THE PAN AM CLIPPER

ISSUE TWO 2017

The President's Message

In this issue of the Pan Am Clipper, our colleagues have once again contributed a wide range of articles regarding our business and its impacts on many different stakeholders. I appreciate the willingness of our employees to report on projects being undertaken by the railroad and hope that you find their articles informative and enjoyable.

I would also like to highlight two articles in particular because I believe that they underscore the importance of public private partnerships that support our transportation network.

The first article discusses expansion projects in Ayer, Massachusetts, which is the center of the railroad and handles tens of thousands of rail cars annually. We have worked closely with private developer Steve Goodman in locating rail served warehousing in Ayer Massachusetts. Mr. Goodman saw the potential of this option and made the commitment to construct a 450,000 square foot warehouse just off of the yard. Mr. Goodman and Pan Am also worked with the Massachusetts Department of Transportation to obtain IRAP funding for the construction of a siding into this warehouse that can support the delivery of up to 28 rail cars per switch. Between the commitment of Mr. Goodman to invest private capital and the commitment of MassDot to provide public funding, this important project has now become a reality.

The second article describes Pan Am's involvement with the replacement of the Sarah Mildred Long Bridge over the Piscataqua River. This bridge provides the only access for rail service to the Portsmouth Naval Shipyard, and Maine DOT Commissioner Dave Bernhardt sought our assistance in designing the rail component of the bridge. Pan Am engineering staff then worked closely with Maine DOT to reduce the complexity and cost of installing a track on the bridge, ultimately implementing a design that reduced the cost of the project by close to $40 million. This partnership also further reduced costs by allowing for the transport of massive bridge sections by rail to South Portland. From there, the bridge sections were moved by barge to the new bridge.

I hope that you enjoy this edition of the Pan Am Clipper.

Sincerely,

David A. Fink

INFORMATION

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Let us know your new and your old address. Fax it to 978.663.6907 or send it to the Editor, Pan Am Clipper.

PAN AM ON THE INTERNET

The Pan Am Railways website (www.panamrailways.com) offers car location information either through the car movement system (STARR) or the AEI database. CustomerService@panamrailways.com is another option to access car location information, etc.

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If you have a story idea, fax it to us on a single sheet of paper at 978.663.6907

CREDITS

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Back to the Future

Back to the Future
Article by Kenny Duane
Photo credit to Tom Coulombe

In September of 2016, Pan Am Railways embarked on a mission to return rail service back to Mattawamkeag, Maine to interchange with the New Brunswick Southern Railroad (NBSR) after a two year hiatus. The freight main line between Carmel and Mattawamkeag was given a facelift between September and late November with 37,000 new ties installed and was also tamped and surfaced.

In November of that year, the first train ran east out of Waterville for Mattawamkeag. As of July 2017, we are currently running 5 days per week between Waterville and Mattawamkeag. Once the eastbound train WAMA arrives in Mattawamkeag, it interchanges with the NBSR who can divert traffic going west to Brownfield, ME via the Maine Northern Railroad (MNR), and going east to Saint John, New Brunswick via the NBSR. Typically you see the empties returning back to the MNR or NBSR, and the loads on the MAWA consisting of wallboard, newsprint, paper, wood pulp, liquid asphalt, carbon dioxide, lumber and propane. Once the westbound train MAWA arrives in Waterville, the freight makes a same day connection with WAPO to Portland, which mostly consists of all loads destined for Ayer, MA, the CSX at Worcester, and the Norfolk Southern at Mechanicville, NY. Locally in Northern Maine Junction, NM-1 is serving the local customers between Detroit and South Orrington, including Bangor, ME.

Since returning the service to Mattawamkeag, Pan Am Railways has seen its best transit times in recent history from Mattawamkeag to Ayer, Worcester and Mechanicville. PAR is currently averaging 4 days to Ayer and Worcester, and 6 days to Mechanicville. In this same time, Pan Am has also cut transit times by 5 days between Saint John and Worcester from last year's average. Due to the success of returning to Mattawamkeag, the possibilities could be endless, especially with intermodal coming out of the Port of Saint John destined for the U.S. East Coast and beyond with connections with two of the Class 1 Railroads.

Expansion Projects in Ayer

Expansion Projects in Ayer
Article and Photos by Ted Krug

Ayer, Massachusetts is one of the busiest locations on Pan Am Railways' network. Ayer is the intersection between Pan Am Southern and Pan Am Railways, the location of major intermodal and auto terminals, and home to 26 local rail customers. In 2016, rail traffic through Ayer, MA was made up of approximately 85,000 intermodal units, 10,000 general merchandise carloads to Ayer industrial customers, 6,500 automotive carloads, and nearly 40,000 freight cars handled in through service to and from Pan Am's connection with CSX Transportation at Barbers Station. Ayer will grow in significance even further in early 2018 with the completion of a new 430,000 square foot warehouse addition at 66 Saratoga Blvd. in Devens, MA. This new warehouse capacity will be served directly by rail via two new rail spurs off of Track 11 in Pan Am's Hill Yard.

The expansion to the existing non-rail served warehouse at 66 Saratoga Blvd is currently under construction and is anticipated to be completed by the end of the year. The new warehouse space will be served by a two track rail spur under an enclosure at the east end of the building, as well as another spur to covered dock space along the rear (north) side of the building. In total, these new spurs will enable 28 boxcars to be spotted at the warehouse at a time. When this new warehouse capacity comes online, it is anticipated to have a ripple effect, as the current tenant in the GMX warehouse in Ayer will move to the new warehouse allowing a new customer to move into GMX.

Pan Am's Design and Marketing departments worked extensively with the building designer over the past year to ensure that viable siding alignments and clearances were incorporated in the project, as well as providing construction estimates that were used to apply for MassDOT IRAP funding. The Track department will be installing two switches in Track 11 this fall to which the new sidings will connect.

Pan Am also applied for and was granted an IRAP grant in Ayer to expand the Hill Yard in order to alleviate congestion and promote operational efficiency. The scope of work includes constructing a new switching lead at the east end of the yard, realigning existing tracks to create a switching lead at the west end of the yard, and constructing crossovers from Track 4 to Track 6. The overall objective of this project is to split the yard into two distinct portions, one for freight switching and local customer delivery activities and the other for intermodal operations, and to set up Track 4 as the primary running track for through trains. After successful

Ayer Hill Yard

completion of this project, the amount of time of interference between intermodal trains, through freight trains, and local switching and customer service trains operating in the Hill Yard will be dramatically reduced, and the ability of different train types to operate simultaneously in the Hill Yard without interfering with one another will be greatly increased. Though at the time of writing MassDOT has not yet officially announced the 2017 IRAP awards, it is anticipated that this project will be funded.

Bridging the Gap

Bridging The Gap
By Doug Steward
Photos by Mark Ormord

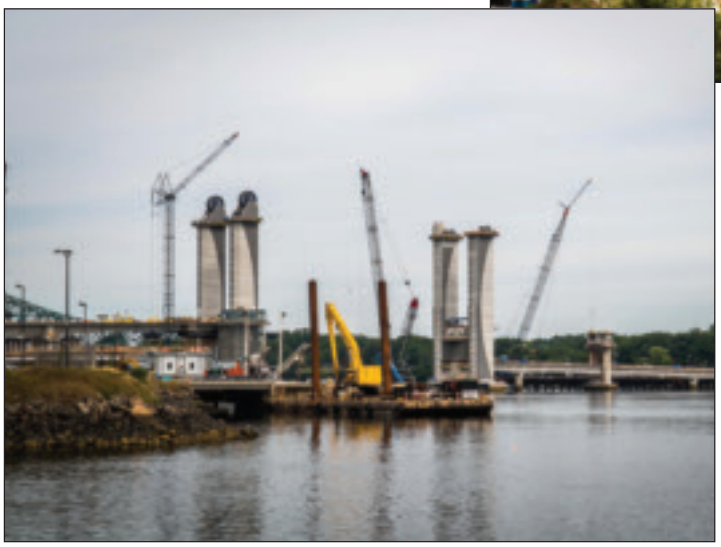
The recently dismantled Sarah Mildred Long Bridge opened in 1940 and closed August of 2016. It was designed as a double deck steel truss lift draw bridge with a three-lane road on top and a railroad deck below. The bridge originally opened as the "Maine-New Hampshire Bridge" and was renamed in 1987 after Sarah Mildred Long who had worked for the Maine-New Hampshire Bridge Authority for 50 years, whose career took her from Secretary to Executive Director. Plans to replace the bridge were expedited after temporary repairs had been made to the bridge following a strike by a tanker ship on April 1, 2013.

It was decided by NHDOT, MDOT and the Federal Government that replacing the Sarah Mildred Long Bridge was both a critical and strategic necessity. The bridge is an invaluable artery for connecting Portsmouth, NH to Kittery, ME and helps alleviate traffic on the two-lane Memorial Bridge downstream. The bridge is also strategic to national security by providing the Portsmouth Naval Shipyard a vital railroad connection to move necessary material to support the Navy.

Contractor Cianbro Corporation, along with several sub-contractors, began construction of the replacement bridge in January of 2015. An integral part of the project is the "one of a kind" box girders that will make up the center span of the bridge. Due to the large weight capacity of rail and barge transport, the spans were able to be made as larger pieces. Also, impact to over-the-road traffic was entirely eliminated. Through careful coordination between Pan Am Railways, Casco Bay Steel Structures, Winslow Marine Inc., Turners Island LLC, Cianbro Corp., and Maine DOT, the massive girders were fabricated and transported safely and efficiently via rail and sea to the construction site. Projects like this don't revolve around the seasons so the fact that all of this was accomplished during a typical New England winter is an accomplishment unto itself. Just to give you an idea of the size involved with the spans, the largest piece was 102' long, 14' high and the heaviest weighed 280,000 lbs. As comparison, the average 2,000 sq. ft. single family house weighs 150,000 lbs.

Each piece moved on a single heavy-duty rail car, supplied by TTX Company, from the Casco Bay Steel Structures facility in South Portland over to Turners Island LLC where it was transloaded from rail to barge. Two girders were loaded onto the barge and they were then towed to the staging area in Portsmouth, NH, where they will then be floated into the bay and lifted in position for final assembly into a continuous 300' span.

The unique design of the bridge has 11 less piers than the previous bridge and will be 35' higher in the resting position. This will allow for much safer movement of marine traffic and up to 68% less bridge openings. As of this writing, the bridge is scheduled to open to traffic early October 2017 and be completed by June 2018 at cost of $158M.



Naval Spent Nuclear Fuel Transportation Accident Exercise

Naval Spent Nuclear Fuel Transportation Accident Exercise
By Amy LaRochelle
Photo credits to Mark Ormord and Tom Winn

On June 1, 2017, Pan Am Railways teamed up with the Naval Nuclear Propulsion Program (NNPP), and NY State First Responders to present a "Spent Nuclear Fuel Transportation Accident" exercise to a crowd of over 300 spectators and local media. Attendees were shown the standard procedures and the special attention that a spent nuclear fuel car would get in the event of an accident and/or derailment.

The collaboration between Pan Am Railways, New York State Emergency Response agency and the NNPP started as early as March. Several meetings such as planning meetings, a table top exercise and teleconferences were held to discuss the planning and logistics for the day of the demonstration. Exercise locations, scenarios, various organizational response actions, and communication/notification requirements were all discussed. On May 3, 2017, an exercise for the final demonstration was held at Pan Am Railways' railyard in Mechanicville, NY with close to 100 emergency responders & observers. All the collaborative parties ran through the scenario two times to ensure they were prepared for the final demonstration the following month.

On the day of the main event, June 1, 2017, a briefing regarding Naval spent fuel management and transportation was held at the Hilton in Clifton Park, NY. During the meeting, the attendees were given a brief description of the fuel, the containers and the shipping procedures. All the spectators were then transported to the Mechanicville rail yard for the exercise. A viewing area was set up for the spectators as well as a media tent for local news outlets.

The exercise began with a simulated collision between a dump truck and the nuclear rail train resulting in the derailment of the nuclear railcar. Each shipment of spent fuel is escorted by specially trained and armed NNPP shipment couriers who maintain round the clock surveillance of the shipments. Immediately after the collision these couriers act as on board first responders, making sure the truck driver and train crew is okay and making sure the shipment is stable. The train crew and the couriers ensure that the proper authorities had been notified. The couriers then set up a safety perimeter and began their protocol ensuring that the community is safe from any hazards, all while local, state, federal and railroad emergency responders start to arrive on scene to provide the proper medical attention to the truck driver and set up an incident command.

Setting up an incident command is a crucial part of the process. All emergency responders are trained on the steps of being a part of an incident command. The process shows how all parties involved such as the NNPP, the railroad, local, state, and federal emergency responders work together in a structured system ensuring that the community and the environment is safe from hazards.The Saratoga County Hazmat Team and the New York Radiation Monitoring Team along with the NNPP couriers worked together analyzing their collected data to confirm all radiological readings were safe.

Once the incident commander determined the scene was stable it was turned over to the railroad for the rerailing process. The shipment was then released to continue to its destination. During the entire process Local, State & Federal agencies along with the media were kept up to speed with periodic briefings and updates.

Thanks to the joint efforts of Pan Am Railways, Naval Nuclear Propulsion Program, New York State and local officials, and the areas first responders, the “Spent Nuclear Fuel Transportation Accident” exercise was a huge success.

Illegal Dumping

Illegal Dumping
Article and photos by Miles Mayfield

This spring, Pan Am jointly participated in an environmental remediation unlike any other. This project, organized by the City of Lowell and Keolis Commuter Services, involved a collaborative effort by employees of Pan Am, the City of Lowell and Amtrak to cleanup various areas across the shared network that had been subject to illegal dumping. Such illegal dumping has long been a problem for many railroads. While this cleanup will not cure the long-term problem, it does show the importance of cooperation between municipalities and railroads to mitigate its impacts.

The cooperation of municipalities to address illegal dumping is particularly important given the need for the railroad to focus its forces on maintaining safe and efficient operations. Many of the discarded materials dumped along the right-of-way are items that Railroads do not have the capability of disposing. As a result, without the help of municipalities and the resources they provide illegal dumping will continue to be an issue for both the railroad and towns.

Moving as a Unit

Moving as a Unit
By Andrew Jacobs
Photo credit Bill Gingrich

In August of 2015 stakeholders from Omya, Vermont Rail System, and Pan Am Railways met at the Omya plant in Florence, VT. The interchange between Pan Am Southern and Vermont Rail System at Hoosick Junction, NY was nearing capacity and to avoid an impact in service an operating change was discussed. This was a collaborative effort to provide customers scheduled transit that was asked for and to better position the railroad for future growth by creating capacity and fluidity. It was proposed and agreed upon by all parties that establishing a unit train of limestone slurry operating once per week to Maine would be the best solution. The first train would operate in October 2015 and would initially interchange at Hoosick Junction, NY.

In June 2016 the railroads, Omya, and its customers agreed to shift the movement of the unit train from Hoosick, NY to Bellows Falls, VT as well as the empty equipment return. The transit on empty equipment return has improved as Pan Am interchanges with Vermont Rail System at Bellows Falls up to six days per week. This change has helped to grow cars moving westbound from Hoosick Junction, NY. These cars are destined for interchanges with Pan Am Railways' partner Norfolk Southern Corporation at Mechanicville, NY and CSX Transportation at Rotterdam Jct, NY. Norfolk Southern established a block for the Vermont Railway in its daily manifest train arriving to Pan Am Southern at Mechanicville, NY. Creating this block has allowed the cars to be dropped off and picked up as many as seven days per week all while travelling less miles and faster transit times. The cars destined for CSX are served locally from Rotterdam Junction, NY up to five days per week.

The establishment of the weekly unit train has been a success. The Vermont Railway blocks the cars by destination and Omya has adjusted its loading patterns. Pan Am Railways supplies the locomotives and ensures the cars arrive to destination on schedule. Pan Am Railways is able to better plan its train crew structure. A weekly conference call with all stakeholders was established to ensure each week the train runs on schedule. The conference call allows time to discuss any potential impacts and adjust trains around things such as major holidays, track projects, and scheduled plant shut downs to better communicate in advance with our customers.

In late 2016 the New York State Department of Transportation awarded Pan Am Southern a grant to expand on the existing interchange at Hoosick Jct, NY to add new yard tracks. The grant will also include improving infrastructure. The project is expected to be complete by end of 2018.

As part of the railroads commitment to ensure that all service remains as consistent as possible the railroad made the purchase of 36 locomotives to upgrade its existing fleet, some of which are used in this service.

With reliability and availability for growth Pan Am Railways is better able to meet our customers' demand. Pan Am Railways will continue to work with all partners and stakeholders to position ourselves for the future. We would like to thank our customers and partners for making us part of your supply chain and look forward to continuing to provide upstanding service.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Changing Face of the PAR Locomotive

The Changing Face of the PAR Locomotive Fleet
Article by John Morris
Photo credits to Dan Comick & Hayden Logan

In the fall of 2016, constructive meetings between Pan Am Railways and GE Transportation led to the purchase of 20 GE C40-8 4000 HP, 6-axle locomotives. While working hand in hand with GE's brightest and finest, PAR was able to take a major step towards updating its locomotive fleet.

By the spring of 2017 another deal had been struck for an additional 16 locomotives – four more C40-8 6-axles and 12 B40-8 4000 HP, 4-axle units. The combined 36 GE locomotives with an average age of 28 years are nearly half the age of the EMD (Electro-Motive Diesel) fleet owned by PAR, which have an average age of 47 years.

All 24 of the GE 6-axles are equipped with an AESS smart start system. Auto Engine Start Stop (AESS) is a system that is designed to save fuel by performing an automatic shutdown of an idling engine when oi temperatures and zero speed conditions are met. When the conditions exceed set parameters, the engine will automatically restart to allow the system to circulate fluids, which prevents lines from freezing. Being able to control the amount of excess idle-time gives the ability to optimize fuel savings, emissions and noise.

AESS will also be installed on the 12 GE B40-8 4-axles in our Waterville Shop within the next year.

In addition to fuel savings provided by AESS technology, Pan Am has been able to lower fuel consumption by reducing the number of locomotives on select road trains.

Road trains originating out of East Deerfield, MA and destined for Rotterdam Jct., NY and Portland, ME are now running with two 4000 HP GE locomotives. Previously, these trains had been powered by three or four EMD 3000 HP locomotives.

Another key piece of the EMD to GE conversion lies in the service package. GE will provide the tooling, parts and technical support to insure that the 36 locomotives are available at least 90% of the time. There will be two full-time technical advisors from GE on-site in the East Deerfield Engine House daily.

The GE technical advisors will monitor all scheduled and unscheduled maintenance of the GE fleet.

With between 35–40 EMD locomotives and 36 GE locomotives in service we have decided to hold each locomotive type in partially-captive service. The GE's will typically run on the Pan Am Southern (Rotterdam Jct., NY to Ayer, MA) and be serviced out of the East Deerfield Engine House. The EMD's will run predominantly on Pan Am Railways (Ayer, MA to Mattawamkeag, ME) and be serviced out of the Waterville Engine House.

By holding our GE and EMD fleets captive between Pan Am Southern and Pan Am Railways, it gives us the opportunity to capitalize on cost-savings efficiencies and adds simplicity between the two divisions. This allows PAR/PAS to reduce parts inventory to one type of locomotive, equipment, and tooling required for periodic maintenance, and increases the technical skill level to our crafts by segregating the two different locomotive types.

Pan Am Southern has a stronger model for the newer GE fleet with higher tonnage being interchanged daily with CSX and NS. We regularly interchange multiple trains that have up to 10,000 tons from Rotterdam Jct. NY and Worcester to Ayer, MA.

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