

Presenters Address Economy, Short Line & Class 1 Issues, Environment & Much More

Packed with information, RTA's 2011 Symposium & Technical Conference held in Lake Tahoe, Nev., was very well attended. The educational sessions comprised a major component of the program. The sessions presented information about the recovering economy, the importance of short line railroads, Class 1 purchasing plans, and much more. If you were unable to attend the symposium, presenters' remarks are briefly excerpted below.

The Economy Session



Beth Ann Bovino, Standard & Poor's, "Economic Outlook: Fasten Your Seatbelt"

Because of the weak dollar, exports are improving and businesses are returning to the United States. However, fear is making people afraid to spend. With regard to housing, it has been a very slow recovery. People are scared. The job market is still weak, and people who have jobs are afraid they'll lose them next week. They're worried that if they buy assets now, those assets could lose value in the next few months. At the same time, equipment spending has been a bright spot for this recovery.



Mark Barford, NHLA, "Challenges to the Future of the Domestic Hardwood Lumber Industry"

The hardwood lumber business is about half of what it was a few years ago, which means a change in the way the industry meets the need in the future. You're the future of our hardwood industry. We are very dependent on pallets and ties.



Anthony Hatch, ABH Consulting, "Railroads' Capital Spending Shows Confidence in Future"

Railroad growth in the

future is in intermodal—both international and domestic—because of market share from highway to railway; grain—we are America's breadbasket; and coal, especially in exports. It now looks like you can expect more out of the export business. We are seeing capital being put into undercapitalized ports, and the shale business has its own terrific opportunities for the railroad industry. Also, I don't think we're in the last inning of global outsourcing in moving goods to China. The rail industry is approaching solvency for the future.

Short Line & Regional Railroads Session



Jalene Forbis, California Short Line Railroad Association

The outlook in California is fairly good right now. I would say that, generally speaking, we didn't get hit as hard by the recession in California as some other states did. In California, the news is that there is an uptick in the economy, and that is affecting the short lines in a positive way.



Richard Timmons, American Short Line and Regional Railroad Association

While economic indicators are unclear for the future, rail volumes are moderating. As the Class 1's do well, so do the short lines. The short line rail network has never been better. Investments in infrastructure are solid. Short line railroads have been working on this, particularly with the short line tax credit. Grants and loans are available, and short lines are taking advantage of them.



Chris Spiceland, Norfolk Southern

Our short line partners comprise 88 percent of our total route miles. Twenty-six percent of Norfolk

Southern merchandise and coal carloads come from our short line partners. About one in every four carloads that Norfolk Southern ships touches one of our short line partners. At Norfolk Southern, we connect with 250 short lines; they extend our network, and we have a true symbiotic relationship with them. We like to refer to short lines as market reach multipliers, where we extend each other's geographical reach.



Eric Jakubowski, Canadian National Railways

Today, we are working to build very solid relationships with key customers based on the interface between our service product and their business. We have started breaking new ground in working with customers, and I believe the next phase of this will involve some of our strategic short line partners. We are going to start talking about how best to do business. We've invested time in IT work and in market intelligence work to understand what happens before the shipment comes to us and after it leaves us. CN is starting to deal with some real issues that I hope will create capacity for our industries and us. Our customers want to know that we're partners in moving their freight for them. The next issue we're going to confront is how we're going to meet the gigantic demand.



Paul McDonald, Union Pacific Railroad

Short lines are very critical to the UP. One of the reasons short lines are such a big part of the UP system is that they are extremely customer focused. They have a lot of market knowledge. Every carload is like gold. These short lines are out there struggling, shipping away trying to get carloads onto their system. They have a creative approach to service and have a very good marketplace reputation.

Environmental & Legislation Session



Colin McCown, American Wood Protection Association, "AWPA Standards in Industrial Applications"

AWPA is the gold standard for treated wood throughout the world. The important thing to know about AWPA is that the people who serve on our committees are the experts in wood protection. These are the wood treaters who have spent years figuring out how to get a liquid into a solid as well as the chemists who understand interactions. Railroads can rely on the fact that their ties meet AWPA standards.



Bob Fronczak, Assn. of American Railroads, "EPA's Definition of Solid Waste & Its Impact on the Rail Industry"

I've been at AAR for 18 years, and this is the most aggressive EPA administration I've seen. EPA made its final ruling on the definition of solid waste and has declared used creosote-treated wood as solid waste. What that means is that creosote-treated wood can no longer ultimately be burned for cogeneration but would have to go to solid waste incinerators, meaning it would increase the cost of disposal. EPA has said that there are hazardous air pollutants in creosote-treated wood that exceed what you would find in other fuels.



Ted LaDoux, Western Wood Preservers Institute, "Use of Treated Wood in Aquatic Environments. Where Are We Today?"

We still contend that treated wood is the most economical and structurally desired product in most tie applications. The environmental impacts of using treated wood, especially in, over, or near aquatic and sensitive wetland areas, continue to be a growing concern. We need to remain vigilant and address emerging issues. We need to continue to collaborate as an industry group and support ongoing research as an industry. It's important we continue to maintain

and build technical and scientific expertise.



Martin Rollins, HM Rollins Co. Inc., "Creosote and Regulatory Issues"

With regard to the FIFRA Data Call-In, EPA will require new workplace monitoring to validate adopted risk mitigation measures as part of re-registration. Creosote treating plants are going to have to monitor for worker exposure and ensure that exposures are lower than they were prior to the mitigation measures being put into place. It is extremely important that treating plants are following risk mitigation measures. The Creosote Council has prepared a training video for workers at creosote-treating plants on how to handle creosote-treated wood.

Engineered Wood Solutions for Railroad Applications Forum

Dr. Habib Dagher, University of Maine, "Reinforced and Pre-Stressed Glulam Technologies"

This presentation will address the composites of conventional materials with fiber-reinforced polymers for use in transportation applications. For example, the bridge in a backpack. The arch rolls up, then you put it over a mold, and it cures in about three hours. It gives you essentially two composites that are hollow that you can lift with a backhoe and place across the hollow arches. Then, a concrete truck comes in and you pump concrete into the arch. You don't need any rebar, there's no corrosion, and the concrete in the composite tube acts as

rebar. This can reduce costs and waste and increase the life of the structure. There are bridges with more than 15 years of life using FRP-glulams, and we feel good about that.



Dr. BJ Yeh, APA Engineered Wood Association, "Glulam in Railroad Applications"

Glulam is a very diversified material in its applications, which are not limited to railroads. Glulams can be used in vehicular bridges, trusses, walkways, covered bridges, railroad girders and even roller coasters. Some of the advantages include minimal checking and splitting; it can be prefabricated; it's available year round with no seasonal shortage; there are unlimited sizes and quantity; and it is environmentally friendly. To find glulam manufacturers, log on to www.apawood.org, or e-mail us at help@apawood.org.



Jeff Morrison, Rosboro LLC, "Glulam Beams as Crossties and Switch Ties"

Our mill is located in Springfield, Ore., about 100 miles south of Portland. We made 50 samples of laminated Douglas fir crossties, had them treated, and installed them into a short line in Washington. These ties were very uniform, making installation easy. Spiking was easier because there were no large knots. We have the operation and ability to produce laminated ties; we just need more guidance on how we can help this industry. ➤



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Engineering Session With Special AREMA Presidential Address



Robert Verhelle, Amtrak

Our mission is to become a safer, greener and healthier Amtrak. Our initiative is to improve safety and security.

We continue to reduce carbon emissions from diesel locomotives using technology to reduce fuel consumption and energy usage in our facilities. We've had three record years of increased ridership and revenue, seek to reduce our equipment and infrastructure failures, and continue to work with our host railroads to increase the on-time performance of all trains.



John Bosshart, Burlington Northern Santa Fe

When we place an order, we are looking for a quality product delivered on time.

Make sure you meet the requirements of AREMA and have a proven track record with other Class 1 railroads. Comply with safety requirements when you're out in the field. Be proactive in developing new products. BNSF changes a plan of some type almost daily to improve. The best suppliers are prepared and embrace changes.



Jeff McCracken, Norfolk Southern

Thanks to RTA and its follow up, borate has prolonged the life of the tie longer than it would have

with just creosote. Let's make sure there are alternatives available, get them approved, and keep our industry strong. Strength comes from competition, which also keeps prices down and keeps everybody honest and on the same playing field. We need a lot of players in this game.



Todd Wimmer, Union Pacific Railroad

UPRR is currently investigating future use of borate-treated ties. We still need to understand the various

methods of treatment. We have almost 26,000 miles of wood track. Ever year,

about a third of our capital dollars go toward ties. UP consumes 3.5 million wood ties annually, and we anticipate that will continue.



Leo Kreisel, CSX Transportation

We challenge our suppliers to continually improve. Bring us your good ideas.

Capital is always tight, and

we want to do better with what we have. We are always looking for alternative sources and do our best to monitor second- and third-tier suppliers. Let us know who your key people are and if there has been a change in control. Let the customer know if you're making a major shift in where you're producing something. Typically, we find out that something has shifted from one location to another because we have a nonconforming product and then realize it was due to a move.

The Research Session



Carmen Trevizo, Transportation Technology Center, "FAST Tie and Fastener Test Update"

Our goal at TTCI is to

reduce track component life cycle costs, improve performance, and extend the life of tie and fastener systems under heavy axle loads. We are trying to evaluate any current state-of-the-art direct fixation fasteners and also trying to repeat some of the configurations we had during the last experiment when we started seeing some failure with screw spikes. We are also trying to assess the performance of screw vs. drive spikes. We are continuing long-term evaluation of gum and composite ties and working to determine any failures in new materials and design.



Joseph Palese, ZETA- TECH Associates, "On the Economics and Life Expectations for Dual- Treated Ties"

The introduction of dual-treated ties in Zones 3, 4 and 5 would extend the average wood tie life from 35.2 years to 40.4 years, an increase of 14.8 percent. In Zone 5, 95 percent of ties cur-

rently fail between 8.5 and 25.5 years. With dual treatments, this would be extended to 18 to 54 years. The economic benefit is clearly achieved in Zones 4 & 5.



Tim Carey, Arch Wood Protection, "ACZA & Railroads: Past, Present and Future"

We have come up with a concentrate for ammoniacal

copper zinc arsenate (ACZA) and have submitted for approval from AWWPA for pine and hardwood ties. Because it's an alkaline system, we can blend borates in with it, making for nice treatment in a single step. ACZA has performed in many applications for many years, and the soil block test shows efficacy in hardwood is as good as other standard treatments.



Dr. Adam Taylor, Tennessee Forest Products Center, "Dip/Diffusion of Borate Treatment of Green Ties"

Borate dip diffusion is not new. The challenge is to get enough of it into the tie. The difference here is using a thickened borate system for green railroad ties. We performed a simple test over the last nine months to see how much borate we had to dip a tie into to get a sufficient amount into the tie. Once we found a concentrate we liked, we tried dipping tie sections and looked at the retention of borate over time. We used green railroad ties—gum, red oak and white oak. A Class 1 railroad has decided to go ahead with this application.



Steve Smith, AquAeTer Inc., "Life Cycle Assessment of Creosote-Treated Ties"

The costs of the environmental aspects of borate are far outweighed by the life extension of ties. The use of borate in treating wood significantly lowers the environmental impacts. Creosote-treated ties compare favorably to composite ties; favorably to concrete for all indicators; favorably to P/C for total energy, GHG, fossil fuel, acid rain, water use and ecological toxicity; about equal for smog; and less favorably for eutrophication. ►



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Stacey McKinney, Koppers Inc., and Ronald Clawson,

Kop-Coat, “Utilization of TRU-Core Systems For Enhanced Creosote Penetration and Borate Penetration in Railroad Ties”

Our basic process is to load green ties into the treating cylinder and pressure treat them with a pre-mix DOT Tru-Core treating solution. We immediately follow up with the normal creosote-treating process. Those ties are removed from the cylinder, and then we start testing. We see a very deep penetration of borate achieved after this step. Immediately following, we put a creosote solution in and follow our typical treating schedule. The addition of the Tru-Core process to the existing dual-treatment process has been found to be an effective way to enhance the service life of railroad crossties.

Class I Purchasing Session: “What Have You Done For Me Lately?”



Chad Rolstad, Burlington Northern Santa Fe

Our strategies are to balance resources to promote growth and support stable products and services; develop new products and services; enter into relationships, partnerships, alliances and mergers that improve our company; and adjust market strategies

to reflect changes. This year, we’ve put in more ties than ever, and next year will be a little higher, which brings concerns about availability of raw material. In a market that continues to decline, we have an increasing demand for hardwood fiber. In 2011, we’ve spent \$3.8 billion in capital improvements.



Gary Hunter, Union Pacific

Our tie program runs from November to October. We will have installed 3.8 million ties by the end of the year. We’re going to continue to buy wood, concrete and composite. We’re still about 90 percent wood in our crosstie system.



Lisa Pleasants, CSX Transportation

Our 2012 program has us buying 3.2 million wood ties. We ask our suppliers to be innovative. Before coming to CS engineering, I did indirect purchasing. I used to go to conferences with thousands of people, most of them women. At my first RTA conference, I was pretty nervous. However, by taking advantage of events and materials on your website, I’ve learned a lot about the industry. There are a lot of people coming in like me who need to learn these things, and there’s only one unbiased place to do it—RTA.

Doug Clary, Norfolk Southern

We have an annual use of ties of about 2.6



million. We’ve been consistent with our use. We do a 20/80 Boulton air-dry mix. We use seven treating plants—four are predominantly black. We’re looking

at CuNap, Borate/CuNap, and Borate/Polymer. We continue to manage our costs by developing new sources, competitive bidding, and continued direct involvement with the green tie market.



Bruce Emberly, Canadian National

Our 2012 crosstie replacement program calls for approximately 2 million ties and 50,000 switch ties for

basic capital programs, special projects, and siding extensions and yard bypasses. With the exception of 50,000 concrete replacement ties, cross and switch tie purchases are hardwood with a small exception of softwood for low-density tangent.



Rob Churma, Canadian Pacific

We used 934,000 ties in 2011. Still no borates yet. Our treatment is 50/50. We project our 2012 needs at

approximately 900,000 wood ties. Our total tie use is projected at 912,000. We are a 100 percent black tie railroad. We will have a slightly reduced demand in 2012 but increased demand for 2013 and 2014. We will continue to use a hardwood and softwood combination. ■

RTA Honors TTCI’s Carmen Trevizo With Award Of Merit

Carmen Trevizo, assistant director of engineering services at the Transportation Technology Center Inc., was awarded the Railway Tie Association’s (RTA) Award of Merit at the Annual RTA Banquet and Awards Ceremony held during the recent Symposium & Technical Conference in Lake Tahoe, Nev.

Trevizo received the award for her dedication to research into the wood crosstie and her service to RTA, said RTA Executive Director Jim Gauntt.

“The Award of Merit was established a few years ago to recognize lifetime achievement in work conducted on behalf of RTA and the wood crosstie,” Gauntt said. “It was first awarded to Dr. Mike Barnes of Mississippi State University. Carmen’s is only the second such award the Executive Committee has ever made. “It is the highest

award we offer to those individuals who have shown exemplary effort in their work to research, evaluate and report on the wood crosstie.”

Trevizo has 27 years of experience in engineering, management, railroad research, and marketing. She has been responsible for all phases of program administration, including personnel management, budgeting, planning, development, implementation, and documentation. Trevizo is responsible for the management of 23 professional civil and metallurgical engineering employees. She is also program manager for a number of on-site and off-site commercial projects. ■



From left, Jim Gauntt with Carmen Trevizo and Jeff Broadfoot.