **Koch Trucking Inc.** as its 2009 Truckload Carrier of the Year for outstanding work in the Midwest region. Pella honored carriers for their performance in safely and efficiently transporting Pella windows, doors, and materials throughout North America.

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TRENDTRACKER

Patagonia and Walmart Grow Green Together

by Joseph O'Reilly

Sustainability mandates are fast becoming competitive differentiators for many companies, outwardly attracting green-thumbed consumers while inwardly reducing inefficiency and waste. But for outdoor clothing company Patagonia, being green is simply a matter of corporate karma.

The Ventura, Calif.-based clothier has been on the "greening edge" of environmental best practices since founder Yvon Chouinard started the business in the early 1970s and began donating 10 percent of annual profits to environmental causes. Everything Patagonia does, from vetting suppliers to building LEED-certified service centers to recycling used apparel, supports its broader stewardship.

So when Walmart approached the company one year ago for some direction with its own responsible sourcing initiative, competitive hubris took a back seat to global citizenry. Patagonia engaged the world's third-largest company and shared key insights into its own green metrics and sourcing protocol.

Walmart is currently in the process of rolling out a comprehensive sustainability index that will help enforce supplier compliance with specific green benchmarks. Apart from creating a more transparent pipeline and rewarding suppliers that conform to its requirements, shoppers will have more information on the greenness and quality of the products they purchase.

The three-phase process began last summer with a 15-question survey solicited to more than 100,000 suppliers around the world. In time, Walmart plans to create an online consortium of universities, suppliers, retailers, non-governmental organizations, and government officials that will work toward developing a global information database on product lifecycles. Finally, it will make all this information available to consumers.

When announcing the index, Walmart CEO Mike Duke stressed the inclusiveness of this effort: "It is not our goal to create or own this index," he said. "We want to spur the development of a common database that will allow the consortium to collect and analyze the knowledge of the global supply chain."

Walmart's altruism is good for publicity. But Patagonia's willingness to provide some empirical objectivity is striking. Sustainability and transparency are big priorities for Patagonia–so much so that it specifies partners who proactively reduce their environmental footprints and publishes supplier contact information on its Web site.

Patagonia learned from its own growing pains, which perhaps offered Walmart even greater perspective. When the company began expanding its offshore supplier network in the late 1990s to find cheaper manufacturing partners, it ran into problems. Tier-one suppliers were subcontracting work to unknown parties, visibility was lacking, and Patagonia couldn't hold them accountable to its strict standards. So it stepped up third-party auditing at these facilities and, in 2002, added a manager of social responsibility to monitor compliance throughout its supply chain.

3PLs Make Sustainability a Priority

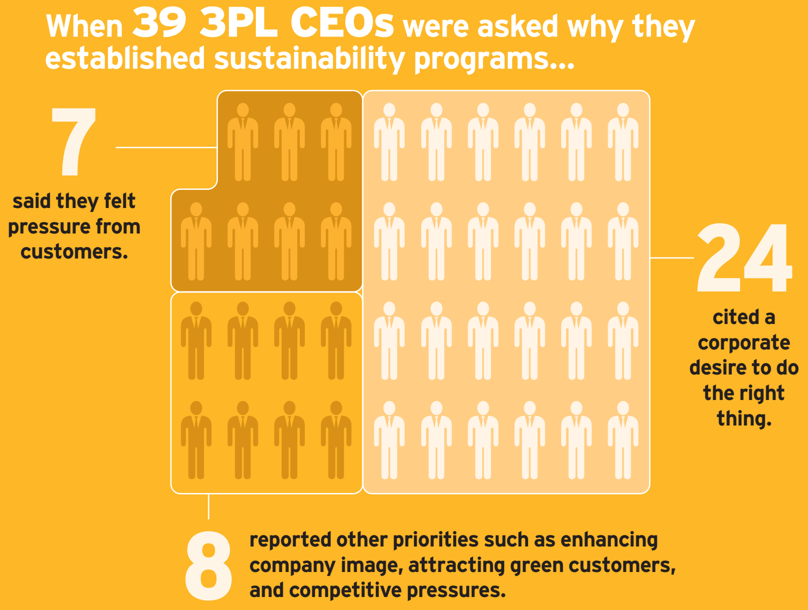
Despite lingering effects from the global recession, 3PLs are ramping up green efforts, according to Penske Logistics' *Third Party Logistics Sustainability Report*. The study, authored by Dr. Robert C. Lieb, professor of supply chain management at Northeastern University, and Dr. Kristin J. Lieb, assistant professor of marketing communication, Emerson College, interviewed 35 and 39 3PL CEOs respectively during two separate surveys in 2008 and 2009.

Participants were asked if their companies had formal green/environmental sustainability programs in place, and 80 percent indicated they did. Moreover, 57 percent of these companies have also established a management position to oversee company efforts in that area.

None of the companies report scaling back sustainability goals due to the recession. In fact, 63 percent say they expanded existing green programs during the previous year, while 71 percent indicate they launched completely new initiatives during the same time frame.

The study also finds that 80 percent of CEOs netted positive results from their sustainability programs, reducing operating expenses and having a beneficial impact on employees.

"Compared with other industries, 3PL service providers are ahead of the sustainability game," says Dr. Robert Lieb. "They appear to be planning for the long term by recognizing emerging customer preferences and providing services consistent with them, even during a market downturn."



Source: Penske Logistics' 2010 Third Party Logistics Sustainability Report

GREEN COLLABORATION

Walmart's motivation to seek outside perspective and Patagonia's openness to share best practices are notable. But the "green party" is here to stay and examples of environmental collaboration among business partners and competitors is becoming more commonplace for two specific reasons.

First, Walmart's influence on corporate culture and business strategies carries a lot of weight. Smaller enterprises such as Patagonia can use the green badge as a novel hook to attract like-minded consumers. But when a Fortune 100 company with far greater clout and a more diverse customer demographic tows the same line, its impact resonates. Patagonia can match green demand; Walmart manufactures it.

Secondly, companies that don't publicly market their green records, or are exposed by failures, lose favor in the court of public opinion. If competitors make a commitment to sustainability and customers buy that sell, the herd mentality kicks into gear, creating a ripple effect across the supply chain.

Procter & Gamble (P&G), Walmart's largest vendor, recently introduced its own Supplier Environmental Sustainability Scorecard–a rating process that measures energy and water use, waste disposal, and greenhouse gas emissions among suppliers.

The benchmarking tool is designed to encourage year-on-year improvement among suppliers, regardless of size or business volume. Partners will have a full year to report data before the scorecard can adversely impact their rating.

P&G intends to use the sustainability scorecard as part of its annual supplier performance measurement process. And, like Walmart, the company hopes the new initiative will have far-reaching impact across all industries and that partners will use the scorecard within their own supply chains. So not only is Walmart holding suppliers accountable; its suppliers, notably P&G, are making sure their suppliers are compliant, too. Imagine the cascading effect this will have across the supply chain.

> When a Fortune 100 company with a diverse customer demographic **tows the sustainability line**, its impact resonates. Patagonia can match green demand. Walmart manufactures it.

Patagonia has held similar sway among its supply chain partners and competitors. In 2007, the company partnered with Switzerland-based Bluesign Technologies to employ its industry standard for inspecting the ingredients and processes used in textile manufacturing. The criterion ensures products only contain components and pass through processes that are harmless to people and the environment. Compliance creates transparency throughout the textile production chain without compromising functionality, quality, or design. Patagonia was the first to join with Bluesign Technologies. Now Helly Hansen, The North Face, and REI are "competing partners" as well.

Collaboration the likes of Patagonia and Walmart is unique, if for no other reason than the contrast between companies–one a niche outdoor apparel brand, the other a ubiquitous brand equalizer. Each offers a different perspective and value. Patagonia has spent nearly 40 years cultivating sustainable best practices. Now it has found a willing partner that can merchandise and mandate its ethos to the world. ■

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GLOBAL

THE WORLD AT A GLANCE

by Joseph O'Reilly

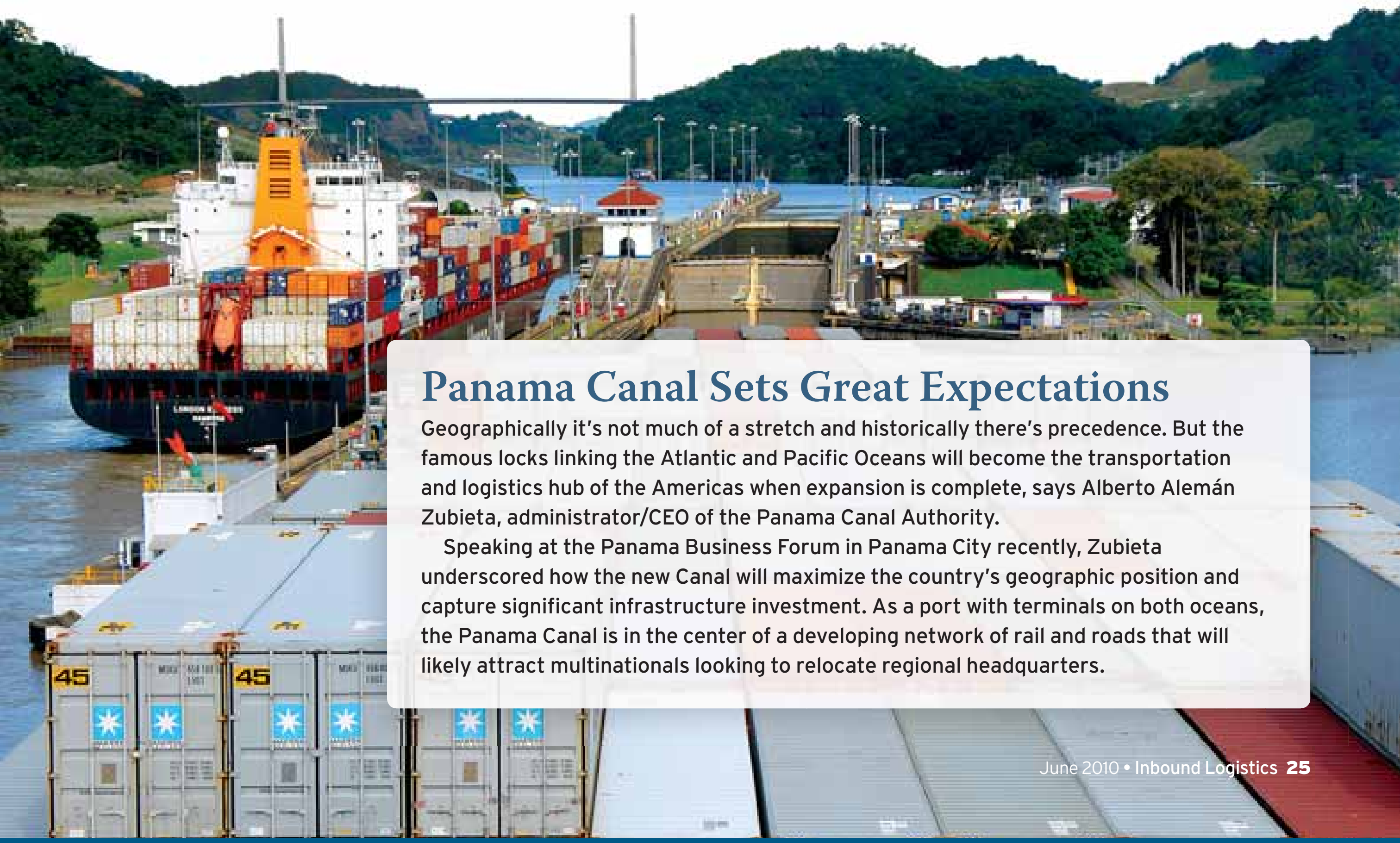
Deutsche Bahn Expands in Middle East

The United Arab Emirates (UAE) is counting on German engineering to help build a high-capacity railway system. Deutsche Bahn recently signed a Memorandum of Understanding with the UAE government that will pump billions of dollars into developing regional transport networks including a metro system, tram services, and a long-distance line linking Abu Dhabi with the southern emirates.

The agreement comes months after the German rail operator signed an even bigger deal in Qatar and Bahrain. Expectations are that Deutsche Bahn will dovetail these expansion projects with similar freight initiatives, especially as it becomes increasingly difficult to expand and compete in Germany and elsewhere on the Continent.

European Air Charters Take Off

Volcanic ash clouds have cast a pall over the European air cargo industry, but there is one silver lining. Charter airfreight operators have seen a noticeable swell in demand for their services. Chapman Freeborn, an England-based air charter company, reports increasing charter requests



Panama Canal Sets Great Expectations

Geographically it's not much of a stretch and historically there's precedence. But the famous locks linking the Atlantic and Pacific Oceans will become the transportation and logistics hub of the Americas when expansion is complete, says Alberto Alemán Zubieta, administrator/CEO of the Panama Canal Authority.

Speaking at the Panama Business Forum in Panama City recently, Zubieta underscored how the new Canal will maximize the country's geographic position and capture significant infrastructure investment. As a port with terminals on both oceans, the Panama Canal is in the center of a developing network of rail and roads that will likely attract multinationals looking to relocate regional headquarters.

to destinations where there is typically ample scheduled capacity, especially between European and U.S. hubs.

Forwarders and shippers are requesting and booking flights using airports anywhere in mainland Europe, even at the time and expense of trucking freight far longer distances. The charter company has seen demand across all industries, but especially for mission-critical shipments.

Europe's "10+2" Poses Questions

The European Union's (EU) Import Control System (ICS), which mandates that shipment information be communicated to Customs in advance, is shaking up import compliance in a scenario familiar to U.S. consignees. Similar to the U.S. Importer Security Filing (10+2), the ICS aims to deliver critical data to authorities before a shipment reaches the EU so they can better assess risks.

Effective Jan. 1, 2011, the regulation places the burden of compliance on carriers. But importers and exporters will have to provide timely and accurate information or shipments will be delayed. Not surprisingly, shippers and transporters are voicing concerns about how this information will be gathered, how the ICS will be financed, and how this effort will be rolled out across 27 countries.

Latin America Infrastructure Lags

The Latin America region is projected to invest more than $450 billion in strategic infrastructure projects between 2011 and 2015, according to a report by CG/LA Infrastructure, a Washington, D.C.-based consulting firm. But that number represents an average investment of slightly more than two percent of GDP region-wide, compared to six percent in India and 10 percent in China.

Latin American countries with the best prospects for investment are those with the strongest sense of infrastructure as critical to competitiveness. Brazil, with World Cup and Olympics projects on tap, is projected to show an annual 18-percent increase in infrastructure spend; Colombia, as peace gains traction, follows at 17.6 percent. Mexico's investments, by comparison, are expected to rise at an annual rate of approximately eight percent.

Halifax Port Authority Opens Gateway Partnership

CN, the Halifax Port Authority, Ceres Terminals, and Halterm Container Terminal have reached an agreement to align performance in the Halifax Gateway supply chain. The partnership will explore ways to enhance the port's role as a preferred trade corridor from the Atlantic seaboard to Ontario, Quebec, and U.S. Midwest markets. The effort establishes performance metrics including times for unloading and loading containers between vessels and cars, the timing and placement of rail cars at terminals, and CN transit times to key markets in eastern and central Canada and the U.S. Midwest.

Cutting the Cost of Japanese Air Transport

The International Air Transport Association (IATA) has thrown its support behind Japan's vision of establishing more efficient infrastructure and increasing its air transport competitiveness. But the Japanese government must first address cost issues that are impeding the country's ability to compete in the Asia-Pacific market, warns Giovanni Bisignani, IATA's director general and CEO.

Bisignani cites Tokyo's Haneda Airport's per-tonne charge for international operations, which is double that of airports such as Singapore's Changi, as an obstacle to attracting hub traffic serving the Chinese market. "International and domestic operations use the same infrastructure," he says. "There is no justification for international charges to be higher. In fact, the increased traffic should reduce unit costs. Setting such a high charge for Haneda ignores the natural impact of added capacity to reduce unit costs."

Bisignani also urges Japan's aviation leaders to pursue adopting e-freight, which would reduce costs and speed shipment processing times.

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GREEN LANDSCAPE

SUSTAINABILITY IN THE SUPPLY CHAIN

by Laura Worker

Greening the Supply Chain Through Warehouse Automation

As part of the trend toward greener warehouses, businesses are seeking more efficient materials handling tools. Automated storage and retrieval systems (AS/RS) and their accompanying warehouse management systems (WMS) help achieve this goal by maximizing storage space while reducing operating costs.

Flexible, hybrid AS/RS designs use one or more cranes in an aisle. They can store products single deep, double deep, or up to 12 loads deep in the rack structure.

Depending on each warehouse's inventory mix of high, intermediate, and slow moving products, AS/RS providers can minimize the cubic space required for storage and handling. Rack entry vehicles quickly and smoothly transport pallets and containers in and out of the storage rack, delivering faster throughput.

Automated systems also deliver the following environmental benefits:

■ **Less land usage.** A warehouse with an AS/RS uses up to 40 percent less space than a conventional warehouse to store the same number of products. Automated warehouses have smaller footprints, so less land is used when building new facilities. For firms expanding storage due to growth, even in an existing facility, AS/RS can save the construction expenses involved in building a larger warehouse. Using less land results in less environmental impact to an area.

■ **Less energy consumption.** Automated warehouses save energy in several ways. Smaller areas require less lighting and cooling, for example. Also, regenerative braking on storage/retrieval machines further reduce energy consumption because it feeds back surplus braking energy to the power supply system. Finally, the facility's WMS controls all product flows and optimizes product movements, which saves energy.

■ **Less product waste.** An automated warehouse reduces product damage because pallets are handled smoothly. Less stretch wrapping is required to secure pallets when moving, which results in less product waste.

Additionally, because automated order picking is more accurate, returns are reduced, and the associated fuel, labor, and operating cost savings benefit the entire business.

■ **Reduced maintenance.** Maintenance costs for AS/RS are lower than for lift trucks. Automated facilities save money on leasing costs, battery charging stations and replacement, cleaning costs, and lift truck damage repair.

■ **Safety benefits.** Labor costs in automated warehouses are lower than in conventional facilities because they need fewer workers. This reduced staffing cuts hiring and training expenses.

In addition, fewer injuries occur because workers do not have to go into the racks themselves. Also, automated picking stations can be ergonomically designed to prevent repetitive-motion injuries. Firms wanting to get one step ahead of the competition should consider investigating and investing in AS/RS and WMS for their green attributes and financial benefits. ■

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ITMATTERS

by Geoff Comrie

The Power of Flexible Transportation Management

A primary concern for shippers today is how the recent economic downturn will increase transportation expenses. Capacity will continue to shrink as the economy strengthens. Many carriers are no longer in business, and with 3PL and carrier consolidation, there is concern that service offerings will be less flexible. Shippers want to reduce transportation costs and streamline business processes through better transportation management.

Investing in transportation management systems (TMS) can be expensive, and shippers may find that some options are inflexible, proprietary, or not easily scalable. Some companies find previous technology investments cannot handle the demands of a growing or changing business. They are shackled by the very technology they implemented to help them.

A NEW BREED

A new breed of more flexible transportation management platforms is well-positioned to meet the ever-changing needs of shippers, 3PLs, and carriers. These flexible systems are typically not on-demand, because the level of flexibility and customization they offer is difficult to achieve. Rather, the majority of installations are on-site so that they can be easily adapted to fit a company's internal and market-facing needs.

This flexibility allows shippers to cost-effectively purchase just the TMS functionality they need, instead of buying an entire system and only using certain functions. These new systems are also capable of integrating with existing and legacy systems in which a firm has already invested.

A flexible transportation management platform provides core complex transportation management components–such as extensive contract management, pricing, rating, and security administration tools–that companies do not want to spend internal time and money developing.

With a flexible TMS, companies can dedicate IT resources to developing applications for achieving their goals. The critical piece to a strong and flexible transportation management system is the quality and adaptability of these core components: the ability to integrate with other systems, and produce quality data used by finance and other functions.

USING SUPPLY CHAIN KNOWLEDGE

The flexibility these platforms offer acknowledges that companies have become increasingly sophisticated in their ability to internally develop and apply information technologies to obtain the most useful data and knowledge. Data-driven management across the supply chain has become a recognized way to gain a competitive edge, raising the importance of custom applications and seamless integration with other systems.

Flexible transportation management, when utilized to its fullest, becomes a powerful weapon in helping a company achieve its objectives, particularly when it takes steps to integrate inbound and outbound transportation throughout the supply chain management process. ■

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Kevin Lehrer *(pictured)* and Jonathan Allen
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VIEWPOINT

by Kevin Lehrer & Jonathan Allen

Strengthening Your China Operations

The consumer goods industry has been hurt by the economic chill on both sides of the Pacific. In the United States, declining sales, inventory cutbacks, and limited credit are affecting demand. In China, the decline in exports has caused significant instability, widespread factory closures, and growing unrest among a labor force that has lost millions of jobs over the past year.

U.S. businesses are fighting to keep sales moving forward, while holding operating costs to a minimum. In pursuit of minimizing costs, however, companies doing business with China expose themselves to potential supply chain breakdowns, leading to strained supplier relations, production delays, inconsistent or reduced quality, and freight overpayment.

Reducing costs and maintaining a viable China operation are not mutually exclusive, and companies should view the economic turbulence as an opportunity to revisit their operations. The following five strategies can help companies keep their China operations strong:

1. Revisit product costs. Ask Chinese suppliers to provide bill of materials documents, and check them for opportunities to improve costs. Be careful not to approach suppliers as adversaries, however. These discussions require a partnership mentality. You want to improve transparency so you can find room for improvement.

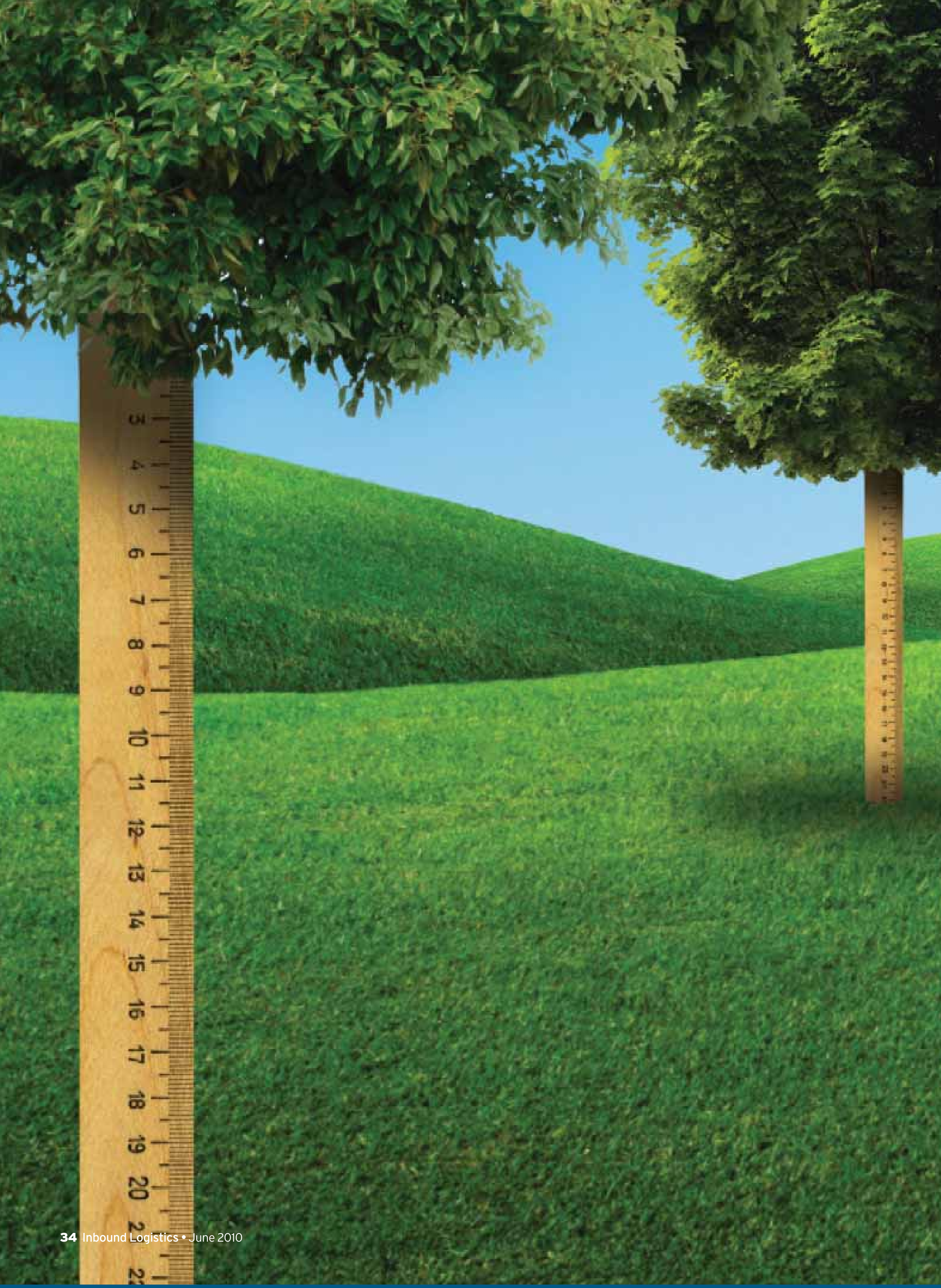
2. Modify payment terms. If product pricing is non-negotiable, pursue better terms. Many U.S./China relationships begin using payment upfront or a letter of credit (L/C). L/Cs are costly and cumbersome, so many companies in established partnerships move to terms that include a deposit upon issuing the purchase order, then a balance payment when production is completed. This helps free up your borrowing base, which is particularly useful given current economic conditions.

You should also consider asking your Chinese factory to extend the time by which your balance payment is due. Shippers have been able to negotiate terms of up to net 90 days. If you have reasonably stable orders, it is a buyer's market.

3. Inspect, inspect, inspect. The single biggest operations cost killer is receiving incorrect or defective product. Yet, for a fraction of the cost of what you will end up paying for such a problem, you could have hired a service to inspect your product and packaging at the China factory before it shipped. If you choose to hire a third-party inspection company, make the arrangements well before the product will ship so you have time to educate the service on your product standards, potential production variances, and thresholds.

4. Stay in contact with suppliers. The challenges facing the consumer product industry are global, and your Chinese supplier may be facing issues you are unaware of. The last thing you want is to find out that your factory shut down overnight or has to postpone production. There is no fool-proof plan for preventing this from happening, but the more you know about your Chinese supplier, the more likely you are to avoid costly surprises.

5. Improve freight costs. The silver lining in this economic cloud is that a combination of reduced exports and lower oil prices has significantly reduced ocean container costs. If you are paying the same freight rates as in 2008, start working toward a reduction. ■



THE GREEN RULE

Measuring Progress

Government, industry, and consumers are creating new standards for supply chain sustainability excellence.

by Joseph O'Reilly

HERE'S A SIMPLE ASSERTION–today's sustainability innovations may be easily attainable tomorrow. Which begs two questions: Where can green supply chain best practices take industry, and vice versa? And how will businesses sustain this momentum?

Every logistics metric needs a means for documenting progress and addressing areas for improvement. From freight auditing to Lean Six Sigma, continuous improvement requires a methodology that assesses change, raises standards, and creates new goals. Then the cycle begins anew.

Supply chain sustainability is no different. Companies have to balance corporate requirements–what makes prudent business sense in terms of process improvement and return on investment–with changing market variables.

Measurability is especially important because progress rarely happens within a vacuum. Performance needs to be calculated and processes calibrated. Internal and external economics, government legislation, innovation, competition, and customer demand dictate corporate behavior to varying degrees.

The recent economic tumble presents a good example of how outside pressures impacted the green movement. Without recourse, many consumers cinched their purse strings in favor of economy rather than the environment. This actually created a measure for "greenness" among retailers and manufacturers who had to eliminate inefficiencies, and reduce inventories and waste, simply to remain in the black.

Transport carriers, 3PLs, port authorities–any businesses holding fixed assets–were similarly and summarily forced to optimize fleets, rationalize fuel use, reduce facility and labor overhead, consolidate shipments, and shorten transport mileages. The net effect is a leaner and greener supply chain.

Green has made its mark. For myriad reasons supported by fact, fiction, and faction, many consumers have become conscious about the sustainability of products and services they choose. So have shippers. In turn, transportation and logistics service providers have picked up the lead.

So what's next? How are warehouses building green into their blueprints? Where are freight transporters pushing the needle and the pedal in terms of fuel economy? How are port authorities piloting sustainable development?

The green engine isn't idling. It's beginning to pick up greater speed as businesses rise from the recession and begin investing in new equipment and tweaking their sustainability initiatives; as consumers consider the costs and benefits of buying green; and as government debates environmental regulation.

SUSTAINING EXCELLENCE

Supply chain sustainability benchmarks are broadly emerging from three different areas–government, industry, and organically within the enterprise.

Most importantly, the Obama administration has aggressively lobbied for

At AEP River Operations, we SEE GREEN.

AEP River Operations’ Port Captain Mark Murphy shows off the used mooring line that the SEE GREEN initiative has recycled. We are recycling more than 70,000 pounds of line every year. Since October 2008, our team has rescued from a landfill approximately 3,500 cubic yards of materials.

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To learn more about SEE GREEN or to get involved, please contact Mark Murphy at MMurphy@AEPRiverOps.com.

see green

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environmental policy change, notably the Cap and Trade carbon emissions legislation being bandied about the Beltway. The U.S. Environmental Protection Agency (EPA) has also progressively rolled out vehicle emissions standards for light- and heavy-duty trucks during the past decade. Carbon emissions and alternative energy mandates have forced the issue for many transportation and logistics companies. Others, sensing what is coming down the legislative pipeline, are proactively initiating their own programs.

Beyond the public sector, industry as a whole is driving collaboration. From idling restrictions to scorecarding environmental compliance, manufacturers such as IBM, Ford, and Procter & Gamble, and retail channels including Walmart and Patagonia, are investing in, developing, and enforcing sustainability measures with the intention that transport, logistics, and supply partners will follow their lead.

Public-private partnerships such as the EPA's SmartWay program and the U.S. Green Building Council's LEED green building certification system have engendered wide support across the supply chain. The SmartWay program, specifically, fosters collaboration among shippers, transport carriers, and most recently third-party logistics providers, offering incentive for partners and affiliates to collaborate.

There are also emerging standards specific to mode–the American Trucking Associations' Sustainability Task Force, for example; there are state and regional efforts such as the NJ Green Association and Indiana Recycling Coalition; and research institutions–the University of Wisconsin's Alternate Fuels Research Project and the University of Washington's Global Trade Transportation and Logistics Studies program–are recruiting industry participation. Collectively, these partnerships are creating new measures for green innovation.

Closer to the corporate vest, companies are independently asserting their commitment to environmental best practices, talking about and walking in their own sustainability footprints. Both the Port of Long Beach and the Ports of Tacoma and Seattle have clean truck programs. DB Schenker's Green Lighthouse project that is helping shippers make smarter decisions about their carbon liability by mixing modes. Continental Airlines Cargo's Eco-Skies initiative seeks innovative ways to minimize its carbon footprint and encourages shippers and suppliers to do the same.

Some green initiatives are less overt; others are wholly transparent. FedEx

Green Thumbs Up

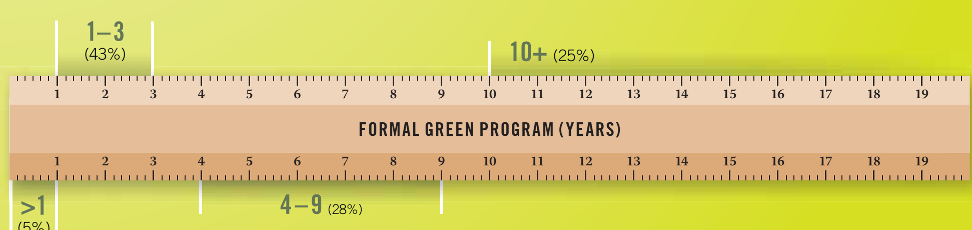
As part of *Inbound Logistics'* annual Green Supply Chain Partners research study, we asked more than 50 transportation and logistics companies to detail their investments in corporate sustainability efforts.

Most corporate green initiatives are relatively new, with almost 50 percent of polled companies reporting they established formal sustainability programs within the last three years. One quarter of respondents have had efforts in place for more than a decade.

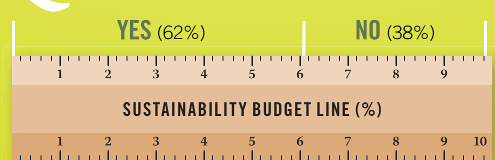
More telling, companies are allocating capital to help drive these internal measures, with 62 percent of respondents acknowledging they have dedicated a budget to sustainability. Especially in light of the economy, investing money in initiatives that don't show an immediate return is still a difficult proposition for some companies.

Apart from corporate strategies, transportation and logistics companies have readily embraced cross-industry partnerships such as the EPA's SmartWay program. More than 75 percent of survey participants are affiliates in the public-private partnership.

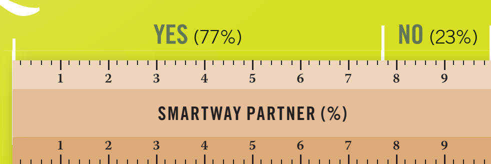
Q How many years have you had a formal green program in place?



Q Does your company have a budget line dedicated to sustainability initiatives?



Q Is your company a partner in the U.S. Environmental Protection Agency's SmartWay program?



Source: 2010 Inbound Logistics Green Supply Chain Partners study and UPS' hybrid electric fleets are highly visible on the road, serving as a testament to their respective investments in carbon-less vehicles. EA Logistics' Delivered GrEAn program is core to its forwarding business–so much so that the logo is branded on its trucks.

Increasing market pressures to green the supply chain will make knowledge share a critical component in the advancement of sustainable logistics best practices. As the SmartWay program demonstrates, these partnerships will become inclusive and span supply chain functions from source to shelf. More leaders and just as many followers will emerge, as will new benchmarks for sustainable excellence.

INTRODUCING 50 GREEN SUPPLY CHAIN PARTNERS

Government, industry, and consumers each have a unique expectation and appreciation of what it means to be green. So does the press. In some measure, our standard is a composite reality of what everyone else thinks.

Inbound Logistics' methodology for selecting this year's 50 Green Supply Chain Partners takes into consideration inputs from three areas–participation in public-private partnerships; corporate sustainability initiatives; and collaborative customer-driven projects. Within this context, two benchmarks carry weight in our decision-making: measurable green results and sustainability innovation.

As part of our due diligence, we solicited transportation and logistics companies to complete a questionnaire specifying their investments in green. We also conducted our own research, online, over the phone, and in person.

Our focus centers on asset-heavy companies that are making sustainability a part of their extended enterprise–by mandate and by mission–and demonstrating qualitative progress.

Our focus does not include companies that tout technology or intellectual capital as green agents. Simply, it's not just a matter of being a facilitator and responding to customer demand. We value companies that are leading by example. Turn the page and find out.

From 3PLs to motor freight carriers, *Inbound Logistics* salutes supply chain visionaries who are leading the green revolution.

G50

INBOUND LOGISTICS

50 GREEN SUPPLY CHAIN PARTNERS

AEP River Operations

GREEN URL: http://tinyurl.com/35rl78t

Recycling is a large part of how AEP River Operations manages its waste. The company initiated a program called SEE GREEN in October 2008 to reduce waste from its barge operations. In 2009, AEP recycled approximately 3,500 cubic yards of waste, as well as 70,000 pounds of vessel mooring lines. In addition, the company recycles 90 percent of all onboard waste, cutting disposal costs in half and reducing the risk of harming the environment.

Electronic waste recycling | ATCLE

ATC Logistics & Electronics

GREEN URL: http://tinyurl.com/36szupm

ATCLE has established a dedicated green team with cross-functional participants who gather monthly to identify opportunities to improve the environment, as a company and within specific departments. Through a top-down organizational commitment to reducing negative environmental impact in internal operations, the 3PL realized dramatic tangible benefits, cutting its overall environmental impact by approximately 10 percent from 2007 to 2008.

C.H. Robinson Worldwide

GREEN URL: http://tinyurl.com/2flgs8a

C.H. Robinson works with non-profit organization Cascade Sierra Solutions (CSS) to help motor carriers reduce fuel consumption and carbon emissions. To support CSS in its mission, the 3PL provides financial backing and helps promote CSS services to its network of more than 45,000 contract motor carriers in North America. Additionally, C.H. Robinson has invited its customers to participate in the newly developed C.H. Robinson-CSS Customer Match Program, which matches a percentage of C.H. Robinson's eligible customers' donations to CSS.

DB Schenker

GREEN URL: http://tinyurl.com/292s9ku

DB Schenker's Green Logistics Network project evaluates transportation modes not only according to economical aspects, but also from an ecological point of view. Under the umbrella of this initiative, the company offers shippers a carbon-optimized transport chain. The aim is to reduce carbon emissions through an intelligent shift to less carbon-intensive transportation modes and by offering alternative transport services. This helps to increase the share of low-emission modes in the transport chain and to reduce the carbon footprint for both shippers and for DB Schenker.

Solar-powered warehouse, Martinengo, Italy | CEVA Logistics

CEVA Logistics

GREEN URL: http://tinyurl.com/29qgqlw

Working in partnership with Starbucks and Smith Electric Vehicles, CEVA introduced high-performance zero-emission electric vehicles that make daily deliveries to Starbucks stores in London. The 3PL also operates eco-sustainable facilities, such as a warehouse in Martinengo, Italy, fitted with more than 5,300 photovoltaic panels.

Carbon-optimized transport, Hong Kong | DB Schenker


55
YEARS

DSC Logistics

GREEN URL: http://tinyurl.com/2gyfgf3

During the fourth quarter of 2009, DSC Logistics launched a new bill of lading (BOL) system throughout its network. The initiative came about after employees noticed the typical six-part BOL was often unnecessary. Working with suppliers to arrange for order forms with only the number of pages its logistics centers need, DSC expects to save 644,000 pages of paper each year.

EA Logistics

GREEN URL: http://tinyurl.com/37uelbe

Delivered GrEAn is EA Logistics's corporate commitment to the environment. The forwarder's sustainability mission includes computing carbon footprints for customers and providing free reforestation offsets to neutralize emissions; using biodiesel in its truck fleet and encouraging vendors to use it as well; enforcing no-idling restrictions at its facility; and requiring drivers to comply with drive speed rules to reduce fuel consumption.

GENCO Supply Chain Solutions

GREEN URL: http://tinyurl.com/2fmot9v

GENCO recently purchased 25 hydrogen fuel cell power units for use in lift trucks at a 450,000-square-foot dedicated distribution center. This sustainable solution eliminates the demand for and cost of electricity, significantly reduces greenhouse gas emissions, and removes toxic lead-acid from the workplace, replacing it with hydrogen, which generates water as a by-product. GENCO's commitment to reverse logistics and supply chain sustainability includes returning serviceable goods to market through GENCO Marketplace, a product liquidation service that pushes unwanted, repaired, and refurbished merchandise back into the sales cycle, eliminating waste and generating new revenue streams.

Low-emissions vehicle | J.B. Hunt

J.B. Hunt

GREEN URL: http://tinyurl.com/2fzujrl

J.B. Hunt has been working with Blue Source since 2003 to measure emission reductions. As part of the collaborative effort, they have developed Cool Transport, a carbon-neutral transportation service that is reducing the number of trucks on America's highways and the overall carbon footprint generated by transportation. The company is also researching the use of alternative fuel sources, engine technologies, and emissions reduction devices with its drayage fleet to help improve air quality and reduce greenhouse gas emissions. J.B. Hunt's sustainability efforts have reduced carbon dioxide emissions by 56 percent, particulate matter by 84 percent, and nitrogen oxides by 88 percent.

Hub Group

GREEN URL: http://tinyurl.com/25j2wlj

Hub Group assists shippers in achieving their green and sustainability initiatives by developing a model of the shipper's existing carbon footprint, then highlighting areas in its transportation network where it can reduce carbon emissions through intermodal conversion. In addition to identifying the areas for improvement, Hub Group helps shippers develop a strategy to implement the changes and provides comprehensive reporting to ensure that all targets and goals are obtained. Hub Group places an emphasis on working with providers who are members of the SmartWay Transport Partnership, and works with carriers that are not current members to educate them on the benefits of being a SmartWay partner.

NFI Industries

GREEN URL: http://tinyurl.com/22ttfda

Each year, NFI Industries establishes fuel conservation goals and puts initiatives in place to meet them. It has lowered tractor-trailer speeds, reconfigured truck engines to reduce fuel requirements, and designed new trucks to maximize efficiency and minimize carbon output. The company has also begun using super single tires, which create less rolling resistance and less weight for the truck pull. By focusing on fuel conservation, NFI reduced CO_2 emissions by 230,711 tons, particulate matter by 42 tons, and nitrogen oxide emissions by 1,250 tons in one year. To pursue alternative energy, the NFI Solar division develops and finances renewable energy projects focused on solar power.

Penske Logistics

GREEN URL: www.PenskeLogistics.com

Penske has combined models from EPA's SmartWay program with proprietary software and hardware to benchmark truck fleet performance. This statistical data is collected at preventive maintenance intervals and helps the 3PL measure, analyze, and improve fuel economy. Between 2008 and 2009, Penske's truck fleet improved performance from 6.2 mpg to 6.6 mpg; reduced fleet idle hours from 419 hours per truck per year to 308 hours per truck per year; and reduced CO_2 emissions from 57 ounces per mile to 55 ounces per mile.

Ryder

GREEN URL: http://tinyurl.com/39yhp58

Energy-efficient tractor-trailer | Ryder

In its daily operations, Ryder tracks energy usage at all U.S. and Canadian facilities to improve efficiencies through lighting upgrades, and water and electricity conservation programs. Ryder recycles virtually all automotive waste including oils, solvents, batteries, automotive filters, vehicle and engine parts, and scrap metal. In 2009, it recycled more than three million gallons of used oil, and prevented almost 3,500 tons of emissions by recycling solid waste. The company pursues fuel conservation through its RydeSmart telematics system, a GPS vehicle-tracking and performance management system. With improved routing and detailed reports on idle time, speed performance, and driver behavior indicators, RydeSmart can reduce fuel consumption up to 10 to 15 percent per truck per day. The company also introduced RydeGreen tractors and trailers, designed to reduce fuel consumption and greenhouse gas emissions.

TransNeutral shipment | TransGroup Worldwide Logistics

TransGroup Worldwide Logistics

GREEN URL: http://tinyurl.com/3yjvhaj

TransGroup's TransNeutral opt-in program calculates shipment-specific carbon footprints and enables shippers to offset the CO_2 emissions that result from their shipments. For every ton of CO_2 a TransNeutral shipment puts out, another ton can be taken away or prevented. TransGroup continually enhances its green initiatives by adding asset recovery and disposition services, which help companies go green by properly recycling or discarding equipment and assets at the end of their lifecycles.

Werner Enterprises

GREEN URL: http://tinyurl.com/34oflu3

Werner has replaced trucks with more aerodynamic models, installed auxiliary power units, updated engine technology to maximize efficiency, reduced idle time, and developed more precise fleet management tools. In 2009, Werner Enterprises' proactive strategies saved more than 5.5 million gallons of fuel compared to 2008 and reduced CO_2 emissions by 60,000 tons.


Fuel-saving truck | Werner Enterprises

Aerodynamic winglet | American Airlines Cargo

American Airlines Cargo

GREEN URL: http://tinyurl.com/2fymxgc

In 2009, American Airlines Cargo reduced its greenhouse gas emissions related to jet fuel by 7.1 percent, and deployed 31 new Boeing 737 aircraft that are 35 percent more fuel-efficient than the MD-80 aircraft they replaced. To date, the airline's Fuel Smart program's run-rate of annual fuel savings stands at 108 million gallons. It also installed aerodynamic winglets, which increase lift without using engine power, improving fuel efficiency. Each plane equipped with the winglets is expected to save up to 500,000 gallons of fuel annually.

Continental Air Cargo

GREEN URL: http://tinyurl.com/6u5d4m

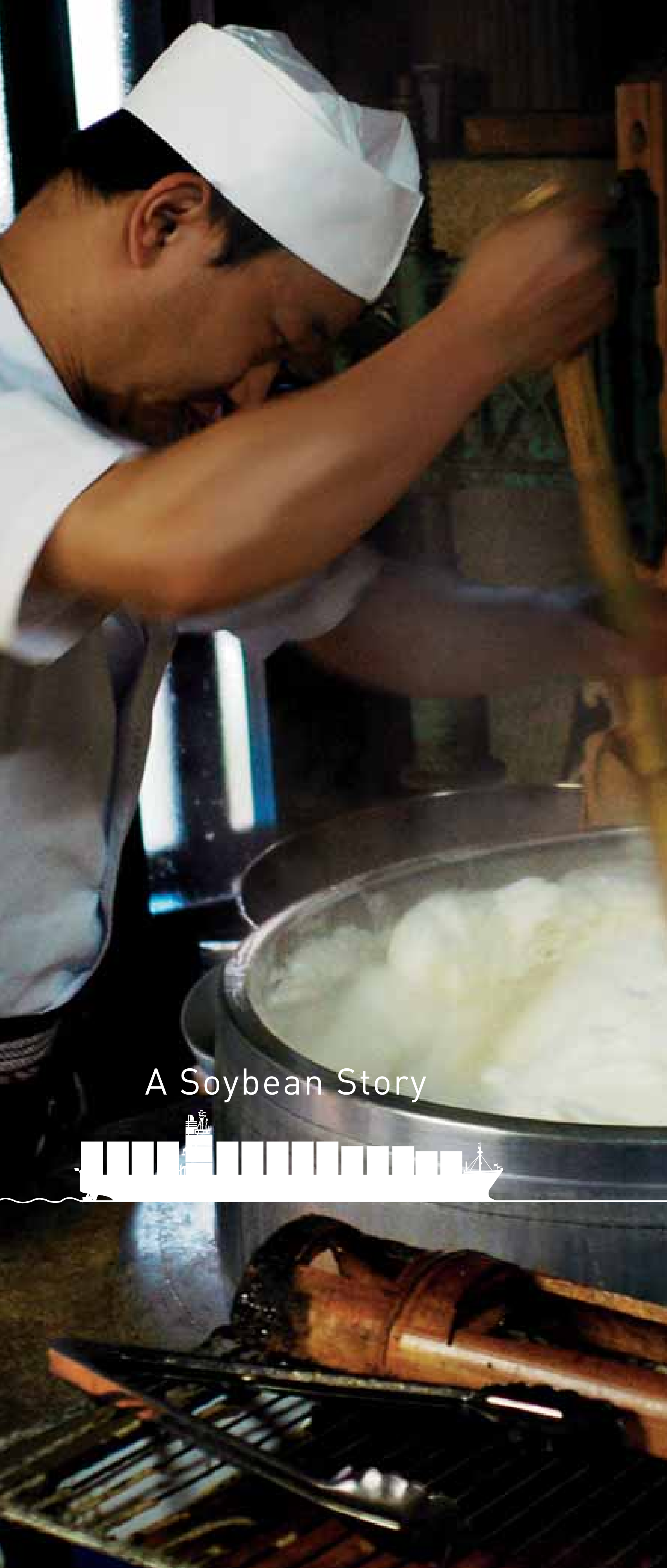
At its Houston hub, Continental has been using electric ground equipment since 2002, reducing its emissions by approximately 75 percent in one year. The airline currently operates certified low-emission vehicles in many locations and continues its proactive implementation of electric ground equipment throughout its operating system. Continental is also testing the use of alternative fuel and fuel additives for ground service equipment.

Lufthansa

GREEN URL: http://tinyurl.com/2wcu4so

In 2008, Lufthansa adopted a new strategy for environmental and climate protection through 2020. The program, which comprises 15 guidelines, is steered by the international Four-Pillar Strategy for air transport. It encompasses the entire range of practicable measures for climate protection in aviation. For example, bad weight distribution and balance in the cargo hold and transportation of unnecessary weight increases fuel consumption. Lufthansa saves fuel by balancing aircraft loading on freighters and in passenger plane bellies.

Balanced aircraft loading | Lufthansa


A Soybean Story

Bicycle delivery | DHL

DHL

GREEN URL: http://tinyurl.com/2bafx4q

To increase resource efficiency, DHL replaced parts of its truck and aircraft fleets, tested alternative technologies and fuels, and optimized routes and capacity usage. These measures helped the company improve its CO_2 efficiency index from 101 in 2008 to 98 in 2009. DHL Express's GoGreen service, a carbon-neutral shipping option piloted in 2005, allows shippers in 30 European and Asia Pacific countries to measure and offset carbon emissions generated by their shipments. In 2009, DHL shipped more than 700 million shipments with GoGreen. In metropolitan areas, delivery via scooters and bicycles also helps cut fuel usage and emissions.

FedEx

GREEN URL: http://tinyurl.com/24b28qf

FedEx currently operates the largest fleet of commercial hybrid-electric trucks in North America – more than 172. Other conservation efforts include helping shippers reconfigure their supply chains to gain efficiencies; creating packaging materials from recycled and sustainable content; and minimizing and recycling packaging materials. In 2008, FedEx recycled 17.6 million pounds of waste materials. By upgrading its fleet and optimizing routes, the FedEx Express division has improved total fleet miles per gallon within the United States by 13.7 percent since 2005, saving 45 million gallons of fuel and almost 500,000 tons of CO_2 emissions.

Hybrid vehicle | FedEx

Optimized delivery route | UPS

UPS

GREEN URL: http://tinyurl.com/29x4zjg

UPS invested in technology and business innovation to reduce its dependency on fossil fuels and minimize its energy and fuel consumption. Its surface management system helps plan aircraft takeoffs and reduce idling, saving 350,000 gallons of fuel annually. On the road, UPS optimized its dispatch planning and driver routes for annual savings of 28.5 million delivery route miles, three million gallons of fuel, and 35,000 tons of carbon emissions. UPS redesigned its express packaging to eliminate bleached paper and increase the use of post-consumer recycled content – changes that not only reduced paper usage, but also reduced the amount of energy used in the manufacturing process by 12 percent.

CHEP Equipment Pooling Systems

GREEN URL: http://tinyurl.com/2d8rhr6

A member of the Sustainable Packaging Coalition and Reusable Packaging Association, CHEP has been using Life Cycle Assessment methodology to quantify and reduce the environmental footprint of its reusable and recyclable pallet products and pooling services since 1999. The 2009 life cycle benefits created by manufacturers and retailers shipping on CHEP pallets amounted to saving 120 to 130 million pounds of solid waste (nearly 400,000 cubic yards of landfill space or 122 Olympic-sized pools); 2.8 to 3.4 trillion BTUs of energy (the energy equivalent of nearly 600,000 barrels of oil), and 50 to 150 tons of greenhouse gas emissions. CHEP collaborates with customers to assist them in supply chain improvement initiatives such as packaging reduction, design, and testing; unit and trailer load configuration; platform and product damage reduction; and transportation optimization.

Toyota Industrial Equipment Manufacturing (TIEM)

GREEN URL: http://tinyurl.com/2b4evfj

TIEM reduced its carbon footprint by three percent in 2008 through process improvements and controlling electrical and natural gas usage, and has set a goal to reduce CO_2 output by three percent annually. A zero landfill company, TIEM has established a recycling program for paper, cardboard, plastic, wood, scrap steel, aluminum, copper/brass, used oil and coolant, and lamps. It sends any materials that cannot be recycled to a waste-to-energy facility. Its new 8-Series IC lift truck models are completely cadmium- and mercury-free, and produce 70 percent less smog-forming emissions than current standards. TIEM has established a list of 26 hazardous chemicals that must be eliminated or reduced in materials used to build its products. All vendors and suppliers must meet this requirement.

OCEAN

APL

GREEN URL: http://tinyurl.com/2377qrs

In addition to implementing ship speed reductions and low-sulfur fuel usage, APL introduced new 53-foot containers, which increase efficiency and reduce the need for off-dock transloading, resulting in fewer truck runs and a corresponding reduction in emissions. In December 2009, APL announced an initiative to clean the air at the Port of Oakland. Starting in 2011, three years before regulations require, APL will cold-iron its ships at berth, switching off vessels' diesel generators and relying instead on shore-side electrical power. By making the switch, APL will cut more than 25 tons of nitrogen oxide emissions – a leading component of smog – from ships berthed in Oakland, plus 1,500 pounds of particulate matter annually.

Evergreen Line

GREEN URL: http://tinyurl.com/ybmz465

Evergreen maintains its own team to design ships that enable the line to load more containers and save fuel oil with optimal energy efficiency. Its new Greenships feature a double-skinned hull in which all fuel tanks are situated within the transverse bulkhead spaces, minimizing the risk of oil pollution or fire as a result of grounding or collision. The carrier opened its Evergreen Seafarer Training Center in 1999 to reduce the risk of accidents or environmental pollution at sea. A staff of scientists and engineers continuously monitors best practices and environmental analyses, so Evergreen can report footprint, fuel use, speed, and per-container natural resource use for every voyage.

Energy-efficient vessel | Maersk Line

Horizon Lines

GREEN URL: http://tinyurl.com/2fcwla8

The Chamber of Shipping of America recently recognized 13 Horizon Lines vessels for environmental excellence. The ships have a combined total of more than 94 consecutive years of operation without any environmental incidents. To mitigate the environmental impact of transportation, Horizon Lines created its AeroGreen carbon offset solution, which calculates the amount of carbon dioxide emitted by each shipment. Shippers can offset the emissions generated by their shipments via the purchase of Verified Emission Reduction credits. Horizon Lines' sustainability initiatives also include reducing empty backhaul miles through logistics network optimization, reducing fossil fuel consumption, and using recycled materials to build containers.

Maersk Line

GREEN URL: http://tinyurl.com/2aj3pds

Maersk Line reduced its CO_2 footprint 20 percent since 2002, and set a target to reduce container vessel carbon emissions by another 20 percent per container moved between 2007 and 2017. Environmental initiatives include implementing a waste heat recovery system on 32 ships, saving up to 10 percent of fuel at optimum conditions; and reducing ship speeds by five to 10 percent, which cuts both fuel consumption and CO_2 emissions by more than 15 percent.

NYK Line

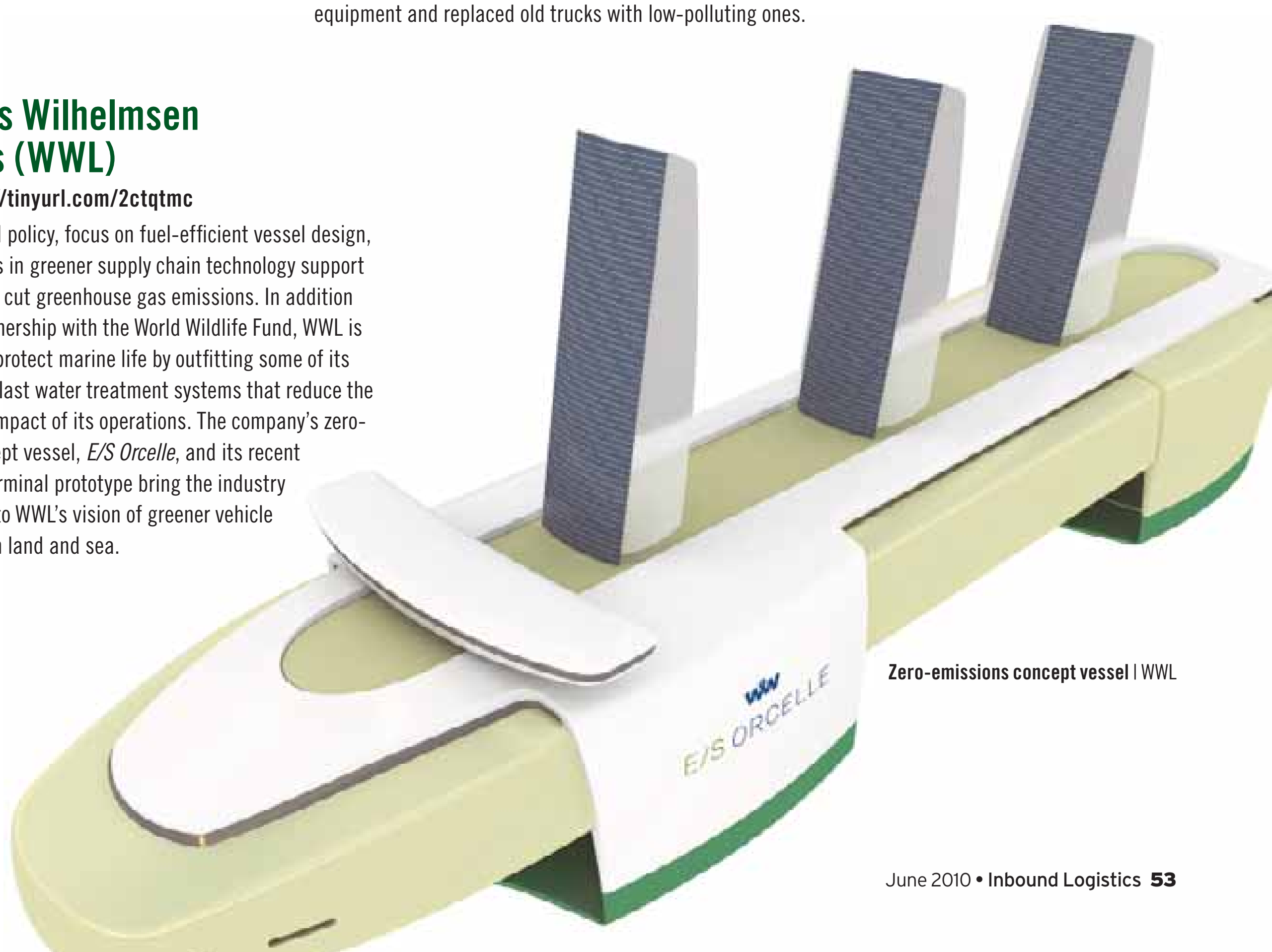
GREEN URL: http://tinyurl.com/2dqllsl

Most of NYK Line's large vessels have been outfitted with exhaust gas economizers, which turn a turbogenerator with steam generated from the main engine's waste energy. The turbogenerator provides the electricity used on board during navigation. At domestic terminals, NYK uses fuel additives to reduce soot and improve fuel efficiency, cutting air pollution. It also implemented hybrid cargo-handling equipment and replaced old trucks with low-polluting ones.

Wallenius Wilhelmsen Logistics (WWL)

GREEN URL: http://tinyurl.com/2ctqtmc

A low-sulfur fuel policy, focus on fuel-efficient vessel design, and investments in greener supply chain technology support WWL's efforts to cut greenhouse gas emissions. In addition to its close partnership with the World Wildlife Fund, WWL is taking steps to protect marine life by outfitting some of its vessels with ballast water treatment systems that reduce the environmental impact of its operations. The company's zero-emissions concept vessel, *E/S Orcelle*, and its recent Castor Green Terminal prototype bring the industry one step closer to WWL's vision of greener vehicle logistics on both land and sea.



Zero-emissions concept vessel | WWL

Wildlife protection | Port of Charleston

Port of Charleston

GREEN URL: http://tinyurl.com/2afedew

As part of the South Carolina State Ports Authority, the Port of Charleston participates in Pledge for Growth, an organizational commitment to protecting and enhancing the surrounding community and environment. A $12-million mitigation plan offsets the impacts of port development through initiatives such as restoring and adding 22 acres of tidal marshes, protecting aquatic wildlife, reducing port-related air emissions, and funding an air monitoring station. In addition, the port recently replaced four diesel-electric container cranes with all-electric models and has retired older equipment.

Port of Los Angeles

GREEN URL: http://tinyurl.com/2542kpa

The Port of Los Angeles achieves its goal of balancing growth and development with environmental considerations through more efficient cargo-handling operations; improved infrastructure; and biological, industrial, and environmental efforts such as its Clean Trucks Program. The port's Alternative Maritime Power air quality initiative focuses on reducing emissions from docked container vessels. Instead of running on diesel power while at berth, AMP-equipped ships "plug in" to shore-side electrical power – literally an alternative power source for oceangoing vessels. The port has been monitoring water quality at 31 established stations since 1967. Today, it tests samples monthly, and the water quality at the Port of Los Angeles is the best of any industrialized port in the world.

Port of Long Beach

GREEN URL: http://tinyurl.com/88w9u9

Through its Green Port Policy, the Port of Long Beach is reducing harmful air emissions from port-related operations, improving water quality in the harbor, protecting marine wildlife, and implementing environmentally sustainable practices throughout the port. Air pollution from ships, locomotives, trucks, and other port-related sources dropped significantly from 2005 to 2008, including a 21-percent decrease in diesel particulate matter. The port's "shore power" docks allow ships to plug in to clean electricity and decrease pollution.

Shore power | Port of Long Beach

North Carolina Ports Authority

GREEN URL: http://tinyurl.com/2dzl7at

Project Energy, the North Carolina Ports Authority's environmental initiative, focuses on electricity and fuel usage, emissions, alternative energies, recycling, and hybrid technologies. By using ultra-low sulfur diesel as its primary off-road diesel fuel, the port estimates it will reduce both diesel consumption and emissions by 20 percent annually. Diesel/electric hybrid terminal tractors help support this goal. The Ports Authority also invested in four electric container cranes.

Port of Tacoma

GREEN URL: http://tinyurl.com/26xqojn

As a partner in the Northwest Ports Clean Air Strategy, the Port of Tacoma has adopted short- and long-term performance measures for reducing emissions from cargo-handling equipment, rail, harbor craft, ocean-going vessels, and trucks. Cargo-handling equipment uses ultra-low sulfur diesel, biodiesel, and other cleaner-burning fuels, and ships use low-sulfur fuels at berth. To balance its environmental impact, the Port of Tacoma restores habitat sites for salmon and other wildlife, and invests in a range of cleanup and improvement projects in and around Commencement Bay.

Environmental improvement | Port of Tacoma

In 2009, at DSC Logistics' Founder's Day, which is the annual celebration of our founding in 1960, we focused on "We Think Greener" as a way to strengthen our commitment to working and living more sustainability. Here are highlights of some of the steps we've taken since then. DSC has…

- Implemented a program of recycling corrugated materials at Logistics Centers throughout our nationwide network
- Launched a communication campaign with bi-monthly "Green Tips" e-mails to all employees and "Green Boards" at all Logistics Centers
- Published a Giant Green List of 120 ideas submitted by our employees
- Created a Task Force to align our efforts with our Partners' sustainability initiatives
- Compiled a report on environmentally-friendly cleaning products
- Initiated a project to study and calculate our company's Carbon Footprint
- Been named one of 50 Green Supply Chain Partners by *Inbound Logistics*

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BNSF

GREEN URL: http://tinyurl.com/22qer5o

The rail carrier is initiating several technologies designed to reduce emissions, including idle control, GenSet switch locomotives, electric wide-span cranes, and an intermodal automated gate system. BNSF has boosted fuel efficiency by 7.7 percent since 1999, and has acquired new locomotives that are about 15 percent more fuel-efficient than the engines they replaced. In 2007, BNSF became the first railroad to sponsor low-emissions natural gas hostler trucks to move containers within an intermodal facility. The carrier is also testing low-emissions liquefied natural gas switch locomotives, and is working with a partner and the U.S. DoD to develop an experimental hydrogen fuel cell switch locomotive that has the potential to reduce air pollution and is not dependent on oil for fuel.

Fuel-efficient locomotive | CN

CN

GREEN URL: http://tinyurl.com/298e3r5

CN's Environmental Policy programs and processes minimize the impact of its activities on the environment. For example, CN invested significant capital to acquire more than 100 new fuel-efficient, high-horsepower locomotives, which produce 40 percent less nitrogen oxides and are at least 15 to 20 percent more fuel-efficient than the locomotives they replaced. And, in conjunction with the Railway Association of Canada, CN renegotiated a voluntary agreement with Environment Canada and Transport Canada to further reduce its emissions intensity over time. The rail carrier also offers a greenhouse gas emissions calculator that allows shippers to measure emissions savings for shipments using CN versus truck.

Low-emissions train | CSX

CSX

GREEN URL: http://tinyurl.com/yhofzup

Since 2000, CSX has invested more than $1 billion to upgrade its fleet with efficient, Tier II clean air locomotives, which meet the latest EPA emission requirements. An additional 1,200 CSX locomotives will be upgraded to further reduce emissions and lower fuel consumption by nearly 10 million gallons. CSX continues to implement locomotive shutdown systems to reduce fuel consumption and related emissions. These efforts include the CSX-designed Auxiliary Power Unit, an idle reduction device that reduces nitrogen oxide emissions by 91 percent, hydrocarbons by 95 percent, carbon monoxide by 96 percent, and particulate matter by 84 percent.

Norfolk Southern

GREEN URL: http://tinyurl.com/32g4kcb

Norfolk Southern is investing more than $100 million to upgrade its locomotive fleet to comply with EPA emissions standards. Upgrades include equipping some locomotives with distributive power capability to potentially lower fuel consumption. It also recently unveiled the latest in alternative energy locomotive technology: a prototype 1,500-horsepower switching locomotive that relies solely on rechargeable batteries for power. The rail carrier also has developed more efficient train-handling systems such as LEADER, or Locomotive Engineer Assist Display Event Recorder. The system functions using mathematical formulas to calculate optimal train-handling methods in real time, based on line segment grade and curvature. The information is displayed directly to train crews, helping them conserve fuel and reduce emissions.

Energy-saving train | Norfolk Southern

Union Pacific

GREEN URL: http://tinyurl.com/ylbwl66

Union Pacific's vision is to be recognized as the environmentally responsible transportation leader. To that end, it is continually improving fuel efficiency through better locomotive technology, engineer training, and employee involvement. The result: Since 1998, UP has achieved a 20-percent improvement in fuel efficiency. In 2009 alone, Union Pacific saved more than 40 million gallons of diesel fuel. At the same time, Union Pacific's transportation plan increases traffic flow and asset utilization, both of which lower fuel consumption. The carrier continues to develop and invest in new technologies that provide for cleaner air and water.

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www.damco.com/Services/Pages/SupplyChainDevelopment.aspx

Speed-governed engine | ABF

ABF

GREEN URL: http://tinyurl.com/33s4ytx

ABF's Linehaul Planning System eliminates partial and empty road driver dispatches, reducing labor, fuel, and tractor expenses. The carrier has also reduced fuel consumption and enhanced operational efficiency through best practices that include a strictly followed equipment maintenance/replacement program. The average age of ABF equipment is 15 months for road tractors and six years for city tractors. This ensures ABF operates the cleanest, best-maintained, and most fuel-efficient engines available. Road tractors are speed governed to 62 miles per hour to ensure maximum fuel efficiency, resulting in a 33.5-ton CO_2 emissions reduction per tractor compared to 68 mph limits. ABF favors above-ground fuel storage systems over underground tanks; the carrier has reduced the number of its underground tanks by 64 percent since October 1995. All new storage tank installations are state-of-the-art systems with double-wall fiberglass tanks and lines, spill/overflow prevention, and electronic tank monitoring systems.

Averitt Express

GREEN URL: http://tinyurl.com/34n6fa7

Fuel conservation is a primary focus for Averitt Express. Some steps the carrier takes to achieve fuel efficiency include: using only ultra-low sulfur diesel at in-house fueling stations, which helps reduce emissions of particulate matter and nitrogen oxides; using biodiesel in select markets; equipping road tractors with auxiliary power units to reduce fuel use through idling when parked for extended periods; installing technology that gathers data from tractor engine computers to track and measure fuel efficiency on an individual tractor level and shut down idling engines; and using route-planning software.

In-house fueling station | Averitt

Fuel-saving truck | Bison Transport

Bison Transport

GREEN URL: http://tinyurl.com/34sv4xu

Purchasing advanced equipment that employs multiple fuel-saving devices, Canada's Bison Transport developed a transportation network that uses long combination vehicles and rail to move freight, reducing its fuel consumption by 127 gallons and greenhouse gas emissions by 1.5 tons for every 1,000 miles traveled. The carrier has implemented both speed limits and idle time expectations in order to improve fuel efficiency, and uses simulation technology and computer-based training to instill fuel-saving habits in its drivers.

Celadon

GREEN URL: **http://tinyurl.com/256cl2k**

Celadon has adopted fuel-saving strategies and is actively evaluating emerging green technologies. The motor carrier installed auxiliary air heaters on all trucks to eliminate the engine's need to idle in cold weather; added ambient air temperature sensors on all trucks to override the engine's ability to run between the ambient of 70-20 degrees F; equipped trucks and trailers with the most fuel-efficient dual tires on the market; accelerated new truck purchases over a two-year period so that the entire fleet consists of engines compliant in SmartWay-certified tractors; reduced the weight of 2,149 trucks in its fleet by 300 pounds each by converting them to aluminum wheels; reduced maximum road speed for the entire fleet; and cut fleet idle time by 19 percent.

Challenger

GREEN URL: **http://tinyurl.com/2w5k5lf**

While reducing fuel consumption is a continuing mandate at Challenger, its goal is to improve fuel economy by 10 percent during the next three years. To that end, the motor carrier has worked closely with owner/operators on their software for shifting in automatic transmissions; replaced double tires with super-single-tires where possible to improve rolling resistance; installed alternate power units to maintain cab temperature and recharge batteries to reduce idling time; and enabled driver trainers to download data from its satellite monitor to analyze trucks' engine operation and driver road management skills. Challenger is not only green on the roads, but also at its new corporate headquarters in Cambridge, Ontario. The site has received LEED certification and incorporates features and strategies that effectively use the land and minimize the environmental impact of construction and operations.

Con-way

GREEN URL: **http://tinyurl.com/36x5b83**

Con-way Inc. has established a framework for a sustainability evaluation for every functional process in the shared services organization, including reducing fuel consumption at Con-way Freight and Con-way Truckload, implementing recycling and waste reduction practices, reducing energy usage, and utilizing green suppliers whenever possible. Con-way Freight reduced truck speeds from 65 to 62 mph in 2008, installed low-profile tires to improve rolling resistance and reduce weight, tuned engines for optimal fuel economy, reduced trailer weight, and added idle-monitoring programs. Con-way Truckload reduced truck speeds from 70 to 65 mph in 2008; lowered truck spec weight by 670 pounds, saving 11,400 gallons of diesel fuel each year; and converted all its tractors to single wide-base tires, with plans to convert 75 percent of trailers by the end of 2010.

Aerodynamic tractor | CR England

C.R. England

GREEN URL: **http://tinyurl.com/2avybpk**

C.R. England performs continuous testing on new green technologies. For example, the carrier currently is testing 100 side skirts for increased trailer aerodynamics. If the field tests yield positive results, the company will save almost three million gallons of fuel annually. In addition, C.R. England is cutting fuel emissions through reducing idle time and maximum speed for all trucks, purchasing more fuel-efficient equipment, testing and implementing aerodynamic technologies, and using paperless logs. Through these initiatives, C.R. England saved an average of 627,000 gallons of fuel per month in 2009.


Idle-limiting truck engine | Old Dominion

Old Dominion

GREEN URL: http://tinyurl.com/24smho3

Old Dominion has implemented a number of green measures in all of its 31 fleet shops and 210 service centers located in the lower 48 states. These measures include drive-through truck washers with oil-water separators that allow wash water to be recycled. Additionally, Old Dominion tractors feature idle timers that turn off the engine after three minutes of idling to eliminate excess emissions. The carrier also contracts with licensed companies to pick up and recycle waste oil, filters, and antifreeze; uses energy-efficient lighting and HVAC units; and has eliminated the use of chlorofluorocarbon refrigerants.

Schneider National

GREEN URL: http://tinyurl.com/24rjstn

Schneider National takes a comprehensive approach to improving fuel efficiency, reducing greenhouse gas emissions, and upgrading its facilities' energy efficiency. Since 1998, the carrier's investment in sustainable, low-emission engines has reduced particulate and nitrogen oxide emissions by more than 80 percent. Its green initiatives include reducing fleet speed to 60 mph; specing trucks to include energy-efficient and aerodynamic features, such as low-rolling resistance tires; and employing an on-site team of engineers to test and validate new energy-efficient technologies. In addition, the company transformed its intermodal footprint in 2008 when it converted its fleet to all stackable containers.

Low-rolling resistance tires | Schneider National

Swift

GREEN URL: http://tinyurl.com/2epqplj

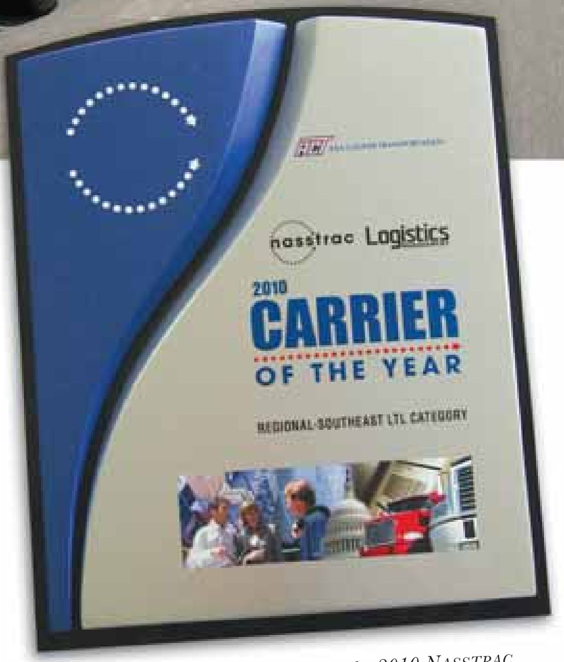
Swift Transportation is on the forefront of reducing the trucking industry's carbon footprint, as evidenced by the multiple awards it has won for its leadership in conserving energy and reducing greenhouse gas emissions. The carrier recently received an Environmental Excellence Award from the EPA's SmartWay Transport Partnership for its sustainability leadership in conserving energy and was recognized by Arizona's Maricopa County Air Quality Department for its participation in clean air initiatives. Swift's Clean Fleet is the first of its kind and the largest fleet of trucks – 16,500 – committed to adopting the latest green technologies.

Hybrid vehicle | YRC Worldwide

YRC Worldwide

GREEN URL: www.yrcw.com/green/index.html

In 2009, YRC Worldwide integrated two LTL networks, Yellow and Roadway, into one system, reducing empty miles, increasing load optimization, and eliminating equipment redundancy. The carrier limits truck speeds to 63 miles per hour, which saves millions of gallons of fuel each year. The entire fleet is being outfitted with new fuel-efficient tires that reduce consumption by two to four percent. The company also maintains a tire-pressure program that ensures all tires are properly inflated, which reduces fuel use by millions of gallons annually.



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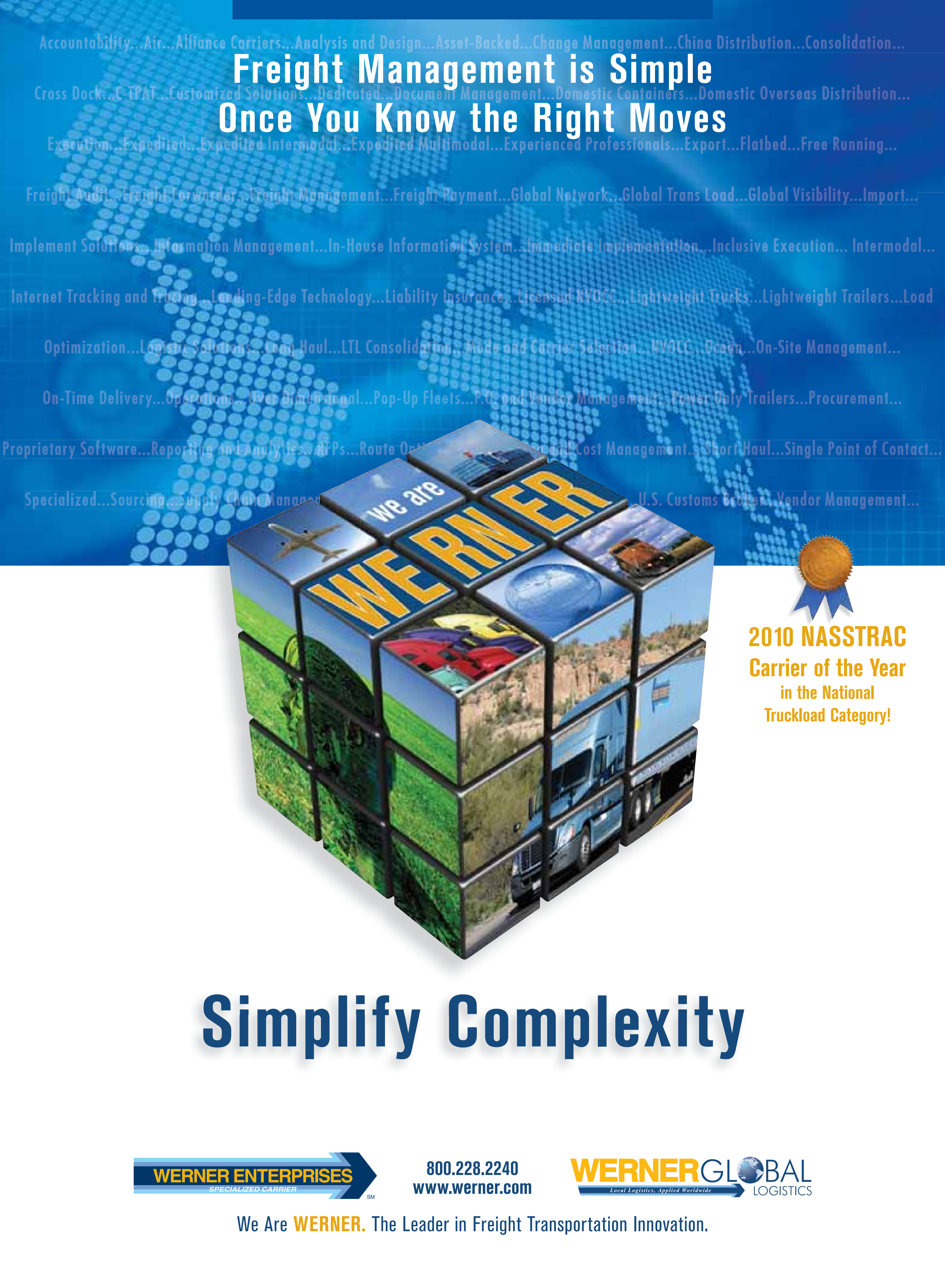
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All articles written by Perry A. Trunick

Chemical Logistics: Making the Transition

As the economy drives change, chemical players adapt.

The depressed global economy drove some fundamental inventory strategy changes that may linger into the recovery. After companies in all industries worked off inventories that had accumulated as demand slowed, they began replenishing stock more in line with demand. That strategy has kept inventories trim and reduced capital requirements, but it has also driven some changes in logistics, transportation, and supply chain management.

Matching supply to demand has specifically impacted the chemicals industry, despite its unique production and distribution qualities. Third-party logistics (3PL) and technology companies report that chemical industry customers are seeking better demand management support as they attempt to align their supply chains with the market. Volumes have increased as demand grows, but companies are stockpiling less and concentrating more effort on improving supply chain visibility.

Supply lines aren't necessarily changing, notes Stephen H. Albrecht, manager of terminal and warehouse operations for Odyssey Logistics & Technology, a 3PL located in Danbury, Conn., but some suppliers are positioning materials closer to the point of use. "Many smaller suppliers are also consolidating shipments to take advantage of lower costs associated with shifting transport modes," he says.

While that mode shift can mean increased use of ocean transport for imports and exports, companies managing smaller shipments are opting for truckload and rail intermodal services in place of rail bulk.

Forward staging of inventories in tank storage and bulk facilities also appears to be declining as many 3PLs report more products moving directly to consumption.

Even so, bulk terminal and tank capacity are limited, says Albrecht, fueling the move to more transloading of product into rail cars, tank trucks, and drums at the warehouse.

Truck transportation capacity is tight in general; so is capacity at certain types of facilities. That's pushing pricing up, and logistics and transportation service providers are looking for ways to hold on to those increases. Many providers, however, have not instituted rate hikes as the downward spiraling global economy stripped away volumes and drove shippers and consignees to apply pressure on pricing to achieve their own cost-cutting goals. Pricing isn't as much a retaliation in the back-and-forth battle between shippers and logistics providers as it is a new market reality.

Capacity isn't just tight because demand returned quickly; a number of factors will likely keep it tight.

First, much of the capacity permanently exited the industry during the economic downturn. Russia and Nigeria, for example, were strong markets for exports of used U.S. trucks and trailers.

Second, tighter emissions standards on trucks being produced now, and new mandated environmental technologies, will drive up the cost of replacement vehicles.

Third, new safety requirements for drivers will make it harder for those carriers that can even get financing to fill driver's seats and acquire capacity. Driver hours-of-service rules will be reexamined, and requirements to add electronic onboard recorders are also coming.

The economic downturn focused attention and stimulated action in areas chemical supply chains need to address in light of the permanent, long-term changes that lie ahead. But the chemical logistics sector is coping with these changes and preparing for the future, as the following profiles demonstrate. CL

SAFETY AND SERVICE

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At the 2010 Responsible Care Conference and Expo, Miller Transporters, Inc. was recognized as a winner of the inaugural Responsible Care Partner of the Year award.

This award was given to Miller Transporters for their excellence in transportation and supply chain management. Miller Transporters was selected to receive this award for their attention to detail in the areas of safety, security, health, and environment and for how their actions in each of these areas effects their stakeholders. Furthermore, Miller Transporters has demonstrated throughout the years the importance of the Responsible Care program by their outreach and promotion of the program in the communities in which we operate.

The award was presented by the American Chemistry Council, ACC CEO, Cal Dooley. He is pictured with our Brent Cobb (Manager of Quality) and Lee Miller (President).

Achieving an award of this level is not something that can be accomplished by the work of one individual, but is the result of a team effort working towards the common goal of supporting and promoting the Responsible Care Guidelines in their daily activities. Congratulations to all of Miller Transporters' people for helping them receive this prestigious award.

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Responding to Fundamental Change

Successful 3PLs react to market flux by giving chemicals shippers what they want.

Dry bulk load volumes and levels began to improve late in 2009; that growth continued through the first quarter of 2010 and right into the second quarter. As a result, dry bulk capacity is extremely tight, according to Jeff O'Connor, president of A&R Logistics, a Morris, Ill.-based third-party logistics provider specializing in bulk transportation, packaging, distribution, and logistics.

A&R operates three companies spanning transportation, packaging and storage, and global logistics solutions. This range gives A&R a good view into how manufacturers have fundamentally changed the way they do business. In the categories it handles, the logistics provider has seen manufacturers work down inventories, then buy in line with demand.

"Manufacturers are not buying in large bulk to get ahead of price increases," says O'Connor.

A&R's packaging and warehousing operations are closely tied to the trucking side, he explains. The company's facilities have rail access and one indication of the change in procurement strategy is a mode shift – large rail shipments are slowly giving way to more truckload shipments. Consignees had been using railcars of product as forward-staged inventory. Now, however, they are proceeding with a level of caution, and orders are more in line with consumption. That has led to fewer rail and more truckload shipments.

From the logistics side, some companies have reduced capacity and others were not interested in adding trucks in a market where customers

The economy has caused chemicals shippers to proceed with caution. Their orders are now more in line with consumption.

were seeking price reductions and the value of their asset base was dropping, says O'Connor.

Since January 2010, as volumes were building, A&R was able to add 80 trucks to its fleet; 60 were new and 20 were refrigerated units converted to haul dry bulk commodities.

The Federal Motor Carrier Safety Administration's Comprehensive Safety Analysis 2010 (CSA 2010) will have an impact on a market that is already seeing tighter capacity. Industry sources indicate the potential for as many as 100,000 drivers to drop out of the labor pool. The driver scorecards that will be part of the CSA 2010 program are available, and carriers are already using them to pre-qualify drivers.

The industry is also facing another federal mandate that will eventually require that each truck be outfitted with an onboard data recording device. Electronic logs (e-logs) will be part of the toolkit.

A&R has already begun using e-logs as it has added trucks. With good communication and proper training, the e-logs have been well received by drivers, O'Connor says.

On the technology front, A&R is using transportation management systems for more than just executing and managing trucking-based operations. Processes are more than transactional, O'Connor points out. A&R is ramping up safety initiatives and integrating with customer enterprise resource planning (ERP) systems to provide updates.

ERP integration can include customer service and quality control information, as well as carrier performance. A&R selected the MercuryGate Transportation Management System (TMS) because of its open architecture. It is a Web-native system, as opposed to the many other TMS products A&R considered, which were based on an IBM AS 400 platform.

Shippers are hungry for information, says O'Connor, and the open-architecture TMS helps A&R integrate and share data easily. In addition, A&R packaging and distribution facilities use Windows-based TRAMS inventory management and TMW dispatch systems for order and inventory management and shipment routing.

Process is important, and all of A&R's warehouse facilities are ISO 9001 certified. "Shippers who get it realize that transportation management is not all about price," says O'Connor. "To be successful, respect what the shipper wants and execute well." CL

Pneumatic suction enables A&R Logistics to remove between 800 and 1,200 pounds of plastic pellets per minute from rail cars.

Next to a rail siding at the A&R Logistics facility, paired silos vacuum-suck plastic pellets from a rail car into boxes for packaging.

BNSF Logistics is committed to enhancing efficiency and safety through the entire chemicals supply chain and can provide customized solutions to meet individual needs.

Intermodal's Proven Performance

Chemical shippers make the move to intermodal.

Chemical shippers are done experimenting with modal shifts and are now committing to the faster transit times and lower costs of intermodal transportation, says Eric Wolfe, vice president and general manager of BNSF Logistics, a transportation intermediary in Springdale, Ark.

As one example, a BNSF Logistics customer that used to use bulk truckload to move shipments to Mexico has been testing intermodal service, says Robert Sutton, director of specialty services for BNSF Logistics. The shipper uses a flexible service that consists of a bladder placed inside a 20-foot ISO container, then filled and sealed. At destination, product is typically discharged via a bottom-release valve.

This type of transport service is common in international shipments, but Sutton says it can also be applied to domestic use, where it can enable shippers to shift from bulk tank truck to intermodal without highly specialized equipment.

Using intermodal also eliminates lead time variability thanks to its transit time consistency, but the intermodal story gets even better for bulk truck moves to Mexico.

In the BNSF Logistics customer example, intermodal shipments move under bond directly across the border into the interior of Mexico. The railroad pre-clears the border crossing, and the consignee only needs to have Mexican Customs clear the goods at destination. After successfully completing more than one dozen test moves, the shipper converted the entire lane to the intermodal container service.

Railroads have continued to invest in infrastructure, which has reduced bottlenecks and improved service during the recent economic downturn and its corresponding lower volumes. "I am confident that the rails will sustain this improved performance when volume returns to historical levels," Wolfe says.

The truckload sector is starting to show signs of tight capacity, with some flatbed and dry van service shortages. While not directly an issue for the chemical industry, it can indicate similar capacity issues as volumes rebound.

BNSF Logistics has moved to the high-tech side of innovation by consulting with one chemical customer to improve its demand management. The consultation includes modeling for site rationalization, taking control over a channel back from distributors, and potentially making changes to the distribution network.

The next stage would be to implement some of the modifications identified in the model, such as origin/destination changes. The customer does a lot of forward product deployment because of its seasonal consumption, says Sutton, and one goal has been to place inventory close to the consumer without having to put it in a tank farm and build large inventory positions.

The sourcing side of the supply chain may also see some action soon. As a modestly sized non-vessel operating common carrier (NVOCC), BNSF Logistics has also heard some discussion about moving sourcing closer to the end market.

Wolfe says he heard the same discussions five years ago when international container shipping rates started to climb, and some production shifted to Central and South America. The discussions are taking place again now as rates start to climb once more. CL

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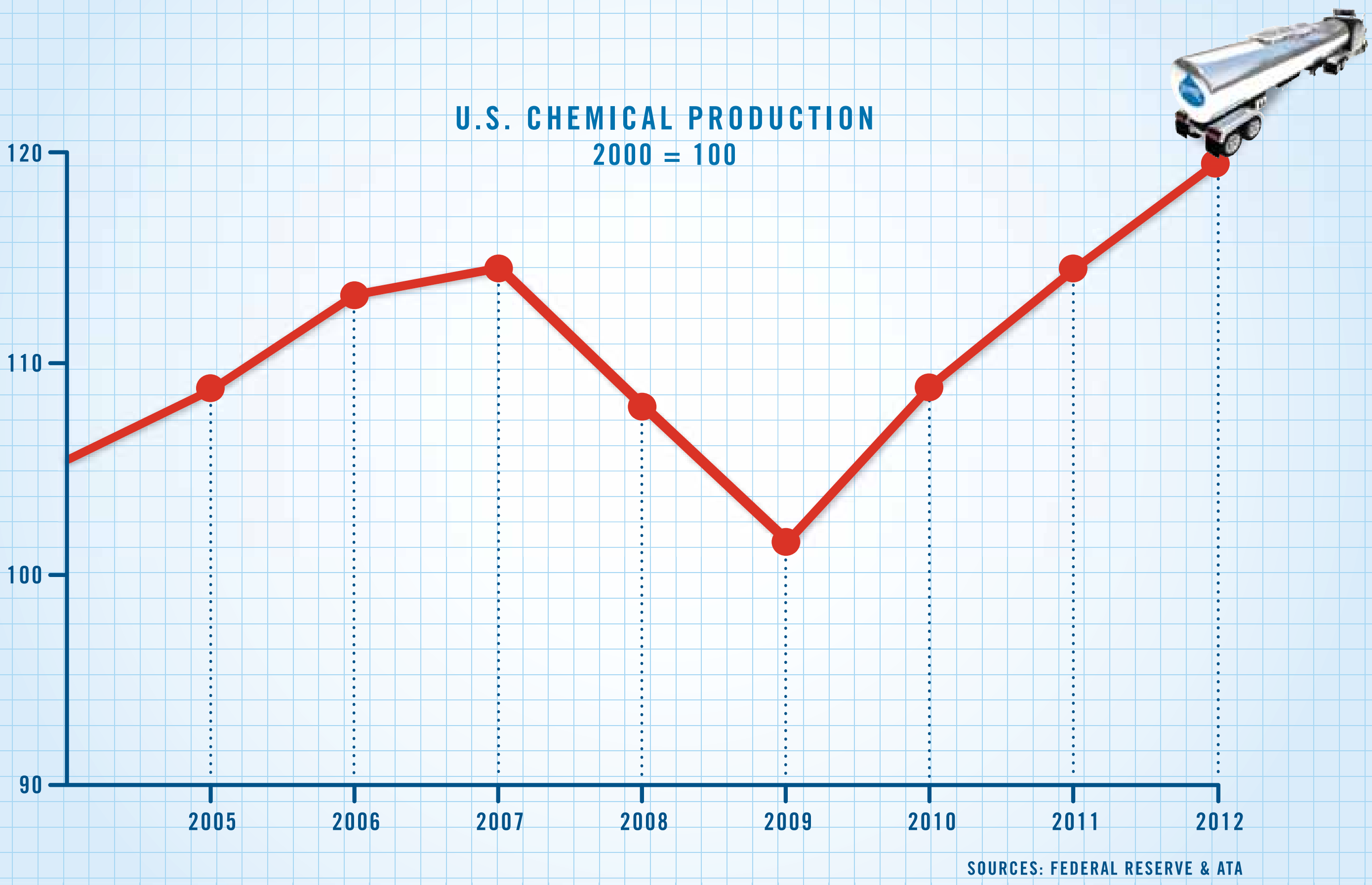

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Focusing on Demand

Lean inventories throw a spotlight on demand management.

Everyone is watching inventory, notes Ed Hildebrandt, senior vice president of operations for ChemLogix, a chemical industry consulting services, TMS technology, and comprehensive transportation management services company based in Blue Bell, Penn.

That's no surprise after months of recession, but the lean inventory strategy is putting more emphasis on demand management in an industry that has been largely production-oriented.

Fewer chemical customers are filling tanks with product and asking for tank monitoring services to keep them full. "It's just not happening in this economy," Hildebrandt says. And that means more truckload shipments at a time when capacity is already lean.

Truck tonnage was up seven percent in March 2010, he adds, noting that spot market transportation pricing also rose as volume increases consumed available capacity.

Bulk carriers are looking for rate increases. Will they hold? If load patterns return to September levels because companies aren't building inventory, they may not. But many of the underlying circumstances won't disappear, says Hildebrandt.

In the past 18 months to two years, as the economy began to slide, load counts dropped and carriers started disposing of excess capacity. In the tank truck industry, only so many trailers are available, and they are expensive. One tractor manufacturer that was begging for orders four months ago now has a six-month backlog. Orders for new technologies face similar backlogs as new safety regulations take force.

After the severe trough carriers experienced, they won't be anxious to invest capital in new tractors and trailers, Hildebrandt notes. In many cases, they don't have the capital, as a consequence of lower volumes and revenues. And, finally, who will be willing to lend to a motor carrier? So, capacity is likely to remain tight, even if the economy doesn't take a double dip.

If there was a more orderly return to order patterns, it would be easier to cope, but ChemLogix has seen a 30-percent surge in orders from some customers in the last 30 days. "That's tough to plan for," says Hildebrandt.

In January 2010, companies held the attitude that they were just rebuilding inventories. But the trend continued into February, and grew through March into April. Where the ChemLogix approach to a customer's business might involve three core carriers and three backup carriers, in some cases they're calling 40 or 50 carriers to get capacity to handle the growth. "If shippers had to do that, they would have to double their staff to make the calls and get the capacity," Hildebrandt notes.

All this change has also brought about changes in the technology that supports transportation management. One year ago, ChemLogix was automating spot tendering to get spot bidding because there was excess capacity in many lanes, says Mike Skinner, vice president ChemLogix Technologies. "That has shifted significantly," he says, and the company now covers loads by using its transportation management system to broadcast to carriers.

ChemLogix also uses the transportation management systems to measure and track carrier safety compliance and performance, including looking outside the loads the carriers handle for ChemLogix customers.

ChemLogix also plays in the intermodal field through a history with Union Pacific and its 2008 acquisition of Bulktainer.

> ***"Our volumes for the first four months of 2010 are up 50 percent. Intermodal customers are stepping up production, working three shifts, and still not keeping up with demand."***
>
> — **Steve Hamilton,** managing director, ChemLogix Global

"Our volumes for the first four months of 2010 are up 50 percent over the same period in 2009," says Steve Hamilton, managing director of ChemLogix Global. The loads include shipments of paint and coatings to auto plants in Mexico City. "Other intermodal customers are stepping up production, working three shifts, and still not keeping up with demand," he adds.

It is difficult to find truck capacity, but the Chicago-to-Mexico City lane is a four-day transit for ChemLogix intermodal liquid bulk shipments, and those trains run about 99 percent on time, says Hamilton.

Intermodal has been around for decades, he adds, and he is surprised that more customers don't ask about it. But with tight trucking capacity and vastly improved intermodal performance, that could change. CL

Barge and in Charge

The role of barge transport in the chemical supply chain.

Barge transport is a critical modal component in the U.S. chemical supply chain. To better understand how inland river systems are floating to demand, *Inbound Logistics* spoke with Brad Hall, vice president and general manager, sales and marketing for American Commercial Lines (ACL), a Jeffersonville, Ind.-based barge transportation and manufacturing company.

Q How do ACL and barge transport fit into the chemical supply chain?

A ACL is the second-largest provider of liquid cargo transportation on the U.S. inland waterways. We provide a complete supply chain solution that includes barge transportation, multi-modal transloading, storage terminals, and our proprietary River-Trac barge tracking system. ACL also leverages partnerships with other transport modes to move liquid cargo beyond the barge to meet chemical customers' specialized supply chain needs.

Q What unique advantages does barge transportation offer dry and liquid cargo shippers?

A Barge transportation is the most economical, efficient, safest, and greenest transportation mode. As trains and trucks clog the highways and railways that run across the nation, ACL barges offer a cleaner and safer course.

Whether as a total transportation solution or an integral part of a liquids shipper's supply chain, ACL can reduce transportation costs while offering an abundance of room for growth. America's inland waterways are estimated to be running at just 40 percent capacity, and one tank barge can carry the equivalent load of 46 railcars or 144 trucks.

In terms of fuel economy, one barge can transport one ton of cargo 576 miles on one gallon of fuel – that's 163 miles farther than a railcar and 421 more than a truck. Barges also emit far less particulate matter, hydrocarbons, carbon monoxide, and nitrous oxide per ton-mile than trains or trucks.

Q What specific services does ACL provide to chemical shippers?

A ACL operates a 100,000-barrel tank storage terminal in Memphis and has partnerships with storage facilities strategically located throughout the network to help chemical shippers manage their supply chains and reach end-use markets as efficiently and economically as possible. We also have an industrial development program to assist with site selection, dock and terminal construction – even capital expenditures through volume refund contracts.

Q How is ACL addressing and executing safety initiatives to protect the chemical cargo chain?

A From a general perspective, barges are the safest form of transportation, with fewer spills and injuries than railroads or trucks. ACL is the industry leader in safety performance. Safety is our top operating priority and the first of our core values, and we are a proud member of the Responsible Care Partners Program.

Recently, ACL created a new national director, marine assurance and vetting position to lead the company's third-party vendor assessment and to serve as the primary contact for the marine assurance departments of liquids shippers. Dan Jaworski, who has been with ACL since 1981 and has held a series of senior commercial positions within the company's liquids sector, has been assigned this responsibility.

The process of vetting vendors, while maintaining effective lines of communication between ACL's operating group and customers' vetting teams, is critical to safety and service. In his new role, Jaworski will enhance ACL's vendor auditing processes and ensure that the company is exceeding customers' vetting requirements. CL

ACL has operated on the U.S. Inland Waterways System since 1915. It runs 125 tow boats, as well as a number of facilities that provide a full range of marine transportation support services.

Ramping Up for Recovery

A renewed focus on costs, assets, and supply chain management is critical today in order for chemical companies to position themselves for the economic recovery.

The challenge for the chemical industry in the coming years will be to maintain operational excellence while meeting the demands of their customers and shareholders in a sustainable, low-carbon economy.

The companies able to overcome those challenges will be best positioned after the downturn.

"The economic situation remains volatile. Against this background, our chemical customers are not losing sight of what is most important to their business – their customers," says Keith Reardon, vice president, supply chain solutions for CN.

To address their current and future needs, the chemical industry needs to be quick in developing innovative supply chain solutions to meet the dynamic requirements of markets and consumers.

"If you had said 18 months ago that the chemical industry would be where it is today, in terms of the strength of the rebound growth in Asia and North America, I wouldn't have believed you," says James Cairns, CN's vice president-petroleum and chemicals.

Chemical customers are looking for experienced supply chain partners offering fully integrated transportation services that seamlessly and economically match demand to supply.

CN is one such transportation company, operating the largest rail network in Canada and the only transcontinental network in North America. It serves petroleum and chemical producers throughout Canada and the United States, with hands-on expertise in the Alberta Heartland, the Oils Sands, Eastern Canada, and the Gulf of Mexico.

In terms of geographic scope, the railroad's expansive 21,000-mile network allows customers to extend their reach into non-traditional rail markets in the United States and Canada. For example, customers can partner with CN to strategically locate inventory in hard-to-reach areas so product can be delivered as if moving from a local supplier.

Through CargoFlo, CN customers gain more control over inventory.

CN is also helping customers make inroads in global markets. "Customers in all industries are looking to break into new markets. To meet that demand, CN has strategically located supply logistics teams in China, Brazil, and Mexico. These experts have their ears to the ground to help companies develop new markets and meet global transportation needs," says Reardon.

As a total logistics solutions provider, CN offers rail transportation, product transfer, and trucking from origin or to destination, as well as complete inventory control and quality testing. The extensive scope and scale, and deep chemical expertise, allows customers to minimize their total logistics costs.

One way CN partners with shippers to achieve increased inventory control and lower overall transportation, equipment, and inventory costs, is through its CargoFlo operations.

"CargoFlo is a network of 19 CN-owned bulk distribution terminals that allows customers to transfer product from railcars to trucks and vice versa, as well as load and unload liquid and dry bulk overseas containers," explains Cairns. "This network cuts tankage and inventory carrying costs."

In addition, CN's intermodal capabilities allows customers to reach 75 percent of the North American population while gaining significant transportation efficiencies and reducing their carbon footprint. "Rail has been shown to emit six times less greenhouse gases than heavy trucks," adds Cairns.

"Also, during these volatile economic times, we have seen customers manage their inventory more closely and sometimes revert to using trucks as an option. My team works with them to find cost-effective rail solutions that help avoid the high costs of trucking and its environmental impact," says Reardon.

CargoFlo transfers product from railcars to trucks and vice versa.

Using one innovative transportation company like CN is an effective way to ramp up for market recovery and meet customer demand. CL

Managing Change

Innovation and creative thinking drive success.

Dupré Logistics grew from a truckload fleet into a brokerage, transportation management, and dedicated fleet provider. By assessing customer operations, Dupré develops solutions that reflect its expertise and creativity.

In 1980, Reggie Dupré found it difficult to get consistent fuel deliveries to his rural Louisiana service station. So, he created his own company – Dupré Transport, LLC – to haul the fuel. With an initial fleet of two trucks, Reggie Dupré became a specialized hauler of bulk liquid commodities. His persistence and attitude permeates Dupré Logistics today.

Like other specialized 3PLs, Lafayette, La.-based Dupré Logistics is facing capacity issues. For example, many shippers who buy by the load from a central location will need to adapt to the realities of a market where capacity is tight and needs to be optimized.

"When economic conditions change, as they have during the past few years, companies have to reevaluate how they do business," notes Tom Voelkel, president and COO of Dupré Logistics.

To face new economic and capacity challenges, Dupré Logistics turned inward and found help among its own employees. Crystal Faucheux, a customer service representative in the Strategic Capacity Services Group, discovered that the company's automated rating system was replacing new market prices that had been quoted to and accepted by shippers with earlier, outdated rates.

Her discovery helped Dupré put the brakes on market erosion and avoid customer billing errors. For her efforts, Dupré Logistics recognized Faucheux with its "Thinking Out of the Box" award for process improvement.

In a larger context, that kind of thinking addresses rapidly developing market issues. Procurement tends to view transportation as a price-per-load function, and fails to measure the issues they don't see that create or contribute to inefficiency.

Third-party logistics providers serving the chemical industry have worked hard to improve processes and reduce costs. "What the chemical industry needs now is a collaborative business partnership that addresses the entire supply chain," says Voelkel. "It will take some effort to uncover inefficiencies that occur in chemical transportation, as well as in other interactions between the shipper, 3PL, and consignee."

The next two to three years will be a time of high demand in the chemical industry, which will accelerate change. Other factors, such as environmental issues, will also come into play, providing a "steering mechanism for change," says Voelkel.

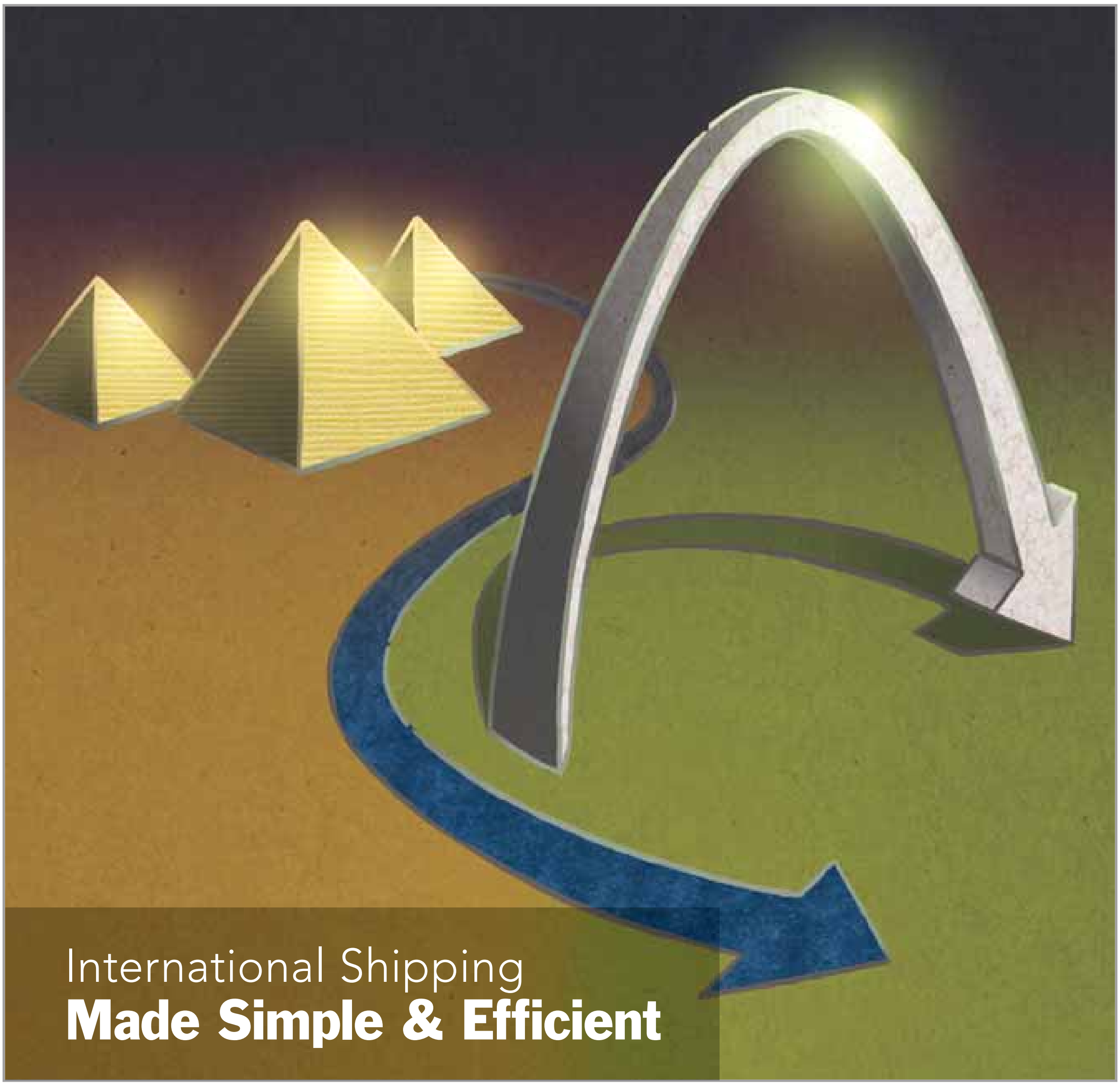
An unavoidable driver shortage, which will develop as more experienced drivers reach retirement age, will also require collaboration between shippers and service providers. The trucking industry, especially chemical carriers, needs to attract new drivers by improving efficiency, so drivers can feel the work they do has value. Other issues revolve around pay and how compensation systems are constructed.

Technology also helps address efficiency issues, as well as an increasing need for more complete safety and performance documentation. For example, Dupré Logistics' onboard systems provide more and better transportation information than past manual systems. Dupré uses Qualcomm satellite tracking and communications tools to provide basic time and motion data. Not only do the onboard data recording devices help with government-mandated data collection and reporting, they can enable carriers to identify and address problem areas.

While government agencies may be looking at safety and compliance issues, the data can also point to when and where delays occur. Working with the shipper and consignee, chemical carriers can do a root cause analysis and collaboratively develop a solution that improves efficiency and reduces cost for all supply chain partners.

Moving chemicals is a complicated process, and shippers need to look at their business very closely and take a total-cost approach, Voelkel advises. "Selling total-cost concepts takes time and requires a champion inside the shipper's organization," he says.

It also requires top-level support to help drive the value of collaborative relationships down through the organization. When chemical shippers maintain good relationships at the top and at the interface level, they can manage their costs without sacrificing safety, compliance, and efficiency. CL



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Continuous Commitment Reaps Benefits

A high level of commitment translates into a high level of performance.

Responsible Care is not just a phrase and it's not just an option for members of the American Chemistry Council (ACC). The ACC is committed to improving the chemical industry, so it requires all members to participate in the Responsible Care program, which involves monitoring and publicly reporting environmental, health, safety, and security performance.

Cal Dooley (*left*), CEO of the American Chemistry Council, presents Miller Transporters' Brent Cobb, manager of quality, and Lee Miller, president, with the inaugural Responsible Care Partner of the Year award.

The Responsible Care Partner program was established as a "meaningful extension of the Responsible Care ethic," according to the ACC. Companies performing chemical transportation, distribution, or storage are eligible to become partners. This year, for the first time, the ACC honored partners with a Responsible Care Partners Award. Miller Transporters, a common and contract carrier based in Jackson, Miss., was one of three companies that received this recognition.

Miller Transporters joined Responsible Care at the request of ExxonMobil Chemical Company and Ashland Inc., notes Steven Tapscott, vice president of sales and marketing. Miller Transporters was the first independent to be qualified outside the Responsible Care Partners pilot program, he adds.

"Responsible Care Partners adhere to the same requirements as members of the American Chemistry Council," according to the ACC. "This means that each partner company, no matter where it operates within the chemical industry's supply chain, must apply the Responsible Care management system to relevant portions of its operations; obtain independent certification that the system has been fully implemented and functions according to professional standards; measure and publicly report performance; and implement the Responsible Care Security Code."

If that sounds like a big undertaking, it is. The ACC added the "independent certification" requirement for partners in 2007. Prior to that, performance was self-reported. "While this added an extra

level of verification, it also added substantially to the cost of being a Responsible Care Partner," Tapscott notes.

Independent, third-party certification was also required every three years. Many companies that participated in the Responsible Care Partner program when the certification was first required are now being asked to undergo re-certification.

During the economic downturn, many companies dropped the certification for cost reasons. Though the Responsible Care Partner program may be optional, Miller Transporters is maintaining its participation.

Major chemical companies want their logistics providers to be Responsible Care Partners, says Tapscott, but they also use some carriers, such as Miller Transporters, regionally or for a particular plant that they audit themselves.

A commitment to safety isn't the only thing Miller Transporters takes seriously. Responsible Care helps the company establish metrics, and measure and report safety performance, but that same framework can be extended to other areas. And, aside from the safety and environmental aspects, Responsible Care has helped Miller Transporters do just that, according to Tapscott.

Miller Transporters has been able to institute a number of operational changes that have benefitted efficiency and safety. The metrics help track performance and promote a greater attention to detail. The company is also more aware of what is being tracked.

The results have extended to areas such as equipment. It can be a safety issue to arrive with the right fittings and hoses to load and unload at a particular shipper or consignee facility. This kind of tracking focuses attention on the details, and that has helped improve efficiency. Tracking also opens the door to conducting a root-cause analysis where performance issues are identified.

Electronic on-board reorders, which will soon be required in all vehicles, also help provide performance information. Though they don't directly provide load tracking, when coupled with other technologies, the recorders can register and communicate when a vehicle starts and stops, along with idle time.

Miller Transporters recently upgraded the Qualcomm satellite tracking and communications system it uses. The new system can now identify safety situations such as hard braking.

For Miller Transporters, a high level of commitment has translated into a high level of performance. CL

Chemical Logistics on the Web

Check out these online resources to help you manage your chemical logistics challenges.

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American Commercial Lines, Inc. • www.aclines.com
Barge transportation on America's vast inland waterways system is the most economical, safest, and greenest way to keep the chemicals industry on the move – moving products more efficiently and for a lower cost than railroads and trucks. Barges also consume less fuel and emit fewer pollutants. It's the current wisdom, and it's why American Commercial Lines urges you to do what it has been doing for nearly 100 years – Follow The River.

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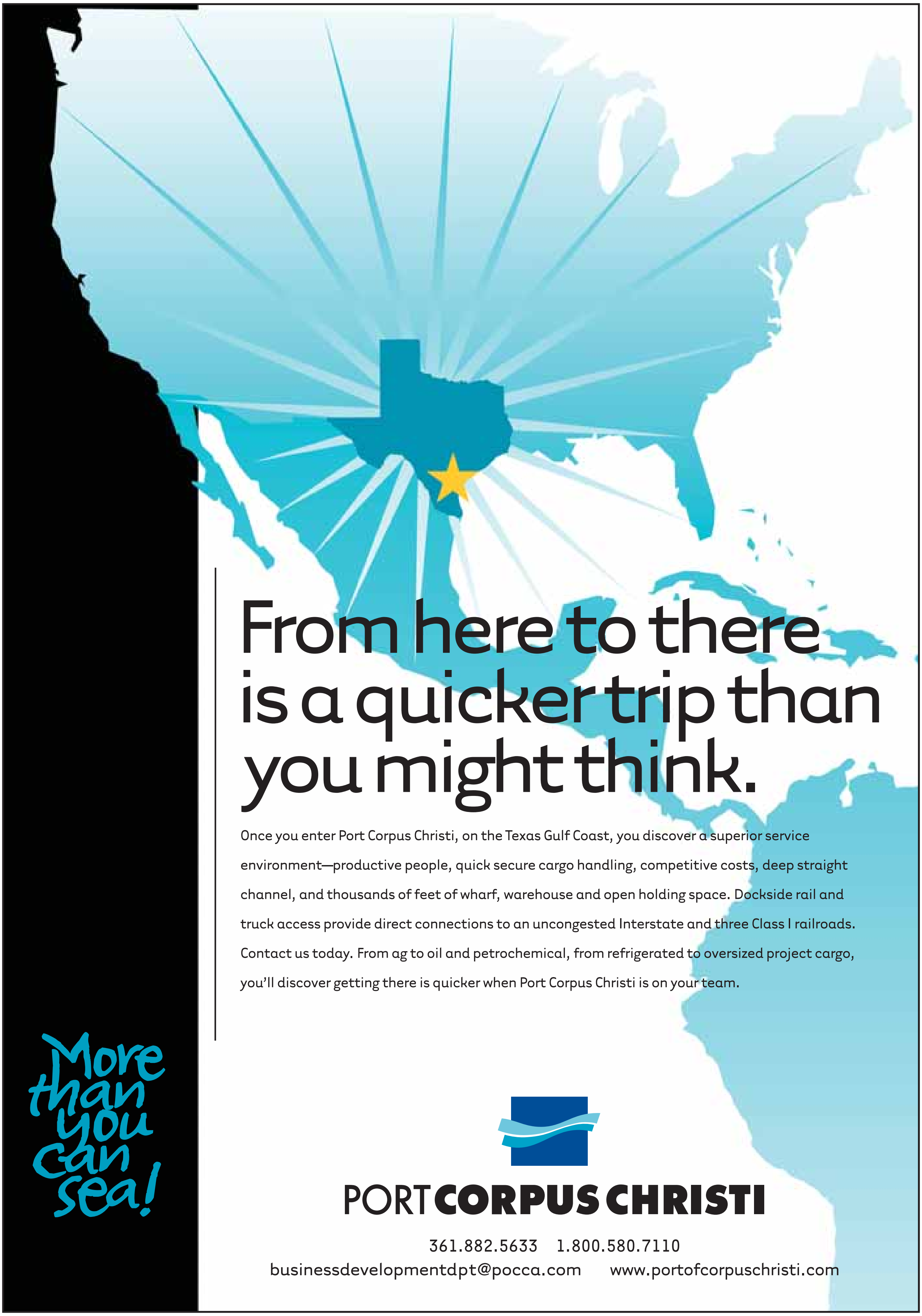
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SPECIAL ADVERTISING SUPPLEMENT

Mexico Takes Flight

A booming aerospace sector south of the border offers tremendous opportunities for U.S. and Canadian manufacturers.

Aerospace manufacturing in Mexico has taken off in recent years with a jet-style roar.

Mexico exported $1.3 billion worth of aviation products in 2007; in 2009, that figure was expected to top $4 billion, according to Carlos Bello, general director of the Mexican Aerospace Industry Federation (FEMIA). As of early 2009, approximately 200 aerospace companies were operating in the country, employing nearly 27,000 workers. Aerospace exports from Mexico to the United States totaled more than $683 million in 2008.

The number of aerospace firms in Mexico could reach 1,000 by 2015, said Jean-Claude Bouche, a senior aerospace consultant at Mexico's Monterrey Institute of Technology, quoted in AINOnline. By then, the industry could employ as many as 40,000 workers, and aerospace could account for $12 billion worth of exports to the United States.

In 2009, Mexico's Secretary of the Economy reported that 79 percent of the aerospace companies in Mexico were engaged in manufacturing and assembly. Ten percent primarily offered engineering services, and 11 percent performed maintenance, repair and overhaul (MRO).

Major aerospace firms from abroad, as well as their suppliers, have established a significant presence in Mexico. In 2008, for example, Montreal-based Bombardier Aerospace opened a manufacturing plant at the Querétaro Aerospace Park in Central Mexico. Designed to build wiring harnesses, fuselages, and flight controls, the facility was slated to employ 1,200 full-time workers by the end of that year.

While Bombardier ramped up production in that factory, Cessna Aircraft and Hawker Beechcraft already were building subassemblies for their business jets in the city of Chihuahua, having moved the work there from Wichita, Kansas, in 2006. Aernnova, a supplier to Boeing, Airbus, Embraer, and other aerospace firms, was constructing an $84-million plant in Querétaro. Goodrich was building a plant in Mexicali that would make engine cowlings for Boeing.

Early in 2010, Safran SA, a French manufacturer of engines and parts whose customers include Boeing and Airbus, opened two new plants in Querétaro. At the time, the company already employed 3,000 workers in Mexico. And Triumph

Aerospace Manufacturing in Mexico

Value of aviation products exported from Mexico

2007:	$1.3 billion
2009:	$4 billion+

Value of aerospace exports from Mexico to the U.S.

2008:	$683 million
2015:	$12 billion*

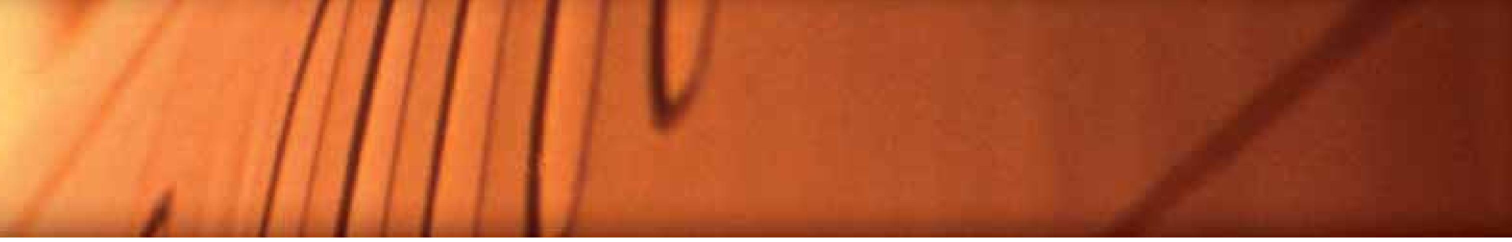
Number of aerospace firms in Mexico

2009:	200
2015:	1,000*

Number of aerospace employees in Mexico

2010:	27,000
2015:	40,000*

**projected*



Group, a manufacturer of aircraft components and accessories, announced that it would invest up to $20 million in a new manufacturing site in Zacatecas.

LOW COSTS, STRONG INCENTIVES

Among the many attractions that draw aerospace companies to Mexico, the cost of labor is a major factor. Highly skilled workers in Mexico's aerospace industry earn from $5.80 to $7.80 an hour. Mexico is the lowest-cost choice for U.S. companies that outsource manufacturing abroad, surpassing India, China, and Vietnam, according to a report released this year by AlixPartners.

Companies can easily ship products and components to Mexico from their plants in the United States or Canada for final assembly, or ship finished products to customers throughout North America.

"You're talking hours and days, rather than weeks, for transit to the United States," says Jim Moore, vice president of sales for the aerospace, automotive and industrials vertical at Ryder Supply Chain Solutions. "You can ship on Thursday morning by truck and deliver on Monday."

Having targeted aerospace as a strategic growth industry, the Mexican government is doing its best to make the country an attractive environment for this sector. One of the most important incentives is the maquila system, which has prompted many North American manufacturers, in a variety of industries, to "nearshore" their production in Mexico.

Maquilas are factories that operate in free trade zones. Companies import materials and equipment to those locations without paying taxes or duties, then re-export the finished products. Often, the manufactured goods are components that are shipped to factories outside Mexico for final assembly in products such as aircraft, automobiles, and computers.

But even outside the maquila zones, parts and materials for use in aerospace manufacturing enjoy special tariff treatment, entering the country duty-free, says Ricardo Alvarez, director of business development for the aerospace, automotive and industrials vertical at Ryder Supply Chain Solutions. "Also, the value-added tax (VAT) is refundable after five days of the import process," he notes.

Mexico's federal and state governments have established a variety of other tax incentives for the aerospace industry. In fact, from 2006 to 2008–a time when Mexico had eliminated incentives for many manufacturing sectors–it retained its incentives for aerospace. These included capital equipment grants, help with infrastructure, real estate grants, and the establishment of an Aerospace Training Center in Querétaro.

FEMIA, an association of 48 aerospace manufacturers operating in Mexico, works with the federal and state governments to promote the interests of the industry. One of FEMIA's goals is to develop a National Strategic Aerospace Plan.

WORKFORCE DEVELOPMENT

Beyond the financial incentives, aerospace manufacturers discover several other compelling reasons to locate facilities in Mexico. One is the labor pool. The country has invested considerable resources in developing a skilled workforce–including engineers and technicians–for the industry.

In 2006, the state of Querétaro established an aerospace program at the Querétaro University of Technology (UTEQ). University officials worked with the government of Quebec and the Montreal Aerospace Trade School (EMAM) to develop a curriculum to train technicians for Bombardier's facility in the state. Aernnova Mexico also has used UTEQ to train employees.

A second institution focused on the industry, the National Aeronautic University of Querétaro, opened in 2009. "Querétaro is the first university in Latin America focused on aerospace," says Alvarez. It provides technical degrees in areas such as maintenance and electrical work, as well as degrees in aerospace engineering.

The Monterrey Institute of Technology also has developed a prominent aviation program. This includes four regional research centers that work with aerospace companies on workforce training. The Institute's Aerospace Industry Development Center (CEDIA) assembles experts to conduct research in areas such as lean supply chain, lean manufacturing, and supplier development. Under another program, engineering students serve as interns with aerospace manufacturers, often going on to take jobs with those companies.

In 2007, 14 academic institutions formed the Mexican Council of Aerospace Education (COMEA). This body established standards for educating technicians and aeronautical, electrical, mechanical, software, and electronic engineers to work in the industry.

Mexico's skilled labor force is a major draw for manufacturers locating facilities in the country.

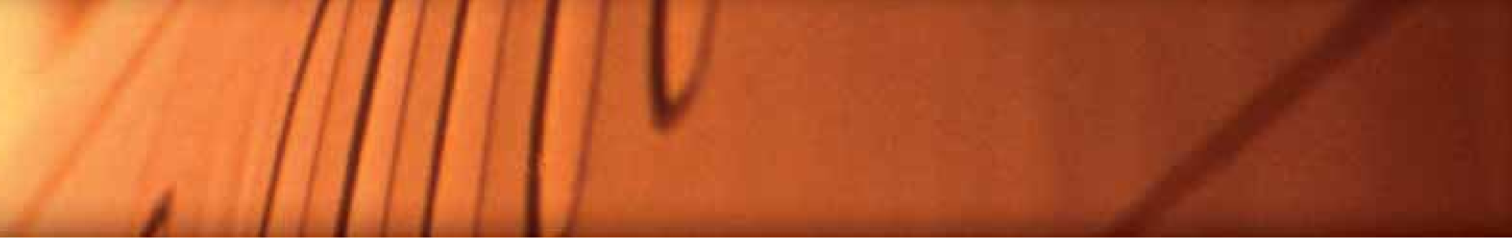
STREAMLINED SAFETY CERTIFICATION

Another factor that has helped to stimulate the aerospace industry in Mexico is the Bilateral Aviation Safety Agreement (BASA). This 2007 agreement with the United States provides a way for aerospace companies manufacturing in Mexico to certify that their designs and components comply with U.S. standards and Federal Aviation Administration (FAA) regulations.

"With BASA in place, Mexico's aeronautical authority certifies parts, components, aeronautical systems, and even complete aircraft manufactured and assembled in Mexico, designed for the United States and other markets," says Venkat Ramasubramanian, senior consultant, supply chain engineering at Ryder. "BASA implies significant cost reduction, especially for companies importing parts and components to be converted into systems or aircraft sections."

A final draw for aerospace companies in Mexico is the development of facilities tailored for the industry's needs.

In Querétaro, for example, Bombardier is the anchor tenant in the Querétaro Aerospace Park, a joint project of Mexican developer Vesta, GE Real Estate, and GE Capital Aviation Services (GECAS). Slated to eventually encompass two million square feet of manufacturing space, the park now also counts Safran, General Electric, Snecma, and Meggitt Aircraft Braking Systems as tenants. The property is adjacent to Querétaro International Airport, which contains the Aerospace Training Center. A second Aerospace Park is located in Zacatecas, with Triumph Group as its anchor tenant.



POTENTIAL ROADBLOCKS

Clearly, there are many compelling reasons for an aerospace firm to locate a manufacturing plant in Mexico. To make the venture successful, though, a company needs to proceed with great care. Just as it offers many advantages, production in Mexico also poses some serious challenges.

- **Criminal activity.** Stories about theft, smuggling, and violence in Mexico are all too familiar these days. An average of 1,500 freight hijackings are recorded in Mexico each year, according to supply chain security firm FreightWatch International. Corrupt corporate employees and police officials who cooperate with criminal gangs make this kind of activity especially hard to control.

Beyond watching out for their own freight, companies that ship goods out of Mexico need to take care about anything extra that might hitch a ride with the official load. Drugs and other contraband, including illegal immigrants, sometimes find their way onto trucks that are headed for the border.

If authorities find that a load has been compromised, that discovery could delay the truck for as long as 30 hours while inspectors conduct a complete search. The violation also could jeopardize the shipper's clean record, subjecting future loads to long searches as well.

- **Proper documentation.** Smuggling isn't the only hazard that might delay a load at the border. If a company's logistics partner doesn't handle all the details of its paperwork and electronic filings correctly, that could stall a shipment as well. Problems with trucks themselves—such as lights that don't work or seals that show signs of tampering—also cause delays.

"Crossing the border to Mexico can involve a delay of 30 to 48, or even 72 hours if you don't have your act together," says Moore. "And it's getting worse."

- **Lean manufacturing.** Uncertainties about border crossings are of special concern to aerospace manufacturers, many of which have implemented lean manufacturing programs.

In lean manufacturing, each component used to build a complete aircraft is assigned a specific role. A 737 jet, for example, might have 350,000 parts, each with a unique, detailed plan for delivering it to the production line just-in-time and presenting it ergonomically to the worker who will attach it. "A tremendous amount of engineering, data management, and synchrony goes into this for 350,000 parts," Moore says.

Orchestrating the arrival of thousands of parts is a complex art. The manufacturer must be able to track the progress of every component. Delays can wreak havoc, so there's no room for uncertainty about the movement of any shipment.

STARTUP CHALLENGES

While labor rates and government incentives make Mexico an economical choice for aerospace manufacturing, it's often hard for a company establishing an operation to control startup costs. If not handled properly, those costs could cancel out the benefits of the location.

For example, a new manufacturing facility might not receive enough inbound materials and complete enough finished product to build full truckload shipments. The alternative—less-than-truckload (LTL) transportation—is more expensive. "If they don't go to a third-party logistics service provider (3PL) and take advantage of the volumes that a 3PL handles, the startup costs for logistics will be too high," says Alvarez.

A startup also requires flexibility. Not every 3PL is prepared to handle the smaller-scale operations that a company conducts in the beginning, and then ramp up gradually to manage greater volumes as the facility reaches full production.

Nor can every 3PL offer service in every region of Mexico. No single service provider covers the entire country on its own. The supply chain might require partnerships with reliable local companies to fill in the gaps—for instance, providing air freight or ferry services to and from the tip of Baja California. "The selection, contracting, and continual evaluation of your partner is

Ryder Mexico manages more than 80 carriers and 3,000 border crossings every week.

critical," Moore says.

According to William McNeill, research analyst, AMR Research, "Security, liability, compliance, and costs need to be managed very closely. Collaborating with trading partners, increasing investments in IT for better visibility across the supply chain, and using models and simulation can help mitigate the risks inherent with global trade."*

For an aerospace firm operating in Mexico, the key to a successful operation is to choose the right logistics partner. A service provider with deep roots in Mexico, a strong network of facilities and carrier relationships, sophisticated technology, and unmatched expertise clearly makes an excellent choice. If a company also can show years of experience serving the needs of aerospace companies in North America, the choice is even more clear.

Manufacturers have been turning to Ryder as a trusted partner in Mexico since 1994. Ryder has extensive operations throughout Mexico, especially in the "Golden Triangle" bounded by Monterrey, Guadalajara, and Mexico City, and in Juarez and Baja—areas that encompass a major portion of the country's commercial activities.

With more than 600 trucks under management, Ryder accommodates a vast variety of cross-border transportation needs, including crossdocking and consolidation services designed to control costs for its customers. "We cross the Mexican border almost 3,000 times per week," Moore says.

* AMR Research (recently acquired by Gartner, Inc.), AMR Research and American Shipper Investigate Mitigating Risk Through Global Trade Management, William McNeill, Greg Aimi, Bob Kraus, February 10, 2010

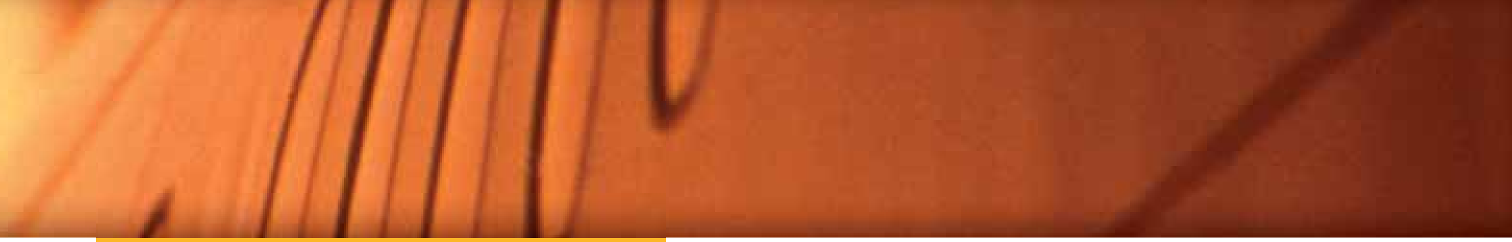
AEROSPACE EXPERTS

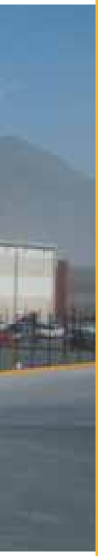
Ryder also has more than a decade of experience serving the aerospace industry. The company provides a suite of logistics planning, procurement, and execution services tailored to the needs of customers such as Boeing, Northrop Grumman, and General Electric Aviation. Each year, Ryder manages nearly $700 million worth of transportation expenses for aerospace firms and nearly six million shipments.

Some of the aerospace industry's logistics needs are highly particular. "It requires a very unusual assembly of shapes and sizes, speeds and unique equipment to do some of this work," Moore observes. Ryder has managed shipments involving everything from the suits worn by space shuttle astronauts to entire aircraft fuselages.

While some of the requirements of aerospace logistics are distinctive, other aspects find parallels in the automotive industry, a sector where Ryder's experience runs especially deep. "We were the chosen partner for Toyota to launch their North American manufacturing back in 1986," Moore points out.

Ryder's expertise in lean manufacturing, developed in the automotive industry, translates well in the demanding worlds of aerospace and defense. "We take exactly the same principles and apply them to the manufacture





Government Incentives Available to Aerospace Manufacturers in Mexico

- Duty-free imports for manufacturing parts and maintenance, repair and overhaul (MRO) components
- Income tax credits for projects involving research and development, process design, and product design
- Science and Technology Fund for R&D, technology development or technology transfer
- Support Program for the Development of New Enterprises
- Ministry of Economy grants for strategic projects
- Immediate capital investment deduction
- Reduced income tax and trade facilitation programs for export-oriented companies
- Labor training support programs
- State incentives: infrastructure, land reserves, credits on property and payroll taxes

of missiles, tanks, armored vehicles, satellites, ships and, of course, aircraft," Moore says.

The logistics infrastructure and technology that Ryder first developed to serve automotive OEMs and Tier One suppliers bring major advantages to its aerospace customers as well.

"Our technology handles enormous volumes. We range upwards of one billion parts delivered per week, with precise arrival times for every part at lineside," Moore says. "We've taken all of that—the processes, the knowledge capital—and over the past 10 years we've adapted it nicely to the demands of the aerospace business."

Ryder's infrastructure on both sides of the U.S.-Mexico border, and its unparalleled skill in managing cross-border shipments, promise a smooth ride for aerospace firms that ship freight in and out of Mexico. "Anyone who deals with us in Mexico gets world-class technology and supply chain practice combined with Mexican domain expertise," Moore says.

KEEPING LOADS SECURE

"Security is probably the biggest concern shippers have at the moment about operating in Mexico, and many of them look to their 3PL partners to provide it. How do you minimize your risk? Make sure your 3PL has a proven history of operating in Mexico and has made, and continues to make, the necessary investments in security-related technologies, experts, and procedures," says Adrian Gonzalez, director of logistics viewpoints for ARC Advisory Group.

The advantages of working with Ryder in Mexico start with the security and integrity of customers' loads. "We have control-and-release yards on both sides of the border that have security inspections," says Moore. "We also have canine inspections on both sides. And we maintain very close relationships with all the government agencies involved in monitoring and regulating Mexico-U.S. traffic."

Once a load leaves the yard, Ryder uses global positioning system (GPS) technology and satellite communications to track its progress and respond quickly if anything appears to go awry. When necessary, Ryder assigns security escorts to trucks to make sure valuable loads reach their destinations without trouble.

The company also employs geofencing, a technology that draws a virtual barrier around a vehicle's route. "If the GPS indicates that the vehicle has strayed outside its correct route, the system sends an alarm to warn that a theft may have occurred," says Bill Anderson, group director, global security for Ryder System, Inc. Ryder develops a security plan for each load and takes full responsibility for executing it correctly. The security rules it has developed for its own equipment and drivers apply equally to Ryder's partner carriers in Mexico, and Ryder regularly audits facilities to make sure employees are following the rules correctly.

Choosing a 3PL that employs the proper security equipment helps minimize risk when shipping in Mexico.

"A well-planned and implemented security program ensures that you're screening and hiring qualified people," Moore says. "It keeps employees, property, and operations safe, and it reduces the costs associated with lost product."

SPEED ACROSS THE BORDER

Ryder's reputation as a security-conscious manager of contraband-free loads is one of several factors that help to ensure smooth border crossings for its customers. Others include Ryder's ability to transmit electronic pre-notifications to Customs officials as loads head toward the border, and its participation in certification programs such as C-TPAT (Customs-Trade Partnership Against Terrorism) and Customs BASC (Business Alliance for Secure Commerce).

"We have developed processes, technologies, and security procedures to a high state of the art, such that our border crossing time is about one hour," Moore says.

Not only can Ryder's customers expect short transit times in and out of Mexico, but they also can expect to know exactly where their goods are every step of the way. "It doesn't matter if it's one pallet, one box, or a full truckload. The customer gets visibility at the part number level for every movement and is informed of every exception," Alvarez says.

That level of visibility comes from Ryder's Control Tower capabilities. A Control Tower is a centralized operation that monitors and coordinates every shipment from start to finish. "We have a 24 x 7 center in Nuevo Laredo that watches over every movement in Mexico and across the border," Moore says. "That's backed up by another large 24 x 7 facility in Dallas, one in Novi, Mich., and another in Shanghai, China."

Ryder's operations in Mexico translate into abundant opportunities for its customers to reduce supply chain costs. Even if a customer needs to move only one pallet, it can take advantage of Ryder's volumes to realize economies of scale.

Mexico-bound freight is consolidated into full truckloads at numerous points in the United States and Canada. "We move those trailers to the border in Laredo or El Paso," Alvarez says. "We control all the security there. We also handle the linehaul from the border to Querétaro, Nuevo Leon, Chihuahua or wherever it needs to go. Then we deconsolidate and run the short distance to the customer's location." For freight moving north from Mexico, the reverse process is similar.

The breadth and depth of Ryder's operations in Mexico also spell good news for aerospace companies that are establishing operations in the country. "We have grown to have a large enough network in Mexico that we can be flexible throughout the startup phase of an operation, all the way up to full run rate," Moore says.

One of Ryder's aerospace customers, for example, recently started production at a new facility in Mexico not far from the border. "They're looking to us to help them with staffing and, eventually, with shipments into and out of that facility," Moore says. "For us, that can range from one person to several hundred."

There's no minimum number of employees, amount of warehouse space, or number of trucks that Ryder will assign to a customer, and no lower limit to the freight volumes it will manage. "We can be a flexible, easy partner to work with," he says.

SMOOTH SOARING

As Mexico's aerospace industry continues to grow, more OEMs and suppliers will land there, drawn by the country's skilled labor pool, low manufacturing costs, and government programs designed to help them succeed. Manufacturing in Mexico poses some serious challenges, of course. Companies that launch such an enterprise poorly equipped may experience a turbulent flight.

But with the right logistics partner—one that understands the industry and knows how to move freight across the border efficiently, securely and economically—an aerospace firm that embraces new opportunities in Mexico can expect to cruise in safety and comfort.

Ryder's Presence in Mexico

OPERATIONS IN MEXICO SINCE: 1994

CUSTOMER ACCOUNTS: 86

HEADQUARTERS IN MEXICO: Mexico City

REGIONAL OFFICES: Guadalajara, Monterrey, Saltillo

LOCATIONS: 32

DC SPACE MANAGED: 2.2 million square feet

CARRIERS UNDER CONTRACT: 80+

RYDER DEDICATED VEHICLES: 643

BORDER CROSSINGS MANAGED PER YEAR: Approximately 130,000

CERTIFICATIONS, STANDARDS AND PROCESSES: C-TPAT (Customs-Trade Partnership Against Terrorism) operations, Customs BASC (Business Alliance for Secure Commerce) certified, FAST (Free and Secure Trade)-certified dedicated Mexican carriers

[CAREER SOLUTIONS]

MENTORING'S LONG REACH

A mentor's advice and attention can make a world of difference to professionals trying to rise to the top of the logistics field. Here's how three companies in the industry help their employees scale new heights. BY AMY ROACH PARTRIDGE

Mentoring can change lives. Just ask Karen Liu. At a job interview 13 years ago, import manager Liu was so nervous she could barely speak. Born and raised in China, Liu was new to the United States, and had little confidence in her English skills or her knowledge of American business practices. She was sure she had flubbed the interview.

But her soon-to-be boss Kathy Hogan–who now runs Primary Freight Services, a Rancho Dominguez, Calif.-based third-party logistics provider she founded with her brother, John Brown–saw that what Liu lacked in self confidence, she made up for with industry knowledge. In China, Liu worked in logistics positions for an electronics manufacturer and a freight forwarding company, so she was well-versed in import and export functions. Hogan felt that with a little mentoring, Liu could be an excellent asset to her team.

"When I met Karen, she had little experience in the American work environment," explains Hogan. "But her answers to my interview questions showed she possessed an understanding of the logistics industry that is not easy to find. I went with my instincts and hired her."

Today, Liu is the vice president of import operations for Primary Freight, overseeing a 10-person staff in three different U.S. offices. She credits her transformation from nervous neophyte to company leader to the mentoring she has received from the brother-sister entrepreneurial duo.

"At the interview with Karen, I was so nervous and out of my comfort zone that I did not present myself very well," Liu explains. "At any other company, I don't think I would have gotten the job. John and Kathy gave me an opportunity, and it changed my life."

Karen Liu (*far left*), pictured with the Primary Freight Services executive team, credits the mentoring she received from Kathy Hogan (*third from left*) and John Brown (*far right*) with boosting her business skills.

The first stage of Liu's mentoring involved accompanying Brown on sales calls to the firm's Chinese clients. The visits served a dual purpose: the clients enjoyed being able to speak with someone in their native tongue, and the meetings introduced Liu to American sales tactics in a familiar environment.

Hogan and Brown also recommended reading materials to help round out Liu's business knowledge, and sent her to Dale Carnegie Training seminars, which "taught me how to approach and interact with people in a professional manner," she says.

Hogan also worked closely with Liu to improve her communication skills. Although Liu was fluent in English, she struggled with the idiosyncrasies of business jargon and email communication. "My English was purely translated from Chinese, and that didn't always work," Liu explains. "Kathy would review my emails and suggest improvements. Gradually, I learned what made sense and what didn't."

Eventually, the confidence Hogan and Brown displayed in Liu's abilities came to fruition, and today Hogan calls Liu "one of our best employees." For her part, Liu is putting the mentoring she received to use with the employees who report to her.

"I want to share what I learned from John and Kathy with the people on my team. I try to guide my staff to do things the right way, but I want them to know how to handle mistakes and what to learn from those experiences," Liu says. "Kathy and John did not micromanage me, so I don't want to do that to my staff."

MAKING MENTORING WORK

The fact that the mentoring experience has come full circle for Liu is not lost on Hogan. Primary Freight strives to provide an atmosphere where employees learn from management and one another–an approach that is not just good for morale, but also for business.

"Providing a nurturing environment for employees helps them grow, but also helps our company grow," Hogan notes. "Mentoring has helped us keep turnover low. We started the company with five people 12 years ago, and those people all still work for us."

Mentoring is one of the best ways to help businesses foster an inclusive feeling that promotes loyalty, says Diane Cooper, professor of counseling and human development services at the University of Georgia. "Organizations should strive to instill a sense of belonging and fulfillment in employees," she explains. "Mentoring relationships can help achieve that."

How best to promote mentoring relationships? Stand back and let them occur naturally.

"You cannot dictate a mentoring relationship. Both parties must want to be involved," Cooper says, explaining that formal mentoring programs are not always necessary for businesses to help employees grow and develop.

"Creating an environment where mentoring can occur is key," she says.

Cooper's comments reflect the mentoring philosophy at AB Transport, a Cedar Rapids, Iowa-headquartered logistics and transportation company started in 2001 by Shawn Leonard. The company views mentoring as a natural and essential part of everyday operations.

"Passing on knowledge has always been important to me," Leonard says. "It's our mission to mentor employees so they learn and succeed."

AB Transport employees' mentoring experience begins on day one. The company provides a two- to three-day

A Mentoring Program for Every Level

Many logistics professionals seek a mentor to help them comprehend the intricacies of a rapidly growing and ever-evolving field. For employees new to the business, determining what they need to know, and what aspect of the business they'd like to work in, can be a challenge.

"A lot of recent graduates don't know how to break into the industry, and are not sure what part of the supply chain they want to work in, so they are looking for a mentor to guide them," says Stacy Roth, a business unit sales manager for global shipping firm Panalpina, and founder of Women In Logistics, a nonprofit networking organization.

Women In Logistics offers a mentoring program to its members (which now consist of both men and women) that helps pair newbies with experienced professionals who can offer advice and connections. "Our mentors guide the mentees through what it takes to introduce themselves to the industry," explains Roth.

The mentoring program is also a lifeline for more experienced logistics professionals who want to take their career to the next level. "Let's say you've been in the industry for 10 years and you feel stuck in your position. You want to earn a promotion from your current employer or determine what other options are out there," Roth says. "A mentor can help you do that."

In addition, logistics professionals may find themselves working in an operations capacity when their passion is for sales, or doing marketing when they really want to work in logistics technology. "We can connect members in that situation with an individual who is successful in one particular aspect of logistics," she says.

"People always need mentoring," Roth adds. "It has a significant impact on their lives and careers."

"basic training" orientation program for all new hires. Because the company recruits new employees from all backgrounds–and often fresh out of college–it is important to make sure they receive a basic understanding of the logistics sector, says Leonard.

After that, employees fall "organically" into an atmosphere where everyone is a mentor. "When we hire a new employee, everybody helps out and teaches them the ropes, answers any questions, and deals with problems or issues," Leonard explains. "It is a team effort."

MAPPING OUT SUCCESS

James Rutledge, who joined AB Transport 18 months ago and is now general manager, confirms the wisdom of the company's approach to mentoring.

"When I started here, I didn't know my left from my right, but within months I understood exactly what I was doing," Rutledge says. "All the company's operations were clear to me because of the mentoring I received from my colleagues and managers."

Once employees are up to speed, the company maintains that mentoring spirit through weekly one-on-one meetings. Employees set up meetings with their managers, create the agenda, and lead an open discussion. As a result of these meetings, employees and managers devise an individual growth and development plan.

Another way that AB Transport fosters an atmosphere of team mentoring is by having its managers forgo private offices. Maintaining an open physical space translates into an open environment where employees and managers feel like they operate on the same team, Leonard says.

"If I'm hiding in an office, I can't mentor employees as easily or be there to answer questions and fix mistakes," adds Rutledge. The set-up also promotes an efficient office and provides everyone an opportunity to learn all aspects of the overall business.

For Rutledge, the company's training approach–which stresses timeliness and attention to detail–has also rubbed off on his personal life.

"We are in an expedited business, so it is extremely important for us to be on time and make sure that our jobs are done according to plan," he says. "I've taken that approach now in my own life. I am more focused on my goals, and I am *never* late."

Senior Vice President Herb Cohan believes mentoring helps create strong leaders and a team-building environment at AIT Worldwide Logistics.

In the multifaceted world of logistics, it can be easy to overlook the importance of mentoring–but that mistake could cost your company dearly, says Herb Cohan, senior vice president for AIT Worldwide Logistics, a transportation firm with locations in 37 cities around the globe.

"A company's people are its most important assets," Cohan says. "If you don't have people who care about what they do, and you don't care about them, your turnover rate is going to be high." For him, mentoring is a big part of getting people to care about their jobs.

At AIT, mentoring has become second nature, says Cohan. The company's open-door policy means anyone can drop by Cohan's office to seek advice and counseling. He also frequently conducts impromptu group mentoring sessions, gathering together eight to 10 new recruits to share with them the history of the company and the passion that has driven the firm to success.

"These meetings create a foundation for communication in a team-building environment, while enforcing AIT's core values," Cohan says.

A 24/7 RELATIONSHIP

As someone who has mentored many individuals throughout his career, Cohan advises people to find a mentor who is truly committed and available at all times. "If a person is acting as a mentor for the purpose of putting it on their resume, get rid of them," he cautions. "Find someone who is available to you any time, seven days a week."

That anytime-anywhere mentoring is exactly what Cohan has provided to Lorri Fairchild, who independently owns and operates AIT's Detroit office. Fairchild first met Cohan in 1989 when she was a cargo account executive with United Airlines. Detecting her entrepreneurial spirit, Cohan eventually recruited her to manage AIT's Detroit branch.

"Herb has always been available to talk with me anytime, day or night," says Fairchild. "I may not always get the answer I want to hear, but I trust it will be an honest and sincere answer based on years of personal and professional experience."

Fairchild also credits Cohan's "balanced and objective" input with helping her to become a better decision maker, learning to trust her instincts, and understand the importance of listening to both sides of an argument.

"You've got to know in your heart that you are giving employees everything you can–your knowledge, your time, your passion, and your experience," Cohan notes. "That's what makes a great mentor." ■

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DC Solutions

by Joseph O'Reilly

Mapping Distribution to Demand

Proximity to demand is a priority for any warehouse network. But it's not the only consideration. "The X-factor is cost, in terms of transportation, warehousing, and inventory," says Terry Harris, managing partner, Chicago Consulting, a supply chain strategy company located in the Windy City.

As businesses grow and contract, responding to internal demand pulses and external market impulses, distribution networks need to flex. Strategies can be reactive, consolidating redundant facilities; or they may be aggressive, targeting new areas to grow into. For businesses large and small, DC network optimization is a constant evaluation process, exploring opportunities to invest in new facilities and partner with third-party logistics providers to scale capacity with fluctuating demand.

For a fictional company looking to expand its franchise nationally, DC network optimization is a measure of real success.

"IMAGINING" DC PROBABILITY

When Beans and Brews–a fictional company–decides to expand its franchise presence nationally, it considers how it might adapt its existing distribution footprint.

The company has a unique brand. It makes and sells its own burrito and coffee products. Beans and Brews began with two small mom-and-pop shops in Albuquerque, N.M., then nurtured a cult following by opening burrito cafes in Dallas and Minneapolis. Today it's the local's Chipotle–with less chrome, more charm, and a double shot of caffeine to go with its special green chile recipe. The company wants to leverage that appeal, and an expanding U.S. Latino population, to grow its national footprint eastward.

Beans and Brews' business is a good example of a demand pattern and distribution dynamic that is different than the total population, explains Harris. Its existing DC network includes three small, leased warehouses in Albuquerque, Dallas, and Minneapolis–each supporting restaurants in those cities.

CONTINUED FROM PAGE 105

The 10 Best Warehouse Networks

Every year, Chicago Consulting puts together a list of the 10 best warehouse networks in the country, based on the lowest possible transit lead times to customers represented by the U.S. population.

For each warehouse network – beginning with a lone facility and progressing to a network of 10 – the analysis considers the average distance and lead time to customers, and the percent throughput, which specifies the amount of material that would flow through these warehouses based on proximity to population.

Henderson, Ky., provides the lowest possible lead time for one warehouse, according to 2009 data. Similarly putting any three warehouses in locations other than Allentown, Pa.; Bakersfield, Calif.; and McKinzie, Tenn. will cause the transit lead time to climb higher than 1.29 days.

NO. OF WAREHOUSES IN NETWORK	AVG. DISTANCE TO CUSTOMERS (miles)	AVG. LEAD TIME TO CUSTOMERS (days)	BEST LOCATIONS (percent throughput)
1	804	2.27	Henderson, KY (100)
2	487	1.48	Ashland, KY (76); Bakersfield, CA (24)
3	378	1.29	Allentown, PA (31); McKenzie, TN (46); Bakersfield, CA (23)
4	316	1.2	Lancaster, PA (27); Meridian, MS (23); Chicago, IL (27); Bakersfield, CA (23)
5	264	1.13	Summit, NJ (24); Macon, GA (19); Chicago, IL (22); Dallas, TX (14); Bakersfield, CA (21)
6	236	1.08	Summit, NJ (24); Macon, GA (19); Dallas, TX (14); Pasadena, CA (16); Tacoma, WA (5); Chicago, IL (22)
7	216	1.07	Summit, NJ (23); Gainesville, GA (14); Lakeland, FL (6); Dallas, TX (15); Pasadena, CA (16); Chicago, IL (21); Tacoma, WA (5)
8	200	1.05	Summit, NJ (23); Gainesville, GA (14); Lakeland, FL (6); Dallas, TX (12); Denver, CO (5); Chicago, IL (21); Tacoma, WA (4); Pasadena, CA (15)
9	187	1.04	Summit, NJ (24); Gainesville, GA (14); Lakeland, FL (6); Denver, CO (4); Alhambra, CA (10); Chicago, IL (21); Tacoma, WA (4); Oakland, CA (5); Dallas, TX (12)
10	173	1.04	Newark, NJ (20); Gainesville, GA (13); Lakeland, FL (6); Rockford, IL (13); Denver, CO (5); Alhambra, CA (10); Tacoma, WA (4); Oakland, CA (5); Mansfield, OH (12); Palestine, TX (12)

Source: 2009 Chicago Consulting

The company has a regional presence but sees an opportunity to grow sales nationally. It's looking to open franchises in the Northeast and Southeast and expand from there. Success will be partly contingent on re-working its distribution network, re-tasking facilities, and making sure its supply chain can support franchise expansion.

DIGGING INTO SITE SELECTION DECISIONS

Beans and Brews' predicament is not an uncommon scenario for U.S. businesses. Warehouse network optimization is a fluid process that mimics shifts in supply and consumption, as well as changes in distribution strategies. New questions and criteria arise, especially for smaller enterprises that grow up conservatively and keep operations close to the vest.

The first consideration is looking at the existing network and discerning how many facilities and where, says Harris. Once companies make these determinations, they can begin looking at a facility's function, mission, specific locations, and more granular level detail that includes outsourcing, leasing, and ownership options.

"The normal progression is design the network first, then tackle 3PL/ownership details," he says.

To meet its growth objectives, Beans and Brews identifies Chicago as a possible alternative to Minneapolis if it decides to relocate. Northern New Jersey could serve as an ideal stepping-stone into the Northeast; and in the south, Atlanta is a gateway into a booming consumer region.

Identifying primary areas where it might like to locate new franchises opens up the decision-making process. Beans and Brews can begin to hone in on specific localities that are better fits, as well as the types of warehouses it wants to operate.

"The first cut is location analysis, looking at places within a 50-mile radius of Chicago, Atlanta, and New Jersey," says Harris. "Within that circle is a labor cost gradient. Companies may go rural to save on labor, sacrificing on transportation. Walmart is a good example of a company that uses this strategy."

For example, in the Northeast, New Jersey is a tough area to do business, says Harris. Congestion and cost are issues. But eastern Pennsylvania and the Lehigh Valley–which has a strong presence in the dry goods sector–is a good alternative. Beans and Brews makes that rural/suburban determination, opting to locate near Scranton. The company decides to work with a developer to build a DC, own it, and lease out additional space. This gives the chain real estate equity and flexibility to expand.

In the Midwest, Beans and Brews decides to move its Minneapolis distribution facility to Chicago. It re-tasks the facility to manage frozen food inventory in the network. Because this requires more investment than a dry box operation, as well as transportation coordination among its hub-and-spoke network of DCs and franchises, it outsources management of the new facility to a third-party logistics provider located along Route 55 in Bollingbrook, Ill.

Locating facilities that can support satisfactory lead times and are still close to the consuming population is important. Sales can dictate the need for opening a new warehouse; but an optimal location can also produce sales. Beans and Brews recognizes this potential in the Atlanta market. The area is so sensitive to demand, and the resources are there to be equally responsive, that it decides to lease a facility in Gainesville with excess capacity, anticipating that business in the region will support future growth.

"You may be able to generate more sales in a warehouse that also saves you money. Adding sales at the gross margin level, rather than the net margin level, is huge," says Harris.

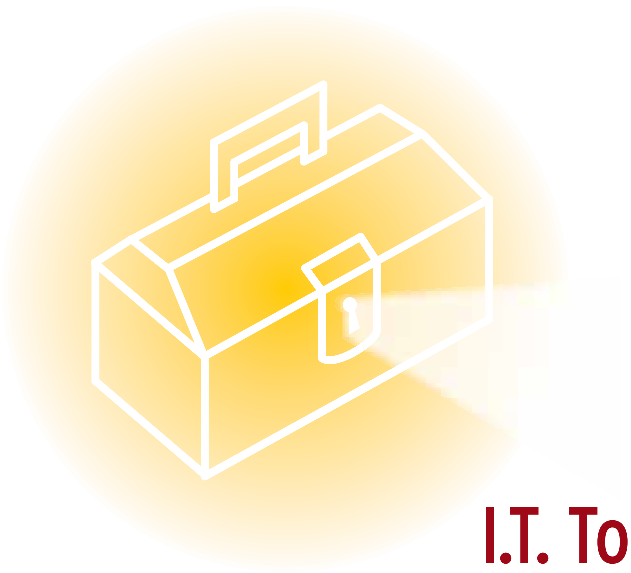
Back home in Albuquerque, Beans and Brews plans to preserve its operational and administrative presence. But because its business is increasingly population-driven, and the Las Vegas area is one of the fastest growing areas in the United States, it moves its DC there to support expected growth.

OPTIMIZING BEYOND THE BOX

As with any network optimization project, large or small, strategic planning helps facilitate the phased roll-out. Companies have an abundance of resources to leverage, from supply chain design experts such as Chicago Consulting to local 3PLs, carriers, and customers. Perspective is important, as is due diligence.

And optimization doesn't remain static. Once the network is redesigned, Beans and Brews can begin looking at how to drive greater transport efficiency and economy, leveraging third-party partnerships, pooling shipments, and consolidating LTL moves.

Beans and Brews' storied growth may be a figment of the imagination. But the challenges companies tackle as they adapt their DC networks are real. ■



I.T. Toolkit

ALDO Boots Up a New System

Global shoe retailer ALDO implements a high-stepping, end-to-end inventory and distribution system.

A few years ago, shoe retailer ALDO hit a dead end with its inventory and distribution technology. The company's collection of disparate in-house systems could support a maximum of 600 stores–less than half of what ALDO envisioned. After devising expansion plans that required a new warehouse and distribution facility, ALDO decided the time was right to invest in a scalable logistics technology platform.

Today, Montreal-based ALDO Group sells its shoes, leather goods, and accessories in 1,400 company-owned and franchised retail stores, half of which fall under the ALDO banner. The privately held company, founded in 1972 by CEO Aldo Bensadoun, operates in more than 45 countries across every continent except Antarctica. Thanks to a robust, end-to-end technology solution and a nimble supply chain, ALDO is now well-equipped to step into a prosperous future.

COAST-TO-COAST SERVICE

ALDO's main distribution center (DC), a facility in Montreal that encompasses up to one million square feet of space on two levels, employs two shifts to supply 1,000 retail stores in North America. The DC includes 58 receiving and shipping doors, a 464-chute tilt tray, and 12 miles of conveyors.

A recall center in Greensboro, N.C., allows the company to handle returns from stores on the U.S. East Coast. A single shift at this 80,000-square-foot facility distributes two of the company's specialty lines–children's shoes and accessories. The facility allows the company to ship size runs–the range of sizes of a particular shoe–together, which helps maximize sales. On the U.S. West Coast, inventory moves via store-to-store transfers.

In addition, a 35,000-square-foot DC in the United Kingdom services 35 international stores, processing 2.5 million units each year.

To identify areas for improvement throughout its operations, ALDO

CONTINUED FROM PAGE 109

considered the following aspects of its business:

■ **Global suppliers.** ALDO sources shoes from around the globe. Seventy percent of its products come from China, with an additional 20 percent arriving from Italy. Brazil contributes another eight percent of the company's inventory, and the remaining two percent is sourced from other global locations.

A flow-through warehouse in China ships sourced products to ALDO's distribution center in Montreal. In the past, processing procedures in China sometimes delayed product shipments for up to three days. For ALDO, a leader in the fickle fashion world, three days could equal an eternity. The team in Montreal had no visibility into shipment location. They had to wait for the goods to arrive before making any needed preparations to ship the shoes to the stores.

■ **Increasing product volume.** ALDO was experiencing growth that significantly increased its product volume. To manage the growth, the ALDO team realized it would have to slash the number of human touches in its supply chain. To do that, ALDO needed to automate as much of its supply chain operation as possible. Automation would also help track stock in the planned warehouse.

■ **Franchisee needs.** A growing base of franchisees also meant a new focus on the brand itself. While it was true that franchisees projected and ordered their own respective inventory and replenishment levels, they needed help to grow their businesses. From a branding perspective, ALDO wanted to ensure that its "Total Customer Experience" service approach spanned franchised operations, as well as corporate-owned and managed stores.

GOING SHOPPING

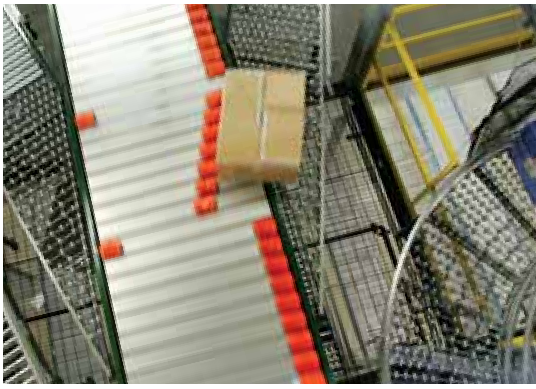
Expansion and supply chain topped the list of concerns for ALDO, but there were other business-driven requirements of the new system, as well. The company and its staff pride themselves on staying ahead of the competition. ALDO needed sophisticated, function-rich software and efficient hardware that could accommodate emerging "better practices."

The company's IT shopping list included a set of sophisticated warehousing, distribution, and inventory management capabilities, along with increased visibility into its supply chain–from sourcing and allocation to shipping and recall.

ALDO called in myriad enterprise solution vendors who presented their recommendations about the best way to achieve the company's goals. Custom solutions were recommended, but those systems carried price tags of up to $11 million. Looking for a more cost-efficient solution, ALDO opted to work with Deloitte Consulting LLP, which took a best-of-breed approach to solving ALDO's technology challenges.

"Taking a best-of-breed approach allowed us to secure all the capabilities we needed, and saved us money," says Maxime Charron, ALDO Group's IT director of supply chain and finance. "We centralized our business to gain the efficiencies that come from a large-scale operation."

The selection team chose the *CDC Supply Chain* solution, along with two additional software packages from Atlanta-based CDC Software. The *Collaborative Framework Service* (CFS) communications protocol furnishes the company's business intelligence system with operational and performance data, so ALDO executives receive the latest information to make their decisions. ALDO also implemented CDC's *Event Management Framework*, a real-time



Distribution centers in Montreal, North Carolina, and the United Kingdom help ALDO keep the latest styles in stock at its 1,400 retail stores.

notification capability that allows the retailer to manage by exception any variance from company-determined key performance indicator tolerances.

In addition to quickly resolving problems, ALDO uses *Event Management Framework* to flag processes that are working well, creating a better practices library within the company's operations.

GETTING RESULTS

In early summer of 2004, ALDO's Montreal distribution center went live with *CDC Supply Chain*. The United Kingdom facility followed 18 months later, and the facility in China went live one year after that.

To handle delays from the China warehouse, the staff decided to create advance shipping notices (ASNs) in China, giving the Montreal-based staff insight into arrival times for specific products and eliminating guesswork. ASNs prepared in China also allow stock to flow directly to the company's stores on the U.S. West Coast instead of traveling the China-Montreal-West Coast route, saving considerable time and transportation costs.

Store management confirms receipt of the ASN-identified baskets with a carton label wand, which feeds supply chain systems throughout the enterprise. As a result of these two process improvements, product lead times have been cut by two weeks.

Even in a highly automated environment such as ALDO's, wrong product baskets sometimes arrive at stores. Before implementing the new system, ALDO had trouble confirming product arrival at individual stores because store staff avoided the time-consuming process of manually checking inventory.

With ASN tags, store managers now are encouraged to wand-scan each basket item, confirming receipt of ordered products and flagging misdelivered baskets automatically.

Additionally, the new system allows store managers to replenish stock as it is sold, using store-specific sales data rather than estimates.

ALDO's multichannel capabilities, another benefit of the new end-to-end system, allow customers to order products not available in the store where they are shopping. The order, which is sent directly to the customer's preferred location, virtually eliminates lost sales due to low inventory.

Since implementing the system two years ago, ALDO has opened 440 new stores. Employee productivity has increased 14 percent each year, and product lead times have been shortened by two weeks. Focusing on continual improvement has yielded a supply chain operation that leverages global resources across ALDO's company-owned-and-managed stores, fulfills the needs of individual retail stores, and extends the company's brand through a growing network of franchisees. ■

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Management Dynamics

TITLE: ***Trade Agreement Management: Survey Results and Best Practice Research***

LENGTH 16 PAGES

DOWNLOAD: *http://snipurl.com/xa5xx*

SUMMARY: This report outlines how and why companies can implement and benefit from building a portfolio of foreign trade agreements. After surveying more than 300 respondents across various industries and sizes, Management Dynamics has uncovered key characteristics of successful trade agreement programs, and divulges vital information related to program management challenges, monetary savings, legal responsibilities, and strategies to help your firm sustain an effective program.

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TITLE: ***Enhancing "The Perfect Order" in Distribution and Logistics***

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SUMMARY: Today's workforce management strategies can drive you closer to "the perfect order." A more effective use of labor can take your organization to a new level of productivity and profitability: Gain visibility into supply chain operations to improve service levels; access complete and accurate job and labor costing to increase profitability; and gather real-time data on labor capacity and order status to cost-effectively allocate labor. Organizations that leverage the power of workforce management will be best positioned to compete and win in the 21st-century marketplace. Find out how.

Ryder

TITLE: ***Outsourcing to Improve Supply Chain Agility***

LENGTH **7 PAGES**

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SUMMARY: Delivering on a high-performance supply chain network is the competitive imperative to compete in the 21st century. The intensity of change in today's market requires agility, speed, and responsiveness from your supply chain. It is a critical time to examine how other companies are extending beyond traditional, functional outsourcing relationships to gain advantage and increase their agility and responsiveness to global market volatility. Companies outsource in a multitude of industries to meet market challenges by accelerating change and improving overall productivity and profitability.

3PL Central

TITLE: ***SaaS WMS: A Perfect Fit for Today's 3PL***

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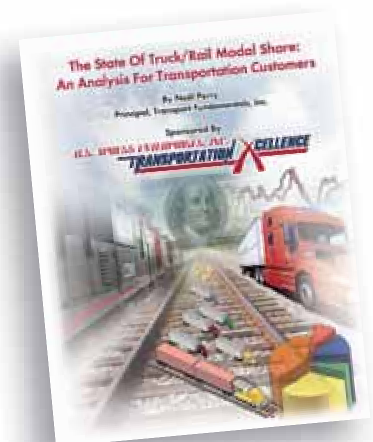
SUMMARY: 3PL Central focuses on the top reasons why a Software-as-a-Service (SaaS) Warehouse Management System (WMS) offers 3PLs the most robust functionality options at the greatest ROI. Today's ever-changing business climate requires scalability and nimble flexibility; an SaaS-based WMS is perfectly positioned to help 3PLs become the strongest link in their customer's supply chain. Download *SaaS WMS: A Perfect Fit for Today's 3PL* and learn why pay-as-you-go software benefits both the 3PL and its customers; how 3PLs can achieve scalability within the SaaS environment; and what rapid WMS setup can mean in a fast-paced 3PL world.



U.S. Xpress

TITLE: ***The State of Truck/Rail Modal Share: An Analysis for Transportation Customers***

LENGTH **19 PAGES**

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SUMMARY: This whitepaper, written by Noël Perry, the principal for Transportation Fundamentals, Inc. and a 30-year veteran of both the rail and trucking industries, offers transport buyers an opportunity to look beyond marketing slogans and industry rhetoric and to examine in-depth the strengths of both truck and rail. Download this free whitepaper so you can study the facts on modal share and explore how each can complement the other and work within a more efficient, cost-effective, and greener supply chain.

HighJump Software

TITLE: ***Four Ways 3PLs Can Harness Technology To Attract Customers and Drive Profitability***

LENGTH **4 PAGES**

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SUMMARY: A new study conducted by HighJump Software illustrates four ways brokers, forwarders, warehouse operators, and third-party logistics providers can leverage today's low-cost technology to attract and onboard new customers quickly and serve existing customers more fully and efficiently. Get the four-point action plan free by downloading this whitepaper.

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AIR

AirBridgeCargo Airlines (ABC)

ABC extended its delivery network in Russia with the launch of a new weekly flight from Amsterdam to Yekaterinburg and a direct service from Frankfurt to Moscow's Domodedovo Airport. From Yekaterinburg, shippers can move cargo to Hong Kong and other Asian destinations within ABC's network.

www.airbridgecargo.com	416-622-9450

American Airlines Cargo

An expanded weight limit for AA Cargo's international Priority Parcel Service (PPS) provides air cargo buyers additional flexibility in shipping heavier, time-sensitive packages. PPS Heavyweight increases the per-piece weight limit to 100 pounds for shipments originating in the United States to all countries worldwide, except Japan.

www.aacargo.com	800-CARGO-AA

TRUCKING

Oak Harbor Freight Lines

Next-day LTL delivery to the San Diego area is now available from Sacramento and Oakland, Calif.

www.oakh.com	800-865-3960

CONTINUED FROM PAGE 117

Materials Handling: Zoneworks

Zoneworks' insulated pallet covers help maintain the proper temperature of heated or cooled palletized products throughout a company's distribution channels and supply chain. The lightweight pallet covers feature a collapsible design with handles that make it easy to remove and store the covers. The vinyl material also prohibits water absorption for more efficient and easier wipe-down and storage. Additional features include heavy-duty, multi-layered construction that provides extra durability; fire-retardant industrial vinyl that meets industry standards; and anti-microbial batting.

www.zoneworks.com 800-553-4834

WEB

Council of Supply Chain Management Professionals (CSCMP)

An online service for companies seeking supply chain management talent and individuals looking for jobs, CSCMP's Career Center offers employers a targeted global audience of more than 40,000 supply chain management professionals from which to attract applicants. The site features a streamlined process for reviewing résumés, and a job-posting distribution system that provides access to multiple job boards. Individuals searching for jobs can post résumés at no charge, search job announcements, apply to job listings online, and receive e-mail alerts when jobs match specific criteria. Other new features include résumé advice, career coaching, and a resource library.

cscmp.org/career/resources.asp 630-645-3479

INTERMODAL

Averitt Express

Intermodal services are now part of Averitt's full-load/volume transportation services package. The company provides intermodal coverage through strategic relationships with several railroads: Union Pacific and BNSF in the West, Norfolk Southern in the East and Midwest, CSX in the East and Midwest, and Florida East Coast in Georgia and Florida. Averitt's intermodal coverage includes both container-on-flatcar and trailer-on-flatcar services and extends to all 48 contiguous states. Door-to-door, ramp-to-ramp, ramp-to-door, and door-to-ramp options are available.

averittexpress.com/intermodal 866-208-0168

BNSF Railway

A new 185-acre Memphis Intermodal Facility is equipped with eight widespan, electric, rail-mounted gantry cranes, which produce zero emissions on site and significantly reduce the number of hostler trucks needed to move containers within the yard. A streamlined automated gate system for trucks entering and exiting the facility uses digital cameras to record images of containers, chassis, and tractors. Combined with a biometric driver-identification system, gate enhancements have increased security, while improving throughput, which reduces truck idling time and emissions by 50 percent.

www.bnsf.com 817-352-1000

FREIGHT FORWARDING

FedEx Trade Networks

International ocean and air freight forwarder FedEx Trade Networks opened three additional offices in the Europe, Middle East, and Africa region. The new operations are in Warsaw and Gdynia, Poland; and Dubai, United Arab Emirates. Poland's strong economy and central location in Europe and on the Baltic Sea enables significant intra-European trade, and Dubai's strategic location halfway between the Asia-Pacific and European markets better connects FedEx Trade Networks shippers to both those regions.

www.ftn.fedex.com 901-395-7610

OD-Global

Regional command centers in four strategic markets – Atlanta, Dallas, New York City, and San Juan, Puerto Rico – handle operations for OD-Global's northern, southern, and Gulf Coast regions, as well as for Puerto Rico and the U.S. Virgin Islands. A division of Old Dominion Freight Line, OD-Global provides global less-than-containerload and full-containerload services for export and import, foreign-to-foreign, and airfreight shipments. The four regional command centers also handle international transportation solutions including drayage to, from, or between ocean ports and rail ramps; and guaranteed, expedited, or date-critical ocean shipments.

www.odfl.com 800-432-6335

PARTNERSHIPS

Dupré Logistics and Univar

Dupré Logistics expanded its site and private fleet services group into North Carolina, Georgia, Tennessee, and South Carolina markets to serve the southeast region for Univar, an industrial and specialty chemicals distributor. Univar operates a network of approximately 170 distribution facilities throughout North America, Europe, and China.

www.duprelogistics.com	800-356-3659
www.univarcorp.com	425-889-3400

Evergreen Line, Wan Hai Lines Ltd. (WHL), and Simatech Shipping (SS)

The three carriers agreed to operate an East Africa Service (EAF) with three ships of 1,200 TEU capacity. Evergreen, WHL, and SS will each operate one vessel. The EAF service's port rotation will be: Colombo–Mombasa–Dar es Salaam–Colombo.

www.evergreen-line.com	201-761-3000
web.wanhai.com	562-901-9400
simatech.com	+971 4 397-6222

High Jump Software and MercuryGate

Through a partnership with MercuryGate, HighJump's transportation management system gained functionality for coordinating and optimizing complex multi-stop, multi-modal shipments, including ocean, air, rail, LTL, TL, and parcel. The Software-as-a-Service solution also supports multi-currency shipments.

www.highjump.com	866-HIGHJUMP
www.mercurygate.com	919-469-8057

TRANSPORTATION LAW

Transportation Dispute Resolution

Headquartered in Fort Worth, Texas, with offices in three other states, Transportation Dispute Resolution offers mediation and arbitration services for the transportation industry. The firm's mediators and arbitrators are transportation attorneys with experience in all modes.

transportationdisputeresolution.com	817-876-6012

EXPEDITED

UPS

A new Shenzhen Asia Pacific Hub, located at Shenzhen Baoan International Airport in China's Pearl River Delta, replaces the UPS hub in Clark, Philippines. The hub cuts at least one day from shipment transit time in the region, while offering service to the manufacturing region north of Shenzhen.

www.ups.com	800-PICK-UPS

3PLs

Weber Distribution

A new temperature-controlled and dry storage facility in Stockton, Calif., offers expanded service to the confectionary, food and beverage, retail, and CPG industries. Serving northern California and Nevada, the Stockton facility provides LTL, truckload, storage, and value-added services, including order processing, label generation, inventory control, routing guide compliance, and pick and pack.

www.weberdistribution.com	877-624-2700

Con-way

The Con-way Multimodal division launched Con-way TweetLoad, a tool that helps carriers access available freight loads through the Twitter social media platform. Carriers following @ ConwayTweetLoad can quickly see the latest available shipments, along with links to further information on the Con-way Multimodal link board, where they can place bids on available loads. To accept loads, carriers must be registered partners of Con-way Multimodal's third-party capacity network.

www.con-way.com	800-763-2222

Greatwide Logistics Services

A new service offering, Managed Transportation Services (MTS), provides visibility from pickup through delivery, along with centralized technologies to monitor and continuously improve operations across the supply chain. MTS, which combines dedicated, brokerage, and warehousing services, operates through a 24-hour, 365-day Transportation Operation Center, where the company manages all transportation solutions, including procurement, planning, execution, and distribution. The center also handles back-office functions such as billing, settlements, and accounts receivable.

www.greatwide.com	877-355-6177

July 8, 2010, Reverse Logistics Association Seminar, Salt Lake City, Utah. This event includes presentations on service level agreements and effective returns management; a keynote speech by Doug Pratt, global logistics manager at Iomega; and a returns and distribution facility tour.

801-331-8949
www.rltshows.com

July 26-28, 2010, Performance-Based Logistics, Arlington, Va. This leading military logistics conference provides an understanding of performance-based logistics and offers insights on next-generation lifecycle product support assessment and implementation.

888-482-6012
www.wbresearch.com/pblusa

September 13-17, 2010, Achieving Supply Chain Transformation, State College, Penn. Participants in this program at Penn State's Smeal College of Business learn how best-in-class companies adapt their supply chains to improve their competitive position and shareholder value. Discover how to optimize three critical metrics–profit margin, cash-to-cash cycle time, and customer response time–while identifying supply chain capabilities to take advantage of.

814-865-3435
www.smeal.psu.edu

September 26-29, 2010, CSCMP Annual Global Conference, San Diego, Calif. At the Council of Supply Chain Management Professional's conference, learn ways to cut supply chain costs, boost efficiency, and improve your bottom line; network with colleagues from all over the world; and discover new and innovative ideas that will keep you and your supply chain competitive.

630-574-0985
www.cscmpconference.org

October 13-15, 2010, Supply Chain Council Executive Summit, Houston, Texas. Topics covered at this event include lessons learned from the recent economic downturn, flu pandemic, and natural disasters; new strategies for improving efficiency and responsiveness; methods for keeping up with rapidly evolving technology; and the impact of sustainability on supply chains.

202-962-0440
www.scc-execsummit.org

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  www.chrobinson.com 800-323-7587

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THE LAST MILE

"My logisticians are a humorless lot…they know if my campaign fails, they are the first ones I will slay."

–Alexander

"You will not find it difficult to prove that battles, campaigns, and even wars have been won or lost primarily because of logistics."

–General Dwight D. Eisenhower

"Experience has taught me that manufacturers are now as necessary to our independence as to our comfort."

–Thomas Jefferson

"Pull" Quotes

Famous people have said the darndest things about transportation and logistics. Perhaps it's the company they kept or the armies they led, but there is a distinctly martial thread in how historical figures contextualize the importance of your trade.

From Benjamin Franklin's witty musings on a shoeless horse and the absence of detail to Winston Churchill's flowery comparison between victory and transportation, *Inbound Logistics* digs through the annals of history for some notable quotables spanning a timeless supply chain.

"Amateurs talk tactics, professionals talk logistics."

–Modern military saying

"Logistics is the stuff that if you don't have enough of, the war will not be won as soon as."

–General Nathaniel Green, Quartermaster, American Revolutionary Army

"A little neglect may breed mischief: for want of a nail the shoe was lost; for want of a shoe the horse was lost; and for want of a horse the rider was lost."

–Benjamin Franklin

"GENTLEMEN, THE OFFICER WHO DOESN'T KNOW HIS COMMUNICATIONS AND SUPPLY AS WELL AS HIS TACTICS IS TOTALLY USELESS."

–Gen. George S. Patton

"THE LINE BETWEEN DISORDER AND ORDER LIES IN LOGISTICS."

–Sun Tzu

"VICTORY is the beautiful, bright colored flower. TRANSPORT is the stem without which it could never have blossomed."

–Sir Winston S. Churchill


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