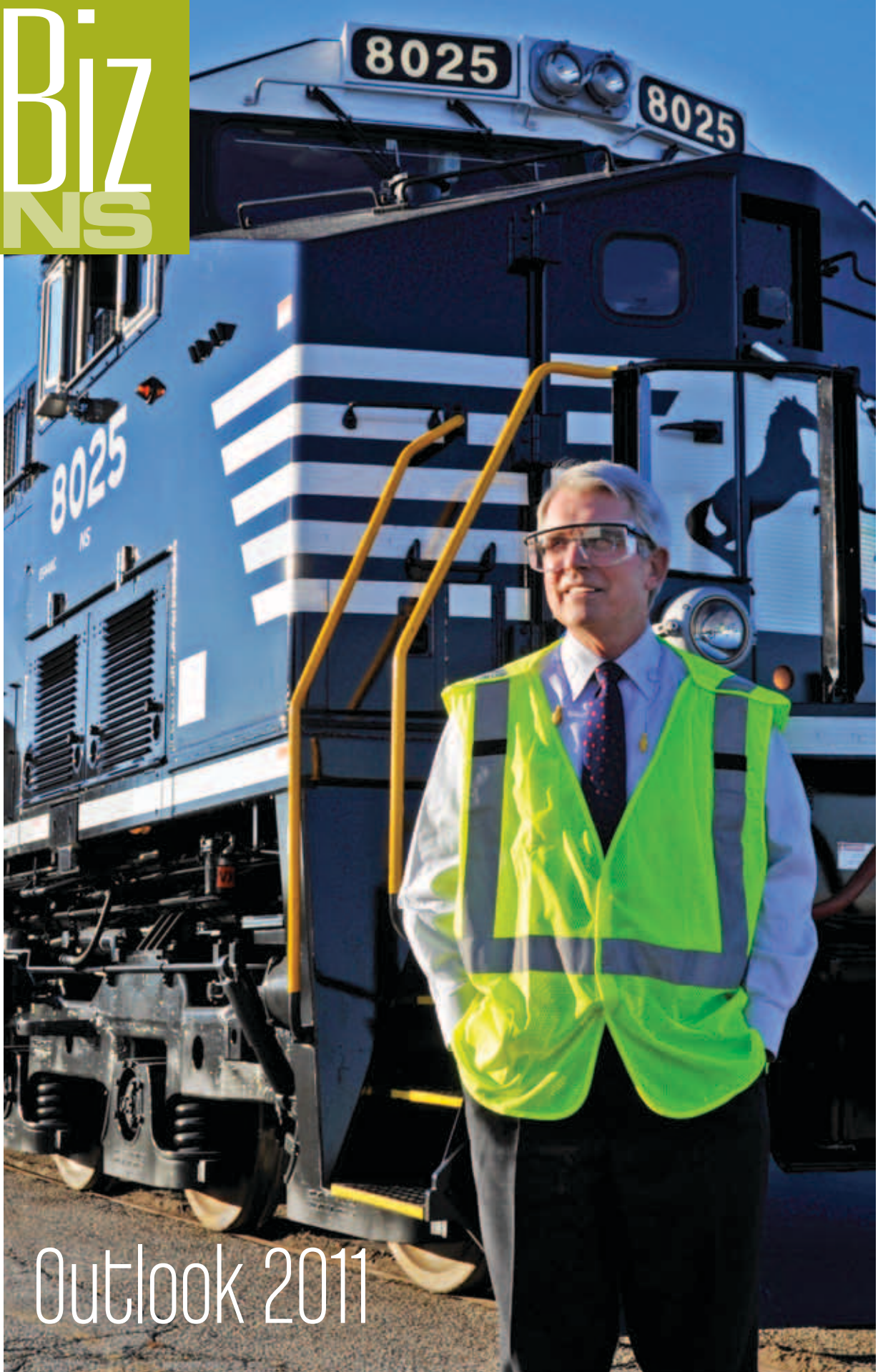


# Biz NS

Volume 3, Issue 2 | March-April 2011

**NS** NORFOLK  
SOUTHERN  
One line, infinite possibilities.



# Outlook 2011

# Biz NS

Mar/Apr '11

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# 2011: The year of focus, urgency, and optimism



As the U.S. economy strengthens, Norfolk Southern has plans in place that could turn 2011 into one of the railroad's safest, most profitable years.

The challenge: to find faster, better, and more economical ways of doing business.

"We're not going to move ahead because we find some silver bullet," CEO **Wick Moorman** told NS managers at the general management meeting in February. "We will move ahead because of the thousands of small ways you find to make things work better in your area. That's how we've always done it, and that's the way we're going to continue to do it."

The year started on a high note: Railway Age in January named Moorman, the railroad's chief executive officer since 2005, as 2011 Railroader of the Year. In acknowledging the honor to managers, Moorman gave credit to the NS team.

"We have everything going for us," he said. "We have the best employees in the business. We have the best infrastructure and assets in the business. We have great technology and more on the way. We have a terrific business development strategy in place. If we execute what we have in front of us, we're going to have an absolutely terrific year."

■ Norfolk Southern's senior management team is optimistic about the railroad's business prospects this year. Seated from left are **Deb Butler**, executive vice president planning and chief information officer; CEO **Wick Moorman**; and **Don Seale**, executive vice president and chief marketing officer. Standing from left are **Jim Squires**, executive vice president finance and chief financial officer; **Mark Manion**, executive vice president and chief operating officer; **John Rathbone**, executive vice president administration; and **Jim Hixon**, executive vice president law and corporate relations.

■ Left: A Norfolk Southern train hauls carloads of coiled steel from the new ThyssenKrupp steel plant in Alabama. The \$4.7 billion facility is the largest industrial development project ever constructed on NS' system.



To succeed, NS must capitalize on business opportunities and avoid service problems that slowed the company last year. There was much to like about 2010, Moorman said. Employees achieved an injury ratio of 0.89, the best safety ratio in NS' history, and the railroad had its second best year for operating revenue. However, NS wrestled with service challenges as the economy began growing faster than expected early in the year.

As business picked up, the railroad faced a shortage of train and engine crews and was unable to recruit, train, and deploy new hires fast enough to keep pace with service demands. In particular, the railroad's unit train network, including coal and grain, experienced performance problems. A stretch of winter storms that dumped snow and ice in December added to the challenges.

Going into 2011, NS must focus on ways to improve service and grow the business, Moorman said.



The railroad's plan includes expanding technology to reduce operating costs and boost efficiencies. Improving fuel efficiency is a key priority, both to save money and to meet NS' sustainability commitment to reduce the company's carbon emissions by 10 percent over the next four years.

Achieving the 2011 goals will require a team effort. "It will take an unrelenting focus on how each of us can continuously improve what we do, a strong sense of urgency that improvement has to happen now, and an unshakeable optimism in the ability of our employees to produce results," Moorman said. "It's going to require absolute focus on the part of all of us to find the freight, move it, and deliver superior service."

### Business prospects look solid

With the economy picking up and aggressive plans for new services and growth, NS has an opportunity to surpass last year's revenue and volume levels, said **Don Seale**, executive vice president and chief marketing officer.

In 2010, freight volume across NS' business franchises grew by 800,000 carloads, a 14 percent increase from 2009. Revenue grew by \$1.5 billion, a 19 percent increase and the highest year-over-year revenue gain since NS acquired part of Conrail.

"Coming out of a recession, that's notable," Seale said.



More than half of the volume growth resulted from a marketing initiative called "Friday Freight," aimed at participation in new markets and growth opportunities. Industrial products secured more than \$500 million in Friday Freight revenue, and coal and intermodal also saw substantial gains. That initiative, in which business gains are reported every Friday, is continuing this year.

"It puts a greater sense of urgency on our sales force and product managers to identify and secure freight above and beyond the budget," Seale said.

In intermodal markets, NS' corridor strategy to convert truck freight to rail continues to gain steam. A shortage of truck drivers, rising diesel fuel prices, and customers increasingly looking for more efficient and environmentally friendly rail service are working to NS' advantage.

"The key for us is providing the service and ease of doing business that will enable customers to convert highway business to rail," Seale said.

Overall, Seale is optimistic about 2011.

"We have a network and portfolio of services that are well positioned to take advantage of market opportunities across the board," he said. "There are always things that you can't forecast or predict, but I think we're very good at adjusting and adapting and responding."



■ Far left: CEO **Wick Moorman** on the cover of *Railway Age* as 2011 Railroader of the Year.

■ Center: A trilevel unit automotive train at Roanoke, Va.

■ Left: Grain pours from a chute into a waiting NS car.

### Here's the outlook for NS business groups:

**Agriculture:** Bolstered by strong ethanol and grain markets, NS' agricultural business is expected to grow. Now serving 25 ethanol production facilities and 72 distribution terminals, NS has grown its ethanol business to more than 50,000 carloads since 2002 and shows no signs of slowing, Seale said. In addition, NS shipments of corn and soybeans to mills for animal feed and food production look strong.

**Automotive:** After two years of slow business, NS' automotive market is looking up. Auto sales were up 17 percent in January and auto production for the year is expected to rise 14 percent to 14 million units – down from 16 million in 2006 but well above the recession-level 8.5 million. Volkswagen's new plant in Chattanooga, Tenn., cranks up production this year, and NS will transport the majority of finished cars from the facility.

**Chemical:** The markets for plastics, petroleum-related products, and industrial chemicals used in various manufacturing processes are all showing strength. A drop in the price of natural gas, a feed stock in chemical production, has helped revitalize the U.S. industry and improve its global competitiveness – a boon to NS.



**Coal:** Coal stockpiles at U.S. utility plants are down as a result of cold weather and the recovering economy, while increased steel production is driving up demand for domestic and export metallurgical coal. Translation: NS' coal business in 2011 should be booming.

In January, NS' overall coal volume was up 19 percent over the same period last year. Demand for NS export coal, up 27 percent last year, has been boosted by flooding that has disrupted coal mining operations in Australia, a major supplier to Europe and Asia. In early 2011, coking coal stockpiles held by U.S. steelmakers were down by two-thirds, a good sign for NS' domestic metallurgical coal business.

Longer term, Seale remains bullish on NS' coal franchise. The rail industry could be hurt financially if legislators or regulators take action that restricts the use of coal, but the fact remains that there are no affordable or reliable alternative energy sources available on the horizon to replace coal as a power source for U.S. homes and factories, he said. Currently, coal supplies about 45 percent of U.S. electricity needs. The development of clean-coal technologies, including carbon capture and storage, should help advance continued use of coal, he said.

**Domestic intermodal:** As a result of highway conversions and an improving economy, volume grew by 27 percent in 2010 and the business should continue showing solid gains, Seale said. One positive sign: the decision by FedEx to choose NS as the East Coast rail carrier of its less-than-truckload freight. This is the first time FedEx has used intermodal in a systematic way in its 40-year history.

"It demonstrates to all our customers and to ourselves that even as we were working to hire conductors and bring back resources in a demanding year of transition in 2010, the strength of our network was sufficient to win a premium account such as FedEx," Seale said. "That's a strong statement, and it underscores the progress we're making and the strength of the franchise."

**International intermodal:** With U.S. consumers buying again, imported container goods are expected to expand by 9 percent in 2011, good news for NS' international business, Seale said. NS' Heartland Corridor, opened in September to double-stack traffic, positions the railroad for long-term growth of container traffic between Virginia ports and Midwest consumer markets. The more direct double-stack route has brought immediate savings in fuel costs for NS and improved efficiencies for customers, knocking off a day of transit time for shipments.



■ Far left: An NS coal train passes a field in Pennsylvania on its way to PPL Corporation's Montour Steam Electric Station plant in Washingtonville.

■ Top left: A crate of paper is loaded onto an NS train at a Boise Paper plant in Jackson, Ala.

■ Left: NS' lumber, plywood, and building products market will remain challenged this year as the housing market remains sluggish.

■ Bottom: Coiled steel is loaded on an NS train at ThyssenKrupp's plant in Alabama. NS began hauling steel from the facility in October.



**Metals and construction:** In 2010, volume in NS' metals and construction business increased 25 percent, driven by domestic steel production that is looking stronger. NS' coiled steel, slab, and scrap steel markets will benefit.

Business is beginning to ramp up at the new ThyssenKrupp steel plant in Alabama. The \$4.7 billion facility is the largest industrial development project ever constructed on NS' rail system. Since NS began moving steel from the plant in October, volume is up substantially and will continue to grow, Seale said.

A big emerging market is the Marcellus Shale natural gas production area based in Pennsylvania. The business, which involves transporting sand, pipe, and other supplies used in the drilling and recovery process, grew by nearly 7,000 carloads in the fourth quarter. NS is working with many short line railroad partners to develop the market.

**Paper, clay, and forest products:** This market may be a "Tale of Two Cities" in 2011, Seale said. With the housing market still struggling, NS business in lumber, plywood, and other building products remains challenged. However, as the broader economy improves, NS' pulp and paper business is expected to experience solid growth as production of liner board, corrugated boxes, and other packaging materials ramps up to meet consumer demands. Export demand for paper produced in the U.S. offers opportunity for increased business to East Coast ports.

“We had more employees getting home safely to their families and loved ones after their day’s work, and that’s what it’s all about.”  
—**Mark Manion**

## Safety and service are tops

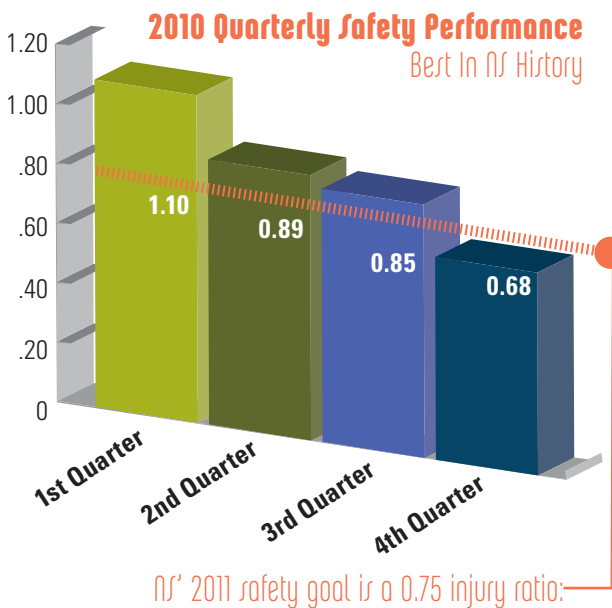
NS has led the industry in safety for 21 consecutive years, but the company continues to strive for improvement. As **Mark Manion**, executive vice president and chief operating officer, constantly stresses, until NS works a year with no injuries, the railroad always has room to improve.

In 2010, with an overall injury ratio of 0.89, employees demonstrated what continuous improvement looks like. Systemwide, the injury ratio improved each quarter, with a fourth-quarter ratio of 0.68 – better than the company’s 2011 goal of 0.75. This ratio is based on the number of reportable injuries per 200,000 employee hours worked. Remarkably, NS’ system production gangs, including tie, rail, and surfacing gangs, went the entire year without a single reportable injury – a major accomplishment.

“That means we had more employees getting home safely to their families and loved ones after their day’s work, and that’s what it’s all about,” Manion said. “If people follow the safety rules and the fundamentals we have in place, such as thorough job briefings, there’s every reason to believe we can get better and better at preventing injuries.”

Manion credited the work of local safety committees, noting that members have gotten more proactive about meeting with employees in the field to discuss safety. Nearly all committees now are chaired by agreement employees, with good support from management, he said.

“We’ve thrown the ball to the local safety committees, and they are doing an increasingly good job at taking the lead and coming up with fresh ideas to help people key in on the safety process,” Manion said. “I also think they’re getting better at talking to each other about problem issues, and doing so in a respectful way.”



■ Right: NS plans to expand the use of money-saving technology in 2011, including top-of-rail friction modification. The solar powered system, pictured at right, dispenses a toothpaste-like substance on the rail as trains pass, reducing wheel friction and resulting in fuel savings and reduced rail maintenance.



Close behind safety in 2011 for operations will be a focus on customer service, fuel efficiency, and cost reduction. An expansion of technology will be front and center, Manion said. Technology tools to be expanded in 2011 include:

**Unified Train Control System:** Known as UTCS, NS' next-generation dispatching system helps dispatchers create comprehensive train movement plans to minimize network congestion and delay. NS is using UTCS on six of 11 divisions and this year plans to install the system on two more – Pittsburgh and Dearborn.

**RailEdge movement planner:** This software system, part of UTCS, enables dispatchers to improve traffic flow and speed systemwide, resulting in better service and fuel savings. RailEdge was introduced last year on the Georgia, Alabama, and Central divisions, and early results show improvements in train speed and network velocity of 10 to 20 percent, Manion said. The technology will be expanded to the Piedmont, Virginia, and Harrisburg divisions this year.

**LEADER:** NS this year plans to double, to 1,000, the number of locomotives equipped with LEADER, an onboard computer system that has resulted in significant fuel savings. The Locomotive Engineer Assist Display and Event Recorder monitors track and train conditions and recommends optimal throttle, brake, and speed settings. Last October, the Northern Region became the first with the capability to run LEADER-assisted trains across the entire region. In 2011, LEADER will be expanded to other corridors, including between Bellevue and Chicago, Chattanooga and Macon, and Atlanta and Harrisburg.

**Remote intelligent terminal:** This GPS-based system enables customers to track shipments in real time and helps conductors quickly identify cars in a yard. RIT is on the Alabama Division and is being implemented on the Illinois Division. Plans call for expanding it to the Lake, Dearborn, and Pittsburgh divisions in 2011.



**Top-of-rail friction modification:** This track-side system, activated by passing train wheels, releases a lubricant on the rails that reduces friction, resulting in fuel savings and reduced rail maintenance costs. NS plans to accelerate its rollout across the system.

In addition to technology, NS plans to purchase 50 new fuel-efficient AC locomotives, adding to 42 bought last year to boost service levels. The AC locomotives provide additional traction power that's beneficial in NS' heavy-haul business, such as coal and grain.

"In certain applications you can replace three DC locomotives with two AC locomotives," Manion said, "so you get better efficiencies."



■ Above: One of the NS conductor trainees hired in 2010 was **Keith Fitzhugh**, shown here during training at the railroad's McDonough Training Center. Fitzhugh, a college football standout and former professional football player, made national news in December when he declined an offer from the New York Jets, choosing to remain with NS. "I had to turn them down, 'cause I had a great job," he said, offering a regular paycheck, great benefits, and long-term employment. "I love riding the train," he said. "That has always been the backup plan for me."

## Getting people into place

Hiring new employees will be a major thrust in 2011 to accommodate business growth and to ensure no service gaps occur as employees retire or leave the company.

NS began ramping up hiring of train and engine crews, particularly conductors, in early 2010 to meet rising service demands. After completing a comprehensive training program to ensure they could perform their job duties safely, the first 250 of the approximately 1,900 new conductor trainees hired during the year began entering service at critical locations in the fourth quarter. Since then, the railroad has put 200 to 250 new train and engine hires on the ground every month.

That is critical for NS to take advantage of expected business growth, said **John Rathbone**, executive vice president administration.

"Right now, our hiring pipelines are full, and we're well positioned," he said.

In 2011, NS expects to hire 2,500 new employees, including about 1,500 conductors, bringing the railroad's work force back to prerecession levels of around 30,000. The work force had dipped to around 28,000 during the worst of the downturn in 2009.

In addition to train and engine employees, NS plans to expand hiring of maintenance of way and mechanical employees, Rathbone said.

## Progress on long-term planning

Substantial progress is expected this year to meet goals in NS' Track 2012 plan, said **Deb Butler**, executive vice president planning and chief information officer. Developed in 2008, Track 2012 is a five-year roadmap that identifies key initiatives deemed essential to NS' long-term success.

Expanding technology has been a central focus. RailEdge, UTCS, LEADER, top-of-rail lubrication, and remote control technology all are part of the plan.



■ NS plans to hire more maintenance of way employees in 2011. Pictured here are members of an NS tie gang installing new ties on the Pittsburgh line at Millwood, Pa., as an NS train carrying steel plates passes. The photo appeared in the NS 2010 calendar.

In 2011, NS expects to hire 2,500 new employees, including about 1,500 conductors, bringing the railroad's work force back to prerecession levels of around 30,000. The work force had dipped to around 28,000 during the worst of the downturn in 2009.



In another important Track 2012 initiative, NS in 2011 will continue efforts to create a Geographical Information Systems map of the railroad's property and track infrastructure. Last year, NS completed mapping the system using a helicopter outfitted with laser technology, digital cameras, and video to create a three-dimensional topographical map of NS' rail network.

This year, a team of NS engineering and information systems employees is working to build a database that departments across the railroad can access to better use and manage the company's assets. The infrastructure database includes the location of signals, switches, road crossings, and other items. It is a critical piece of NS' implementation of Positive Train Control, or PTC, a federal mandate requiring railroads to monitor in real-time freight trains traveling on lines that carry passenger trains or move toxic-by-inhalation materials.

With less than two years left on Track 2012, Butler is overseeing transition to "Future Track," planned as a rolling five-year strategic plan aligned to NS' corporate goals. Future Track will build on lessons learned from Track 2012.

"In terms of helping us define what the right things are, prioritizing them, and keeping them funded and moving forward, Track 2012 has been extremely successful," Butler said.

This year, a team of NS engineering and information systems employees is working to build a database that departments across the railroad can access to better use and manage the company's assets. The infrastructure database includes the location of signals, switches, road crossings, and other items.



■ Top: NS train 211 passes through a signaled grade crossing on Hilltop Road in Longswap, Pa., on the NS Reading line.

■ Aerial mapping has been completed as part of an NS GIS project to build a database of the railroad's infrastructure, including signals.



■ Above two photos: NS has invested in various wayside detectors to increase efficiencies and reduce maintenance costs. In top photo, wheel impact load detector sensors are protected by gray metal covers. The sensors, connected by cable to a computer system, detect imbalanced or overloaded rail cars that could damage rail or cause a derailment. Above is equipment that detects low air-brake hoses and automatically identifies passing rail cars.

■ Far right: NS continues to work with states and the federal government on ways to accommodate the expansion of passenger rail. Pictured at right is the Amtrak Carolinian, a passenger train that runs on portions of NS track during a daily run between Charlotte, N.C., and Washington, D.C.

## Keeping tabs on government

With last year's election of a more business-friendly Republican House, NS is less worried in 2011 about passage of harmful federal legislation to reregulate the rail industry. However, threats remain, said **Jim Hixon**, executive vice president law and corporate relations.

The U.S. Surface Transportation Board, which oversees interstate commerce and settles rate disputes between railroads and customers, plans hearings this year to review the issue of so-called "captive shippers." These relatively few but vocal shippers are served by only one railroad line and claim that the rates they pay for rail service are anti-competitive. NS contends rates are reasonable based on costs of maintaining rail infrastructure to the customers.

In another area of concern, the STB will consider whether to expand its jurisdiction over rate cases to include various commodities currently exempt from its review, including intermodal, lumber and wood products, and motor vehicles.

"These are issues that go to the heart of the way we operate our business, and they could affect our profit and ability to invest in our network," Hixon said. "We will be very closely involved in those debates in Washington."

On another front, NS will work on Capitol Hill with other Class 1 railroads on issues involving Positive Train Control, Hixon said. The railroads will seek appropriate funding to help implement the program, which the industry views as an unfunded mandate that will not significantly improve safety.

Also, the railroads will continue negotiating with the Federal Railroad Administration to change various PTC regulations considered burdensome and unnecessary. The FRA, for example, had ruled that railroads must install PTC on freight lanes that moved highly hazardous chemicals during 2008 – even though NS and other railroads will not be using some of those lanes to haul such chemicals by 2015, Hixon said.



Even if changes are made, the railroads expect only \$1 in benefits for every \$20 they must spend to install PTC. NS expects to spend more than \$1 billion to meet Congress' 2015 deadline, including \$146 million in 2011 to buy equipment such as wayside detection devices needed for PTC to work.

"We have filed a letter with the Administration to alert them where we think regulations are overreaching," Hixon said, noting President Obama has pledged to eliminate regulations that unnecessarily burden businesses.

Passenger rail also will continue to be a hot topic for NS in 2011, Hixon said. In particular, NS will work to secure funding for a flyover project that is part of the CREATE public-private partnership in Chicago to improve the flow of freight, Amtrak, and Metra trains through the congested Englewood area.

Another major focus involves the Crescent Corridor, which extends from the Gulf Coast to northern New Jersey and figures big in NS' plans to convert highway freight to rail. NS last year won \$105 million in federal grant money for new intermodal terminals in Birmingham and Memphis and this year plans to start construction on those facilities, as well as on terminals to serve the corridor in Greencastle, Pa., Charlotte, N.C., and Mechanicville, N.Y.

On another strategic corridor, track and infrastructure upgrades are planned on the Mid-America Corridor, a partnership between NS and Canadian National Railway. The corridor will speed up freight moving from the Midwest to NS customers and create a more efficient route to ship Illinois Basin coal to NS utility customers in the Southeast.



■ Above photos: Track program maintenance is a big part of NS' capital spending plan. Pictured here, a tie remover inserter machine installs new ties on a stretch of line in North Carolina. The machine is operated by a timber and surfacing super gang that maintains track across the railroad's system.

About \$500 million of the capital budget increase is to implement PTC and purchase equipment formerly leased. Much of the remainder is going into such bread-and-butter items as tie, rail, and track infrastructure replacement and improvement.

## Investing in the business

To take advantage of healthy cash flow and attractive financing, NS plans substantial capital equipment purchases in 2011, said **Jim Squires**, executive vice president finance and chief financial officer.

In addition to locomotives, NS plans to buy 1,500 coal hoppers and gondolas as part of a multiyear program to replace its aging coal fleet. The railroad also plans to buy covered hopper grain cars and intermodal containers and chassis to replace cars and equipment the company had been leasing. Given current financial conditions, Squires said, it makes sense for NS to purchase the equipment.

"We have a strong balance sheet, meaning our cost of financing is pretty low in comparison with what we have to pay in lease rates," Squires said. "That translates into savings for us."

The equipment purchases are part of a \$2.2 billion capital budget, a significant step up from last year's \$1.5 billion budget. About \$500 million of that increase is to implement PTC and purchase equipment formerly leased. Much of the remainder is going into such bread-and-butter items as tie, rail, and track infrastructure replacements and improvements.

While NS' business success is linked to the U.S. industrial economy, the railroad in 2011 has opportunities that are not wholly tied to a strong national economy, Squires said. NS' utility coal business, for example, is benefitting from an extremely cold winter, and the export coal business is being driven largely by global trade patterns.

Growing NS' domestic intermodal business, while linked to overall economic trends, also is a function of the railroad gaining share from the trucking industry. "Because consumer demand is still tepid, our success in diverting loads from the highway is as much of a reason why intermodal has grown as fast as it has," Squires said. In addition, NS' agriculture business, which produced record volumes in 2010, has been boosted by government support of ethanol and other biofuels.

Those business prospects, combined with an improving outlook for the U.S. economy, Squires said, give NS reason to be optimistic about the year ahead. ■ BizNS

# Moving toward Synergy

A team of employees and contractors is working diligently to usher in the age of Synergy at Norfolk Southern.

"That's our No. 1 project for the year," said **John Rathbone**, executive vice president administration. "This affects so much of what we do. It touches every employee."

Synergy is the name NS has given to a project that will replace more than 35 computer-based applications within human resources, material management, and finance and accounting. Many of NS' existing systems rely on business and technical expertise no longer available in the company and irreplaceable in the marketplace.

Synergy consists of a real-time enterprise resource planning software called SAP. Nearly 75 percent of FORTUNE 500 companies and most U.S. Class 1 railroads already are using SAP.

The new system is expected to give NS a more efficient, streamlined, and timely way to access and manage critical processes and data, from ordering and purchasing shop and office supplies, to planning budgets, payroll, and managing employee benefits, travel expenses, and performance reviews.

"SAP is very stable, runs well, and is a good platform for the future," said **Jim Squires**, executive vice president finance and chief financial officer. "We hope to gain business process improvements and insights into our business performance from SAP, and I think we have every reason to expect we will get that."

NS now has about 300 contractors and employees involved, including 69 employees working full time to bring Synergy online in early 2012. The \$100 million project is a joint effort of NS' administration, finance, and planning and information.

"We have a great SAP team," said **Deb Butler**, executive vice president planning and chief information officer. "There are business experts from human resources, finance, and material management as well as development and support resources in the IT department. This is a success story of planning in 2010 and a challenge in 2011 to implement it."

Employees involved in materials purchasing, finance and accounting, and human resources issues will be most directly affected. However, all employees will want to relearn how to navigate the Employee Resource Center, which will have a new look and become more of a self-service center.

Approximately six to eight weeks before switching to SAP, NS will begin training employees on how to use the new system, including classroom instruction, computer-based tutorials, coaching, and instructional sheets. "We want to make sure everybody is ready," Rathbone said.

The Synergy team will spend most of 2011 preparing for the "go live" date. That effort includes multiple tests of every function, preparation of hardware and software, and repeated practice of the steps required to switch from NS' old systems to new.

"Our focus is on making this transition as smooth as possible," Butler said. "While no one reasonably could expect to pull off an implementation this large without a single unexpected bump, we're taking every opportunity to ensure the success of this project." ■ BizNS



"This affects so much of what we do," **John Rathbone** said. "It touches every employee."

# This NS super gang known for super work



A winter freeze hit central North Carolina in early December. When it struck, Norfolk Southern super tie gang TS-8 was working there to replace crossties and resurface 43 miles of track between Fayetteville and Fuquay-Varina.

At a predawn safety meeting Dec. 8, members of the gang gathered around a long table inside a rail camp dining car. They were reminded to watch for icy conditions, take precautions against the chill, and look out for one another.

Before work began, a magnetic thermometer placed on the rail read 8 degrees. Bundled in coveralls, hooded coats, and knit caps, the crew took the weather in stride: A little cold was not going to interfere with the important job at hand.

"We just wrap up and keep on stroking," said **K.T. "Country" Dawkins**, NS senior supervisor and TS-8 gang leader.



■ **Top: K.T. "Country" Dawkins**, senior supervisor, helps lead a predawn safety briefing in a rail camp dining car before his TS-8 timber and surfacing super gang starts work on a day in early December.

■ A magnetic thermometer records the rail temperature at 8 degrees moments before the gang begins work.

## No. 1 on the system

In 2010, TS-8 earned bragging rights as NS' top-producing tie gang. Working a territory that spanned Columbus, Ga., in January, to Elmira, N.Y., in July, and North Carolina by year's end, the gang replaced more than 390,000 crossties — about 13 percent of the nearly 3 million the railroad's T&S gangs installed systemwide.

Most important, they did it safely. Comprised of 58 employees and 40 or so pieces of heavy machinery that can jack up rail, insert and remove ties, and sculpt rock ballast, the gang finished the year without a reportable injury, continuing a string of more than 500 consecutive days of injury-free service. "Knock on wood," said Dawkins.

"We're about 55,000 ties ahead of the closest competition, and we did it safely," Dawkins told his gang at the morning meeting. "That's what I want to hear. No injuries, no close calls. Focus and attitude — that's what it takes."

TS-8 is one of four NS timber and surfacing super gangs. The gang maintains track on the northeast territory in warm months and moves to the southeast in winter. They do not sit behind desks.

"You work in all conditions — snow, rain, whatever," said **W.T. Ginn**, a gang machine operator who operates a ballast regulator, a machine outfitted with a plow and metal side wings that push rock ballast around ties and track for support.



■ Dawkins, a 34-year NS veteran, is a hands-on leader.

■ A banner attached to a camp car is a daily reminder to the crew to work safely.



If tracks are not retimbered and resurfaced on a regular cycle, they get weak and out of alignment, forcing trains to run slower. The T&S gangs ensure trains can run safely at optimum track speed, critical for NS to meet customer demands.

“The only thing Norfolk Southern has to sell is our service in regard to movement of traffic, and as far as track maintenance goes, the gangs are the most important tool we have,” said **Mike Hunter**, NS general division engineer who oversees six maintenance of way gangs, including TS-8.

Super gangs have more employees and machines than the standard 37- to 45-person T&S gangs. If conditions are right, TS-8 can replace 600 to 650 cross ties an hour. A mile of track has about 3,200 ties and 700 to 900 tons of ballast.

“We developed the super gang concept for major impact on our core routes where track time is limited,” said **Mike Reid**, NS chief engineer who oversees program maintenance. “These gangs go in, get the work done, and minimize train delays. The benefits they bring to the company are astronomical.”

## On the road

TS-8 arrived in North Carolina in November after completing a job in Chambersburg, Pa. They operated from a camp car train parked on a rail siding about midway between the section of track being worked.

The gang works four 10-hour days a week and sleeps in the camp cars, two to a room. The cars resemble motel rooms inside, with private shower, bathroom, and satellite TV. At close of business Thursdays, most drive home to families scattered around nine states across the South and mid-Atlantic. They return Sunday evening for another week of work.

Dawkins, the gang senior supervisor, lives in Alabama and speaks with a drawl like Robert Duvall’s preacher in the movie “The Apostle.” He signed on with the railroad 34 years ago as a track gang laborer and held jobs as machine operator and foreman before earning supervisor in 2004. Everybody knows him as Country, a nickname a Southern Railway supervisor gave him. He’s a hands-on leader.

“To be a supervisor in this work, you’ve got to be willing to do what the guys do, the way I see it,” he said. “I can operate every machine on my territory, and my guys know it. When I tell them something, they understand I know what I’m talking about.”

His gang operates like a military platoon, carrying all the equipment and supplies needed to do a job, including a kitchen car that resembles a roadside diner and two contract cooks who whip up hearty meals served buffet style. The gang rides in a bus to and from work sites.

“A person could show up without a dime in his pocket and work all week with three meals a day and a good place to sleep,” Reid said. “That’s major in today’s time.”

The gang travels with two boxcars of spare parts and a team of seven mechanics to keep the machines running, said **Tim Lord**, the gang’s equipment supervisor.

“Most of the time we can fix anything out here that breaks,” he said.





■ Top row left: TS-8 works from dawn to dusk four days a week.

■ Top row right: Machine operator **W.T. Ginn** sits in the cab of a ballast regulator, which sculpts ballast around crossties and track. “We’re the ones who make it look pretty,” he said.

■ Right: A spike puller removes spikes from ties to be replaced.

■ Far right: Machines that handle ties, pull spikes, sweep ballast, and perform other track maintenance move on the track in assembly-line fashion, often stretching more than a mile from end to end.



## One day at a time

Working from dawn to dusk, TS-8 is capable of retimbering and resurfacing about 10 miles of track a week. The 43-mile section they were working in North Carolina is a secondary line that last had ties replaced in 1993, much longer than NS’ normal four-year maintenance cycle on main lines.

“On our core main lines, which handle a lot of tonnage, we usually replace about 25 percent of the ties in a cycle, or one of four ties,” said **Shane Thomason**, NS process engineer. “That allows you to hold good gauge and keep good ties in the track.”

Because only one train a day runs the N.C. route, ties last longer. Another advantage: The low volume made it easier for TS-8 to get track time – the biggest challenge for maintenance of way gangs working core lines.

On the N.C. line, an NS train delivers grain to an ethanol plant in Fayetteville and returns to Raleigh carrying carbon black and other products for an automobile tire plant. The cargo is high value in terms of revenue, and there’s potential to expand industrial and agricultural business on the line, said **Dominik Browne**, NS general manager business units.

The gang’s timber crew worked the front end, pulling out old ties, inserting new ones, spiking them in, and securing them with tie anchors. The surfacing team followed, ensuring the track was properly aligned, tamping ballast under the ties, and sweeping the track clean – to make it look “pretty.”



“You work in all conditions - snow, rain, whatever,” said **W.T. Ginn**, a gang machine operator who operates a ballast regulator.



For this job, TS-8 needed to replace a little more than half the ties, around 1,800 a mile. With their breath hanging in the air from the cold, gang members worked in assembly-line fashion, machines and workers stretching more than a mile end to end. Work stopped occasionally to fix a frozen air hose or broken hydraulic line, then cranked back up.

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Safety is stressed continuously during the day, starting with a mandatory safety meeting after breakfast. A chalk board in the dining car lists the gang’s safety focus for the year: “If you can’t work safe, you can’t work here.”

“Situational awareness is paramount,” Reid said. “Everything we do depends on employees doing the right thing at the right time. They have to understand that their actions can absolutely take somebody out.”

Gang members know their success depends on teamwork and good attitude. On Dec. 8, the gang ate lunch in a field near the track, serving themselves from a large container of chicken and vegetables in cream sauce delivered from camp. After eating and a safety briefing, **Dustin Bible**, a tie-handling machine operator from Newport, Tenn., led them in stretch exercises. Before resuming work, they recited a prayer members had created together: “Oh Lord, let us work safe, one day at a time.”

The prayer helps bind the gang, said Bible, a five-year NS employee.

“What I like about this job is being able to trust the people I work with,” he said. “You’ve got good people behind you and good people in front of you, and we watch out for each other.”

## Best in the business

Most gang members know how to operate several machines. "That's important so that if somebody is out, you always have someone who can operate the equipment safely," said **Cosmo Holder**, a 24-year NS employee from Atlanta who usually operates an anchor adjustor machine, which squeezes tie anchors into place.

On the N.C. job, **Nathaniel Walker**, an eight-year employee from Edison, Ga., filled in for an anchor adjustor operator who was out. He also plays a key role at the camp, making sure camp cars have running water and doing tasks such as replacing smoke alarm batteries and light bulbs.

"I stay busy," Walker said. "There's always something to do."

Some of the gang's machines essentially are metal frames with engines, equipped with hydraulic devices that grip, hammer, and sweep. A few have enclosed operator cabs with heat and air conditioning, computer screens, digital controls, and sensors.

Machine operator **Harvey Camm** commands the Mark VI tamper, a sophisticated machine that requires smarts, good eye-hand coordination, and

physical stamina to operate. Camm, who lives in Danville, Va., has worked 28 injury-free years at NS. He takes pride in his work.

"It's nice to see a finished product," he said. "When we start, the track is all to pieces; when we get through, you could run Amtrak over it."

### Harvey Camm

*tamped a tie about every four seconds. He and machine worked as one: Stop, jack up rail, lower tamping arm, pack ballast, raise arm, roll to next tie, repeat.*



The Mark VI growled and rumbled in stops and starts down the track. A laser beam system on the machine profiled track alignment and elevation on a computer screen in the cab, an advancement over the days when operators used graph tables and crank handles to set elevation in curves. Camm pushed a button for "curve mode," entered settings on a computer keyboard, and the Mark VI calculated the rail elevation and alignment from beginning to end of a curve.

On the N.C. line, Camm tamped every third tie. Guided by his steady hand, the tamper jacked up and aligned the rail as he activated an attachment resembling metal teeth that compacted ballast under the ties. The machine dribbled orange paint on ties he tamped so gang members "chasing" him in switch tampers would know. The switch tampers, which do not jack up rail, packed ballast under the other ties.

Seated in a cab above the track, Camm counted off ties, monitored what was happening in front of him, and tapped buttons to fine-tune the alignment. He tamped a tie about every four seconds. He and machine worked as one: Stop, jack up rail, lower tamping arm, pack ballast, raise arm, roll to next tie, repeat.

"You've got to have rhythm and coordination to operate it," Camm said. "When a new guy comes on I ask, 'Can you dance?' He says, 'Huh?' I tell him, 'Yeah, we'll find out if you can dance.'"

## A good job to have

Before joining NS about 13 years ago, **Anthony Marion** of Swainsboro, Ga., managed a grocery's dairy and frozen food section. For TS-8, he operates a tie remover inserter machine, which pulls out old ties and puts in new ones.

Inside a cab, Marion worked pedals and joy sticks with both hands and feet. With right foot, he pushed a pedal to move the machine forward. With right hand, he shifted a joy stick that controls a boom with metal jaws that pick up a tie. With left foot, he pressed a pedal to activate the jaws. With left hand, he held a joy stick that tilts the tie to slide it under the rail.

"I try to grab the tie a certain way and tilt it down just right, but every tie goes in a little differently," Marion said.

Marion's dad worked on an NS gang for 33 years. "It's a good job with good benefits and a good future to it," he said. "The most rewarding thing is seeing the track after you've worked it. It's something you can stamp your name on and I say, 'I did this.' I wouldn't take nothing for my job."

That's a common sentiment.

"It's one of the best jobs I've ever had. I can take care of my family and pay the bills," said **Kraig McKenney**, a 14-year NS employee from Swainsboro, Ga., who operates a tie-handling machine, which moves ties with a cranelike arm.

With hourly wages, travel pay, and overtime, they can pull down more than \$50,000 a year.

"You can't find a job that pays this kind of money in my hometown," said **D. J. Hayes**, a ballast regulator operator from Corbin, Ky.

The work can be mentally and physically taxing, but many said life on the road is the toughest part of the job.

"I've been out here eight years, and I miss a lot of the home life," said Ginn, the ballast regulator operator, who has two children.



"I'd say we're a special breed of people," Camm said. "Not everybody can work out here in the elements and do what we do and be away from home and family."

At the same time, their jobs at NS allow them to provide their families with solid support and security.

"This is for the future," said Hayes, who has two preschool-age sons. "I'm going to be able to put my kids through college." ■ BizNS



■ Previous page: Machine operator **Harvey Camm** operates the controls of the Mark VI tamper, working inside a cabin packed with computer screens and automated control systems.

■ Top: TS-8 gang members **Mark Noel**, OST, and **Greg Tucker**, machine operator, walk a rail gauge down the track to ensure the gauge is correct after new crossties and ballast have been installed.

■ Left: The Mark VI tamper moves down the rail.

# Track machines are constantly evolving

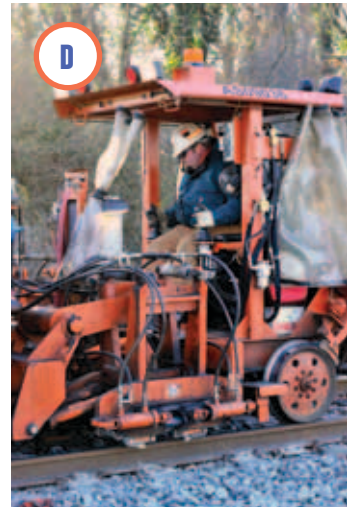
Norfolk Southern is an industry leader in the development of machines used to maintain railroad track. With support from its Charlotte Roadway Shop, NS has been an innovator of roadway equipment, resulting in safer, more efficient, and more economical operations.

"In the maintenance of way department, we analyze everything, from the materials and equipment we use to the way we use them," said **Mike Reid**, NS chief engineer who oversees program maintenance and has helped develop various roadway machines. "We're looking for a better mousetrap every day, with everything we do. It's a never-ending process. If we can't buy it, we build it."

The railroad's push toward mechanization began in the 1950s under **Bill Brosnan**, a president of NS predecessor Southern Railway. He assembled a team at the Charlotte shop to figure out ways to automate labor-intensive track work. An early success was a machine that removed and inserted crossties, a job that once required a crew of men to lift rail, drag out worn ties by hand, shovel ballast, and push in new ties. Now, track equipment of all kinds operates across the system.

Below are the machines that TS-8 super gang and other NS timber and surfacing gangs operate down a track in assembly-line fashion:

We're looking for a better mousetrap every day, with everything we do. It's a never-ending process. If we can't buy it, we build it.



**Tie Handling Machine (A):** Cranelike machine equipped with a mechanical arm that picks up and moves crossties.

**Spike Puller (B):** Pulls spikes out of crosstie plates.

**Magnetic Spike Pick-Up Machine (C):** Collects uprooted spikes with a revolving magnetic wheel that knocks rust and dust off the spikes before dropping them in a storage bin.

**Anchor Spreader (D):** Spreads existing tie anchors to allow a new crosstie to be inserted under the rail and between the anchors, which are secured on each side of a tie to add track stability.



**Tie Remover Inserter (E):** Grips and jacks up rail as an operator manipulates a hydraulic arm to remove or insert ties.

**Tie-Plate Jack (F):** Grips and lifts rail so that tie plates can be properly positioned atop new crossties. They are operated remotely by hand-held wands, which are used to position tie plates.

**Tie Plate Broom Cribber (G):** Sweeps ballast off ties and plates with a revolving "broom" of fingerlike rubber strips.

**Ripper Spiker (H):** Pulls crossties tight against the rail and drives spikes through the tie plate into the tie.



With support from its Charlotte Roadway Shop, NS has been an innovator of roadway equipment resulting in safer, more efficient, and more economical operations.





I

**Ballast Regulator (I):**

Sculpts ballast around ties and rail with front and rear plows and side wings.



J

**Mark VI (J) and Switch Tamper:** Tamp ballast in a honeycomb pattern under and around crossties with metal clawlike devices. The Mark VI, pictured below, can lift rail and is equipped with a computerized laser system that enables the operator to set proper rail alignment and elevation.

**Anchor Adjustor (K):** Squeezes tie anchors into place.

**Anchor Applicator (L):** Replaces broken or missing tie anchors.

**Track Broom (M):** Fills any voids left in the track with ballast and gives the track a final sweep. ■ BizNS



L



J



M



# “Explore Norfolk Southern” Girl Scout patch



A suggestion to the innovationS website from **Lori Kelley**, property services agent in Atlanta, brought a trainload of opportunities to Girl Scouts in Hampton Roads, Va. Kelley, whose son is a Cub Scout, suggested that a railroad merit badge for Cub Scouts would help them better understand railroad safety. It seemed that already existed, but the suggestion spurred some Norfolk Southern employees to check if the Girl Scouts had a railroad patch program.

“We did some research, found out that the Girl Scouts did not have a patch for railroads, and saw this as a great opportunity for the scouts and NS,” said **Kimberly Thompson**, manager strategic programs. “We worked with the Girl Scout Council

of the Colonial Coast to develop the Explore Norfolk Southern patch, the first of its kind for the Girl Scouts. It was an exciting project that involved a number of NS employees who have close ties to the Girl Scouts.”

**Stacey Parker**, manager community outreach and former Girl Scout, worked with Thompson to give the patch requirements a unique quality that would be attractive to scouts of all ages. “This was an opportunity for NS to inspire young girls and women to try something new,” she said. “We broke the mold in a lot of ways, and designed something that would be fun and educational.”

**Kim Woodard**, legislative assistant, government relations, brought a family legacy of scouting to the program development process. “My sisters and I were Girl Scouts, my mom was a troop leader, and some of the younger girls in our family are just beginning their scouting experience. We know the value of scouting and how it can have a positive influence on your life. This was a great opportunity to use all that experience to suggest some activities that scouts would enjoy as part of a patch program,” she said.

Requirements for the patch include a variety of activities that help scouts learn about railroad safety, the environmental benefits of rail transportation, and the role railroads have played in the development of the nation and its economy. Among the suggested activities are writing a story about running your own railroad, building a train from household items, learning more about how railroads reduce emissions and create a cleaner environment, and writing an essay about railroad safety.



"This was a great opportunity to encourage girls and young women to look at railroads differently," said **Felishia Squires**, manager electronic records, former Girl Scout, and a development team member. "Ultimately, some of these girls may become railroaders because they had this type of opportunity."

The patch was designed by **Audra Byrn**, graphic design consultant in corporate communications, also a former scout and mother of a scout. "It was important to make this patch new and different," she said. "I knew that the scouts love patches that reflect the times in which we live, so we developed one that was forward-looking and futuristic."

To introduce the new patch, NS had a display at the 2010 Girl Scout Jamboree in Newport News, Va., in early October. **Boyd Vaught**, eastern region general road foreman of engines, arranged for one of NS' locomotive simulators from Roanoke to be there. More than 1,700 scouts and their families attended the gathering. The team distributed safety-focused items, including key chains, bookmarks, and information cards. Vaught, Thompson, and Parker spent the day with the scouts and their families.

"We wanted to make this a significant learning experience that also was fun," Thompson said. "At the Jamboree, we found out that the girls already knew something about railroads. This event gave them the opportunity to see how they could learn even more and earn a patch. The line for the locomotive simulator was so long that we stayed much longer than we had planned. Having the simulator provided a unique opportunity for the scouts that might pique their interest for a future at the railroad."

"It was really gratifying to see how interested the girls were in NS and the new patch," Parker said. "When I was a Girl Scout I would have loved to have such an interesting patch available."

Parker tweeted and sent information to NS' Facebook page during the event. "By sharing the fun with others through social media, we created more excitement about this unique patch," she said.

The team's work has paid off in other ways.

In mid-November, 30 scouts from Troop 5292 began to fulfill their requirements by visiting the Norfolk Southern Museum in the Arnold B. McKinnon building in Norfolk.

"We already have interest from the Commonwealth Council to expand the program to Richmond area scouts," Thompson said. "That's a great motivator for us to step up our efforts."

What does Kelley think of all this?

"I was absolutely thrilled to hear that my suggestion turned into something so unique and positive," Kelley said. "I hope it inspires young girls and women to consider careers on the railroad."

Kelley said some fellow Atlanta employees have asked her about the new patch and how they can help expand the program.

"It's humbling in a way to think how a small suggestion can end up being something inspiring and fun," Kelley said. "I encourage all NS employees to visit the innovatioNS website and submit their ideas. You never know where it will take you." ■ BizNS

■ Previous page top: **Stacey Parker**, manager community outreach, greets members of Girl Scout troop 5292 at the Norfolk Southern Museum in Norfolk.

■ Previous page middle: Troop members explore NS.

■ Previous page bottom: Troop members were given notebooks to help them remember their visit.

# Coming in May - Corporate Compliance and Ethics Week

Norfolk Southern will participate in Corporate Compliance & Ethics Week May 1-7, a national event that focuses on the importance of ethics and compliance in today's corporate environment. The theme for this year's event is "Make Ethics a Habit."

This is the third year NS has participated. CC&E week gives NS employees a great opportunity to raise awareness of the ongoing activities of our Ethics and Compliance Program. All employees are encouraged to participate.

Watch for daily employee communications, online activities, and prize opportunities. You also can check for updates on the website [ethics.nscorp.com](http://ethics.nscorp.com). ■ BizNS

## CORPORATE COMPLIANCE & ETHICS WEEK

MAY 1-7, 2011



MAKE ETHICS A HABIT

## New Service Award choices

The Service Awards Program is being improved. Employees with 10-year anniversaries after Feb. 1, 2011, will be given the option of either selecting the traditional lapel pin or choosing from several high-quality gift items. All of the items were custom designed for Norfolk Southern.

"We are pleased to offer employees a choice of awards to recognize their service milestones. While we know some employees want to complete their set of lapel pins, I think others will find the new awards very appealing" said **Cindy Earhart**, vice president human resources.

To preview the award selections, visit [awards.mtmrecognition.com/NS](http://awards.mtmrecognition.com/NS) and select the guest button. ■ BizNS



■ Employees can choose to receive the traditional service pin or an item from the new catalogue.

# BizNS



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#### ON THE COVER:

CEO **Wick Moorman** was named railroader of the year by *Railway Age* magazine for his leadership in the industry.

*BizNS* presents an in-depth look at the challenges and opportunities Norfolk Southern faces. It is produced by the Corporate Communications Department.

Andrea Just  
EDITOR

Jon Glass  
CONTRIBUTING WRITER

Frank Wright  
DESIGN MANAGER

Audra Byrn  
DESIGNER

Casey Thomason  
PHOTOGRAPHER

CONTACT US:  
Three Commercial Place  
Norfolk, Va. 23510

e-mail:  
bizns@nscorp.com

## So long, farewell, adieu

This is my last issue of *BizNS* as editor as I am taking an early retirement beginning April 1.

When we first proposed this new publication to replace *NS Newsbreak*, we weren't sure how it would be received. We designed it to bring you detailed feature articles that would help you better understand our business and how each one of you contributes to our success every day. You have embraced *BizNS* and let us know that you look forward to receiving it.

Your new editor has yet to be named. I'm sure it will be someone who is passionate about our business and providing the information you need. And, keep sending those good story ideas to [bizns@nscorp.com](mailto:bizns@nscorp.com).

I'll be looking forward to reading future issues along with you, and I just may finish writing that historical novel I started so long ago. ■ **BizNS**

*Andrea Just*

All materials used in the production of this publication are recycled.  
Please help the environment by doing your part and recycling.



■ **Andrea Just** on the set of *NS Focus*, Norfolk Southern's quarterly employee news program.

