The Information Leader for the Railroad Industry ■ JANUARY 2013

Progressive RAILROADING

TWO FOR THE LONG HAUL

Crude oil and domestic intermodal business pose the greatest long-term growth potential for BNSF as long as enough capacity's in place

A NEW LINE FOR PORTLAND'S TRIMET

EASTERN SHALES STILL A GROWTH DRIVER

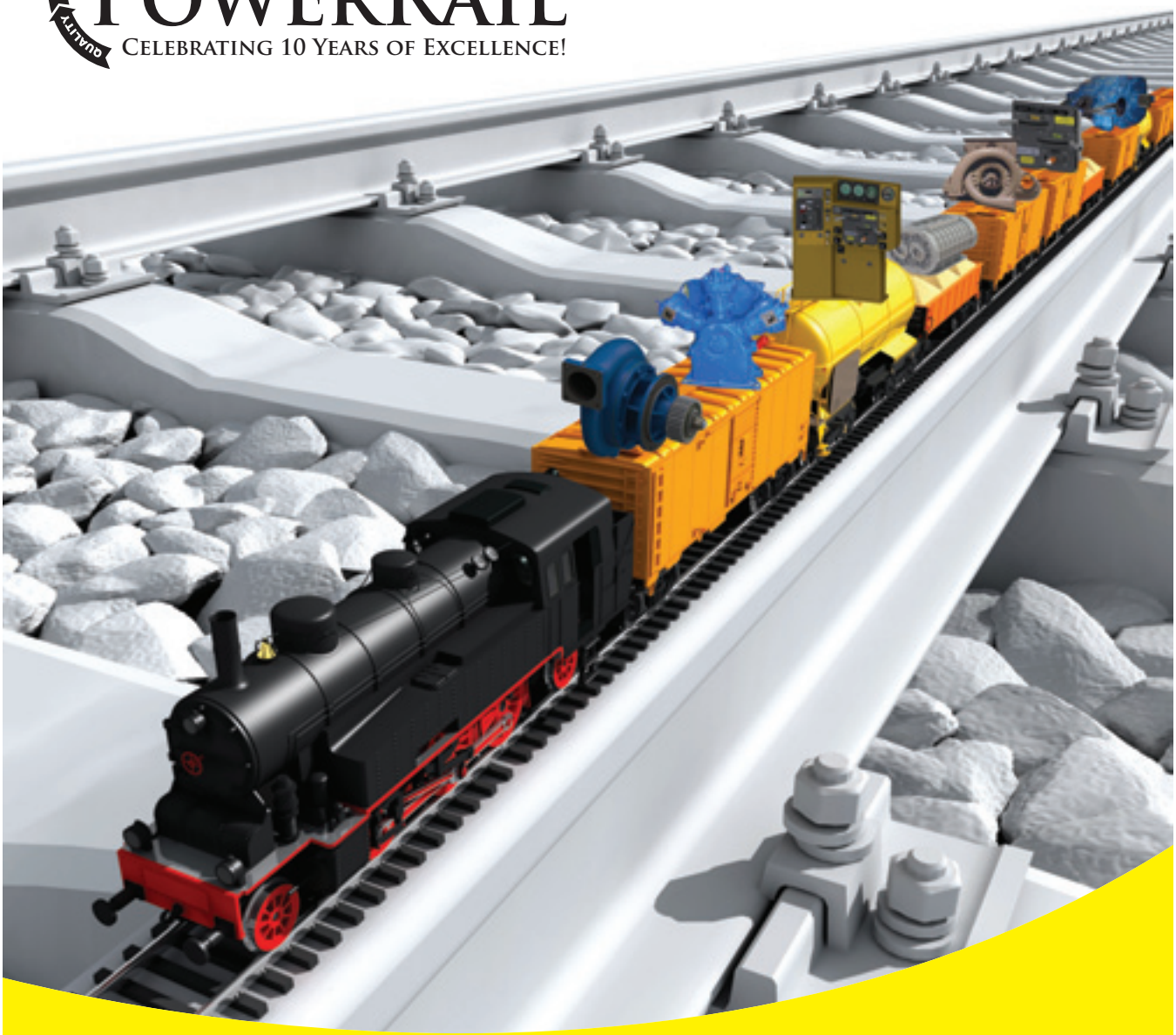
OUR 14TH ANNUAL GRADE CROSSING UPDATE

WEB EXCLUSIVE:
Michael DePallo, the new CEO at Metrolink, cites challenges and priorities
www.progressiverailroading.com/cover

The Secret is Coming Down the Track...
PowerRail is Celebrating 10 Years of Excellence!

PRICE · SERVICE · DELIVERY · QUALITY

PowerRail
Celebrating 10 Years of Excellence!



10 Years of Delivering Results!

We would like to sincerely THANK all of our loyal customers and friends for their support over the past 10 years. Without you, we would not be who we are today - An AAR M-1003 Quality Corporation offering a full line of Locomotive Parts and Components. We are Unique Manufacturer and full-service stocking company with multiple locations throughout North America offering a full range of New or Our Proven **True Blue™** Remanufactured-Unit Exchange Components.

We will continue to strive to exceed your expectations, while delivering products and services that meet exemplary standards of **Quality, Service, Delivery and Value!**

www.ePOWERRAIL.COM™ | 570.883.7005

AAR M-1003 Quality

FREE INFO: Circle 101

COVER STORY • PAGE 16

TWO FOR THE LONG HAUL

Crude oil and domestic intermodal business pose the greatest long-term growth potential for BNSF as long as enough capacity's in place

Photo courtesy of BNSF Railway Co.
Cover design by Mark E. Uy

FEATURES

DEPARTMENTS

"Crude by rail has gone from zero to 60 mph in a very short time."

— Matt Rose, Chairman and CEO, BNSF Railway Co. - p.17

PROGRESSIVE RAILROADING (ISSN 0033-0817) (Publications Agreement No. 40031401) is published every month by Trade Press Media Group, Inc. Editorial and business offices are at 2100 W. Florist Ave., Milwaukee, WI 53209. (414) 228-7701. Subscriptions: PROGRESSIVE RAILROADING is sent without obligation to railroad presidents, vice-presidents, and qualified personnel in railroad management and supervision in the executive, administrative, operating, mechanical, engineering, purchases and materials, electrical, signal and communications departments of the railroads. Qualified subscriptions should be requested on railroad letterhead. Subscription price to others: $8.00 per single copy. $96.00 per year, $180.00 (U.S.) 2 years. For subscriptions mailed outside the U.S., $140.00 (U.S. dollars) per year, $245 (U.S. dollars) for two years. Add $150.00 (U.S. dollars) per year for USPS Priority Mail delivery. Periodicals postage paid at Milwaukee, Wisconsin and additional mailing offices. The publishers do not assume responsibility for the validity of the claims made for products described.

POSTMASTER: Please send address changes to Progressive Railroading, P.O. Box 1289, Skokie, IL 60076-8289. CANADIAN return address: Station A P.O. Box 54, Windsor, ON N9A 6J5; custserv@tradepress.com

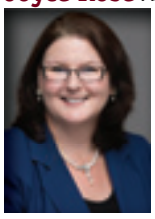
All packages shipped via UPS, air express or common carrier, plus all general correspondence, should be addressed to: Progressive Railroading, 2100 W. Florist Ave. Milwaukee, WI 53209.

Printed in U.S.A.

Progressive RAILROADING.COM

Recently posted "online only" articles:

Meet Operation Lifesaver Inc.'s Joyce Rose As the new national leader of Operational Lifesaver Inc., Rose is taking over at an important juncture in the organization's history — and in her career. **www.progressiverailroading.com/PR**



New Metrolink CEO Michael DePallo talks challenges, priorities The longtime Port Authority Trans-Hudson general manager has relocated to southern California, where he plans to apply his experiences in New York and New Jersey to carry out Metrolink's PTC and passenger-car programs. **www.progressiverailroading.com/PR**

Intermodal: Shorter trains, efficiency gains at NS A year ago, Norfolk Southern Railway began to roll out an R³ initiative to optimize the movements of trailers, and international and domestic containers. Meaning the right lane, right car and right unit, R³ aims to ensure that trains departing an intermodal terminal are headed to the correct destinations, moving freight loaded on the most optimal rail cars and transporting the proper containers or trailers to enhance capacity and increase asset utilization. **www.progressiverailroading.com/PR**

Progressive Railroading's Daily News

The most-read Daily News stories last month:

- "Canadian Pacific: New 'rapid change agenda' includes job cuts, headquarters relocation, DM&E line divestiture and mid-60s operating ratio"
- "Berkshire sells second short line to meet STB divestiture obligation"
- "Genesee & Wyoming lands its largest Utica Shale customer"

www.progressiverailroading.com/news

Sign up for our RSS feed
progressiverailroading.com/rss/prnews.asp

Follow us on Twitter
twitter.com/rail_pro_mag

Find us on Facebook
facebook.com/ProgressiveRailroading

Join the Progressive Railroading Magazine LinkedIn group
progressiverailroading.com/linkedin

Check us out on Google+
progressiverailroading.com/google+

Join the discussion, ask questions and network with your colleagues at our social networking site,
myprogressiverailroading.com

myProgressive RAILROADING.COM

RailTrends® — The premier conference for rail professionals
www.railtrends.com

RAILTRENDS®

LOGGING IN

Angela Cotey
associate editor

This year, transit agency execs will get their long-awaited wish for a more streamlined New Starts program. U.S. Transportation Secretary Ray LaHood's Dec. 31 FastLane blog outlines the basics of the revisions. *www.fastlane.dot.gov*

Jeff Stagl
managing editor

The Panama Canal expansion — which is slated for completion next year — will be followed by at least one additional expansion, according to an article posted Dec. 12 by the Containerization & Intermodal Institute. *www.containerization.org*

Julie Sneider
assistant editor

Incoming House T&I Committee Chairman Bill Shuster, on whether he'll model outgoing Chairman John Mica's talent for making colorful statements: "I don't know who writes his stuff for him. But I don't have the same writers." *www.politico.com*

HIGH-CAPACITY I PRECISION I RELIABILITY

Plasser American

Clean-Up Time.

The Challenge: deteriorating ballast conditions due to high density traffic and increasing axle loads. The solution: Plasser Ballast Undercutter/Cleaners for highest quality, high production and efficient ballast cleaning. The result: On-time performance, increased capacity, and a safe railroad. Plasser, providing ballast cleaning technology with decades of know-how and worldwide experience.

Plasser American Corporation I 2001 Myers Road · Chesapeake · VA 23324-0464 I www.plasseramerican.com

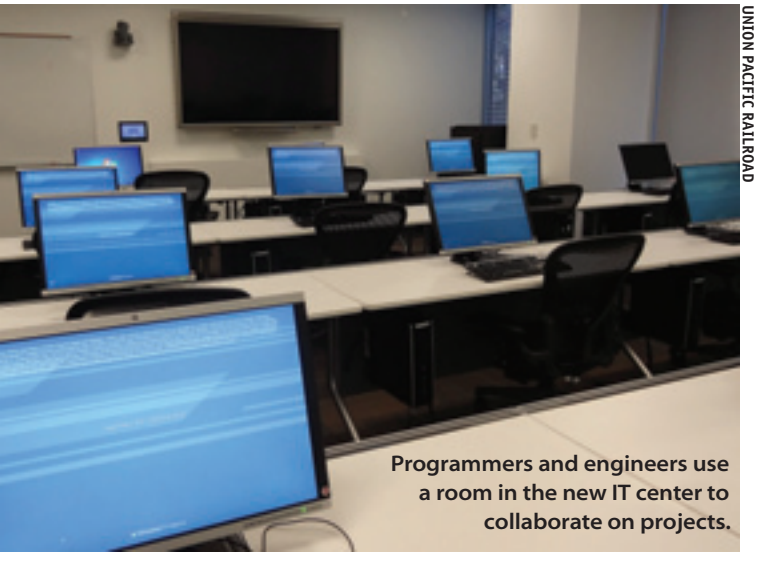
Upfront

[INFORMATION TECHNOLOGY]

UP: A new center of attention

By Jeff Stagl, Managing Editor

Each year, Union Pacific Railroad's attrition levels typically reach 3,000 to 4,000 workers primarily because of retirements. Every department is impacted by the experienced worker drain, but it's especially problematic in the information technology (IT) group because hardware and software demands continue to mount. There usually are 20 to 30 positions that remain unfilled in the group because UP recruiters can't find enough people with the requisite skills.



UNION PACIFIC RAILROAD

Programmers and engineers use a room in the new IT center to collaborate on projects.

That could soon change for the better. Last month, UP opened a new information technology center in Austin, Texas, to locate recruiters and IT group leaders closer to the top-tier talent residing in one of the nation's hottest technology hubs. The 11,000-square-foot facility will serve as a software and engineering research and development center for the group, which conducts work in such areas as real-time and predictive analytics, hardware engineering, sensor-based mote technology and train communications. The group also develops and builds proprietary hardware, software and systems.

A hold on Texas hotbed

Austin is home or in close proximity to many colleges and universities that offer "very strong" computer science and electrical engineering programs, such as the University of Texas-Austin, University of Texas-San Antonio, Texas A&M University, Baylor University, Southern Methodist University, Texas Christian University and Trinity University, says UP spokesman Tom Lange.

"We have been evaluating the possibility of a satellite IT office for about two years," he says. "A few years ago, we started sending recruiters to quite a few universities across the U.S. to cultivate relationships with schools and meet potential employees. We also have expanded our internship program to include roughly 70 year-round and 40 summer interns."

The railroad continues to aggressively pursue recruiting efforts within the Texas university systems and found many of the candidates prefer to live and work in Austin, said Lynden Tennison, UP's senior vice president and chief information officer, in a prepared statement.

"Having an office in the heart of Austin will help us bring exciting new opportunities to the exceptional talent being developed in Texas," he said.

Considered an industry leader in IT and technology innovation, UP operates more miles of railroad in Texas — about 6,300 — than in any other state, and employs more people in Texas than any other state except Nebraska, where the company maintains its Omaha headquarters, according to the Class I. UP operates one of the world's largest privately owned telecommunications networks, which supports 10,000 customers and the railroad's 32,000-mile network in 23 states.

Special programming

The new open-concept IT center, which will support more than 40 programmers and engineers, features a lab, audio/visual training room and "collaboration room," where programmers and engineers can work together on projects.

For example, professionals at the center will work on predictive analytics that help the railroad operate its trains — which in any 24-hour window typically total about 3,300 — more safely and reliably, says Lange.

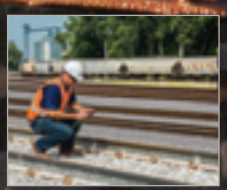
Opening the center in northwest Austin is "a proof-of-concept move on our part," he says, adding that the facility is UP's first true satellite IT center.

"We will evaluate its success over the next 12 to 18 months and determine whether to expand our Austin presence, add other satellite locations or pull the work back into our Omaha headquarters," says Lange. ■

Building Expectations

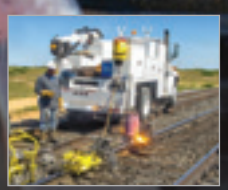
New Construction

Rehabilitation

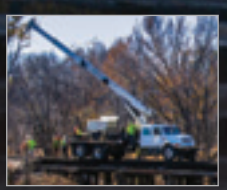


Inspection, Maintenance & Emergency Response

Signals & Crossings



MOW Services



Bridges

You've got a lot riding on your track. So why not expect more.

The RailWorks team does more than build, maintain and supply the best track around. Expect us to deliver safer, more productive operations. Smart solutions from industry experts. Projects on time and on budget.

Expect more with RailWorks at work.

North America's leader in Track and Transit & Systems construction and maintenance services

RAILWORKS®

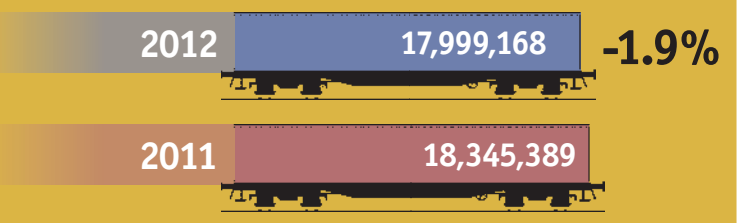
www.railworks.com
866.905.7245

FREE INFO: Circle 100

Upfront

TRAFFIC

North American Carloads



Cumulative, 48 weeks 2012
Source: AAR Policy and Economics Department

Housing's impact in 2013

Business could be looking up for lumber carloads this year, as the U.S. housing market recovery gains momentum. According to a Bank of America Merrill Lynch Global Research 2013 Market Outlook, U.S. home prices are expected to increase another 3 percent, adding to the 5 percent gain in 2012. "Housing starts could increase by more than 25 percent, and a 3.5 percent average annual appreciation over the next 10 years should stimulate jobs for construction and related sectors such as furniture, building materials and financials," the report states. ■

Corn crop quality improved in 2012

Total U.S. corn production fell in 2012 because of the worst drought in decades, but the overall quality of the crop is "high" and improved upon 2011's measurements, according to the U.S. Grains Council's "Corn Harvest Quality Report 2012-13," www.grains.org. The crop showed year-over-year improvement in average text, weight, protein levels and density, as well as lower moisture and "broken corn and foreign material," the report states. The next Corn Harvest Quality report will be available in April. ■

Carloads Originated

	2012 Numbers	% Change from 2011
U.S. CLASS I RAILROADS TOTAL	13,318,005	-3.3
CSX Transportation	2,624,856	-5.9
Norfolk Southern	2,459,750	-5.5
EAST TOTAL	5,084,606	-5.7
BNSF Railway	4,071,417	0.3
Kansas City Southern	270,104	-2.6
Union Pacific	3,891,878	-3.6
WEST TOTAL	8,233,399	-1.7
CANADIAN CLASS I RAILROADS TOTAL	3,710,095	2.1
Canadian National	2,477,083	1.5
Canadian Pacific	1,233,012	3.3
MEXICAN RAILROADS TOTAL	693,244	0.8
Ferrocarril Mexicano S.A. de C.V.	468,665	0.7
Kansas City Southern de México	224,579	1.0

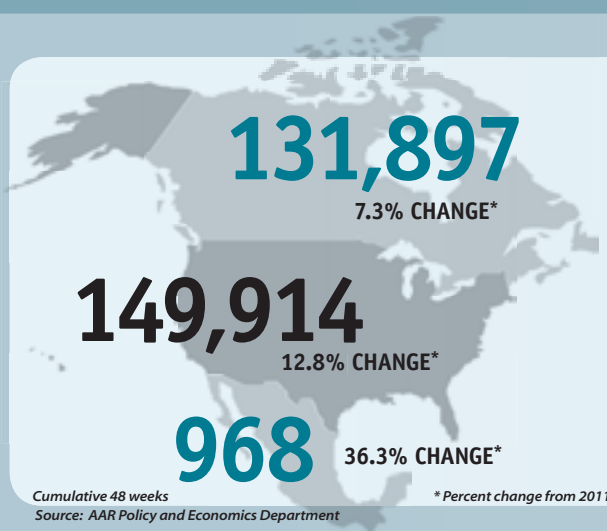
4,071,417 BNSF RAILWAY
0.3% CHANGE

Cumulative, 48 weeks 2012
Source: AAR Policy and Economics Department

RAIL KEY TO NORTH DAKOTA OIL

Growth in shale-based liquids production has turned North Dakota into the second-largest oil producing state. About one quarter of the state's oil production now is moved by rail, according to Fitch Ratings' 2013 outlook on crude oil and pipelines. "Oil production growth is significant enough to support projects for pipelines and rail cars," Fitch states. ■

Carloads By Commodity



Cumulative 48 weeks
** Percent change from 2011*
Source: AAR Policy and Economics Department

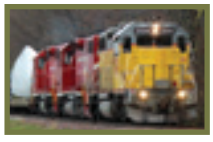
	U.S. RAILROADS		CANADIAN RAILROADS		MEXICAN RAILROADS	
	2012 Numbers	% Change*	2012 Numbers	% Change*	2012 Numbers	% Change*
Grain	944,955	-9.1	430,570	-0.3	47,933	-14.0
Ores	343,845	-5.8	597,769	-2.6	75,592	0.9
Coal	5,579,386	-10.5	416,889	5.5	7,800	-13.5
Aggregates	906,901	7.8	117,806	5.2	4,127	-44.5
Minerals (nonmet.)	226,480	-5.1	72,650	-9.6	1,525	-28.8
Grain Mill	456,418	-0.2	76,120	-0.6	7,011	-19.0
Food	313,834	2.6	102,428	0.4	46,756	8.0
Lumber	**149,914**	**12.8**	**131,897**	**7.3**	**968**	**36.3**
Paper	288,124	0.4	159,080	-6.0	1,915	-7.1
Chemicals	1,420,437	-0.9	501,062	-6.0	61,601	8.6
Petroleum	491,349	45.2	279,553	30.4	19,835	-14.9
Stone, Clay, Glass	362,741	3.6	68,563	6.3	99,484	8.7
Metals	503,760	2.9	108,616	-0.8	78,471	-9.0
Autos	747,336	16.7	269,197	10.0	163,980	10.9
Iron & Steel Scrap	212,521	-5.4	44,982	1.9	14,767	1.4
Waste/Scrap	147,052	-5.7	32,233	60.7	5,368	-37.6

Upfront

SHORT LINE

TRACKWORK IN WINTER Indiana Harbor Belt Railroad Co. is rebuilding, reconfiguring and adding tracks in Whiting Yard to accommodate an expansion of BP's refinery in Whiting, Ind. Work is slated for completion in early 2013. ■

A FOUR-WAY MOVE In November, Vermont Rail System helped move wind turbine blades from Little Rock, Ark., to its Burlington, Vt., yard.



The blades then were trucked to a Georgia Mountain Community Wind installation site near Milton and Georgia, Vt. CSX Transportation, Union Pacific Railroad and Pan Am Southern Railways also played roles in railing the freight from Arkansas to Vermont. ■

MORE POWER FOR FARMRAIL Because of growing Anadarko Basin crude-oil volumes, Farmrail System Inc. has leased seven additional locomotives, increasing its fleet to 35 units. The company leased five fuel-efficient, Caterpillar-powered locomotives to increase heavier road trains' tractive effort and two 12-cylinder switchers to assemble mini-unit consists at a truck-to-rail transload facility. ■

RailConnect Index® of Short-Line Traffic

Year-to-Date Period Ending 12/1/2012, Week 48

CARLOADS HANDLED	2012	2011	%Change
Coal	653,867	699,662	-6.55
Grain	734,272	765,046	-4.02
Farm & Food (Excl. Grain)	289,796	292,171	-0.81
Ores	124,228	153,898	-19.28
Stone, Clay, Aggregates	721,264	702,669	2.65
Lumber & Forest Products	268,304	244,678	9.66
Paper Products	381,591	393,447	-3.01
Waste & Scrap Materials	305,278	321,733	-5.11
Chemicals	1,058,316	1,027,551	2.99
Petroleum & Coke	237,054	257,996	-8.12
Metals & Products	486,786	513,714	-5.24
Motor Vehicles & Equip.	144,786	126,511	14.45
Intermodal	680,049	495,158	37.34
All Other	129,995	126,020	3.15
TOTAL	6,215,586	6,120,254	1.56

+14.45% CHANGE

Source: RMI, a GE Transportation company (Data from 423 U.S. and Canadian railroads)

Upfront

INTERMODAL

TRENDS OF THE TRADE Global trade volumes are slowing down, according to the International Transport Forum's December 2012 Statistics Brief. Total external trade by sea has remained stagnant below "pre-crisis" levels in the United States and European Union. However, total exports remain above pre-crisis levels, while exports to Asia exhibited signs of slowing down, the report states. ■

MARKING A MILESTONE The Port of Vancouver USA's West Vancouver Freight Access project last month reached yet another milestone. The last of the work on the electrical services "undergrounding" was completed in the port's Grain Subdivision area. All overhead primary electrical cables were replaced with underground cables. ■

LESS THAN GREAT EXPECTATIONS During the fourth quarter, freight demand clocked in at levels in line with what economists had predicted, according to Baird Equity Research's December Transportation/Logistics report. However, those expectations were "muted" and some challenges — such as core pricing growth that continued to decelerate and uncertainty due to macro/fiscal policy issues — still need to be overcome in early 2013. ■

Intermodal Traffic

Cumulative, 48 weeks 2012

Canadian Railroads

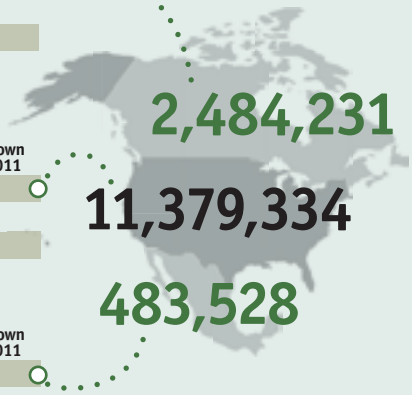
	2012 Numbers	% up/down from 2011
Total Units	2,484,231	6.7
Trailers	68,419	-8.0
Containers	2,415,812	7.2

U.S. Railroads

	2012 Numbers	% up/down from 2011
Total Units	11,379,334	3.3
Trailers	1,420,265	-9.5
Containers	9,959,069	5.4

Mexican Railroads

	2012 Numbers	% up/down from 2011
Total Units	483,528	19.6
Trailers	434	64.4
Containers	483,528	19.6



Source: AAR Policy and Economics Department

GOING ELECTRIC IN GEORGIA The Georgia Ports Authority (GPA) has begun using four electrified rubber-tired gantry (ERTG) cranes at the Port of Savannah. The cranes will help reduce fuel consumption by about 95 percent. The authority is the first entity in North America to use such technology, according to the GPA. The ERTGs can automatically switch to diesel generators when moving from stack to stack. GPA developed the new system in partnership with Konecranes, Conductix-Wampfler and Georgia Power, which supplied the cranes, new power system and electrical infrastructure, respectively. GPA plans to retrofit the Garden City Terminal's fleet of diesel-powered RTGs to use shore power, bringing the total number of ERTGs in operation to 169 by 2022.

GEORGIA PORTS AUTHORITY

"Regulations adversely affecting trucking's capacity to haul, especially the new [hours of service] rule in the pipeline for implementation, will cause an ever-tightening condition. When we add in the expectation of further freight growth, we can see a possible crisis unfolding in late 2013 where there simply are not enough available hauling hours to meet shipping demands."

— Jonathan Starks, director of transportation analysis, FTR Associates

Upfront

IN TRANSIT

HEAR YE, HEAR YE In early December, House Transportation and Infrastructure Committee Chairman John Mica held a hearing on the Northeast Corridor. Federal Railroad Administration Deputy Administrator Karen Hedlund discussed the strategy for addressing the corridor's near- and long-term needs. "Our initial focus is to thoroughly understand the true needs of the market," she said. "We will do a market-based assessment and will know from the very beginning the types of rail service needed to meet future demand." ■

CHINA'S LATEST HIGH-SPEED LINK On Dec. 26, the Beijing-Guangzhou high-speed rail line opened for service. At 1,500 miles, it's the longest high-speed line in the world. Trains will travel at an average speed of 300 kph, cutting the 20-hour trip between the cities to about eight hours. ■

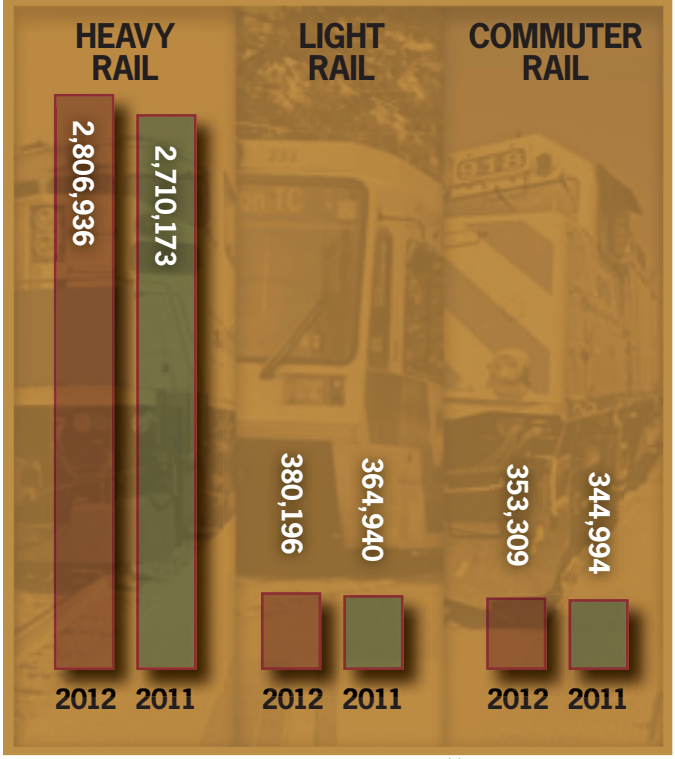
TWITTER.COM/@RAIL_PRO_MAG

From RailTrends® 2012: "FEC's Husein Cumber on AllAboardFlorida: Well on our way to demonstrating you can build a passenger rail system using private money"

PAYING THE WAY A vehicle-miles tax is one option that often comes up during discussions about how to shore up the Highway Trust Fund. According to a Dec. 4 poll on *ProgressiveRailroading.com*, the majority of respondents — 57 percent of the 280 who participated — said they would support such a tax, the proceeds of which would help fund transit projects. ■

Transit ridership through September 2012

During 2012's first three quarters, more than 7.9 billion trips were taken on U.S. public transit systems. The period from July to September marked the seventh-consecutive quarter of ridership gains.



Source: American Public Transportation Association

Meetings

FEB 12-13 — American Railway Development Association 2013 Executive Forum. BNSF Railway Co. headquarters, Fort Worth, Texas. www.amraildev.com

FEB. 28-MARCH 2 — American Association of Railroad Superintendents' 41st Winter Meeting. Marriott Atlanta Buckhead Hotel and Conference Center. www.railroadsuperintendents.org

MARCH 5-6 — 18th Annual AAR Research Review. Pueblo Convention Center, Pueblo, Colo. http://www.regonline.com/18threview

MARCH 11-15 — Railroad Track Inspection & Safety Standards Workshop. University of Tennessee, Chattanooga. http:// http://ctr.utk.edu/ttap/training/index.html

MARCH 14 — Railroad Day on Capitol Hill. Capitol Hill and Renaissance Washington, D.C., Downtown Hotel. www.aar.org or www.aslrra.org

MARCH 19-21 — Railroad Track Design Training Workshop. University of Tennessee NRTC, Knoxville. http://ctr.utk.edu/ttap/training/index.html

APRIL 8-10 — 2013 International Rail Safety Seminar and Expo. Florida Hotel and Conference Center, Orlando. http://railsafetyseminars.com

APRIL 27-30 — American Short Line and Regional Railroad Association's Annual Meeting and Exhibition. Atlanta Marriott Marquis Hotel. http://www.aslrra.org/meetings_seminars/

MEETING PREVIEW

RAILROAD DAY ON CAPITOL HILL

This industry event includes meetings with congressional members throughout the day, and a reception and dinner in the evening. The event is organized by AAR, ASLRRA, NRC, RSI, RSSI, REMSA, RTA and other industry groups.

For more meetings, see Progressive RAILROADING.COM


NOW —
Better by Design...
...AND AS RELEVANT AS EVER.
Progressive
RAILROADING
Enjoy our new look **starting with this issue**

People

FREIGHT CSX Transportation named **Gary Bethe**l vice president of the Northern Region to succeed **Craig King**, who is retiring; **Frank Lonegro**, VP of mechanical to succeed Bethel; and **Kathleen Brandt,** president of CSX Technology, to succeed Lonegro. … Indiana Rail Road Co. promoted **Mike Engel** to the new position of senior VP and chief financial officer, and **Bob Babcock** to SVP of operations and business development. The regional also named **Eric Powell** manager of intermodal and economic development. … Watco Cos. L.L.C. named **Mike Stickel** VP of marketing. … Watco Transportation Services L.L.C. named **James Fuchs** general manager of Wisconsin & Southern Railroad Co. … Patriot Rail Corp. promoted **David Eyermann** from VP of operations to VP of planning and design, and appointed **Dennis Marzec** VP of field operations.

TRANSIT Amtrak named **David Nichols** chief transportation officer and **Matt Hardison**, chief marketing and sales officer.

SUPPLY SIDE Thales' board elected **Jean-Bernard Levy** chairman and CEO. … Harsco Rail announced three key leadership appointments: **Joseph Dougherty**, VP-international; **Jay Gowan**, VP of sales for North and South America, who will take on sales responsibility for Australia and New Zealand; and **David Baxter**, director of global commercial operations. … Harbor Rail Services Co. appointed **Caylan Myronowicz** executive VP. … Trinity Industries Inc. promoted **Jared Richardson** to VP, associate general counsel and secretary. … The National Railroad Construction and Maintenance Association selected Railroad Construction Co. Inc. Chairman and Chief Executive Officer **James Daloisio** the 2013 Hall of Fame inductee.

Spotlight

Women Executive Network named Canadian Pacific Executive Vice President and Chief Marketing Officer **Jane O'Hagan** one of Canada's "Top 100 Most Powerful Women" of 2012. O'Hagan is a founding member of CP's Women on Track group that fosters mentoring, communications, learning and connecting with women companywide. Over the past eight years, she has been promoted to positions of increased scope and responsibility, including those involving yield management, product design, corporate communications and public affairs, government affairs and Canadian Pacific Logistics Services.

Marketplace

M&A **CATERPILLAR INC.** subsidiary **PROGRESS RAIL SERVICES** purchased the mobile welding assets of **RIBBONWELD L.L.C.**

MECHANICAL **BOMBARDIER TRANSPORTATION** obtained a $170 million contract with Virgin Trains to continue maintaining its Super Voyager fleet on the United Kingdom's West Coast mainline. Bombardier also obtained a $90.7 million (Canadian dollars) contract from British Columbia's government and TransLink to supply 28 SkyTrain cars for the new Evergreen and existing Expo and Millennium lines. … **STATOIL MARKETING AND TRADING INC.** chose The Greenbrier Cos. to provide railcar management and maintenance for 1,000 tank cars that will move crude oil out of the Bakken Shale play.

C&S Wheeling & Lake Erie Railway Co. deployed **AVTEC INC.'S SCOUT™** radio dispatch console to control train movements on its 840-mile system.

MOW **L.B. FOSTER CO.** obtained a multi-year contract extension from Union Pacific Railroad to supply pre-stressed concrete ties, which will be manufactured at the firm's Tucson, Ariz., plant. … **PROTRAN TECHNOLOGY** and **QINETIQ NORTH AMERICA** partnered to provide Maryland Transit Administration a real-time network of remote sensors on continuous-welded rail for testing and evaluation.

Spotlight

METROLINK plans to acquire up to 20 Tier 4-compliant locomotive engines under a contract with **ELECTRO-MOTIVE DIESEL INC.** Metrolink allocated $129.4 million for the purchase. Designed to meet the U.S. Environmental Protection Agency's Tier 4 emission standard, the engines are expected to reduce emissions by 86 percent, according to Metrolink. The first three demonstration locomotives are scheduled to be completed in fall 2015.

Peter Gertler is the high-speed rail services chair for HNTB Corp. The company is providing services for several U.S. high-speed rail projects. He can be reached at pgertler@hntb.com.

U.S. high-speed rail: What now?

Borrowing from the fireman's lesson to children to "stop, drop and roll," America needs to "listen, discuss and act" on the need to invest in sustainable infrastructure and to have a realistic, substantive discussion about the future of U.S. passenger rail. We have an unprecedented opportunity to frame a productive discussion if we:

Listen — Elected officials need to move beyond party politics to listen more to the experts about passenger rail's value in securing America's multi-modal future.

Discuss — At a time when Congress is grappling with funding issues, our leaders need to direct Americans in a constructive and forward-thinking conversation about generating revenue, cutting costs and enhancing our infrastructure for future generations by investing in passenger rail.

Act — Hurricane Sandy was a wake-up call. We cannot take our passenger rail systems for granted. Working together, we can respond to a crisis.

Where the conversation stands

The message about the benefits of high-speed rail has not changed, but the conversation has evolved from "Let's build high-speed rail" to "Let's improve the passenger-rail system, of which high-speed and intercity rail are critical components, to create a robust, integrated and sustainable public transportation system necessary for a growing, highly mobile society."

The long-term vision remains intact. The United States will have an integrated and efficient passenger-rail system with trains running at higher and conventional speeds that connect major urban areas. The steps necessary to achieve that long-term vision will require several local and regional improvements first be made, including:

- Enhance reliability, capacity and safety by maintaining and modernizing regional and local rail systems.
- Where there is demand for a cost-effective alternative to existing travel options, expand the existing rail systems.
- Maximize the convenience and attractiveness of rail travel with integrated connectivity, scheduling transfers and fare systems.

These local and regional improvements are the backbone of the future U.S. high-speed rail system and if it is to operate efficiently and effectively, the existing lines must operate efficiently and effectively, too.

In the meantime, progress is being made on several projects. In the Midwest, Illinois began 110 mph rail service on a 15-mile segment of the Chicago-to-St. Louis corridor in November 2012 and trains have been operating at speeds up to 110 mph on an 80-mile stretch between Kalamazoo, Mich., and Porter, Ind. since February 2012.

The Northeast Corridor has embarked on many significant projects to improve reliability and speed, including the New Jersey 160 mph project, Baltimore Tunnel and the Gateway Project, which are necessary to keep one of the world's busiest and most productive rail corridors operating at high efficiency and capacity.

And, California is selecting a design-build contractor for a 130-mile section of high-speed rail known as the Central Valley Corridor, regarded as the backbone of California's planned 800-mile system. Construction is scheduled to begin in the first quarter of 2013.

Local and regional passenger-rail improvements are the backbone of a future high-speed rail system.

In just four years, the passenger rail industry will have even greater progress to show for America's investment:

- Construction will be substantially underway on the 130-mile segment in California.
- Passengers up and down the Northeast will see improved speeds and reliability on existing corridors.
- The Chicago-to-St. Louis corridor will be completed, as will the Kalamazoo-Dearborn portion of the Chicago-to-Detroit/Pontiac corridor.
- High-speed and intercity rail studies in Texas, Georgia, New York and other states will have completed initial planning and environmental studies, and will be pipelined and funding-ready for final design and construction.

Beyond September 2014, no one knows exactly where funding for U.S. passenger rail will come from or how much will be available. We do know we can't let this opportunity slip away. We are on the brink of a greatly improved passenger-rail system, but there won't be money to complete the work unless we find solutions now. We can't wait until three months before the next authorization deadline to decide. We need to listen, discuss and act *now* to identify solutions for tomorrow. ■

Deconstructing the North American rail industry

Short-term caution (sort of) and long-term bullishness ruled at RailTrends 2012

By Tony Hatch

THE RESCHEDULED RAILTRENDS® 2012 (RT) CONFERENCE, held Dec. 10-11 at the W New York Hotel in New York City, offered a rather full deconstruction of the North American rail industry and its prospects. I use the term "deconstruction" because not only did RT examine the industry from the widest variety of viewpoints (including, for the first time, a significant passenger perspective), but Superstorm Sandy caused the coherent agenda order we strive for to be beholden to a wide variety of speaker rebooking needs — and thanks to all for that. Needless to say, in our little corner of the world, the score was RailTrends 2012 1, Sandy 0.

Essentially, the news over the intensive day-and-a-half proceedings was mixed — caution over the near term (the i.e., the fiscal cliff) and continued optimism for the longer term. RE: optimism — enough, certainly, to fire up unprecedented spending and a few new or updated projects we heard about, including All Aboard Florida, the National Gateway and various hub creations.

Of course, we also heard a lot about energy, specifically crude by rail, the excitable and lasting topic of three specific presentations — from Kansas City Southern (KCS) EVP of Sales and Marketing Pat Ottensmeyer, Dakota Plains Holdings Inc. VP of Operations Robert Henry and Oliver Wyman Partner Jeffery Elliott — but at least mentioned in just about every freight-related presentation. The consensus that emerged from RT: We're still in the very early innings of a very long game.

On the government relations front, we heard from an array of trade associations: Association of American Railroads (AAR), American Short Line and Regional Railroad Association (ASLRRA), Railway Supply Institute, National Industrial Transportation League, National Railroad Construction and Maintenance Association, and Railway Association of Canada (RAC).

AAR President and CEO Ed Hamberger ("for the defense") was outstanding in talking about bringing product and geographic competition into the equation. ASLRRA President Richard Timmons rightly noted: "It's a transformational period. The challenge is to see clearly enough to make reasonable decisions." RAC President and CEO Michael Bourque was particularly relevant and timely: While the United States ponders slowly developing regulatory changes through the Surface Transportation Board's (STB) ex parte 711, the Fair Rail Freight Service Act entered the Canadian legislature while we were at RT. By U.S. standards, this would be an invasive stretch, but Canadian carriers and RAC appear to believe that while the precedent is troubling (to say the least), given the devil's details, it wouldn't be too onerous for the railways up north.

The 'energy renaissance' rules

U.S. regulators, too, were ably represented at RT. STB Chairman Daniel Elliott, National Transportation Safety Board Chair Deborah Hersman and Federal Railroad Administration Associate Administrator for Railroad Policy and Development Paul Nissenbaum offered updates on and insights into their respective agencies' current rail takes.

Meanwhile, noted political speaker Jamal Simmons didn't promise a diversion from cliff diving, but said that the Obama administration would place trade at the upper end of its priorities.

Other speaker highlights, and there were many, included:

- The rail-car market remains relatively solid: Rail Theory Forecasts L.L.C. President Toby Kolstad suggested it's a healthy, if tanker-biased, environment,

with a big one-year drop (from 57,000 deliveries in 2012 to 47,000 in 2013) reflecting the cyclical decline in sand-car orders due in part to the wave of velocity that is hitting the rail fleets.

■ KCS' Ottensmeyer focused on energy, perhaps its forgotten growth market after autos and white goods in Mexico, chemicals, grain and intermodal. But a look at an aerial map clearly shows what should be a great opportunity in Mexico for frac drilling. Combine that with KCS' sand originations and Port Arthur control in Texas, and it gives the Class I a rather balanced exposure to the developing energy supply chain.

■ Union Pacific Railroad sent us VP of Engineering Joe Santamaria. He reassured me that despite the publicly announced reduction in capex as a percentage of revenue (no longer the perfect measurement, anyhow) from 17 percent

Joe Santamaria
VP of Engineering
Union Pacific Railroad

to 18 percent down to 16 percent to 17 percent, UP nonetheless would spend as it saw fit to maintain the railway — a strategic look as opposed to the tactical viewpoint at the end of the "bad old days." And with revenue growth forecast to be strong thanks to pricing, economic recovery, and crude and chemicals, the net dollar number likely will continue to grow.

■ CN EVP and Chief Marketing Officer Jean-Jacques Ruest, in a presentation titled "Growth and New Traffic Opportunities at CN," noted that "one of the benefits of the energy renaissance is it's teaching railroads to move fast." As for growth and new traffic opportunities, Ruest said: "Probably the biggest story for CN revenue is energy, and energy is crude. Alberta heavy crude."

■ Represented by President and CEO Jim Hertwig, Florida East Coast Railway (FECR) is a "phenom" as we say, running 75 percent intermodal on a 351-mile Florida racetrack — proving that with density and a product, even very short-haul intermodal can get a great ROI. The FECR "story" gets refined every year as it adds blue-chip customers (Wal-Mart, USG) and extends its market reach (Charlotte, Memphis, Atlanta) — and all of this before the wider Panama Canal promises to be at least a partial solution to the 4:1 balance issue the railway and the state "enjoy."

■ Genesee & Wyoming Inc. (GWI) President and CEO Jack Hellmann looked positively giddy, given the sure-thing status of the RailAmerica Inc. (RA) merger approval from the STB (note: it came on Dec. 20). Contrary to my earlier expectations, I got the strong impression from Hellmann that all of the RA properties fit within the traditional GWI "cluster" system, with only one new region; even RA's rail construction company Atlas may be a keeper, after all. GWI has an amazing safety record — half the accident rate of the Class Is (with short lines, it usually is the other way around, or more).

■ Newly energized OmniTRAX Inc. has been growing and emphasizing development. For example: "We're looking to handle crude from the Bakken at the Port of Churchill; it's the only arctic deepwater port," said President and CEO Gary Long. Another OmniTRAX focus: "We'll be increasing the marketing of our transload business — it's the fastest way to grow," he said.

■ Florida East Coast Industries EVP of Corporate Development Husein Cumber provided an overview/update on All Aboard Florida, a privately owned, operated and maintained higher-speed passenger-rail service that would run 240 miles between Miami, Cocoa and Orlando. It's expected to stand alone on an EBITDA and ROI basis without government funding or real estate assistance. Can it be done? Also joining us was

Jean-Jacques Ruest
EVP and CMO
CN

Joseph Boardman
President and CEO
Amtrak

Amtrak President and CEO Joe Boardman, who offered a spirited talk on his vision of the future for the national passenger railroad. "Amtrak is not dwelling on the negative," Boardman said. "We're dwelling on growth."

■ Domestic intermodal still will be the top-billed star. CSX Corp. VP of Intermodal Bill Clement demonstrated why the coming promise of domestic conversion shouldn't be overlooked in an oil boom, with 9 million loads achievable on the CSX system and the development of a new hub to complement the successful northwest Ohio venture.

■ Alaska Railroad Corp. President and CEO Chris Aadnesen talked about his unique freight-passenger property, citing opportunities for growth, current expansion projects and challenges — chiefly, the severe cold and abundant snow.

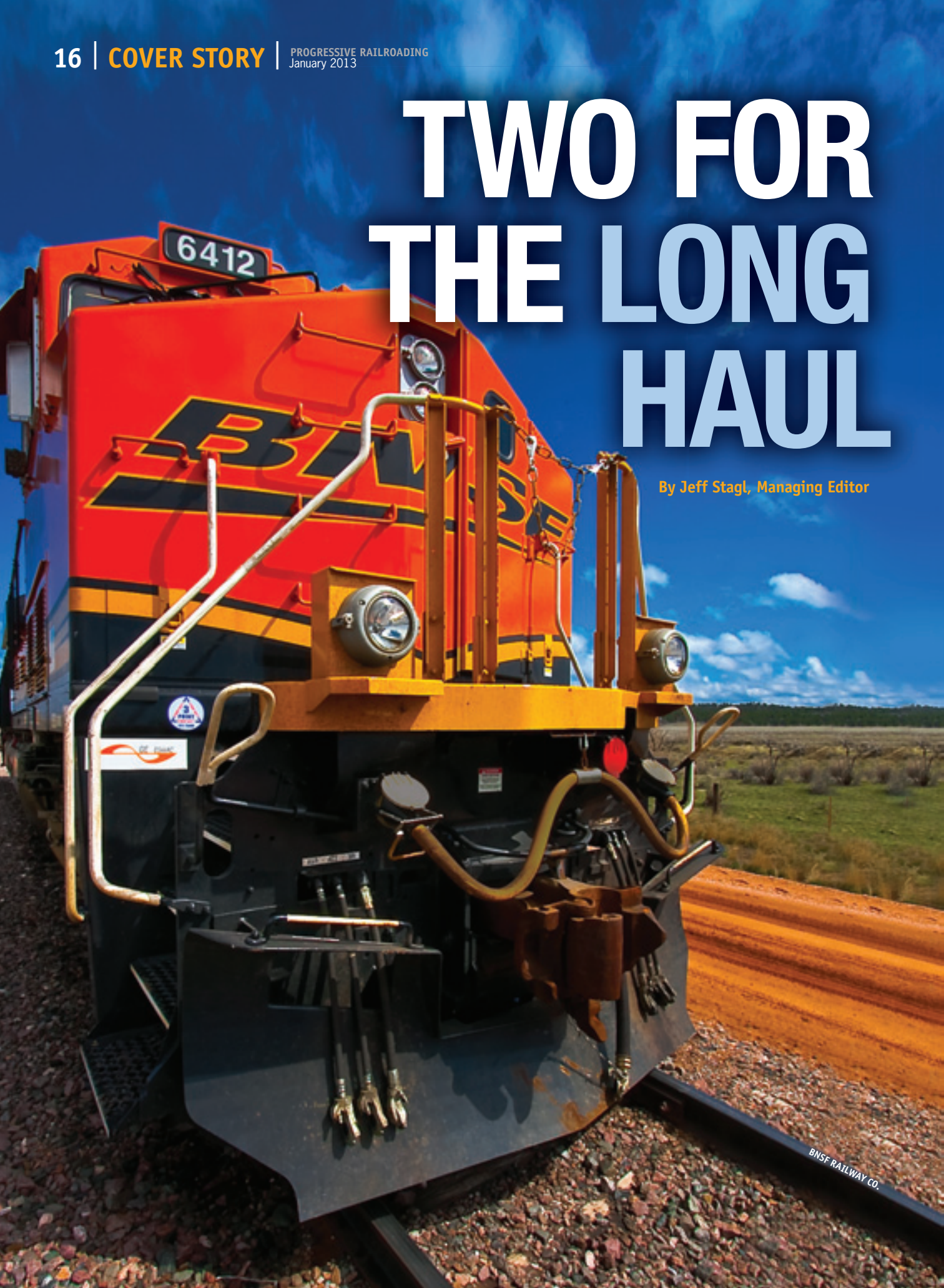
■ Consultants Oliver Wyman, well known for their work with Canadian Pacific and CSX, among others, confirmed our belief in the aforementioned crude-by-rail story while still proposing that coal will be back (or at least up year over year) in 2013. As Oliver Wyman's Elliott put it, only half of the radical drop is systemic.

■ Larry Shughart of WorleyParsons — our last speaker — might have been our most shocking: By benchmarking best practices on both the revenue (prices) and cost (operating practices) sides, railroads could achieve improvements that range from 32 percent upside (Norfolk Southern Corp.) to fully 60 percent (CP), he said. And that is without marketshare gains in intermodal, grain's comeback, shale plays, etc.! ■

Tony Hatch is an independent transportation analyst and consultant, and a program consultant for ***Progressive Railroading's*** *RailTrends® conference. Email him at abh18@mindspring.com.*

TWO FOR THE LONG HAUL

By Jeff Stagl, Managing Editor



BNSF RAILWAY CO.

THE WILLISTON AREA DEVELOPMENT FOUNDATION manages a "Rockin' the Bakken" campaign and website to promote the expansion of crude-oil drilling in the Bakken Formation, a 200,000-square-mile shale that encompasses portions of North Dakota, Montana and Saskatchewan.

More commonly known as the Bakken Shale, the region already has been rockin' big time for BNSF Railway Co. In the past five years, the Class I's annual crude-oil volume in the shale has skyrocketed 7,000 percent from 1.3 million barrels in 2008 to a projected 89 million barrels in 2012.

BNSF's daily volume was expected to climb from 400,000 barrels at 2012's end to 500,000 barrels by the end of this year, while the number of unit trains operating per day was projected to increase from five in 2012 to eight in 2013.

Although domestic intermodal growth hasn't been anywhere near as rapid, it's been a boon for BNSF, too. Volume has climbed by 10 percent, or about 200,000 units, each of the past few years and is forecasted to continue registering double-digit growth for the foreseeable future.

Crude oil and domestic intermodal business pose the greatest long-term growth potential for BNSF as long as enough capacity's in place

Better yet for BNSF, crude oil and domestic intermodal business aren't just pegged for robust growth in the near term. The two traffic segments pose the greatest long-term traffic- and revenue-generation potential among all commodity groups.

In the Bakken — where the Class I serves 16 of the top 19 oil-producing counties in central and western North Dakota, and five of the six oil-producing counties in eastern Montana — daily crude-oil volume could double within the next five years.

"We see a path to 1 million barrels per day," says BNSF Chairman and Chief Executive Officer Matt Rose.

In the domestic intermodal sector, the railroad is positioned to divert more truck traffic in the coming years from a pool of about 10 million viable highway moves. Why? Cost-conscious shippers are dealing with higher trucking rates due to increasing fuel prices and tightening capacity.

"Big and small retailers are thinking more about their costs, including the cost of transportation, and the cost of transportation is winning out," says Rose.

But it's one thing to project the vast potential posed by the two white-hot traffic segments, and another to realize it. The key to achieving the latter: expanding capacity and enhancing service reliability to meet shippers' mounting needs as the markets continue to evolve.

The BNSF senior team is striving to do both. They're promoting the development of more flexible and customized services to boost operational consistency.

And to ensure the Class I can continue pursuing and accommodating much more volume, senior execs are willing to devote a lot of dollars for capacity enhancements, from new staging tracks, turnouts and intermodal facilities, to additional manpower and rolling stock.

Last year, BNSF budgeted a "very strong" $3.9 billion for capital expenditures and the railroad will continue to develop "robust capital investment programs," says Rose. (At press time, the Class I hadn't yet released a 2013 capex budget.)

"We will continue to focus on expanding and maintaining our network," says Rose.

In terms of expanding intermodal capacity, it's somewhat easier to address mainline, locomotive, rail-car and labor needs than any requisite new terminals, which are the "long pole in the capacity tent," he says.

"Land availability in very large metropolitan areas is a problem. We usually need to try and acquire land in outlying areas," says Rose, adding that such locations aren't always conducive to ideal intermodal operations.

For crude-oil business, just getting an initial network in place is capacity charge No. 1. Crude-by-rail traffic is projected to increase by 300,000 units in 2013, virtually offsetting a similar drop in coal volume in 2012. But coal is moved on a fixed network that's been in place for decades while crude oil is moved along a system that's just being established, says Rose.

"It's a challenge to keep up. Crude by rail has gone from zero to 60 mph in a very short time," he says.

Building up in the Bakken

To keep pace, BNSF is trying to mold and enhance its crude-by-rail network as quickly as possible.

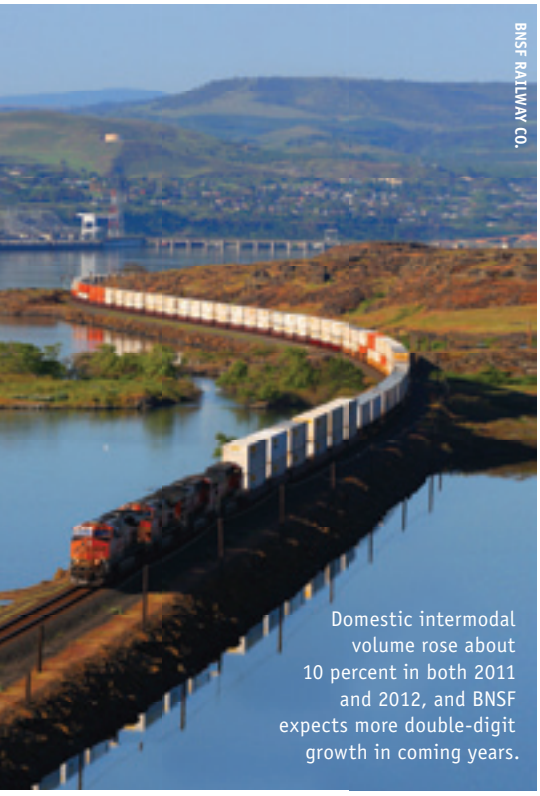
In 2012, the Class I allocated $200 million for trackwork — including new inspection tracks and high-speed turnouts, the replacement of bolted rail with continuous-welded rail, and track raising and replacement projects — as well as signal upgrades and equipment acquisitions.

The railroad also has hired more than 600 new workers the past two years to fill existing and newly created positions in North Dakota and Montana, such as crew members who deliver inbound materials (frac sand, pipes, etc.) to support drilling operations.

In addition, the Class I formed a dedicated Unit Energy Desk that works with customers to plan and coordinate unit train movements, and increased the size of unit trains from 100 tank cars to 104 or 118 cars.

BNSF likely will spend a similar $175 million to $200 million on capacity initiatives in 2013, but then take a short "breather" because infrastructure put in place essentially would be in tune with projected demand, says Rose.

Over the long term, the Class I expects to add capacity in the Bakken on an ongoing basis, especially in the Williston Basin in North Dakota and Montana, where BNSF operates 1,000 miles of track and serves 10 originating terminals.



BNSF RAILWAY CO.

Domestic intermodal volume rose about 10 percent in both 2011 and 2012, and BNSF expects more double-digit growth in coming years.

"We might have to do some modifications in yards and add staging areas," says John Lanigan, who had served as BNSF's executive vice president and chief marketing officer since January 2003, but in November 2012 announced plans to retire on Jan. 15.

Oil companies will need to boost their capacity, as well, to ramp up production and ship more crude via rail. Producers have many rail-served facilities in the planning stages, but more destination and origination facilities are essential in the supply chain to meet mounting demand, says Rose.

The Williston Basin is a well development hotbed since that's where oil producers began to set up shop, says Lanigan.

"It's easier to build off of that than start one 100 or 200 miles or more away," he says. "It's a boon to us as long as any wells are along our right of way."

Eye on the 'prize'

Although moving frac sand and other inbound materials to wells is just as vital to BNSF's fortunes as outbound crude oil since the traffic is interconnected, oil is the "prize at the end of the journey" that poses slightly more value, says Lanigan.

Crude by rail is a very long-lived and valuable opportunity for BNSF, and not a fad or flavor of the day, says Steve Bobb, who succeeded Lanigan as EVP and CMO.

"We provide value that isn't available from a pipeline service. We try to stay focused on all opportunities in all markets, and crude by rail illustrates that," he says. "You see what's changing in markets as the economy changes and as customers' needs change. We want to capture the opportunities as they occur."

Although not all other opportunities will be as "good or big" as the Bakken, BNSF needs to take advantage of what's hot in all markets, such as a rethinking in the lumber products and chemical sectors targeting where those products are manufactured, says Bobb.

Business in the Bakken continues to heat up because more refiners are finding that Bakken light sweet crude works better in their refineries than first thought, says Dave Garin, BNSF's group vice president-industrial products.

New entrants are establishing a presence in the region each month and some are becoming significant players, he says.

In addition, several long-established oil industry firms — such as such as BP and ConocoPhillips — now are participating in Bakken production.

"Everything is happening so fast. The amount of production is changing rapidly every day," says Garin, adding that total daily production in the Bakken is projected to reach 1.5 million barrels this year and ramp up to 2 million barrels over the next several years.

Because of the quick-developing market, BNSF needs accurate production forecasts two years in advance to ensure the necessary infrastructure and supply chain is in place, says Garin. The Class I develops its own forecasts for the Bakken, where BNSF generally handles half of all crude-oil traffic; the other half is handled by Canadian Pacific and pipelines.

The forecasts address tank-car and destination capacity, and service reliability and consistency. Tank-car capacity is adequate now, but more cars will need to be built soon. Meanwhile, destination capacity, too, will be an issue, says Garin.

In late 2012, Tesoro Corp. opened a BNSF-served unit train facility at its refinery near Anacortes, Wash. It became the first crude-oil unit train facility in the Pacific Northwest and the first unit train facility at a crude-oil refinery in the nation, says Garin.

"As the economics work out, we will see more of these 'refinery direct' moves," he says.

In addition to addressing booming growth in the Bakken, BNSF to a lesser extent is deriving slower, yet steadier volume growth in other oil-producing regions, such as the Eagle Ford Shale and Permian Basin in Texas, and Niobrara Shale in Colorado, says Lanigan.

Knowledge is king

"Slow" isn't a word that comes to mind when BNSF senior execs describe domestic intermodal growth and the sector's potential. The "triple-crown effect" of public benefits — reduced air emissions, fuel usage and highway congestion — is helping to drive more highway traffic to rail, says Rose.

In addition, the shipping community is becoming more involved in modal decisions, and "there's increased awareness of the value of intermodal," Lanigan says.

"When you think back 20 or 30 years ago, intermodal was thought of as a damage-causing mode and moving at slow speeds," he says.

BNSF has developed an e-brochure that's designed to raise shippers' intermodal awareness even higher. The web-based promotional flier includes a "Why intermodal?" page that lists seven rea-

Rail Infrastructure

Vossloh North America's Rail Infrastructure division produces components for all types of transport from heavy haul to high-speed. We make rail fasteners, switches, control and monitoring systems for rail networks ranging from light rail to high-speed lines. Plus we provide life-cycle servicing, maintenance and reconditioning and recycling of old rails.

Vossloh North America is part of the Vossloh AG Group, one of the world's leading transportation technology companies. We are internationally known for our extensive rail expertise, innovative answers and leading-edge products. Our rail infrastructure solutions, rail vehicles, and environmental awareness all contribute to providing safe, cost-effective and eco-friendly freight and public transport.

Phone: +1.800.554.0554
info@vossloh-north-america.com
www.vossloh-north-america.com

vossloh
North America

FREE INFO: Circle 108

sons shippers should consider the mode. Among the reasons: Intermodal provides transit times that are comparable to over the road and helps shippers reach new markets.

The e-brochure also provides information to debunk 10 myths about intermodal, including that the mode isn't as reliable or fast as over the road, is too complicated and only works in certain areas, and causes more theft and lading damage than trucking. One "reality" is that BNSF's transit times often meet or exceed single-driver truck delivery times, the e-brochure states.

But BNSF isn't solely trying to take business away from trucks; obtaining more of it *with* truckers also is a top objective. As recently as five years ago, BNSF had more of an adversarial relationship with truckers, says Rose.

"But they're our partners now," he says.

A tailored fit

Partnerships are increasing in part because of a Next Generation Intermodal (NGI) initiative BNSF launched three years ago. NGI offers different transit speeds and multi-modal rail options in the same shipping lane for seasonal or promotional freight, or goods needed to replenish inventories or cover store deliveries.

The service can be tailored to a shipper's needs, such as by ensuring inbound freight is delivered to distribution centers or certain retail stores on a tight schedule. BNSF collaborates with other asset-based motor carriers to guarantee equipment availability or provide drayage or other services.

Due to NGI, BNSF has developed partnerships with about 90 additional trucking companies over the past two years, says VP of Domestic Intermodal Katie Farmer. The Class I now has contracts in place with more than 250 motor carriers.

"NGI is a collaborative approach that helps shippers determine what's the right combination," she says. "We're having broader conversations with shippers and trucking firms."

NGI also is convincing more shippers about the service's flexibility, says Lanigan.

"There are more open minds than the conventional thinking that a dray has to be less than 100 miles," he says.

NGI's benefits helped BNSF and trucking firm Schneider National Inc. convince Pep Boys to begin using their joint domestic intermodal service in 2009.

The Class I and Schneider National committed to meet the automotive repair services and parts supplier's requirements that on-time performance average 98 percent and loads be accepted on short notice.

Over the past three years, loads per week have climbed from about 20 to 32. Pep Boys expects to use NGI more in the next few years because of expansions into new markets and a growing tire services market.

The ability of BNSF and its trucking partners to provide shippers the capacity they need now — such as chassis and direct rail routes to numerous markets — is key, says Bobb.

"With over the road, shippers aren't sure where capacity will be added since it's at the whim of highway expansions," he says.

BNSF also is counting on a beefed up sales force to attract more shippers to intermodal. A 12-member dedicated sales team — which has grown from a separate sales force formed within the intermodal group six years ago — calls on cargo owners in an attempt to make intermodal a larger part of their transportation strategies.

"They work with beneficial owners and call on the end user," says Farmer. "They also coordinate shipments with a carrier and the railroad."

Dedicated sales team members essentially provide free consulting services to cargo owners, says Lanigan.

"They can give them a 'what if' scenario about intermodal," he says. "It's been very educational."

Scratching the 'flat' surface

What might be educational to shippers who move their cargo on flat-bed trucks is that BNSF has developed a freight car capable of moving those goods via rail and truck. The new flat-deck car, which has been tested the past 18 months, is light enough in weight to work in intermodal, says Farmer.

BNSF worked with Reitnouer Trailers to produce the Raildeck flat deck and with Fontaine Trailer Co. to manufacture the Evolution™ intermodal flat deck. The Class I plans to ramp up usage of the cars over the next several years.

"Potentially there are a couple of million loads out there that we can go after," says Farmer. "The advantages are flexibility in the supply chain, reliability of service and visibility from over the road."

There also are millions of more intermodal loads BNSF can attract by offering warehouse storage and other freight-related services at additional logistics parks. The Class I currently operates logistics parks near Chicago in Joliet, Ill., and near Dallas in Alliance, Texas, and plans to open one in Edgerton, Kan., later this year.

BNSF aims to open a new logistics park about every two years and has analyzed Minnesota's Twin Cities, Houston and Seattle as sites for potential facilities, which would be developed at a smaller scale because of market size, says Rose.

At 2012's end, BNSF was moving about 400,000 barrels of crude oil from the Bakken Shale each day. By 2013's end, daily volume is projected to reach 500,000 barrels.

BNSF RAILWAY CO.

Storage services are a top priority these days for potential park customers.

"We are seeing interest from developers and others wanting to establish warehousing," says Rose.

BNSF's proposed $500 million Southern California International Gateway (SCIG) intermodal facility in the Los Angeles area, which is projected to enter the construction phase in a year or two, would be the next logistics park to open after the Edgerton facility is operational.

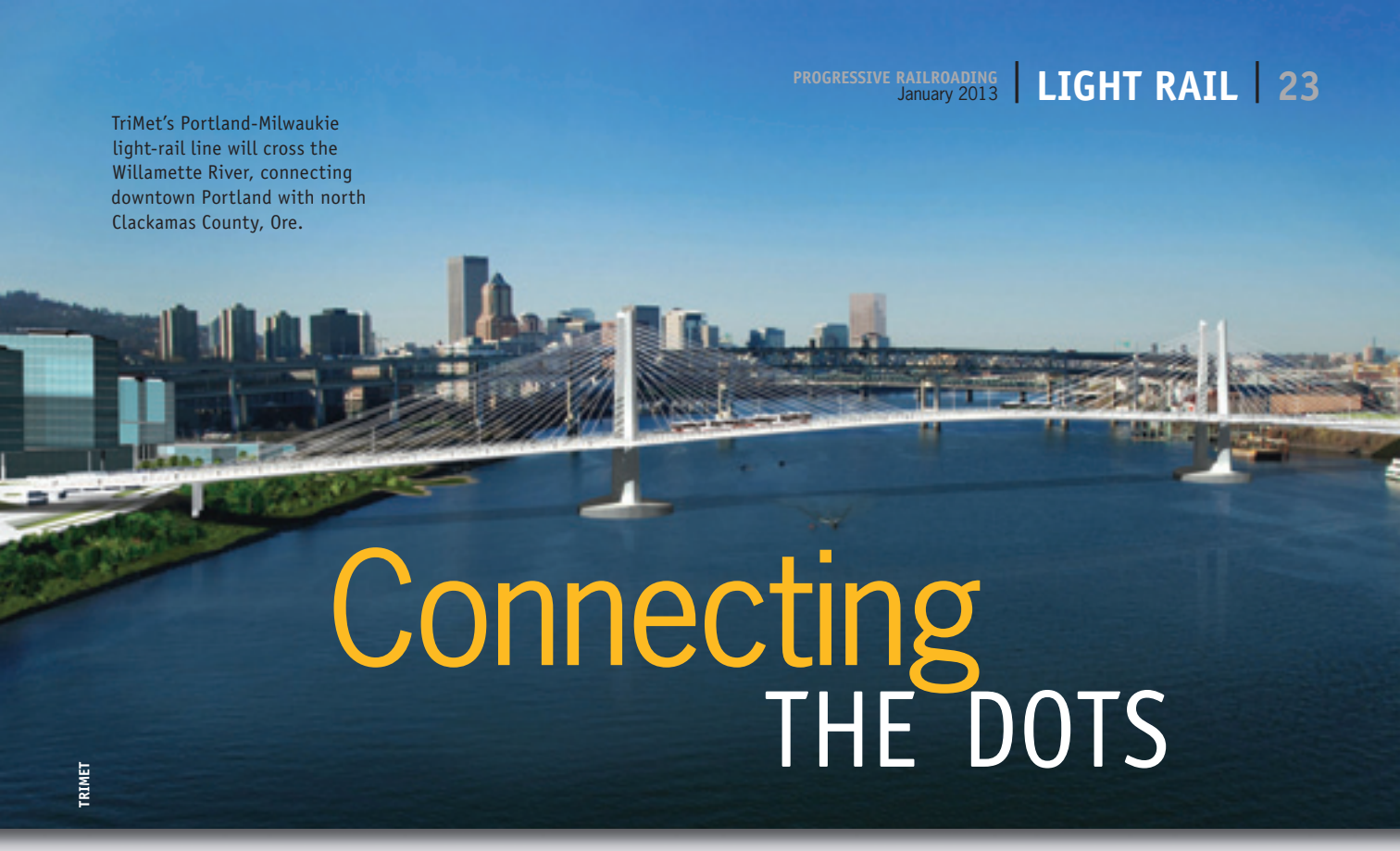
The difference with the SCIG facility versus logistics parks developed in other areas is that warehousing already is well established in the L.A. area, says Rose. The SCIG facility is expected to eliminate more than 1.5 million truck trips from Interstate 710 annually.

Such projections have BNSF senior execs energized about the vast potential posed by the domestic intermodal and crude oil markets. If they can execute their plan to establish and refine services, and expand and enhance capacity in the sectors well in advance of the needs dictated by demand, more of the potential will be realized, the execs believe.

To say the stars have aligned — and continue to align — in both traffic segments is an understatement.

"As trucking companies face ever-present challenges and shippers become savvier about their shipping options, we will see over-the-road conversion on long-haul lanes continue to drive domestic intermodal growth," says Rose. "[And] there is no indication that production in the Bakken and other oil shale formations in the Williston Basin will slow anytime soon." ■

Email questions or comments to jeff.stagl@tradepress.com.



TriMet's Portland-Milwaukie light-rail line will cross the Willamette River, connecting downtown Portland with north Clackamas County, Ore.

TRIMET

Connecting THE DOTS

By Angela Cotey, Associate Editor

PORTLAND, ORE., is a city known for its diverse culture. Art and entertainment venues, health and education institutions, industrial areas, urban housing developments and historic suburbs, as well as a range of green initiatives, make the city appealing for residents and visitors alike.

An extensive public transit network helps connect it all. During the past 25 years, the Tri-County Metropolitan Transportation District of Oregon (TriMet) has built a series of light-rail lines serving the Portland area, as well as a suburb-to-suburb commuter-rail corridor.

TriMet's Portland-Milwaukie light-rail line will be the latest in a series of corridors linking key employment, tourist destinations

Now, TriMet is in the midst of building its sixth light-rail corridor, a 7.3-mile line extending from the terminus of the MAX (or Metropolitan Area Express) Green and Yellow lines in downtown Portland to Milwaukie and north Clackamas County. When it opens in 2015, the corridor will link a range of key employment, housing and entertainment destinations.

"This line will really connect quite a patchwork of different types of neighborhoods," says Dan Blocher, TriMet's director of capital projects. "We anticipate this corridor will have the highest level of opening-day ridership of all our lines."

Initially, light rail wasn't even considered an option for the area, which was part of the so-called North/South Corridor. More than 20 years ago, local transportation leaders envisioned a corridor running from Vancouver, Wash., to central Portland and then south to Milwaukie. That proposal was later split into more manageable pieces, including TriMet's Yellow Line, which now connects central and northern Portland, and the Green Line, now running along the eastern portion of the city connecting to Clackamas Town Center.

An evolving idea

For the project's southern portion, officials at TriMet, regional government agency Metro, and the cities of Portland and Milwaukie considered bus rapid transit, river transit and high-occupancy vehicle lanes as potential transportation-improvement options.

But area community leaders requested that light rail be included in the study phase. In 2003, agency officials identified the mode as the preferred option after community feedback indicated strong support for the service.

Now under construction since mid-2011, the Portland-Milwaukie segment will be known as the Orange Line when it's completed. The Federal Transit Administration is fronting about half of the project's $1.5 billion price tag through a Full Funding Grant Agreement; state, local and regional funds will cover the remainder. TriMet is purchasing 18 S70 light-rail vehicles from Sie-

THE CITY OF PORTLAND is well known for its green initiatives and environmentally conscious residents. So when TriMet needed to remove some trees near the future Lincoln Street/SW 3rd Avenue Station, to be located between Portland State University and the South Waterfront, agency officials realized they would have to compensate.

That's why the agency plans to install an "eco-track" at the station, a vegetated trackway featuring a blend of low-growing plants between the rails and within the track.

"Picture a paved track, but instead of concrete, it's a plant material," says TriMet Director of Capital Projects Dan Blocher.

mens to operate on the line.

The 10-station corridor will pick up where the Green Line, which opened in 2009, left off. The line will originate at Portland State University (PSU), then travel southeast to a section of town called the South Waterfront, which has been under development for the past five years or so, says Blocher. The South Waterfront now features a series of high-rise apartments, as well as an extension of the Oregon Health & Science University (OHSU) campus; OHSU is the region's largest employer.

From there, the line will cross the Willamette River and enter a light industrial area before traveling to the Oregon Museum of Science and Industry (OMSI), a major tourist destination, according to Blocher. The line then will travel through the suburban community of Milwaukie before terminating a bit further south in north Clackamas County.

Delving into development

TriMet officials anticipate the line will serve about 20,000 riders daily in its opening year and 25,000 passengers a day by 2030. Area businesses are hoping to capture much of that customer base — and also do their part to help ensure ridership exceeds expectations.

For example, OHSU is constructing a new facility adjacent to the future light-rail station. The building will house OHSU's schools of dentistry and medicine, OHSU and Oregon State University's joint pharmacy program, and PSU's undergraduate biology and chemistry departments. The light-rail service will provide employees and patients easier access to the medical center and university, and connect the PSU and OHSU campuses, so students can shuttle quickly between classes.

And near OMSI, the city of Portland is tweaking the street grid to support future development, says Blocher.

TriMet, which long has strongly emphasized transit-oriented development, is reviewing other development options. The agency already has received a development proposal for a narrow piece of property adjacent to the future Clinton Station, and also plans to seek development bids for a remnant property created after a building was torn down to make room for the light-rail alignment, Blocher says.

As of mid-December, construction on the corridor was 32 percent complete. The construction process hasn't been — and won't continue to be — without its challenges.

Construction kicked off in July 2011, when crews began prep work for bridge piers to be installed in the Willamette River. Some utility work was done in conjunction with it. Crews were under a strict timeline for the river work; the Oregon Department of Fish and Wildlife will allow piers to be built only between July 1 and Oct. 31 during any given year to avoid disrupting migratory fish.

As for the bridge itself: The 1,720-foot, cable-stayed structure will accommodate light-rail trains, buses, bicyclists, pedestrians and streetcars

TRIMET

TriMet is working with Union Pacific Railroad to relocate the Class I's Tillamook branch line, located in an industrial area of Milwaukie.

TIMKEN

timken.com/rail

Stronger. Commitment. Sandstorms? Blizzards? Cruel gradients? Whatever the world throws at you, you say, "Bring it." Because even when moving from here to there gets interesting, you know who's capable of delivering the load.

Stronger. By Design.

Timken engineers apply their know-how to improve the reliability and performance of machinery in diverse markets worldwide. The company designs, makes and markets high-performance steel as well as mechanical components, including bearings, gears, chain and related mechanical power transmission products and services.

FREE INFO: Circle 104

crossing the river. Private vehicles will not be allowed to operate over the structure. TriMet officials worked closely with community and business leaders from either bank of the river to determine the appearance and design for the bridge.

Designing a structure that will accommodate river traffic as well as an Americans with Disabilities Act (ADA)-accessible pedestrian and bicycle path was no easy feat. ADA requirements set a maximum grade that a walkway can be, while the barge and other boat traffic requires a higher bridge — and TriMet officials had to prove the bridge could accommodate that traffic before obtaining a U.S. Coast Guard permit to build the structure.

TRIMET

As part of the Portland-Milwaukie project, TriMet must relocate a rail segment owned by the Oregon Pacific Railroad.

Meanwhile, TriMet had restrictions on how high it could raise the ends of the bridge, with OHSU and OMSI developments on the west and east ends of the river, respectively.

"It's sort of a confluence of a number of factors that led to the particular shape and type of bridge," says Blocher. "We had to go with the maximum slope possible to meet the ADA requirements and also provide enough clearance over the waterfront for commercial river traffic."

Train and traffic signal integration on the bridge and either side of it will be critical, too. Trains and buses will share about 1.5 miles of the transitway, which will help reduce bus traffic on the other highway bridges over the river. The new Willamette River bridge also will "close the loop" on Portland's streetcar system, which now runs parallel to the river on the west side, through the Pearl District and across a different bridge, then runs on the east side of the river past the Oregon Convention Center to OMSI.

"It's a lot of coordination. The bridge structure and portals where buses can cut outside of traffic and get onto the transit way with the streetcars and trains — everything has to work together technically, electrically and signal-wise," says Blocher. "It will be quite a ballet we'll have there when it's all said and done."

Class I cooperation

TriMet officials are choreographing a ballet of another sort on the east side of the river, where the Portland-Milwaukie alignment runs into freight railroad territory. Over the bridge, near OMSI, the light-rail line will run adjacent to a Union Pacific Railroad mainline for three miles. It also will run parallel with the Portland & Western Railroad and cross over Oregon Pacific Railroad Co. tracks at grade.

TriMet purchased 2.4 miles of track from UP for $9.5 million. The agency and Class I worked together to determine mutually beneficial projects, including improvements to UP's busy Brooklyn Yard. For example, the Class I and TriMet will grade separate a section of track where intermodal trucks enter and exit the yard, which will eliminate some of the traffic crossing the light-rail alignment at grade.

"That intermodal facility really is the heartbeat of UP's local operations, so obviously they had a very high level of interest in … helping to make it all come together," says Blocher.

In many ways, TriMet serves as the heartbeat of Portland, providing transit options that have helped make the city one of the easiest to get around in the United States. When TriMet ventures farther south come 2015, it will offer yet another relevant transit option for the Portland community.

"With the way land use is arranged and growth patterns are forming, this is a growing corridor," says Blocher. "It's projected that by 2030, there will be 50,000 more households and 100,000 more employees than in 2005." ■

Email comments or questions to angela.cotey@tradepress.com.

Shale and hearty growth

Despite a drilling lull in some parts of the Marcellus, shales will be a growth driver this year for eastern U.S. railroads

By Julie Sneider, Assistant Editor

THE DROP IN NATURAL GAS PRICES in 2012 may have slowed the pace of drilling in some areas of the Marcellus Shale, but shale plays remain growth drivers for Class Is and short lines serving the eastern United States.

A warm winter last year combined with rapid expansion of energy companies' drilling across the Marcellus region helped keep a lid on natural gas prices, particularly for "dry" natural gas (methane). As a result, energy companies have widened their focus from the dry gas areas of central and northeastern Pennsylvania to the "wet" gas (ethane, propane, butane) territories in the state's western region and into the Utica Shale in Ohio.

Railroads that operate in the Marcellus and Utica shales remain busy transporting frac sand, pipe, chemicals and other commodities needed for shale exploration and drilling. Despite the lull in some parts of the Marcellus, railroad officials expect shales to remain one of their fastest growing lines of business in 2013.

"The southwestern part of the Marcellus, which goes into southwestern Pennsylvania and West Virginia, continues to be fairly strong," says Rob Robinson, assistant vice president of short-line and commercial development at Norfolk Southern Railway.

NS officials anticipate activity will pick up again in the dry gas Marcellus territory when the price of natural gas moves back up. In the meantime, NS remains busy moving carloads of frac sand and other shale-related supplies.

"Through July, we were still up about 40 percent over 2011," Robinson says of NS' 2012 Marcellus traffic. Then, the Class I saw August and September drop off "pretty significantly" before posting a "slight resurgence" of traffic in October.

"We are somewhat hopeful that we'll finish [2012] strong — I think that will be up 30 to 40 percent over last year," says Robinson. "But last year [2011], we were up 100 percent from 2010."

Frac sand represents 70 percent to 75 percent of the materials NS moves into the Marcellus.

Shale play development in the eastern United States will continue and, in turn, keep

A scene from the Norfolk Southern Thoroughbred Bulk Terminal, which is used to transload frac sand in Maidsville, W.Va.

NORFOLK SOUTHERN RAILWAY

Frac sand represents 70 percent to 75 percent of the materials Norfolk Southern Railway moves to the Marcellus Shale.

NORFOLK SOUTHERN RAILWAY

providing growth opportunities for North American railroads, rail executives and industry analysts say.

U.S. carloads of petroleum and related products posted a "whopping 48 percent year-over-year growth" in second-quarter 2012 and a 47 percent year-over-year gain in July 2012, according to an August 2012 report on the financial analysis website Trefis.com. When it comes to the Marcellus and Utica, CSX Transportation and NS are in a good position to take advantage of business there, the Trefis report stated.

The report also noted how the railroads have been gearing up for the shale business, spending heavily on special freight cars specifically designed for moving frac sand. CSXT, for example, purchased about 900 cube hoppers for transporting the sand in 2011, and NS allocated nearly 14 percent of its 2012 capital expenditure budget for sand-transporting cars, according to the report.

CP's shale business growing

Canadian Pacific, too, is trying to take advantage of shale development opportunities. The increasing sand volume prompted by drilling in North American shale plays is a key component of CP's energy sector growth strategy, says spokesman Ed Greenberg.

"We're not only moving sand into regions like the Bakken Shale for oil drilling, but with our network capabilities, we're moving inbound materials like sand to the Marcellus Shale and through our strategic connections to the Utica Shale" for natural gas drilling, Greenberg says.

Any slowdown in frac sand carloads moving into the Marcellus in 2012 was offset by demand for sand in other shale plays in Texas, North Dakota and Canada, he says. When natural gas prices start to increase, CP will be ready to take advantage of the opportunity, Greenberg adds.

Meanwhile, activity in the Utica Shale in Ohio is gaining momentum. Twenty-eight rigs were active in the Utica during the last week of October 2012, up from 15 a year earlier. That compares with 88 active rigs in the Marcellus Shale play, a decline of 53 active rigs versus October 2011, according to a U.S. Energy Information Administration (EIA) report issued in November.

"Utica in 2012 is where Marcellus was in about 2008," says NS' Robinson. "You'll see somewhere around 200 wells drilled [in 2012], which is a relatively small number. But in 2013, that number triples and you'll see between 600 and 650, and by 2014, we expect that number to be 1,800 to 2,000 wells."

Much of the current Utica activity is occurring in the Ohio counties of Carroll, Jefferson, Harrison, Columbiana and Noble, says Jim Schaaf, NS' group vice president-metals and construction.

As the Utica activity ramps up, NS is "working diligently" to make sure it has multi-commodity facilities that can handle inbound cargo, such as frac sand, and the potential for outbound traffic, such as large blocks or unit train volumes of liquids, says Schaaf.

The potential to move natural gas liquids or crude oil out of the Utica represents a rail opportunity that isn't available in the dry-gas areas of Marcellus.

"A lot of what you're seeing in Marcellus are terminating facilities that unload products to support the drilling activity," Schaaf says. "There is no real outbound, other than some business with dirt or drill cuttings, but not to the magnitude that you would have as you start drilling to get into the liquids."

The Eastern shale activity has generated traffic for regionals and short lines operating in Pennsylvania and Ohio, as well. NS, for example, is working on Marcellus and Utica moves with 26 short lines and regionals, including the Wheeling and Lake Erie Railway Co. (W&LE). The regional has been "extensively involved" in the Marcellus Shale in western Pennsylvania by moving commodities such as natural gas liquids, frac sand, pipe and machinery, according to the railroad's website.

W&LE's current focus in the Marcellus is in southwestern Pennsylvania, where it serves the Rook Yard transload facility just outside Pittsburgh, and a new MarkWest Energy Partners' fractionating plant that began operating in fall 2012 near Hickory, Pa., says W&LE President Bill Callison. Most of the railroad's shale-related loads originate from those locations. W&LE primarily moves frac sand and fractionated products derived from wet natural gas.

The railroad's shale activity has been growing since 2009, "and has been a significant source of revenue," says Callison. He declined to cite specific carload figures, but says shale-related products are the fastest-growing line of W&LE's business.

Shales' long-term impact

Moreover, the growth has prompted W&LE to hire additional employees (the railroad currently employs 340 to 350, says Callison) and invest in infrastructure. According to a Nov. 16 article in the *Pittsburgh Tribune-Review*, W&LE received a $1.1 million state grant to rebuild a rail siding to help handle

the increase in output from the MarkWest facility. The regional also plans to demolish old buildings in the Rook Yard to make room for more trains and trucks to transfer loads.

Longer term, W&LE execs believe their shale growth story will continue.

"We see Utica as being a significant opportunity," Callison says. "We are fortunate in that our footprint is in the Utica, and we expect to attract customers that want a small, responsive railroad to turn their assets as quickly as possible."

Drew Nelson, W&LE's vice president-marketing and sales, envisions two stages of potential business in the Utica for W&LE: the transport of supplies necessary for drilling, and the movement of the gas and, possibly, oil once it's harvested.

"We are cautiously optimistic that in the short term, the Utica opportunities in what I call the raw input — the frac sand, the aggregate and even possibly pipe — will last five to seven years," Nelson says. "And the liquids coming out of the ground will last probably 20 to 30 years."

GWI's biggest Utica deal so far

Another indication of the upsurge in Utica activity was Genesee & Wyoming Inc.'s (GWI) Dec. 3 announcement that its Columbus & Ohio River Rail Road Co. (CUOH) subsidiary signed a long-term agreement to serve a $900 million natural gas liquids fractionation hub that Utica East Ohio Midstream L.L.C. is building in Scio, Ohio. Slated to open in May, the processing, fractionation and storage facility will be the largest integrated midstream service complex in eastern Ohio — and GWI's largest customer in the Utica Shale, GWI officials said in a prepared statement.

The plant will benefit from a recent $2 million expansion of CUOH's main yard in Newark, Ohio, which was funded by the short line and state dollars. The yard will facilitate the sorting of 100,000 rail cars annually for more than 80 customers, as well as for several new Utica Shale-related facilities that already have or plan to locate on the CUOH's line.

While excitement over Utica exploration and drilling activities grew in 2012, most of the eastern shale activity remains in the Marcellus. The rig count in Marcellus may have fallen, but the production of natural gas there climbed 72 percent between October 2011 and October 2012 to 6.8 billion cubic feet per day, which accounts for 26 percent of all natural shale gas production, according to the EIA.

Marcellus is 'here to stay'

For the North Shore Railroad Co. in central Pennsylvania, Marcellus-related business is still humming, says Marketing Director Todd Hunter.

"We're in the dry gas area of the Marcellus, and there was a lot of press [in 2012] about the rigs leaving Pennsylvania and going to Ohio to get the wet gas in the Utica," Hunter says. "What we've seen, though, is that we're actually having a better year [in 2012] than we did in 2010 for Marcellus-related commodities."

North Shore operates six short lines, including the Lycoming Valley Railroad in Williamsport, Pa., which handles the lion's share of the company's Marcellus moves of frac sand, pipe and brine water. Lycoming Valley serves customers along a 34-mile line from Montgomery to Avis, Pa.

Registering a better year than 2010 also says a lot about Williamsport, which was considered by many to be the "ground zero" of Marcellus activity in 2010 and 2011. The shale activity during that period propelled the Williamsport area to become the country's seventh-fastest-growing metropolitan region, according to the U.S. Bureau of Economic Analysis.

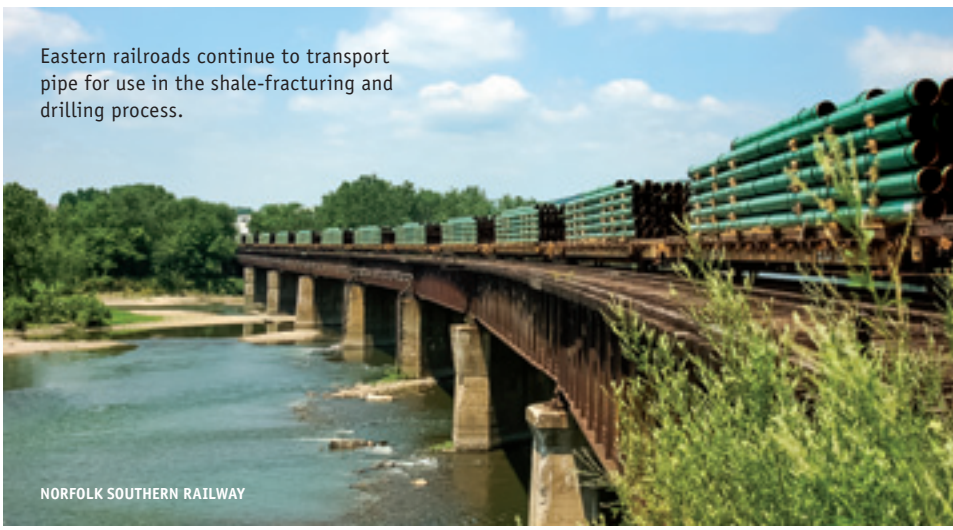
To accommodate the business growth, North Shore completed construction on nearly eight miles of new sidings using federal Transportation Investment Generating Economic Recovery (TIGER) II funds, and also upgraded its motive power after replacing some EMD SW8 switchers with EMD SW1500 switchers, Hunter says.

Although the 2012 Marcellus activity wasn't at 2011's "phenomenal" rate of 40 percent growth, the pace tells Hunter "this Marcellus business is here to stay."

"Actually, 2011 was kind of crazy," Hunter says. "It was like the Wild West out here, with everyone trying to get into the Marcellus. Now, I think things are established, and I think we'll continue to see high levels of volumes with Marcellus-related commodities."

Noting the higher level of permitting activity in Pennsylvania, Ohio and West Virginia, NS' Schaaf concurs.

"The Marcellus is very well positioned for growth," he says. "There's no doubt that the Marcellus is a play with long, long-term viability."



Eastern railroads continue to transport pipe for use in the shale-fracturing and drilling process.

NORFOLK SOUTHERN RAILWAY

As for the Utica, key questions remain, such as what the characteristics of the gas and oil coming out of it will be.

"Where are the consuming markets for the output of the Utica? That's still an unknown right now," Schaaf says. "So we're making sure we have the proper facilities identified to handle those when the market develops." ■

Email questions or comments to julie.sneider@tradepress.com.

A multi-pronged approach

Making the safety grade at crossings requires a little technology, a lot of partnering, and more education and closures

By Walter Weart

FREIGHT AND PASSENGER railroads continue to investigate any and all opportunities to improve grade crossing safety, from employing the latest construction methods to installing new technology to working on more effective ways to educate the public. Yet, more investigative work is needed to prevent crossing accidents and incidents.

"Although federal, state and railroad dollars continue to be spent to upgrade and install new active grade crossing traffic control warning devices, we continue to experience incidents at the railroad/highway interface," said Norfolk Southern Railway Assistant Vice President of Communication and Signals Ray Rumsey in an email. "The use of improved technology, ongoing efforts for grade crossing closures, coupled with public education and appropriate law enforcement, need to be pursued in our efforts to enhance public awareness at grade crossings."

WALTER WEART

Railroads continue to adopt technology to improve crossing safety. Shown: A crew in a Union Pacific Railroad subdivision upgrades the active protection equipment at the 80th Street crossing in Arvada, Colo.

In short: Making the safety grade at crossings requires a multi-pronged approach.

During the information-gathering process for *Progressive Railroading's* 14th annual grade crossing update, a cross-section of freight and passenger railroads shared some of the work they've done in recent months to improve safety at crossings. A few also discussed what they plan to do in the year ahead.

Their responses — gleaned from interviews and email replies — follow.

Stand-bys and upgrades

The Southeastern Pennsylvania Transportation Authority (SEPTA) has 90 crossings on its commuter-rail lines and another 40 on its light-rail line. Some of the crossing-related technology already in place continues to perform as intended.

"We have been using full depth or 'tub' crossings, and those that were installed 15 years ago are still in excellent condition," said Acting Assistant Chief Engineer of Track Tony Bohara.

Unlike conventional concrete panels that fit on top of ties, tub crossings don't sit on ties. The rails are attached directly to the precast concrete modules, which eliminate the use of ties and ballast.

But SEPTA also is adopting new technology.

"We are upgrading signage, upgrading flashers by going to 10-inch from the 8-inch size where we can, depending on the size of the lamp housing, and converting from bulbs to LEDs, as well as installing new reflective highway gate arms," said Chief Engineering Officer of Communications and Signals Mike Monastero.

In addition, SEPTA is upgrading event recorders that can be monitored from a central location. On its light-rail routes, the agency is using "highway type" traffic signals in place of conventional warning signals.

"The Manual of Uniform Traffic Control Devices from the Federal Highway Administration has allowed this change," Monastero said. "We are also incorporating our devices into the highway signals with priority for the light-rail train."

invensys™

Rail

CROSSINGS

Complete Solutions

ELECTRONIC BELL, CANTILEVER, CONTROL SYSTEMS, TRACK CIRCUITS, SHELTERS, GATE ARMS & LIGHTS, GATE SAVER, SIGNS, CONTAINER DELIVERY, 4-QUAD GATES

ENGINEERING\DESIGN, ENTRANCE GATE, EXIT GATE, FLASHING LIGHTS

S-60, SEAR, PSO 4000, GCP 4000, WTF, SEAR IIi, ARGUS, FLX 4000, FLX 2000, SSCC IV

- Complete Crossing Systems for All Applications
- Advanced, Integrated Electronics for Crossing Control and Monitoring
- Remote Monitor/Test/Report Systems
- Site Assessment, Crossing Design, Field Support
- Technology Resolution Center for rapid trouble-shooting of field problems

www.invensysrail.com

800-626-2710

FREE INFO: Circle 105

SEPTA also is pushing ahead on the crossing education front. "We are using the 'Hand' and 'Man' pedestrian signs to warn of approaching light-rail trains and 'Second Train Coming' warning signs, as well as loud speakers, to make both visual and audio announcements to further enhance crossing safety," Monastero said.

For the Los Angeles County Metropolitan Transportation Authority (LACMTA), safety-improvement efforts revolve around the nearly 60 crossings along its 70-mile system. The current program includes crossing replacements on the Blue Line light-rail corridor with "standard concrete panels that provide a much better running surface for vehicles," said Executive Officer of Wayside Systems Michael Harris-Gifford, adding that 20 had been replaced as of late 2012.

> "We continue to evaluate for more possible closures."
>
> — Lyn Hartley, BNSF Railway Co.

LACMTA also has installed four-quadrant gates at many crossings to prevent drivers from entering a crossing when a train is approaching.

"In connection with the Blue Line, we are working with the Union Pacific, the California Public Utilities Commission and local governments to review all the crossings and propose improvements to enhance the safety for both automotive traffic and pedestrians," Harris-Gifford said.

Among the enhancements: new left-turn warning signs and improved street lighting.

"On our newer lines, we have been able to incorporate the capability to inform the operator that the crossing equipment is functioning and that gates are down," Harris-Gifford said.

Given the frequency of LACMTA trains, gate mechanism durability is an area of concern, he added.

So many projects in SoCal

Officials at the Southern California Regional Rail Authority (Metrolink) continue to pursue crossing safety improvements, as well. Metrolink operates seven lines and 300 track miles that include 288 public and private crossings, as well as a number of pedestrian crossings, including 13 pedestrian-only crossings. Metrolink also retains trackage rights to UP and BNSF Railway Co. lines.

"While we would prefer separation or closure, we have developed a set of recommended practices for grade crossings," said Director of Engineering and Construction Bill Doran.

The "recommended" list includes four-quadrant gates, me-


BOOST CAPACITY
REDUCE DWELL
INCREASE PROFIT
You may be surprised at what
5 MINUTES
is worth in a yard.
Idle cars and excessive yard dwell mean lost profits and higher costs. Research shows that reducing average pull-back time by five minutes could add millions to your bottom line. RailComm's Connected Automation Platform will boost yard throughput, reduce dwell, and increase your bottom line, all while improving safety.
www.railcomm.com/five-minutes
Toll-free (877) RAILCOMM
(877) 724-5266)
The Trusted Name in Rail Automation
RAILCOMM
Control Anything Anywhere™
FREE INFO: Circle 103

dian strips, pedestrian gates and, where appropriate, "channels" with traffic light advance preemption systems, Doran said.

On the crossing construction front, Metrolink is "standardizing" concrete panels on wood ties but also considering composite ties at crossings, Doran said. Even in California's dry climate, water under crossing panels can cause wood ties to rot.

PROGRESSIVERAILROADING.COM/PR

THE $3.2 BILLION Chicago Region Environmental and Transportation Efficiency (CREATE) program includes 25 grade separation projects. For an update on a few of them, see "CREATE update: Crossing upgrades, separations and closures" at progressiverailroading.com/PR

"We're also standardizing 12-foot flasher lights, and while many are equipped with LEDs [light-emitting diode lamps], some still use incandescent bulbs," Doran said.

The California Transportation Commission recently approved $7.8 million for improvements at five Metrolink crossings. The work includes roadway widening, and the installation of new automatic vehicle exit gates, sidewalks, handrails, automatic pedestrian gates and traffic signal advance preemption technology.

Crossing upgrades also are on tap for the New Mexico Rail Runner Express, which operates 97 miles of track between Santa Fe and Belen. Rail Runner's lines feature about 120 public and private crossings.

The crossing improvements include replacing a number of wood and rubber crossing surfaces with concrete and new track panels along with new gate mechanisms," said Operations Manager Robert Gonzales.

These include two exit gates at Valentin and Molina, where crossings will be equipped with four-quadrant gates. Rail Runner also has installed concrete crossings and track panels at Gabaldon and Courthouse roads, and at Tribal Road 40 "while closing Tribal Road 84 to improve safety and sight lines," Gonzales said.

Other projects include the installation of LED lights at Menaul Boulevard, replacing old gate mechanisms at Ranchitos Road and installing pedestrian path gates at Alameda Boulevard.

Future plans call for installing new crossing controllers and equipment at crossings, two of which will be closed. Rail Runner officials also will continue to evaluate the need to replace aging gate mechanisms and service batteries, and to perform LED light upgrades, Gonzales said.

Meanwhile, officials at the North Carolina Railroad Co. (NCRR) continue to work closely with an array of partners — from railroads to transportation officials to a state university

— to make crossings safer. The railroad recently partnered with the University of North Carolina at Greensboro to design and construct a pedestrian underpass beneath NCRR's mainline. The project is part of a campus expansion that, when complete, will create a "mixed-use village" featuring retail shops, a recreation center and new housing for 1,400 students, said NCRR President Scott Saylor in an email.

The railroad also has implemented a grade crossing improvement program in eastern North Carolina, where the focus is on 32 crossings with either partial or no signals. NCRR is upgrading existing active warning devices and replacing existing passive warning devices in the area, Saylor said. Where feasible, median barriers also are being installed.

NCRR plans to continue working with the North Carolina Department of Transportation (NCDOT), NS and Charlotte Area Transit System to install new technology or eliminate crossings. For example, NCRR and NS are jointly working on 11 grade separations that will result in the elimination of 23 public crossings and improvements to nine additional crossings, Saylor said. Several private crossings also will be eliminated.

Other work on NCRR's docket includes a grade separation project at Sugar Creek Road in Charlotte; a grade separation and realignment at Hopson Road in the Research Triangle Park near Durham; and crossing improvements in Johnston and Carteret counties.

In Class I country, improving safety at crossings remains a top priority, too.

"We continue to use microprocessor technology, and we are also installing constant warning time technology where practical, based on the crossing, design and traffic," said BNSF Director of Public Projects and Field Engineering Lyn Hartley.

An 'aggressive' closure program

For the past 10 years, BNSF has been installing health monitoring equipment at all new and upgraded crossings, he said. And when it comes to crossing materials, concrete panels are the Class I's preferred option, although the railroad uses rubber or timber when and where appropriate.

Meanwhile, BNSF continues to pursue what Hartley terms an "aggressive grade crossing closure program," adding that 5,500 crossings have been closed since 2000.

"We continue to evaluate for more possible closures," he said.

One locale that's already been evaluated: Lincoln, Neb., which is "actively planning" to eliminate two crossings at a cost of $65 million, Hartley said. Fifty to 60 BNSF trains traverse the crossings daily. There's also heavy vehicle automobile traffic across them. Between them, the crossings have 1 million daily "interactions," Hartley said. "These two crossings are ideal candidates for separation," he added.

NS has identified its share of ideal candidates, as well. The Class I is working with several states and local communities to identify crossings that would benefit from warning device modifications and closures.

"Norfolk Southern has current agreements in place with

various state road authorities to begin modifications to key corridors in 2013 and future years," Rumsey said.

The railroad also installed or upgraded about 300 actively signalized crossing locations in 2012, Rumsey said. Work ranged from upgrading a location from eight-inch to 12-inch lamps to installing four-quadrant gates.

"Motion sensor technology is being replaced with constant warning time systems," Rumsey said. "Some advantages of the newer technology are improved self-diagnostic tools, health monitoring and improved event logging."

Last year, NS was contacted by several communities to help establish quiet zones. A Federal Railroad Administration train-horn rule issued in 2004 enables local governments to establish quiet zones at designated public crossings. To create a zone, a municipality must add gates, wayside horns and/or lights at a crossing.

"Crossing modifications can include but are not limited to the installation of a basic 'power out' indicator, constant warning time, channelization and/or four quadrant gates," Rumsey said. "Norfolk Southern reiterates the importance for communities to get the railroad involved early in the quiet zone planning process so that the communities can have a realistic ballpark estimate formulated specifically for the crossings in the proposed quiet zones."

This year, NS officials plan to continue partnering with states and suppliers as new technology becomes available.

"In 2013, we may test the use of radar technology for ve-

hicle detection at select grade crossings in North Carolina — a first on the NS system," Rumsey said.

A similarly comprehensive approach is in place at CSX Transportation: "We have begun installing new reflective post and crossbucks which now have reflective material on both the front and back," said Jim Beyerl, Engineering Standards II, Engineering Department, Wayside. The Class I also is replacing emergency notification signs at crossings.

CSXT continues to push the education envelope, aiming to raise crossing safety awareness within specific demographic groups.

"We have co-sponsored a NASCAR entry to reach out to 18- to 34-[year-old] males and have received positive feedback," said Director of Community Affairs and Safety Cliff Stayton, adding that the railroad also recently used Operation Lifesaver Inc. presentations to educate truck drivers at truck stops.

W&LE: A regional approach

Regional railroads, too, are actively upgrading their crossings. Witness the Wheeling & Lake Erie Railway Co. (W&LE). Including trackage rights, the 576-mile regional totals 840 miles dotted with more than 600 crossings. "We are doing some upgrades with flashers replacing crossbucks and flashers with gates," said Signal and Communications Superintendent Dan Reinsel, adding that the railroad is transitioning from rubber panels to concrete panels.

W&LE also has installed a few tub crossings, primarily

at locations with a "very high vehicle count," and has spent "significant funds" to improve train detection circuitry at numerous sites, Reinsel said.

"Whenever a rail improvement program has occurred, the traditional DC track circuitry has been upgraded to constant warning devices," he said. "This has allowed us to eliminate insulated joints by the hundreds and reduce the number of required relays. The costs associated with maintaining the track joints and testing those relays is eliminated forever."

More partnering on tap

W&LE officials also continue to work with state and local authorities to boost crossing safety. In Ohio, they recently reviewed numerous crossings, identifying five in Canton that could be improved or closed.

"We worked with the Ohio Rail Development Commission [ORDC] and the city of Canton, putting together a plan to address the results of the study," Reinsel said.

The final plan included: circuitry improvements to provide the necessary pre-emption timing at five locations; conversion of two streets from one-way to two-way automotive traffic; correction to the placement of warning devices at five crossings previously converted to one way; closure of the Elm Court crossing; installation of gates and flashers at 10 crossings that previously were "flashers only" crossings; replacement of gates; and surface work at two locations.

In Navarre, Ohio, two crossings will be closed, and two crossbuck-only crossings will be upgraded to include gates and flashers, Reinsel said. And in Twinsburg, Ohio, W&LE worked with local and state officials to install new gates and lights at four crossings; an upgrade at a fifth is scheduled for spring 2013.

In April 2012, the Public Utilities Commission of Ohio (PUCO) approved construction authorization from the ORDC for W&LE to install flashing lights and roadway gates at grade crossings at the Kohler Road crossing in Sugar Creek Township in Wayne County. The project, which will be completed this April, was funded by PUCO, ORDC and W&LE. In October 2012, PUCO also approved construction authorization from the ORDC to install mast-mounted flashing lights and roadway gates at the Allen Avenue SE crossing in Stark County. The federally funded project is scheduled to be completed by July.

"When finished, the crossings will have a fully upgraded assembly that should require little maintenance over the years while providing the proper warning to the traveling public," Reinsel said.

That's the aim of all crossing improvement projects and programs. ■

Walter Weart is a Denver-based free-lance writer. Email comments or questions to prograil@tradepress.com.

Handling with greater care

Suppliers that help railroads move MOW materials discuss technology and marketplace trends

Compiled by Howard Ande

We recently checked in with a cross-section of companies that supply equipment that helps railroads distribute maintenance-of-way (MOW) materials. We asked them to weigh in on what they consider to be emerging trends in the material-handling realm, and to discuss the extent to which those trends are having an impact on technology development. Accordingly, we requested that they share information on recent product introductions. We also wondered what their railroad customers are clamoring for, product or equipment wise. Here's what six of them told us — one in an interview and five via email.

Auto Truck Group

There's more technology in railroad maintenance vehicles these days — from signal construction, bridge maintenance and locomotive service trucks to signal maintainers to material handlers, said Auto Truck Group Director of Railroad Operations Pete Dondlinger.

"We are giving our customers the ability to get chassis and equipment information to see how vehicles are being utilized," he said, adding that Auto Truck Group's customers include Class Is, short-line railroads and contractors. "An example of this is how often you use your crane to help improve maintenance intervals. Hi-rail sensors allow the customer to tell if a vehicle is on road or rail, how fast it is moving and where it is located."

Meanwhile, Class Is now are using only hydraulic railgear, which "eliminates the manual process to raise and lower the gear, and also allows operators get off a crossing quickly," Dondlinger said.

Customers also continue to emphasize product liability, and "more sophisticated systems continue to emerge for engine, truck and crane controls," he added.

One example: air suspension override to fix airbag pressures in crane applications. The driver will have an improved ride quality on the road and a stable lift when operating the crane, Dondlinger said.

"Computer monitoring systems are becoming more sophisticated and reliable to monitor factors such as outrigger position and other functions critical to ensuring crane stability," he added.

Auto Truck Group offers hydraulic loaders with a magnet generator system for lifting tie plates, spikes and other track material. The company also is building trucks for bridge construction and maintenance.

"Some of our equipment can be operated from an elevated operator's seat, which gives better visibility and safety," Dondlinger said. "There have been many technological improvements in radio remote controls, which help as well."

Auto Truck Group is designing specialized vehicles for track, signal, bridge, centenary and other functions. The company also is seeing an increased demand for specialized applications.

"We're seeing demand for highly engineered products with very specific functions for both truck and rail-car mounted applications," Dondlinger said.

Georgetown Rail Equipment Co.

Georgetown Rail Equipment Co.'s (GREX) newest service — BallastSaver — was developed "in response to requests by our customers for an efficient and precise calculation of deficient ballast as an alternate to the cumbersome and less accurate method of a human inspector 'eyeballing' it," said Vice President of Marketing and Sales Lynn Turner in an email.

BallastSaver utilizes Light Detection and Ranging (LIDAR) technology along with cameras to scan the roadbed and generate an accurate measurement of the current ballast profile. This

data then is compared with the standard profile furnished by the customer to calculate the amount of deficient ballast along the roadbed. BallastSaver data can be fed directly into GREX's Gatesync software for precise and automated delivery of ballast with GateSync-equipped ballast cars at speeds up to 10 mph. BallastSaver also may be used as a stand-alone tool for maintenance planning and budgetary purposes.

BallastSaver scans generate a report specifying the total cubic feet of material needed per mile to bring the current profile back up to the customer-provided standard profile. A survey of the locations to deliver the ballast and images of the track from still pictures taken by the camera also can be delivered. In addition, the amount of ballast needed to lift the track from its current elevation to a height of choice can be calculated: If a one-inch lift is requested, a calculation is made to determine the quantity of ballast needed to achieve this goal.

BallastSaver was originally designed as an enhancement to GREX's GateSync automated ballast unloading system.

"Previously, ballast requirements were determined largely by a human assessment often dictated by the number of cars loaded with ballast coming from the quarry," Turner said. "This is a very subjective process. It is impossible to visually estimate the amount of deficient ballast which most likely would lead to inefficient distribution of ballast, possibly creating maintenance issues. BallastSaver, in conjunction with GateSync-equipped ballast cars, eliminate the subjectivity of this process allowing for automated delivery of the exact amount of ballast needed to be precisely placed where it is needed."

Recently, GREX began offering BallastSaver to railroad customers as a stand-alone service. Data derived from scans performed by BallastSaver provide the user with information that aids in planning, budgeting, and prioritizing track maintenance and projects.

"Budgets can be tightened and potentially unwarranted spending eliminated by allowing the customer to order the exact amount of ballast needed for track maintenance and projects," Turner said, adding that BallastSaver data aids in determining the priority of projects and track maintenance.

BallastSaver technology recently was expanded to include automated Lateral Instability Detection (LID) identifying areas that exhibit poor lateral resistance to movement in the lateral plane. The data also has been used to assess roadway approach grades and track centers, and to detect other physical plant items.

Herzog Railroad Services Inc.

What do railroads want from material handling equipment suppliers?

"The trends we see with the railroads are basically unchanged from recent years," said Herzog Railroad Services Inc. Vice President of Marketing Tim Francis in an email. "Their focus, in regards to suppliers, is a desire for us to design products and services that help them increase their track maintenance efficiency, minimize the 'track and time' needed while at the same time increas-

ing the safety of the day-to-day tasks they find themselves performing."

Safety continues to be railroads' — and Herzog's — first concern, he added.

"We believe that all of our products offer safer and more efficient alternatives to the customer," Francis said.

The Automated Tiedown car is Herzog's most recent product.

"This new innovation removes the need to manually clamp and unclamp rails during the unloading and loading of rail trains," Francis said. "The automated clamp technology offers more holding power than standard tiedown car clamps. The clamps are operated by remote control and open and close in a fraction of the time needed to do the same task with a manual tiedown car. This innovative clamp design also offers significant safety improvements over the manual version."

There also is no need for personnel to climb on top of the car while "dragging around hydraulic hoses and impacts," Francis added.

"Manual clamp cars are often unsafe to climb on in inclement weather. Our car is operated remotely so there is not a need to climb on the equipment," he said.


L.B. FOSTER CO.

L.B. Foster Co. currently has four continuous weld trains available to ship product and "can add a fifth rental train if needed," said Manager of Corporate Marketing Jeff Kondis in an email.

L.B. Foster Co.

Railroads continue to outsource an array of functions, including the offloading of rail, said L.B. Foster Co. Manager of Corporate Marketing Jeff Kondis in an email. One result: L.B. Foster can offer a wide range of services to railroads, including project management.

"For example, we can provide a crew to our customers and oversee rail unloading activities on their track," Kondis said. "In addition, the move away from using stick rail — individual pieces of rail that require joints — to the use of welded ribbon rail in track replacement and expansion projects also continues to grow in importance. We now have four continuous welded rail (CWR) trains to ship product to our customers and can add a fifth rental train if needed."

Because of the limited amount of track time available on mainline railroads to offload rail, the company has developed new methodologies to more quickly upload CWR trains on site, reducing the time from three to four days to two days.

"We can not only efficiently ship rail to customers using our CWR trains, these trains also have equipment to aid in unloading the rail," Kondis said. "We can provide two-car multiple threader box unloaders, which have both vertical and horizontal controls to precisely unload and place the CWR where the customer wants it."

As of late November 2012, L.B. Foster had supplied 23 CWR trains to various customers throughout the U.S. northeast, southeast, and southwest, as well as Mexico, totaling 175 track miles of rail delivered.

"We expect that demand for CWR will continue to grow in North America due to the many benefits it provides to the railroads and transit agencies," Kondis said.

Loram Maintenance of Way Inc.

Railroads continue to pursue advancements in machine performance — the kind that optimizes productivity. Gains in productivity, in turn, allow them to complete more work during a season and reduce overall unit costs. Railroads also are coordinating equipment with system work gangs during major track outages. And utilizing work blocks in this fashion enables Loram Maintenance of Way Inc. to provide "optimal production at a lower overall unit cost for the customer," said Manager of Product Development Scott Diercks in an email. "New technologies are beginning to enter the market that assist with assessing and planning work needs," he added. "These tools allow our customers to use their budgets in the most effective and efficient manner."

All the Class Is, several short lines and passenger-rail agencies, and multiple international railroads use Loram's material handling products, Diercks said.

A current product focus is the Raptor Rail Handling System. Loram's system "reduces staffing requirements and is the safest product on the market," Diercks said, noting that there have been zero injuries since the product was introduced. Other benefits of the Raptor Rail Handling System:

- It retains "total positive control of the rail during loading," Diercks said.
- The top loading feature accommodates loading long, continuous strings of rail in port facilities or stockpile locations.
- It was developed to "easily accommodate future rail sizes," he said.

Loram's Raptor system currently is "working on a major Class I railroad," Diercks added.

Rail Construction Equipment Co.

Rail Construction Equipment Co. (RCE) has updated the 544K swing loader/swing crane to Interim Tier 4 diesel technology to meet federal emission requirements.

"We have also added additional attachments to the swing loader to make it more versatile," said RCE Sales Manager Dennis Hanke in an email.

Due to customer demand, RCE offers a cold air blower attachment for blowing snow from switches and track.

"I would say that the primary item that comes up the most besides safety is [customers] want greater versatility in the machines they use," Hanke said. "Having the ability to not only handle pallet and bulk material, the ability to perform other maintenance functions helps with the justification for the acquisition of new equipment and reduces the need for multiple machines."

RCE also can supply four tie crane models for tie distribution, including the TC75D, TC85D, TC120G and TC135G.

"These units provide the latest technology from a Deere excavator along with improved fuel economy and low maintenance cost," Hanke said.

RCE also offers the 225D High Rail Excavator, which can be used on and off track, perform rail maintenance tasks and handle material such as ballast, OTM, ties, bridge pilings and structural material. RCE plans to introduce two more models early this year "to expand on the size capacity for these jobs," Hanke said.

The 544K Series 5 swing loader provides wheel loader and

Introducing the Raptor

The Raptor Rail Handling System from Loram makes loading, unloading, cutting, joining, and delivery of your rail a safer, faster, and more reliable process. In addition, operating and manpower costs will be greatly reduced enabling you to reinvest your capital elsewhere. Our innovative service solution is offered as a turnkey package, which includes pick-up and delivery, and is fully staffed, supervised, and supported by Loram.

Contact us today to find out how more of your rail can be picked up in less time for less money. And, if you require ballast maintenance, rail grinding, ditching, or drainage maintenance, Loram has you covered as well.

LORAM®

3900 Arrowhead Dr.
Hamel, MN 55340

1-800-328-1466
www.loram.com

Speed • Performance • Reliability

FREE INFO: Circle 106

Shown: Rail Construction Equipment Co.'s 544 Series 5 swing loader.

swing crane capabilities in one machine. Based on a John Deere wheel loader platform, it can handle all types of material, including rail, ties, ballast, dirt and material stationed on pallets.

"We can also supply conventional Deere equipment to meet the industry's needs," Hanke said. "RCE supplies hydraulic dump carts for handling everything from ballast dirt to OTM, and can be pulled by our tie cranes or hi-rail excavators." ■

Howard Ande is a Bartlett, Ill.-based free-lance writer. Email comments or questions to prograil@tradepress.com.

Reader Information Center

It's easy to get the product information you want.

Use the product information card in this issue and circle the numbers that correspond with the products you want information on. Then either mail the card or fax it to 888-847-6035.

Advertising Sales

PUBLISHER

Stephen Bolte
6671 West Indiantown Road, Suite 56-426
Jupiter, FL 33458
561/743-7373; FAX 561/743-1973
stephen.bolte@tradepress.com

EASTERN UNITED STATES/EASTERN CANADA

Ray Kosakowski, Regional Sales Manager
532 Pinkerton Run Rd., Oakdale, PA 15071
412/788-6988; FAX 412/788-6978
ray.kosakowski@tradepress.com

CENTRAL UNITED STATES

Heather Ryterski, Regional Sales Manager
1522 Fallbrook Dr. , Round Lake, IL 60073
815/260-7012; FAX 815/377-0155
heather.ryterski@tradepress.com

WESTERN UNITED STATES/WESTERN CANADA/ MEXICO

Jimmy Morgan IV, Regional Sales Manager
6157 Eclipse Circle
Jacksonville, FL 32258
904/718-1008; FAX 866/781-9598
jimmy.morgan@tradepress.com

PROFESSIONAL SERVICES Directory

Professional Services Directory Rates

Per column inch (3.375" x 1" deep), per insertion
1X$215 • 3X$210 • 6 X$205 • 9X$200 • 12X$195
Send grayscale (b/w) press quality electronic files to:
www.tradepress.com/uploads

Classified Advertising

Signal Positions Available

Railroad Signal International is seeking qualified Signal Supervisors/Maintainers/Foremen and Signal Construction. Requires travel nationwide and international.
Contact: rsi@railroadsignalinc.com

Signal Engineers and CAD Operators

Isis Consultants is seeking experienced senior or junior railroad signal engineers and CAD operators for its Louisville, KY office and nationwide. Isis offers competitive pay with health, dental, vision and life insurances and a 401K program.
Send resume to: lburkhardt@isis-llc.com

Sales Position Open

Leading Railroad Industry Company is looking for a regional sales manager. Candidate must have a minimum of 3 to 5 years of supply side sales experience with a proven track record. **Please send resumes to: rsmswbresumes@gmail.com**

Classified Advertising Rates

Per column inch, per insertion (column inch is 3.375" x 1" deep): $290/inch. Includes a month in print and online. Submit your ad to: **www.progressiverailroading.com/classifiedads**
Blind box number: $30 additional

RAIL TRANSPORTATION ENGINEERING FACULTY

The Pennsylvania State University, the Altoona College invites applications for a faculty position in Rail Transportation Engineering (rank open) beginning Fall 2013. The preferred qualifications for this position include an earned graduate degree in Engineering with experience in the railway engineering industry. A new Rail Transportation Engineering program seeks to expand its expertise in one or more of the following areas: construction and maintenance, operation and safety, or communications and signals. Applicants should present a record of evidence and potential effectiveness in teaching, research, and service. Candidates should have a strong commitment to undergraduate education, research, student recruitment and retention, and curricular development and assessment. Penn State Altoona offers a competitive salary and an attractive benefits package. Applicants should send a letter of application establishing their qualifications; a current vita; a description of teaching philosophy and evidence of teaching effectiveness; a statement of research interests; and transcripts. Official transcripts and three letters of reference will be required at the time of an interview. Applicants are strongly encouraged to submit their applications and accompanying materials electronically to businessandengineering@psu.edu in Word or PDF formats. Review of applications will begin immediately, and continue until the position is filled. Non-electronic inquiries, applications, and additional materials should be sent to: Chair Search Committee for Rail Transportation Engineering, Penn State Altoona, Position G-37848, Elm Building, 3000 Ivyside Park, Altoona, PA 16601-3760. Employment will require successful completion of background check(s) in accordance with University policies. Penn State is committed to affirmative action, equal opportunity and the diversity of its workforce. **Employment Contact: www.altoona.psu.edu/**

Hulcher Services Inc is currently looking for

NATIONAL ACCOUNT MANAGER (2 positions - Atlanta, GA and Minneapolis, MN areas) Experienced managing fortune 500 clients in a fast paced environment coupled with previous National Account Management experience and excellent analytical/selling skills required. BUSINESS DEVELOPMENT MANAGER (7 positions- Houston and DFW, TX; Washington, PA; Des Moines, IA; Tulsa, OK; Memphis, TN)Drive profitability through savvy business acumen solving complex customer problems and the introduction of new service lines. REGIONAL VICE PRESIDENT OF SALES (3 positions - Dallas/Ft. Worth, TX; Kansas City, MO; Hudson, WI) The position of RVP of Sales is the momentum behind Hulcher Services success as the premiere contractor to the Railroad Industry. The ideal RVP candidate will possess a laser focus on strategic planning and MUST have 8-10 years experience managing teams of outside sales representatives. **Contact: jobs@hulcher.com**

Senior Rail Design & Construction Engineers

KNIGHT E/A, INC. has opportunities available for rail engineering professionals to join our growing rail group in Chicago, IL. Ideal candidates will have 15 plus years of design and/or construction experience working on rail projects, specifically with Class 1 railroads. Candidates will possess strong leadership and technical expertise. BS degree in engineering or related degree required, professional registration preferred. We offer a competitive salary and outstanding benefit package. **Send cover letter and resume to hr@knightea.com. EOE. Employment Contact: www.knightea.com.**

A design reboot with an eye on the e-realm

Unless you began to peruse this issue from the back (and I know readers who do), you've already seen our new look. For the first time since 1996, we've redesigned the magazine.

You saw wider margins, more space between columns, more white space. More contemporary typography. We think it's a cleaner look — a "fun, energetic, user-friendly design," as one of our Creative Services colleagues put it.

The new design also enables us to present information a bit differently. Witness the Upfront section, which begins on page 4. Upfront features an array of data and a representative sampling of rail-industry dot connecting.

We've also redesigned with a synergistic eye on our increasingly robust e-content (see page 2).

Ultimately, this design reboot underscores our mission: to put a range of freight- and passenger-rail industry issues and trends — from new-business development to business-process change to the technology evolution — into clear and current context for rail executives and managers.

The aim is to let the information drive the format, wherever it's published or posted

That mission hasn't changed since the '96 redesign. What has changed is we have more (a *lot* more) information delivery vehicles at our disposal these days — from audio to video to webcasts to virtual trade shows to the various "verses" in the social media realm to whatever comes next. Expect to see some cross-pollinating of those delivery options within these pages (e.g., Upfront); online, too. The aim is to let the information drive the format, wherever it's published or posted and however it's delivered.

Many thanks to our design team — Creative Director Jeff Giencke, and Graphic Designers Emily Hawkins and Mark Uy — for listening, interpreting, refining and clarifying as we attempted to articulate our information-delivery mission. (Considering the extent to which one of us rambles, speaks parenthetically and tangents himself into expository corners, they had their work cut out for them.) We're fortunate to count them as colleagues.

We're also fortunate to count you as readers. Thanks for sticking with us — from the '96 redesign to this one. Opinions, comments or thoughts about our new look? Email me at pat.foran@tradepress.com.

Pat Foran, Editor

American In-House Design Awards

Progressive RAILROADING

Stephen Bolte
Publisher
6671 West Indiantown Road, Suite 56-426
Jupiter, FL 33458
561/743-7373; FAX 561/743-1973
stephen.bolte@tradepress.com

Dick Yake
Vice President – Content Development
dick.yake@tradepress.com

Pat Foran
Editor
pat.foran@tradepress.com

Jeff Stagl
Managing Editor
jeff.stagl@tradepress.com

Angela Cotey
Associate Editor
angela.cotey@tradepress.com

Julie Sneider
Assistant Editor
julie.sneider@tradepress.com

Frank Richter
Co-Founder

Wayne Winter
Vice President of E-Media and Creative Services
wayne.winter@tradepress.com

Jeff Giencke
Creative Director
jeff.giencke@tradepress.com

Mark E. Uy
Graphic Designer
mark.uy@tradepress.com

Jon Warner
Electronic Production Coordinator
jon.warner@tradepress.com

Bobbie Reid
Production Director
bobbie.reid@tradepress.com

Wendy Melnick
Production Manager
wendy.melnick@tradepress.com

Eric J. Muench
Director of Audience Development

Send address and other changes to custserv@tradepress.com

COLUMNISTS

Tony Hatch
abh18@mindspring.com

Toby Kolstad
tkolstad@aol.com

CORPORATE

Robert J. Wisniewski
President/CEO

Jeff Schenk
Chief Operating Officer/
Chief Financial Officer

EXECUTIVE AND EDITORIAL OFFICES

2100 W. Florist Ave.,
Milwaukee, WI 53209
414/228-7701
FAX 414/228-1134

Address Changes:
custserv@tradepress.com

Reprint Pricing:
reprints@tradepress.com

Email:
prograil@tradepress.com

Web:
www.progressiverailroading.com